DRAFT

SUPPLEMENT TO FINAL ENVIRONMENTAL IMPACT REPORT

FOR THE ARANTINE HILLS SPECIFIC PLAN AMENDMENT

SCH NO. 2006091093

CITY OF CORONA, CALIFORNIA

LSA

January 6, 2016

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SCH NO. 2006091093

CITY OF CORONA, CALIFORNIA

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January 6, 2016

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1.0 INTRODUCTION AND BACKGROUND

The purpose of a Supplemental Environmental Impact Report (SEIR) is to assess the change in the conclusions originally reached in a previously certified Environmental Impact Report (Certified EIR), State Clearinghouse No. 2006091093, attributable to either: 1) change in a project; 2) change in the circumstance under which a project is undertaken; or 3) introduction of new information of substantial importance that was not known at the time the previous EIR was certified. The reason for preparation of this SEIR primarily relates to the first condition (i.e., change in a project), because the project definition contained in the current proposals requested by the project applicant differ from the project that was approved as part of the Certified EIR. Section 1.1 contains a brief summary of the proposed project changes and Section 2.0 contains a detailed discussion of the proposed project changes. The process undertaken and the determinations reached by the City of Corona (City) governing why this SEIR is being prepared are detailed in Section 1.2.

1.1 PROPOSED CHANGES TO THE APPROVED PROJECT

The project applicant, The New Home Company, seeks to amend the Arantine Hills Specific Plan. The proposed Specific Plan Amendment would result in a change in the land use patterns and densities in comparison to the approved Specific Plan. Additionally, the project applicant proposes a General Plan Amendment, Tentative Tract Map, and a Development Agreement. In total, these four requests represent the "proposed project" in this Supplemental EIR:

- General Plan Amendment 15-001
- Specific Plan Amendment 15-002
- Tentative Tract Map 36294R
- Development Agreement 15-001

The change in the project includes a reduction in commercial land uses, elimination of mixed-use land uses, changes in the type of residential development, expansion of residential development into the areas previously approved for commercial and mixed-use areas, a reduction in the acreage of parks, and an increase in open space. The Specific Plan Amendment also includes three design options to convey storm flows to protect the proposed residential and commercial uses as well as the existing Bedford Canyon Wash.

1.2 SUPPLEMENT TO THE APPROVED SPECIFIC PLAN EIR

The purpose of this document is to evaluate proposed changes to the project that was originally analyzed in the Arantine Hills Specific Plan EIR certified by the City in 2012 and to demonstrate that an SEIR is the appropriate document under the California Environmental Quality Act (CEQA) in accordance with Public Resources Code (PRC) Section 21000 et seq. and the CEQA Guidelines (14 California Code of Regulations [CCR] Section 1500 et seq.) to evaluate these changes.

The Approved Specific Plan EIR was certified by the City of Corona as the Lead Agency under CEQA for the project. In accordance with CEQA Guidelines (Sections 15162 and 15163), this Supplement to the Certified EIR has been prepared in order to address the potential environmental

impacts of the proposed changes in Specific Plan land uses. To determine whether this project is eligible for the preparation of an SEIR, the criteria in Section 15162 governing preparation of Subsequent Documents and the additional criteria in Section 15163 governing preparation of Supplemental Documents must be met, as follows:

1. There are no substantial changes in the project which require major revisions to the previous EIR due to new significant impacts or a substantial increase in the severity of previously identified significant effects (Section 15162).
2. There are no substantial changes with respect to the circumstances under which the project is undertaken which require major revisions to the previous EIR due to new significant impacts or a substantial increase in the severity of previously identified significant effects (Section 15162).
3. There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified that shows any of the following (Section 15162):
   (a) The project will have one or more significant effects not discussed in the previous EIR.
   (b) Significant effects previously examined will be substantially more severe than shown in the previous EIR.
   (c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative.
   (d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.
4. Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation (Section 15163).

As stated in Section 15163 of the CEQA Guidelines, the Lead Agency may choose to prepare a Supplemental EIR rather than a Subsequent EIR if:

1. Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
2. Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

The City has determined that CEQA requires preparation of a Supplemental EIR, rather than a Subsequent EIR, because all of the conditions in Section 15163 regarding preparation of a Supplemental EIR can be met, including minor changes to the Certified EIR necessary to make it adequately apply to the proposed project.

An SEIR need contain only the information necessary to make the previous EIR adequate for the project as revised (Section 15163). Additionally, an SEIR may be circulated in accordance with CEQA Section 15087 by itself without recirculating the previous Draft or FEIR. When the Lead Agency decides whether to approve the project, the decision-making body shall consider the previous

EIR as revised by the SEIR. A finding under Section 15091 must be made for each significant effect shown in the previous EIR as revised in the SEIR.

1.3 TECHNICAL STUDIES AND RELATED DOCUMENTS INCORPORATED BY REFERENCE

This environmental analysis report incorporates and references several technical studies, analyses, and reports. Information from the documents that have been incorporated by reference pursuant to Section 15150 of the State CEQA Guidelines has been briefly summarized in the appropriate sections of this report.

Documents incorporated by reference include, but are not limited to:

- LSA Associates, Inc., *Final Environmental Impact Report for the Arantine Hills Specific Plan,* July 31, 2012.
- Urban Crossroads, *Arantine Hills Modified Project, Air Quality Impact Analysis,* April 1, 2015.
- VCS Environmental, *Biological Technical Report for the Arantine Hills Residential Development Project Update,* March 2015.
- VCS Environmental, Memorandum, *Arantine Hills Development Project, Biological Technical Status Update*, September 23, 2015.
- LSA Associates, Inc., *Cultural Resources Assessment, Arantine Hills Specific Plan,* August 2010.
- Urban Crossroads, *Arantine Hills Modified Project, Greenhouse Gas Analysis,* April 1, 2015.
- CASC Engineering and Consulting, *Preliminary Hydrology Study for Tract 36294 Specific Plan Amendment*, October 15, 2015.
- Albert A. Webb Associates, *Floodplain Analysis, Bedford Wash at Arantine Hills*, September 8, 2015.
- Albert A. Webb Associates, Memorandum, *Hydrology and Hydraulic Summary for Bedford Canyon Wash,* October 9, 2015.
- Urban Crossroads, *Arantine Hills Modified Project, Noise Impact Analysis,* April 9, 2015.
- CASC Engineering and Consulting, *Sewer Analysis, Arantine Hills*, August 3, 2015. Revised October 13, 2015.
- Urban Crossroads, *Arantine Hills Modified Project, Traffic Study*, September 11, 2015.
- CASC Engineering and Consulting, *Project Specific Water Quality Management Plan, Arantine Hills,* August 5, 2015.
- AKM Consulting Engineers, *Arantine Hills On-Site Potable Water System Analysis,* August 31, 2015.
- AKM Consulting Engineers, *Arantine Hills Water Master Plan Study*, September 2015.
- City of Corona Department of Water and Power, *Water Supply Assessment and Written Verification of Water Supply for the Arantine Hills Specific Plan Amendment No. 1 Project,* August 2015.

1.4 INTENDED USE OF THE SUPPLEMENTAL EIR

The City is the Lead Agency for this project under CEQA. CEQA and the CEQA Guidelines establish the City as the Lead Agency, which is defined in CEQA Guidelines Section 15367 as "the public agency which has the principal responsibility for carrying out or approving a project." The Lead Agency decides whether an EIR or Negative Declaration (ND) is required for the project and is responsible for preparing the appropriate environmental review document.

This SEIR has been prepared for the City in accordance with CEQA and the CEQA Guidelines. This SEIR will be used by the City, responsible agencies, and the public for the purpose of evaluating the environmental effects associated with proposed Arantine Hills Specific Plan Amendment and associated General Plan Amendment, Tentative Tract Map, and Development Agreement.

1.5 LEAD AGENCY CONTACT INFORMATION

The Lead Agency for the proposed project is the City of Corona. The contact person for the Lead Agency is:

Terri Manuel, Planning Manager
City of Corona
Community Development Department
400 S. Vicentia Avenue
Corona, California 92882

1.6 PUBLIC REVIEW PERIOD

This Supplemental EIR is being distributed to numerous public agencies and other interested parties for review and comment. The Supplemental EIR is also available at the following locations and on the City's website:

Corona City Hall Community Development Department 400 South Vicentia Avenue Corona, California 92882 Phone: (951) 736-2434	Circulation Desk Corona Public Library 650 South Main Street Corona, California 92882 Phone: (951) 736-2381

Hours: Monday through Friday: 8:00 a.m. to 5:00 p.m.

www.discovercorona.com

All comments received from agencies and individuals on the Supplemental EIR will be accepted during the public review period, which will not be less than 45 days, in compliance with CEQA. All comments on the Draft Supplemental EIR should be sent to the City contact person at the address listed above.

Following the close of the review period, the City will prepare responses to all comments and will compile these comments and responses into a Final Supplemental EIR. All responses to comments submitted on the Supplemental EIR by public agencies during the CEQA comment period will be provided to those agencies at least 10 days prior to final action on the project. The City will make findings regarding the extent and nature of the impacts as presented in the Final Supplemental EIR.

The Final Supplemental EIR will need to be certified as complete by the City Council prior to making a decision to approve or deny the project (i.e., the General Plan Amendment, Specific Plan Amendment, Tentative Tract Map, and Development Agreement). Public input is encouraged at all public hearings (e.g., Planning and Housing Commission, City Council) regarding the proposed project before the City.

1.7 FORMAT OF THIS ENVIRONMENTAL ANALYSIS REPORT

This report has been organized into seven chapters, as described below:

- **Chapter 1.0: Introduction and Background.** Chapter 1.0 includes an introduction to this SEIR, a summary of the project changes constituting the proposed project and necessitating preparation of an SEIR, a discussion of why an SEIR is being prepared, documents incorporated by reference, intended use of the SEIR, definition of the City as Lead Agency and contact person, the expected public review, and the format of the SEIR.
- **Chapter 2.0: Project Description.** Chapter 2.0 summarizes the proposed project, describes the location and setting of the project site and project vicinity, describes in detail the four major components of the proposed project requiring discretionary actions by the City, compares the proposed land use changes to the approved project, lists the modified project objective reflecting the proposed project, and defines the major discretionary actions, permits, and other necessary steps to carry out the proposed project.
- **Chapter 3.0: Comparative Evaluation of Environmental Impacts.** Chapter 3.0 addresses the project's potential to have a physical effect on the environment and includes a comparison of those impacts with impacts analyzed in the Certified EIR. This comparative analysis has been undertaken pursuant to provisions of CEQA to provide decision-makers with a factual basis for determining which topics would need to be addressed in the SEIR by the application of CEQA Guidelines Section 15163.
- **Chapter 4.0: New Analysis.** Based on the results of Chapter 3.0, Chapter 4.0 analyzes the changes in impacts determined to be potentially greater than as concluded in the Certified EIR. This topic includes traffic and circulation; water supply and groundwater; and riparian habitats, drainage patterns, and drainage facilities.
- **Chapter 5.0: Updated Mitigation Monitoring and Reporting Program.** Chapter 5.0 includes the updated Mitigation Monitoring and Reporting Program resulting from the analysis of impacts contained in the SEIR.
- **Chapter 6.0: References.** Chapter 6.0 includes references used for the preparation of this SEIR.
- **Chapter 7.0: List of Preparers.** Chapter 7.0 includes a list of the key individuals who participated in preparing this SEIR.

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2.0 PROJECT DESCRIPTION

2.1 PROJECT DEFINITION

The proposed changes to the approved project contained in the Arantine Hills Specific Plan EIR certified in 2012 ("approved project") represent the "proposed project" under scrutiny in this Supplemental EIR. These changes include requests by the project proponent, or applicant, for approval of four major actions that will require discretionary approval by the City of Corona. These actions, or components, are a General Plan Amendment (GPA15-001), Specific Plan Amendment (SPA15-002), Tentative Tract Map (TTM 36294R), and a Development Agreement (DA15-001). Each of these components is described in detail in Section 2.5.

The proposed project covers the same 276.0-acre area encompassed by the approved Arantine Hills Specific Plan (SP). However, the project applicant proposes changes to the SP land uses and densities that would result in a decrease in potential commercial uses and elimination of mixed-use areas, the same quantity of residential units, with the residential land uses expanded into portions of the areas previously approved for commercial and mixed uses.

2.2 PROJECT SITE LOCATION AND SETTING

The "proposed project" site encompasses the Planning Area covered by the Arantine Hills SP, which includes approximately 276.0 acres located below the foothills of the Santa Ana Mountains adjacent to the southeastern boundary of the City of Corona, Riverside County, California. The City of Corona is generally situated southwest of the City of Riverside, south of the City of Norco, and northwest of the City of Lake Elsinore. The site location has not changed (Figure 2.1).

The Planning Area lies on an alluvial plain located within the Bedford Canyon Wash on the eastern slopes of the Santa Ana Mountains. The project site contains varied terrain comprising alluvial deposits over stable bedrock below. Bedford Canyon Wash runs northeast through the Planning Area. The site is mostly vacant and was previously partially occupied by an orchard.

The site consists of two topographical areas, the elevated bluff above and south of the canyon and the lower-lying Bedford Canyon Wash. The Bedford Canyon Wash separates the bluff area from the lower-lying areas immediately to the north. The lower-lying areas are relatively flat, with an overall downward slope to the northeast. Citrus groves were present across the majority of the lower-lying regions of the site, but were cleared between 2002 and 2009 with the exception of two small areas, which are in a relatively natural state with moderate to heavy brush. The 2009 Phase 1 Site Assessment noted that structures still present on the project site included a mobile home, one steel storage building, water wells/pumps, power poles, aboveground fertilizer tanks, and one aboveground diesel fuel tank. The structures, poles and tanks have been removed from the site by certified professionals.

The active drainage of the site, Bedford Canyon Wash, lies along the southern portion of the lower-lying region and marks the boundary of the elevated areas to the south. Figure 2.1 is an aerial view of the project area, providing an indication of the project site coverage.

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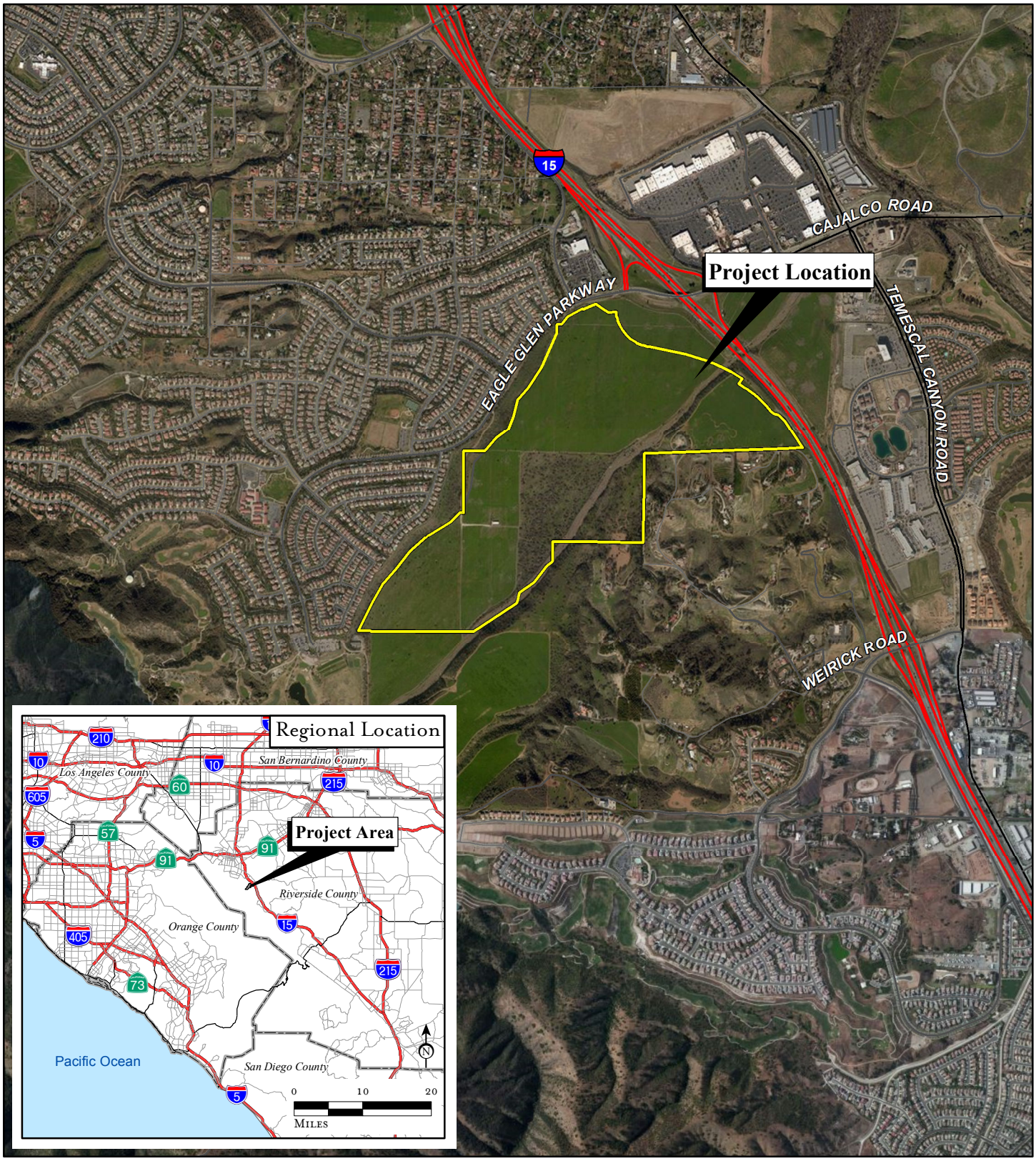

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FIGURE 2.1

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Feet

SOURCE: Bing Aerial, 2015; Riverside County, 2015.

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Arantine Hills Specific Plan Amendemnt
Supplemental EIR

Regional and Project Location

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The elevated portion of the site rises steeply to the south, up to 100 feet above the lower-lying area. Along the southeast side of Bedford Canyon, the canyon walls have been eroded off to near vertical cliffs. The canyon walls along the northeast side are much more subdued. The project site is bounded by the Eagle Glen Specific Plan development on the north and west, by the Cleveland National Forest to the south, and by Interstate 15 (I-15) to the east. To the southeast of the project site, there are several parcels of property designated Residential Agricultural (R-A-5) by Riverside County. Interstate 15 runs in a north-south direction to the northeast of the project site. Assessor's Parcel Numbers (APNs) within the proposed project area are:

- 279-190-045
- 279-240-018
- 282-030-003
- 282-030-004
- 282-030-005
- 282-030-006
- 282-030-008
- 279-180-024

2.3 ADJACENT LAND USES

Directly north of the SP Planning Area is the Eagle Glen Specific Plan area, a residential and golf course community. There is an existing neighborhood commercial center located on Bedford Canyon Road, just north of Cajalco Road, adjacent to I-15. To the northeast, the Specific Plan area abuts land owned by the Riverside County Transportation Commission (RCTC). To the south of the project lies unincorporated County land and a series of large scattered lots located on rugged topography that are privately owned agricultural and estate residential land. Table 2.A provides a summary of on-site and adjacent current land uses.

Table 2.A: Existing Land Uses and Existing General Plan Land Use Designations

Location	Current Land Uses	General Plan Land Use Designations	Zoning
On-site	Vacant/fallow	General Commercial; Mixed Use I; Mixed Use II; High Density Residential; Medium Density Residential; Low Density Residential; Parks; and Open Space	General Commercial; Mixed Use I; Mixed Use II; High Density Residential; Medium Density Residential; Low Density Residential; Parks; and Open Space
North and Northwest	Eagle Glen Specific Plan	Low Density Residential and Commercial Center	Single-Family Residential
Southeast	Unincorporated Rural Residential	Riverside County Rural Residential	Riverside County Rural Residential
Northeast	I-15 right-of-way planned for improvements	Agriculture (Possible Future Urban Use)	Agriculture

Source: City of Corona General Plan Land Use Map, adopted March, 2007.

2.4 GENERAL PLAN LAND USE DESIGNATIONS AND ZONING

Existing General Plan Land Use Designations and Zoning for the SP Planning Area and adjacent properties are shown in previously referenced Table 2.A. The existing and proposed General Plan

Land Use quantities for the SP Planning Area are shown in Table 2.B. Figure 2.2 illustrates the existing and proposed General Plan land use designations for the proposed project. Figure 2.3 illustrates the existing and proposed zoning designations for the proposed project.

Table 2.B: Existing and Proposed On-Site Specific Plan Land Use Designations and Quantities

Land Use	Existing Specific Plan Quantities	Proposed Specific Plan Quantities
General Commercial (GC)	38.0 acres	10.0 acres
Mixed Use I (MU-I) (Commercial/Residential)	21.1 acres	0.0
Mixed Use II (MU-II) (Industrial/Commercial)	18.6 acres	0.0
High Density Residential (HDR)	34.4 acres	34.3 acres
Medium Density Residential (MDR)	65.8 acres	74.3 acres
Low Density Residential (LDR)	29.0 acres	75.6 acres
Parks (P)	15.2 acres	8.7 acres
Open Space (OS)	36.6 acres	56.8 acres
Master Plan of Roadways	17.3 acres	16.3 acres
TOTAL	276.0 acres	276.0 acres

Sources: Arantine Hills Specific Plan, KTGY Group, Inc., adopted August 2012; Arantine Hills Specific Plan, Amendment No. 1, KTGY Group, Inc., July 2015.

2.5 PROJECT COMPONENTS

As summarized in Section 2.1, the proposed changes to the approved project that was analyzed in the Certified EIR represent the proposed project under scrutiny in this Supplemental EIR. These components are a General Plan Amendment, Specific Plan Amendment, Tentative Tract Map, and a Development Agreement. Each of these components is described in detail below.

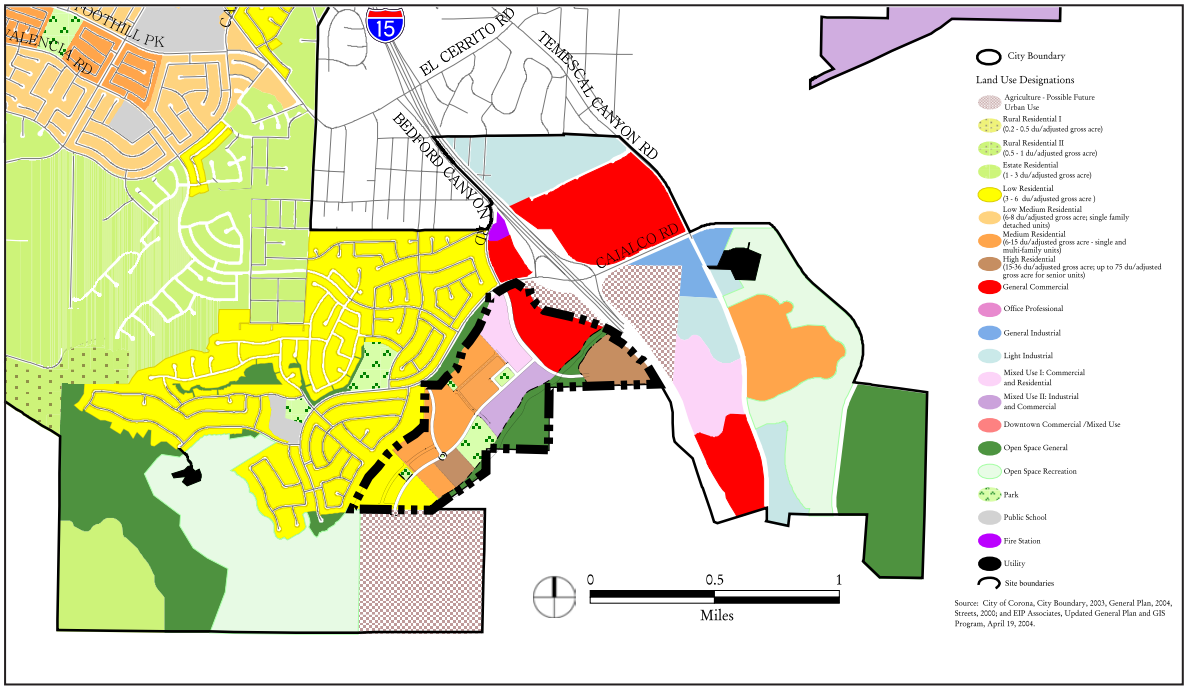
2.5.1 General Plan Amendment

The project applicant proposes a General Plan Amendment (GPA15-001), necessary to maintain consistency between the General Plan and the proposed Amendment to the Arantine Hills Specific Plan (as well as zoning) for the SP Planning Area. The existing and proposed General Plan Land Use categories are shown in previously referenced Table 2.B and are illustrated in Figure 2.2.

The proposed GPA would modify the existing General Plan Land Use designations as follows:

- A reduction in General Commercial (GC) Land Use by 28.0 acres.
- Elimination of Mixed Use I (MU–I) Land Use (Commercial/Residential).
- Elimination of Mixed Use II (MU–II) Land Use (Industrial/Commercial).
- Reduction in High Density Residential (HDR) Land Use.
- An increase in Medium Density Residential (MDR) Land Use.
- An increase in Low Density Residential (LDR) Land Use.

Existing General Plan Land Use Designation



Proposed General Plan Land Use Designations

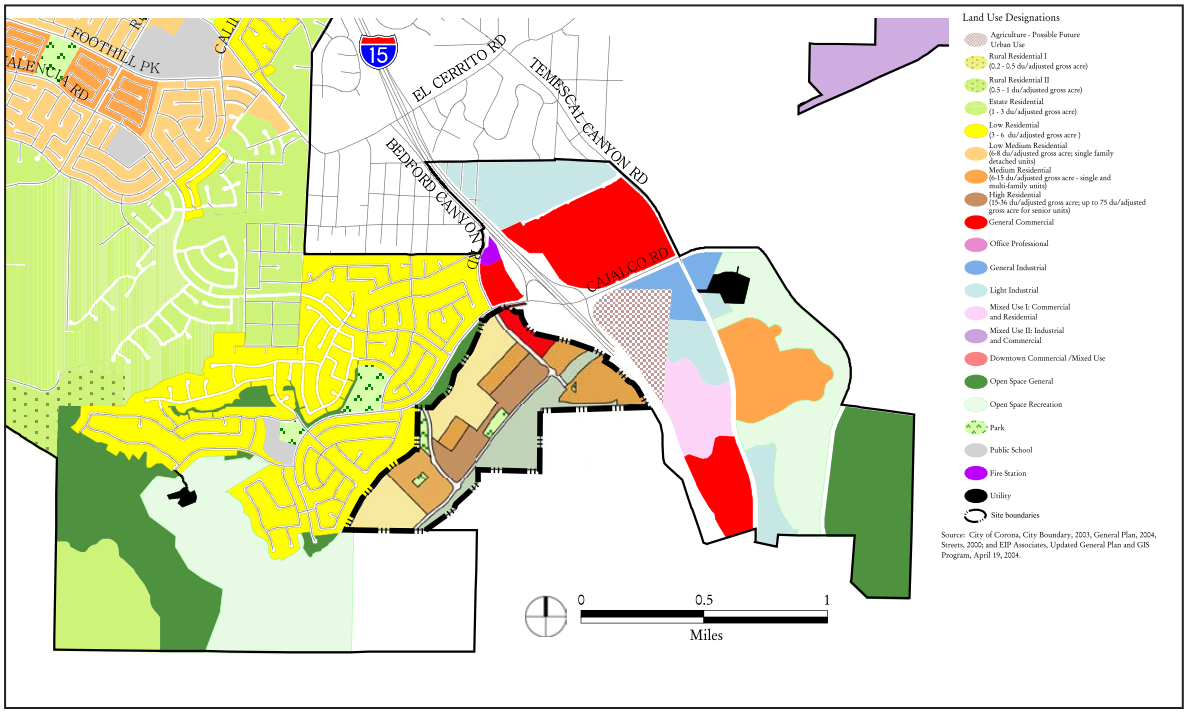


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FIGURE 2.2

Arantine Hills Specific Plan Amendment
Supplemental EIR

Existing and Proposed General Plan
Land Use Designations

SOURCE: Arantine Hills Specific Plan, October 2015.

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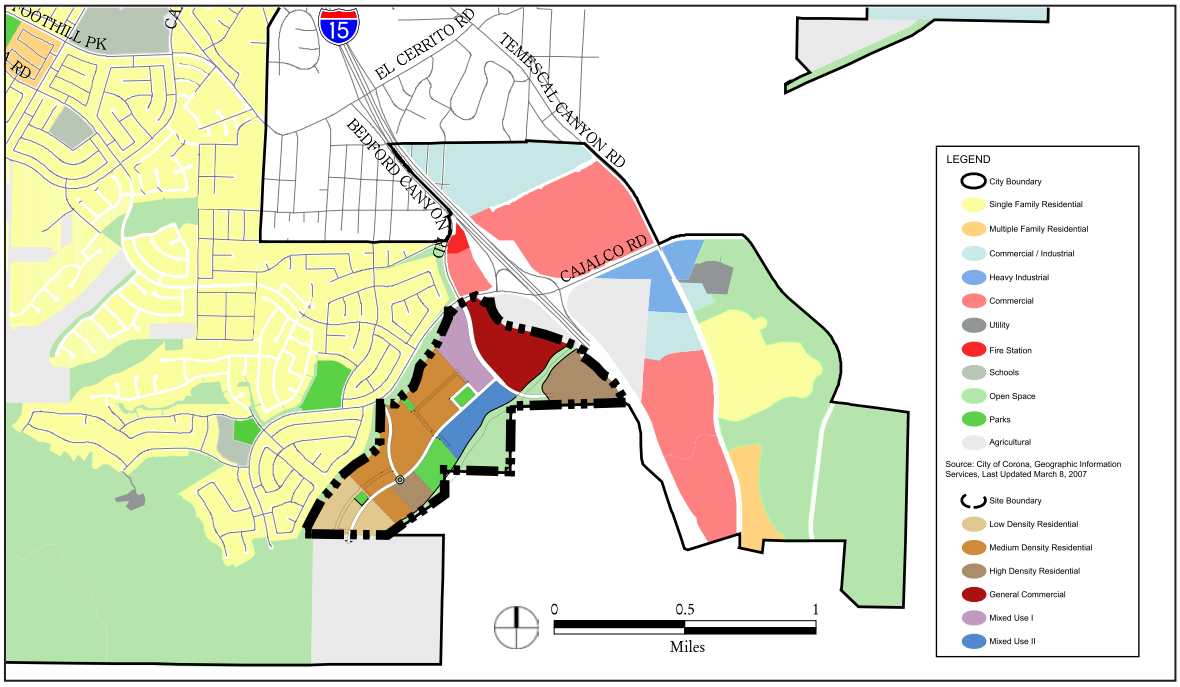
Existing Zoning Designation



Proposed Zoning Designations

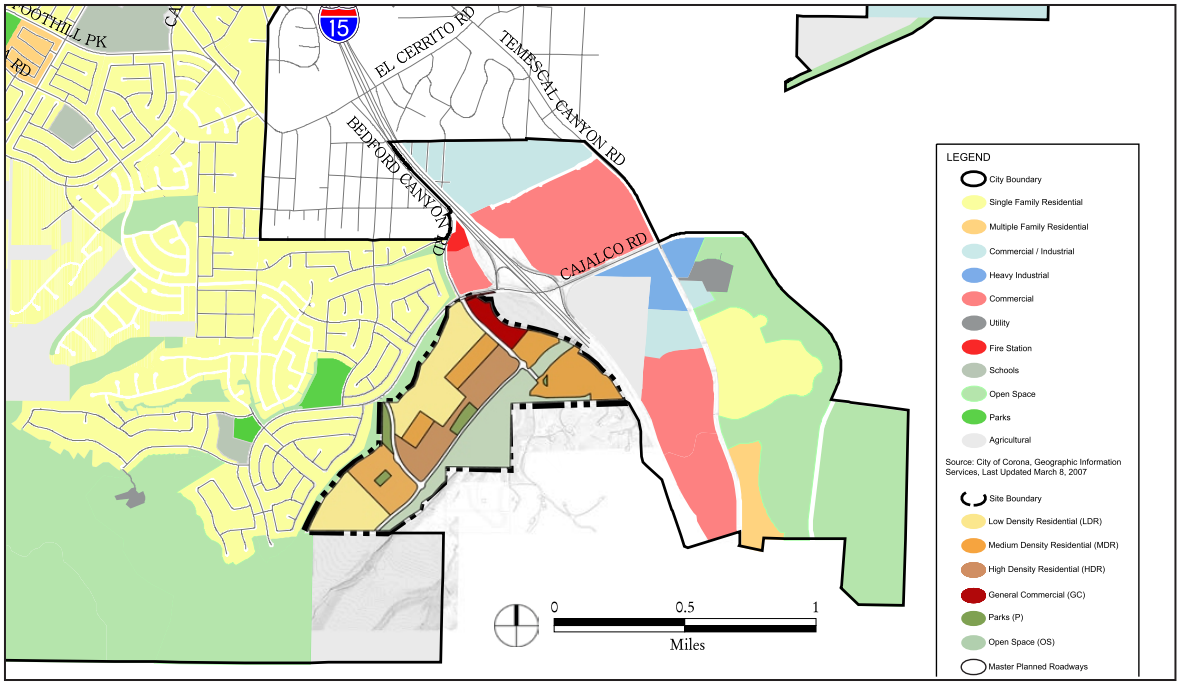


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FIGURE 2.3

Arantine Hills Specific Plan Amendment
Supplemental EIR

Existing and Proposed Zoning Designations

SOURCE: Arantine Hills Specific Plan, October 2015.

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- A reduction in Park (P) Land Use.
- An increase in Open Space (OS) Land Use.
- A reduction in Master Plan Roadways.

The GPA will result in an increase in HDR, MDR, and LDR designated land, and a corresponding reduction in GC, MU-I, and MU-II designated land. It is notable that the maximum residential unit count will remain the same for the approved and proposed project.

2.5.2 Specific Plan Amendment

The proposed project includes an Amendment to the Arantine Hills Specific Plan. In the same manner as the approved SP, the Arantine Hills Specific Plan Amendment (SPA) gives detailed guidelines for development within the Planning Area. The SPA will result in a master-planned residential community, an ancillary General Commercial center, parks, trails, and open space.

The proposed SPA would modify the existing Specific Plan Land Uses in a similar manner as the proposed GPA changes described. The SPA would change Specific Plan Land Uses as follows:

- A 28.0-acre reduction in GC Land Use from 38.0 acres to 10.0 acres. The GC category currently allows for the development of up to 396,400 square feet of community- or neighborhood-serving retail uses or low- and medium-rise office uses. With the proposed SPA, up to 80,000 square feet general commercial space would be permitted, resulting in the elimination of 316,400 square feet of potential retail and/or office space.
- Elimination of 21.1 acres of MU–I Land Use, thereby eliminating potential development of up to 451 multifamily dwelling units (dus) as part of the mixed-use project and 118,000 square feet of retail and/or office space.
- Elimination of 18.6 acres of MU–II Land Use, thereby eliminating potential development of up to 230,900 square feet of office, business park, research and development, and light industrial space.
- A 0.1-acre reduction in HDR Land Use from 34.4 acres to 34.3 acres. The HDR category currently allows for the development of up to 621 dus at a target density of 18.0 dus/acre. With the proposed SPA, up to 514 dus would be permitted at a target density of 15.0 dus/acre, resulting in the elimination of 107 dus.
- An 8.5-acre increase in MDR Land Use from 65.8 acres to 74.3 acres. The MDR category currently allows for the development of up to 461 dus at a target density of 7.0 dus/acre. With the proposed SPA, a maximum of 720 dus would be permitted at a target density of 9.7 dus/acre, resulting in an increase of 259 dus.
- A 46.6-acre increase in LDR Land Use from 29.0 acres to 75.6 acres. The LDR category currently allows for the development of up to 88 dus at a target density of 3.0 dus/acre. With the proposed SPA, up to 387 dus would be permitted at a target density of 5.1 dus/acre, resulting in an increase of 299 dus.
- A 2.6-acre overlay is indicated in the LDR designation (PA 8) adjacent to the park in PA 7 that would enable the development of a model home area with mixed densities.

- A 6.5-acre reduction in Parks Land Use from 15.2 acres to 8.7 acres. The P category currently allows for the development of one 11.0-acre neighborhood park, one 2.1-acre special use park, and two mini parks (1.0 and 1.1 acres). With the proposed SPA, parks would be provided in the form of two neighborhood parks (4.1 and 3.2 acres) and two mini parks (1.1 and 0.3 acre). All parks will be privately owned and maintained, as opposed to the approved project that contemplated public ownership and maintenance of the 11-acre and 5-acre parks. The developer will seek appropriate park fee credits for the design and installation of private parks, consistent with the Municipal Code.
- A 20.2-acre increase in OS Land Use from 36.6 acres to 56.8 acres. The OS Land Use includes natural open space and land associated with Bedford Canyon Wash.
- The SPA includes three design options to convey storm flows to protect the proposed land uses as well as the existing Bedford Canyon Wash. One design option includes the construction of a concrete-lined bypass channel adjacent to Bedford Canyon Wash to convey major storm flows while allowing metered low flows to remain in the existing Bedford Canyon Wash. The second design option is similar; however, the bypass channel is designed in a wider, deeper, and more natural manner, including a soft bottom. The third option does not include a bypass channel but instead reestablishes Bedford Canyon Wash to a much wider and more natural configuration in order to convey low flows safely as well as storm flows.
- In the same manner as the approved SP, the SPA would integrate the land uses (as modified) through a system of streets, paseos, parkways, and a pedestrian/bike trail circulation system. The entire community may be accessed via gates on both entry streets (Street "A" and Street "C").

The approved SP includes up to 1,621 residential dus in varied densities (HDR, MDR, and LDR) with an additional 185 units allowed by right if PA 16 is developed with age-qualified units, for a total of 1,806 residential dus. In addition, the approved SP includes up to 745,300 square feet for commercial and industrial business park uses, as well as parks and open space. The SPA would result in up to 1,621 dus in the same varied densities (HDR, MDR, and LDR). In the same manner as the approved SP, the SPA would allow an additional 185 units to be constructed within the Planning Area by right if PAs 6 and 10 are developed with age-qualified units, bringing the total number of dus within the Planning Area up to a maximum of 1,806 dus on 184.2 acres. Potential development of up to 80,000 square feet of commercial space on 10.0 acres will be permitted with a maximum Floor Area Ratio (FAR) of 0.25. The resulting land use plan with the incorporation of the SPA is shown in Figure 2.4.

2.5.3 Tentative Tract Map

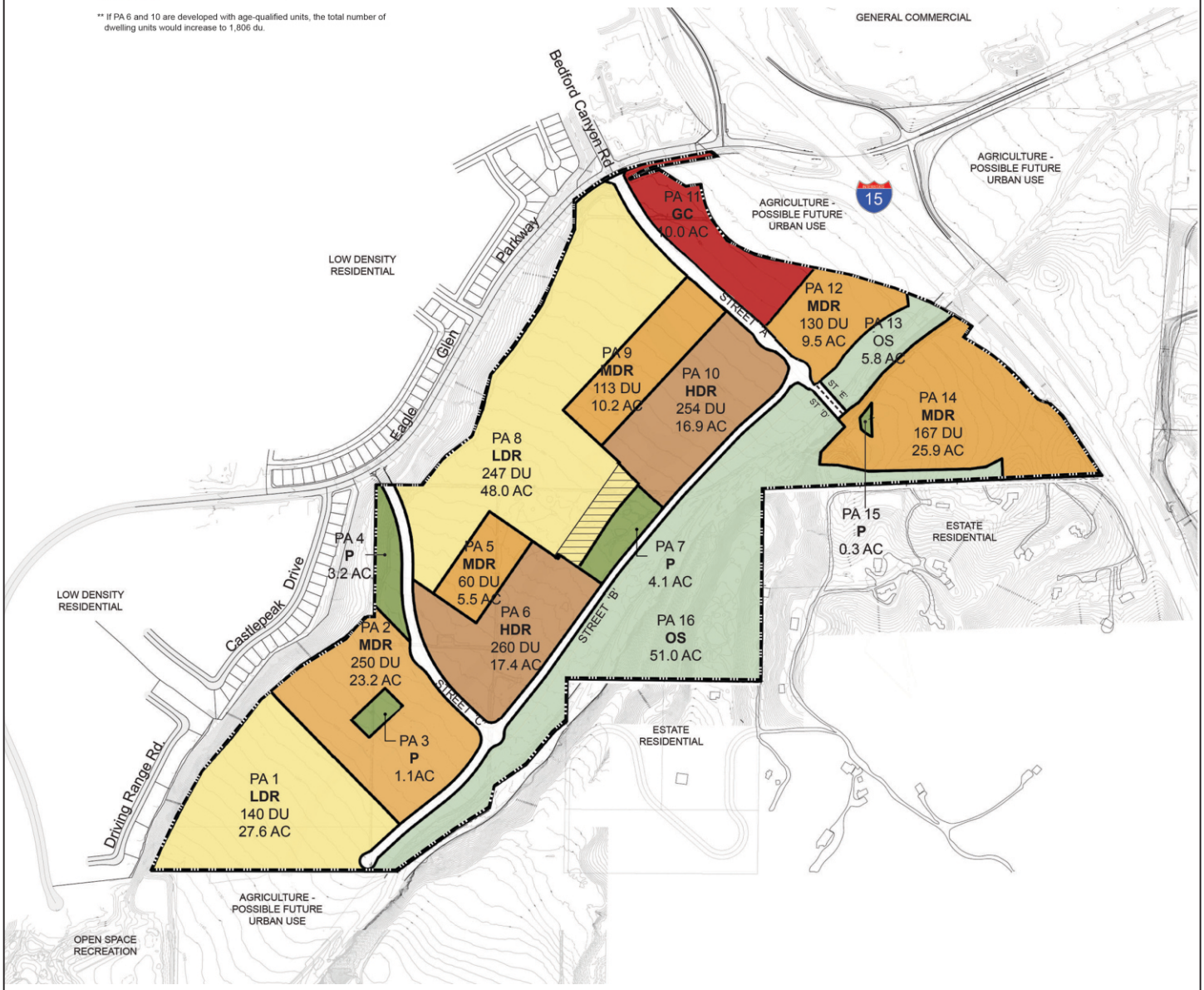
The proposed project includes a revised Tentative Tract Map (TTM) for financing purposes (i.e., an "A" Map) for the Arantine Hills Specific Plan as amended. The TTM is being processed concurrently with the other discretionary actions associated with the proposed project above. The TTM establishes the locations of legal lots that would be ultimately sold to merchant home builders who will then subdivide the "for sale" residential lots. The TTM is being processed through the City in accordance with the requirements of Chapter 16.12, titled Tentative Map, in the City's Municipal Code and in accordance with the Subdivision Map Act of the California Government Code. The revised TTM is shown in Figure 2.5.

Land Use	Acreage (AC)	Dwelling Units (DU)	Density Range
General Commercial (GC)	10.0		
High Density Residential (HDR)	34.3	514	15-36
Medium Density Residential (MDR)	74.3	720	6-15
Low Density Residential (LDR) *	75.6	387	3-6
Parks (P)	8.7		
Open Space (OS)	56.8		
Master Planned Roadways	16.3		
TOTAL	**276.0**	**1,621****	

Notes:

* Includes 2.6 acres of High Density Residential Overlay

** If PA 6 and 10 are developed with age-qualified units, the total number of dwelling units would increase to 1,806 du.



LSA

FIGURE 2.4

N

0 600 1200

FEET

Arantine Hills Specific Plan Amendment
Supplemental EIR

Proposed Arantine Hills Specific Plan Land Use Plan

SOURCE: Arantine Hills Specific Plan, October 2015.

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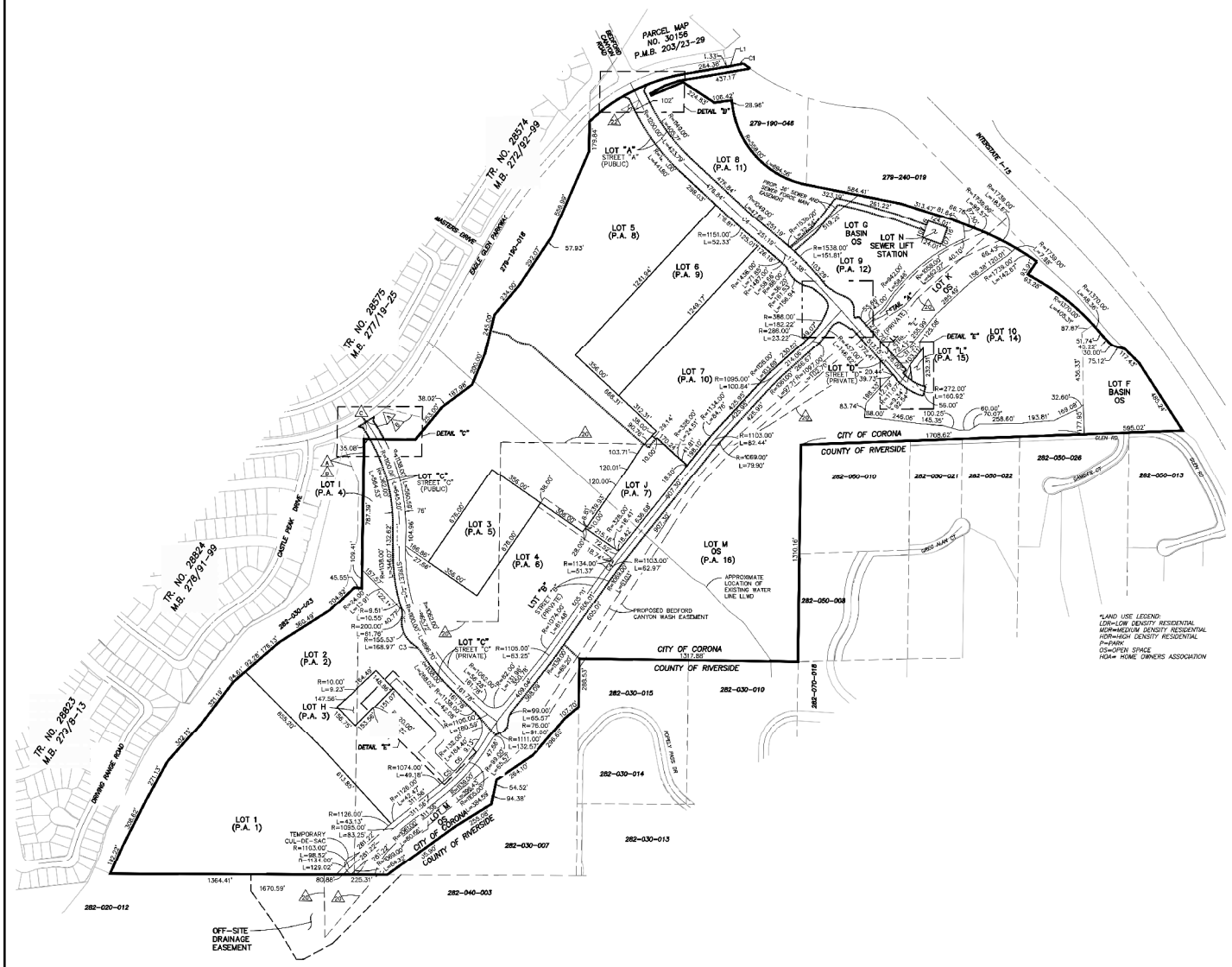

LSA

FIGURE 2.5

N

0 500 1,000

FEET

Arantine Hills Specific Plan Amendemnt
Supplemental EIR

Revised Tentative Tract Map

SOURCE: CASC Engineering and Consulting, 10/21/15.

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2.5.4 Development Agreement

A Development Agreement (DA) is being negotiated between the City of Corona and the project proponent that will vest development rights and entitlements, define benefits and fees paid to the City, specify financial obligations and timing of improvements, and establish responsibilities and rights of both the City and the project applicant. DAs are permitted pursuant to California Government Code 65864 et seq. The general terms of the DA include, but are not limited to, the following:

- The initial term of the Development Agreement is 10 years with 2 five-year extensions upon certain conditions precedent being met.
- The Development Agreement will be recorded and is subject to annual review by the City.
- All covenants of the Development Agreement run with the Property. The rights, duties, and obligations of the Development Agreement are transferrable if the property is sold or otherwise transferred to a new owner.
- The City will have the obligation to process and permit the uses of the Property as defined by the applicable Land Use Regulations and the Development Agreement.
- Certain Project Development Impact Fees (DIFs) and credits will be stabilized for the first 10 years of the Development Agreement and paid on a schedule agreeable to the parties. These include, for example, park fees.
- The Developer will be required to fund or construct certain public infrastructure improvements, some of which are above the developer's fair-share responsibility for the project. In such circumstance the developer may be subject to development impact fee credits for the construction of certain public infrastructure improvements related to parks, streets and signals and other fee credits identified in the Development Agreement.
- The Developer will be required to install or pay for certain public utilities and services including:
    - A fair-share fee of the cost for a new water storage facility.
    - A fair-share fee of the cost for a sewer system upgrade and a DIF for sewage treatment capacity.
    - Payment by or construction by the Developer of certain traffic system improvements, which may include traffic signals at certain street intersections identified as mitigation in Chapter 4.0 of this SEIR.
    - Full funding of the total cost of the improvements to the I-15/Cajalco Road Interchange, with the right of reimbursement from available future sources including the Transportation Uniform Mitigation Fee (TUMF).
        - Developer's advanced funding for the interchange will enable the City and local/regional community to realize the benefits of the improvements well before they would otherwise be realized if the City were reliant on local, regional, State, or Federal funds.
        - Developer will post bonds for the full amount of the total estimated cost of the Interchange project prior to issuance of the first production home building permit and and either: 1) make periodic payments as determined by the City for cash flow purposes on a schedule reasonabley determined by the City; or 2) fully fund the total estimated cost of the Interchange project and have the bonds released.

  - Developer will be permitted to construct up to 308 single-family production units or a combination of single-family and condominium/townhome production units that have the same or a lesser external trip count as 308 single-family production units ("Phase 1") prior to start of interchange construction.
  - The City will utilize best efforts to secure regional funding from other sources to supplement Developer funding for the interchange.
  - Construction of public improvements or facilities by the Developer that benefit other developers may be eligible for a reimbursement to the Developer.
- All public rights-of-way will be irrevocably offered for dedication in fee or as an easement to the City.

A key provision of the DA is the advanced funding of the improvements to the Interstate 15 and Cajalco Interchange listed above. The developer is only responsible for 32.5 percent of the cost associated with the construction of the interchange, but is proposing to advance the funds to the City for the remaining 67.5 percent of the total cost. The advance of these funds will allow the interchange to be constructed earlier than originally scheduled because the funding for the interchange will become available with this project. In return, the Developer would be allowed to construct additional residential units beyond Phase 1 in accordance with the terms of the DA. The DA changes a prior traffic mitigation measure from the Certified EIR that prohibited issuance of any building permits until after the I-15/Cajalco Road interchange improvements were constructed and in operation.

2.6 COMPARISON OF PROPOSED PLAN TO APPROVED SPECIFIC PLAN

The proposed project has the same grading footprint as the approved project and still consists of 276.0 total acres. It continues to provide up to a maximum of 1,621 dus if single-family homes are developed or an additional 185 units for a total of 1,806 dus if Planning Areas 6 and 10 are developed with age-qualified dwellings. The amount of residential development increases from 129.2 acres (not including 21.1 acres of Mixed Use I land uses) under the approved project to 184.2 acres under the proposed project. Previously referenced Table 2.B presents a breakdown of the approved and proposed land uses by the specific land uses contained in the SP.

The proposed SPA reduces the General Commercial acreage from 38.0 acres to 10.0 acres, with a corresponding reduction of General Commercial uses from 396,400 square feet to 80,000 square feet (a reduction of 316,400 square feet of commercial uses). In addition, the proposed SPA eliminates 21.1 acres of Mixed Use-I development including 118,000 square feet of mixed use development and 451 dus as part of a mixed-use project. The SPA also removes 18.6 acres of Mixed Use II development. As such, the SPA would eliminate 230,900 square feet of industrial/commercial uses (formerly designated as Mixed Use-II). Total reduction in commercial and industrial space would be over 600,000 square feet.

The approved project included 36.6 acres of Open Space. The SPA includes 56.8 acres of Open Space, while reducing the designated Parkland from 15.2 acres to 8.7 acres. Table 2.C summarizes the approved and proposed land uses by general land use type.

Table 2.C: Comparison of the Approved Land Uses and the Proposed Amendment to the Arantine Hills Specific Plan

Approved Land Uses	Acreage	Units/Square Footage	Amendment Land Uses	Acreage	Units/Square Footage
Residential	129.2	1,806 units	Residential	184.2	1,806 units
Mixed Use	39.7	348,900 sf	Mixed Use	0	0
Commercial	38	396,400 sf	Commercial	10	80,000 sf
Industrial/Commercial	18.6	230,900 sf	Industrial/Commercial	0	0
Parks	15.2	—	Parks	8.7	—
Open Space	36.6	—	Open Space	56.8	—

The SPA still includes Street "A," Street "B," and Street "C." Streets "A" and "C" were public in the approved project, but are proposed to be partially public/private. Street "B" will be all private and has shifted its location to run adjacent to and parallel to Bedford Canyon Wash (Wash), and serves to further separate the planned on-site residential and commercial development from the Wash and possible future flood control channel or restored Wash area. Street "C" has been extended to connect with the realigned Street "B." In addition, the roundabout at the intersection of Street "B" and Street "C" is still planned, and another roundabout is now proposed at the intersection of Streets "A" and "B." The roundabouts will help to calm traffic and provide for safe movement of vehicles, pedestrians, and bicycles. A Class I bike trail will be constructed along Street "B" connecting Streets "A" and "C." It will provide safe circulation to the residential areas of the Arantine Hills community.

Street "D" in the proposed SPA is a Modified Local Street that provides access across Bedford Canyon Wash with a 40-foot wide paved right-of-way cross-section. In addition, adjacent to this street cross-section is another 28-foot wide cross-section (Street "E") that functions as an access for pedestrians and bicycles (only) except for emergency ingress/egress situations. The 40-foot and 28-foot wide cross-sections of Streets "D" and "E" will be separated by a decorative barrier.

The residential private streets in Arantine Hills are designed as two-lane streets to serve the proposed SPA within the private areas and gated neighborhoods. The private streets would each have a 56-foot right-of-way consistent with the approved project, which would allow for parking on both sides of the street.

2.7 PROJECT OBJECTIVES

The State CEQA Guidelines require that the EIR Project Description include "a statement of objectives sought by the proposed project." The New Home Company, the project proponent, developed the following objectives for the Amended Project. Additions to the approved Specific Plan objectives made as part of the proposed SPA are underlined; text that has been removed from the approved project objectives is in strikeout:

- Build upon the platform of high-quality design, architecture, and landscaping established by the neighboring Eagle Glen residential community to provide a cohesive, pedestrian-friendly community that offers a variety of ~~both passive and active~~ recreational amenities to residents of Arantine Hills ~~and the City of Corona~~.

- Establish open space preservation area ~~and a multipurpose trail along and~~ adjacent to Bedford Canyon Wash to provide an important link to the natural environment.
- Develop Arantine Hills as a well-designed, high quality residential community ~~balanced community~~ that integrates residential uses with ~~office, retail, entertainment, research and development, and other appropriate~~ retail commercial uses.
- Benefit the City and its residents to fund and implement the needed improvements to the I-15/ Cajalco Road freeway Interchange.
- ~~Provide new employment opportunities for Corona residents along the I-15 Freeway corridor.~~
- Develop ~~freeway-oriented~~ a planning area with retail commercial ~~development~~ uses to serve ~~regional~~ local and nearby residents and ~~drive~~ generate revenue for the City.
- Provide a General Commercial planning area that will accommodate retail and service uses, that will offer new employment opportunities, and contribute to a strong and diversified economic base.
- Address the City's current and projected housing needs for all segments of the community by providing a range of family-oriented single-family detached and attached housing and multifamily residences.
- Establish a mix of land uses and local-serving activities that meet the General Plan's objectives concerning community character and pedestrian-friendly design.
- Implement the City's General Plan Land Use Element goal to provide for compatibility of land uses, ~~fiscal balance,~~ recreation, and resource protection.
- Create a system of roads, trails, and sidewalks that will fulfill the policies of the Corona General Plan by allowing residents to live in proximity to park and recreational opportunities and retail commercial shops and services~~, retail centers, commercial and business/office development, and research and development uses~~.
- Provide a network of pleasant, safe, and convenient sidewalks, ~~bike lanes,~~ and a ~~multi-purpose trail~~ bikeway along ~~Bedford Canyon Wash~~ "B" Street.
- Concentrate development within neighborhoods to promote greater efficiency of land use, and promote walking and bicycling as an alternative to motor vehicle use.
- Incorporate "green" and sustainable practices, as practicable, in developing buildings and infrastructure in Arantine Hills.
- Maximize opportunities for using water-wise plant materials in the project landscaping to promote water conservation.
- Identify and address safety hazards, such as wildfire and flooding dangers, through implementation of design safety features and improvements to Bedford Canyon Wash.
- Undertake development of the project site in a manner that is economically feasible and balanced to address both the applicant's and the City's economic concerns.
- Pass storm flows through either Bedford Canyon Wash or an adjacent bypass channel in a manner that minimizes erosion in Bedford Canyon Wash, safely conveys storm flows in a manner that protects adjacent housing and property, and creates a more conducive setting to reestablishment of natural vegetation within Bedford Canyon Wash.~~Eliminate highly erosive flows within~~

~~Bedford Canyon Wash by containing large storms within a concrete lined rectangular flood control channel to be owned and maintained by the Riverside County Flood Control District.~~

2.8 DISCRETIONARY ACTIONS, PERMITS, AND OTHER APPROVALS

In accordance with Sections 15050 and 15367 of the State CEQA Guidelines, the City is the Lead Agency for the proposed project and has principal authority and jurisdiction for CEQA actions. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a proposed project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by the proposed project.

The legislative and discretionary actions to be considered by the City as part of the proposed project include:

- **Approval of a General Plan Amendment (GPA15-001):** As discussed in Section 2.5.1, the City General Plan Land Use Map will be amended to modify the existing General Plan Land Use designations consistent with the SPA. The GC Land Use will be reduced by 28.0 acres from 38.0 acres to 10.0 acres. The MU-I (21.1 acres) and MU-II (18.6 acres) Land Use designations will be eliminated. The residential HDR, MDR, and LDR and P and OS Land Use designations will be reallocated on site.
- **Approval of a Specific Plan Amendment (SPA15-002):** As discussed in Section 2.5.2, the GC Land Use will be reduced by 28.0 acres from 38.0 to 10.0 acres, and the amount of GC square footage is correspondingly reduced 316,400 square feet from 396,400 square feet to 80,000 square feet. The Arantine Hills SPA No. 1 eliminates the MU-I (21.1 acres) and MU-II (18.6 acres) Land Use designations, resulting in the reduction of 451 multifamily dus and 348,900 square feet of retail, office, business park, research and development, or light industrial space as a mixed-use project. The SPA also changes the mix of dus in the HDR, MDR, and LDR residential categories, while keeping the maximum permitted number of dwellings at 1,806 dus. Because the SP serves as zoning for the Planning Area, existing zoning designations will be changed to reflect the planned land uses proposed within the SPA. The Arantine Hills SPA No. 1 will be considered by the City Council for adoption by ordinance.
- **Approval of a Tentative Tract Map (TTM 36294R):** As discussed in Section 2.5.3, the proposed project includes a Revised Tentative Map. The Tentative Map is being processed through the City of Corona in accordance with the requirements of Chapter 16.12, entitled Tentative Map, in the City's Municipal Code and in accordance with the Subdivision Map Act of the California Government Code.
- **Approval of a Development Agreement (DA15-001):** As discussed in Section 2.5.4, a DA is being negotiated between the City of Corona and the project applicant and/or master developer. The purpose of the DA is to vest development rights and entitlements, define the benefits and fees to be paid by the project applicant and/or master developer to the City, specify the financial obligations and timing of improvements, and establish the responsibilities and rights of both the City and the project applicant and/or master developer.
- **Supplemental Environmental Impact Report (SEIR):** The City of Corona has determined that a Supplement to the Certified EIR is required to analyze the potential environmental impacts of the proposed project. The Supplement to the EIR will include mitigation measures, as

appropriate, to reduce potential environmental impacts, and will be prepared in accordance with CEQA and the CEQA Guidelines. The City of Corona will consider certification of the Supplemental EIR prior to taking action on the requested approvals. In conjunction with Certification of the SEIR and approval of the proposed project, the City will adopt a Mitigation Monitoring and Reporting Program (MMRP), which will ensure implementation of the measures and conditions of project approval that were adopted to mitigate or avoid potentially significant effects on the environment.

2.9 SUBSEQUENT ACTIONS AND APPROVALS

Following certification of the Supplemental EIR and adoption of the discretionary actions listed in Section 2.8, additional actions and approvals will be required by the City and other agencies. Key approvals include:

- **Approval of Subsequent Tentative Tract Maps and Precise Plans:** After approval of the "A" Map, implementation of Tentative Tract Maps and Precise Plans by the merchant builder would be prepared and processed by tiering off of the SEIR with project level Mitigated Negative Declarations.
- **Approval of Improvement Plans:** After approval of the Tentative Tract Map, the City of Corona would process the corresponding ministerial Improvement Plans (e.g., potable water plans, wastewater plans, drainage plans, grading plans, and street improvement plans).

3.0 COMPARATIVE EVALUATION OF ENVIRONMENTAL IMPACTS

3.1 INTRODUCTION

This section compares the impact analysis for the approved project as contained in the Certified EIR with an analysis of proposed project. As noted in Chapters 1.0 and 2.0 of this SEIR, certain land uses and amenities of the 2012 Arantine Hills Specific Plan would be changed with implementation of the proposed project. While the project site acreage and footprint are largely the same as originally approved by the City Council in 2012, changes to land uses may potentially change impacts that were addressed in the 2012 Certified EIR.

This comparative analysis reviews changes included in the proposed project, changes to the existing conditions, and changes to the circumstances under which the project would be undertaken that have occurred since the original EIR was certified in 2012. It reviews any new information of substantial importance that was not known and could not have been known with exercise of reasonable diligence at the time that the EIR was certified. This section further provides supporting evidence as to why, as a result of such changes or new information, an SEIR is required. This examination includes an analysis of the provisions of Section 21166 of the PRC and Sections 15162 and 15163 of the State CEQA Guidelines and their applicability to the proposed project.

The environmental checklist form contained in CEQA Guidelines Appendix G has been modified and incorporated into Section 3.2 of this SEIR by the Lead Agency, the City of Corona. In this way, the following comparative analysis addresses environmental effects by environmental topic. For each environmental topic, findings are made regarding 1) environmental effects of the proposed project in comparison to the findings of the approved project in the Certified EIR; and 2) whether the Certified EIR adequately analyzes the potential impacts of the proposed project. Each environmental topic discussed in this analysis includes an overview of the impacts to the environment evaluated in the Certified EIR, a comparison between the proposed project's effects on the environment and the effects identified in the Certified EIR, and whether the proposed project's physical effects on the environment are within the scope of those analyzed in the Certified EIR. The mitigation measures from the Certified EIR that are being carried forward and incorporated into the proposed project are also identified in this analysis (pursuant to CEQA Guidelines Section 151688 [c]) and assessed for applicability and the need for modifications to reflect the proposed project.

For the reasons identified in the checklist below, this evaluation determined that the proposed project resulted in substantial changes with the potential for new significant impacts related to Traffic, Water Supply, Riparian Habitat, Drainage Patterns, and Drainage Facilities. These changes will be analyzed in Chapter 4.0, New Analysis, pursuant to *CEQA Guidelines Section* 15163.

3.2 ENVIRONMENTAL CHECKLIST

3.2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Substantial Change in Circumstance and/or Project Requiring Minor EIR Revisions" as indicated by the checklist on the following pages:

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology and Soils
☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials	☒ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☐ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☒ Transportation/Traffic	☒ Utilities and Service Systems	☒ Mandatory Findings of Significance

3.3 AESTHETICS

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.3.1 Summary of Impacts Identified in the Certified EIR

Scenic Vistas

The Certified EIR determined that the Specific Plan would not result in the obstruction of the City-designated scenic vistas and would be consistent with development envisioned in the City's General Plan. Due to the higher elevation of the surrounding uses and I-15, the development of the Specific Plan within Bedford Canyon would be far below the elevation of adjacent viewers and would not obstruct views beyond the canyon and views from the elevated Eagle Glen area would not be substantially affected. Therefore, impacts to scenic vistas were found to be less than significant.

Scenic Highways

The Certified EIR determined that although there are significant visual resources visible from the Specific Plan area and surrounding roadways, none of these resources is visible from a designated scenic highway as there are no City-designated scenic highways in the vicinity of the Specific Plan. Therefore, impacts related to scenic highways would not occur.

Existing Visual Resources

According to the City's General Plan EIR, open space and agricultural areas provide visual relief from urbanized areas and provide views for motorists, pedestrians, and residents. The General Plan originally designated the Specific Plan area as Agriculture-Future Urban Use, clearly acknowledging that the Specific Plan area is slated for development at some point in the future and is therefore not considered to be an aesthetic resource in its current undeveloped state. The General Plan EIR goes on to note that development of other undeveloped areas within the City would change the visual quality of the area, but also notes that vacant lands are considered to contain little aesthetic value. Future development of these areas would comply with General Plan policies regulating the design of new buildings and protecting the visual quality of the City. For these same reasons as cited from the General Plan EIR, although development of the Specific Plan would convert vacant lands to urban uses, the visual quality of the area would not be degraded, resulting in a less than significant impact.

The Certified EIR determined that although implementation of the Specific Plan would result in development that would alter the existing visual character of the site, the City acknowledged that future development would occur on the site, and the site was not considered to be an aesthetic resource in its current undeveloped state. Adherence to established and proposed City requirements for architectural elements, design features, landscape requirements (as specified in the Specific Plan) would ensure a high-quality, consistent, and compatible development that would not substantially degrade the visual character or quality of the site. Furthermore, implementation of the Specific Plan as described in the Certified EIR would not conflict with applicable policies of the City's General Plan as they relate to aesthetics. Therefore, impacts were considered less than significant.

Light and Glare

The Certified EIR determined that because the Specific Plan area was located at a lower elevation than the existing adjacent land uses, lighting would not have shown upwards on adjacent properties. All lighting fixtures associated with implementation of the Specific Plan would have been required to adhere to the City's lighting standards and would have been required to direct light downward with minimal spillover onto adjacent residences, sensitive land uses, and open space, which resulted in a less than significant impact. Due to the low intensity of traffic signal lights that would have been

installed as part of the Specific Plan, shielding that would have been used on traffic signals to prevent the light from spreading, and the presence of higher power lighting in the area of the proposed intersections, lighting impacts from the placement of traffic control devices were considered less than significant. Adherence to the City's Zoning Code ensured that any building or parking lighting would not have significantly impacted adjacent uses. Therefore, impacts associated with light and glare were found to be less than significant.

3.3.2 Impacts Associated with the Proposed Project

(a) Have a substantial adverse effect on a scenic vista?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR that would permit buildings of greater size and scale that may block or obstruct scenic views. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. Therefore, a reduction in the acreage of land use designations that would typically result in development of greater size and scale (commercial and mixed use as compared to residential), would result if the proposed project is implemented.

Therefore, no new or substantially greater impacts related to scenic vistas would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This topic will not be evaluated further in Chapter 4.0.

(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. As stated in the Certified EIR, although there are significant visual resources visible from the Specific Plan area and surrounding roadways, none of these resources is visible from a designated scenic highway and the Specific Plan area is not located within a State scenic highway. No new State scenic highways have been designated in the area surrounding the Specific Plan since its adoption in 2012. Therefore, no new impacts related to scenic resources within a State scenic highway would occur. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Substantially degrade the existing visual surroundings?

No Changes or New Information Requiring Major or Minor EIR Revisions. The proposed project does not propose any land use designations not previously analyzed in the Certified EIR that would potentially degrade the existing visual surroundings. The proposed project would not result in changes to the size, location, or boundaries of the Specific Plan. As indicated in the Certified EIR,

implementation of the Specific Plan would result in development that would alter the existing visual character of the site. Any development included in the proposed project would continue to be required to adhere to the established and proposed City requirements of architectural elements, design features, landscape requirements, etc. (as specified in the Specific Plan) in order to ensure high-quality, consistent, and compatible development that would not substantially degrade the visual character or quality of the site. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in the Chapter 4.0.

(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. As stated in the Certified EIR, the Specific Plan area is located within Bedford Canyon, at a lower elevation than adjacent viewers. Therefore, the Specific Plan area would not obstruct views beyond the canyon and views from the Eagle Glen area would not be substantially affected. As discussed in the Certified EIR, all lighting fixtures associated with implementation of the project would continue to be required to adhere to the City's lighting standards and would be required to direct light downward with minimal spillover onto adjacent residences, sensitive land uses, and open space. Adherence to the City's Zoning Code would ensure that any building or parking lighting would not significantly impact adjacent uses. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This topic will not be evaluated further in the Chapter 4.0.

3.3.3 Cumulative Impacts Associated with the Proposed Project

Less Than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. No changes in the location and boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR that would permit buildings of greater size and scale that may block or obstruct scenic views. With the removal of over 600,000 square feet of commercial/mixed-use land uses attributable to the proposed project, the size and scale of development would be decreased. The proposed project would not obstruct views or generate light/ glare in a manner that was not previously addressed in the Certified EIR. Compliance with the City's Municipal Code, General Plan standards, and proposed Specific Plan regulations would ensure that the proposed project in combination with other projects in the area would not result in significant impacts upon scenic vistas. As a result, the project would create a less than significant cumulative impact on local scenic vistas.

Development of lands within the City would result in the cumulative conversion from open space to a more urbanized land use. However, this is a continuing development trend currently occurring within the southern portion of the City that has been anticipated in the City's General Plan. The proposed

project, in conjunction with other cumulative projects would be developed in a manner consistent with existing development trends in the City. Cumulatively, more lighting would be introduced into the area by proposed, existing, and future development. As with past and currently proposed development, cumulative lighting-related impacts would be reduced through the adherence to applicable City lighting standards. No cumulatively significant lighting impact would result from implementation of the proposed project.

3.3.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Project

No mitigation measures related to aesthetics were outlined in the Certified EIR.

3.4 AGRICULTURE AND FOREST RESOURCES

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.4.1 Summary of Impacts Identified in the Certified EIR

Conversion of Prime, Unique, or Statewide Important Farmland

The Certified EIR concluded that approximately 54.15 acres of the Specific Plan area were designated as Prime Farmland and 118.34 acres were designated as Unique Farmland. Conversion of 54.15 acres of on-site Prime Farmland would have resulted in the equivalent of 0.82 percent of the total loss of Prime Farmland in Riverside County. Conversion of 118.34 acres of on-site Unique Farmland was the equivalent to 14.5 percent of the total loss of Unique Farmland in Riverside County. Conversion of Prime Farmland and Unique Farmland to a non-agricultural use would have been considered a significant impact. However, at the time of the certification of the Final EIR, there was no mechanism in place to collect fees associated with a mitigation bank or to require agricultural easements as part of the Specific Plan. For this reason, and as stated in the City's General Plan EIR, there "is no feasible mitigation to reduce the Arantine Hills Specific Plan's impacts associated with the conversion of agricultural use to nonagricultural uses to a less-than-significant-level."

Conflict with an Existing Agricultural Zone

As stated in the Certified EIR, the Specific Plan area was zoned as "Agricultural." Adoption of the Specific Plan established new zoning for the Specific Plan area upon the Specific Plan becoming effective. The Specific Plan established zoning for "Low Density Residential," "Medium Density Residential," "High Density Residential," "General Commercial," "Mixed Use I," "Mixed Use II," "Park," and "Open Space." The zone change facilitated development that was consistent with the City's General Plan. Because the proposed zone change and subsequent development of on-site uses was consistent with the General Plan, no significant impacts associated with the changing of the zoning of the Specific Plan area were identified.

Conversion of Agricultural Lands to Non-Agricultural Uses

The Certified EIR indicated that because the Land Evaluation and Site Assessment (LESA) and Land Evaluation (LE) subscore for the Specific Plan did not exceed the 20-point threshold, potential impacts associated with the conversion of the Specific Plan area to developed uses represented a less than significant impact to agricultural resources.

Conflict with an Existing Forest Zone or Loss/Conversion of Forest Lands to Non-Forest Uses

As stated in the Certified EIR, the Specific Plan area was previously designated as "Agriculture-Possible Future Urban Use" and zoned as "Agricultural." Since the Specific Plan area did not have any designated forest land use and was not zoned for timberland uses, rezoning of the Specific Plan area did not conflict with existing forest zoning, cause rezoning of forest land, or result in the loss or conversion of forest lands to non-forest uses. Therefore, no impacts associated with forests were identified in the Certified EIR.

Termination of Williamson Act Contracts

The Certified EIR indicates that the applicant submitted an application to the City to cancel the Williamson Act contract as it applied to the Specific Plan. The application included a Notice of Non-Renewal for the contract only as it applied to the Williamson Act contracted land (totaling approximately 217.38 acres). The City filed a petition with the State Department of Conservation (DOC) for the cancellation of the Land Conservation Contracts (per the Williamson Act) on the applicable 217.38 acres. The DOC reviewed the petition, and on January 13, 2012, issued a letter to the City acknowledging its concurrence with the City's slated cancellation findings required for City Council action on the cancellation request. Because the process to cancel the existing Williamson Act contract for the Specific Plan area had commenced, the Certified EIR found that the Specific Plan would not have resulted in a significant impact to Williamson Act contracts.

3.4.2 Impacts Associated with the Proposed Project:

(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, the same Specific Plan area analyzed in the Certified EIR for impacts to farmlands applies to the proposed project. Since certification of the Certified EIR in 2012, a revised Important Farmland Map has been issued by the Farmland Mapping and Monitoring Program of the California Resources Agency. Based on the revised Important Farmland Map (2012), the amount of Prime and Unique Farmland within the Specific Plan area has decreased since the Certified EIR was certified as a result of its conversion to either "Other Land" or "Farmlands of Local Importance.[1]" Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have lesser impacts than those identified in the Certified EIR and the level of impact (less than significant) has decreased from the level of impact (potentially significant) cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

[1] California Resources Agency Farmland Mapping and Monitoring Program. Important Farmland Map Western Riverside County (2012). Website: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/riv12_w.pdf, accessed June 23, 2015.

(b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, the same Specific Plan area analyzed in the Certified EIR for conflicts with existing zoning for agricultural use and Williamson Act contracts applies to the proposed project. As stated above, adoption of the Specific Plan facilitated development consistent with the City's General Plan, and no additional impacts to zoning for agricultural use were identified after adoption of the Specific Plan. The proposed project would not include any new the land use designations beyond those previously analyzed in the Certified EIR. Therefore, the proposed project would not conflict with an existing zoning for an agricultural use.

A Notice of Non-Renewal for Williamson Act contracted land was initiated in 2003. The Williamson Act contract for lands included within the Specific Plan was tentatively canceled in August 2012 by the City Council. On July 1, 2013, the Riverside County Assessor officially terminated all Williamson Act contracts within the SPA after completion of a mandatory ten-year non-renewal period. Therefore, no lands within the Specific Plan area currently have an existing Williamson Act contract, and no conflicts with Williamson Act contract lands would occur. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have lesser impacts than those identified in the Certified EIR and the level of impact (less than significant) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, the same Specific Plan area analyzed for conflicts with existing zoning for forest land or timberlands applies to the proposed project. The Specific Plan area is not zoned for any forest land or timberland uses. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, the same Specific Plan area analyzed for conversion of forest land to non-forest use applies to the proposed project. The Specific Plan area does not contain, any forest land or timberland uses. Furthermore, there is no forest land or timberland within the vicinity of the

Specific Plan area. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. In addition, no new land use designations are included as part of the proposed project beyond those previously analyzed in the Certified EIR that could result in changes to the existing environment that would convert farmland to non-agricultural uses or forest land to non-forest uses. Aside from the farmlands located on the Specific Plan area, there are no farmlands in the vicinity of the Specific Plan area that would be subject to potential conversion to non-agricultural use, and there are no forest lands in or within the vicinity of the Specific Plan area.[1] Therefore, the Specific Plan would not result in impacts to the existing environment, which due to their location or nature, could convert Farmland to non-agricultural use or forest land to non-forest uses. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact would remain the same as the level cited in the Certified EIR. This topic will not be analyzed further in Chapter 4.0.

3.4.3 Cumulative Impacts Associated with the Proposed Project

Less Than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. As stated previously, the proposed project would not result in increased impacts to agricultural or forest land related to the Certified EIR. No additional designated Farmland would be converted as a result of the proposed project. As stated in the Certified EIR, the City maintains an interim General Plan designation for agricultural uses until such time agricultural land is converted to uses consistent with the General Plan. The cumulative effect of development in the region will continue to result in the conversion of agricultural lands to non-agricultural uses. Because agricultural land, including Prime Farmland, Williamson Act land, and land zoned for agricultural operations, is a finite resource, the conversion of 276 acres of Farmland to urban uses, combined with planned and future development in the City and region, represents a significant cumulative impact to agricultural operations and resources that cannot be mitigated. The proposed project would not, however, create a change that would require further analysis in Chapter 4.0. Therefore, the level of impact would remain the same as the level cited in the Certified EIR. This topic will not be analyzed further in Chapter 4.0.

[1] Ibid.

3.4.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

No mitigation measures related to agricultural and forest resources were outlined in the Certified EIR.

3.5 AIR QUALITY

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or project air quality violation?	☐	☐	☐	☒
c) Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

3.5.1 Summary of Impacts Identified in the Certified EIR

Conflict with or obstruct implementation of the applicable air quality plan

The Certified EIR concluded that because the growth forecasts contained in SCAG's Regional Transportation Plan were used in the South Coast Air Quality Management District's (SCAQMD) regional Air Quality Management Plan (AQMP), and were based on future land use assumptions for the Specific Plan area as provided by the City, the Specific Plan was found to be consistent with the AQMP. Therefore, a less than significant impact would have occurred.

Violate or contribute to a violation of an air quality standard or result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard

The Certified EIR indicated that construction equipment emissions during the anticipated peak construction day for the Specific Plan would have exceeded SCAQMD thresholds for nitrogen oxides (NO_x), and particulate matter (PM_{10}), which was a significant impact that required mitigation. Long-term operational emissions for the Specific Plan were found to exceed SCAQMD daily operational thresholds for carbon monoxide (CO), volatile organic compounds (VOC), NO_x, and PM_{10}, which resulted in a significant unavoidable impact even with mitigation incorporated. Under future conditions with the Specific Plan, the intersections analyzed for the daily peak hour would have experienced 1-hour and 8-hour CO concentrations below Federal and State standards. Because exceedance of the State or Federal 1-hour and 8-hour concentrations would not have occurred, no CO hot spots would have resulted from the Specific Plan, and no impact would have occurred.

Expose sensitive receptors to substantial pollutant concentrations

Emissions from construction activities would have exceeded the SCAQMD localized thresholds for PM_{10}, and would have required mitigation.

Odors

SCAQMD Rule 402 dictated that air discharged from any source shall not cause injury, nuisance, or annoyance to the health, safety, or comfort of the public. With the exception of short-term construction-related odors (e.g., equipment exhaust and asphalt odors), the Certified EIR found that the proposed uses that would have been developed within the Specific Plan would not include uses that were generally considered to generate offensive odors (e.g., agricultural uses, wastewater treatment plants, or landfills). While the application of architectural coatings and installation of asphalt could have generated odors, those odors would have been temporary and would not have likely been noticeable beyond the project boundaries. SCAQMD Rules 1108 and 113 identifies standards regarding the application of asphalt and architectural coatings, respectively. Adherence to applicable provisions of those rules was standard for all development within the Basin, and resulted in a less than significant impact.

3.5.2 Impacts Associated with the Proposed Project

(a) Conflict with or obstruct implementation of the applicable air quality plan.

No Changes or New Information Requiring Major or Minor EIR Revisions. The Specific Plan area is located in the City of Corona, which is part of the South Coast Air Basin (Basin). The Basin includes all of Orange County and non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality within the Basin is under the jurisdiction of the SCAQMD. The SCAQMD has established an AQMP that contains policies and measures to achieve Federal and State standards for improved air quality.

The Specific Plan is subject to the air pollution thresholds established by the SCAQMD, which are published in the CEQA Air Quality Handbook. Furthermore, the Specific Plan must be consistent with the 2012 AQMP for the Basin. Consistency with this plan means that the project is consistent with the goals, objectives, and assumptions established to achieve the Federal and State air quality standards.

The most recently adopted 2012 AQMP has replaced the 2007 AQMP that was relied upon in analyzing air quality impacts as a result of the Specific Plan EIR. Additionally, the composition of the land use designation included in the Specific Plan would change as a result of the proposed project, which may result in changes to emissions levels and air quality impacts compared to those originally forecast in the Certified EIR. However, as discussed in Questions (b) through (d), the updated air quality technical study found that the proposed project's emissions would be no greater than those estimated in the Certified EIR. Land uses under the proposed project are consistent with growth projections used by the SCAQMD in the 2012 AQMP. Mitigation Measures 4.3.6.1A through 4.3.6.1C, 4.3.6.3A, and 4.3.6.4A and 4.3.6.4B from the Certified EIR would be incorporated into the proposed project to reduce emissions. The proposed project is consistent with the impacts identified in the Certified EIR, and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Violate any air quality standard or contribute substantially to an existing or project air quality violation.

(c) Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR. The Basin is currently in Non-attainment status for criteria pollutants including Ozone 1-hour standard, Ozone 8-hour standard, PM_{10}, and $PM_{2.5}$ (State); and Ozone 8-hour standard and $PM_{2.5}$ (Federal). According to the Certified EIR, the Basin was in Non-attainment status for Ozone 1-hour, Ozone 8-hour, PM_{10}, $PM_{2.5}$, and Nitrogen Dioxide (State); and Extreme Non-attainment for Ozone 8-hour, Serious Non-attainment for PM_{10}, and Non-attainment for $PM_{2.5}$ (Federal) at the time when the Certified EIR was prepared for the Specific Plan. Therefore, changes in existing air quality conditions have occurred since approval of the Specific Plan in 2012.

No changes in the location or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. However, the relative share of the land use designations originally included in the Specific Plan would change as a result of the proposed project, including an increase in the proposed residential designated land by 55 acres, a 20-acre decrease in the General Commercial acreage, a 21.1-acre decrease in the Mixed Use I development, removal of 18.6 acres of Mixed Use Development II, a 20.7-acre increase in Open Space, and a 6.5-acre reduction in Parklands. However, the number of residential units would stay the same.

The proposed changes in land use designations would result in different emissions and air quality impacts than those previously analyzed in the Certified EIR as a result of grading, construction activity, and long-term air quality impacts related to vehicular traffic. An updated air quality analysis was completed for the proposed project. Table 3.A compares mitigated construction emissions between the Certified EIR and the proposed project.

Table 3.A: Maximum Daily Mitigated Emissions from Overall Construction

	Pollutant Emissions (lbs/day)					
	CO	**VOC**	**NO_X**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Certified EIR Emissions						
Maximum Daily Emissions	148.22	62.68	217.35	0.26	25.22	16.25
SCAQMD Threshold	550	75	100	150	150	55
Exceeds Threshold?	No	No	**Yes**	No	No	No
Proposed Project Emissions						
Maximum Daily Emissions	140.77	19.74	137.03	0.35	24.43	8.63
SCAQMD Threshold	550	75	100	150	150	55
Exceeds Threshold?	No	No	**Yes**	No	No	No
Difference (proposed project-Certified EIR)	**-7.45**	**-42.94**	**-80.32**	**0.09**	**-0.79**	**-7.62**

CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
VOC = volatile organic compounds
SO_x = sulfur oxides
SCAQMD = South Coast Air Quality Management District
Source: Urban Crossroads, Inc., May 2011; Urban Crossroads, Inc., April 2015

As illustrated in Table 3.A, the proposed project would overall, in pounds per day, have fewer emissions that the original project analyzed in the Certified EIR. However, emissions of NO_X remain significant. Therefore, emissions are reduced under the proposed project but the significant impact remains.

The full build-out of the proposed project would also generate fewer emissions than the Certified EIR. The difference in emissions is depicted in Tables 3.B and 3.C.

Table 3.B: Build-Out Operational Emissions (Summer Scenario)

Operational Activities	Pollutant Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Certified EIR Emissions						
Area Source	65.96	1.57	136.16	0.01	2.92	2.86
Energy Source	1.25	10.71	4.68	0.07	0.86	0.86
Mobile	120.28	279.38	1,139.12	2.45	270.01	16.11
Maximum Daily	187.49	291.66	1,279.96	2.53	273.79	19.86
Threshold	55	55	550	150	150	55
Exceeds Threshold	**Yes**	**Yes**	**Yes**	No	No	No
Proposed Project Emissions						
Area Source	90.54	1.71	148.68	7.87e-3	3.25	3.22
Energy Source	1.28	10.94	4.67	0.07	0.88	0.88
Mobile	39.18	83.63	401.76	1.77	119.16	33.49
Maximum Daily	131.00	96.29	555.11	1.85	123.29	37.60
Threshold	55	55	550	150	150	55
Exceeds Threshold	**Yes**	**Yes**	**Yes**	No	No	No

Table 3.B: Build-Out Operational Emissions (Summer Scenario)

Operational Activities	Pollutant Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Difference (proposed project-Certified EIR)	**-56.49**	**-195.37**	**-724.85**	**-0.68**	**-150.50**	**17.74**

CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
VOC = volatile organic compounds
SO_x = sulfur oxides
SCAQMD = South Coast Air Quality Management District

Source: Urban Crossroads, Inc., May 2011; Urban Crossroads, Inc., April 2015

Table 3.C: Build-Out Operational Emissions (Winter Scenario)

Operational Activities	Pollutant Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Certified EIR Emissions						
Area Source	65.96	1.57	136.16	0.01	2.92	2.86
Energy Source	1.25	10.71	4.68	0.07	0.86	0.86
Mobile	120.28	279.38	1,139.12	2.45	270.01	16.11
Maximum Daily	187.49	291.66	1,279.96	2.53	273.79	19.86
Threshold	55	55	550	150	150	55
Exceeds Threshold	**Yes**	**Yes**	**Yes**	No	No	No
Proposed Project Emissions						
Area Source	90.54	1.71	148.68	7.87e-3	3.25	3.22
Energy Source	1.28	10.94	4.67	0.07	0.88	0.88
Mobile	38.25	86.42	390.06	1.65	119.17	33.50
Maximum Daily	130.07	99.08	543.41	1.73	123.30	37.60
Threshold	55	55	550	150	150	55
Exceeds Threshold	**Yes**	**Yes**	**Yes**	No	No	No
Difference (proposed project-Certified EIR)	**-57.42**	**-192.58**	**-736.55**	**-0.80**	**-150.49**	**17.74**

CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
VOC = volatile organic compounds
SO_x = sulfur oxides
SCAQMD = South Coast Air Quality Management District

Source: Urban Crossroads, Inc., May 2011; Urban Crossroads, Inc., April 2015

The proposed project is anticipated to generate fewer emissions of VOC, NO_X, CO, SO_X, and PM_{10} compared to the original project analyzed in the Certified EIR. However, emissions of NO_X, VOC, and CO remain significant. Therefore, emissions are reduced under the proposed project but the significant impact remains.

(d) Expose sensitive receptors to substantial pollutant concentrations?

Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR. No changes in the location or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The nearest potentially affected sensitive receptor is located at the existing

residential home situated approximately 174 feet west of the project site on Driving Range Road. This distance is consistent with the closest sensitive receptor analyzed in the Certified EIR.

However, the proposed changes in land use designations would result in different impacts than those previously analyzed in the Certified EIR as a result of grading, construction activity, and long-term air quality impacts related to vehicular traffic. An updated air quality analysis was complete for the proposed project. At the time of the original air quality analysis, the accepted methodology was to complete a screening of localized significance and then follow with a modeled localized impact analysis on emissions that exceeded the SCAQMD localized threshold. Therefore, based on the screening that was completed for the Certified EIR only PM_{10} and $PM_{2.5}$ were over the screening thresholds. NO_2 and CO were both determined to be below the SCAQMD localized thresholds in the original project.

Table 3.D compares modeled unmitigated construction localized significant emissions between the Certified EIR and the proposed project.

Table 3.D: Modeled Localized Impacts (Without Mitigation)

	Pollutant Emissions				
	NO_2	**CO 1-hour**	**CO 8-hour**	**PM_{10}**	**$PM_{2.5}$**
Certified EIR Total Concentration	—	—	—	11.25	6.54
Threshold	—	—	—	10.4	10.4
Exceeds Threshold	—	—	—	**Yes**	**No**
Proposed Project Total Concentration	0.08	2.88	2.02	3.43	1.89
Threshold	0.18	20	9	10.4	10.4
Exceeds Threshold	**No**	**No**	**No**	**No**	**No**

CO = carbon monoxide
NO_2 = nitrogen dioxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Source: Urban Crossroads, Inc., May 2011; Urban Crossroads, Inc., April 2015

As illustrated in Table 3.D, the proposed project would, similar to the original project, have less than significant emissions related to NO_2 and CO. Additionally, the proposed project would have significantly fewer modeled emissions related to PM_{10} and $PM_{2.5}$. The proposed project would not have significant localized impacts at the nearest receptor location and would not require any mitigation. Therefore, emissions are reduced under the proposed project and because PM_{10} is not significant in the proposed project, this impact has been eliminated compared to the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(e) Create objectionable odors affecting a substantial number of people?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the land use designations included as part of the proposed project would result in objectionable odors beyond those previously identified in the Certified EIR. Therefore, the Specific Plan would not result in impacts as a result of objectionable odors. No new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the

level of impact (less than significant) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.5.3 Cumulative Impacts Associated with the Proposed Project

New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR. Overall, impacts to air quality from the proposed project compared to the Certified EIR are reduced. Significant impacts identified in the Certified EIR would remain significant with the exception of impacts to sensitive receptors, in which the proposed project would eliminate an impact found significant by the Certified EIR. The Certified EIR found that short-term air quality impacts and CO hot spot impacts would not be cumulatively significant; this conclusion remains the same for the proposed project since it would generate decreased air pollutant emissions. Long-term regional air pollutant emissions would still be significant under the proposed project, albeit reduced. The Basin is currently in non-attainment status for criteria pollutants including Ozone 1-hour standard, Ozone 8-hour standard, PM_{10}, and $PM_{2.5}$ (State); and Ozone 8-hour standard and $PM_{2.5}$ (Federal). The operation of the proposed project would exacerbate non-attainment of air quality standards within the Basin and contribute to adverse cumulative air quality impacts, creating a cumulatively significant and unavoidable impact. Impacts would remain at the same level of significance as the Certified EIR, with the exception of one being reduced to less than significant. No further analysis is required in Chapter 4.0.

3.5.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

The following mitigation measures were included in the Certified EIR, and have been determined relevant to the proposed project:

Mitigation Measure 4.3.6.1.A: Prior to the issuance of a grading permit, the project developer shall require by contract specifications that contractors shall place construction equipment staging areas at least 200 feet away from sensitive receptors. Contract specifications should be included in the Specific Plan construction documents, which shall be reviewed by the City.

Mitigation Measure 4.3.6.1.B: Prior to the issuance of a grading permit, the project developer shall require by contract specifications that contractors shall utilize power sources (e.g., power poles) or clean-fuel generators. Contract specifications should be included in the Specific Plan construction documents, which shall be reviewed by the City.

Mitigation Measure 4.3.6.1.C: Prior to the issuance of a grading permit, the project developer shall require contract specifications that contractors shall utilize California Air Resources Board (CARB) Tier II Certified equipment or better during the rough/mass grading phase for the following pieces of equipment: Rubber-tired dozers and scrapers. Contract specifications shall be included in the Specific Plan construction documents, which shall be reviewed by the City.

~~**Mitigation Measure 4.3.6.1D:** Prior to issuance of building permits, the project applicant shall provide evidence to the City that his contractor uses 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) to the extent feasible. If the project applicant and his~~

~~contractor determine that 2010 model year or newer diesel trucks cannot be obtained, the project applicant shall notify the City that trucks with EPA 2007 model year NOx emissions shall be utilized.~~

~~**Mitigation Measure 4.3.6.1E:** Prior to issuance of building permits, the project applicant shall provide evidence to the City that his contractor use on-site construction equipment that meet EPA Tier 3 or higher emissions standards according to the following schedule:~~

- ~~Prior to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 horse power (hp) shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.~~
- ~~Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.~~
- ~~A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.~~

~~**Mitigation Measure 4.3.6.1F:** The City shall encourage construction contractors to apply for SCAQMD "SOON" funds by advising project applicants and their contractors of this programs availability. Information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm.~~

Mitigation Measure 4.3.6.3.A: Prior to the issuance of each building permit, the project applicant shall require by contract specifications that architectural coatings require the use of either HVLP spraying equipment or manual application techniques to apply architectural coatings. Contract specifications shall be included in the Specific Plan construction documents, which shall be reviewed by the City.

Mitigation Measure 4.3.6.4.A: Prior to issuance of each building permit associated with the Specific Plan, building and site plan designs shall ensure that the project's energy efficiencies surpass applicable 2008 California Title 24, Part 6 Energy Efficiency Standards by a minimum of 20 percent. Verification of increased energy efficiencies shall be documented in Title 24 Compliance Reports provided by the Applicant, and reviewed and approved by the City. Any combination of the following design features may be used to fulfill this requirement provided that the total increase in energy efficiency meets or exceeds 20 percent:

- Exceed 2008 California Title 24 Energy Efficiency performance standards for water heating and space heating and cooling.
- Increase in insulation such that heat transfer and thermal bridging is minimized.

- Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.
- Incorporate dual-paned or other energy efficient windows.
- Incorporate energy-efficient space heating and cooling equipment.
- Install interior and exterior energy-efficient lighting which exceeds the 2008 California Title 24 Energy Efficiency performance standards including but not limited to automatic devices to turn off lights when they are not needed
- To the extent that they are compatible with landscaping guidelines established by the City, include shade-producing trees, particularly those that shade paved surfaces such as streets and parking lots and buildings, within the Specific Plan area.
- Use light and off-white colors in the paint and surface color palette for project buildings to reflect heat away.
- All buildings shall be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design.

Mitigation Measure 4.3.6.4B: Prior to issuance of each building permit associated with the Specific Plan, the following design features shall be implemented to reduce energy demand associated with potable water conveyance:

- Landscaping palette emphasizing drought-tolerant plants;
- Use of water-efficient irrigation techniques; and
- U.S. EPA Certified WaterSense Labeled or equivalent faucets, high efficiency toilets (HETs), and water-conserving shower heads.

~~**Mitigation Measure 4.3.6.4C:** The developer shall install electric car charging station for non-residential land uses.~~

~~**Mitigation Measure 4.3.6.4D:** The developer shall designated areas for parking of zero emissions vehicles (ZEVs) for car sharing programs in the non-residential land uses.~~

~~**Mitigation Measure 4.3.6.4E:** The developer shall provide electric car charging infrastructure for multi-family residential, commercial and light industrial land uses.~~

~~**Mitigation Measure 4.3.6.4F:** The businesses within the commercial and light industrial land uses shall provide incentives for employees and the public to use public transportation such as discounted transit passes, reduced ticket prices, and/or other incentives. These incentive programs shall be provided to the City for review and approval prior to issuance of building licenses for those businesses located within the Specific Plan.~~

~~**Mitigation Measure 4.3.6.4G:** The businesses within the commercial and light industrial land uses shall Implement a rideshare program for employees.~~

~~**Mitigation Measure 4.3.6.4H:** The developer(s) within the multifamily and single family developments shall provide outside electric outlets and natural gas stub outs.~~

3.6 BIOLOGICAL RESOURCES

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.6.1 Summary of Impacts Identified in the Certified EIR

Endangered, Threatened, and Non-Listed Special Status Species

According to the Certified EIR, of the 70 special-status plant species and 62 special status animal species known to occur in the project vicinity, 16 plant and 17 animal species were designated as endangered or threatened by State and/or Federal agencies. However, it was determined that these species were absent from the Specific Plan area when surveys for the Certified EIR were conducted, due to the lack of suitable habitat in the Biological Study Area (BSA) or the results of focused biological resource surveys. Coastal California gnatcatcher (*Polioptila californica californica*) was the only endangered or threatened species with a potential to occur in the BSA. This species was not detected during site visits; however, suitable habitat occurred in the Riversidean sage scrub communities. The coastal California gnatcatcher was designated as a Covered Species Adequately Conserved under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) with no additional conservation requirements. However, vegetation clearing of occupied habitat with Public/Quasi Public lands and Criteria Area between March 1 and August 15 was prohibited. This was a significant impact identified in the Certified EIR that would require mitigation.

According to the Certified EIR, 19 of the special-status wildlife species identified within the project vicinity had the potential to occur within the Specific Plan site. Seven of these species were observed during site surveys. All of the special status species observed during site surveys were covered under the take and incidental take provisions of the MSHCP and potential impacts to these were mitigated for by participation in the MSHCP.

Twelve of the special-status wildlife species identified within the project vicinity had a low or moderate potential to occur within the Riversidean alluvial fan sage scrub habitat but were not observed during surveys. Ten of those species were Covered Species under the MSHCP and potential impacts to those species were mitigated for by participation in the MSHCP. Suitable habitat for the remaining two species, rosy boa (*Charina itrivirgata*) and western mastiff bat (*Eumops peroti californicus*), would not have been impacted by the Specific Plan.

According to the Certified EIR, the Specific Plan site is located within the MSHCP Burrowing Owl Survey Area. Due to the presence of suitable burrowing owl (*Athene cunicularia*) habitat throughout the proposed Specific Plan area, focused surveys for burrowing owl were conducted within the Specific Plan site and a 150-meter buffer area in 2009 and 2010. The focused burrowing owl survey determined that no burrowing owls, potential burrowing owl burrows, or diagnostic signs (e.g., whitewash, pellets, bones, or feathers) of burrowing owl were observed within the Specific Plan site or the 150-meter buffer area. While no burrowing owls were identified within the Specific Plan's area of disturbance, because suitable habitat is present within the study area for the burrowing owl and because the species is highly mobile, a potential for impacts to this species occupying the site prior to development was found to exist, resulting in a potentially significant impact that required mitigation.

As discussed in the Certified EIR, the Specific Plan would have removed vegetation suitable for nesting migratory birds, including raptors. Impacts to nesting migratory birds were prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Because suitable habitat to support nesting migratory birds was present within the Specific Plan area, a potential for impacts to species that occupy the site prior to development existed, which required mitigation.

Sixteen special-status plant species were reported to have the potential to occur within the Specific Plan area. One special status species, Coulter's Matilija poppy (*Romneya coulteri*), was observed within the site boundaries during biological surveys. Coulter's Matilija poppy was described by the California Native Plant Society (CNPS) as "limited in distribution or infrequent throughout a broad area in California, and their vulnerability or susceptibility to threat appears relatively low at this time." CNPS also described Coulter's Matilija poppy as fairly threatened in California with a moderate degree/immediacy of threat.

Coulter's Matilija poppy was designated as an MSHCP Riparian/Riverine species listed in Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools as well as a Group 1 species.

There were no MSHCP species-specific survey requirements for Coulter's Matilija poppy; however, Coulter's Matilija poppy received protection under Section 6.1.2 of the MSHCP. Coulter's Matilija poppy was not a fully covered species under the MSHCP and the MSHCP would not have afforded complete coverage for take of the Coulter's Matilija poppy until the specific conservation objectives in the MSHCP were met.

According to the Certified EIR, as the Specific Plan site was not located on Forest Service and/or Public/Quasi Public Lands, Objective 1 did not apply and, since there were not species-specific survey requirements, the specific conservation objectives were expected to be accrued within designated MSHCP Criteria Areas. In addition, Coulter's Matilija poppy or the land it inhabited on site did not represent more than one quarter section. As such, in combination with the proposed Specific Plan area being located outside of any MSHCP criteria areas, the MSHCP would not have applied to conservation of the proposed Specific Plan area to fulfill the specific conservation objectives under the MSHCP for the species. Impacts to the species were considered less than significant.

Sensitive Natural Communities

As stated in the Certified EIR, the Specific Plan was designed to reduce impacts to native habitat, and 25.17 acres of native habitat within the Specific Plan area were proposed for inclusion as permanent open space. Because the Specific Plan was consistent with measures to reduce impacts to habitat contained in the MSHCP, impacts to Disturbed Riversidean Sage Scrub, Riversidean Sage Scrub, and Riversidean Sage Scrub/Chaparral habitats were not considered significant.

In addition, the Certified EIR discusses the Willow Trees vegetation community located within the Specific Plan area associated with a small manmade pond in the eastern portion of the study area analyzed in the Certified EIR. This community was considered to be artificially created and, therefore, impacts to this vegetation community were found to not be significant.

Pursuant to the terms of the MSHCP and Implementing Agreement with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), compliance with provisions of the MSHCP provides full mitigation under CEQA, Federal Endangered Species Act (FESA), and California Endangered Species Act (CESA) for impacts to the species and habitats covered by the MSHCP. Therefore, impacts to sensitive communities would be reduced to a less than significant level.

Jurisdictional Waters, Wetlands and/or Riparian Areas

Development of the Specific Plan would necessitate the removal of some of the existing on-site U.S. Army Corps of Engineers (USACE) jurisdictional areas. As stated in the Certified EIR, the Specific Plan would have permanently impacted approximately 0.33 acre and temporarily impacted approximately 1.82 acres of USACE jurisdictional non-wetland waters. No USACE jurisdictional wetlands would have been impacted. Impacts to USACE jurisdictional areas would have resulted in a potentially significant impact.

Development of the Specific Plan would have necessitated the removal of existing on-site CDFW jurisdictional areas. The Specific Plan would have permanently impacted approximately 0.34 acre and caused temporarily impact to approximately 1.82 acres of CDFW jurisdictional areas. Less than 0.01 acre of temporarily impacted areas would have been to vegetated riparian habitat. All remaining impacts to CDFW jurisdictional areas would have been to unvegetated streambeds. Impacts to CDFW jurisdictional areas would have resulted in a potentially significant impact. Loss of CDFW jurisdictional streambed and riparian habitat were found to be potentially significant impact.

The Specific Plan would have resulted in permanent impacts to 0.34 acre of unvegetated streambed and temporary impacts to 1.82 acres of unvegetated streambed and less than 0.01 acre of vegetated riparian habitat associated with a streambed. Unvegetated streambed and vegetated riparian habitat met the definition of MSHCP riparian/riverine areas. The riparian/riverine areas within the Specific Plan site did not provide suitable habitat for any riparian/riverine or vernal pool species identified in Section 6.1.2 of the MSHCP. Impacts to MSHCP Riparian/Riverine areas resulted in a potentially significant impact.

Habitat Fragmentation

As discussed in the Certified EIR, the Specific Plan site and surrounding areas were previously disturbed and diminished in quality either through past agricultural uses or the development of

residential and commercial uses. The Specific Plan site was isolated from nearby open space by surrounding development. Bedford Wash provided movement for wildlife from the Santa Ana Mountains west of the BSA to Temescal Creek east of the BSA. The Certified EIR indicated that this wildlife corridor would be widened and maintained in a semi-natural condition as an earthen bottomed channel and concrete sides as part of the Specific Plan design. Additionally, the Certified EIR states that Bedford Wash would have also been modified at the culvert adjacent to I-15 as part of a future Caltrans transportation improvement project. Due to the disturbed condition of the development sites and adjacent areas, the Certified EIR found that development of the Specific Plan would not have resulted in significant habitat fragmentation or substantially affect established wildlife corridors or wildlife movement.

Adopted Habitat Conservation Plans

According to the Certified EIR, although the Specific Plan site was not within any conservation area delineated in the MSHCP, the Specific Plan was still subject to provisions of the MSHCP. The Specific Plan proponent would have been required to provide payment of mitigation fees and adhere to the requirements established in the MSHCP. The City has adopted a Local Development Mitigation Fee to assist in the acquisition and maintenance of natural ecosystems pursuant to the terms of the MSHCP and Implementing Agreement with the USFWS and the CDFW. Compliance with provisions of the MSHCP provided full mitigation under CEQA, FESA, and CESA for impacts to the species and habitats covered by the MSHCP. Therefore, impacts associated with compatibility of the Specific Plan to the adopted provisions of the MSHCP would have been reduced to a less than significant level.

3.6.2 Impacts Associated with the Proposed Project

(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. The area encompassed by the Specific Plan is located near the foothills of the Santa Ana Mountains, within a largely urbanized area of the City. The majority of the site is a flat, fallow field that is currently vacant. Since approval of the Specific Plan in 2012, the amount and type of suitable habitat and types of candidate, sensitive, or special status species within the Specific Plan area may have changed within the Specific Plan area. Therefore, an Updated Biological Technical report was prepared in November 2014 and incorporated the findings from the 2012 Biological Technical Report and the 2012 updated Memorandum, which were completed for the Certified EIR. The Updated Biological Technical Report identified the same 12 vegetation communities as those present during the surveys done for the Certified EIR.

According to the Certified EIR, the threatened coastal California gnatcatcher has the potential to occur in the area included within and surrounding the Specific Plan site. This species was not detected during site visits; however, suitable habitat occurs in the Riversidean sage scrub communities that would be cleared as a result of the proposed project. According to the Updated Biological Technical

Report, however, the coastal California gnatcatcher was not observed during 2008, 2010, and 2014 surveys, and has a moderate potential to occur on site. Mitigation Measure 4.4.5.1A from the Certified EIR would be incorporated into the proposed project to reduce impacts to the California gnatcatcher. The proposed project is consistent with the impacts identified in the Certified EIR, and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

Nineteen of the special-status wildlife species identified within the project vicinity have the potential to occur within the Specific Plan site and 12 of the special-status wildlife species identified within the project vicinity have a low or moderate potential to occur within the Riversidean sage scrub habitat. Similar to the 2010 Biological Technical Report and 2012 Biological Update Memo, the Updated Biological Technical Report identified 13 sensitive species. The Updated Biological Technical Report determined that any impact to these species would be less than significant due to the expectation that wildlife would reoccupy adjacent habitat following completion of construction of the project. In addition, suitable breeding/foraging habitat is present in the avoided open spaces of the project and surrounding project vicinity. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

The Specific Plan site is located within the MSHCP Burrowing Owl Survey Area. Due to the presence of suitable burrowing owl habitat throughout the Specific Plan site, the potential for impacts to this species to occupy the site prior to development exists resulting in a potentially significant impact requiring mitigation. The Specific Plan would remove vegetation suitable for nesting migratory birds, including raptors. Because suitable habitat to support nesting migratory birds is present within the Specific Plan area, a potential for impacts to species that occupy the site prior to development exists. Mitigation Measures 4.4.5.2A and 4.4.5.2B from the Certified EIR would be incorporated into the proposed project to reduce impacts to the California gnatcatcher. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b). Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Change in Circumstance or New Information Requiring Major or Minor EIR Revisions. As stated previously, in its existing condition, the Specific Plan site is a vacant, fallow field. Therefore, no changes in the size, location or boundaries of the Specific Plan as a result of the proposed project would result in impacts to any species identified as candidate, sensitive, or special status. No new areas not previously evaluated in the Certified EIR that may contain riparian habitat or other sensitive natural communities would be affected by the proposed project. However, during a site visit with the Resource Agencies on September 3, 2015, a new jurisdictional drainage was identified. Referred to as Tributary D, the jurisdictional drainage is a mostly unvegetated ephemeral swale located on top of the bluff to the southeast of Bedford Canyon Wash. The new off-site jurisdictional drainage has a small area of riparian habitat in the form of mule fat scrub (*Baccharis salicifolia*) that will be affected, and is subject to Riverine/Riparian policy under the MSHCP. The swale was determined to be Waters of the State and not Waters of the United States. Because the Specific Plan is consistent with measures to reduce impacts to habitat contained in the MSHCP, impacts to Disturbed Riversidean Sage Scrub,

Riversidean Sage Scrub, and Riversidean Sage Scrub/Chaparral habitats would not be significant pursuant to the terms of the MSHCP and Implementing Agreement with the USFWS and the CDFW. Compliance with provisions of the MSHCP provides full mitigation under CEQA, FESA, and CESA for impacts to the species and habitats covered by the MSHCP. Therefore, substantially greater impacts would not occur with implementation of the proposed project when compared to those identified in the Certified EIR. However, there is a potential that the proposed project will have an incrementally greater impact than was identified in the Certified EIR.

The Specific Plan Amendment includes three options to convey storm flows either through or around Bedford Canyon Wash, as generally described below:

- Option 1: Concrete-Lined Bypass Channel
    - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
    - Diversion structure to maintain 150 cubic feet per second (cfs) within Bedford Canyon Wash and divert all higher flows into concrete-lined bypass channel.
    - At downstream portion of the site, the bypass channel would discharge flows into a "plunge pool" to reduce velocities before reconnecting to Bedford Canyon Wash near the downstream property line.
    - Concrete-lined bypass channel measures approximately 46 feet wide at the bottom
- Option 2: Soft Bottom Bypass Channel
    - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
    - Bypass channel excavated lower in elevation than adjacent "B" Street and building pads.
    - Buried riprap rock on both sides of bypass channel and buried grade control structures.
    - Alluvial fan sage scrub vegetation planted in soft bottom and above buried riprap banks.
    - Nominal low flows may remain in Bedford Canyon Wash during storm events.
    - Soft bottom bypass channel measures approximately 82 feet wide at the bottom.
- Option 3: Reestablish Bedford Canyon Wash
    - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
    - Bedford Canyon Wash excavated lower in elevation than adjacent "B" Street.
    - Buried riprap rock on both sides of bypass channel and buried grade control structures.
    - All flows captured in Bedford Canyon Wash.
    - Alluvial fan sage scrub vegetation planted in soft bottom and above buried riprap banks.
    - Reestablished Bedford Canyon Wash widened to approximately 140 feet.

All three design options would occur within the boundaries of the Specific Plan analyzed in the Final EIR, plus a debris basin located off site, south of the Specific Plan boundary. This area was analyzed

in the Final EIR and in 2015 as part of the updated biological studies. The proposed changes in drainage facilities represent a substantial change in the project that may cause new impacts not addressed in the Certified EIR. Therefore, these changes shall be considered further in Chapter 4.3.

(c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, there are no new areas not previously analyzed in the Certified EIR that may contain federally protected wetlands as defined by Section 404 of the Clean Water Act. Given the existing condition of the Specific Plan area as a vacant, fallow field previously disturbed and diminished in quality either through past agricultural uses or the development of adjacent residential and commercial uses within an urbanized part of the City, new wetlands have not developed within the Specific Plan area since completion of the Certified EIR. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Changes or New Information Requiring Major or Minor EIR Revisions. As stated previously, in its existing condition, the Specific Plan site is a vacant, fallow field previously disturbed and diminished in quality either through past agricultural uses or the development of adjacent residential and commercial uses. The area encompassed by the Specific Plan is located near the foothills of the Santa Ana Mountains, within a largely urbanized area of the City. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new area not previously analyzed in the Certified EIR would encroach into a wildlife corridor or wildlife nursery site. As discussed in the Certified EIR, improvements to the Bedford Wash wildlife corridor would still be included as part of the proposed project under all three design options. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have similar or fewer impacts as those identified in the Certified EIR and the level of impact (less than significant) would remain the same as the level cited in the Certified EIR This impact will not be evaluated further in Chapter 4.0.

(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Changes or New Information Requiring Major or Minor EIR Revisions. The Certified EIR did not identify any local policies or ordinances protecting biological resources. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of

the Specific Plan. Therefore, no new areas are included as part of the proposed project that would result in a change in the jurisdiction for any local policies or ordinances protecting biological resources. No local policies or ordinances protecting biological resources have been adopted since approval of the Specific Plan. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact (no impact) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. According to the Certified EIR, the Specific Plan is not within any conservation area delineated in the MSHCP. No changes in the area covered by the MSHCP have occurred since the Specific Plan was approved in 2012. The Specific Plan proponent will still be required to provide payment of mitigation fees and adhere to the requirements established in the MSHCP under the proposed project. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact (less than significant impact) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.6.3 Cumulative Impacts Associated with the Proposed Project

Less Than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. As stated previously, the location and boundaries of the proposed project have not changed from those analyzed in the Certified EIR. Mitigation Measures from the Certified EIR and the payment of MSHCP fees would reduce all project-specific and cumulative impacts to a less than significant level. Therefore, the proposed project would have the same impacts are those identified in the Certified EIR, and the level of impact would not change. Cumulative biological impacts will not be evaluated further in Chapter 4.0.

3.6.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The following mitigation measures from the Certified EIR were found to be applicable to the proposed project with minor revisions:

Mitigation Measure 4.4.5.1A: ~~If habitat suitable to support the coastal California gnatcatcher is to be removed between March 1 and August 15, focused surveys shall first be conducted to determine if the habitat is occupied by gnatcatcher. If gnatcatchers are present and are determined to be nesting, the occupied areas will be avoided until after August 15.~~ If grading and construction activities begin during the California gnatcatcher breeding season (February 15 through August 30), a qualified

biologist shall survey all potential nesting vegetation within and adjacent to the site for nesting birds, prior to commencing vegetation removal. Surveys shall be conducted at the appropriate time of day. If no nesting birds were observed, Project activities may begin. If an active bird nest is located, the nest site shall be fenced a minimum of 500 feet in all directions, and this area shall not be disturbed until after the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, or the young will no longer be impacted by the activities. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas provided the qualified biologist develops a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). This monitoring plan will be submitted to the City of Corona for approval prior to work within the buffer.

Mitigation Measure 4.4.5.2A: Pre-construction presence/absence surveys for burrowing owl within the survey area where suitable habitat is present shall be conducted by a qualified biologist (as determined by ~~per~~ the City of Corona) within 30 days prior to the commencement of ground-disturbing activities.

If active burrowing owl burrows are detected during the breeding season, all work within 300 feet of any active burrow will be halted until that nesting effort is finished. The on-site biologist will review and verify compliance with these boundaries and will verify the nesting effort has finished. Work can resume when no other active burrowing owl burrows ~~nests~~ are found.

If active burrowing owl burrows are detected outside the breeding season, then passive and/or active relocation may be approved following consultation with CDFW~~G~~ and/or USFWS. If owls are found to be present on site, the CDFW should be notified within three days of the detection of occupied burrows, and a project burrowing owl conservation strategy should be developed in cooperation with the CDFW, USFWS, and the Western Riverside County Regional Conservation Authority. ~~The installation of~~ One-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and backfilled to ensure that animals do not reenter the holes/dens.

Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping.

Mitigation Measure 4.4.5.2B: The removal of potential nesting bird habitat will be conducted outside of the nesting season (February 1 to August 31) to the extent feasible. If grading or site disturbance is to occur between February 1 and August 31, a nesting bird survey shall be conducted by a qualified biologist (~~per~~ as determined by the City of Corona) within no more than 72 hours of scheduled vegetation removal, to determine the presence of nests or nesting birds. If active nests are identified, the biologist will establish buffers around the vegetation (500 feet for raptors, 200 feet for non-raptors). All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The on-site biologist will review and verify compliance with these nesting boundaries and will verify the nesting effort has finished. Work can resume when no other active nests are found. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping. If vegetation clearing is not completed within 72 hours of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.

Mitigation Measure 4.4.5.3A: Prior to the issuance of grading permits for the affected areas, the project applicant shall provide evidence to the City that a Section 404 Permit from the USACE, a Section 401 Permit from the Regional Water Quality Control Board (RWQCB), and a Section 1602 Streambed Alteration Agreement from the CDF~~G~~W have been obtained for impacts to jurisdictional waters in the Specific Plan area.

~~Compensation to mitigate for the permanent loss of 0.34 acre of USACE and CDFG jurisdictional areas would be mitigated at a minimum 1:1 ratio through participation in a USACE and/or CDFG approved mitigation bank and/or in lieu fee program, as discussed in Mitigation Measure 4.4.5.3C, or other manner approved by the USACE and CDFG through the permitting process.~~

Mitigation Measure 4.4.5.3B: Prior to the issuance of grading permits for the affected areas, a Determination of Biological Superior or Equivalent Preservation (DBESP) shall be submitted to the Riverside Conservation Authority (RCA) identifying potential impacts to riparian/riverine areas, discussing why avoidance of impacts to riparian/riverine areas was not feasible, and identifying compensation for the loss of riparian/riverine areas. ~~Due to the programmatic nature of this study, it is anticipated that project-specific measures will be identified in a DBESP that will be prepared for each applicable project within the Arantine Hills Specific Plan area at the time it is submitted to the City for approval.~~

Mitigation Measure 4.4.5.3C: ~~Compensation to~~ The Applicant shall mitigate for the permanent loss of ~~0.34 acre of~~ USACE and CDF~~G~~W jurisdictional and MSHCP riparian/riverine resources on site ~~the following shall be implemented:~~ at a 2:1 ratio. Mitigation may occur on site within Bedford Canyon Wash or one of its tributaries; mitigation may occur through applicant-sponsored mitigation at an off-site location within the MSHCP boundaries; or mitigation may occur through purchase of credits at an approved mitigation bank or in-lieu fee program such as the Santa Ana Watershed Association (SAWA) In-Lieu Fee Wetland Creation Program or equivalent, if available. One potential off-site location for applicant sponsored mitigation is a property known as Altfillisch located in the City of Eastvale, along the Santa Ana River. A portion of the Altfillisch property would be enhanced through removal of invasive plant species and a conservation easement (CE) would be placed on the land. A third-party entity approved by the CDFW would conduct the work for CE compliance and provide long-term management. The CE would be in favor of a conservancy, such as the Riverside-Corona Resource Conservation District (RCRCD).

~~The applicant shall pay a one-time in-lieu fee to a USACE and/or CDFG approved mitigation bank and/or in lieu fee program, such as the Santa Ana Watershed Association (SAWA) In-Lieu Fee Wetland Creation Program or the Riverside County Regional Park and Open Space District Santa Ana River Mitigation Bank (SARMB), for the purchase of no less than 0.68 acre (2:1 ratio) of vegetated riparian and/or wetland habitat creation. Participation in the mitigation bank or in-lieu fee program shall ensure that conservation is in perpetuity.~~

Mitigation Measure 4.4.5.3D: Following the completion of grading, ~~1.82 acres~~ all of USACE and CDF~~G~~W jurisdictional areas that will be temporarily impacted shall be restored using native vegetation and soils~~to pre-project conditions following completion of grading~~.

Mitigation Measure 4.4.5.3.E: For Bedford Canyon Wash design options 2 and 3, it is anticipated that periodic maintenance may be necessary within the soft bottom channel/Bedford Canyon Wash, such as trash and invasive species removal riprap and grade control structure repair; therefore, an

Operations and Maintenance Manual or Long Term Management Plan shall be prepared, subject to the approval of the Resource Agencies, which will identify the appropriate methods and timing regarding the maintenance of the restored wash.

3.7 CULTURAL RESOURCES

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resources as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resources pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

3.7.1 Summary of Impacts Identified in the Certified EIR

Historic Resources

According to the Certified EIR, there were no historic resources, historic features, or historic structures located within the Specific Plan limits. No evidence of past structures or unique features was identified, nor was evidence of such structures identified during the on-site cultural resource survey. As no evidence was identified to suggest the presence of past or current structures within the area of the Specific Plan, potential impacts related to historic structures or features were less than significant.

Human Remains

As stated in the Certified EIR, the area encompassed by the Specific Plan was undeveloped. No evidence suggesting the area had been utilized in the past for human burials was identified. In the

unlikely event human remains were discovered during grading or construction activities within the area, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would have been required. These requirements were imposed on any construction activity in which human remains are detected. Compliance with State law would have ensured that impacts related to the discovery of buried human remains would have been less than significant.

Archaeological Resources

According to the Certified EIR, archaeological surveys conducted within the Specific Plan limits revealed no archaeological or cultural resources. However, during separate SB 18 consultations with the Pechanga and Soboba Tribes, the Tribes requested that Native American monitors be present on site during all clearing, rough grading, and excavation activities due to the potential for such activities to unearth ancient remains and related artifacts from sacred burial sites. In order to ensure that cultural resources were identified during earthmoving activities, a qualified archaeologist would have been retained. While the possibility of finding archaeological resources was remote for the Specific Plan area, grading on the site would have been required. On-site excavation could have uncovered previously undetected subsurface archaeological resources which resulted in a significant impact.

Paleontological Resources

As discussed in the Certified EIR, portions of the Specific Plan area along the south side of Bedford Wash in Planning Areas 17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, and 15 (in the northeast quarter of Section 20, and southwest quarter of Section 16) were located on sediments of middle to late Pleistocene age. In addition, Riverside County showed these portions of the Specific Plan area as a High paleontological sensitivity indicating that fossils were likely to be encountered at or below four feet below ground surface. These fossils could have been impacted during excavation and construction activities. Therefore, a Paleontological Resource Impact Mitigation Program (PRIMP), including excavation monitoring by a qualified paleontologist, was recommended for earthmoving activities in Pleistocene sediments on the Specific Plan area with potential to contain significant, nonrenewable paleontological resources to reduce the potential significant effect of construction activities on paleontological resources.

In addition, the City of Corona General Plan Policies 4.3.6 and 4.3.7 required monitoring by a qualified paleontologist when earth-disturbing activities were to take place in soils or rock units having reasonable paleontological potential.

3.7.2 Impacts Associated with the Proposed Project

(a) Cause a substantial adverse change in the significance of a historical resources as defined in §15064.5?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no changes have occurred that may have resulted in the inclusion of a historic resource within the Specific Plan area not previously identified in the Certified EIR. As indicated in the Certified EIR, there are no historic resources, historic features, or historic structures located within the Specific Plan limits. Therefore, no changes to the potential for historic resources would occur as a result of the proposed project and, no new or substantially greater impacts would

occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact (no impact) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Cause a substantial adverse change in the significance of an archaeological resources pursuant to §15064.5?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no changes have occurred that may have resulted in the inclusion of a site within the Specific Plan area not previously identified in the Certified EIR with the potential to produce archaeological resources. The archaeological surveys conducted within the Specific Plan limits for the Certified EIR revealed no archaeological or cultural resources. As discussed in the Certified EIR, as requested by the Pechanga and Soboba Tribes, Native American monitors would be required to be present on site during all clearing, rough grading, and excavation activities due to the potential for such activities to unearth ancient remains and related artifacts from sacred burial sites. In order to ensure that cultural resources are identified during earthmoving activities, a qualified archaeologist shall be retained. While the possibility of finding archaeological resources is remote for the Specific Plan area, grading on the site would be required. Therefore, no changes to the potential for archaeological resources would occur as a result of the proposed project and no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact (less than significant with mitigation) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no changes have occurred that may have resulted in the inclusion of a site within the Specific Plan area not previously identified in the Certified EIR with the potential to produce paleontological resources. As discussed in the Certified EIR, portions of the Specific Plan area along the south side of Bedford Wash in Planning Areas 17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, and 15 (in the northeast quarter of Section 20, and southwest quarter of Section 16) are located on sediments of middle to late Pleistocene age. In addition, Riverside County shows these portions of the Specific Plan area as a High paleontological sensitivity indicating that fossils are likely to be encountered at or below four feet below ground surface. These fossils may be impacted during excavation and construction activities. Therefore, a PRIMP, including excavation monitoring by a qualified paleontologist, remains recommended for earthmoving activities in Pleistocene sediments within the Specific Plan Area with potential to contain significant, nonrenewable paleontological resources to reduce the potential significant effect of construction activities on paleontological resources. In addition, the City of Corona General Plan Policies 4.3.6 and 4.3.7 require monitoring by a qualified paleontologist when earth-disturbing activities take place in soils or rock units having

reasonable paleontological potential. Therefore, no changes to the potential to encounter paleontological resources would occur as a result of the proposed project and no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact (less than significant with mitigation) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(d) Disturb any human remains, including those interred outside of formal cemeteries?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no changes have occurred that may have resulted in the inclusion of an area not previously analyzed in the Certified EIR that may have the potential for buried human remains. No evidence suggesting the area has been utilized in the past for human burials has been identified in the approved Specific Plan area. As specified in the Certified EIR, in the unlikely event human remains are discovered during grading or construction activities within the area, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would be required. These requirements are imposed on any construction activity in which human remains are detected. Therefore, no changes to the potential to encounter human remains would occur as a result of the proposed project and no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact (no impact) would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.7.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Certified EIR in 2012. Project-specific impacts to cultural resources are therefore unchanged between the proposed project and the Certified EIR. The Certified EIR found that potential impacts associated with human remains would be reduced to a less than significant level through adherence to existing State law. There are no projects that would, in combination with the proposed project, result in any significant cumulative impacts on historical, archaeological, or paleontological resources, or in impacts to human remains. The proposed project, like the project analyzed in the Certified EIR and like any other projects within the City, would be required to adhere to similar mitigation measures that would reduce the potential for any individual or cumulative impacts. Therefore, the level of impact (less than significant) for cumulative cultural resources would remain the same as the level cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.7.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The following mitigation measures from the Certified EIR were found to be applicable to the proposed project with some minor revisions due to the reorganization of the proposed planning areas.

Mitigation Measure 4.5.6.1A: The applicant shall retain a qualified archaeological monitor who shall prepare an Archaeological Resources Mitigation Monitoring Plan in consultation with the Native American Tribe. The qualified archaeological monitor shall attend all pre-grading meetings to inform the grading and excavation contractors of the archaeological resources mitigation program and shall instruct them with respect to its implementation. The qualified archaeological monitor shall be on site at all times during the initial phases of clearing and rough grading to inspect cuts for archaeological resources. If such resources are discovered and are in danger of loss and/or destruction, the qualified archaeological monitor shall recover them. In instances where recovery requires an extended salvage time, the qualified archaeological monitor shall be allowed to temporarily direct, divert, or halt grading to allow recovery of resource(s) in a timely manner. Recovered archaeological resources, along with copies of pertinent field notes, photographs, and maps, shall be deposited in a certified curation facility that meets the standards of the California Office of Historical Preservation. The resources shall be recorded in the California Archaeological Inventory Database. All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible. A final monitoring report shall be submitted to the City within 30 days of the end of monitoring activities.

Mitigation Measure 4.5.6.1B: All grading, excavation, and ground-breaking activities shall be monitored by a qualified tribal monitor(s). The project applicant shall pay all fees associated with such tribal monitor(s) and shall contact the Native American Tribe at least 30 days before pulling grading permits from the City. In the event of the discovery of Native American burial(s), the qualified tribal monitor(s) will have the authority to temporarily stop and redirect grading activities, in consensus with the archaeological monitor. The tribal monitor(s) shall attend all pre-grading meetings to assist the archaeological monitor with informing the grading and excavation contractors of the archaeological resources mitigation program and instruct~~ion~~ them with respect to its implementation. The qualified tribal monitor shall be on site at all times during clearing and rough grading to inspect cuts for archaeological and cultural resources.

Mitigation Measure 4.5.6.1C: The developer shall enter into a Treatment and Disposition Agreement with the appropriate Native American Tribe prior to the issuance of a grading permit. The Treatment and Disposition Agreement shall identify the treatment of cultural items (artifacts) and the treatment and the disposition of human remains.

Mitigation Measure 4.5.6.1D: Unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and is not subject to public disclosure requirements of the California Public Records Act, pursuant to the specific exemption set forth in California Government Code Section 6254(r).

Mitigation Measure 4.5.6.2A: Prior to the issuance of grading permits, the project proponent shall submit to and receive approval from the City, a Paleontological Resource Impact Mitigation Program (PRIMP). The PRIMP shall include the provision of a trained paleontological monitor during on-site soil disturbance activities on the south side of Bedford Wash in Planning Areas ~~17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, 15~~13, 14, 15, and 16, and Planning Areas 1, 2, 3, 4, 5, 8, 9, 11, and 12. The monitoring for paleontological resources shall be conducted on a full-time basis during the rough-grading phases of the project, but limited to the rough-grading within the south side of Bedford Wash in Planning Areas 13, 14, 15, and 16 and Planning Areas 1, 2, 3, 4, 5, 8, 9, 11, and 12 ~~17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, 15~~. Additionally, paleontological monitoring is required below a depth of 10 feet in Planning Areas ~~1,2,3,4,5,6,7,8,9,10,11,12,13, and 16.~~1, 2, 3, 4, 5, 6, 8, 9,

14, and 15. In the event that paleontological resources are unearthed or discovered during excavation, Mitigation Measure 4.5.6.2C shall apply. Conversely, if no paleontological resources are unearthed or discovered on site during excavation, no additional mitigation is required.

Mitigation Measure 4.5.6.2B: The paleontological monitor shall be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples of soil shall be collected and processed to recover micro-vertebrate fossils. Processing shall include wet screen washing and microscopic examination of the residual materials to identify small vertebrate remains.

Mitigation Measure 4.5.6.2C: If paleontological resources are unearthed or discovered during excavation of the Specific Plan area within the south side of Bedford Wash in Planning Areas 3, 14, 15, and 16 and Planning Areas 1, 2, 3, 4, 5, 8, 9, 11, and 12~~17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, 15,~~ the following recovery processes shall apply:

- Upon encountering a large deposit of bone, salvage of all bone in the area shall be conducted with additional field staff and in accordance with modern paleontological techniques.
- All fossils collected during the project shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified shall be provided to the museum repository along with the specimens.
- A report documenting the results of the monitoring and salvage activities and the significance of the fossils shall be prepared.
- All fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository (such as the Western Center for Archaeology & Paleontology, the Riverside Metropolitan Museum, or the San Bernardino County Museum) for permanent curation and storage.

3.8 GEOLOGY AND SOILS

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or	☐	☐	☐	☒

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

3.8.1 Summary of Impacts Identified in the Certified EIR

Fault Rupture

Although the Specific Plan was located within a seismically active region, implementation of the Specific Plan would not have resulted in the development of structures within an Alquist Priolo (A-P) Earthquake Fault Zone. The nearest known active earthquake fault was the Elsinore Fault Zone

located approximately 0.5 mile southwest of the Specific Plan area. In the absence of an active fault located on site, no fault rupture hazard would have occurred.

Ground Shaking

Ground shaking resulting from activity on local faults would have been felt within the Specific Plan area during a seismic event. All future construction and development within the proposed site would have been required to comply with applicable provisions of the most recent adopted version of the California Building Code (CBC) and the City's Municipal Code. These codes and regulations detailed specific measures regarding structural, mechanical, electrical, and plumbing construction practices including seismic design parameters to minimize the risk of loss, injury, or death resulting from strong ground shaking.

Additionally, State law prohibited the placement of habitable structures within 50 feet of an active fault. Adherence to the CBC and the Corona Municipal Code, which was required of all construction within the City, would have reduced potential impacts associated with this issue to a less than significant level.

Seismic-Related Ground Failure

Landslides/Slope Stability. According to the Certified EIR, there was a potential for earthquake-induced landsliding in hillside terrain in the City. Generally these types of failures consisted of rock falls, disrupted soil slides, rock slides, soil lateral spreads, soil slumps, soil block slides, and soil avalanches. In general, areas such as the steep slopes of the Santa Ana Mountains and the steep slopes within the Elsinore Fault Zone were considered to be relatively susceptible to earthquake-induced landsliding.

The majority of the Specific Plan area laid on a relatively flat surface and no areas of landsliding or mass movement were observed in the flatter portions of the site. Very deep near vertical cliffs were present along both the north and southern portions of the lower-lying wash region. A relatively small landslide was noted along the southern wall of the northern bluff. Larger landslides were observed within the southeastern and southwestern portions of the site. However, deep-seated landslides were not generally present on site. Landslides observed were mostly smaller surficial failures associated with erosion of the steep bluffs. The presence of those landslides indicated the potential for future landsliding within the Specific Plan area and the potential for significant impacts to occur within the Specific Plan area. This was found to be a potentially significant impact in the Certified EIR.

Subsidence and Seismic Settlement. According to the Certified EIR, land subsidence had been identified in the Chino region and the most northerly part of the *Corona North, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle, which included the northern portion of the City. These subsidence events resulted from pumping drawdown of the regional groundwater table. There were no indications showing subsidence in City locations south of the Prado Flood Control Basin, which experienced significant regional subsidence.

The Specific Plan area was southeast of the Prado Flood Control Basin area and had not exhibited any indication of subsidence. For this reason, impacts associated with this issue were considered to be less than significant and no mitigation was required. The Specific Plan did not include any activity known to cause subsidence-related damage (e.g., oil, gas, or groundwater extraction). Settlement generally occurs within areas of loose, granular soils with relatively low density. The Specific Plan site was

underlain by relatively dense alluvial and dense sedimentary bedrock materials and the potential for settlement was considered low. Because the Specific Plan site did not exhibit characteristics of a high potential for subsidence or settlement, impacts were considered less than significant.

Liquefaction. According to the Certified EIR, areas with a high potential for liquefaction included the Prado Basin and adjacent areas in the northwestern portion of the City. Areas in the City with a low potential for liquefaction occurred in generally north–south running bands in the western, central, and southeastern portions of the City, with an east–west running band across the northern portion of the City. The Specific Plan site was located in an area with low liquefaction potential.

The potential for liquefaction generally occurs during strong ground shaking within relatively cohesionless loose sediments where the groundwater is typically less than 50 feet below the surface. Borings collected from the Specific Plan area indicated that the groundwater depth was greater than 50 feet below the surface, consistent with the information provided in the City's General Plan. The elevated portions of the Specific Plan area were underlain by dense materials of older alluvium, which generally precluded liquefaction. Because the Specific Plan area did not exhibit characteristics of a high potential for liquefaction, impacts were considered less than significant.

Soil Erosion or Loss of Topsoil

All new development within the City that disturbed an area greater than one acre was required to obtain coverage under the National Pollution Discharge Elimination System (NPDES) General Construction Permit. One of the requirements of the NPDES General Construction permit was to implement Best Management Practices (BMPs) that would have controlled erosion and runoff generated from construction activities. Examples of such BMP control measures included, but were not limited to, detention basins for containment and use of silt fencing, sandbags, or straw bales to control runoff.

Because development of the Specific Plan would have involved ground disturbances greater than one acre, construction activities would have been regulated under the NPDES General Construction Permit. Since the NPDES General Construction Permit required erosion control measures during construction activities, potential erosion impacts would have been less than significant.

Expansive Soils

One area within the Specific Plan contained soils classified as clayey fines, which were considered to have a medium expansion potential. Because the potential did exist for expansive soils to be present on site, impacts from expansive soils were considered potentially significant.

Septic Tanks

The Specific Plan would have included the construction of habitable structures that would have been connected to existing wastewater facilities owned and operated by the City of Corona Department of Water and Power. Therefore, septic tanks would not have been necessary for the Specific Plan. Because the Specific Plan would not have included the installation of septic tanks or alternative wastewater disposal systems, no impacts would have occurred.

3.8.2 Impacts Associated with the Proposed Project

(a)(i) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new areas with potential earthquake faults have been introduced that were not previously analyzed in the Certified EIR. The Certified EIR did not identify any fault zones within the Specific Plan area. Therefore, no changes to the potential to impacts as a result of the proposed project and no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR (less than significant) and the level of impact (less than significant) would remain the same as the level cited in the Certified EIR. This issue will not be evaluated further in Chapter 4.0.

(a)(ii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. As noted in the Certified EIR, ground shaking resulting from activity on local faults would be felt within the Specific Plan area during a seismic event. All future construction and development within the Specific Plan area would continue to be required to comply with applicable provisions of the most recent adopted version of the California Building Code (CBC) and the City's Municipal Code. These codes and regulations detail specific measures regarding structural, mechanical, electrical, and plumbing construction practices including seismic design parameters to minimize the risk of loss, injury, or death resulting from strong ground shaking.

Additionally, State law prohibits the placement of habitable structures within 50 feet of an active fault. Adherence to the CBC and the Corona Municipal Code would be required. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(a)(iii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new areas potentially subject to seismic-related ground failure as a result of liquefaction have been introduced that were not previously analyzed in the Certified EIR. As stated in the Certified EIR, the Specific Plan site is located in an area with low liquefaction potential.

The elevated portions of the Specific Plan area are underlain by dense materials of older alluvium, which generally preclude liquefaction. Because the Specific Plan area does not exhibit characteristics of a high potential for liquefaction, impacts are considered less than significant. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(a)(iv) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. The proposed project would not change the boundaries or location of the Specific Plan. Therefore, no new areas potentially subject to landslide have been introduced that were not previously analyzed in the Certified EIR. The Certified EIR determined that there is a potential for earthquake-induced landsliding and accordingly provided Mitigation Measures 4.6.6.1C through 4.6.6.1E. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Result in substantial soil erosion or the loss of topsoil?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new areas potentially subject to substantial soil erosion or the loss of topsoil have been introduced that were not previously analyzed in the Certified EIR. As discussed in the Certified EIR, because the Specific Plan with the proposed project would disturb an area greater than one acre, an NPDES General Construction Permit would continue to be required. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new areas potentially subject to unstable soils have been introduced that were not previously analyzed in the Certified EIR. The Specific Plan area has not exhibited any indication of high potential for subsidence or settlement. No new or substantially greater impacts

would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new areas potentially subject to expansive soils have been introduced that were not previously analyzed in the Certified EIR. As discussed in the Certified EIR, one area within the Specific Plan contains soils classified as clayey fines, which are considered to have a medium expansion potential. Because the potential does exist for expansive soils to be present on site, impacts from expansive soils are considered potentially significant, and would continue to be required to adhere to Mitigation Measure 4.6.6.2A. No new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new areas potentially subject to expansive soils have been introduced that were not previously analyzed in the Certified EIR. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, no new area with soils potentially incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems have been included that were not previously analyzed in the Certified EIR. No septic tanks are proposed as part of the Specific Plan or proposed project. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.8.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. Therefore, no new areas potentially subject to geologic hazards have been introduced that were not previously analyzed in the Certified EIR. As with the project analyzed in the Certified EIR, the proposed project will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies. In addition, all cumulative projects

would also be required to adhere to applicable regulations related to geologic and soils hazards. Therefore, a less than significant cumulative impact would occur with implementation of the proposed project. The level of impact is the same for the proposed project and the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.8.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The following mitigation measures identified in the Certified EIR are applicable to the proposed project:

Mitigation Measure 4.6.6.1A: Prior to the initiation of any on-site construction, the project contractor shall remove all loose, compressible alluvial and fill materials from areas to receive engineered compact fill. Actual depths of removal shall be verified during future site-specific preliminary soils investigations and ultimately during the grading operation by observation and in-place density testing.

Mitigation Measure 4.6.6.1B: All on-site soils shall provide adequate quality fill material provided they are free from organic matter and other deleterious materials. ~~Unless approved by the project geotechnical engineer, r~~Rock or similar irreducible material with a maximum dimension greater than six inches shall not be buried or placed in fills. However, oversized materials, with a maximum dimension greater than 8 inches, may be placed in fills or buried on site in accordance with recommendations proved by the geotechnical engineer during grading. Oversized material may be stockpiled for landscaping purposes or placed in a rock disposal area as approved by the project owner, developer, geotechnical engineer, and City. Import fill shall be inorganic, non-expansive granular soils free from rocks or lumps greater than six inches in maximum dimension. Sources for import fill shall be approved by the project geotechnical engineer prior to their use. Fill shall be spread in maximum eight-inch uniform loose lifts; each lift brought to near optimum moisture content, and compacted to a relative compaction of at least 90 percent in accordance with ASTM D 1557.

Mitigation Measure 4.6.6.1C: Cut and fill slopes shall be planned at gradients no steeper than two horizontal to one vertical. Additional information regarding any proposed cut slopes and the existing natural slope stability should be addressed within the site specific preliminary soils investigations when grading/development plans are made available for the specific tracts/development areas.

Mitigation Measure 4.6.6.1D: Where fills are to be placed against existing slopes steeper than five horizontal to one vertical, the fill shall be properly keyed and benched into competent native materials. The key, constructed across the toe of the slope, shall be a minimum of 12 to 15 feet wide, a minimum of two feet deep at the toe, and sloped back at 2 percent. Benches shall be constructed at approximately two to four feet vertical intervals.

Mitigation Measure 4.6.6.1E: Slopes at the project site shall be planted with a deep-rooted groundcover as soon as possible after completion. The use of succulent ground covers such as ice plant or sedum is not recommended. If watering is necessary to sustain plant growth on slopes, then the watering operation shall be monitored to ensure proper operation of the irrigation system and to prevent overwatering.

Mitigation Measure 4.6.6.1F: Prior to the initiation of any on-site construction, evidence shall be submitted to the City for review and approval that on-site development has incorporated the design and siting recommendations detailed in the site-specific geotechnical investigation.

Mitigation Measure 4.6.6.2A: On-site soils and any imported soils for individual tracts/development areas shall be evaluated for their expansion potential prior to grading and ultimately following completion of the grading operation. The evaluation shall determine and identify specialized construction procedures to specifically resist expansive soil activity in accordance with the CBC and/ or applicable local ordinances.

3.9 GREENHOUSE GAS EMISSIONS

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.9.1 Summary of Impacts Identified in the Certified EIR

Greenhouse Gas Plan, Policy, Regulation Consistency

According to the Certified EIR, development that would have occurred within the Specific Plan area would have been governed by the Specific Plan. The Specific Plan included a variety of physical attributes and operational programs that would have generally contributed to a reduction in operational-source pollutant emissions including greenhouse gas (GHG) emissions. For example, the Specific Plan considered a variety of alternative transportation options including walking and biking. In addition, the Specific Plan included a Sustainable Design Strategies chapter that identified various strategies where sustainable design practices could have been implemented. The Sustainable Design Strategies chapter identified strategies related to the following topics: site planning, energy efficiency, materials efficiency, water efficiency, occupant health and safety, and landscape design.

The Certified EIR indicated that future development that would have occurred under the Specific Plan would have been consistent with GHG emission reduction strategies and policies produced by the California Air Resources Board, the Integrated Waste Management Board, the Department of

Forestry, the Department of Water Resources, the California Energy Commission, the California Building Standards Commission, and the California Public Utilities Commission. The Specific Plan would have implemented appropriate GHG reduction strategies and would have ensured that it would not have conflicted with or impeded implementation of reduction goals identified in AB 32, Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. In addition, the Specific Plan would have also been subject to all applicable regulatory requirements, which would have also reduced the GHG emissions of the project. Therefore, the Certified EIR concluded that the Specific Plan would not have conflicted with any applicable plan, program, policy, or regulation related to the reduction of GHG emissions. Impacts were considered less than significant.

Greenhouse Gas Emissions

According to the Certified EIR, future development that could have occurred within the Specific Plan would have generated GHG emissions during construction and operation activities. It was anticipated that the majority of energy consumption (and associated generation of GHG emissions) would have occurred during operation as opposed to construction. Typically, more than 80 percent of the total energy consumption takes place during the use of buildings and less than 20 percent is consumed during construction.

The Specific Plan was analyzed for the potential construction and operation of its proposed land uses, water, sewer, and drainage infrastructure, and roadways. GHG emissions that could have been generated as a result of the Specific Plan would have occurred over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would have also been long-term regional emissions associated with Specific Plan-related vehicular trips and stationary source emissions, such as natural gas used for heating. The Specific Plan's GHG estimates included construction emissions in terms of CO_2 and annual carbon dioxide equivalent (CO_2e) GHG emissions from increased energy consumption, water usage, solid waste disposal, and estimated emissions from vehicular traffic.

The Certified EIR estimated that implementation of the Specific Plan could produce approximately 46,500 metric tons per year of CO_2, which is approximately 0.0465 teragrams per year (Tg/year) of CO_2. As a comparison, the emissions from the entire SCAG region at the time the Certified EIR was certified were estimated to be approximately 176.79 million metric tonnes of CO_2 per year and approximately 496.95 million metric tonnes of CO_2 per year for the entire state.

There is and was at the time of the Certified EIR a Federal ban on CFCs; therefore, it was assumed development that could occur under the Specific Plan would not have generated emissions of CFCs. The Specific Plan may have emitted a small amount of HFC emissions from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment; however, the details regarding refrigerants to be used within the Specific Plan area were unknown at this time. PFCs and sulfur hexafluoride are typically used in industrial applications, none of which would have been used within the Specific Plan area. Therefore, it was not anticipated that the Specific Plan would have contributed significant emissions of these additional GHGs.

According to the Certified EIR, the Specific Plan was estimated to accommodate a service population of 6,807. GHG emissions that could be generated by development within the Specific Plan would have exceeded the threshold of 6.6 $MTCO_2e$ per service population per year prior to mitigation. The

Specific Plan was estimated to emit 6.83 $MTCO_2e$ per service population per year. This was found to be a significant cumulative impact in the Certified EIR.

3.9.2 Impacts Associated with the Proposed Project

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. No changes in the size, location, or boundaries of the Specific Plan are included as part of the proposed project and no new land use designations are included as part of the proposed project beyond those previously analyzed in the Certified EIR. However, the relative share of the land use designations originally included in the Specific Plan would change as a result of the proposed project, including an increase in the proposed residential development by 55 acres (the number of residential units would stay the same), a 28-acre decrease in the General Commercial acreage, a removal of all Mixed Use acreage (39.7 acres), a 20.7-acre increase in Open Space, and a 6.5-acre reduction in Parklands. These proposed changes in land use designations could result in different levels of greenhouse gas emissions than those previously analyzed in the Certified EIR as a result of grading, construction activity, and long-term greenhouse gas emissions related to vehicular traffic and stationary sources. Additionally, cumulative greenhouse gas emission levels throughout the region have also changed since adoption of the Specific Plan in 2012, thereby changing the existing baseline greenhouse gas emissions levels to which the Specific Plan and proposed project will be compared to in determining cumulative impacts. Therefore, a climate change analysis was completed for the proposed project. The climate change analysis analyzes both the short-term (construction) and long-term (operational) impacts of the project. Table 3.E shows a comparison of the reduction of the mitigated proposed project and Certified EIR greenhouse gas emissions compared to business as usual (BAU) scenarios.

Table 3.E: Summary of GHG Emissions for BAU vs Project-Level Mitigation and AB 32 Scoping Measures

Category	CO_2e Emissions (Metric Tons per Year)	
	Without Mitigation	**With Project-Level Mitigation and AB32 Scoping Measures**
Certified EIR Emissions		
Construction	696.54	696.54
Area	1,216.04	1,216.04
Energy Use	13,166.08	11,451.97
Mobile Sources	28,676.62	28,402.80
Waste Disposed	759.80	759.80
Water Use	1,997.59	1,612.88
Project Emissions Annual Total	**46,512.67**	**44,140.03**
% Reduction compared with BAU	**6.1%**	
% Reduction needed to demonstrate consistency with CAP	**25%**	

Table 3.E: Summary of GHG Emissions for BAU vs Project-Level Mitigation and AB 32 Scoping Measures

Category	CO_2e Emissions (Metric Tons per Year)	
	Without Mitigation	**With Project-Level Mitigation and AB32 Scoping Measures**
Proposed Project Emissions		
Construction	1,770.15	1,770.15
Area	467.38	467.38
Energy Use	6,125.15	4,933.75
Mobile Sources	31,109.24	19,672.88
Waste Disposed	727.95	727.95
Water Use	899.33	594.11
Project Emissions Annual Total	**41,099.2**	**28,166.22**
% Reduction compared with BAU	**31.5%**	
% Reduction needed to demonstrate consistency with CAP	**25%**	
Difference (proposed project-Certified EIR)	**5,413.47**	**15,973.81**

Source: Urban Crossroads, Inc., May 2011; Urban Crossroads, Inc., April 2015

Although the Certified EIR emissions were not reduced by at least 25 percent, at the time of the Certified EIR, a reduction in BAU emissions was not required. Impacts from GHG emissions were considered less than significant at the time of the Certified EIR if the Total CO_2E divided by the service population was less than 6.6. Based on that methodology, the GHG emissions from the Certified EIR are less than significant. Current GHG methodology requires the reduction of GHG emissions compared to BAU by 25 percent. As shown in Table 3.E, the proposed project meets this reduction requirement and is considered less than significant with mitigation. Mitigation Measures 4.3.6.4A, 4.3.6.4B, 4.7.6.1A, and 4.7.6.1B from the Certified EIR would be incorporated into the proposed project to reduce emissions to 31.5 percent less than the BAU scenario. The proposed project is consistent with the impacts identified in the Certified EIR, and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR. At the time that the Specific Plan was approved, the City had not yet adopted its Climate Action Plan (CAP), which was implemented in 2012. However, the climate change analysis analyzed the proposed project's consistency against the City's CAP. As discussed above, the City's CAP requires a reduction of GHG emissions by 25 percent compared to the BAU scenario. As shown in Table 3.E, the project would have reduction of 31.5 percent below BAU. For this reason, the proposed project would have a less than significant impact and is consistent with the impacts identified in the Certified EIR, and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.9.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. As with the project analyzed in the Certified EIR, the proposed project would generate GHG emissions that would contribute to cumulative emissions in California. As indicated above, the proposed project would generate fewer emissions than the emissions cited in Certified EIR. Additionally, even if both the project and proposed interchange improvements are completed at the same time, there would be no change to this level of impact. The proposed project is consistent with State and City GHG emissions reduction requirements. With the implementation of mitigation and GHG reduction strategies, the proposed project's cumulative GHG emissions would not be considered significant. Overall, the level of impact related to greenhouse gases remains the same under the proposed project. Therefore, this impact will not be evaluated further in Chapter 4.0.

3.9.4 Mitigation Measures Identified in the Certified EIR and Applicable to the Proposed Project

The following mitigation measures would be implemented to reduce impacts associated with greenhouse gas emissions:

Previously referenced Mitigation Measures 4.3.6.4A and 4.3.6.4B shall be implemented. It should be noted that Mitigation Measures 4.3.6.4A and 4.3.6.4B and the following mitigation measures will implement many of the Specific Plan's programs and strategies.

Mitigation Measure 4.7.6.1A: Prior to the issuance of each grading permit associated with the Specific Plan, the project developer shall develop and implement a construction waste management plan that would require the recycling and/or salvaging of non-hazardous construction and demolition waste.

Mitigation Measure 4.7.6.1B: Prior to the issuance of each building permit associated with the Specific Plan, the project developer shall facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills by providing easily accessible areas that serve each building and are dedicated to the collection and storage of paper, cardboard, glass, plastics, and metals.

3.10 HAZARDS AND HAZARDOUS MATERIALS

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☐	☐	☒

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 67962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the Specific Plan area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the Specific Plan area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
h) Expose people or structures to a significant risk of loss, injury of death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

3.10.1 Summary of Impacts Identified in the Certified EIR

Routine Transport, Use, or Disposal of Hazardous Materials and Reasonably Foreseeable Upset and Accident Conditions

As indicated in the Certified EIR, exposure to hazardous materials during the operation of the proposed Specific Plan uses could have resulted from (1) the improper handling or use of hazardous substances; (2) transportation accident; or (3) an unforeseen event (e.g., fire, flood, or earthquake). Subsequent development that could have occurred as a result of development of the Specific Plan site would have introduced potentially hazardous materials (e.g., petroleum products, pesticides, fertilizer, and other household hazardous products such as paint products, solvents, and cleaning products) on site. Hazardous materials would have been present within the Specific Plan area during construction of these uses. Hazardous materials associated with equipment and vehicles would have consisted of fluids used to operate/drive equipment and vehicles.

Due to the potentially hazardous materials that could have been stored and sold in conjunction with retail sales in the commercial areas of the Specific Plan, as well as the presence of household hazardous materials in the residential areas of the Specific Plan, the potential for an accidental release of hazardous materials into the environment was present as a result of the Specific Plan. Any hazardous material spill associated with the household hazardous products sold in commercial developments or in residential areas within the Specific Plan was likely to be small and easily contained.

Appropriate documentation for all hazardous waste that was transported in connection with project-site activities would have been provided as required for compliance with existing hazardous materials regulations. The United States Department of Transportation Office of Hazardous Materials Safety established strict regulations for the safe transportation of hazardous materials. Transportation of all hazardous materials would have complied with all applicable regulations.

Additionally, the California Hazardous Materials Management Act required that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan (HMBEP), which would include an inventory of hazardous materials stored on site, an emergency response plan, and an employee training program. The handling of hazardous materials in

accordance with the HMBEP as required by applicable local, State, and Federal standards, ordinances, and regulations would have ensured that impacts associated with environmental and health hazards related to an accidental release of hazardous materials on the Specific Plan area were less than significant.

Existing or Proposed Schools

As discussed in the Certified EIR, there were no existing schools that were within 0.25 mile of the Specific Plan area. In addition, the Specific Plan identified that students residing in the Arantine Hills community would have attended existing schools within the Corona-Norco Unified School District. Therefore, no new school facilities were proposed to be built within 0.25 mile of a project that would emit hazardous emissions. For these reasons, there would have been no existing or proposed schools within 0.25 mile that would have been exposed to hazardous emissions, materials, and substances resulting from development of the Specific Plan. In addition, the handling of hazardous materials or emission of hazardous substances in accordance with the HMBEP as required by applicable local, State, and Federal standards, ordinances, and regulations would have ensured that impacts associated with environmental and health hazards related to an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools were less than significant.

Located on a List of Hazardous Materials Sites

According to the Certified EIR, the Specific Plan area was not listed in any regulatory database for hazardous materials. Based on the information provided by the public, and regulatory and governmental agencies and information obtained during the record search and literature review, there did not appear to be any sites within a mile that would have resulted in an adverse environmental impact upon the subject site.

There were existing structures/infrastructure scattered throughout the Specific Plan area. All of these structures and infrastructure features were utilized for agricultural purposes. None of the existing structures/features exhibited a hazardous condition.

Due to the past agricultural use of the Specific Plan area, an assessment was conducted to address residual organochlorine pesticides (OCPs), a smudge pot storage area, a 10,000-gallon aboveground smudge oil storage tank, and a 10-foot by 10-foot storage shed. The assessment concluded that there were no residual hydrocarbons at the smudge pot storage area, the roofing shingles and retention basin asphaltic materials did not contain asbestos, and the former 10,000-gallon aboveground storage tank did not have any significant hydrocarbon contamination. The approximately 10-foot by 10-foot shed had a very high level of pesticides—DDT, Endrin, and Chordane—in the soil beneath the wood floor and contained about 5 pounds of Chordane. Since the original assessment conducted in 2002, the 10-foot by 10-foot shed had been removed. However, residual OCPs were present in the soils where the shed had been previously located. Some of the sampled soils contained DDT levels above 1 part per million (ppm), which resulted in a significant impact.

As previously stated, the Specific Plan area was not listed as a hazardous materials release area and was not included on the Cortese List. In addition, no violations were noted in this regulatory database for the Specific Plan Area. Since the Specific Plan area was not included on any list of hazardous materials sites as defined by Government Code Section 65962.5, it was highly unlikely that hazardous materials would have been uncovered during soil-disturbing activities on site. However, there was a

chance that unknown wastes or suspect materials may have been encountered during soil-disturbing activities within the Specific Plan area, resulting in a significant impact.

Within an Airport Land Use Plan, Within Two Miles of a Public Airport, or Within Two Miles of a Private Airstrip

According to the Certified EIR, there were no public use or private airports within two miles of the Specific Plan area. The nearest local airport was the Corona Municipal Airport (CMA), approximately 6.5 miles northwest of the area included within the Specific Plan. The Specific Plan site was not located within an airport land use plan. Due to the distance of the Specific Plan area from the CMA, the potential development of the Specific Plan area with residential, commercial, and industrial uses would not have resulted in a safety hazard for people residing or working within the Specific Plan area. Therefore, no impacts associated with this issue were found to occur.

Conflict with an Emergency Response Plan

The Certified EIR found that implementation of the Specific Plan would have increased the number of commercial, industrial, and residential uses within the City of Corona beyond what existed. Development within the Specific Plan area was accounted for in the City's General Plan as evidenced by the site's designation of "possible future urban use." The Specific Plan would have been designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, which would have ensured that vehicular access would have been provided for adequate emergency access and evacuation. Construction activities that could have temporarily restricted vehicular traffic would have been required to implement a Traffic Management Plan as part of the building permit that would have required adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Compliance with regulations for emergency access and evacuation would have ensured that impacts related to this issue were less than significant.

Exposure to Wildland Fires

The California Department of Forestry and Fire Protection (CDFFP) identified five fire hazard severity zones within the City: urbanized/developed areas outside of fire hazard zones; non-wildland fuels; moderate fire areas; high fire areas; and very high fire areas. According to the Certified EIR, the majority of the Specific Plan area was identified as "Non-wildland/non-urban" by the CDFFP. The southeastern portion of the Specific Plan area was identified as a "Very High Fire Hazard" Severity Zone. Adjacent land to the east and south of the Specific Plan area was also identified as a "Very High Fire Hazard" Severity Zone and State Responsibility Area (SRA) "Very High Fire Hazard Severity Zone" by the CDFFP. Although portions of the Specific Plan area were located within a "Very High Fire Hazard" Severity Zone, any development that would have occurred within the Specific Plan area would have been required to comply with all applicable fire code requirements and associated fire prevention measures to reduce the risk of wildland fires. In addition, these areas were subject to the requirements of the City of Corona Fire Department construction design guidelines and fuel modification standards.

In compliance with the County of Riverside Fire Authority Design Guidelines and fuel modification standards, the Specific Plan would have been required to implement a 200-foot fuel modification zone along the easterly edge of the Specific Plan area. The 200-foot defensible space zone would have served to reduce the amount of fuel surrounding buildings and structures within the Specific Plan.

To ensure that impacts associated with this issue would have been less than significant, Mitigation Measure 4.8.6.2A was identified in the Certified EIR.

3.10.2 Impacts Associated with the Proposed Project

(a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

No Changes or New Information Requiring Major or Minor EIR Revisions. No new land use designations are included as part of the proposed project beyond those previously analyzed in the Certified EIR. The relative share of each land use designation included in the Specific Plan would change as a result of the proposed project and would result in an increase in the proposed residential development by 55 acres (the number of units would remain the same), a 28-acre decrease in the General Commercial acreage, removal of all Mixed Use development (39.7 acres), a 20.7-acre increase in Open Space, and a 6.5-acre reduction in Parklands. Therefore, land uses with the potential to generate hazardous materials (commercial, residential, and mixed-use) have either remained the same or decreased since the Specific Plan was approved. All materials used during construction and operation would continue to be required to comply with applicable standards and regulations related to hazardous waste as specified in the Certified EIR. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Changes or New Information Requiring Major or Minor EIR Revisions. No new land use designations are included as part of the proposed project beyond those previously analyzed in the Certified EIR. The relative share of each land use designation included in the Specific Plan would change as a result of the proposed project and would result in an increase in the proposed residential development by 55 acres (the number of units would remain the same), a 28 acre-decrease in the General Commercial acreage, removal of all Mixed Use development (39.7 acres), a 20.7-acre increase in Open Space, and a 6.5-acre reduction in Parklands. Therefore, land uses with the potential to generate hazardous materials (commercial, residential, and mixed-use) have either remained the same or decreased since the Specific Plan was approved. All materials used during construction and operation would be required to comply with applicable standards and regulations related to hazardous waste as specified in the Certified EIR. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific

Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. No schools have been built within 0.25 mile of the Specific Plan area since the Specific Plan was approved. Therefore, there are no new existing or proposed schools not previously analyzed in the Certified EIR. According to the Certified EIR, there were no schools within 0.25 mile of the Specific Plan area. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 67962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new area not previously searched for hazardous materials sites has been included as part of the proposed project that was not previously analyzed for the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the Specific Plan area?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. No airports have been built within two miles of the Specific Plan area since the Specific Plan was approved. According to the Certified EIR, there were no airports within two miles of the Specific Plan. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the Specific Plan area?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. No private airstrips have been built within two miles of the Specific Plan area since the Specific Plan was approved. According to the Certified EIR, there were no air strips within two miles of the Specific Plan. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact

(no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Changes or New Information Requiring Major or Minor EIR Revisions. No new land use designations are included as part of the proposed project beyond those previously analyzed in the Certified EIR. The relative share of each land use designation included in the Specific Plan would change as a result of the proposed project and would result in an increase in the proposed residential development by 55 acres (the number of units would remain the same), a 28 -acre decrease in the General Commercial acreage, removal of all Mixed Use development (39.7 acres), a 20.7-acre increase in Open Space, and a 6.5-acre reduction in Parklands. The amount of commercial, residential, and mixed-use land uses proposed would be reduced as a result of the Specific Plan, and as stated by the Certified EIR, have been accounted for in the City's General Plan. As indicated in the Certified EIR, the Specific Plan and the proposed project will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, ensuring that vehicular access will provide for adequate emergency access and evacuation. Construction activities that may temporarily restrict vehicular traffic would be required to implement a Traffic Management Plan as part of the building permit that will require adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(h) Expose people or structures to a significant risk of loss, injury of death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the amount of Open Space allowed for by the Specific Plan would increase as a result of the proposed project, which could result in impacts to the potential for wildland fire within and around the Specific Plan area. As indicated by the Certified EIR, the southeastern portion of the Specific Plan area and adjacent areas have a high risk of wildfire as indicated by the CDFFP. Implementation of the proposed project would require the applicant to prepare a project-specific Wildland Fire Plan/Fuel Modification Plan, which will mitigate potential threat of wildfires. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.10.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. As identified above, project-specific impacts related to hazards and hazardous materials would not change relative to those identified in the Certified EIR.

While the project-specific hazardous material impacts of individual future development projects will be addressed separately in future CEQA documents, anticipated future development will contribute, through increases in population and the number of outlets that transport or dispose of hazardous materials, to a cumulative increase in risk for hazardous material incidents. Although each project has unique hazardous materials considerations, it is anticipated that future cumulative projects would comply with the local, State, and Federal regulations and requirements as these are required for all development projects. As a result, cumulative impacts associated with hazardous materials would be less than significant.

Cumulative aircraft hazard impacts consist of future development within the boundaries of the Airport Land Use Plan (ALUP) accident potential zones. The risk to each future project is based on the specific accident potential zone. The risks associated with development in these accident potential zones can only be reduced through conformance with land use guidelines and policies identified by the ALUP. However, because the surrounding cities as well as the County of Riverside have implemented comprehensive land use plans that incorporate ALUP recommendations, it is anticipated that cumulative development within the accident potential zones would not create a significant and cumulative impact associated with aircraft accident hazards.

Similar to the Certified EIR, the proposed project would be required to comply with local, State, and Federal regulations and requirements related to hazardous materials. With adherence to these measures, the proposed project's impacts would not contribute to cumulatively significant impact. The proposed project's level of impact for cumulative hazards and hazardous materials impacts would be the same (less than significant) as the Certified EIR. Therefore, this issue will not be analyzed further in Chapter 4.0.

3.10.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

The following mitigation measures identified in the Certified EIR are applicable to the proposed project:

Mitigation Measure 4.8.6.1A: For any soil disturbance in the area where the 10-foot by 10-foot shed located at the west edge of Planning Area (PA) 4 was previously located, soil in this area shall be tested for residual organochlorine pesticides (OCPs). If OCP levels are detected at levels of 1 part per million (ppm) or greater, the soils shall be removed to an adequate depth and exported to an approved landfill facility by a certified contractor.

Mitigation Measure 4.8.6.1B: If soil from any location on the project site is to be removed or transported off site, the soil export must have a DDT level of less than 1 part per million (ppm). Soil

to be exported off site shall be tested, and verification of the soil results shall be submitted to the City for review prior to the issuance of soil export operations.

Mitigation Measure 4.8.6.1C: If unknown wastes or suspected hazardous materials are discovered during any construction activities on the project site, the following shall occur:

- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
- Notify the City of Corona Fire Department;
- Notify the project engineer of the implementing agency (the City of Corona) and secure the area containing the unknown wastes or suspect materials as directed by the project engineer; and
- Notify the implementing agency's Hazardous Waste/Materials Coordinator.

Mitigation Measure 4.8.6.1D: Testing and remediation of unknown wastes or suspect materials shall be conducted under the purview of the applicable agency (i.e., DTSC, Santa Ana RWQCB, and/or City). Remediation shall be conducted to the standards established by the Lead Agency (i.e., DTSC, Santa Ana RWQCB, and/or City). All contaminated soil locations identified shall be remediated below hazardous levels established by Title 22 of the California Code of Regulations and to the satisfaction of the applicable Lead Agency.

Mitigation Measure 4.8.6.1E: Prior to the issuance of demolition permits for any planning areas containing structures, any remaining structures on site shall be visually inspected by the project engineer of the implementing agency (City of Corona) prior to demolition activities. If hazardous materials are encountered, the materials shall be tested and properly disposed of in accordance with State and Federal regulatory requirements. Any stained soils or surfaces underneath the removed materials shall be sampled. Results of the sampling would indicate the appropriate level of remediation efforts that may be required. Testing and remediation of unknown wastes or suspect materials shall be conducted under the purview of the applicable agency (i.e., DTSC, Santa Ana RWQCB, and/or City). Remediation shall be conducted to the standards established by the Lead Agency (i.e., DTSC, Santa Ana RWQCB, and/or City). All contaminated soil locations identified shall be remediated below hazardous levels established by Title 22 of the California Code of Regulations and to the satisfaction of the applicable Lead Agency.

Mitigation Measure 4.8.6.1F: Prior to the issuance of grading permits for each planning area, all miscellaneous debris (e.g., wood, concrete, 55-gallon drums, miscellaneous household debris, scrap metal, and plastic piping) shall be removed and disposed of at an approved landfill facility prior to construction activities under the purview of the appropriate agency (i.e., DTSC, Santa Ana RWQCB, and/or City). Once removed, a visual inspection of the areas beneath the removed materials shall be performed by the construction contractor as specified by the City of Corona. Any stained soils observed underneath the removed materials shall be sampled. Results of the sampling, if necessary, would indicate the level of remediation efforts that may be required. Remediation shall be conducted to the standards established by the Lead Agency (i.e., DTSC, Santa Ana RWQCB, and/or City). All contaminated soil locations identified shall be remediated below hazardous levels established by Title 22 of the California Code of Regulations and to the satisfaction of the applicable Lead Agency.

Mitigation Measure 4.8.6.2A: Prior to the issuance of building permits for each planning area, the project proponent shall prepare, submit, and receive approval from the City and Riverside County Fire Department, a project-specific Wildland Fire Plan/Fuel Modification Plan. The Wildland Fire Plan/Fuel Modification Plan shall include but shall not be limited to the following:

- Goals, policies, and actions related to fire funding and fire rehabilitation;
- Fire protection and evacuation plan;
- Vegetative fuels management plan;
- Public education program; and
- Defensible space requirements which meet and/or exceed the Riverside County Fire Department Fuel Modification Requirements.

3.11 HYDROLOGY AND WATER QUALITY

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?	☐	☒	☐	☒

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site?	☐	☒	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Expose people or structures to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

3.11.1 Summary of Impacts Identified in the Certified EIR

Dam or Levee Failure Flooding Impacts

According to the Certified EIR, the primary inundation threat to the City of Corona was from Lake Mathews located approximately seven miles southeast of Corona. Failure of either one of Lake Mathews' two dams would have caused flooding along the Temescal Wash in the eastern and

northeastern portions of the City. With a dam failure, water would flow generally along the Temescal Channel from southeast to northwest of the intersection of I-15 and SR-91.

Prado Dam did not pose as a severe threat of inundation as did the Lake Mathews Dams. In addition, the USACE began construction to increase the capacity of the reservoir behind Prado Dam.

As identified by the City, the Specific Plan area was outside of any identified dam inundation zones. Since the Specific Plan area was not within an area susceptible to dam inundation, no impacts associated with this issue would have occurred.

100-Year Flooding Hazard Impacts

The 100-year floodplain was not mapped for the Specific Plan area. In order to define the 100-year floodplain, to ensure structures will not affect the 100-year flood flows, and to ensure housing will not be constructed within a 100-year floodplain, a Conditional Letter of Map Revision (CLOMR) was required to be completed through the Federal Emergency Management Agency (FEMA) prior to any grading permits and a Letter of Map Revision (LOMR) would be completed prior to the issuance of any building permit. With issuance of the required LOMR by FEMA, impacts associated with placement of structures or housing within a 100-year flood hazard area would have been reduced to less than significant levels.

Seismic Related Impacts

Inundation of the Specific Plan area by a tsunami would not have occurred because the site was located approximately 70 miles from the Pacific Ocean and protected by the Santa Ana Mountains. The site is located approximately 3.5 miles west from Lake Mathews. Since Lake Mathews was an enclosed body of water, Lake Mathews could have been subject to a seiche during a seismic event. However, the probability that a seiche event would affect the Specific Plan area was limited given the distance from Lake Mathews. As identified in Section 3.8.1, the proposed site did contain some slope stability hazards, due to drainage running through the site over time, which created areas with significant topographic relief and bluffs within the Specific Plan area. Slope instability, caving, and landsliding could have been promoted or exacerbated by the development proposed by the Specific Plan project; however, the Specific Plan defined general guidelines for the development of on-site slopes and identified slope setbacks for the entire Specific Plan area.

Subsequent development of structures and facilities within the Specific Plan area would have required adherence to the siting, design, and construction standards identified by the City of Corona, the California Building Code, and/or applicable geotechnical investigations. Because potential landslide and slope stability impacts were addressed through adherence to established guidelines and regulations, a less than significant impact related to this issue would have occurred.

Construction-Related Water Quality Impacts

According to the Certified EIR, short-term storm water pollutant discharges from each individual site within the Specific Plan area would have been mitigated through compliance with the applicable NPDES permitting process, which resulted in a less than significant impact. The implementation of NPDES permits included the General Construction permit that ensured that a state's mandatory standards for clean water and the Federal minimums were met. Coverage with applicable permits

would have prevented sedimentation and soil erosion through implementation of a Storm Water Pollution Prevention Plan (SWPPP) and periodic inspections by RWQCB staff.

During the construction period, the development associated with the Specific Plan would have utilized a series of BMPs to reduce erosion and sedimentation. These measures could have included the use of gravel bags, silt fences, hay bales, check dams, hydroseed, and soil binders. To ensure that future development within the Specific Plan area obtained coverage under the NPDES General Construction permit, Mitigation Measures 4.9.6.1A through 4.9.6.1C were identified in the Certified EIR.

Operational-Related Water Quality Impacts

According to the Certified EIR, pollutants associated with the operations of the Specific Plan land uses included sediment/turbidity, nutrients, organic compounds, trash and debris, oxygen-demanding substances, bacteria and viruses, oil and grease, pesticides, and metals. There were no pollutants associated with the Specific Plan and the impairment of proximate receiving waters. Based on the Master WQMP, all downstream receiving waters to which a project directly or indirectly discharges had been identified.

The proximate receiving water for the Specific Plan area was the Bedford Canyon Wash. However, the Specific Plan area was tributary to the Santa Ana River Reach 3, which was impaired for pathogen indicators. Therefore, those indicators were pollutants of concern (POC) for the Specific Plan. To ensure that land uses within the Specific Plan area would not have impaired Bedford Canyon Wash and addressed the POC, the Specific Plan would have incorporated BMPs during operation of those uses. Specifically, the Specific Plan would have provided a regional water quality basin that would have functioned for both detention and infiltration of storm water runoff. As specific developments within the Specific Plan area were developed, updates to the Master WQMP for the Arantine Hills Specific Plan would have been required to ensure that water quality treatment was being satisfied per City requirements.

The WQMP prepared for the Specific Plan area identified BMPs required to be in place and operational after construction. The WQMP addressed management of urban runoff in terms of the amount and quality of water leaving the Specific Plan area, and included site design criteria and techniques that would have been implemented after construction to minimize and/or treat runoff from the site. This comprehensive water quality approach would have been implemented throughout the Specific Plan and would have addressed a three-tier program for achieving water quality goals. The program approach focused on pollution prevention, source control, and treatment control measures.

No site-specific WQMP had been prepared at the time of the Certified EIR as no site-specific development project had been submitted to the City for approval. However, when the Specific Plan area would have been developed, typical BMPs and/or site-specific WQMPs would have been implemented consistent with the goals contained in the Master WQMP. It was anticipated that any commercial or residential development within Phase 1 would have been required to incorporate on-site water quality features that would have met or exceeded the approved WQMP's water quality requirements. To ensure future development within the Specific Plan area did not affect water quality during long-term operations, Mitigation Measure 4.9.6.2A was identified in the Certified EIR to reduce such impacts to less than significant.

Groundwater

According to the Certified EIR, the Water Supply Assessment (WSA) prepared for the Specific Plan identified that the City obtained its water from two sources. The primary source was groundwater from the Temescal, Bedford, and Coldwater Sub-basins. The secondary source was water imported by the Metropolitan Water District of Southern California (MWDSC) from the Colorado River and the State Water Project (SWP). The MWDSC wholesaled its water to WMWD and then to the City.

The City's Groundwater Management Plan (GWMP) developed strategies for more sustainable management and use of groundwater resources to meet increasing future demands with decreasing groundwater levels in the regional groundwater basins. The GWMP proposed that these management strategies be implemented through 2020 to assist in reducing demands for imported water and meeting projected demands. The City shares one or more of the three groundwater sub-basins with the City of Norco, Home Gardens County Water District, Lee Lake Water District (LLWD), and Elsinore Valley Municipal Water District (EVMWD). LLWD participated in the GWMP and proposed a groundwater recharge project with recycled water in the Bedford Sub-basin.

Based on the WSA prepared for the Specific Plan, water demand for the proposed Specific Plan uses would have totaled 709 acre-feet per year (AFY). Although the WSA indicated that there would be sufficient water supply to service the Specific Plan area, the WSA anticipated that additional groundwater supplies above existing conditions at the time of the Certified EIR would be utilized. The region and the City depend on imported water to replenish and supplement groundwater supplies in the event of major drought conditions. The City's 2010 Urban Water Management Plan (UWMP) identified the need for Corona to comply with the California Water Conservation Act of 2009 to reduce potable water demands by 10 percent in 2015 and 20 percent in 2020.

The development associated with the Specific Plan would have utilized water conservation project design features such as low-flush toilets, low-flow faucets, and drought-tolerant landscaping. In addition, the development associated with the Specific Plan would have used recycled water for landscaping and other outdoor uses. The use of recycled water (approximately 72 AFY) would have reduced the total amount of potable water that would have been required for the Specific Plan. The Specific Plan's potable water demand of 637 AFY of water may have resulted in a reduction in groundwater supplies during a prolonged drought. To reduce the potential significant effect on groundwater supplies during a major drought condition mitigation was proposed in the Certified EIR.

Drainage Pattern and Capacity-Related Impacts

Because the development of the Specific Plan area would have introduced a greater percentage of impervious surfaces, the post-development flow volumes that would have been generated on site would have been substantially higher than the pre-development flows without an adequate drainage system. Post-project conditions resulting from this change would have included increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. The Specific Plan area at the time of the Certified EIR had a low runoff coefficient, meaning that runoff during storms represented a relatively small portion of the total rainfall. Development of the Specific Plan area with impervious surfaces (such as roadways, parking lots, and buildings) would have resulted in a condition in which nearly all rainfall would become runoff.

The Arantine Hills Specific Plan conceptual drainage included a system of drainage facilities and detention basins. The Bedford Canyon Wash would have been designed as a soft-bottom channel with concrete slopes, and slope protection on the north sides to protect against scour. Bedford Canyon Wash from Street "A" to the upstream boundary of the project would have been widened in order to reduce the drainage flow velocity within the channel. Below Street "A," the Wash would have been transitioned to match the channel width. A multiple-arch culvert bridge or reinforced concrete boxes would have been designed for the proposed Street "E" crossing. A floodplain and sediment transport study was prepared for Bedford Canyon Wash. This study, along with other pertinent studies that could have been required, would have been submitted to the Riverside County Flood Control and Water Conservation District for review, approval, and consideration of acceptance of the Bedford Canyon Wash improvements associated with the Specific Plan. Drainage improvements were required to ensure that the Specific Plan would be protected from a 100-year flood.

The WQMP prepared for the Specific Plan indicated that the Specific Plan area would have ultimately drained to a regional basin located in Planning Area 15 and a local basin located in Planning Area 16. These basins would have been constructed on site by the Developer and would not have been considered City facilities. The volumes and duration for the post-development conditions exceeded the pre-development conditions on site. The Specific Plan would have required the use of a detention basin to function for both detention and water quality purposes. As identified in the WQMP prepared for the Specific Plan, the flows coming from both the regional and local basin into Bedford Canyon Wash would been at a rate such that the post-development conditions would not have exceeded the pre-development conditions for the rainfall event year, per City requirements. In addition, the post-development velocities would not have exceeded the pre-development velocities and would have minimized downstream erosion.

There were no other existing drainage facilities near or within the Specific Plan area. The Master Drainage Plan prepared for Specific Plan proposed a system of drainage channels and underground storm drains and basins to intercept and convey the storm flows generated by the Specific Plan area and the off-site flows coming from the south. The majority of the proposed underground drainage facilities would have been placed under the streets. Open channels were proposed along the south, west, and north sides of the Specific Plan area. Detention basins were proposed at two locations in order to mitigate increases in storm water runoff resulting from the development of the various planning areas.

While the implementation of the Specific Plan would have contributed to a greater volume and higher velocities of storm water flow, the master drainage system would have accepted and accommodated runoff that would have resulted from project construction at or better than historic, or pre-development, conditions. Therefore, the post-development flows generated within the Specific Plan area would not have exceeded the capacity of the planned storm water drainage systems. Mitigation Measure 4.9.6.4A would have been implemented to ensure the potential drainage impacts would have been reduced to a less than significant level according to the Certified EIR.

3.11.2 Impacts Associated with the Proposed Project

(a) Violate any water quality standards or waste discharge requirements?

No Changes or New Information Requiring Major or Minor EIR Revisions. Short-term storm water pollutant discharges from each individual site within the Specific Plan area would be prevented

through compliance with the applicable NPDES permitting process. Coverage with applicable permits would prevent sedimentation and soil erosion through implementation of an SWPPP and periodic inspections by RWQCB staff. During the construction period, the development associated with the Specific Plan would utilize a series of BMPs to reduce erosion and sedimentation consistent with those identified in the Certified EIR. To ensure that future development within the Specific Plan area obtains coverage under the NPDES General Construction permit, Mitigation Measures 4.9.6.1A through 4.9.6.1C have been identified. In order to prevent impacts to operational water quality, the proposed project would be required to prepare a site-specific Water Quality Management Plan (WQMP) to identify low-impact development storm water retention strategies and appropriate hydromodification controls to mitigate potential violations of water quality standards or waste discharge requirements. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Change in Circumstance or New Information Requiring Major or Minor EIR Revisions. The WSA prepared for the Specific Plan indicated the City's primary water source is groundwater from the Temescal, Bedford, and Coldwater Sub-basins. The secondary source is water imported by the MWDSC from the Colorado River and the SWP. The proposed project would result in changes in the amount of certain land use designations that comprise the Specific Plan, including an increase in the amount of residential and open space acreage and decrease in the amount of commercial, mixed-use, and parkland acreage.

Based on the WSA prepared for the Specific Plan Amendment, water demand for the proposed project uses would total 796 AFY. (Of this, 709 AFY is potable water demand and approximately 87 AFY is recycled water demand.) While the proposed project would not result in a change in the size, boundaries or location of the Specific Plan and does not include any land use designations not previously analyzed, the proposed project would increase overall water demand compared to the project addressed in the Certified EIR.

On January 17, 2015, Governor Brown declared a State of Emergency due to drought conditions experienced across the State.[1] This declaration directed State officials to take all necessary actions to prepare for these drought conditions and establish a statewide water conservation campaign. A change in circumstances in potential water supply has occurred since approval of the Specific Plan. As discussed in the Certified EIR, in the event that imported water is not available, the City would rely solely on groundwater supplies to meet existing and future water demands. As indicated in the Certified EIR, the proposed project's potable water demand may result in a reduction in groundwater supplies during a prolonged drought. This potential impact is addressed further in Section 4.2 of this Supplemental EIR.

[1] State of California, Office of Governor Edmund G. Brown Jr. 2014. Governor Brown Declares Drought State of Emergency. http://gov.ca.gov/news.php?id=18368 (accessed June 25, 2015).

(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?

Change in Project Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, the proposed project would not introduce a substantially greater percentage of impervious surfaces than originally analyzed in the Certified EIR. However, the proposed project would change the relative share of land use designations within the area encompassed by the Specific Plan, including an increase in Open Space that may be prone to erosion or siltation not previously considered in the Certified EIR. Therefore, a Master Drainage Plan and WQMP will be prepared in order to evaluate how the proposed project's change in impervious surfaces would affect increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. In addition, the project proposes three options to convey storm flows through or around Bedford Canyon Wash, as described below:

- *Option 1: Concrete Lined Bypass Channel:*
    - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
    - Diversion structure to maintain 150 cfs within Bedford Canyon Wash and divert all higher flows into a concrete-lined bypass channel.
    - At the downstream portion of the site, the bypass channel would discharge flows into a "plunge pool" to reduce velocities before reconnecting to Bedford Canyon Wash near the downstream property line.
    - Concrete-lined bypass channel measures approximately 46 feet wide at the bottom.
- *Option 2: Soft Bottom Bypass Channel:*
    - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
    - Bypass channel excavated lower in elevation than adjacent "B" Street and building pads.
    - Buried riprap rock on both sides of bypass channel and buried grade control structures.
    - Alluvial fan sage scrub vegetation planted in soft bottom and above buried riprap banks.
    - Nominal low flows may remain in Bedford Canyon Wash during storm events.
    - Soft bottom bypass channel measures approximately 82 feet wide at the bottom.
- *Option 3: Reestablish Bedford Canyon Wash*
    - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
    - Bedford Canyon Wash excavated lower in elevation than adjacent "B" Street.
    - Buried riprap rock on both sides of bypass channel and buried grade control structures.
    - All flows captured in Bedford Canyon Wash.

- Alluvial fan sage scrub planted in soft bottom and above buried riprap banks.
- Reestablished Bedford Canyon Wash widened to approximately 140 feet.

The proposed changes in drainage facilities represent a substantial change in the project that may cause new impacts not addressed in the Certified EIR. Therefore, these changes shall be considered further in Chapter 4.3.

(d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?

Change in Project Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, the proposed project would not introduce a substantially greater percentage of impervious surfaces than those originally analyzed in the Certified EIR. However, the proposed project would change the relative share of land use designations within the area encompassed by the Specific Plan, that may result in flooding on or off site not previously considered in the Certified EIR. Therefore, a Master Drainage Plan and WQMP will be prepared in order to evaluate how the proposed project's change in impervious surfaces would affect increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; and shorter time to reach peak flow that may result in flooding.

The proposed project includes three design options for conveying storm flows within Bedford Canyon Wash through the project site. One design option includes the construction of a concrete-lined bypass channel adjacent to Bedford Canyon Wash to convey storm flows while allowing low flows to remain in the existing Bedford Canyon Wash. The second design option is similar with the bypass channel designed in a wider, deeper, and more nature manner, including a soft bottom. The third option does not include a bypass channel but instead reestablishes Bedford Canyon Wash to a much wider and more natural configuration in order to safely convey low flows as well as storm flows. The proposed changes in drainage facilities represent a substantial change in the project that may cause new impacts not addressed in the Certified EIR. Therefore, these changes shall be considered further in Chapter 4.3. As discussed in the Certified EIR, although the area included within the Specific Plan and proposed project is not mapped as an area subject to 100-year flooding, drainage improvements are required to ensure that the Specific Plan will be protected from a 100-year flood. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

No Changes or New Information Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, the proposed project would not introduce a substantially greater percentage of impervious surfaces than originally analyzed in the Certified EIR. However, the proposed project

would change the relative share of land use designations within the area encompassed by the Specific Plan that may result in additional sources of runoff not previously considered in the Certified EIR. Therefore, a Master Drainage Plan and WQMP will be prepared to ensure that the proposed project would not create or contribute runoff water that would exceed the capacity of storm water drainage systems or provide additional sources of polluted runoff. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(f) Otherwise substantially degrade water quality?

No Changes or New Information Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, the proposed project would not introduce a substantially greater percentage of impervious surfaces than originally analyzed in the Certified EIR that could substantially degrade water quality as a result of an increase in the volume of runoff from the Specific Plan area. Although the proposed project would change the relative share of land use designations within the area encompassed by the Specific Plan, no land use designations that could result in substantial degradation of water quality not previously analyzed in the Certified EIR have not been included as part of the proposed project. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Changes or New Information Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. However, a detailed floodplain a study prepared for the proposed project concludes that the 100-year floodplain is properly contained within any of the three drainage options. Therefore, the proposed project would not place housing within a 100-year flood hazard area as mapped on the Flood Insurance Rate Map consistent with the analysis contained in the Certified EIR. However, the developer is required to adhere to FEMA's LOMR certification process, thereby verifying that the Specific Plan area would not place housing within an area mapped for 100-year flood hazard. As such, the proposed project would not place housing within an area mapped for 100-year flood hazard. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Changes or New Information Requiring Major or Minor EIR Revisions. As discussed previously in Section 3.11.2(g), none of the Specific Plan area or the proposed project would be located in a flood hazard area. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Changes or New Information Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, no new areas subject to flooding as a result of failure of a levee or dam not previously analyzed in the Certified EIR have been included as part of the proposed project. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(j) Expose people or structures to inundation by seiche, tsunami, or mudflow?

No Changes or New Information Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, no new areas subject to seiche, tsunami, or mudflow have been included as part of the proposed project that were not previously identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.11.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. As stated in the Certified EIR, development within the watershed would result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology and increase potential pollutant loads. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, the proposed project would not introduce a substantially greater percentage of impervious surfaces than originally analyzed in the Certified EIR that could substantially degrade water quality as a result of an increase in the volume of runoff from the Specific Plan Area. As with the Certified EIR, the Master Drainage Plan would require BMPs that would address increases in volume of runoff and pollutant loads from the existing condition. Similarly, cumulative projects would be required to minimize their individual impacts to water quality and pollutant transport through implementation of BMPs. The proposed project cumulative contribution to water quality would be similar and have the same level of impact as the Certified EIR. Therefore, this impact will not be evaluated further in Chapter 4.0.

3.11.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

The following mitigation measures identified in the Certified EIR have been determined applicable to the proposed project.

Mitigation Measure 4.9.6.1A: Prior to the first issuance of a grading permit by the City for any development within the Arantine Hills Specific Plan, the project proponent shall file a Notice of

Intent (NOI) with the Santa Ana Regional Water Quality Control Board (RWQCB) to be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project proponent shall submit to the City the Waste Discharge Identification Number as proof that the project's NOI to be covered by the General Construction Permit has been filed with the appropriate RWQCB.

Mitigation Measure 4.9.6.1B: Prior to the first issuance of a grading permit by the City for any development within the Arantine Hills Specific Plan, the project proponent shall submit to the City of Corona and receive approval for a project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Some of the BMPs to be implemented may include (but shall not be limited to) the following:

- Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the BMPs would be periodically inspected during construction, and repairs would be made when necessary as required by the SWPPP.
- Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be contained, elevated, and placed in temporary storage containment areas.
- All loose piles of soil, silt, clay, sand, debris, and other earthen material shall be protected in a reasonable manner to eliminate discharge from the site. Stockpiles would be surrounded by silt fences and covered with plastic tarps.
- The SWPPP would include inspection forms for routine monitoring of the site during the construction phase to ensure NPDES compliance.
- Additional BMPs and erosion control measures would be documented in the SWPPP and utilized if necessary.
- The SWPPP would be kept on site for the entire duration of project construction and will also be available to the local Regional Water Quality Control Board for inspection at any time.
- In the event that it is not feasible to implement the above BMPs, the City of Corona can make a determination that other BMPs would provide equivalent or superior treatment either on site or off site.

Mitigation Measure 4.9.6.1C: The Construction Contractor shall be responsible for performing and documenting the application of BMPs identified in the project-specific SWPPP. Weekly inspections shall be performed on sediment control measures called for in the SWPPP. Monthly reports shall be maintained by the Contractor and available for City inspection. A more frequent inspection schedule may be required based on the condition of the site and as required in the NPDES General Construction Permit. In addition, the Contractor would also be required to maintain an inspection log and have the log on site available for review by the City of Corona and the representatives of the Regional Water Quality Control Board.

Mitigation Measure 4.9.6.2A: Prior to the first issuance of a permit by the City for any project within the Specific Plan area (which includes the issuance of grading permits and building permits), the project proponent shall receive approval from the City of Corona, a project site-specific Water Quality Management Plan (WQMP). The WQMP shall specifically identify pollution prevention, source control, treatment control measures, and other BMPs that shall be used on site to control predictable pollutant runoff in order to reduce impacts to water quality to the maximum extent practicable.

Mitigation Measure 4.9.6.3A: Prior to the issuance of grading permits of any development within the Arantine Hills Specific Plan, the project proponent shall submit to the City for review and approval, a water conservation plan. The water conservation plan shall include but shall not be limited to the following:

- Drought-tolerant landscaping plan;
- Indoor project design features such as low-flush toilets and low-flow faucets;
- Outdoor project design features such as subsurface irrigation systems, rain sensors, drip irrigation, or high-efficiency sprinkler heads;
- Use of alternative water sources (e.g., reclaimed water); and
- Educational materials to be utilized by the project tenants.

Mitigation Measure 4.9.6.3B: Prior to the issuance of occupancy permits for any development within the Arantine Hills Specific Plan, the project proponent shall submit proof to the City that an educational program regarding water usage has been developed for use within the proposed project.

Mitigation Measure 4.9.6.4A: Prior to the issuance of grading permits of any development within the Arantine Hills Specific Plan, the project proponent shall ensure that drainage facilities and/or improvements necessary for the protection of the project from the 100-year flood are identified and incorporated into the improvement plans that will be reviewed and approved by the City. A floodplain and sediment transport study ~~prepared for Bedford Canyon Wash,~~ along with other required drainage and/or hydraulic studies, shall be submitted to the Riverside County Flood Control and Water Conservation District for review, approval, and consideration of acceptance of the ~~Bedford Canyon Wash~~ drainage improvements associated with the proposed development. Acceptance of ~~Bedford Wash~~ drainage improvements by the Flood Control and Water Conservation District requires approval of the associated plans and pertinent drainage studies including the sediment transport study. These drainage improvements are required to ensure the proposed project will be protected from ~~the~~ a 100-year flood.

3.12 LAND USE AND PLANNING

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.12.1 Summary of Impacts Identified in the Certified EIR

Physically Divide an Established Community

The nearest residential land uses within the City were located to the west and northwest of the Specific Plan area and were a part of the Eagle Glen Specific Plan development, a golf course residential development. However, the Eagle Glen community was located on elevations higher than the Specific Plan area and was separated by a vegetated bluff. The land use adjacent to the Specific Plan area to the south was unincorporated rural residential, to the east was I-15, and to the west open space and some agricultural parcels. Since the Specific Plan was an infill project with development surrounding most of it, it would not have divided an established community on site.

Because the existing residential uses surrounding the Specific Plan were separated from the site by elevation and undeveloped natural areas (a bluff), implementation of the proposed Specific Plan would not physically divide an established community. While the physical construction of barriers would occur (e.g., roadways, natural areas, and open space), the division of an established community would not have occurred because the residential uses in the project vicinity were already separated by existing natural features. No impact would occur, according to the Certified EIR.

Conflict with Applicable Land Use Policies, Plans, or Regulations

As discussed in the Certified EIR, the land use designation for the Specific Plan area was "Agriculture-Possible Future Urban Use," according to the City of Corona General Plan Land Use

Map. Since the Specific Plan proposed land uses that ranged from low density residential to high density residential, general commercial, mixed uses (commercial-industrial and commercial-residential), parks, and open spaces as illustrated in the Arantine Hills Specific Plan, a General Plan Amendment was required. On adoption of the General Plan Amendment, the land use designations per Arantine Hills Specific Plan were applied.

The Specific Plan area was zoned as "Agricultural." Adoption of the Arantine Hills Specific Plan changed the zoning designation for the Specific Plan area to the various zoning designations as indicated by the Arantine Hills Specific Plan making the Specific Plan consistent with zoning. The change in zoning was not considered a significant land use impact; therefore, no mitigation was found to be required in the Certified EIR.

Conflict with Any Applicable Habitat or Natural Community Conservation Plan

The Specific Plan area was located within the MSHCP area, Temescal Canyon Area Plan. Although not located within an MSHCP conservation or criteria area, the Specific Plan would have needed to comply with the requirements of the MSHCP. The MSHCP is a comprehensive, multi-jurisdictional effort that includes Riverside County and fourteen cities to provide a regional approach to conservation planning. The Specific Plan would have been consistent with the MSHCP. The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands suitable for habitat preservation for species covered by the MSHCP. Because the Specific Plan would have complied with the requirements of the MSHCP, the Specific Plan was found to result in a less than significant impact according to the Certified EIR.

3.12.2 Impacts Associated with the Proposed Project

(a) Physically divide an established community?

No Changes or New Information Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, no new communities have been introduced into the Specific Plan area that have not been previously analyzed in the Certified EIR. The Certified EIR determined that because the existing residential uses surrounding the Specific Plan are separated from the site by elevation and undeveloped natural areas (a bluff), implementation of the Specific Plan does not physically divide an established community. While the physical construction of barriers would occur (e.g., roadways, natural areas, and open space), the division of an established community would not occur because the residential uses in the project vicinity are already separated by existing natural features. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Changes or New Information Requiring Major or Minor EIR Revisions. The Arantine Hills Specific Plan was adopted on August 15, 2012, and replaced the previous land use and zoning designations for the site, "Agriculture-Possible Future Urban Use" and "Agricultural," respectively. The Specific Plan, for the proposed project, would result in a change in the land use designations included in the Arantine Hills Specific Plan, but would not change the size, location, or boundaries of the existing specific plan. Therefore, with adoption of the proposed project, the proposed development included as part of the Specific Plan would be consistent with the land use designations for the area. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new areas covered by the MSHCP have been introduced into the Specific Plan area that have not been previously analyzed in the Certified EIR. As discussed in the Certified EIR, the proposed project would be required to adhere to the requirements of the MSHCP, including its Implementation Agreement and fee mitigation program. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.12.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. The Certified EIR found that the original project would not substantially conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project would result in a change in the land use designation included in the Arantine Hills Specific Plan, but would not change the size, location, or boundaries of the existing specific plan. The proposed land use changes would not create new or substantially greater impacts related to land use. Because each development project will be required to mitigate any inconsistencies among the various land use plans, it can be anticipated that, on a cumulative level, these projects would have a less than significant impact. No significant cumulative impacts would be expected with regard to dividing an established community, conflicting with applicable land use plans, policies, or regulations, or conflicting with an approved habitat conservation plan. Therefore the proposed project's impact to cumulative land uses is less than significant, just as the impact identified in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.12.4 Mitigation Measures Identified in the EIR Applicable to the Proposed Project

No mitigation measures related to land use were identified in the Certified EIR.

3.13 MINERAL RESOURCES

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.13.1 Summary of Impacts Identified in the Certified EIR

Loss of Statewide, Regional, or Locally Important Mineral Resources

According to the Certified EIR, the Specific Plan area was classified as MRZ-3, which was identified as a mineral zone that contains deposits whose significance cannot be evaluated from available data. In addition, no mineral extraction activity was occurring or planned on or within the vicinity of the Specific Plan area during the time of the Certified EIR. The development of the Specific Plan area with residential uses, commercial uses, institutional uses, and open space would not have resulted in the loss of identified regional or local mineral resources, conversion of an identified mineral resource use, or conflict with existing mineral resource extraction activities. Therefore, the development of the Specific Plan area would not have resulted in a loss of statewide, regional, or locally important mineral resources. No impacts associated with this issue would have occurred, according to the Certified EIR.

3.13.2 Impacts Associated with the Proposed Project

(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Changes or New Information Requiring Major or Minor EIR Revisions. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have

occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. Therefore, no new areas that contain a known mineral resource have been included as a result of the proposed project that were not previously analyzed in the Certified EIR. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Changes or New Information Requiring Major or Minor EIR Revisions. Prior to the approval of the Specific Plan, the Specific Plan area was designated as "Agricultural- Potential Future Urban" and zoned as "Agricultural," and was not zoned for mineral recovery. Since approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The proposed project would not change the boundaries, size, or location of the Specific Plan. No new areas that contain a known locally-important mineral resource recovery site have been included as a result of the proposed project that were not previously analyzed in the Certified EIR. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.13.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. As discussed above, the proposed project would not affect any known locally or regionally important mineral deposits. The proposed project is located on the same site as was analyzed for the Certified EIR. This area is not known to be a source of significant mineral deposits. While cumulative development would increase demand for mineral resources, development of the proposed project would not reduce mineral resources and therefore have no significant cumulative impact to mineral resources. This impact is the same as was identified for the Certified EIR. Therefore, this impact will not be evaluated further in the Chapter 4.0.

3.13.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

No mitigation measures related to mineral resources were identified in the Certified EIR.

3.14 NOISE

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the Specific Plan area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the Specific Plan area to excessive noise levels?	☐	☐	☐	☒

3.14.1 Summary of Impacts Identified in the Certified EIR

Construction Noise

Short-term noise impacts within the Specific Plan area would have been associated with excavation, grading, and erecting of buildings on site during construction of the development. Construction-related short-term noise levels would have been higher than existing ambient noise levels in the Specific Plan area at the time of the Certified EIR but would not have occurred once construction of the development associated with the Specific Plan was completed.

As determined in the Certified EIR, the nearest existing sensitive receptors in the vicinity of the Specific Plan area were residences to the west of the Specific Plan area, across Eagle Glen Parkway, at distances ranging from 150 feet to 420 feet. For the purpose of this analysis, an overall grading noise level of 89 dBA L_{max} at 50 feet was used as the worst-case maximum exterior noise level that is typical with the use of standard grading equipment. Using a drop off rate of 6 dBA L_{max} per doubling of distance, noise levels at 100 feet were estimated at 83 dBA L_{max}, at 200 feet 77 dBA L_{max}, and at 400 feet 71 dBA L_{max}. This was a worst-case scenario when grading equipment was located nearest to these homes.

The City of Corona Development Code Section 17.84.040 limited construction activity to the hours of 7:00 a.m. to 8:00 p.m. from Monday to Saturday and from 10:00 a.m. to 6:00 p.m. on Sundays and Federal holidays. Therefore, construction activities that would have occurred within the Specific Plan area would have been required to adhere to these Development Code requirements.

According to the Certified EIR, due to the nature of the project, it was not possible to calculate the specific noise impacts at the Specific Plan level without grading plans and the location of the potential noise sources. Mitigation Measure 4.12.6.1A would have ensured that the evaluation of specific noise impacts associated with construction noise was identified and mitigation measures recommended.

On-Site Traffic-Related Noise Impacts

Portions of the Specific Plan area were exposed to significant traffic noise levels from Eagle Glen Parkway and I-15. The traffic-related noise impacts to the noise-sensitive portions of the Specific Plan area were anticipated to be generated by traffic on the internal roads such as Street "A," Street "B," and Street "C" as well as traffic on Eagle Glen Parkway and I-15. As identified in the Noise Study conducted for the Certified EIR, the future unmitigated 65 dBA CNEL contours were within the right-of-way for Street "B" and Street "C" and did not reach the Planning Area (PA) 7 and 10 boundary lines along Eagle Glen Parkway from Bennett Avenue to Masters Drive. For Eagle Glen Parkway from Masters Drive to Bedford Canyon Road and Street "A," the 65 dBA CNEL contours extended slightly into the adjacent planning areas. Since the location of the nearest homes in PA 13 and 14 were not yet known, any potential mitigation measures would have been made once a final site plan was provided. Should any noise sensitive exterior living areas have been located within the 65 dBA CNEL contour, exterior mitigation such as noise barriers could have been required. Based on the location of the traffic noise contours produced by I-15, portions of PA 16 would have been located within both the 65 dBA CNEL and 70 dBA CNEL traffic noise contours. For all noise-sensitive residential units that were located between the 65 dBA CNEL traffic noise contour and I-15, exterior mitigation at private exterior living areas including private patios and balconies could have been

necessary depending on the site layout, grading information, and location of intervening buildings. This was considered a potentially significant impact in the Certified EIR.

On-Site Stationary Noise Impact

The operation of the commercial center areas could have created noise impacts to the adjacent residential areas. Typical noise impacts associated with the operation of the commercial center included truck maneuvering and unloading, air conditioning units, trash compactors, and speakerphones. It was not possible to calculate the specific noise impacts at the Specific Plan level without grading plans and the locations of the potential noise sources. Because on-site stationary noise impacts could not be calculated at the time of the Certified EIR, impacts were considered potentially significant.

Off-Site Traffic-Related Noise

As stated in the Certified EIR, under existing year 2011 without project conditions, no roadway segments identified exceeded the 65 dBA CNEL level. Under the existing year 2011 plus project scenario, one roadway segment (Cajalco Road between Bedford Canyon Road and I-15) would have exceeded the 65 dBA CNEL level and resulted in an increase of 3.5 dBA CNEL from existing conditions at the time of the Certified EIR. These levels were calculated to show the potential transportation-related noise increase with the addition of the Specific Plan and were not meant to provide specific noise level impacts at any noise-sensitive private living area. When the Certified EIR was prepared, there were no current or planned noise-sensitive uses along Cajalco Road from Bedford Canyon Road to I-15. Project-related noise levels at this location would have been below the 5 dBA "readily perceptible" threshold. For all other roadway segments under this scenario, the project's incremental vehicular-source noise contributions were considered to be "barely perceptible" (less than 3 dBA). Impacts were considered less than significant in the Certified EIR.

Under future year 2014 conditions, the increase in noise on roadway segments was anticipated to range from 0.0 dBA CNEL to 1.9 dBA CNEL. These noise increases were small and would not have been discernable to the human ear in an outdoor environment over a long period of time. No roadway segments identified would have had a significant impact as no roadways resulted in an increase of 5.0 dBA CNEL or greater and resulted in a level above 65 dBA CNEL. Therefore, impacts associated with traffic noise for the future year 2014 scenario would have been less than significant, according to the Certified EIR.

Under future year 2019 conditions, one roadway segment (Cajalco Road between Bedford Canyon Road and I-15) would have exceeded the 65 dBA CNEL level and resulted in an increase of 3.1 dBA CNEL from existing conditions. There were no current or planned noise-sensitive uses along Cajalco Road from Bedford Canyon Road to I-15. Project-related future (2019) noise levels at this location would have been below the 5 dBA "readily perceptible" threshold. For all other roadway segments under this scenario, the project's incremental vehicular-source noise contributions were considered to be "barely perceptible" (less than 3 dBA). Impacts were considered less than significant in the Certified EIR.

Under future year 2035 conditions, one roadway segment (Cajalco Road between Bedford Canyon Road and I-15) would have exceeded the 65 dBA CNEL level and resulted in an increase of 3.0 dBA CNEL from existing conditions. There were no existing or planned noise-sensitive uses along Cajalco Road from Bedford Canyon Road to I-15. Project-related future (2035) noise levels at this location

would have been below the 5 dBA "readily perceptible" threshold. For all other roadway segments under this scenario, the project's incremental vehicular-source noise contributions were considered to be "barely perceptible" (less than 3 dBA). Impacts were considered less than significant in the Certified EIR.

Groundborne Vibration

According to the Certified EIR, the development of the Specific Plan would have resulted in the construction and operation of residential, commercial, and light industrial uses. Depending on the equipment and methods used, soil type, and the distance to affected structures, construction activity could have resulted in varying degrees of ground vibration within the Specific Plan area. The nearest existing sensitive receptors in the vicinity of the Specific Plan area were residences to the northwest of the project site, across Eagle Glen Parkway, at distances ranging from 150 feet to 420 feet. Groundborne vibration from grading equipment such as earthmovers and haul trucks at distances of more than 10 feet does not create vibration amplitudes that cause structural damages. Construction activities that would have occurred adjacent to these existing residences were not anticipated to generate significant groundborne vibration impacts since the existing adjacent residential uses were located more than 50 feet from the Specific Plan area. Impacts associated with this issue were anticipated to be less than significant by the Certified EIR.

Airport Noise Impacts

There were no public use or private airports within two miles of the Specific Plan area. The nearest local airport to the Specific Plan area was the Corona Municipal Airport (CMA), approximately 6.5 miles northwest of the Specific Plan area. The Specific Plan area was not located within an airport land use plan. Due to the distance of the Specific Plan area from the CMA, the potential development of the site with residential, commercial, and light industrial uses would not have resulted in the exposure of people residing or working in the Specific Plan area to airport-related noise. Therefore, no impacts associated with this issue were anticipated by the Certified EIR.

3.14.2 Impacts Associated with the Proposed Project

(a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR. However, the relative composition of the Specific Plan land use designations has changed since the adoption of the Specific Plan in 2012, including the locations of land use designations within the Specific Plan, which may expose some existing or proposed receptors to higher or lower construction and operational noise impacts than those previously analyzed in the Certified EIR. Therefore, a comprehensive noise impact analysis was prepared in order to analyze impacts as a result of the proposed project to ensure that persons would not be exposed to noise levels in excess of established standards.

Construction noise from the proposed project would in general have the same duration and intensity as noise identified in the Certified EIR. The noise impacts identified in both the Certified EIR and

proposed project related to construction would be reduced to less than significant with Mitigation Measure 4.12.6.1A. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

The Certified EIR identified off-site traffic noise impacts to be less than significant. One roadway segment, Eagle Glen Parkway (Cajalco Road) east of Bedford Canyon Road, was identified to experience a potentially significant noise increase of 3.1 dBA CNEL for Year 2019 conditions, and 3.0 dBA CNEL for Year 2035 conditions. However, since there are no current or planned noise-sensitive land uses along this roadway segment, the off-site noise level increases due to the Certified EIR are less than significant and below the 5 dBA readily perceptible threshold. Consistent with the Certified EIR, the proposed project would have potentially significant off-site traffic noise level increases due to project traffic on the same roadway segment. The noise level increases for the project would be less than those identified in the Certified EIR due to the change in the planned land uses within the project site. The off-site noise level increases due to the proposed project would approach 0.5 dBA CNEL for Year 2017 conditions and up to 2.3 dBA CNEL for Year 2035 conditions. Further, the adjacent land uses to the affected roadway segment are not noise sensitive, with existing commercial land use north of Eagle Glen Parkway and open space south of Eagle Glen Parkway. Therefore, the project's off-site traffic noise level contribution would be less than the Certified EIR, and is considered less than significant. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

Both the Certified EIR and the proposed project would experience elevated levels of on-site noise. According to the noise analysis, Mitigation Measure 4.12.6.2A will reduce the on-site traffic noise impacts to less than significant levels at the outdoor living areas within the Certified EIR and proposed project.

The Certified EIR included commercial land uses that had the potential to create stationary noise impacts at adjacent residential land uses. The proposed project land use plan has general retail land use with potential stationary noise sources such as rooftop air conditioning units, parking lot vehicle movement, drive-through speakerphones, and loading dock activity. The Certified EIR identified Mitigation Measure 4.12.6.3A, which requires a noise analysis to determine the stationary noise impacts from commercial land uses within the approved project, and less than significant impacts from stationary-source noise. The noise analysis for the proposed project shows the general retail stationary noise sources within the proposed project will not result in a significant impact and, therefore, the stationary-source noise impacts with the proposed project will be less than significant and consistent with the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. As indicated in the Certified EIR, the nearest existing sensitive receptors in the

vicinity of the Specific Plan area are residences to the northwest of the proposed site, across Eagle Glen Parkway, at distances ranging from 174 feet to 972 feet. No new sensitive receptors would be included that were not previously analyzed in the Certified EIR. Groundborne vibration from grading equipment such as earthmovers and haul trucks at distances of more than 10 feet does not create vibration amplitudes that cause structural damages. Therefore, no changes in impacts as a result of groundborne vibration are anticipated during construction.

The proposed project does not propose any land use designations not previously analyzed in the Certified EIR. Therefore, no new land use designations capable of producing groundborne vibration would result from the proposed project and no vibration-generating land use designations were identified in the EIR. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. The proposed project does not propose any land use designations not previously analyzed in the Certified EIR that may result in a permanent increase in ambient noise levels in the project vicinity. However, the relative composition of the Specific Plan land use designations has changed since the adoption of the Specific Plan in 2012, including the locations of land use designations within the Specific Plan, which may expose some existing or proposed receptors to higher or lower permanent ambient noise impacts than previously analyzed in the Certified EIR. Similar to the Certified EIR, the proposed project would introduce new development to an undeveloped site. However, as discussed above in 3.14.2(a), with implementation of Mitigation Measures 4.12.6.2A and 4.12.6.3A, the proposed project will not have a significant permanent noise impact. Therefore, with Mitigation Measures 4.12.6.2A and 4.12.6.3A, the proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. The proposed project does not propose any land use designations not previously analyzed in the Certified EIR that may result in a temporary or periodic increase in ambient noise levels in the project vicinity. However, the relative composition of the Specific Plan land use designations has changed since the adoption of the Specific Plan in 2012, including the locations of land use designations within the Specific Plan, which may expose some existing or proposed receptors to higher or lower temporary ambient noise level impacts than previously analyzed in the Certified EIR. Similar to the Certified EIR, construction-related short-term noise levels would be

higher than existing ambient noise levels in the project area, but would no longer occur once construction of the project is completed. Construction crew commute and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. However, as discussed in above in 3.14.2(a), with implementation of Mitigation Measures 4.12.6.1A, 4.12.6.2A, and 4.12.6.3A, the proposed project would not have any short-term or long-term noise impacts. Therefore with Mitigation Measures 4.12.6.1A, 4.12.6.2A, and 4.12.6.3A, the proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the Specific Plan area to excessive noise levels?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. No airports have been built within two miles of the Specific Plan area since the Specific Plan was approved. Therefore, there are no airports within two miles of the Specific Plan area that were not previously analyzed in the Certified EIR. The Specific Plan is not located within an airport land use plan. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the Specific Plan area to excessive noise levels?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. No private airstrips have been built within two miles of the Specific Plan area since the Specific Plan was approved. There are no private airstrips within two miles of the Specific Plan area that were not previously analyzed in the Certified EIR. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (no impact) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.14.3 Cumulative Impacts Associated with the Proposed Project

Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR. As identified above, the land uses included in the proposed project would not create a substantial increase in noise relative to the Certified EIR. For cumulative construction noise impacts, it is unlikely that adjacent properties will be developed at the same time as the proposed project. However, in the unlikely event that adjacent properties are developed at the same time as the proposed project,

implementation of the stated mitigation measures would reduce the cumulative impacts of the proposed project to less than significant levels. On-site operational noises are individual noise occurrences and are not additive in nature. The project's off-site traffic noise level contribution would be less than the Certified EIR and is considered less than significant. Since the proposed project's contribution to cumulative noise impacts would not exceed the impact identified in the Certified EIR, cumulative noise impacts are not discussed further in Chapter 4.0.

3.14.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

The following mitigation measures identified in the Certified EIR would be applicable to the proposed project:

Mitigation Measure 4.12.6.1A: Prior to the approval of a tentative tract map for each residential area or approval of commercial or industrial uses within the Specific Plan area, the project proponent shall prepare, submit, and receive approval from the City, a final noise analysis. This final noise analysis shall be completed at the tract map level for each residential area or commercial/industrial area when the precise grading and the architectural plans are available to ensure that all noise-sensitive areas will meet the City of Corona noise standards. The final noise analysis shall include but shall not be limited to the following:

- *Construction Noise Mitigation Program.* The program shall include noise monitoring at selected noise-sensitive locations, monitoring complaints procedures, identification of haul routes (if applicable), and identification and mitigation of the major sources of noise.
- *Construction Contractor Requirements.* These requirements shall include contract provisions regarding construction equipment noise features and equipment staging procedures.

Mitigation Measure 4.12.6.2A: Prior to the approval of a tentative tract map for each residential area or approval of commercial or industrial uses within the Specific Plan area within the 65 dBA CNEL and 70 dBA CNEL noise contours for Eagle Glen Parkway from Masters Drive to Bedford Canyon Road, "A" Street, and I-15, the project proponent shall prepare, submit, and receive approval from the City, a final noise analysis. This final noise analysis shall be completed at the tract map level for each residential area or commercial/industrial area when the precise grading and the architectural plans are available to ensure that all noise-sensitive areas will meet the City of Corona noise standards.

Mitigation Measure 4.12.6.3A: Prior to the approval of a tentative tract map for each residential area adjacent to commercial or industrial uses within the Specific Plan area, the project proponent shall prepare, submit, and receive approval from the City, a final noise analysis. This final noise analysis shall be completed at the tract map level for each residential area or commercial/industrial area when the precise grading and the architectural plans are available to ensure that all noise-sensitive areas will meet the City of Corona noise standards.

3.15 POPULATION AND HOUSING

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.15.1 Summary of Impacts Identified in the Certified EIR

Induce Substantial Population Growth

As discussed in the Certified EIR, implementation of the Specific Plan included a General Plan Amendment to change the land use designation of Agriculture-Possible Future Urban Use to a variety of land uses including Low-, Medium-, and High-Density Residential, General Commercial, Mixed-Use I and II, Parks, and Open Space General. According to the Certified EIR, implementation of the Specific Plan could have resulted in the development of up to 1,806 dwelling units (dus). Utilizing the Department of Finance (DOF) factor of 3.23 people per household and, assuming every resident was a new citizen of the City, these residential uses would have resulted in a population increase of up to 5,236 people.[1] The increase in dus and jobs associated with development of the Specific Plan would not have significantly affected the jobs-to-housing balance in the City.

The Certified EIR determined that implementation of the Specific Plan would potentially result in a population growth of 5,236 persons within the City. This potential population growth anticipated with Specific Plan implementation would not have induced growth beyond the level of growth the City was anticipating with respect to utilities and infrastructure. However, as described in the Utilities and Service Systems section (Section 4.19), the projected population growth associated with the Specific

[1] The Certified EIR calculated population increase for the project based on 1,621 single-family homes (i.e., 1,621 du × 3.23 persons/du = 5,236), although the calculation should have been based on 1,621 single-family dus and 185 multifamily dus.

Plan would have exceeded the existing capacity at the City's Water Recovery Facility 3 (WRF3). When the Certified EIR was drafted, the expansion of WRF3 was programmed as a project within the City's Capital Improvement Program (CIP) for 2010–2011. As identified in the CIP, improvements slated for WRF3 include the addition of 2.0 million gallons per day (mgd) of capacity. Upon its expansion, WRF3 would have had a total daily treatment capacity of 3.0 mgd. The CIP also stated that WRF3 expansion was part of the Sewer Master Plan and was identified as Project T-16A. It was anticipated that the expansion of WRF3 would be completed by the time Phase 3 of the Specific Plan was in operation.

Although the Specific Plan area was vacant agricultural land, surrounding roadway facilities (Eagle Glen Parkway and Temescal Canyon Road) contained the necessary public utilities (water, recycled water, sewer, storm drainage, electrical, natural gas, and transportation services) to support the Specific Plan. As the Specific Plan area would have extended utilities from the existing developed areas to the west and south, the improvements necessary for development of the site would not facilitate growth that had not been anticipated in the Specific Plan area, and no significant growth-inducing effect would have occurred.

Displace Substantial Amounts of Housing or People

According to the Certified EIR, the Specific Plan area was undeveloped and was zoned by the City as "Agriculture." The Specific Plan area was also designated in the City's General Plan as "Agriculture-Possible Future Urban Use." The Specific Plan area was not historically utilized for residential uses, and no residential structures were located within the Specific Plan limits with the exception of a mobile trailer used by an on-site property caretaker associated with the Specific Plan's past history of agricultural use. The construction and operation of the Specific Plan on-site uses would have neither displaced existing housing nor residents nor required the construction of replacement housing elsewhere in the City. In the absence of any residential displacement or a substantial change in the availability of residential units, no significant impact related to this issue would have occurred, according to the Certified EIR.

3.15.2 Impacts Associated with the Proposed Project

(a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, the total area included within the Specific Plan that could result in additional population growth as a result of the development of housing or job-generating land uses has not changed. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR that may result in a substantial increase in population growth in the area. Although the proposed project would increase the total acreage of residential development by 55 acres, the total number of residential units (1,621 dus plus an additional 185 dus if age-qualified dus are developed in PAs 6 and 10 for a total of 1,806 dus total) would not increase. The California DOF factor for people per household has increased slightly since the Specific Plan was adopted, from 3.23 to 3.48. Assuming every resident is a new citizen of the City, the residential uses included as part

of the Specific Plan and proposed project would result in a population increase in the City up to 6,249, which is approximately 1,000 more people than originally anticipated in the Certified EIR.[1] The 6,249 additional residents anticipated would represent approximately 3.9 percent of the City's population based on DOF estimates for 2015.[2] As discussed in the Certified EIR, this potential population growth would not induce growth beyond what the City is anticipating based on the approved Specific Plan for the area. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new area not previously analyzed in the Certified EIR for displacement of existing housing has been included as part of the proposed project. Additionally, no housing other than the mobile trailer identified in the Certified EIR exists on the vacant project site. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, no new area not previously analyzed in the Certified EIR for displacement of people has been included as part of the proposed project. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.15.3 Cumulative Impacts of the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. As discussed above, potential population growth anticipated would not induce growth beyond the level the City is anticipating based on the approved Specific Plan for the area. Therefore, no new or substantially greater population impacts would occur with implementation of the proposed project when compared

[1] California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011–2015. http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php (accessed June 25, 2015).
[2] Ibid.

to those identified in the Certified EIR. Implementation of the proposed project would not result in a cumulatively significant population or housing impact, nor would the proposed uses significantly induce growth in areas where growth was not previously anticipated. Like the original project analyzed in the Certified EIR, the proposed project would not generate a cumulatively significant increase in population. Both projects have the same level of impact. Therefore, this impact will not be evaluated further in Chapter 4.0.

3.15.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

No mitigation measures relating to population and housing were identified in the Certified EIR.

3.16 PUBLIC SERVICES

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

3.16.1 Summary of Impacts Identified in the Certified EIR

Fire Protection

According to the Certified EIR, all future development within the Specific Plan area would be designed, constructed, and operated per applicable fire prevention/protection standards established by Corona Fire Department (CFD) and/or the City, or State. Such requirements may have included (but would not have been limited to) provisions for smoke alarms; sprinklers; building and emergency access; adequate emergency notification; and hydrant sizing, pressure, and siting. The development of the Specific Plan commercial uses would not have caused fire staffing, facilities, or equipment to operate at a deficient level of service. Additionally, because the Specific Plan would have been required to pay development impact fees to fund future fire facilities and services, impacts associated with fire protection services and facilities were found to be less than significant in the Certified EIR.

Police Protection

Development that could have occurred with the implementation of the Specific Plan would have been designed and operated per applicable standards required by the City for new development in regard to public safety. In addition, the project would have been required to pay development fees used to fund capital costs associated with constructing new public safety structures and purchasing equipment for new public safety structures. Accordingly, impacts associated with police services with the Specific Plan would were considered less than significant in the Certified EIR.

School Facilities

Since school fees are uniformly applied to all development in the City and are required to be paid prior to project development, the payment of such fees would have ensured that no significant impact on existing school facilities would have occurred from the Specific Plan. Because the payment of required school fees provides "full and complete" mitigation for school-related impacts would have been provided, and impacts would be less than significant.

Parks and Recreational Facilities

Park and recreational facilities as they pertain to the proposed Specific Plan are analyzed in Section 3.17 (Recreation and Parks) of this Supplemental EIR.

3.16.2 Impacts Associated with the Proposed Project

(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *fire protection*?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. The total number of dus allowed by the Specific Plan Amendment (1,806) would not change from what was considered in the Certified EIR, and the commercial and industrial land use square footage would be reduced by over 600,000 square feet. As discussed in the Certified EIR, all future development within the Specific Plan area would be designed, constructed, and operated per applicable fire prevention/protection standards established by CFD and/or the City or State. Additionally, the Specific Plan would be required to pay development impact fees to fund future fire facilities. Additionally, the project will be annexed into the City's Community Facilities District (CFD) 2001-1 or a similar City established CFD per approval of the Public Works Director, for maintenance of public landscaping within master planned street rights-of-way and/or CFD easements. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact

(less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *police services*?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. The total number of dus allowed by the Specific Plan (1,806) would not change as a result of the Certified EIR, and the overall commercial square footage has been reduced by 316,400 square feet. As discussed in the Certified EIR, development that could occur with the implementation of the Specific Plan would be designed and operated per applicable standards required by the City for new development in regard to public safety. In addition, the development associated with the Specific Plan would be required to pay development fees used to fund capital costs associated with constructing new public safety structures and purchasing equipment for new public safety structures. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *schools*?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR. The total number of dus allowed by the Specific Plan (1,806) would not change as a result of the proposed project. As noted in the Certified EIR, school fees are uniformly applied to all development in the City and are required to be paid prior to project development. The payment of such fees would ensure that no significant impact on existing school facilities would occur. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(d) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *parks*?

No Changes or New Information Requiring Major or Minor EIR Revisions. Please see Section 3.17, Recreation, below.

(e) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for *other public facilities*?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR. The total number of dus allowed by the Specific Plan (1,806) would not change as a result of the proposed project and, therefore, population as a result of the Specific Plan within the City would not increase substantially and place an increased demand on other public facilities. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.16.3 Cumulative Impacts Associated with the Proposed Project

No Changes or New Information Requiring Major or Minor EIR Revisions. New development within the service areas of the Corona Fire Department and Corona Police Department would be required to adhere to conditions established by fire and police service providers, and pay the applicable fees to ensure adequate staffing and equipment levels. New school facilities would be constructed as determined by Corona-Norco Unified School District to accommodate the growth in the local student population. Additionally, school districts are engaged in planning new facilities in anticipation of future local and regional growth. Each district requires the payment of development fees to provide for new school services and/or facilities. The Certified EIR concluded the payment of applicable fees would reduce cumulative Public Services impacts to a less than significant level. Similar to the Certified EIR, the proposed project would be required to pay applicable development fees. Cumulative projects would also pay development fees. Since the proposed project does not substantially increase demand for public services relative to the Certified EIR, its cumulative impact to Public Services would also be less than significant. This impact will not be evaluated further in Chapter 4.0.

3.16.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

No mitigation measures related to public services were identified in the Certified EIR.

3.17 RECREATION

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.17.1 Summary of Impacts Identified in the Certified EIR

Increased Use of Existing Recreational Facilities

According to the Certified EIR, the implementation of the Specific Plan would have resulted in the development of up to 1,621 residential units (or 1,806 units if PA 16 is developed with multifamily residential uses), 38.0 acres of general commercial land uses, 39.7 acres of mixed land uses (which includes up to 451 mixed-use residential units), 36.6 acres of open space land uses, 15.2 acres of park land, and a system of pedestrian/bike trail within the Specific Plan area. Based on DOF data, the Specific Plan would have resulted in an increase in population within the City of up to 5,502 people. This increase in population would have resulted in an increased demand for parks and recreational facilities. As discussed in the Certified EIR, the City had a surplus of approximately 1,815 acres of parkland. With the increase in people that would have resulted from the development of the Specific Plan, the City was found to still have a surplus of parkland and adequate recreation facilities for existing and anticipated residents. Since there would have been no deficiency in parkland with the implementation of the Specific Plan, it was anticipated that the increase in population associated with the Specific Plan would not have resulted in the physical deterioration of existing recreational facilities. Therefore, impacts associated with this issue would have been less than significant.

New or Physically Altered Recreation and Park Facilities

According to the Certified EIR, the Specific Plan would have included the construction and provision of four parks totaling 15.2 acres. These parks would have included one 11.0-acre active neighborhood park, one 2.1-acre special use park, and two mini parks totaling 2.1 acres. These four parks would have been constructed by the project master developer. The 11.0-acre and 2.1-acre parks would have been dedicated to the City of Corona and the two 1.0-acre parks would have been owned and maintained by the Master Homeowners Association. All four parks would have been available for use by the general public. It was anticipated that the 11.0-acre active neighborhood park in Planning Area 8 would have included but was not limited to lighted soccer fields, covered picnic and shade structures, barbeque areas, basketball courts, a community swimming pool, restrooms, and off-street parking. The 2.1-acre special use park in Planning Area 12 was designed as a central gathering place and could have included but was not limited to a picnic/gazebo shade structure, outdoor artwork, benches, sitting areas, gardens/landscaping, and sidewalks. The 1.1-acre park in Planning Area 3 could have include but was not limited to benches, sitting areas, landscaping, tot lot, and sidewalks. Similarly, the 1.0-acre park in Planning Area 9 may have included benches, sitting areas, and landscaping. The proposed park design development and layout plans for Planning Areas 3, 8, 9, and 12 would have been designed and approved by the Parks and Community Services Director and Parks and Recreation Commission. In addition to these park facilities, the Specific Plan would also have preserved approximately 36.6 acres of open space land along Bedford Canyon. A continuous pedestrian/bicycle trail would have been constructed along the north side of the Bedford Canyon Wash.

The 11.0-acre neighborhood park was planned to be located in the central portion of the Specific Plan area, on the south side of Street "B" and adjacent to Bedford Wash. This central location would have been highly visible to the project residents, consistent with Policy 8.7.1. The Specific Plan included 36.6 acres of open space that encompassed the primary wash area as well as the steep cliff areas on its south side. The open space area would have provided a permanent buffer between the project and the wash and adjacent cliff area, consistent with Policy 8.10.2.

The construction of amenities associated with parks and open space within the Specific Plan area were included as part of the Specific Plan development. Therefore, as the environmental effects for the Specific Plan site were included as part of the entire analysis of environmental effects in the Certified EIR, the construction or expansion of such areas would not have resulted in an adverse physical effect on the environment beyond those analyzed for the overall development of the Specific Plan. For these reasons, impacts associated with this issue were considered to be less than significant in the Certified EIR.

3.17.2 Impacts Associated with the Proposed Project

(a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Changes or New Information Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Therefore, the total area included within the Specific Plan that could result in

additional population growth as a result of the development of housing or job generating land uses has not changed. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR that may result in a substantial increase in population growth in the area. Although the proposed project would increase the total acreage of residential development by 55 acres, the total number of residential units (1,621 dus plus an additional 185 age-qualified dus for a total of 1,806) would not increase. The California DOF factor for people per household has increased slightly since the Specific Plan was adopted; from 3.23 to 3.48. Assuming every resident as a new citizen of the City, the residential uses included as part of the Specific Plan and proposed project would result in a population increase in the City up to 6,249, which is approximately 1,000 more people than originally anticipated in the Certified EIR.[1]

It is not anticipated that this conservative estimate of an approximate additional 1,000 residents would substantially increase the use or accelerate the deterioration existing neighborhood or regional parks, given the proposed park land use designations included as part of the Specific Plan. As shown in Table 3.F, although the proposed project would result in a decrease in the total acreage of parkland land use designation by 6.5 acres, the City of Corona continues to have a net surplus of park lands. Additionally, several private parks are proposed as part of the project to provide on-site recreational opportunities for future residents. Furthermore, impact fees will be assessed by the City of Corona to offset use of existing facilities or develop additional parks within the City. Therefore, the development associated with the Specific Plan and the proposed project would not result in a net deficit of parklands for the City that could increase the use of existing parks or accelerate their deterioration. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

Table 3.F: Specific Plan Park Requirements

	Certified Project[1]	Proposed Project
Population[2]	155,918 people	166,536 people
Parkland Required[3]	545.7 acres	582.9 acres
City Parkland[4]	2,341.6 acres	2299.6 acres
Parkland With Project	2,356.8 acres	2308.3 acres
Parkland Surplus	(1,811.1 acres)	(1,725.4 acres)

1. Values from the Certified EIR, page 4.15-8, Table 4.15.C.
2. California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2015. http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php (accessed June 25, 2015).
3. City Parkland Requirement of 3.5 acres of parkland per 1,000 residents
4. Only includes City parks and open space areas.

[1] California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011–2015. http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php (accessed June 25, 2015).

(b). Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Changes or New Information Requiring Major or Minor EIR Revisions. As discussed in the Certified EIR, the Specific Plan includes development of a number of recreational facilities. These recreational facilities have been previously analyzed for physical effects to the environment in the Certified EIR. The only change to the recreational facilities included as part of the proposed project is a reduction in the total acreage of parks and recreation land use designation included within the Specific Plan area by 6.5 acres, which is not anticipated to result in any adverse physical effects on the environment. This reduction in park and recreation area included in the Specific Plan would not necessitate the construction of recreational facilities within other parts of the City due to the City's 1,795.9 acres of surplus parklands. The City has determined that any new park funding would be better spent on new park facilities within existing underdeveloped public park facilities and public park maintenance rather than the creation of additional surplus parks. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project when compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

3.17.3 Cumulative Impacts Associated with the Proposed Project

Less Than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. Implementation of the proposed project in combination with cumulative projects in the area would increase use of existing parks and recreation facilities. However, as future residential development is proposed, the City will require developers to provide the appropriate amount of parkland in addition to paying the in lieu fees, which will contribute to future recreational facilities. Payment of these fees and/or implementation of facilities on a project-by-project basis would offset cumulative parkland impacts by providing funding for new and/or renovated parks equipment and facilities. The proposed project, just as the previously analyzed project in the Certified EIR, would provide park and open space amenities. In addition, the City currently has a surplus of parkland. Therefore, the proposed project would not have a cumulatively significant impact to park and recreation facilities. This level of impact is the same as the Certified EIR and the impact will not be discussed further in Chapter 4.0.

3.17.4 Mitigation Measures Identified in the EIR Applicable to the Proposed Project

No mitigation measures related to parks and recreation were identified in the EIR.

3.18 TRANSPORTATION AND TRAFFIC

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance Requiring Major or Minor EIR Revisions	Information Showing Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

3.18.1 Summary of Impacts Identified in the Certified EIR

Would the proposed project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

and

Would the proposed project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The Certified EIR concluded that under existing baseline, up to five study area intersections would not have met the relevant jurisdiction's minimum level of service (LOS) standard under existing roadway geometrics. Under opening year 2014, the Certified EIR found that up to three study area intersections and three project intersections would not have met the relevant jurisdiction's minimum LOS standard under existing roadway geometrics. For the future year 2019, up to five study area intersections were projected to not meet the relevant jurisdiction's minimum LOS standard under existing roadway geometrics. Finally, under build out year 2035, up to eight study area intersections were projected to not meet the relevant jurisdiction's minimum LOS standard under existing roadway geometrics. These were considered significant impacts requiring mitigation, because the intersections would not have operated at an acceptable LOS as required by the City's General Plan.

Air Traffic Patterns

According to the EIR, the Specific Plan area was located approximately 6.5 miles southeast of the Corona Municipal Airport. Therefore, the Specific Plan was not located within any airport influence area for the Corona Municipal Airport or any other airport in the vicinity. Additionally, the Specific Plan did not include any structure or features that would have altered air traffic patterns or the level of air traffic at the Corona Municipal Airport. Therefore, no impacts to air safety would have occurred.

Design Hazard Features

The EIR concluded that temporary impacts associated with the construction of infrastructure improvements included as part of the Specific Plan could have temporarily restricted vehicular traffic or caused temporary hazards. The construction of infrastructure could have coincided with roadway improvements, which would have included road or lane closures as well as the presence of construction workers and equipment on public roads. Construction operations would have been required to implement adequate measures to facilitate the passage of people and vehicles through/ around any required road or lane closures. Site-specific activities, such as temporary construction activities, are finalized on a project-by-project basis by the City and are required to ensure adequate traffic flow as part of a construction traffic management plan. At the time of approval of any site-specific plans required for the construction of infrastructure as part of typical conditions of approval, the Specific Plan would have been required to implement measures in the construction traffic management plan that would have maintained traffic flow and access. In the absence of any design hazard and through adherence with the City standards and procedures stated above, a less than significant impact would have occurred, according to the Certified EIR.

Result in Inadequate Emergency Access

According to the Certified EIR, the roadway improvements that would have taken place as part of the Specific Plan would have improved traffic circulation in the area, which would have also improved the ability of emergency vehicles to access the area encompassed by the Specific Plan and surrounding properties. During the operational phase of the Specific Plan, on-site access would have been required to comply with standards established by the City Public Works Department. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would have been required to conform to Fire Department standard. As required of all development in the City, the operation of the Specific Plan would have conformed to applicable Uniform Fire Code standards. The submittal of such plans would have been considered a condition of approval, which would have been part of the permitting process initiated by the applicant and approved by the City in accordance with City standards. As with any development, access to and through the project would have been required to comply with the required street widths, as determined in the California Building Code (CBC), Master Plan of Streets, and the Uniform Fire Code. Therefore, the Certified EIR concluded that implementation of the Specific Plan would not have impaired implementation of or physically interfered with an adopted emergency response plan or emergency evacuation plan.

Alternative Transportation Policies, Plans, and Programs

According to the Certified EIR, the Specific Plan would have resulted in the development of new residential and employment opportunities. The Specific Plan would have been conditioned to provide sidewalks and landscaping treatments to allow for pedestrian access throughout the site. In addition, the Specific Plan included Class 2 bike lanes that would have allowed bicycle traffic movement through the area. The Class 2 bike lanes were provided along the Modified Secondary Arterial and Collector Streets.

The Certified EIR indicates that the design of the Specific Plan would have been required to adhere to applicable City of Corona standards that support and/or facilitate alternative modes of transportation. Through the City's project review process, policies, plans, and/or programs supporting alternative transportation would have been reviewed and incorporated as applicable. Consequently, a less than significant impact would have occurred as a result of implementation of the Specific Plan.

3.18.2 Impacts Associated with the Proposed Project

(a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

and

(b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Substantial Change in Project Requiring Major EIR Revision. In comparison to the approved project, the proposed project would result in the same number of residential dus, a reduction in the

overall amount of commercial land use, and elimination of mixed-use land use. As result, the *Traffic Impact Analysis* (Urban Crossroads, September 2015) for the proposed project calculates an overall reduction of 11,318 external average daily trips generated by the proposed project in comparison to the approved project. However, the Development Agreement includes a provision that will allow the development of a certain number of residential dus prior to the construction of the I-15/Cajalco Road Interchange improvements, and the construction of additional residential units once construction begins for the interchange. The proposed project would potentially create greater impacts than those identified in the Certified EIR, in the form of a temporary level of service impact at the I-15/Cajalco Road northbound and southbound ramps prior to the completion of the interchange improvements by the City in cooperation with Caltrans and the Riverside County Transportation Commission (RCTC). This potential impact is addressed further in Section 4.1 of this Supplemental EIR.

(c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR that may result in a change in air traffic patterns or a safety hazard. No new airports have been constructed since the analysis was completed for the Certified EIR. The proposed project would not result in any impacts to air traffic patterns and would not result in substantial safety risks as a result of changes in air traffic patterns. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact remains the same as the level of impact (no impact) cited in the Certified EIR. This topic will not be evaluated further in Chapter 4.0.

(d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan area. Additionally, the proposed project does not propose any land use designations not previously analyzed in the Certified EIR that may result in a change in a safety hazard or incompatible use. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact remains the same as the level of impact (less than significant impact) cited in the Certified EIR. This topic will not be evaluated further in Chapter 4.0.

(e) Result in inadequate emergency access?

Less Than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. As specified in the Certified EIR, the roadway improvements associated with the proposed project would improve traffic circulation within the Specific Plan area and would, therefore, improve access for emergency vehicles. Additionally, as required in the Certified EIR, on-site access would be required to comply with standards established by the City Public Works Department. The size and

location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to Fire Department standard. As required of all development in the City, the operation of the Specific Plan would conform to applicable Uniform Fire Code standards. The submittal of such plans would be considered a condition of approval, which would be part of the permitting process initiated by the applicant and approved by the City in accordance with City standards. As with any development, access to and through the areas of the Specific Plan included in the proposed project would be required to comply with the required street widths, as determined in the California Building Code (CBC), Master Plan of Streets, and the Uniform Fire Code. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact remains the same as the level of impact (less than significant impact) cited in the Certified EIR. This topic will not be evaluated further in Chapter 4.0.

(f). Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact/No Changes or No New Information Requiring Preparation of an EIR. As discussed in the Certified EIR, the approved project would be conditioned to provide sidewalks and landscaping treatments to allow for pedestrian access throughout the site. The proposed project includes a system of streets, paseos, parkways, and a pedestrian/bike trail circulation system. In addition to the roundabout originally proposed for the intersection of Street "B" and Street "C," another roundabout is included in the proposed project at the intersection of Streets "A" and "B." These roundabouts will help to calm traffic and provide for safe movement of vehicles, pedestrians, and bicycles. A Class I bike trail would be constructed on the north side of Street "B" connecting Streets "A" and "C." The entire community would be accessible via gates on both entry streets. As discussed in the Certified EIR, the proposed project would continue to be required to adhere to applicable City of Corona standards that support and/or facilitate alternative modes of transportation. Through the City's project review process, policies, plans, and/or programs supporting alternative transportation would be reviewed and incorporated as applicable. Consequently, a less than significant impact would occur as a result of implementation of the proposed project. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project would have the same impacts as those identified in the Certified EIR and the level of impact remains the same as the level of impact (less than significant impact) cited in the Certified EIR. This topic will not be evaluated further in Chapter 4.0.

3.18.3 Cumulative Impacts Associated with the Proposed Project

In comparison to the approved project, the proposed project would result in the same number of residential dus, a reduction in the overall amount of commercial land use, and elimination of mixed-use land use. As stated in Section 3.18.2, the proposed project would potentially create greater impacts than those identified in the Certified EIR, in the form of a temporary level of service impact at the I-15/Cajalco Road northbound and southbound ramps prior to the completion of the interchange improvements by the City in cooperation with Caltrans and the Riverside County Transportation Commission (RCTC). This potential impact is cumulative in nature and is addressed further in Section 4.1 of this Supplemental EIR.

3.18.4 Mitigation Measures Identified in the EIR Applicable to the Proposed Project

The Certified EIR establishes Mitigation Measures 4.16.6.1A, 4.16.6.2A, 4.16.6.2B, 4.16.6.3A, and 4.16.6.4A. These mitigation measures address project impacts to the vicinity intersections including I-15 ramp intersections on Cajalco Road and Cerrito Road. The mitigation measures from the Certified EIR set forth the physical circulation improvements required to be in place at the subject intersections prior to project construction, or the payment of impact fees required, or the need for a project-specific traffic analysis required to determine prior project construction. As discussed previously, the proposed project creates the potential for a new significant and unavoidable impact in the form of temporary level of service impacts at the I-15/Cajalco Road northbound and southbound ramps prior to completion of interchange improvements sponsored by the City in cooperation with Caltrans and RCTC. For this reason, the mitigation measures identified in the Certified EIR are discussed for adequacy in Section 4.1 of this SEIR.

3.19 UTILITIES AND SERVICE SYSTEMS

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☒	☐	☐

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
Would the project:				
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with Federal, State, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Summary of Impacts Identified in the Certified EIR

Wastewater Treatment Requirements

As indicated in the Certified EIR, a sewer analysis was prepared for the Specific Plan. The sewer analysis provided details as to the amount of sewage being generated for average and peak flows, existing and future flow routing through Specific Plans and downstream sewers, recommendations for project sewer design parameters (pipe size, slope and area served by lift station) paralleling existing sewers where required, and an estimate of cumulative flows at Water Reclamation Facility No. 3 (WRF3). As concluded in the sewer analysis, at the time of the Certified EIR, the City's wastewater treatment system had adequate capacity to accommodate the increase in wastewater demand from the Specific Plan.

As discussed in the Certified EIR, wastewater generated within the Specific Plan area would have been treated by WRF3. Because WRF3 was considered to be a publicly owned treatment works (POTW), operational discharge flows treated at WRF3 must comply with permits issued by the Santa Ana Regional Water Quality Control Board (RWQCB) for WRF3. Compliance with condition or permit requirements established by the Santa Ana RWQCB would have ensured that wastewater discharges coming from the Specific Plan area and treated by the wastewater treatment facility system would not have exceeded applicable Santa Ana RWQCB wastewater treatment discharge requirements. Therefore, a less than significant impact associated with this issue was found to occur according to the Certified EIR.

Wastewater Treatment Capacity and/or New or Expanded Wastewater Treatment Facilities

As discussed in the Certified EIR, implementation of the Specific Plan would have required:

- That the City manage the expansion of WRF3 and its wastewater systems to meet increasing wastewater flows from the Specific Plan area, already entitled projects and projects adjacent to existing sewer lines that are tributary to WRF3;
- That the City comply with the mitigation and monitoring plan identified in the Final Environmental Impact Report for Wastewater Treatment Plant No. 3. (1997); and
- That the developer construct infrastructure within the Specific Plan area in accordance with the proposed phasing plan.

According to the Certified EIR, it was anticipated that wastewater flows from potential future development within the Specific Plan area would be handled by the CDWP and conveyed to WRF3 within the southeastern portion of the City. As previously identified, current capacity at WRF3 is 1.0 mgd with an existing average inflow of approximately 0.54 mgd. Under conditions at the time of the Certified EIR, the average daily surplus treatment capacity was approximately 0.46 mgd. The amount available for the Specific Plan would have been diminished by sewer connections occurring from entitled projects and lands along existing sewer lines tributary to WRF3, and thus require the expansion of the treatment plant. However, to avoid significant environmental effects, this expansion would have been in conformance with the mitigation and monitoring plan identified in the Certified EIR for Wastewater Treatment Plant No. 3.

A combination of funding sources may have been utilized for the construction of public infrastructure features such as sewer treatment facilities. Typically, project proponents install internal sewer lines within the project site and replace downstream facilities needing additional capacity. The City required a one-time payment of sewer treatment capacity fees for new development establishing a connection to the wastewater system. These fees are used to pay for improvements to City facilities and to pay for the City's participation in the Western Riverside County Regional Wastewater Authority (WRCRWA) as a member agency. Fees to WRCRWA help obtain additional sewage treatment capacity for development. The timing of the improvements was established through the City's Engineering Department to ensure that construction and needed improvements occurred prior to or concurrent with the time at which the identified sewer facility or sewer mainline was forecast to exceed existing capacity.

According to the Certified EIR, the City's Capital Improvement Program (CIP) for 2010–2011 and the Sewer Master Plan identified a 2.0 mgd expansion of WRF3. The CIP identified the project as T-16A planned for 2015 or later. Upon its expansion, WRF3 would have a total daily treatment capacity of 3.0 mgd. The current CIP program could have fit with the project's schedule. However, the Certified EIR indicated that there was no guarantee that the planned expansion at WRF3 would be completed at the time that capacity was needed for the project and WRF3 would not be able to accommodate the anticipated wastewater generation associated with Phase 3 of the Specific Plan. For this reason, impacts were considered significant in the Certified EIR.

New or Expanded Water Treatment Facilities

The Water Supply Assessment (WSA) prepared for the Specific Plan found that the City would have been able to supply the Specific Plan area with potable water using a combination of imported and local groundwater; reporting that Corona's supply exceeded demand by 82.1 percent and 86.6 percent for Normal Years in 2020 and 2030. Supply exceeded demand by 16.4 percent and 20.4 percent for Multi-Year Drought conditions in those same years. The City took a more aggressive approach to conservation for its Corona's 2010 Urban Water Management Plan Update but a more conservative approach to developing additional local groundwater. While imported water supply and its treatment were not proposed to expand significantly, use of local groundwater would have continued and likely required implementation of various management strategies to meet continued and future demand. These management strategies were the subject of Corona's Draft Groundwater Management Plan and its EIR, which was expected to be adopted in early 2012 according to the Certified EIR. Because adequate water supplies and water treatment facilities existed and adequate future supply and treatment capacity existed and were forecast to exist for all phases of the Specific Plan, no additional expansion of these water supplies or treatment plants were required. Therefore, a less than significant impact associated with this issue would have occurred, according to the Certified EIR.

Adequate Water Supply

Based on information reported from the WSA and Corona's 2010 UWMP, sufficient water supplies were available to meet future needs for the City's water service area through its anticipated build-out, projected to occur in year 2030 under normal, single-dry, and multiple-dry water years.

Based on the analysis contained in the Certified EIR, the City of Corona had sufficient water supplies to support the Specific Plan. Since there was existing surplus water supply for the entire project, impacts associated with this issue were found to be less than significant, according to the Certified EIR.

New or Expanded Storm Water Drainage Facilities

According to the Certified EIR, the proposed on-site master drainage system was designed such that it could convey off-site and on-site flows in a safe and nondestructive manner while protecting the primary access points from a 100-year storm event. City design criteria specified that a 10-year event be contained from curb-to-curb while a 100-year event was contained within the right-of-way. Street capacity calculations showed that all four proposed on-site streets could have conveyed the 100-year event from curb-to-curb; therefore, a smaller 10-year event could have been easily conveyed from curb-to-curb. Similar to what was identified for water and sewer infrastructure improvements, the implementation of the master drainage improvements would not have had a significant impact as the installation of these infrastructure features would have occurred concurrently with the associated roadway improvements in the Specific Plan area. Impacts associated with this issue would have been considered less than significant.

Solid Waste

As discussed in the Certified EIR, the development that could have occurred with the implementation of the Specific Plan could have generated up to 39,976 pounds (19.94 tons) of solid waste daily. It was anticipated that any future development within the Specific Plan area would have waste hauled away by WMI and transported to the El Sobrante Landfill, located south of the City. The volume of solid waste that could have been generated by the potential future development within the Specific

Plan area could have represented up to 0.17 percent of the permitted throughput and up to 0.37 percent of the current surplus capacity at the El Sobrante Landfill at the time of the Certified EIR. As adequate daily surplus capacity existed at the receiving landfill, future development that could have occurred within the Specific Plan area would not have significantly affected current operations or the expected lifetime of the landfill serving the project area. Therefore, no significant solid waste disposal impacts would have occurred, according to the Certified EIR.

Solid Waste Reduction

All uses within the City that generated waste (which included the Specific Plan area) were required to coordinate with a waste hauler to develop collection of recyclable materials for the project on a common schedule as set forth in applicable local, regional, and State programs. Additionally, according to the Certified EIR, all development within the City was required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards, thereby ensuring that the solid waste stream to the El Sobrante Sanitary Landfill was reduced and no hazardous waste was received in accordance with existing regulations. Therefore, impacts associated with this issue would have been less than significant for the Specific Plan and no mitigation was required by the Certified EIR.

3.19.2 Impacts Associated with the Proposed Project

(a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Changes or New Information Requiring Major or Minor EIR Revisions. The proposed project does not include any land use designations not previously analyzed in the Certified EIR. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. The acreage of residential uses is greater under the proposed project. The Specific Plan Amendment indicated the project would generate approximately 0.44 million mgd of wastewater, compared to 0.62 mgd previously estimated for the approved project. Therefore, wastewater flows would be reduced compared to the original project.

However, at the time the original Specific Plan was adopted, the available treatment capacity of WRF3 was anticipated to be diminished by sewer connections occurring from entitled projects and lands along existing sewer lines tributary to WRF3, thus requiring the expansion of the treatment plant. Expansion of the WRF3 facility was planned as part of the City's CIP for 2010–2011 at the time that the Specific Plan was adopted, with an anticipated completion date of 2015 or later. The WRF3 is now slated for closure and all flows that would have been treated at WRF3 will be routed to WRF2, thus necessitating upgrades to WRF2. Mitigation Measures 4.17.6.1A and 4.17.6.1B from the Certified EIR have been revised and would be incorporated into the proposed project to reduce impacts to the wastewater facilities. Additionally, per the project's Development Agreement, the project developer is required to pay a fair-share fee of approximately 40 percent of the cost for a sewer system upgrade, which is necessary to serve the project. For these reasons, the proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Changes or New Information Requiring Major or Minor EIR Revisions.

Water. The proposed project does not include any land use designations not previously analyzed in the Certified EIR. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. These changes in land use designation could result in an increase in the amount of water demanded by the Specific Plan due to the increase in the number of residents per home attributable to the proposed increase in larger residential single family homes in comparison to the approved Specific Plan. As indicated in the Certified EIR, while imported water supply and its treatment were not proposed to expand significantly, use of local groundwater was anticipated to continue and likely require implementation of various management strategies to meet continued and future demand. The management strategies employed to meet water demand are subject to Corona's Groundwater Management Plan and EIR, which had not yet been adopted at the time the Specific Plan was adopted.

As stated in the project-specific WSA, while groundwater is considered a reliable supply source that is not significantly affected by short-term droughts, groundwater basins must be replenished in years with excess rainfall in order to maintain the supply in drought years. During extended drought periods, groundwater elevations may fall, as the basins do not receive replenishment for an extended period of time.

In its 2008 Groundwater Management Plan (GWMP), the City identifies measures to decrease its reliance on imported water by additional pumping and by development of sustainable groundwater management strategies. The City has evaluated and prioritized the groundwater management strategies to balance the increased pumping with the increased storage. No other municipal agencies are permitted to pump groundwater from the City's sources. The City's UWMP assumes groundwater supplies to be equal to currently existing well capacities. Groundwater supplies will be managed through groundwater recharge and other strategies outlined in the GWMP.

Therefore, because the Certified EIR and proposed project would be required to implement the same groundwater management strategies, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

Wastewater. The proposed project does not include any land use designations not previously analyzed in the Certified EIR. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. The acreage of residential uses would increase, with a greater proportion of low and medium density housing compared to the approved project. These changes in land use designation would result in a change in the amount of wastewater generated by the Specific Plan. An updated Sewer Analysis has been prepared for the project, and it is anticipated the project

would generate approximately 0.44 mgd wastewater per day; the approved project would have generated approximately 0.62 mgd per day.

In the Certified EIR, it was anticipated that wastewater flows from potential future development within the Specific Plan area would be handled by the CDWP and conveyed to WRF3 within the southeastern portion of the City. However, at the time the Specific Plan was adopted, the available treatment capacity of WRF3 was anticipated to be diminished by sewer connections occurring from entitled projects and lands along existing sewer lines tributary to WRF3, thus requiring the expansion of the treatment plant. Expansion of the WRF3 facility was planned as part of the City's CIP for 2010–2011 at the time that the Specific Plan was adopted, with an anticipated completion date of 2015 or later.

Since the adoption of Certified EIR, additional changes to the status of WRF3 have been made. The WRF3 is now slated for closure and will be taken out of service once the Sewer Lift Station with Planning Area 12 and sewer force mains to Foothill Parkway are complete and operational. Flows that would have been treated at WRF3 will be routed to WRF2, thus necessitating upgrades to WRF2. Prior to the development of a proposed sewer lift station in Planning Area 12, interim flows from up to 300 homes will be routed to WRF2. After the development of planned improvements including a lift station at the project site and another lift station at the current WRF3 site, flows will be transported to WRF2. From WRF2, flows will then be allocated to City and County treatment plants with available capacity. The City is a member agency of the Western Riverside County Regional Wastewater Authority (WRCRWA) and sewage fees from the proposed project will contribute to the costs of acquiring sewer treatment capacity from WRCRWA. The City is expanding its capacity by 2.37 mgd through its participation as a member agency with WRCRWA.

Mitigation Measures 4.17.6.1A and 4.17.6.1B from the Certified EIR have been slightly revised and would be incorporated into the proposed project to reduce impacts to the wastewater facilities. Additionally, per the project's Development Agreement, the project developer is required to pay a fair-share fee of approximately 40 percent of the cost for a sewer system upgrade, which is necessary to serve the project. For these reasons, the proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Change in Project Requiring Major or Minor EIR Revisions. No changes in the location, size, or boundaries of the Specific Plan area have occurred since adoption of the Specific Plan in 2012. The proposed project would not result in changes to the location, size, or boundaries of the Specific Plan. During a site visit with the Resource Agencies on September 3, 2015, a new jurisdictional drainage was identified. Referred to as Tributary D, the jurisdictional drainage is an unvegetated ephemeral swale located on top of the bluff to the southeast of Bedford Canyon Wash.

The Proposed Project includes three options to convey storm flows either through or around Bedford Canyon Wash, as generally described below:

- *Option 1: Concrete-Lined Bypass Channel:*

- Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
- Diversion structure to maintain 150 cfs within Bedford Canyon Wash and divert all higher flows into a concrete-lined bypass channel.
- At the downstream portion of the site, the bypass channel would discharge flows into a "plunge pool" to reduce velocities before reconnecting to Bedford Canyon Wash near the downstream property line.
- Concrete-lined bypass channel measures approximately 46 feet wide at the bottom.

- *Option 2: Soft-Bottom Bypass Channel:*
  - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event..
  - Bypass channel excavated lower in elevation than adjacent "B" Street and building pads.
  - Buried riprap rock on both sides of bypass channel and buried grade control structures.
  - Alluvial fan sage scrub vegetation planted in soft bottom and above buried riprap banks.
  - Nominal low flows may remain in Bedford Canyon Wash during storm events.
  - Soft bottom bypass channel measures approximately 82 feet wide at the bottom.
- *Option 3: Reestablish Bedford Canyon Wash*
  - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
  - Bedford Canyon Wash excavated lower in elevation than adjacent "B" Street.
  - Buried riprap rock on both sides of bypass channel and buried grade control structures.
  - All flows captured in Bedford Canyon Wash.
  - Alluvial fan sage scrub vegetation planted in soft bottom and above buried riprap banks.
  - Reestablished Bedford Canyon Wash widened to approximately 140 feet.

All three design options would occur within the boundaries of the Specific Plan analyzed in the Certified EIR. The proposed changes in drainage facilities represent a substantial change in the project that may cause new impacts not addressed in the Certified EIR. Therefore, these changes shall be considered further in Chapter 4.3.

(d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Change in Project Requiring Major or Minor EIR Revisions. The proposed project does not propose any land use designations not previously analyzed in the Certified EIR. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. These changes in land use designation could result in an increase in the amount of water demanded by the Specific Plan due to the increase in the number of residents per home attributable to the proposed increase in larger residential single family homes in comparison to the approved Specific Plan. In

2015, drought conditions in the State of California prompted the preparation of policies and regulations related to mandatory water use restrictions and conservation efforts. On January 17, 2015, the Office of the Governor declared a State of Emergency for the drought conditions experienced across the State.[1] This executive order mandated a net 25 percent statewide reduction in potable, or drinking, water use from 2013 water usage. The Certified EIR identified the proposed Specific Plan would have a water demand of approximately 709 AFY. As a result of changes in the project, the current drought condition and the resultant emergency declarations and mandatory water reductions, the water supply availability originally forecast for the Specific Plan has been reevaluated. Based on the project-specific Water Supply Assessment, the Specific Plan Amendment would have a total water demand of 796 AFY, including 709 AFY of potable water and 86 AFY of recycled water. This potential impact is addressed further in Section 4.2 of this Supplemental EIR.

(e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Changes or New Information Requiring Major or Minor EIR Revisions. Please refer to response 3.19.2(b) above.

(f). Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Changes or New Information Requiring Major or Minor EIR Revisions. The proposed project does not propose any land use designations not previously analyzed in the Certified EIR. The Mixed Use II land use designation would be removed from the Specific Plan and the General Commercial acreage permitted by the Specific Plan would be reduced by 28.0 acres as a result of the proposed project. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(g). Comply with Federal, State, and local statutes and regulations related to solid waste?

No Changes or New Information Requiring Major or Minor EIR Revisions. In addition to the applicable local, State, and Federal solid waste disposal standards analyzed in the Certified EIR, AB 341, which requires mandatory commercial recycling, has been enacted since the Specific Plan was adopted in 2012. The commercial and mixed-use components of the Specific Plan will be required to comply with this regulation. Therefore, no new or substantially greater impacts would occur with implementation of the proposed project compared to those identified in the Certified EIR. The proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

[1] State of California, Office of Governor Edmund G. Brown Jr. 2014. Governor Brown Declares Drought State of Emergency. http://gov.ca.gov/news.php?id=18368 (accessed June 25, 2015).

3.19.3 Cumulative Impacts Associated with the Proposed Project

Substantial Change in Project and/or Circumstances Requiring Major or Minor EIR Revisions. The proposed project would not generate a substantial increase in demand for wastewater, drainage, and solid waste services relative to the original project analyzed in the Certified EIR. Therefore, the proposed project's level of cumulative impact (less than significant) to these utilities would not differ from the Certified EIR. However, due to changes in available water supply connected with the California drought, the project's cumulative impact to water supply is potentially greater than the previously analyzed project in the Certified EIR. Chapter 4.0 will include an analysis of the water supply for the Specific Plan and proposed project, and will determine if adequate water supply would exist for the Specific Plan. The Supplemental EIR will provide mitigation measures as necessary.

3.19.4 Mitigation Measures Identified in the Certified EIR Applicable to the Proposed Project

The following mitigation measures were revised slightly and are applicable to the proposed project in order to reduce impacts to utilities and service systems.

Mitigation Measure 4.17.6.1A: Prior to the issuance of grading permits for any development phase that would occur under the Specific Plan, the project proponent shall obtain verification from the City that planned wastewater capacity improvements at WRF~~3~~2 or elsewhere in the city's wastewater system are in place and operational or said improvements are funded or under construction and will be available for service to completed homes and businesses.

Mitigation Measure 4.17.6.1B: The City shall implement the mitigation and monitoring plan identified in the EIR for Wastewater Treatment Plant No. ~~3~~2 as a part of any expansion of said plant. Alternatively, the Developer shall negotiate an advanced funding option for implementation of the mitigation and monitoring plan identified in the EIR for Wastewater Treatment Plant No. ~~3~~2 in lieu of paying a Sewer Connection Fee for sewer capacity to ensure that wastewater plant capacity is available so phases of the project may proceed without being delayed.

3.20 MANDATORY FINDINGS OF SIGNIFICANCE

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the	☐	☐	☐	☒

Impacts	Change in Project Requiring Major or Minor EIR Revisions	Change in Circumstance or New Information Requiring Major or Minor EIR Revisions	Changes Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	No Changes or New Information Requiring Major or Minor EIR Revisions
number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.20.1 Impacts Associated with the Proposed Project

(a) No Changes or New Information Requiring Major or Minor EIR Revisions. Based on the discussion in Responses 3.6.2(a–f), Biological Resources, and 3.7.2(a–d), Cultural Resources, the approval of the proposed project could have the potential to affect species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. However, based on the analysis above and the implementation of Mitigation Measures 4.4.5.1A, 4.4.5.2A, 4.4.5.2B, and 4.4.5.3A through 4.4.5.3D from the Certified EIR, which would be incorporated into the proposed project to reduce impacts to the coastal California gnatcatcher, the proposed project is consistent with the impacts identified in the Certified EIR and the level of impact (less than significant with mitigation) remains unchanged from that cited in the Certified EIR. This impact will not be evaluated further in Chapter 4.0.

(b) Change in Circumstance or New Information Requiring Major or Minor EIR Revisions. The proposed project, when considered in conjunction with other approved or pending projects within the City and County, could potentially result in cumulatively considerable traffic and utilities environmental impacts compared to the Certified EIR due to the increase in residential acreage. Therefore, Chapter 4.0 will assess the potential for the proposed project to contribute to cumulative impacts for each of these environmental topics, and mitigation will be proposed as necessary.

(c) Change in Circumstance or New Information Requiring Major or Minor EIR Revisions. The potential for the proposed project to have substantial adverse effects on human beings, either directly or indirectly, will be evaluated in Chapter 4.0. Relevant topics include transportation and traffic and utilities. Mitigation measures will be incorporated where possible to reduce potential environmentally adverse impacts to humans.

3.21 SUMMARY OF CERTIFIED EIR IMPACTS COMPARED TO THE PROPOSED PROJECT IMPACTS

The following discussion compares the impacts of the Certified EIR with the impacts of the proposed project, as detailed in Section 3.0 of this EIR. Table 3.G compares the impacts of the Certified EIR with those of the proposed project. This table identifies whether the proposed project results in (1) a reduction of the impact compared to the Certified EIR; (2) a greater impact than the Certified EIR; or (3) the same impact as the Certified EIR.

Table 3.G: Comparison of Alternatives to the Proposed Project

Environmental Issue	Certified EIR	Proposed Project
Aesthetics	LTS	=
Agricultural Resources	SIG	=
Air Quality	SIG	←SIG
Biological Resources	LTS/mit	=
Cultural Resources	LTS/mit	=
Geology and Soils	LTS/mit	=
Global Climate Change	LTS/mit	←
Hazards and Hazardous Materials	LTS/mit	=
Hydrology and Water Quality*	LTS/mit	=
Land Use and Planning	LTS	=
Mineral Resources	LTS	=
Noise	LTS/mit	=
Population and Housing	LTS	=
Public Services	LTS	=
Recreation and Parks	LTS	=
Transportation and Traffic*	LTS/mit	→+
Utilities and Service Systems*	LTS/mit	=

* Water Supply Impacts, Drainage Impacts, and Transportation Impacts have been analyzed in Chapter 4.0.

Certified EIR

LTS: Less than Significant Impact
LTS/mit: Less than Significant Impact with Mitigation
SIG: Significant Impact with or without Mitigation

Proposed Project

= Compared with the proposed project, no change in the significance of impact will occur.
→ Compared with the proposed project, the significance of the impact is increased.
← Compared with the proposed project, the significance of the impact is reduced.
\+ Compared with the proposed project, a new impact has been identified.
\- Compared with the proposed project, an impact has been eliminated.
←SIG Compared with the proposed project, the volume or extent of the impact is reduced, yet still significant.

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4.0 NEW ANALYSIS

Chapter 4.0 provides the supplemental analysis required to assess potential traffic, water supply, riparian habitat, drainage patterns, and drainage facilities impacts associated with the proposed project. The determination that traffic, water supply, drainage patterns, and drainage facilities require supplemental analyses is based on the conclusions contained in Chapter 3.0. As described in Sections 2.0 and 3.18, the proposed project, in particular the Development Agreement, creates the potential for a new significant and unavoidable impact that was not identified in the Certified EIR in the form of level of service impacts at the I-15/Cajalco Road northbound and southbound ramp intersections. As described in Sections 3.11 and 3.19, the prolonged state-wide drought creates the need to supplement the analysis contained in the Certified EIR regarding impacts to groundwater and the availability of water to supply the proposed project. As described in Sections 2.0, 3.6, 3.11, and 3.19, the proposed project includes three drainage options to convey drainage water off and through the project site. These options require additional analysis to assess impacts to riparian habitat, impacts from altering the existing drainage pattern of the site, and impacts from construction of new drainage facilities. Section 4.1 presents the supplemental traffic analysis; Section 4.2 presents the supplemental water supply and groundwater analysis; and Section 4.3 presents the supplemental riparian habitat and drainage patterns/facilities analysis. In each section below, the relevant 2015 CEQA Guidelines checklist question is identified before each new analysis. Analysis and checklist questions from Chapter 3.0 that did not result in changes in the project or changes in the circumstances are not included in this section.

4.1 TRAFFIC

4.1.1 Background

The traffic analysis contained in the Certified EIR was based on the following technical traffic studies prepared for the proposed project:

- *Traffic Impact Analysis, Arantine Hills Specific Plan*, Urban Crossroads, August 11, 2011 (Appendix L-1 of the Draft EIR)
- *Arantine Hills Specific Plan Addendum – Existing Plus Project Conditions*, Urban Crossroads, July 28, 2011 (Appendix L-2 of the Draft EIR)

The traffic analysis contained in this SEIR is based on the following technical studies prepared for the proposed project:

- *Arantine Hills Modified Project, Traffic Study*, Urban Crossroads, September 11, 2015 (Appendix A in this SEIR)

4.1.2 Traffic Impacts Discussed in Certified EIR

Traffic Analysis Scenarios. The Certified EIR examined traffic impacts from the proposed project or a phase of the project at local vicinity intersections and the I-15 on-ramp and off-ramp intersections on Cajalco Road and El Cerrito Road, roadway segments, and freeway ramp merge/diverge locations. The impacts of the project or a phase of the project were assessed by examining the following four scenarios:

- Existing plus Full Project
- 2014 plus Phase 1
- 2019 plus Full Project
- 2035 plus Full Project

Local Intersection and I-15 On-ramp/Off-ramp Intersection Impacts. The Certified EIR examined intersection traffic impacts associated with the approved project based on a detailed level of service analysis at local vicinity intersections and the I-15 on-ramp and off-ramp intersections on Cajalco Road and El Cerrito Road.

In summary, the Certified EIR found the proposed project would create the following project-specific or cumulatively considerable traffic impacts at local vicinity intersections and/or I-15 freeway ramp intersections with local streets:

- Existing plus Full Project - four study area intersections would not meet the minimum LOS standard with existing roadway geometrics; a fifth study area intersection (Bedford Canyon Road/Eagle Glen Parkway) required improvements to provide project access; and three additional project intersections met the warrants for a traffic signal.
- 2014 plus Phase 1 - three study area intersections would not meet the minimum LOS standard with existing roadway geometrics; and three additional project intersections would not meet the minimum LOS standard with existing roadway geometrics.
- 2019 plus Project - five study area intersections would not meet the minimum LOS standard with existing roadway geometrics; and four additional project intersections would not meet the minimum LOS standard with existing roadway geometrics.
- Build Out Year 2035 plus Project - seven study area intersections would not meet the minimum LOS standard with existing roadway geometrics; and four additional project intersections would not meet the minimum LOS standard with existing roadway geometrics.

The Certified EIR considered the level of service deficiencies to local intersections or I-15 freeway ramp intersections with local streets to be significant impacts requiring mitigation. For each scenario analyzed, improvements were prescribed to improve the level of service to the applicable LOS standard. Mitigation was developed by integrating the improvements into a series of five mitigation measures, Mitigation Measures 4.16.6.1A, 4.16.6.2A, 4.16.6.2B, 4.16.6.3A, and 4.16.6.4A. Mitigation Measure 4.16.6.1A addressed existing baseline plus project impacts, Mitigation Measures 4.16.6.2A and 4.16.6.2B addressed 2014 Opening Year plus project impacts, Mitigation Measure 4.16.6.3A addressed 2019 plus project impacts, and Mitigation Measure 4.16.6.4A addressed 2035 plus project impacts. The measures from the Certified EIR are as follows:

4.16.6.1A: Prior to issuance of a Certificate of Occupancy for the first dwelling unit and/or commercial, office or industrial building within the Specific Plan area, the project proponent shall construct or guarantee the construction of the improvements identified below as mitigation measures for existing plus project conditions. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place to serve the existing plus project daily volumes. The following modifications to intersection configurations for existing baseline plus project are recommended to improve levels of service in accordance with City requirements:

- **Masters Drive/California Drive:** Install a traffic signal.
- **Masters Drive/Eagle Glen Parkway**: Install a traffic signal.
- **Bedford Canyon Road/Eagle Glen Parkway:** Add a northbound left-turn lane, a northbound through lane, two northbound right-turn lanes with northbound right-turn overlap phasing, a second southbound left-turn lane, a southbound through lane, an eastbound through lane, and two westbound left-turn lanes.
- **I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right-turn lane, reconstruct the eastbound approach to provide two left-turn lanes and two through lanes, and reconstruct the westbound approach to provide one through lane and one right-turn lane.
- **I-15 Northbound Ramps/Cajalco Road:** Add a second eastbound left-turn lane.

4.16.6.2A: Prior to issuance of a Certificate of Occupancy for the first dwelling unit and/or commercial, office or industrial building within the Specific Plan area, the project proponent shall construct or guarantee the construction of those improvements identified below as mitigation measures for year 2014 plus project conditions. In addition, the project proponent shall participate in the City of Corona Development Impact Fee Program and the Western Riverside Council of Governments Transportation Uniform Mitigation Fee Program. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place to serve the existing plus project daily volumes.

- **Bedford Canyon Road/Eagle Glen Parkway:** Add a northbound left-turn lane, a northbound through lane, a northbound right-turn lane with northbound right-turn overlap phasing, a second southbound left-turn lane, a southbound through lane, and a westbound left-turn lane.
- **I-15 Southbound Ramps/Cajalco Road:** Reconstruct the eastbound approach to provide two left-turn lanes and one through lane.
- **Street C/Eagle Glen Parkway:** Install a traffic signal, add a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.
- **Street C/Street B:** Add a westbound stop sign, a northbound all-way lane, a southbound all-way lane, and a westbound all-way lane.
- **Street A/Driveway 1:** Add an eastbound stop sign, a northbound all-way lane, a southbound all-way lane, and an eastbound all-way lane.

4.16.6.2B: Prior to the issuance of a Certificate of Occupancy for a project developed within the Specific Plan area, each developer shall consult with the City to determine if a project-specific traffic analysis is required for the proposed project. The City shall determine if the proposed project meets the requirements for a preparation of a traffic analysis based on guidelines established by the City of Corona. If the City determines that a project-specific traffic analysis is required, the project proponent shall submit a project-specific traffic analysis for review and approval by the City. The traffic analysis shall identify trips that would be generated by the project and any fair-share contributions required to maintain the levels of service on these study area intersections. The payment of a fair-share contribution shall be made through an established City of Corona impact fee and participation in the WRCOG's TUMF Program, as appropriate, or construction of off-site facilities under appropriate fee credit agreements for improvements deemed appropriate by the City.

4.16.6.3A: Prior to the issuance of a Certificate of Occupancy for a project developed in Phases 3 and 4 within the Specific Plan area, the project proponent shall construct or guarantee the construction of those improvements identified below as mitigation measures for year 2019 plus project conditions. In addition, the project proponent shall participate in the City of Corona Development Impact Fee Program and the Western Riverside Council of Governments Transportation Uniform Mitigation Fee Program. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place prior to issuance of any Certificates of Occupancy for a project developed in Phase 2 in order to serve the existing plus project daily volumes.

- **Masters Drive/Eagle Glen Parkway:** Install a traffic signal.
- **Bedford Canyon Road/Eagle Glen Parkway:** Add a northbound left-turn lane, a northbound through lane, two northbound right-turn lanes with northbound right-turn overlap phasing, a second southbound left-turn lane, a southbound through lane, a third eastbound through lane, and two westbound left-turn lanes.
- **I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right-turn lane, reconstruct the eastbound approach to provide two left-turn lanes and two eastbound through lanes, and reconstruct the westbound approach to provide one through lane and one shared through/right-turn lane.
- **I-15 Northbound Ramps/Cajalco Road:** Add a second northbound left-turn lane and a second eastbound left-turn lane.
- **Street C/Eagle Glen Parkway:** Add traffic signal, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.
- **Street C/Street B:** Add an eastbound stop sign and an all-way lane at all approaches.
- **Street A/Driveway 1:** Install a traffic signal, a northbound left-turn lane, a northbound through right lane, a southbound left-turn lane, a southbound through/right-turn lane, an eastbound left-turn lane, an eastbound through/right-turn lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane with westbound right-turn overlap phasing.
- **Street A/Street B:** Install a traffic signal, a northbound left-turn lane, a northbound through lane, a southbound left-turn lane, a southbound through lane, an eastbound left-

turn lane, an eastbound through lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane.

4.16.6.4A: The project proponent shall construct or guarantee the construction of those improvements identified below as mitigation measures for year 2035 plus project conditions. In addition, the project proponent shall construct a new I-15 southbound slip on-ramp for the Cajalco Road/I-15 Interchange.

- **Masters Drive/Bennett Avenue:** Install a traffic signal.
- **Masters Drive/Eagle Glen Parkway:** Install a traffic signal.
- **Bedford Canyon Road/Eagle Glen Parkway:** Add a northbound left-turn lane, a northbound through lane, two northbound right-turn lanes with northbound right-turn overlap phasing, a second southbound left-turn lane, a southbound through lane, a third eastbound through lane, and two westbound left-turn lanes.
- **I-15 Ramps/El Cerrito Road:** Add a second southbound right-turn lane and an eastbound right-turn lane.
- **I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right turn lane, reconstruct the eastbound approach to provide three through lanes and a right-turn lane, and reconstruct the westbound approach to provide two through lanes and a right-turn lane.
- **I-15 Northbound Ramps/Cajalco Road:** Add a second northbound left-turn lane, reconstruct the eastbound approach to provide three through lanes and a right-turn lane, and reconstruct westbound approach to provide three through lanes and a right turn lanes.
- **Temescal Canyon Road/Cajalco Road:** Add a second northbound through lane, a second southbound left-turn lane, a second eastbound through lane, and a westbound right-turn lane with westbound right-turn overlap phasing.
- **Street C/Eagle Glen Parkway:** Add traffic signal, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.
- **Street C/Street B:** Add an eastbound stop sign and an all-way lane at all approaches.
- **Street A/Driveway 1:** Install a traffic signal, a northbound left-turn lane, a northbound through/right-turn lane, a southbound left-turn lane, a southbound through/right-turn lane, an eastbound left-turn lane, an eastbound through/right-turn lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane with westbound right-turn overlap phasing.
- **Street A/Street B:** Install a traffic signal, a northbound left-turn lane, a northbound through/right-turn lane, a southbound left-turn lane, a southbound through/right-turn lane, an eastbound left-turn lane, an eastbound through/right-turn lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane.

With implementation of these measures, the Certified EIR concluded that all impacts to local intersections and the I-15 on-ramp and off-ramp intersections on Cajalco Road and El Cerrito Road would be mitigated to a less than significant level. This significance conclusion was reached because the

mitigation measures from the Certified EIR provides full and complete mitigation by either: 1) requiring that the physical circulation improvements are in place prior to project development; or 2) payment of impact fees by the developer, mitigating impacts on a fair share basis; or 3) requiring a project-specific traffic analysis to identify what subset of the overall circulation improvements identified in the Certified EIR must be constructed by the developer to maintain adequate level of service.

Roadway Segment Impacts. The Certified EIR examined roadway segment traffic impacts associated with the approved project based on a detailed analysis of daily roadway capacities. In summary, the Certified EIR found the proposed project would create the following project-specific or cumulatively considerable traffic impacts at local vicinity roadway segments:

- Existing plus Full Project - As identified in the Certified EIR (see Appendix L-2), it was determined that 3 roadway segments would potentially exceed daily capacities.
- 2014 plus Phase 1 - As identified in Table 4.16.M in the Certified EIR, it was determined that 4 roadway segments would potentially exceed daily capacities.
- 2019 plus Project - As identified in Table 4.16.Q in the Certified EIR, it was determined that 10 roadway segments would potentially exceed daily capacities.
- Build Out Year 2035 plus Project - As identified in Table 4.16.U in the Certified EIR, it was determined that 10 roadway segments would potentially exceed daily capacities.

The Certified EIR acknowledged that although roadway segment capacities are suitable for planning purposes, they are not a precise measure of roadway capacity. For this reason, the Certified EIR relied on the mitigation of intersection impacts resulting from the peak hour intersection analysis. This approach is validated by the fact that traffic flow on urban and suburban roadways is primarily governed by intersections. Consequently, roadway segment impacts were not used as the basis for imposing mitigation.

Freeway Ramp Meter and Merge-Diverge Location Impacts. The Certified EIR examined freeway traffic impacts associated with the approved project based on a detailed analysis at vicinity I-15 freeway ramp meters and merge-diverge locations. In summary, the Certified EIR found the proposed project would create the following project-specific or cumulatively considerable traffic impacts at local vicinity I-15 freeway ramp meters and merge-diverge locations:

- Existing plus Full Project - As identified in Table 4.16.I in the Certified EIR, it was determined that all four of the southbound I-15 ramp merge and diverge locations and one of the four northbound I-15 ramp merge and diverge locations would not meet the minimum LOS standard.
- 2014 plus Phase 1 - As identified in Table 4.16.L in the Certified EIR, it was determined that all four of the southbound I-15 ramp merge and diverge locations and all four of the northbound I-15 ramp merge and diverge locations would not meet the minimum LOS standard.
- 2019 plus Project - As identified in Table 4.16.P in the Certified EIR, it was determined that all four of the southbound I-15 ramp merge and diverge locations and all four of the northbound I-15 ramp merge and diverge locations would not meet the minimum LOS standard.

- Build Out Year 2035 plus Project - As identified in Table 4.16.T in the Certified EIR, it was determined that all five of the southbound I-15 ramp merge and diverge locations and all five of the northbound I-15 ramp merge and diverge locations would not meet the minimum LOS standard (note a fifth merge/diverge location was added in Year 2035 due to the addition of a ramp improvement).

The Certified EIR acknowledged there are no feasible mitigation measures available to mitigate the project's cumulative contribution to traffic on the I-15 Freeway. Thus, the project's cumulative impact was considered to be significant and unavoidable.

4.1.3 Impacts Associated with the Proposed Project

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

or

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Traffic Analysis Scenarios

The TIA prepared for the proposed project examined traffic impacts from the proposed project or a phase of the project at: 1) local vicinity intersections and the I-15 on-ramp and off-ramp intersections on Cajalco Road and El Cerrito Road; 2) roadway segments; 3) freeway ramp meters; and 4) freeway ramp merge/diverge locations. The impacts of the project or a phase of the project were assessed by examining the following three scenarios:

- Year 2017 plus Phase 1
- Year 2017 plus Full Project
- 2035 plus Full Project

Year 2017 Plus Phase 1

Year 2017 Plus Phase 1 Intersection Impacts.

The proposed project includes changes to the project as approved and analyzed in the Certified EIR. The four key components of the proposed project include a General Plan Amendment, Specific Plan Amendment, Tentative Tract Map, and Development Agreement discussed previously in Chapter 2.0 of this Supplemental EIR. In essence, the proposed project would encompass the same development footprint as the approved project and would reduce the overall intensity of land use and trip generation in comparison to the approved project. The TIA shows that Phase 1 of the Project (308

single-family production units or a combination of single-family and condominium/townhome production units that have the same or a lesser external trip count as 308 single-family production units) will not trigger a significant impact at the I-15/Cajalco Road Interchange ramps. Based on this new information, the restriction from the Certified EIR that prohibits all project development until such time that the I-15/Cajalco Road interchange improvements are constructed and operational no longer applies. The Development Agreement allows Phase 1 to be built out prior to the initiation of construction of the Cajalco Road Interchange improvements but also requires master developer to fund those improvements.

The TIA prepared for the proposed project assessed year 2017, or near-term, traffic impacts to local vicinity intersections including the I-15 on-ramp and off-ramp intersections on Cajalco Road and El Cerrito Road with the addition of Phase 1 of the Project even though initial development will not likely begin until 2017. For the purposes of the traffic analysis, the 2017 scenario represents a reasonable estimate of the time at which the first phase of the proposed project might be developed and occupied and for the purposes of this Supplemental EIR represents baseline conditions. Table 4.A summarizes the intersection level of service analysis for the Year 2017 Plus Phase 1 scenario.

Table 4.A: Year 2017 Intersection LOS With and Without Phase 1

Intersection	Without Phase 1		With Phase 1	
	A.M.	P.M.	A.M.	P.M.
Masters Drive/California Avenue	**E**	C	**E**	C
With Traffic Signal	C	B	B	B
Masters Drive/Bennett Avenue	A	B	A	B
Masters Drive/Eagle Glen Parkway	B	C	B	C
Bedford Canyon Road/El Cerrito Road	C	C	C	C
Bedford Canyon Road/Georgetown Drive	A	A	A	B
Bedford Canyon Road/Eagle Glen Parkway[1]	C	C	C	D
I-15 Southbound Ramps/El Cerrito Road	B	C	B	C
I-15 Southbound Ramps/Cajalco Road	C	D	C	D
I-15 Northbound Ramps/El Cerrito Road	C	C	C	C
I-15 Northbound Ramps/Cajalco Road	E	C	E	C
Grand Oaks/Cajalco Road	B	C	C	C
Temescal Canyon Road/Cajalco Road	D	D	D	D
Street "C"/Eagle Glen Parkway[2]	n/a	n/a	B	B
Masters Drive/Christopher Lane	**E**	**D**	**E**	**D**
With Roundabout	B	A	B	A
With Traffic Signal	A	A	A	A
Via Castilla Street/Masters Drive	B	C	B	C
Morales Way/Masters Drive	B	C	B	C
Bennett Avenue/Eagle Glen Parkway	C	B	C	B

Source: *Arantine Hills Modified Project Traffic Study*, Table 5-1, Urban Crossroads, September 11, 2015.

1 The level of service standard is LOS D, so although there is no LOS impact, the proposed project will take access from and form the fourth leg of the intersection, requiring modifications to the intersection and traffic signal.

2 The proposed project will take access from and form the third leg of a "T" intersection, requiring modifications to the intersection.

As shown in Table 4.A, Phase 1 of the proposed project would contribute to unacceptable levels of service at the Masters Drive/California Avenue and Masters Drive/Christopher Lane intersections. Both intersections are currently operating at unacceptable levels of service under existing conditions as well as year 2017 without the project. For this reason, Phase 1 impacts at these two intersections are considered to be cumulative in nature, and not project-specific. The project proponent's responsibility towards mitigating these existing and cumulative impacts shall be in the form of paying its fair share of 64% for Masters Drive/California Avenue and its fair share of 27% for Masters Drive/ Christopher Lane, prior to the issuance of the first production home building permit.

Table 4.A also shows the levels of service with the required intersection improvements necessary to provide project access from Eagle Glen Parkway at Bedford Canyon Road and proposed Street "C." These improvements as defined in Table 5-1 of the TIA shall be installed by the project proponent.

Mitigation Measure 4.16.6.1A from the Certified EIR (also refer to Section 4.1.2 above) requires that the developer either construct or guarantee the construction of a traffic signal at the Masters Drive/ California Drive intersection. However, the measure does not provide mitigation for the Masters Drive/Christopher Lane intersection while prescribing additional improvements for the Masters Drive/Eagle Glen Parkway intersection that are not required for the first phase of development. Consequently, Mitigation Measure 4.16.6.1A requires the deletion of the requirement in the Certified EIR that the developer construct the improvements for the Masters Drive/California and the Masters Drive/Eagle Glen Parkway intersections and the addition of the requirement that improvements be installed by the project proponent at the Bedford Canyon Road/Eagle Glen Parkway and Street "C"/ Eagle Glen Parkway intersections. The modified mitigation measures are presented in Section 4.1.4.

As discussed in the paragraph above, mitigation for the cumulative impacts at the two Masters Drive intersections shall be accomplished by payment of project proponent's fair share contribution as detailed in Mitigation Measure 4.16.6.2A.

In addition, the level of service analysis summarized in Table 4.A shows that the I-15/Cajalco Road northbound and southbound on- and off-ramp intersections operate at acceptable levels of service in the Year 2017 plus Phase 1 scenario. Mitigation Measure 4.16.6.1A from the Certified EIR prescribes improvements for the I-15/Cajalco Road northbound and southbound on- and off-ramp intersections that are now not required for the first phase of development. Consequently, the improvements defined by the Certified EIR in Mitigation Measure 4.16.6.1A for the I-15/Cajalco Road northbound and southbound on- and off-ramp intersections will be eliminated. The modified mitigation measures are presented in Section 4.1.4.

Year 2017 Plus Phase 1 Roadway Segment Impacts

The TIA prepared for the proposed project assessed Year 2017 Plus Phase 1 roadway segment impacts based on a detailed analysis of daily roadway capacities. In summary, the TIA found Phase 1 of the proposed project would create two project-specific or cumulatively considerable traffic impacts at local vicinity roadway segments. However, the TIA also confirms that the detailed peak hour intersection analysis indicates that with the inclusion of the recommended interchange and intersection improvements, acceptable levels of service are obtained at the roadway segments and no mitigation is required.

2017 Plus Phase 1 Freeway Ramp Meter Impacts

The TIA prepared for the proposed project assessed ramp metering for 2017 Plus Phase 1. The analysis concluded that the following metered lanes are needed for each on-ramp location:

- I-15 Southbound On-Ramp at El Cerrito Road – 1 lane.
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane.
- I-15 Northbound On-Ramp at El Cerrito Road – 1 lane.
- I-15 Northbound On-Ramp at Cajalco Road – 2 lanes.

2017 Plus Phase 1 Freeway Merge/Diverge Impacts

The TIA prepared for the proposed project assessed Year 2017 Plus Phase 1 traffic impacts to I-15 freeway ramp merge and diverge locations. The analysis concluded that Phase 1 of the project would contribute to unacceptable levels of service at the following ramp merge and diverge locations:

- I-15 Southbound On-ramp at El Cerrito Road.
- I-15 Southbound Off-ramp at Cajalco Road.
- I-15 Northbound On-ramp at El Cerrito Road.
- I-15 Northbound Off-ramp at El Cerrito Road.
- I-15 Northbound On-ramp at Cajalco Road.

Because there are no feasible mitigation measures available to mitigate the project's cumulative contribution to traffic on the I-15 Freeway, the project's cumulative impacts to freeway ramp merge and diverge locations are considered to be significant and unavoidable. The Certified EIR reached the same conclusion. However, ramp metering at the Cajalco Road interchange would likely be addressed as part of the Cajalco Road Interchange improvement project. Ramp metering at the El Cerrito Road ramps would likely be addressed by the appropriate agency at a future date if regional improvements at this location or considered.

Year 2017 Plus Full Project

2017 Plus Full Project Intersection Impacts.

The TIA prepared for the proposed project assessed Year 2017 Plus Full Project impacts to local vicinity intersections including the I-15 on-ramp and off-ramp intersections on Cajalco Road and El Cerrito Road. Table 4.B summarizes the intersection level of service analysis for the Year 2017 Plus Full Project scenario contained in the TIA prepared for the proposed project.

Table 4.B: Year 2017 Intersection LOS With and Without Full Project

Intersection	Without Project		With Project	
	A.M.	P.M.	A.M.	P.M.
Masters Drive/California Avenue	**E**	C	**E**	C
With Traffic Signal	C	B	C	B

Table 4.B: Year 2017 Intersection LOS With and Without Full Project

Intersection	Without Project		With Project	
	A.M.	P.M.	A.M.	P.M.
Masters Drive/Bennett Avenue	A	B	A	B
Masters Drive/Eagle Glen Parkway	B	C	B	**E**
With Traffic Signal	—	—	B	C
Bedford Canyon Road/El Cerrito Road	C	C	C	C
Bedford Canyon Road/Georgetown Drive	A	A	A	B
Bedford Canyon Road/Eagle Glen Parkway[1]	C	C	D	D
I-15 Southbound Ramps/El Cerrito Road	B	C	B	C
I-15 Southbound Ramps/Cajalco Road	C	D	C	**F**
With Improvements	—	—	B	D
I-15 Northbound Ramps/El Cerrito Road	C	C	C	C
I-15 Northbound Ramps/Cajalco Road	E	C	**F**	D
With Improvements	—	—	B	B
Grand Oaks/Cajalco Road	B	C	C	C
Temescal Canyon Road/Cajalco Road	D	D	D	D
Street "C"/Eagle Glen Parkway[2]	n/a	n/a	B	C
Street "C"/Street "B"[3]	n/a	n/a	A	A
Street "A" - Street "D"/Street "B"[3]	n/a	n/a	A	A
Street "A"/TAZ 4 Main Driveway[3]	n/a	n/a	A	B
Street "A"/TAZ 4 South Driveway[3]	n/a	n/a	B	B
Masters Drive/Christopher Lane	**E**	**D**	**E**	**E**
With Roundabout	B	A	B	B
With Traffic Signal	A	A	A	A
Via Castilla Street/Masters Drive	B	C	B	**D**
With Roundabout	—	—	A	A
With Traffic Signal	—	—	B	C
Morales Way/Masters Drive	B	C	B	**D**
With Roundabout	?	?	A	B
With Traffic Signal	?	?	B	B
Bennett Avenue/Eagle Glen Parkway	C	B	C	B

Source: *Arantine Hills Modified Project Traffic Study*, Table 8-1, Urban Crossroads, September 11, 2015.

1 The level of service standard is LOS D, so although there is no LOS impact, the proposed project will take access from and form the fourth leg of the intersection, requiring modifications to the intersection and traffic signal.

2 The proposed project will take access from and form the third leg of a "T" intersection, requiring modifications to the intersection.

3 On-site project intersection.

As shown in Table 4.B, buildout of the proposed project would contribute to or create unacceptable levels of service or results in signal warrants met at the following seven intersections in year 2017:

- Masters Drive/California Avenue

- Masters Drive/Eagle Glen Parkway
- I-15 Southbound Ramps/Cajalco Road
- I-15 Northbound Ramps/Cajalco Road
- Masters Drive/Christopher Lane
- Via Castilla Street/Masters Drive
- Morales Way/Masters Drive

Revised Mitigation Measure 4.16.6.2A provides adequate mitigation for Phase 1 cumulative impacts to the Masters Drive intersections at California Avenue and Christopher Lane and will also provide adequate mitigation for the full project cumulative impacts at these intersections in Year 2017. The modified mitigation measures are presented in Section 4.1.4.

With the addition of the full project following Phase 1, the remaining five intersections degrade from acceptable to unacceptable levels of service, resulting in a project-specific impact. Three of these locations are on Masters Drive. The project proponent's responsibility towards mitigating the project-specific impacts on Masters Drive at Eagle Glen Parkway shall be to construct the improvements defined in Table 8-1 of the TIA and set forth in revised Mitigation Measure 4.16.6.3A prior to issuance of the first building permit after Phase 1. To mitigate the project-specific impacts on the two other intersections on Masters Drive, the master developer shall be required to pay its fair share of 100% for Via Castilla/Masters Drive and its fair share of 100% for Morales Way/Masters Drive, prior to the first production home building permit after Phase 1. New Mitigation Measure 4.16.6.3B has been included to require that the developer pay these fair share amounts prior to issuance of the first building permit after Phase 1. The modified mitigation measures are presented in Section 4.1.4.

The other two project specific-impacts are to the I-15 Southbound and Northbound Ramps at Cajalco Road. As discussed in Chapter 2.0, the proposed project includes a Development Agreement that includes a provision in which the project proponent shall bond for the entirety of the I-15 and Cajalco Road Interchange improvements prior to the issuance of the first production building permit. Although the developer is only responsible for 32.5 percent of the cost associated with the construction of the interchange as defined by the percent of future traffic growth added to the interchange attributable to the proposed project, the developer has agreed to advance the funds to the City or post bonds for the remaining 67.5 percent of the cost as part of the Development Agreement. The purpose of the advanced funding is to provide monies necessary to implement the Cajalco Road Interchange improvements that are under design by the City, in so doing speed up delivery of this regional transportation improvement project, and remove the mitigation measure contained in the Certified EIR that requires the Interchange improvements be fully constructed prior to issuance of any building permit. In return, the developer would be permitted to build Phase 1 prior to the initiation of construction of the interchange improvements. As such, new Mitigation Measure 4.16.6.3C has been included to require that the developer post a bond in the amount necessary to fund the cost of the Interchange improvements and in so doing contribute more than the project's share of the mitigation required for the interchange. The modified mitigation measures are presented in Section 4.1.4.

Table 4.B also shows the levels of service with the required intersection improvements necessary to provide project access from Bedford Canyon Road/Eagle Glen Parkway, Street "C"/Eagle Glen Parkway, Street "C"/Street "B," Street "A" – Street "D"/Street "B," Street "A"/TAZ 4 Main

Driveway, and Street "A"/TAZ 4 South Driveway. These improvements as defined in Table 8-1 of the TIA shall be installed by the project proponent. Revised Mitigation Measure 4.16.6.3A requires that the developer implement these access-related improvements prior to issuance of the first building permit after Phase 1. The modified mitigation measures are presented in Section 4.1.4.

In summary, revised Mitigation Measure 4.16.6.2A provides adequate mitigation for full project cumulative impacts to the Masters Drive intersections at California Avenue and Christopher Lane. Mitigation Measure 4.16.6.3A from the Certified EIR has been revised to reflect construction by the project proponent of the project-specific and access intersection improvements required to mitigate project buildout impacts to local intersections in Year 2017. New Mitigation Measure 4.16.6.3B has been created requiring payment of fair share amounts for the project specific impacts at the Via Castilla/Masters Drive and Morales Way/Masters Drive intersections. New Mitigation Measure 4.16.6.3C has been put forth requiring the developer to fund the cost of construction for the I-15/ Cajalco Road Interchange improvement project to mitigate project buildout impacts to the regional transportation system in Year 2017. The modified mitigation measures are presented in Section 4.1.4.

Year 2017 Plus Full Project Roadway Segment Impacts

The TIA prepared for the proposed project assessed Year 2017 Plus Full Project roadway segment impacts based on a detailed analysis of daily roadway capacities. In summary, the TIA found the full project would create two project-specific or cumulatively considerable traffic impacts at local vicinity roadway segments. However, the TIA also confirms that the detailed peak hour intersection analysis indicates that with the inclusion of the recommended interchange and intersection improvements, acceptable levels of service are obtained at the roadway segments and no mitigation is required.

Year 2035 Plus Project

2035 Plus Project Intersection Impacts

The TIA prepared for the proposed project assessed Year 2035 Plus Full Project impacts to local vicinity intersections including the I-15 on-ramp and off-ramp intersections on Cajalco Road and El Cerrito Road. Table 4.C summarizes the intersection level of service analysis for the Year 2035 Plus Full Project scenario contained in the TIA prepared for the proposed project.

Table 4.C: Year 2035 Intersection LOS With and Without Full Project

Intersection	Without Project		With Project	
	A.M.	P.M.	A.M.	P.M.
Masters Drive/California Avenue	**E**	**D**	**E**	**E**
With Traffic Signal	C	B	C	B
Masters Drive/Bennett Avenue	A	B	A	C
With Traffic Signal	A	A	A	A
Masters Drive/Eagle Glen Parkway	B	**E**	C	**F**
With Traffic Signal	B	C	B	C
Bedford Canyon Road/El Cerrito Road	C	D	D	D
Bedford Canyon Road/Georgetown Drive	C	B	C	C

Table 4.C: Year 2035 Intersection LOS With and Without Full Project

Intersection	Without Project		With Project	
	A.M.	P.M.	A.M.	P.M.
With Traffic Signal	A	A	A	A
Bedford Canyon Road/Eagle Glen Parkway[1]	C	C	—	—
With Improvement	—	—	D	D
I-15 Southbound Ramps/El Cerrito Road	**E**	**E**	**E**	**F**
With Improvement	D	D	D	D
I-15 Southbound Ramps/Cajalco Road	C	C	C	D
With Additional Improvements	C	C	C	D
I-15 Northbound Ramps/El Cerrito Road	D	C	D	C
I-15 Northbound Ramps/Cajalco Road	B	B	B	B
Grand Oaks/Cajalco Road	D	C	D	C
Temescal Canyon Road/Cajalco Road	**E**	**F**	**E**	**F**
With Improvements	D	D	D	D
Street "C"/Eagle Glen Parkway[2]	—	—	C	C
Street "C"/Street "B"[3]	—	—	A	A
Street "A" - Street "D"/Street "B"[3]	—	—	A	A
Street "A"/TAZ 4 Main Driveway[3]	—	—	A	B
Street "A"/TAZ 4 South Driveway[3]	—	—	B	B
Masters Drive/Christopher Lane	**E**	**E**	**E**	**E**
With Roundabout	B	A	C	B
With Traffic Signal	A	A	A	A
Via Castilla Street/Masters Drive	B	**D**	B	**E**
With Roundabout	A	A	A	B
With CSS Control	B	C	B	C
Morales Way/Masters Drive	B	**D**	B	**D**
With Roundabout	A	A	A	B
With Traffic Signal	B	B	B	B
Bennett Avenue/Eagle Glen Parkway	C	C	C	C

Source: *Arantine Hills Modified Project Traffic Study*, Table 6-1, Urban Crossroads, September 11, 2015.

1 The proposed project will take access from and form the fourth leg of the intersection, requiring modifications to the intersection and traffic signal.

2 The proposed project will take access from and form the third leg of a "T" intersection, requiring modifications to the intersection.

3 On-site project intersection.

As shown in Table 4.C, buildout of the proposed project would contribute to or create unacceptable levels of service or results in signal warrants met at the following nine intersections in year 2035:

- Masters Drive/California Avenue
- Masters Drive/Bennett Avenue
- Masters Drive/Eagle Glen Parkway

- I-15 Southbound Ramps/El Cerrito Road
- Temescal Canyon Road/Cajalco Road
- Street "C"/Eagle Glen Parkway
- Masters Drive/Christopher Lane
- Via Castilla Street/Masters Drive
- Morales Way/Masters Drive

Revised Mitigation Measure 4.16.6.2A provides adequate mitigation for Phase 1 cumulative impacts to the Masters Drive intersections at California Avenue and Christopher Lane and will also provide adequate mitigation for the full project cumulative impacts at these intersections in Year 2035.

With the addition of the full project, the remaining seven intersections degrade from acceptable to unacceptable levels of service or meet the warrant for signalization, resulting in a project-specific impact. Three of these locations are on Masters Drive at Eagle Glen Parkway, Via Castilla Street, and Morales Way. The project proponent's responsibility towards mitigating the project-specific impacts on Masters Drive shall be to construct or fund its fair share of the improvements defined in Table 8-1 of the TIA prior to issuance of the first building permit after Phase 1 as contained in revised Mitigation Measures 4.16.6.3A and 4.16.6.3B.

The other four project specific-impacts are to the Masters Drive/Bennett Avenue, I-15 Southbound/El Cerrito Road, Temescal Canyon Road/Cajalco Road, and Street "C"/Eagle Glen Parkway intersections. Impacts at these four locations are cumulative in nature, and therefore the project is responsible for making a fair share contribution towards future improvements at these locations. These fair share requirements are contained in revised Mitigation Measure 4.16.6.4A.

In summary, revised Mitigation Measure 4.16.6.2A provides adequate mitigation for full project cumulative impacts to the Masters Drive intersections at California Avenue and Christopher Lane. Mitigation Measure 4.16.6.3A from the Certified EIR has been revised to reflect construction by the project proponent of the project-specific and access intersection improvements required to mitigate project buildout impacts to the Masters Drive at Eagle Glen Parkway intersection in Year 2017 that will also mitigate project impacts in Year 2035. New Mitigation Measure 4.16.6.3B has been created requiring payment of fair share amounts for the project specific impacts at the Via Castilla/Masters Drive and Morales Way/Masters Drive in Year 2017 that will also mitigate project impacts in Year 2035. New Mitigation Measure 4.16.6.3C has been included requiring the developer to fund the total cost for construction of the I-15/Cajalco Road Interchange improvement project to mitigate project buildout impacts to the interchange in Year 2017 that will also mitigate project impacts in Year 2035. Revised Mitigation Measure 4.16.6.4A from the Certified EIR establishes fair share contributions to be made by the project developer for cumulative impacts to the Masters Drive/Bennet Avenue, I-15 Southbound Ramps/El Cerrito Road, Temescal Canyon Road/Cajalco Road, and Street "C"/Eagle Glen Parkway intersections. The modified and new mitigation measures are presented in Section 4.1.4.

Year 2035 Plus Full Project Roadway Segment Impacts

The TIA prepared for the proposed project assessed Year 2035 Plus Full Project roadway segment impacts based on a detailed analysis of daily roadway capacities. In summary, the TIA found the full

project would create four project-specific or cumulatively considerable traffic impacts at local vicinity roadway segments. However, the TIA also confirms that the detailed peak hour intersection analysis indicates that with the inclusion of the recommended interchange and intersection improvements, acceptable levels of service are obtained at the roadway segments and no mitigation is required.

Year 2035 Plus Full Project Freeway Ramp Meter Impacts

The TIA prepared for the proposed project assessed ramp metering for 2035 Plus Full Project. The analysis concluded that the following metered lanes are needed for each on-ramp location:

- I-15 Southbound On-Ramp at El Cerrito Road – 2 lanes.
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane.
- I-15 Northbound On-Ramp at El Cerrito Road – 2 lanes.
- I-15 Northbound Slip On-Ramp at Cajalco Road – 2 lanes.
- I-15 Northbound Loop On-Ramp at Cajalco Road – 1 lane.

Year 2035 Plus Full Project Freeway Merge/Diverge Impacts

The TIA prepared for the proposed project assessed Year 2035 Plus Full Project traffic impacts to I-15 freeway ramp merge and diverge locations. The analysis concluded that the project would contribute to unacceptable levels of service at the following ramp merge and diverge locations:

- I-15 Southbound Off-ramp at El Cerrito Road.
- I-15 Southbound On-ramp at El Cerrito Road.
- I-15 Southbound Off-ramp at Cajalco Road.
- I-15 Southbound On-ramp at Cajalco Road.
- I-15 Northbound On-ramp at El Cerrito Road.
- I-15 Northbound Off-ramp at El Cerrito Road.
- I-15 Northbound On-ramp at Cajalco Road.
- I-15 Northbound Slip On-Ramp at Cajalco Road.
- I-15 Northbound Loop On-Ramp at Cajalco Road.
- I-15 Northbound Off-Ramp at Cajalco Road.

Because there are no feasible mitigation measures available to mitigate the project's cumulative contribution to traffic on the I-15 Freeway, the project's cumulative impacts to freeway ramp merge and diverge locations are considered to be significant and unavoidable. The Certified EIR reached the same conclusion. However, ramp metering at the Cajalco Road interchange would likely be addressed as part of the Cajalco Road Interchange improvement project. Ramp metering at the El Cerrito Road ramps would likely be addressed by the appropriate agency at a future date if regional improvements at this location or considered.

4.1.4 Mitigation

The following modifications to Mitigation Measures 4.16.6.1A, 4.16.6.2A, 4.16.6.2B, 4.16.6.3A, and 4.16.6.4A from the Certified EIR are required for the proposed project. In addition, new Mitigation Measures 4.16.6.3B and 4.16.6.3C are required for the proposed project. All five of the revised/new measures provide mitigation for local intersections and the I-15 on-ramp and off-ramp intersections on Cajalco Road. These modifications are based on the traffic analysis prepared for the proposed project as summarized in Section 4.1.3.

4.16.6.1A: ~~Prior to issuance of a Certificate of Occupancy for the first dwelling unit and/or commercial, office or industrial building within the Specific Plan area, t~~The master developer~~project proponent~~ shall construct ~~or guarantee the construction of~~ the improvements identified below as mitigation measures for 2017 plus Phase 1 ~~existing plus project~~ conditions~~. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place to serve the existing plus project daily volumes. The following modifications to intersection configurations for existing baseline plus project are recommended~~ to improve levels of service in accordance with City requirements:

- ~~**Masters Drive/California Drive:** Install a traffic signal.~~
- **Street "C"~~Masters Drive~~/Eagle Glen Parkway**: ~~I~~Prior to issuance of a Certificate of Occupancy for the first model home, install a traffic signal, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.
- **Bedford Canyon Road/Eagle Glen Parkway:** ~~A~~Prior to issuance of the first production home building permit, add a northbound left-turn lane, a northbound through/right lane, ~~two northbound right-turn lanes with northbound right-turn overlap phasing, a second southbound left-turn lane,~~ a southbound through lane, a second~~an~~ eastbound through lane, and a~~two~~ westbound left-turn lane~~s~~.
- ~~**I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right-turn lane, reconstruct the eastbound approach to provide two left-turn lanes and two through lanes, and reconstruct the westbound approach to provide one through lane and one right-turn lane.~~
- ~~**I-15 Northbound Ramps/Cajalco Road:** Add a second eastbound left-turn lane.~~

4.16.6.2A: Prior to issuance of the first production home building permit, the master developer shall pay a 64% fair share contribution towards the construction of a traffic signal at the Masters Drive/California Avenue intersection. ~~a Certificate of Occupancy for the first dwelling unit and/or commercial, office or industrial building within the Specific Plan area, the project proponent shall construct or guarantee the construction of those improvements identified below as mitigation measures for year 2014 plus project conditions. In addition, the project proponent shall participate in the City of Corona Development Impact Fee Program and the Western Riverside Council of Governments Transportation Uniform Mitigation Fee Program. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place to serve the existing plus project daily volumes.~~

- ~~**Bedford Canyon Road/Eagle Glen Parkway:** Add a northbound left-turn lane, a northbound through lane, a northbound right-turn lane with northbound right-turn overlap~~

~~phasing, a second southbound left-turn lane, a southbound through lane, and a westbound left-turn lane.~~

- ~~**I-15 Southbound Ramps/Cajalco Road:** Reconstruct the eastbound approach to provide two left-turn lanes and one through lane.~~
- ~~**Street C/Eagle Glen Parkway:** Install a traffic signal, add a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.~~
- ~~**Street C/Street B:** Add a westbound stop sign, a northbound all-way lane, a southbound all-way lane, and a westbound all-way lane.~~
- ~~**Street A/Driveway 1:** Add an eastbound stop sign, a northbound all-way lane, a southbound all-way lane, and an eastbound all-way lane.~~

~~**4.16.6.2B:** Prior to the issuance of a Certificate of Occupancy for a project developed within the Specific Plan area, each developer shall consult with the City to determine if a project-specific traffic analysis is required for the proposed project. The City shall determine if the proposed project meets the requirements for a preparation of a traffic analysis based on guidelines established by the City of Corona. If the City determines that a project-specific traffic analysis is required, the project proponent shall submit a project-specific traffic analysis for review and approval by the City. The traffic analysis shall identify trips that would be generated by the project and any fair-share contributions required to maintain the levels of service on these study area intersections. The payment of a fair-share contribution shall be made through an established City of Corona impact fee and participation in the WRCOG's TUMF Program, as appropriate, or construction of off-site facilities under appropriate fee credit agreements for improvements deemed appropriate by the City~~.

4.16.6.3A: Prior to the issuance of the first building permit after Phase 1, the master developer ~~a Certificate of Occupancy for a project developed in Phases 3 and 4 within the Specific Plan area, the project proponent~~ shall construct ~~or guarantee the construction of~~ those improvements identified below as mitigation measures for year 2017~~2019~~ plus project conditions to improve levels of service in accordance with City requirements. ~~In addition, the project proponent shall participate in the City of Corona Development Impact Fee Program and the Western Riverside Council of Governments Transportation Uniform Mitigation Fee Program. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place prior to issuance of any Certificates of Occupancy for a project developed in Phase 2 in order to serve the existing plus project daily volumes.~~

- **Masters Drive/Eagle Glen Parkway:** Install a traffic signal.
- **Bedford Canyon Road/Eagle Glen Parkway:** Add a ~~northbound left-turn lane, a northbound through lane, two~~ northbound right-turn lane~~s~~ with northbound right-turn overlap phasing, ~~a second southbound left-turn lane, a southbound through lane, a third eastbound~~ add a shared southbound left/through lane, and add a~~two~~ westbound left-turn lane~~s~~.
- ~~**I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right-turn lane, reconstruct the eastbound approach to provide two~~

~~left-turn lanes and two eastbound through lanes, and reconstruct the westbound approach to provide one through lane and one shared through/right-turn lane.~~

- ~~**I-15 Northbound Ramps/Cajalco Road:** Add a second northbound left-turn lane and a second eastbound left-turn lane.~~
- ~~**Street C/Eagle Glen Parkway:** Add traffic signal, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.~~
- **Street "C"/Street "B":** Install a roundabout ~~Add an eastbound stop sign~~ and an all-way lane at all approaches.
- **Street "A" – Street "D"/Street "B"~~Driveway 1~~:** Install a roundabout and an all-way lane at all approaches.~~ traffic signal, a northbound left-turn lane, a northbound through right lane, a southbound left-turn lane, a southbound through/right-turn lane, an eastbound left-turn lane, an eastbound through/right-turn lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane with westbound right-turn overlap phasing.~~
- **Street "A"/Main Driveway (TAZ 4)~~Street B~~:** Install a traffic signal, ~~a northbound left-turn lane, a~~ two northbound through lanes, a southbound left-turn lane, two~~a~~ southbound through lanes, ~~an eastbound left-turn lane, an eastbound through lane,~~ a westbound left-turn lane, ~~a westbound through lane,~~ and a westbound right-turn lane.
- **Street "A"/South Driveway (TAZ 4):** Install a stop sign on the westbound approach, two northbound through lanes, a southbound left turn lane, two southbound through lanes, a westbound left turn lane, and a single westbound approach lane.
- ~~**Via Castilla Street/Masters Drive:** Modify the all-way stop control by instating either: 1) a roundabout or 2) a stop sign on the southbound approach.~~
- ~~**Morales Way/Masters Drive:** Modify the all-way stop control by instating either: 1) a roundabout or 2) a traffic signal.~~

4.16.6.3B: Prior to the issuance of the first building permit after Phase 1, the master developer shall pay a 99 percent fair-share contribution toward the construction of either a roundabout or traffic signal at the Morales Way/Masters Drive intersection; a 27 percent fair-share contribution toward the construction of either a roundabout or traffic signal at the Masters Drive/Christopher Lane intersection; and a 98 percent fair-share contribution toward the construction of either a roundabout or stop sign control at the Via Castilla Street/Masters Drive intersection.

4.16.6.3C: Prior to the issuance of the first building permit, the master developer shall post bonds for the full amount of the total estimated cost of the I-15/Cajalco Road Interchange Improvement project.

4.16.6.4A: ~~The project proponent shall construct or guarantee the construction of those~~ Prior to the issuance of a the first building permit after Phase 1, the master developer shall make a fair share contribution towards the improvements identified below as mitigation measures for year 2035 plus project conditions. ~~In addition, the project proponent shall construct a new I-15 southbound slip on-ramp for the Cajalco Road/I-15 Interchange.~~

- **Masters Drive/Bennett Avenue:** 32% of the cost to iInstall a traffic signal.
- **Masters Drive~~Bedford Canyon Road/Eagle Glen Parkway~~Georgetown Road:** 100% of the cost to iInstall a traffic signal.
- ~~**Bedford Canyon Road/Eagle Glen Parkway:** Add a northbound left-turn lane, a northbound through lane, two northbound right-turn lanes with northbound right-turn overlap phasing, a second southbound left-turn lane, a southbound through lane, a third eastbound through lane, and two westbound left-turn lanes.~~
- **I-15 Southbound Ramps/El Cerrito Road:** 58% of the cost to a~~A~~dd an eastbound right-turn lane unless constructed or funded by others.
- ~~**I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right-turn lane, reconstruct the eastbound approach to provide three through lanes and a right-turn lane, and reconstruct the westbound approach to provide two through lanes and a right-turn lane.~~
- ~~**I-15 Northbound Ramps/Cajalco Road:** Add a second northbound left-turn lane, reconstruct the eastbound approach to provide three through lanes and a right-turn lane, and reconstruct westbound approach to provide three through lanes and a right-turn lanes.~~
- **Temescal Canyon Road/Cajalco Road:** 91% of the cost to a~~A~~dd ~~a second northbound through lane,~~ a second southbound left-turn lane, a second eastbound through lane, and a westbound right-turn ~~lane with westbound right-turn overlap phasing~~.
- **Street "C"/Eagle Glen Parkway:** 100% of the cost to a~~A~~dd a traffic signal~~, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane~~.
- ~~**Street C/Street B:** Add an eastbound stop sign and an all-way lane at all approaches.~~
- ~~**Street A/Driveway 1:** Install a traffic signal, a northbound left-turn lane, a northbound through/right-turn lane, a southbound left-turn lane, a southbound through/right-turn lane, an eastbound left-turn lane, an eastbound through/right-turn lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane with westbound right-turn overlap phasing.~~
- ~~**Street A/Street B:** Install a traffic signal, a northbound left-turn lane, a northbound through/right-turn lane, a southbound left-turn lane, a southbound through/right-turn lane, an eastbound left-turn lane, an eastbound through/right-turn lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane.~~

4.1.5 Level of Significance After Mitigation

With implementation of the improvements contained in the modified and new measures described in 4.1.4, intersection impacts would be reduced to a less than significant level for Phase 1 development (308 single-family production units or a combination of single-family and condominium/townhome production units that have the same or a lesser external trip count as 308 single-family production units) with the exception of impacts to the Masters Drive/Christopher Lane intersection. Necessary improvements for the Masters Drive/Christopher Lane intersection have been addressed as part of Phase 2 mitigation (Mitigation Measure 4.16.6.3.B) because the City may implement the necessary signal improvements as part of a future Masters Drive roadway improvement project. For this reason,

impacts from Phase 1 at the Masters Drive/Christopher Lane intersection would remain significant and unavoidable until such time that the Masters Drive roadway improvements are implemented by the City. The 2017 Plus Full Project analysis identified level of service impacts at the Via Castilla Street/Masters Drive and Morales Way/Masters Drive intersections that would require mitigation via payment of a 98 percent and 99 percent (respectively) fair-share contributions toward the cost of constructing necessary improvements to reduce the impacts to less than significant. However, based upon regional transportation improvements that are currently under constructions or are expected to be under construction prior to or at the same time as the construction of this project, the City anticipates that the signalization improvements may not be necessary at the Via Castilla Street/ Masters Drive and Morales Way/Masters Drive intersections or that other traffic improvements along Masters Drive may be warranted. Therefore, the City has not required that the developer construct the signalization improvements at these two intersections. Instead, the developer will be required to pay fair-share contributions toward the construction of improvements at Via Castilla Street/Masters Drive and Morales Way/Masters Drive intersections, which the City will use to make such improvements at such time that the improvements are warranted. This would create a new significant and unavoidable impact that would be fully mitigated upon completion of the Masters Drive roadway improvements by the City, because the improvements may not be installed until after the completion of the project. In addition, the 2017 Plus Full Project analysis identified level of service impacts at the I-15/Cajalco Road northbound and southbound ramp intersections and mitigation via substantive improvements to the Interchange. These interchange improvements have been previously examined by the Riverside County Transportation Commission (RCTC), engineering design is close to completion, NEPA/ CEQA re-validation of the original environmental clearance has been started by the City, and the Interchange improvement project is awaiting final funding. However, the Development Agreement creates the potential for a new significant and unavoidable impact that was not identified in the Certified EIR in the form of level of service impacts at the I-15/Cajalco Road northbound and southbound ramp intersections. Although the developer will advance the total cost for the construction of the I-15/Cajalco Road interchange improvements, the time frame for start and end of construction is not clear. Therefore, while the developer cannot develop more than Phase 1 prior to the commencement of construction of the interchange improvements, it is possible that more than Phase 1 would be developed prior to completion of the interchange improvements. As discussed in Section 4.1.3, development of the project beyond Phase 1 would cause the I-15 Northbound Ramps/ Cajalco Road intersection to degrade to unacceptable conditions during the p.m. peak hour. This would create a new significant and unavoidable impact, albeit a temporary impact, that will be fully mitigated upon completion of the I-15/Cajalco Road interchange improvement project by the City in cooperation with Caltrans and RCTC. Findings and overriding considerations for these significant and unavoidable impacts will be required prior to approval of the proposed project.

4.2 WATER SUPPLY

4.2.1 Background

The water supply analysis contained in the Certified EIR was based on the following water supply assessment:

- *Water Supply Assessment for the Arantine Hills Specific Plan Project*, City of Corona Department of Water and Power, September 1, 2010. (Appendix M-3 of the Draft EIR)

Due to the proposed changes in land use and the current drought condition in California, the following updated water supply assessment has been prepared:

- *Water Supply Assessment and Written Verification of Water Supply for the Arantine Hills Specific Plan Amendment No. 1 Project,* City of Corona Department of Water and Power, August 2015. (Appendix B in this SEIR)

4.2.2 Water Supply Impacts Discussed in Certified EIR

Groundwater

As identified in the Water Supply Assessment (WSA) prepared for the Certified EIR, the City obtains its water from two sources. The primary source is groundwater from the Temescal, Bedford, and Coldwater Sub-basins. The secondary source is water imported by the Metropolitan Water District of Southern California (MWD) from the Colorado River and the State Water Project (SWP). The MWD provides wholesale water to Western Municipal Water District (WMWD) and then to the City.

The City's Groundwater Management Plan (GWMP) developed strategies for more sustainable management and use of groundwater resources to meet increasing future demands with decreasing groundwater levels in the regional groundwater basins. The GWMP proposes that these management strategies be implemented through 2020 to assist in reducing demands for imported water and meeting projected demands. The City shares one or more of the three groundwater sub-basins with the City of Norco, Home Gardens County Water District, the Temescal Valley Water District (TVWD) (formerly the Lee Lake Water District), and the Elsinore Valley Municipal Water District (EVMWD). The TVWD participated in the GWMP and has proposed a groundwater recharge project with recycled water in the Bedford Sub-basin.

Based on the WSA prepared for the Specific Plan, water demand for the proposed Specific Plan uses would total 709 acre-feet/year (AFY.) Although the WSA indicates that there is sufficient water supply to service the Specific Plan area, the WSA anticipated that additional groundwater supplies above existing conditions would be utilized. The region and the City depend on imported water to replenish and supplement groundwater supplies in the event of major drought conditions. The City's 2010 Urban Water Management Plan (UWMP) identifies the need for Corona to comply with the California Water Conservation Act of 2009 to reduce potable water demands by 10 percent in 2015 and 20 percent in 2020.

The development associated with the Specific Plan would utilize water conservation project design features such as low-flush toilets, low-flow faucets, and drought-tolerant landscaping. In addition, the development associated with the Specific Plan would use recycled water for landscaping and other outdoor uses. The use of recycled water (approximately 72 AFY) would reduce the total amount of potable water that would be required for the Specific Plan. The Specific Plan's potable water demand of 637 AFY of water may result in a reduction in groundwater supplies during a prolonged drought. To reduce the potential significant effect on ground water supplies during a major drought condition Mitigation Measures 4.9.6.3A and 4.9.6.3B were proposed. These measures from the Certified EIR are listed as follows:

> **4.9.6.3A:** Prior to the issuance of grading permits of any development within the Arantine Hills Specific Plan, the project proponent shall submit to the City for review and approval, a

water conservation plan. The water conservation plan shall include but shall not be limited to the following:

- Drought-tolerant landscaping plan;
- Indoor project design features such as low-flush toilets and low-flow faucets;
- Outdoor project design features such as subsurface irrigation systems, rain sensors, drip irrigation, or high-efficiency sprinkler heads;
- Use of alternative water sources (e.g., reclaimed water); and
- Educational materials to be utilized by the project tenants.

4.9.6.3B: Prior to the issuance of occupancy permits for any development within the Arantine Hills Specific Plan, the project proponent shall submit proof to the City that an educational program regarding water usage has been developed for use within the proposed project.

Water Supply

Based on information reported from the WSA and Corona's 2010 UWMP, sufficient water supplies are available to meet future needs for the City's water service area through its anticipated build-out, projected to occur in year 2030 under normal, single-dry and multiple-dry water years.

Based on the analysis contained in the Certified EIR, the City of Corona had sufficient water supplies to support the Specific Plan. Since there is existing surplus water supply for the entire project, impacts associated with this issue were found to be less than significant.

4.2.3 Impacts Associated with the Proposed Project

Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

The WSA prepared for the Specific Plan indicated the City's primary water source is groundwater from the Temescal, Bedford, and Coldwater Sub-basins. The secondary source is water imported by the MWD from the Colorado River and the SWP. The proposed project would result in changes in the amount of certain land use designations that comprise the Specific Plan, including an increase in the amount of residential and open space acreage and decrease in the amount of commercial, mixed use, and parkland acreage.

Based on the WSA prepared for the Specific Plan Amendment, water demand for the proposed project uses would total 796 AFY with development of the maximum 1,806 dwelling unit scenario. Of this total, 709 AFY is potable water demand and approximately 87 AFY is recycled water demand. While the proposed project would not result in a change in the size, boundaries or location of the Specific Plan, and does not include any land use designations not previously analyzed, compared to the project addressed in the Certified EIR, the proposed project would increase overall water

demand, due to the elimination of high density uses and increase in low density development that has a larger per capita water use demand.

On January 17, 2015, Governor Brown declared a State of Emergency due to drought conditions experienced across the State.[1] This declaration directed State officials to take all necessary actions to prepare for these drought conditions and establish a statewide water conservation campaign. A change in circumstances in potential water supply has occurred since approval of the Specific Plan. As discussed in the Certified EIR, in the event that imported water is not available, the City would rely solely on groundwater supplies to meet existing and future water demands. As indicated in the Certified EIR, the proposed project's potable water demand may result in a reduction in groundwater supplies during a prolonged drought.

The City's 2010 UWMP identifies an availability of sufficient water supplies to meet future needs for the City's water service area through its anticipated build-out, projected to occur in year 2030 under normal, single-dry and multiple-dry water years. Dry year supplies were documented through an assessment of groundwater, reclaimed water, and imported water supplies. The WSA is a refinement of the analysis in the 2010 UWMP, accounting for changes in groundwater production from wells in the Temescal Sub-Basin and recent State Water Project and Colorado River water litigation issues. The conclusion of the WSA assessment is that the City has sufficient water supplies to support the proposed Arantine Hills Specific Plan Amendment No. 1.

The City has sufficient groundwater rights to extract the necessary water to serve the proposed project. The amount of groundwater anticipated to be pumped by the City is projected to decline until 2020 in order to meet State conservation goals, and then resume a growth trend. Although the WSA indicates that there is sufficient water supply to service the Specific Plan area, in the event imported water is not available, additional groundwater supplies above existing conditions could be utilized. Even with the proposed project's increase in water demand and associated impacts on groundwater supplies, the proposed amendment to the Specific Plan does not result in an impact that was not already addressed in the Certified EIR. To reduce the potential significant effect on groundwater supplies during drought conditions, mitigation was identified in the Certified EIR. This mitigation remains valid for the impact associated with the proposed Specific Plan Amendment. No new significant environmental impact would result from the project as proposed.

Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Due to the changes in land use designations, compared to the project assessed in the Certified EIR, the proposed project would increase water demanded by the Specific Plan. Drought conditions in the State have prompted the passage of policies and regulations related to mandatory water use restrictions and conservation efforts. On January 17, 2015, the Governor declared a State of Emergency resulting from statewide drought conditions.[2] This executive order mandated a net 25% statewide reduction in potable, or drinking, water use from 2013 water usage. The executive order

[1] State of California, Office of Governor Edmund G. Brown Jr. 2014. Governor Brown Declares Drought State of Emergency. http://gov.ca.gov/news.php?id=18368 (accessed June 25, 2015).

[2] State of California, Office of Governor Edmund G. Brown Jr. 2014. Governor Brown Declares Drought State of Emergency. http://gov.ca.gov/news.php?id=18368 (accessed June 25, 2015).

contains many regulations on water use. Each water agency is assigned a tier based on their water usage from June through September 2014. Corona's conservation target tier is a 28% reduction from water use in 2013. In response to the Executive Order, the City implemented Stage 2 of its Water Conservation Ordinance that includes watering guidelines and prohibitions, requirements for irrigation system repairs, service of drinking water at restaurants unless requested by patrons, and prohibition of water runoff.[1] The Certified EIR identified that the proposed Specific Plan would have a water demand of approximately 709 AFY. As a result of changes in the project, the current drought condition and the resultant emergency declarations and mandatory water reductions, the water supply availability originally forecast for the Specific Plan has been reevaluated. Based on the project-specific Water Supply Assessment, the Specific Plan Amendment would have a total water demand of 796 AFY, including 709 AFY of potable water and 86 AFY of recycled water.

A review of the Water Supply Assessment prepared for the Certified EIR indicated that the water demand associated with the development of denser, age-restricted housing within certain planning areas was not identified. The option for the development of this housing type was and continues to be a component of the proposed project. The annual water demand for this denser residential product is approximately 42.3 AFY. To ensure an equal comparison, this additional water demand was added to the water demand cited in Certified EIR, resulting in a water demand of approximately 751 AFY (709 AFY + 42.3AFY). Based on the WSA prepared for the Specific Plan Amendment, water demand for the proposed project uses would total 796 AFY (of this 709 AFY is potable water demand and approximately 87 AFY is recycled water demand). Compared to the Certified EIR, the project detailed in the SPA would require an additional 45 AFY of water (796 AFY - 751 AFY = 45 AFY).

As detailed in Table 4.D, the City's Urban Water Management Plan anticipates that in normal, single dry, and multiple dry years, that the City has sufficient water supplies available to meet future demands of the service area and the proposed project. Dry year supplies were documented through an assessment of groundwater, reclaimed water, and imported water supplies. The City is implementing groundwater management strategies such as groundwater recharge and expanded use of recycled water that will decrease the City's use of potable water supplies and allow the City to continue sustainable groundwater pumping to meet the projected demands of the City's existing and planned future uses, specifically including the proposed project.

Table 4.D: Water Supply Sufficiency (Demand vs Supply Comparison) (AFY)

	2015	2020	2025	2030	2035
Normal Year					
Supply Totals	71,639	76,272	78,549	78,713	75,193
Demand Totals	46,672	44,378	44,994	45,694	46,450
Difference	24,967	31,894	33,555	33,019	28,743
Difference as % of Supply	35%	42%	43%	42%	38%
Difference as % of Demand	54%	72%	75%	72%	62%
Single Dry Year					
Supply Totals	63,131	67,612	59,517	67,834	66,281
Demand Totals	54,397	51,708	52,428	53,244	54,126

[1] Arantine Hills Specific Plan Amendment No. 1WSA and WV, City of Corona, August 2015.

Table 4.D: Water Supply Sufficiency (Demand vs Supply Comparison) (AFY)

	2015	2020	2025	2030	2035
Difference	8,734	15,904	17,089	14,590	12,155
Difference as % of Supply	14%	24%	25%	22%	18%
Difference as % of Demand	16%	31%	33%	27%	22%
Multiple-Dry Year Events					
Supply Totals	60,115	63,686	64,065	63,343	62,791
Demand Totals	54,394	51,708	52,428	53,244	54,126
Difference	5,721	11,978	11,637	10,099	8,665
Difference as % of Supply	10%	19%	18%	16%	14%
Difference as % of Demand	11%	23%	22%	19%	16%

Source: Table 5-1, Arantine Hills Specific Plan Amendment No. 1WSA and WV, City of Corona, August 2015.

Due to reduced residential density and higher demands associated with single family homes, the proposed project's potable water demands are approximately 45 AFY greater than the estimated water demand projections included in the City's 2010 UWMP. The additional 45 AFY of the proposed project's water demand is for potable water associated with residential use. The updated WSA is a refinement of the analysis in the 2010 UWMP, and accounts for changes in groundwater production from wells in the Temescal Sub-Basin and recent State Water Project and Colorado River water litigation issues. The updated WSA concluded that the City has sufficient water supplies to support the proposed Arantine Hills Specific Plan Amendment No. 1.

Based on information reported from the updated WSA and Corona's 2010 UWMP, sufficient water supplies are available to meet future needs within the City's water service area, including the proposed project. Similar to the analysis in the Certified EIR, since there is existing surplus water supply, project-specific water supply impacts would be less than significant. The proposed amendment to the Specific Plan does not result in a significant impact that was not already addressed in the Certified EIR. No new significant environmental impact would result from the project as proposed.

4.2.4 Mitigation

No mitigation measure additions or changes were made to mitigation measures previously included in the Certified EIR. Mitigation Measures 4.9.6.3A and 4.9.6.3B are still required to reduce groundwater and water supply impacts.

4.2.5 Level of Significance After Mitigation

With implementation of Mitigation Measures 4.9.6.3A and 4.9.6.3B, impacts to groundwater and water supply would be reduced to less than significant levels. This is the same level of significance identified in the Certified EIR. Implementation of the Specific Plan Amendment would not increase impacts to local groundwater or water supply.

4.3 RIPARIAN HABITAT, DRAINAGE PATTERNS, AND DRAINAGE FACILITIES

4.3.1 Background

The drainage analysis contained in the Certified EIR was based on the following documents:

- *Preliminary Water Quality Management Plan for Arantine Hills Project,* AEI-CASC Consulting, February 15, 2011 (Appendix J-1 of the DEIR).
- *Master Drainage Plan for the Arantine Hills Specific Plan,* AEI-CASC Consulting, February 10, 2011 (Appendix J-1 to the DEIR).

Due to the proposed changes to the design of on-site drainage facilities, the following updated studies have been prepared:

- *Floodplain Analysis Bedford Wash at Arantine Hills,* Albert A. Webb Associates, September 8, 2015 (Appendix C-1 in this SEIR).
- *Hydrology and Hydraulic Memorandum for Bedford Canyon Wash,* Albert A. Webb Associates, October 9, 2015 (Appendix C-2 in this SEIR).
- *Preliminary Hydrology Study for Tract 36294 Specific Plan Amendment, Corona, California,* CASC Consulting, October 15, 2015 (Appendix C-3 in this SEIR).
- *Sediment Yield and Transport Study for Arantine Hills Baseline and With-Project Conditions, Bedford Wash,* Fehlman Consulting Services, August 10, 2010 (Appendix C-4 in this SEIR).

4.3.2 Riparian Habitat, Drainage Patterns, and Drainage Facilities Impacts Discussed in Certified EIR

Jurisdictional Waters, Wetlands and/or Riparian Areas

Development of the Specific Plan would have necessitated the removal of some of the existing on-site USACE jurisdictional areas. As stated in the Certified EIR, the Specific Plan would have permanently impacted approximately 0.33 acre and temporarily impacted approximately 1.82 acres of USACE jurisdictional non-wetland waters. No USACE jurisdictional wetlands would have been impacted. Impacts to USACE jurisdictional areas would have resulted in a potentially significant impact.

Development of the Specific Plan would have necessitated the removal of existing on-site California Department of Fish and Wildlife (CDFW) jurisdictional areas. The Specific Plan would have permanently impacted approximately 0.34 acre and temporarily impact approximately 1.82 acres of CDFW jurisdictional areas. Less than 0.01 acre of temporarily impacted areas would have been to vegetated riparian habitat. All remaining impacts to CDFW jurisdictional areas would have been to unvegetated streambeds. Impacts to CDFW jurisdictional areas would have resulted in a potentially significant impact. Loss of CDFW jurisdictional streambed and riparian habitat were found to be potentially significant impact.

Unvegetated streambed and vegetated riparian habitat met the definition of MSHCP riparian/riverine areas. The riparian/riverine areas within the Specific Plan site did not provide suitable habitat for any

riparian/riverine or vernal pool species identified in Section 6.1.2 of the MSHCP. Impacts to MSHCP Riparian/Riverine areas resulted in a potentially significant impact.

4.4.5.3A Prior to the issuance of grading permits for the affected areas, the project applicant shall provide evidence to the City that a Section 404 Permit from the USACE, a Section 401 Permit from the RWQCB, and a Section 1602 Streambed Alteration Agreement from the CDFW have been obtained for impacts to jurisdictional waters in the project site.

Compensation to mitigate for the permanent loss of 0.34 acre of USACE and CDFW jurisdictional areas would be mitigated at a minimum 1:1 ratio through participation in a USACE and/or CDFW-approved mitigation bank and/or in lieu fee program, as discussed in Mitigation Measure 4.4.5.3C, or other manner approved by the USACE and CDFW through the permitting process.

4.4.5.3B Prior to the issuance of grading permits for the affected areas, a Determination of Biological Superior or Equivalent Preservation (DBESP) shall be submitted to the Riverside Conservation Authority (RCA) identifying potential impacts to riparian/ riverine areas, discussing why avoidance of impacts to riparian/riverine areas was not feasible, and identifying compensation for the loss of riparian/riverine areas. Due to the programmatic nature of this study, it is anticipated that project-specific measures will be identified in a DBESP that will be prepared for each applicable project within the Arantine Hills Specific Plan area at the time it is submitted to the City for approval.

4.4.5.3C Compensation to mitigate for the permanent loss of 0.34 acre of USACE and CDFW jurisdictional and MSHCP riparian/riverine resources on site the following shall be implemented:

The applicant shall pay a one-time in-lieu fee to a USACE and/or CDFW approved mitigation bank and/or in lieu fee program, such as the Santa Ana Watershed Association (SAWA) In-Lieu Fee Wetland Creation Program or the Riverside County Regional Park and Open Space District Santa Ana River Mitigation Bank (SARMB), for the purchase of no less than 0.68 acre (2:1 ratio) of vegetated riparian and/or wetland habitat creation. Participation in the mitigation bank or in-lieu fee program shall ensure that conservation is in perpetuity.

4.4.5.3D Following the completion of grading, 1.82 acres of USACE and CDFW jurisdictional areas that will be temporarily impacted s shall be restored using native vegetation and soils to pre-project conditions following completion of grading.

Drainage Pattern and Capacity-Related Impacts

The Certified EIR indicated that the development of the Specific Plan area would have introduced a greater percentage of impervious surfaces, potentially leading to substantially higher post-development flow volumes compared to the pre-developed condition. Post-project conditions resulting from this change would have included increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. The Specific Plan area currently has a low runoff coefficient, meaning that runoff volumes during storms represents a relatively small portion of the total rainfall volume. Development of the Specific Plan area with impervious surfaces (such as roadways, parking lots, and buildings) would have resulted in increased runoff volumes as compared to the current condition.

The Arantine Hills Specific Plan conceptual drainage plan included a system of drainage facilities and detention basins designed to mitigate impacts in water quality and volumes of runoff. Bedford Canyon Wash from Street "A" to the upstream boundary of the project would have been widened in order to reduce the drainage flow velocity within the channel. Below Street "A," the wash would have been transitioned to match the existing channel width. A multiple-arch culvert bridge or reinforced concrete boxes would have been designed for the proposed Street "E" crossing. A floodplain and sediment transport study was prepared for Bedford Canyon Wash. This study, along with other pertinent studies that may be required, was submitted to the Riverside County Flood Control and Water Conservation District for review, approval, and consideration of acceptance of the Bedford Canyon Wash improvements associated with the Specific Plan. Drainage improvements are required to ensure that the Specific Plan will be protected from the 100-year flood.

The WQMP prepared for the Specific Plan indicated that the Specific Plan area would ultimately drain to a regional basin located in Planning Area 15 and a local basin located in Planning Area 16. These basins would have been constructed on-site by the Developer and would not have been considered a City facility. The volumes and duration for the post-development conditions would have exceeded the pre-development conditions on site. The Specific Plan would have required the use of a detention basin to function for both detention and water quality purposes. As identified in the WQMP prepared for the Specific Plan, the flows coming from both the regional and local basin into Bedford Canyon Wash would have been at a rate such that the post-development conditions did not exceed the pre-development conditions for the rainfall event year per City requirements. In addition, the post development velocities would have not exceeded the pre developed velocities and would have minimized downstream erosion.

There are no other existing drainage facilities near or within the Specific Plan area. The master drainage plan prepared for Specific Plan proposed a system of drainage channels and underground storm drains and basins to intercept and convey the storm flows generated by the Specific Plan area and the off-site flows coming from the south. The majority of the proposed underground drainage facilities would have been placed under the streets. Open channels are proposed along the south, west, and north sides of the Specific Plan area. As previously identified, detention basins were proposed at two locations in order to mitigate increases in storm water runoff resulting from the development of the various planning areas.

While the implementation of the Specific Plan would have contributed to a greater volume and higher velocities of storm water flow, the master drainage system would have accepted runoff that would have resulted from project construction at or better than pre-development conditions. Therefore, the post-development flows generated within the Specific Plan area would not have exceeded the capacity of the planned storm water drainage systems. The Certified EIR identified the following Mitigation Measure to ensure the potential drainage impacts would be reduced to a less than significant level:

> **4.9.6.4A:** Prior to the issuance of grading permits of any development within the Arantine Hills Specific Plan, the project proponent shall ensure that drainage facilities and/or improvements necessary for the protection of the project from the 100-year flood are identified and incorporated into the improvement plans that will be reviewed and approved by the City. A floodplain and sediment transport study prepared for Bedford Canyon Wash, along with other required drainage and/or hydraulic studies, shall be submitted to the Riverside County Flood Control and Water Conservation District for review, approval, and

consideration of acceptance of the Bedford Canyon Wash improvements associated with the proposed development. Acceptance of Bedford Wash improvements by the Flood Control and Water Conservation District requires approval of the associated plans and pertinent drainage studies including the sediment transport study. These drainage improvements are required to ensure the proposed project will be protected from the 100-year flood.

New or Expanded Storm Water Drainage Facilities

According to the Certified EIR, the proposed on-site master drainage system was designed such that it could convey off-site and on-site flows in a safe and nondestructive manner while protecting the primary access points from the 100-year storm event. City design criteria specified that the 10-year event be contained from curb-to-curb while the 100-year event was contained within the right-of-way. Street capacity calculations showed that all four proposed on-site streets could have conveyed the 100-year event from curb-to-curb; therefore, the smaller 10-year event could have been easily conveyed from curb-to-curb. Similar to what was identified for water and sewer infrastructure improvements, the implementation of the master drainage improvements would not have had a significant impact as the installation of these infrastructure features would have occurred concurrently with the associated roadway improvements in the Specific Plan area. Impacts associated with this issue would have been considered less than significant.

4.3.3 Impacts Associated with the Proposed Project

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

As identified in Section 2.0 Project Description, the Specific Plan Amendment includes three design options to convey storm flows and protect the existing Bedford Canyon. One design option includes the construction of a concrete lined bypass channel adjacent to Bedford Canyon Wash to convey major storm flows while allowing metered flows to remain in the existing Bedford Canyon Wash. The second design option is similar, yet the bypass channel is designed in a wider, deeper, and more natural manner, including a soft bottom. The third option does not include a bypass channel but instead reestablishes Bedford Canyon Wash to a much wider and more natural configuration in order to safely convey low flows as well as storm flows. These design options are generally described below:

- **Option 1: Concrete-Lined Bypass Channel**

  - Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
  - Diversion structure to maintain 150 cfs within Bedford Canyon Wash and divert all higher flows into concrete lined bypass channel.
  - At downstream portion of the site, the bypass channel would discharge flows into a “plunge pool” to reduce velocities before reconnecting to Bedford Canyon Wash near the downstream property line.
  - Concrete-lined bypass channel measures approximately 46 feet wide at the bottom.

- **Option 2: Soft-Bottom Bypass Channel**

- Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
- Bypass channel excavated lower in elevation than adjacent "B" Street and building pads.
- Buried riprap rock on both sides of bypass channel and buried grade control structures.
- Alluvial fan sage scrub vegetation planted in soft bottom and above buried riprap banks.
- Nominal low flows may remain in Bedford Canyon Wash during storm events.
- Soft bottom bypass channel measures approximately 82 feet wide at the bottom.

- **Option 3: Reestablish Bedford Canyon Wash**

- Upstream debris basin to catch large rocks, branches, and debris while allowing normal sediment transport processes to occur for storms above a 2-year event.
- Bedford Canyon Wash excavated lower in elevation than adjacent "B" Street.
- Buried riprap rock on both sides of bypass channel and buried grade control structures.
- All flows captured in Bedford Canyon Wash.
- Alluvial fan sage scrub vegetation planted in soft bottom and above buried riprap banks.
- Reestablished Bedford Canyon Wash widened to approximately 200 feet.

All three design options would occur within the boundaries of the Specific Plan analyzed in the Final EIR, plus a debris basin located off-site, south of the Specific Plan boundary. This area was analyzed in the Final EIR and in 2015 as part of the updated biological studies for the proposed project.

On September 3, 2015, the Applicant met with the Resource Agencies as part of the MSHCP consultation process. During that meeting, the Resource Agencies identified another feature as jurisdictional, which is referred to as "Tributary D." Tributary D is an unvegetated ephemeral swale located on top of the bluff to the east of Bedford Canyon Wash. The swale was determined to be considered Waters of the State, but was determined not to be considered Waters of the United States.

Among the three design options, the only variation in impacts to jurisdictional waters occurs within Bedford Canyon Wash. Impacts to the other jurisdictional waters (Tributaries A – D and Ditch A) do not change among design options. Table 4.E summarizes temporary and permanent impacts associated with each design option and compares those with the impacts identified in the Certified EIR.

Table 4.E: Temporary and Permanent Impacts to Jurisdictional Waters (Acres)

	Temporary Impacts		Permanent Impacts	
	Total Impacts to Waters of the United States	**Total impacts to Waters of the State**	**Total Impacts to Waters of the United States**	**Total impacts to Waters of the State**
CERTIFIED EIR	1.82	1.82	0.33	0.34
OPTION 1 – Concrete-Lined Bypass Channel	1.23	1.65	0.30	0.62
OPTION 2 – Soft-Bottom Bypass Channel	0.25	0.91	0.12	0.39
OPTION 3 – Reestablish Bedford Canyon Wash	8.09	9.24	0.12	0.40

All three design options result in similar or less permanent impacts to Waters of the U.S. and Waters of the State than identified in the Certified EIR, with the exception of Options 1 and 3. Option 1 requires a diversion structure to direct storm flows into the bypass channel and allow metered flows of up to 150 cfs to remain in Bedford Canyon Wash. The diversion structure accounts for the increase in permanent impacts to Waters of the State above that analyzed in the Certified EIR. Option 3 would maintain all storm flows within Bedford Canyon Wash and re-establish the wash as a wider, more natural drainage course. The addition of Tributary D that accounts for the increase in permanent impacts to Waters of the State above that analyzed in the Certified EIR. Temporary impacts vary among the design options. The highest level of temporary impact occurs with Option 3, which includes the re-establishment of Bedford Canyon Wash into a wider, more natural drainage course. In order to accomplish Option 3, temporary impacts to existing Bedford Canyon Wash are necessary to widen and lower the Wash, but since the Wash would be reestablished, the temporary impacts do not constitute a significant biological impact.

Also, common to all three design options is a bridge crossing Bedford Canyon Wash to reach the upper bluff located southeast of the Wash. The bridge design will either be a single or dual span structure depending on the design option. The single or dual span structure could be designed as an arch system or conventional girder design. For all three design options for Bedford Canyon Wash, the impact analysis assumed a center pier structure in Bedford Canyon Wash and impacts at the bluff.

All options would result in permanent impact to Waters of the State and Waters of the U.S. Therefore, mitigation identified in the Certified EIR would in general still be applicable to the proposed project with minor adjustment for the change in acres depending on the option chosen.

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site;

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; and

Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The watershed tributary to the Arantine Hills Specific Plan is characterized by uniform, steep slopes. The upper portion of the project site is covered with annual grass and open brush. The project site generally slopes northerly at a grade of approximately 3–5 percent. Bedford Canyon Wash traverses along the southeast side of the property and flows are currently conveyed in a natural channel. Bedford Canyon Wash discharges into Temescal Canyon Creek. Development of the proposed project would result in changes to the existing flow patterns and flow paths. With the exception of a bridge structure, including abutments and pier, for the culverts under I-15 near the southeast and northeast sides of the project, there are no other drainage facilities that exist near or within the project area.

Peak storm water runoff and volumes along with sediment transport capacities were developed for a series of storm events ranging from the average annual storm to the 100-year storm. Runoff discharge rates ranged from approximately 800 cfs for the average annual storm to approximately 4,400 cfs for

the 100-year storm event. Factoring in the debris/sediment potential for the watershed, the 100-year design flowrate was increased from approximately 4,400 cfs to approximately 6,100 cfs.

Peak storm flows and volumes will increase due to the installation of impervious surfaces associated with residential and commercial development. However, the project's conceptual drainage plan proposes a system of drainage facilities and detention basins to mitigate these increases in peak flows and mitigate how fast the increased volume will be released into the natural streambed. The majority of the underground drainage facilities are proposed to be placed under the future streets. An open channel is proposed along the north side of the project site. Detention basins are proposed at two locations in order to mitigate increases in storm runoff due to the development of the various planning areas. To accommodate runoff from the site, flows would be captured in a regional basin located in Planning Area 12 (Basin A) and a local basin located in Planning Area 14 (Basin B). These basins would be constructed on-site by the developer and would not be considered City facilities. Both basins will provide detention and water quality benefits. Storm flows from the project site will flow into the detention basin where they are held and metered out to Bedford Canyon Wash. The outflow to Bedford Canyon Wash from the basins is reduced from the pre-development condition.[1] This process minimizes the possibility of erosion and discharge of pollutants associated with on-site runoff. The basins will also treat low flows, including initial storm flows, to improvement water quality. Pollutants associated with the operations of the Specific Plan land uses include sediment/ turbidity, nutrients, organic compounds, trash and debris, oxygen-demanding substances, bacteria and viruses, oil and grease, pesticides, and metals. The basins will be designed to treat these pollutants prior to discharge into Bedford Canyon Wash.

Since Approval of the Specific Plan in 2012, no changes in the boundaries, size, or location of the Specific Plan have occurred. The Amended Specific Plan, as proposed, would not introduce a substantially greater extent of amount of impervious surfaces than that originally analyzed in the Certified EIR. However, since preparation of the Certified EIR, new options for conveying storm water have been identified. These options, previously summarized, were developed to maintain or restore the natural channel in such a manner to minimize erosion to the existing bluff and perpetuating the sediment transport capabilities of the natural wash. Under Option 1, a flow of 150 cfs would be maintained within the Bedford Canyon Wash to prevent excessive erosion in the natural channel. In a 100-year event, the upstream debris basin overflows to the rectangular concrete channel. The 100-year flow would be contained in the concrete channel. Options 2 and 3 both utilize buried riprap slope protection for the bluff and the slope for Specific Plan area and buried riprap drop structures to control erosion of the wash. Each of the design options would safely convey the 100-year storm event and would achieve the following general hydraulic objectives:

- Accommodate the 100-year storm event for Bedford Canyon Wash in a burned and bulked condition with sufficient additional freeboard above design flow elevations.
- Protect the existing bluff on the east side of Bedford Canyon Wash from erosive velocities by either placing high velocity storm flows in a bypass channel or protecting the bluff with buried riprap.
- Lower the elevation of storm flows in either the bypass channel or Bedford Canyon Wash to an elevation below proposed Street "B" and adjoining residential building pads.

[1] Basin A. Predevelopment, 100-year (24 hour duration) = 158.2 cfs. Post-development outflow = 138.0 cfs. Basin B. Predevelopment, 100-year (24 hour duration) = 21.3 cfs. Post-development outflow = 11.7 cfs.

- Discharge storm flows at the downstream (northern) property line in a manner consistent with existing flows, including peak volumes, velocities, and debris conveyance.

The 100-year floodplain is properly contained within all of the three drainage options. While the proposed project would not place housing within a 100-year flood hazard area, the developer will be required to adhere to the Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) certification processes. Completion of the LOMR will lead to a change to FEMA's Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM), thereby verifying that the Specific Plan area would not place housing within an area mapped for 100-year flood hazard.

All drainage facilities and flood control measures will be designed in accordance with the requirements of the City of Corona and Riverside County Flood Control and Water Conservation District. The Certified EIR identified Mitigation Measure 4.9.6.4A to ensure the drainage facilities are sufficiently located, sized, and constructed to protect the project from the 100-year flood hazards. This mitigation remains valid for the amended Specific Plan as proposed. While implementation of the Specific Plan would not change the volume and velocities of storm water flow, each of the identified drainage options provide for the safe conveyance of flows, enhance erosion protection, and preserve the majority of the sediment transport process through the natural function of the Bedford Canyon Wash. The project addressed in the Certified EIR provided comprehensive drainage features to sufficiently handle project-related drainage. The extent, nature and function of drainage facilities for the proposed Specific Plan Amendment are substantially similar to those addressed in the Certified EIR. Therefore, no greater impact than that identified and addressed in the Certified EIR would occur. No new mitigation is warranted.

4.3.4 Mitigation

Jurisdictional Waters, Wetlands and/or Riparian Areas

4.4.5.3A Prior to the issuance of grading permits for the affected jurisdictional areas, the project applicant shall provide evidence to the City that a Section 404 Permit from the USACE, a Section 401 Permit from the RWQCB, and a Section 1602 Streambed Alteration Agreement from the CDF~~G~~W have been obtained for impacts to jurisdictional waters in the project site.

~~Compensation to mitigate for the permanent loss of 0.34acre of USACE and CDFG jurisdictional areas would be mitigated at a minimum 1:1 ratio through participation in a USACE and/or CDFG approved mitigation bank and/or in lieu fee program, as discussed in Mitigation Measure 4.4.5.3C, or other manner approved by the USACE and CDFG through the permitting process.~~

4.4.5.3B Prior to the issuance of grading permits for the affected jurisdictional areas, a Determination of Biological Superior or Equivalent Preservation (DBESP) shall be submitted to the Riverside Conservation Authority (RCA) identifying potential impacts to riparian/riverine areas, discussing why avoidance of impacts to riparian/riverine areas was not feasible, and identifying compensation for the loss of riparian/riverine areas. ~~Due to the programmatic nature of this study, it is anticipated that project specific measures~~

~~will be identified in a DBESP that will be prepared for each applicable project within the Arantine Hills Specific Plan area at the time it is submitted to the City for approval.~~

4.4.5.3C ~~Compensation to~~ The Applicant shall mitigate for the permanent loss of ~~0.34 acre of~~ USACE and CDF~~G~~W jurisdictional and MSHCP riparian/riverine resources on site ~~the following shall be implemented:~~ at a 2:1 ratio. Mitigation may occur on-site within Bedford Canyon Wash or one of its tributaries; mitigation may occur through applicant sponsored mitigation at an off-site location within the MSHCP boundaries; or mitigation may occur through purchase of credits at an approved mitigation bank or in-lieu fee program such as the Santa Ana Watershed Association (SAWA) In-Lieu Fee Wetland Creation Program or equivalent, if available. One potential off-site location for applicant sponsored mitigation is a property known as Altfillisch located in the City of Eastvale, along the Santa Ana River. A portion of the Altfillisch property would be enhanced through removal of invasive plant species and a conservation easement (CE) would be placed on the land. A third-party entity approved by the CDFW would conduct the work for CE compliance and provide long-term management. The CE would be in favor of a conservancy, such as the Riverside-Corona Resource Conservation District (RCRCD).

~~The applicant shall pay a one-time in-lieu fee to a USACE and/or CDFG approved mitigation bank and/or in lieu fee program, such as the Santa Ana Watershed Association (SAWA) In-Lieu Fee Wetland Creation Program or the Riverside County Regional Park and Open Space District Santa Ana River Mitigation Bank (SARMB), for the purchase of no less than 0.68 acre (2:1 ratio) of vegetated riparian and/or wetland habitat creation. Participation in the mitigation bank or in-lieu fee program shall ensure that conservation is in perpetuity.~~

4.4.5.3D Following the completion of grading, ~~1.82 acres~~all of USACE and CDF~~G~~W jurisdictional areas that will be temporarily impacted shall be restored using native vegetation ~~and soils to pre-project conditions following completion of grading~~.

4.4.5.3.E For Bedford Canyon Wash design options 2 and 3, it is anticipated that periodic maintenance may be necessary within the soft bottom channel/Bedford Canyon Wash, such as trash and invasive species removal; riprap and grade control structure repair; therefore, an Operations and Maintenance Manual or Long Term Management Plan shall be prepared, subject to the approval of the Resource Agencies, which will identify the appropriate methods and timing regarding the maintenance of the restored wash.

Drainage Pattern and Capacity-Related Impacts

The following modifications to Mitigation Measure 4.9.6.4A are required based on new information and analysis regarding drainage-related improvements to the Bedford Canyon Wash and potential bypass channel:

4.9.6.4A: Prior to the issuance of grading permits of any development within the Bedford Canyon Wash Channel~~Arantine Hills Specific Plan~~, the project proponent shall ensure that drainage facilities and/or improvements necessary for the protection of the development project from the 100-year flood are identified and incorporated into the improvement plans that will be reviewed and approved by the City. A floodplain and sediment transport study ~~prepared for Bedford Canyon Wash,~~ along with other required drainage and/or hydraulic studies, shall be submitted to the Riverside County Flood Control and

Water Conservation District for review, approval, and consideration of acceptance of the channel~~Bedford Canyon Wash~~ improvements associated with the proposed development. Acceptance of development~~Bedford Wash~~ improvements by the Flood Control and Water Conservation District requires approval of the associated plans and pertinent drainage studies including the sediment transport study. These drainage improvements are required to ensure the proposed project will be protected from ~~the~~a 100-year flood. No building permits shall be issued for lots within the 100-year floodplain as mapped for the Conditional Letter of Map Revision (CLOMR), until Bedford Canyon Wash Channel improvements have been constructed and deemed operationally functional by the City of Corona. At the discretion of the City of Corona, building permits for model home sales may be issued prior to the construction of the channel improvements.

To supplement Mitigation Measure 4.9.6.4A in order to require that FEMA's CLOMR/LOMR process is undertaken, new Mitigation Measure 4.9.6.4B is required as follows:

4.9.6.4B: Prior to the issuance of rough grading permits for any development within the Arantine Hills Specific Plan, the project proponent shall submit the Conditional Letter of Map Revision (CLOMR) to the Federal Emergency Management Agency (FEMA). Prior to issuance of any building permits, project proponent shall have received approval of the CLOMR certification process by FEMA. The applicant shall secure FEMA's approval for the Letter of Map Revision (LOMR) as appropriate after development is complete.

New or Expanded Storm water Drainage Facilities

No further revisions to Mitigation Measure 4.9.6.4A over and above those cited above or new mitigation is required.

4.3.5 Level of Significance After Mitigation

The design and construction of drainage facilities in accordance with the City, Riverside County Flood Control District, and FEMA review and approval procedures as implemented by revised Mitigation Measure 4.9.6.4A and new Mitigation Measure 4.9.6.4B would ensure a less than significant impact would occur.

5.0 UPDATED MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) was originally formulated based on the findings of the certified Environmental Impact Report (Certified EIR) for the Arantine Hills Specific Plan, State Clearinghouse No. 2006091093. This MMRP has been updated with changes to mitigation measures included in this SEIR. This MMRP is in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency "adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects."

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UPDATED MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: Arantine Hills Specific Plan **Applicant: The New Home Company**

Date: ~~November 2015~~ January 2016

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
AIR QUALITY						
4.~~2~~3.6.1A Prior to the issuance of a grading permit, the project developer shall require by contract specifications that contractors shall place construction equipment staging areas at least 200 feet away from sensitive receptors. Contract specifications shall be included in the ~~proposed~~ project Specific Plan construction documents, which shall be reviewed by the City.	City of Corona Public Works Building and Safety Planning Division	Prior to Grading and during grading and construction operations.	Prior to Issuance of Grading Permit	Review of construction documents and on-site inspection.		Withhold Grading Permit and/or Issuance of a Stop Work Order
4.~~2~~3.6.1B Prior to the issuance of a grading permit, the project developer shall require by contract specifications that contractors shall utilize power sources (e.g., power poles) or clean-fuel ~~(e.g., fuel other than diesel or gasoline)~~ generators. Contract specifications ~~shall~~ should be included in the Specific Plan ~~proposed project~~ construction documents, which shall be reviewed by the City.	City of Corona Public Works Building and Safety Planning Division	Prior to Grading and during grading and construction operations.	Prior to Issuance of Grading Permit	Review of construction documents and on-site inspection.		Withhold Grading Permit and/or Issuance of a Stop Work Order
4.~~2~~3.6.1C Prior to the issuance of a grading permit, the project developer shall require ~~by~~ contract specifications that contractors shall utilize California Air Resources Board (CARB) Tier II Certified equipment or better during the rough/mass grading phase for the following pieces of equipment: rubber-tired dozers and scrapers. Contract specifications shall be included in the ~~proposed project~~ Specific Plan construction documents, which shall be reviewed by the City.	City of Corona Public Works Building and Safety Planning Division	Prior to Grading and during grading and construction operations.	Prior to Issuance of Grading Permit	Review of construction documents and on-site inspection.		Withhold Grading Permit and/or Issuance of a Stop Work Order
~~**4.3.6.1D** Prior to issuance of building permits, the project applicant shall provide evidence to the City that his contractor uses 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) to the extent feasible. If the project applicant and his contractor determine that 2010 model year or newer diesel trucks cannot be obtained, the project~~	~~City of Corona Building and Safety Planning Division~~	~~Prior to Grading and during grading and construction operations.~~	~~Prior to Issuance of Grading Permit~~	~~Review of construction documents and on-site inspection.~~		~~Withhold Grading Permit and/or Issuance of a Stop Work Order~~

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~applicant shall notify the City that trucks with EPA 2007 model year NO_x emissions shall be utilized.~~						
~~**4.3.6.1E** Prior to issuance of building permits, the project applicant shall provide evidence to the City that his contractor use on-site construction equipment that meet EPA Tier 3 or higher emissions standards according to the following schedule:~~ ~~• Prior to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 horse power (hp) shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.~~ ~~• Post January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.~~ ~~• A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.~~	~~City of Corona Building and Safety Planning Division~~	~~Prior to Grading and during grading and construction operations.~~	~~Prior to Issuance of Grading Permit~~	~~Review of construction documents and on-site inspection.~~		~~Withhold Grading Permit and/or Issuance of a Stop Work Order~~
~~**4.3.6.1F** The City shall encourage construction contractors to apply for SCAQMD "SOON" funds by advising project applicants and their contractors of this programs availability. Information on this program can be found at the following~~	~~The City of Corona Building and Safety~~	~~Prior to site grading.~~	~~Prior to issuance of a grading permit~~	~~The City shall provide the applicant and the~~		~~Withhold Grading Permit~~

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm.~~	~~Planning Division~~			~~construction contractor(s) the relevant information.~~		
4.3.6.3A: Prior to the issuance of each building permit, the project applicant shall require by contract specifications that architectural coatings require the use of either HVLP spraying equipment or manual application techniques to apply architectural coatings. Contract specifications shall be included in the ~~proposed project~~ Specific Plan construction documents, which shall be reviewed by the City.	City of Corona Building and Safety	Prior to Construction (once)	Prior to issuance of Building Permit	Review of construction documents and on-site inspection		Withhold Building Permit and/or Issuance of a Stop Work Order
4.3.6.4A: Prior to issuance of each building permit associated with the Specific Plan, building and site plan designs shall ensure that the project's energy efficiencies surpass applicable 2008 California Title 24, Part 6 Energy Efficiency Standards by a minimum of 20 percent. Verification of increased energy efficiencies shall be documented in Title 24 Compliance Reports provided by the Applicant, and reviewed and approved by the City. Any combination of the following design features may be used to fulfill this requirement provided that the total increase in energy efficiency meets or exceeds 20 percent: • Exceed 2008 California Title 24 Energy Efficiency performance standards for water heating and space heating and cooling. • Increase in insulation such that heat transfer and thermal bridging is minimized. • Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption. • Incorporate dual-paned or other energy efficient windows. • Incorporate energy efficient space heating and cooling equipment. • Install interior and exterior energy efficient lighting	City of Corona Building and Safety Planning Division	Prior to Construction (once)	Prior to Issuance of Building Permits	Review of building plans and on-site inspection		Withhold Building Permits

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
which exceeds the 2008 California Title 24 Energy Efficiency performance standards including but not limited to automatic devices to turn off lights when they are not needed. • To the extent that they are compatible with landscaping guidelines established by the City, include shade-producing trees, particularly those that shade paved surfaces such as streets and parking lots and buildings, within the project site. • Use light and off-white colors in the paint and surface color palette for project buildings to reflect heat away. • All buildings shall be designed to accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design.						
4.3.6.4B: Prior to issuance of each building permit associated with the Specific Plan, the following design features shall be implemented to reduce energy demand associated with potable water conveyance: • Landscaping palette emphasizing drought-tolerant plants; • Use of water-efficient irrigation techniques; and~~,~~ • U.S. EPA Certified WaterSense labeled ~~f~~or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.	City of Corona Building and Safety Planning Division	Prior to Construction (once)	Prior to Issuance of Building Permits and Final Site Plan Approval	Review of final site plan and building plans and on-site inspection.		Withhold Building Permits
~~**4.3.6.4C:** The developer shall install electric car charging station for non-residential land uses.~~	~~City of Corona Building and Safety Planning Division~~	~~Prior to Construction (once)~~	~~Prior to Issuance of Building Permits and Final Site Plan Approval~~	~~Review of final site plan and building plans and on-site inspection.~~		~~Withhold Building Permits~~
~~**4.3.6.4D:** The developer shall designated areas for parking of zero emissions vehicles (ZEVs) for car sharing programs in the non-residential land uses.~~	~~City of Corona Building and Safety Planning Division~~	~~Prior to Construction (once)~~	~~Prior to Issuance of Building Permits and Final Site Plan Approval~~	~~Review of final site plan and building plans and on-site inspection.~~		~~Withhold Building Permits~~

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~**4.3.6.4E:** The developer shall provide electric car charging infrastructure for multi-family residential, commercial and light industrial land uses.~~	~~City of Corona Building and Safety Planning Division~~	~~Prior to Construction (once)~~	~~Prior to Issuance of Building Permits and Final Site Plan Approval~~	~~Review of final site plan and building plans and on-site inspection.~~		~~Withhold Building Permits~~
~~**4.3.6.1G:** The businesses within the commercial and light industrial land uses shall Implement a rideshare program for employees.~~	~~City of Corona Planning Division~~	~~Once prior to issuance of business license.~~	~~Prior to issuance of business license.~~	~~Submittal to the City an employee rideshare incentive program. .~~		~~Non Issuance of Business License~~
~~**4.3.6.1F**: The businesses within the commercial and light industrial land uses shall provide incentives for employees and the public to use public transportation such as discounted transit passes, reduced ticket prices, and/or other incentives. These incentive programs shall be provided to the City for review and approval prior to issuance of building licenses for those businesses located within the Specific Plan.~~	~~City of Corona Planning Division~~	~~Once prior to issuance of business license.~~	~~Prior to issuance of business license.~~	~~Submittal to the City an incentive program.~~		~~Non Issuance of Business License~~
~~**4.3.6.1H:** The developer(s) within the multifamily and single family developments shall provide outside electric outlets and natural gas stub outs.~~	~~City of Corona Building and Safety Planning Division~~	~~Prior to Construction (once)~~	~~Prior to Issuance of Building Permits and Final Site Plan Approval~~	~~Review of final site plan and building plans and on-site inspection.~~		~~Withhold Building Permits~~
BIOLOGICAL RESOURCES						
4.4.5.1A: ~~If habitat suitable to support the coastal California gnatcatcher is to be removed between March 1 and August 15, focused surveys shall first be conducted to determine if the habitat is occupied by gnatcatcher. If gnatcatchers are present and are determined to be nesting, the occupied areas will be avoided until after August 15.~~ If grading and construction activities begin during the California gnatcatcher breeding season (February 15 through August 30), a qualified biologist shall survey all potential nesting vegetation within and adjacent to the site for nesting birds, prior to commencing vegetation removal. Surveys shall be conducted at the appropriate time of day. If no nesting birds were observed, project activities may	City of Corona Planning Division	Prior to Grading	Prior to Issuance of Grading Permit	Submittal of Evidence that the pre-construction survey has been completed.		Withhold Grading Permit

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
begin. If an active bird nest is located, the nest site shall be fenced a minimum of 500 feet in all directions, and this area shall not be disturbed until after the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, or the young will no longer be impacted by the activities. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas provided the qualified biologist develops a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). This monitoring plan will be submitted to the City of Corona for approval prior to work within ~~in~~ the buffer.						
4.4.5.2A:Pre-construction presence/absence surveys for burrowing owl within the survey area where suitable habitat is present shall be conducted by a qualified biologist (as determined ~~per~~by the City of Corona) within 30 days prior to the commencement of ground disturbing activities. If active burrowing owl burrows are detected during the breeding season, all work within 300 feet of any active burrow will be halted until that nesting effort is finished. The on-site biologist will review and verify compliance with these boundaries and will verify the nesting effort has finished. Work can resume when no other active burrowing owl burrows ~~nests~~ are found. If active burrowing owl burrows are detected outside the breeding season, then passive and/or active relocation may be approved following consultation with CDFW~~G~~ and/or USFWS. If owls are found to be present on site, the CDFW should be notified within three days of the detection of occupied burrows, and a project burrowing owl conservation strategy should be developed in cooperation with the CDFW, USFWS, and the Western Riverside County Regional Conservation Authority. ~~The installation of~~ One-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and	City of Corona Planning Division	Prior to grading	Prior to Issuance of Grading Permit	Submittal of Evidence that a qualified biologist has been hired and the pre-construction survey has been completed. Submittal of a report of the survey findings to the City. If active burrows are detected provide evidence to the City that the passive relocation plan has been approved by CDFW and		Withhold Grading Permit

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
backfilled to ensure that animals do not reenter the holes/dens. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping.				USFWS.		
4.4.5.2B: The removal of potential nesting bird habitat will be conducted outside of the nesting season (February 1 to August 31) to the extent feasible. If grading or site disturbance is to occur between February 1 and August 31, a nesting bird survey shall be conducted by a qualified biologist (~~per~~as determined by the City of Corona) within no more than 72 hours of scheduled vegetation removal, to determine the presence of nests or nesting birds. If active nests are identified, the biologist will establish buffers around the vegetation (500 feet for raptors, 200 feet for ~~non-raptors~~non-raptors). All work within these buffers will be halted until the nesting effort is finished (i.e. the juveniles are surviving independent from the nest). The on-site biologist will review and verify compliance with these nesting boundaries and will verify the nesting effort has finished. Work can resume when no other active nests are found. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the City for mitigation monitoring compliance record keeping. If vegetation clearing is not completed within 72 hours of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.	City of Corona Planning Division	Prior to site grubbing or grading	Prior to Issuance of Grading Permit	Submittal of evidence that a qualified biologist has been hired and the pre-construction survey has been completed. Submittal of a report of the survey findings to the City.		Withhold Grading Permit
4.4.5.3A: Prior to the issuance of grading permits for the affected jurisdictional areas, the project applicant shall provide evidence to the City that a Section 404 Permit from the USACE, a Section 401 Permit from the RWQCB, and a Section 1602 Streambed Alteration Agreement from the CDF~~G~~W have been obtained for impacts to jurisdictional waters in the project site. ~~Compensation to mitigate for the permanent loss of 0.34 acre of USACE and CDFG jurisdictional areas would be mitigated at a minimum 1:1 ratio through participation in a USACE~~	City of Corona Planning Division	Prior to grubbing and grading	Prior to Issuance of Grading Permit	Provide evidence to the City that the 404 Permit, 401 Permit and Section 1602 Agreement have been obtained.		Withhold Grading Permit

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~and/or CDFG-approved mitigation bank and/or in lieu fee program, as discussed in Mitigation Measure 4.4.5.3C, or other manner approved by the USACE and CDFG through the permitting process.~~						
4.4.5.3B: Prior to the issuance of grading permits for the affected jurisdictional areas, a Determination of Biological Superior or Equivalent Preservation (DBESP) shall be submitted to the Riverside Conservation Authority (RCA) identifying potential impacts to riparian/riverine areas, discussing why avoidance of impacts to riparian/riverine areas was not feasible, and identifying compensation for the loss of riparian/riverine areas. ~~Due to the programmatic nature of this study, it is anticipated that project-specific measures will be identified in a DBESP that will be prepared for each applicable project within the Arantine Hills Specific Plan area at the time it is submitted to the City for approval.~~	City of Corona Planning Division	Prior to grubbing and grading	Prior to Issuance of Grading Permit	Provide evidence the DBESP has been submitted to the RCA and mitigation in the DBESP is approved by the RCA and City.		Withhold Grading Permit
4.4.5.3C ~~Compensation to~~ The Applicant shall mitigate for the permanent loss of ~~0.34 acre of~~ USACE and CDF~~G~~W jurisdictional and MSHCP riparian/riverine resources on site ~~the following shall be implemented:~~ at a 2:1 ratio. Mitigation may occur on-site within Bedford Canyon Wash or one of its tributaries; mitigation may occur through applicant-sponsored mitigation at an off-site location within the MSHCP boundaries: or mitigation may occur through purchase of credits at an approved mitigation bank or in-lieu fee program such as the Santa Ana Watershed Association (SAWA) In-Lieu Fee Wetland Creation Program or equivalent, if available. One potential off-site location for applicant sponsored mitigation. One potential off-site location is a property known as Altfillisch located in the City of Eastvale, along the Santa Ana River. A portion of the Altfillisch property would be enhanced through removal of invasive plant species, and a conservation easement (CE) would be placed on the land. A third-party entity approved by the CDFW would conduct the work for CE compliance and provide long-term management. The CE would be in favor of a conservancy, such as the Riverside-Corona Resource Conservation District (RCRCD).	City of Corona Planning Division	Prior to grubbing and grading	Prior to Issuance of Grading Permit	Provide evidence to the City or participation in a mitigation bank or in-lieu fee program has been secured by the applicant.		Withhold Grading Permit

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~The applicant shall pay a one-time in-lieu fee to a USACE and/or CDFG approved mitigation bank and/or in lieu fee program, such as the Santa Ana Watershed Association (SAWA) In-Lieu Fee Wetland Creation Program or the Riverside County Regional Park and Open Space District Santa Ana River Mitigation Bank (SARMB), for the purchase of no less than 0.68 acre (2:1 ratio) of vegetated riparian and/or wetland habitat creation. Participation in the mitigation bank or in-lieu fee program shall ensure that conservation is in perpetuity.~~						
4.4.5.3D Following the completion of grading, ~~1.82 acres~~ all of USACE and CDF~~G~~W jurisdictional areas that will be temporarily impacted shall be restored using native vegetation ~~and soils to pre-project conditions following completion of grading~~.	City of Corona Planning Division	Onsite inspection after grading	After onsite grading.	Onsite inspection.		Withhold Occupancy permits and/or Issuance of a Stop Work Order.
Mitigation Measure 4.4.5.3E: For Bedford Canyon Wash design options 2 and 3, it is anticipated that periodic maintenance may be necessary within the soft bottom channel/Bedford Canyon Wash, such as trash and invasive species removal; riprap and grade control structure repair; therefore, an Operations and Maintenance Manual or Long Term Management Plan shall be prepared, subject to the approval of the Resource Agencies, which will identify the appropriate methods and timing regarding the maintenance of the restored wash.	City of Corona Planning Division Riverside County Flood Control and Water Conservation District	Prior to Grading	Prior to Issuance of Grading Permits for the affected jurisdictional areas	Submittal by applicant of Evidence that the Operations and Maintenance Manual has been approved by the Resource Agencies.		Withhold Grading Permit
CULTURAL RESOURCES						
4.5.6.1A: The applicant shall retain a qualified archaeological monitor who shall prepare an Archaeological Resources Mitigation Monitoring Plan in consultation with the Native American Tribe. The qualified archaeological monitor shall attend all pre-grading meetings to inform the grading and excavation contractors of the archaeological resources mitigation program and shall ~~consult with~~ instruct them with respect to its implementation. The qualified archaeological monitor shall be on site at all times during the initial phases of clearing and rough grading to inspect cuts for archaeological and cultural resources. If such resources are discovered~~,~~ and	City of Corona Planning Division	Prior to grading and on-going during ground disturbing activities.	Prior to Issuance of Grading Permit	Provide evidence to the City that a qualified archeologist(s) monitor has been retained, and that the monitor will be present during all grading and		Withhold Grading Permit and/or Issuance of a Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
are in danger of loss and/or destruction, the qualified archaeological monitor shall recover them. In instances where recovery requires an extended salvage time, the qualified archaeological monitor shall be allowed to temporarily direct, divert or halt grading to allow recovery of resource ~~remain~~(s) in a timely manner. Recovered archaeological resources, along with copies of pertinent field notes, photographs, and maps, shall be deposited in a certified curation facility that meets the standards of the California Office of Historic Preservation, ~~scientific institution with archaeological collections and~~ tThe resources shall be recorded in the California Archaeological Inventory Database. All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible. A final monitoring report shall be submitted to the City within 30 days of the end of monitoring activities.				other significant ground-disturbing. A report of findings shall be submitted to the City 30 days of the end of monitoring activities.		
4.5.6.1B: All grading, excavation, and ground-breaking activities shall be monitored by a qualified tribal monitor(s). The project applicant shall pay all fees associated with such tribal monitors(s) and shall contact the Native American Tribe at least 30 days before pulling grading permits from the City. In the event of the discovery of Native American burial(s), the qualified tribal monitor(s) will have the authority to temporarily stop and redirect grading activities, in consensus with the archaeological monitor. The tribal monitor(s) shall attend all pre-grading meetings to assist the archaeological monitor with informing the grading and excavation contractors of the archaeological resources mitigation program and instruct~~ion~~ them with respect to its implementation. The qualified tribal monitor shall be on site at all times during clearing and rough grading to inspect cuts for archaeological and cultural resources.	City of Corona Planning Division	Prior to grading, excavation, and ground-breaking activities.	Prior to Issuance of Grading Permit	Provide evidence to the City that a tribal monitor or fees have been paid to the City to retain a tribal monitor has been retained, and that the monitor will be present during all grading and other significant ground-disturbing.		Withhold Grading Permit and/or Issuance of a Stop Work Order
4.5.6.1C: The developer shall enter into a Treatment and Disposition Agreement with the appropriate Native American Tribe prior to the issuance of a grading permit. The Treatment	City of Corona Planning Division	Prior to grading, excavation, and ground-breaking	Prior to Issuance of Grading Permit	The developer shall submit to the City a copy		Withhold Grading Permit and/or Issuance of a Stop

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
and Disposition Agreement shall identify the treatment of cultural items (artifacts~~),~~) and the treatment and the disposition of human remains.		activities.		of the Treatment and Disposition Agreement entered into between the developer and the Native American Tribe.		Work Order
4.5.6.1D: Unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and is not subject to public disclosure requirements of the California Public Records Act, pursuant to the specific exemption set forth in California Government Code Section 6254(r).	City of Corona Planning Division	On-going as necessary during grading and construction phase.	During grading and construction phase.	A written agreement is entered into by the City, developer and Coroner.		Issuance of a Stop Work Order.
4.5.6.2A: Prior to the issuance of grading permits, the project proponent shall submit to and receive approval from the City, a Paleontological Resource Impact Mitigation Program (PRIMP). The PRIMP shall include the provision of a trained paleontological monitor during on-site soil disturbance activities on the south side of Bedford Wash in Planning Areas ~~17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, 15~~13, 14, 15, and 16 and Planning Areas 1, 2, 3, 4, 5, 8, 9, 11, and 12. The monitoring for paleontological resources shall be conducted on a full-time basis during the rough-grading phases of the project, but limited to the rough-grading within the south side of Bedford Wash in Planning Areas 13, 14, 15, and 16 and Planning Areas 1, 2, 3, 4, 5, 8, 9, 11, and 12 ~~17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, 15~~. Additionally, paleontological monitoring is required below a depth of 10 feet in Planning Areas ~~1,2,3,4,5,6,7,8,9,10,11,12,13, and 16.~~1, 2, 3, 4, 5, 6, 8, 9, 14, and 15. In the event that paleontological resources are unearthed or discovered during excavation, Mitigation Measure 4.5.6.2C shall apply. Conversely, if no paleontological resources are unearthed or discovered on site during excavation, no additional mitigation is required.	City of Corona Planning Division	Prior to grading, excavation, and ground-breaking activities.	Prior to Issuance of Grading Permit	A Paleontological Resource Impact Mitigation Program (PRIMP) shall be submitted to the City for review and approval.		Withhold Grading Permit

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
4.5.6.2B: The paleontological monitor shall be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples of soil shall be collected and processed to recover micro-vertebrate fossils. Processing shall include wet screen washing and microscopic examination of the residual materials to identify small vertebrate remains.	City of Corona Planning Division	During ~~to~~ grading, excavation, and ground-breaking activities.	During ~~to~~ grading, excavation, and ground-breaking activities.	On-site inspection.		Issuance of a Stop Work Order.
4.5.6.2C: If paleontological resources are unearthed or discovered during excavation of the Specific Plan area within the south side of Bedford Wash in Planning Areas 3, 14, 15, and 16 and Planning Areas 1, 2, 3, 4, 5, 8, 9, 11, and 12~~17, 18, and 19 and Planning Areas 1, 4, 7, 9, 10, 13, 15,~~, the following recovery processes shall apply: • Upon encountering a large deposit of bone, salvage of all bone in the area shall be conducted with additional field staff and in accordance with modern paleontological techniques. • All fossils collected during the project shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified shall be provided to the museum repository along with the specimens. • A report documenting the results of the monitoring and salvage activities and the significance of the fossils shall be prepared. • All fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository (such as the Western Center for Archaeology & Paleontology, the Riverside Metropolitan Museum, or the San Bernardino County Museum) for permanent curation and storage.	City of Corona Planning Division	During ~~to~~ grading, excavation, and ground-breaking activities.	During ~~to~~ grading, excavation, and ground-breaking activities.	On-site inspection.		Issuance of a Stop Work Order.

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
GEOLOGY AND SOILS						
4.6.6.1A: Prior to the initiation of any on-site construction, the project contractor shall remove all loose, compressible alluvial and fill materials from areas to receive engineered compact fill. Actual depths of removal shall be verified during future site-specific preliminary soils investigations and ultimately during the grading operation by observation and in-place density testing.	City of Corona Planning Division Public Works	~~Prior to grading~~ During grading, excavation, and ground-breaking activities.	~~Prior to Issuance of Grading Permit~~ Prior to on-site construction.	Review of construction documents and on-site inspection.		~~Withhold Grading Permit~~ Issuance of Stop Work Order.
4.6.6.1B: All on-site soils shall provide adequate quality fill material provided they are free from organic matter and other deleterious materials. ~~Unless approved by the project geotechnical engineer, r~~Rock or similar irreducible material with a maximum dimension greater than six inches shall not be buried or placed in fills. However, oversized materials, with a maximum dimension greater than 8 inches, may be placed in fills or buried on site in accordance with recommendations proved by the geotechnical engineer during grading. Oversized material may be stockpiled for landscaping purposes or placed in a rock disposal area as approved by the project owner, developer, geotechnical engineer, and City. Import fill shall be inorganic, non-expansive granular soils free from rocks or lumps greater than six inches in maximum dimension. Sources for import fill shall be approved by the project geotechnical engineer prior to their use. Fill shall be spread in maximum eight-inch uniform loose lifts; each lift brought to near optimum moisture content, and compacted to a relative compaction of at least 90 percent in accordance with ASTM D 1557.	City of Corona Planning Division Building and Safety Engineering	~~Prior to grading~~ During grading, excavation, and ground-breaking activities.	~~Prior to Issuance of Grading Permit~~ Prior to on-site construction.	Review of grading and construction documents and on-site inspection.		~~Withhold Grading Permit~~ Issuance of Stop Work Order.
4.6.6.1C: Cut and fill slopes shall be planned at gradients no steeper than two horizontal to one vertical. Additional information regarding any proposed cut slopes and the existing natural slope stability should be addressed within the site specific preliminary soils investigations when grading/ development plans are made available for the specific tracts/ development areas.	City of Corona Public Works Building and Safety	Prior to grading	Prior to Issuance of Grading Permit	Review of grading and construction documents, site specific preliminary soils investigations, and on-site inspection.		Withhold Grading Permit and/or Issuance of Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
4.6.6.1D: Where fills are to be placed against existing slopes steeper than five horizontal to one vertical, the fill shall be properly keyed and benched into competent native materials. The key, constructed across the toe of the slope, shall be a minimum of 12 to 15 feet wide, a minimum of two feet deep at the toe, and sloped back at 2 percent. Benches shall be constructed at approximately two to four feet vertical intervals.	City of Corona Public Works Building and Safety	~~Prior to grading~~ During grading, excavation, and ground-breaking activities.	~~Prior to Issuance of Grading Permit~~ Prior to on-site construction.	Review of grading and construction documents, site specific preliminary soils investigations, and on-site inspection.		~~Withhold Grading Permit and/or~~ Issuance of Stop Work Order
4.6.6.1E: Slopes at the project site shall be planted with a deep-rooted groundcover as soon as possible after completion. The use of succulent ground covers such as iceplant or sedum is not recommended. If watering is necessary to sustain plant growth on slopes, then the watering operation shall be monitored to ensure proper operation of the irrigation system and to prevent overwatering.	City of Corona Public Works Building and Safety	During construction after on-site grading	During construction after on-site grading	Review of grading and construction documents, site specific preliminary soils investigations, and on-site inspection.		Issuance of Stop Work Order
4.6.6.1F: Prior to the initiation of any on-site construction, evidence shall be submitted to the City for review and approval that on-site development has incorporated the design and siting recommendations detailed in the site-specific geotechnical investigation.	City of Corona Public Works Building and Safety	Prior to Construction and during construction	Prior to Construction and during construction	Review of grading and construction documents, detailed in the site-specific geotechnical investigation, and on-site inspection.		Withhold Building Permit
4.6.6.2A: On-site soils and any imported soils for individual tracts/development areas shall be evaluated for their expansion potential prior to grading and ultimately following completion of the grading operation. The evaluation shall determine and identify specialized construction procedures to specifically resist expansive soil activity in accordance with the CBC and/or applicable local ordinances.	City of Corona Public Works Building and Safety	During grading and construction	Prior to grading and construction	Submit to the City evidence that the soils have been evaluated and construction measures to		Withhold Grading Permit and/or Issuance of Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
				reduce soil expansion will be implemented.		
GREENHOUSE GASES AND GLOBAL CLIMATE CHANGE						
4.7.6.1A: Prior to the issuance of each grading permit associated with the Specific Plan, the project developer shall develop and implement a construction waste management plan that would require the recycling and/or salvaging of non-hazardous construction and demolition waste.	City of Corona Building and Safety Planning Division	Prior to issuance of each grading permit.	Prior to issuance of grading permits	Review of construction documents and on-site inspection		Withhold Grading Permit
4.7.6.1B: Prior to the issuance of each building permit associated with the Specific Plan, the project developer shall facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills by providing easily accessible areas that serve each building and are dedicated to the collection and storage of paper, cardboard, glass, plastics, and metals.	City of Corona Building and Safety Planning Division	Prior to construction	Prior to issuance of building permits	Review of construction documents and on-site inspection		Withhold Building Permit
HAZARDOUS MATERIALS						
4.8.6.1A: For any soil disturbance in the area where the 10-foot by 10-foot shed located at the west edge of Planning Area (PA) 4 was previously located, soil in this area shall be tested for residual organochlorine pesticides (OCPs). If OCP levels are detected at levels of 1 part per million (ppm) or greater, the soils shall be removed to an adequate depth and exported to an approved landfill facility by a certified contractor.	City of Corona Building and Safety Planning Division	Prior to Grading in Planning Area 4.	Prior to issuance of grading permits	Submit to the City for review and approval a Hazardous Waste Phase II.		Withhold Grading Permit
4.8.6.1B: If soil from any location on the project site is to be removed or transported off site, the soil export must have a DDT level of less than 1 part per million (ppm). Soil to be exported off site shall be tested, and verification of the soil results shall be submitted to the City for review prior to the issuance of soil export operations.	City of Corona Building and Safety Planning Division	Prior to Grading	Prior to issuance of grading permits	Submit to the City for review and approval a Hazardous Waste Phase II.		Withhold Grading Permit
4.8.6.1C: If unknown wastes or suspected hazardous materials are discovered during any construction activities on the project site, the following shall occur:	City of Corona Building and Safety	During grading and construction	During grading and construction	On-site Inspection		Issuance of Stop Work Order.

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• Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area; • Notify the City of Corona Fire Department; • Notify the project engineer of the implementing agency (the City of Corona) and secure the area containing the unknown wastes or suspect materials as directed by the project engineer; and • Notify the implementing agency's Hazardous Waste/ Materials Coordinator.	Public Works					
4.8.6.1D: Testing and remediation of unknown wastes or suspect materials shall be conducted under the purview of the applicable agency (i.e., DTSC, Santa Ana RWQCB, and/or City). Remediation shall be conducted to the standards established by the Lead Agency (i.e., DTSC, Santa Ana RWQCB, and/or City). All contaminated soil locations identified shall be remediated below hazardous levels established by Title 22 of the California Code of Regulations and to the satisfaction of the applicable Lead Agency.	City of Corona Building and Safety Public Works	During grading and construction	During grading and construction			Issuance of Stop Work Order.
4.8.6.1E: Prior to the issuance of demolition permits for any planning areas containing structures, any remaining structures on site shall be visually inspected by the project engineer of the implementing agency (City of Corona) prior to demolition activities. If hazardous materials are encountered, the materials shall be tested and properly disposed of in accordance with state and federal regulatory requirements. Any stained soils or surfaces underneath the removed materials shall be sampled. Results of the sampling would indicate the appropriate level of remediation efforts that may be required. Testing and remediation of unknown wastes or suspect materials shall be conducted under the purview of the applicable agency (i.e., DTSC, Santa Ana RWQCB, and/or City). Remediation shall be conducted to the standards established by the Lead Agency (i.e., DTSC, Santa Ana RWQCB, and/or City). All contaminated soil locations identified shall be remediated below hazardous levels established by Title 22 of the	City of Corona Building and Safety Public Works	Prior to issuance of any Demolition Permit	Prior to issuance of any Demolition Permit	Inspection by the project engineer of the implementing agency (City of Corona) prior to demolition activities.		Withhold Demolition Permit

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
California Code of Regulations and to the satisfaction of the applicable Lead Agency.						
4.8.6.1F: Prior to the issuance of grading permits for each planning area, all miscellaneous debris (e.g., wood, concrete, 55-gallon drums, miscellaneous household debris, scrap metal, and plastic piping) shall be removed and disposed of at an approved landfill facility prior to construction activities under the purview of the appropriate agency (i.e., DTSC, Santa Ana RWQCB, and/or City). Once removed, a visual inspection of the areas beneath the removed materials shall be performed by the construction contractor as specified by the City of Corona. Any stained soils observed underneath the removed materials shall be sampled. Results of the sampling, if necessary, would indicate the level of remediation efforts that may be required. Remediation shall be conducted to the standards established by the Lead Agency (i.e., DTSC, Santa Ana RWQCB, and/or City). All contaminated soil locations identified shall be remediated below hazardous levels established by Title 22 of the California Code of Regulations and to the satisfaction of the applicable Lead Agency.	City of Corona Building and Safety Public Works	During grading and construction	During grading and construction			Issuance of Stop Work Order.
4.8.6.2A: Prior to the issuance of building permits for each planning area, the project proponent shall prepare, submit, and receive approval from the City and Riverside County Fire Department, a project-specific Wildland Fire Plan/Fuel Modification Plan. The Wildland Fire Plan/Fuel Modification Plan shall include but shall not be limited to the following: • Goals, policies, and actions related to fire funding and fire rehabilitation; • Fire protection and evacuation plan; • Vegetative fuels management plan; • Public education program; and • Defensible space requirements which meet and/or exceed the Riverside County Fire Department Fuel Modification Requirements.	City of Corona Building and Safety Fire Department Riverside County Fire Department	Prior to issuance of Building Permits for each Planning Area	Prior to issuance of Building Permits	Developer shall prepare, submit, and receive approval from the City and Riverside County Fire Department, a project-specific Wildland Fire Plan/Fuel Modification Plan for each Planning Area.		Withhold Building Permits

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
HYDROLOGY AND WATER QUALITY						
4.9.6.1A: Prior to the first issuance of a grading permit by the City for any development within the Arantine Hills Specific Plan, the project proponent shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board (RWQCB) to be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project proponent shall submit to the City the Waste Discharge Identification Number as proof that the project's NOI to be covered by the General Construction Permit has been filed with the appropriate RWQCB.	City of Corona Public Works	Prior to grading for any development.	Prior to the Issuance of Grading Permits	Submittal of copy of Notice of Intent (NOI) to City filed with the RWQCB		Withhold Grading Permits
4.9.6.1B: Prior to the first issuance of a grading permit by the City for any development within the Arantine Hills Specific Plan, the project proponent shall submit to the City of Corona and receive approval for a project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Some of the BMPs to be implemented may include (but shall not be limited to) the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the BMPs would be periodically inspected during construction, and repairs would be made when necessary as required by the SWPPP. • Materials that have the potential to contribute non-visible pollutants to storm water must not be placed	City of Corona Public Works	Prior to grading for any development.	Prior to the Issuance of Grading Permits	Review and approval of SWPPP		Withhold Grading Permits

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
in drainage ways and must be contained, elevated, and placed in temporary storage containment areas. • All loose piles of soil, silt, clay, sand, debris, and other earthen material shall be protected in a reasonable manner to eliminate discharge from the site. Stockpiles would be surrounded by silt fences and covered with plastic tarps. • The SWPPP would include inspection forms for routine monitoring of the site during the construction phase to ensure NPDES compliance. • Additional BMPs and erosion control measures would be documented in the SWPPP and utilized if necessary. • The SWPPP would be kept on site for the entire duration of project construction and will also be available to the local Regional Water Quality Control Board for inspection at any time. • In the event that it is not feasible to implement the above BMPs, the City of Corona can make a determination that other BMPs would provide equivalent or superior treatment either on site or off site.						
4.9.6.1C: The Construction Contractor shall be responsible for performing and documenting the application of BMPs identified in the project-specific SWPPP. Weekly inspections shall be performed on sediment control measures called for in the SWPPP. Monthly reports shall be maintained by the Contractor and available for City inspection. A more frequent inspection schedule may be required based on the condition of the site and as required in the NPDES General Construction Permit. In addition, the Contractor would also be required to maintain an inspection log and have the log on site available for review by the City of Corona and the representatives of the Regional Water Quality Control Board.	City of Corona Public Works	During grading and construction weekly inspections	Prior to ~~G~~grading and during grading.	On-site weekly inspections by City and Contractor shall prepare and make available to the City monthly reports and an inspection log.		Issuance of Stop Work Order

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
4.9.6.2A: Prior to the first issuance of a permit by the City for any project within the Specific Plan area (which includes the issuance of grading permits and building permits), the project proponent shall receive approval from the City of Corona, a project site-specific Water Quality Management Plan (WQMP). The WQMP shall specifically identify pollution prevention, source control, treatment control measures, and other BMPs that shall be used on site to control predictable pollutant runoff in order to reduce impacts to water quality to the maximum extent practicable.	City of Corona Public Works	Prior to grading	Prior to Issuance of Grading Permit and Building Permits	Submittal of WQMP to City for review and approval		Withhold Grading Permit and/or Building Permits.
4.9.6.3A: Prior to the issuance of ~~precise~~ grading permits of any development within the Arantine Hills Specific Plan, the project proponent shall submit to the City for review and approval, a water conservation plan. The water conservation plan shall include but shall not be limited to the following: • Drought-tolerant landscaping plan; • Indoor project design features such as low-flush toilets and low-flow faucets; • Outdoor project design features such as subsurface irrigation systems, rain sensors, drip irrigation, or high-efficiency sprinkler heads; • Use of alternative water sources (e.g., reclaimed water); and • Educational materials to be utilized by the project tenants.	City of Corona Building and Safety Water and Power	Prior to grading	Prior to Issuance of Precise Grading Permits	Submittal of a Water Conservation Plan for City review and approval.		Withhold Precise Grading Permit
4.9.6.3B: Prior to the issuance of ~~production unit~~ occupancy permits for any development within the Arantine Hills Specific Plan, the project proponent shall submit proof to the City that an educational program regarding water usage has been developed for use within the proposed project.	City of Corona Building and Safety Water and Power	Prior to issuance of Occupancy Permits for any development.	Prior to issuance of Occupancy Permits for any development.	Submittal of proof to the City that an educational program regarding water usage has been developed.		Withhold Occupancy Permits.
4.9.6.4A: Prior to the issuance of grading permits of any	City of Corona	Prior to grading	Prior to Issuance	Submittal of		Withhold Grading

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
development within the Bedford Canyon Wash Channel ~~Arantine Hills Specific Plan~~, the project proponent shall ensure that drainage facilities and/or improvements necessary for the protection of the development project from the 100-year flood are identified and incorporated into the improvement plans that will be reviewed and approved by the City. A floodplain and sediment transport study ~~prepared for Bedford Canyon Wash~~, along with other required drainage and/or hydraulic studies, shall be submitted to the Riverside County Flood Control and Water Conservation District for review, approval, and consideration of acceptance of the ~~Bedford Canyon Wash drainage~~ channel improvements associated with the proposed development. Acceptance of development ~~Bedford Wash drainage~~ improvements by the Flood Control and Water Conservation District requires approval of the associated plans and pertinent drainage studies including the sediment transport study. These drainage improvements are required to ensure the proposed project will be protected from a 100-year flood. No building permits shall be issued for lots within the 100-year floodplain as mapped for the Conditional Letter of Map Revision (CLOMR), until Bedford Canyon Wash Channel improvements have been constructed and deemed operationally functional by the City of Corona. At the discretion of the City of Corona, building permits for model home sales may be issued prior to the construction of the channel improvements.	Public Works		of Grading Permit	drainage plans to City for review and approval		Permits
4.9.6.4B: Prior to the issuance of rough grading permits ~~of~~ for any development within the Arantine Hills Specific Plan, the project proponent shall submit ~~complete~~ the Conditional Letter of Map Revision (CLOMR) to ~~certification process of~~ the Federal Emergency Management Agency (FEMA). Prior to issuance of any building permits, project proponent shall have received approval of ~~complete~~ the CLOMR ~~Conditional Letter of Map Revision~~ certification process ~~of~~ by FEMA. The applicant shall secure FEMA's approval for the Letter of Map Revision (LOMR) as appropriate after development is complete.	City of Corona Public Works	Prior to grading	Prior to Issuance of Grading Permit	Submittal of drainage plans to City for review and approval		Withhold Grading Permits

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
NOISE						
4.12.6.1A: Prior to the approval of a tentative tract map for each residential area or approval of commercial or industrial uses within the Specific Plan area, the project proponent shall prepare, submit, and receive approval from the City, a final noise analysis. This final noise analysis shall be completed at the tract map level for each residential area or commercial/ industrial area when the precise grading and the architectural plans are available to ensure that all noise sensitive areas will meet the City of Corona noise standards. The final noise analysis shall include but shall not be limited to the following: • *Construction Noise Mitigation Program*. The program shall include noise monitoring at selected noise sensitive locations, monitoring complaints procedures, identification of haul routes (if applicable), and identification and mitigation of the major sources of noise. • *Construction Contractor Requirements*. These requirements shall include contract provisions regarding construction equipment noise features and equipment staging procedures.	City of Corona Building and Safety Planning Division	Tentative Map Approval	Prior to approval of a tentative tract map for each residential area or approval of commercial or industrial uses.	The project proponent shall prepare, submit, and receive approval from the City, a final noise analysis.		Deny Approval of the Tentative Tract Map.
4.12.6.2A: Prior to the approval of a tentative tract map for each residential area or approval of commercial or industrial uses within the Specific Plan area within the 65 dBA CNEL and 70 dBA CNEL noise contours for Eagle Glen Parkway from Masters Drive to Bedford Canyon Road, "A" Street, and I-15, the project proponent shall prepare, submit, and receive approval from the City, a final noise analysis. This final noise analysis shall be completed at the tract map level for each residential area or commercial/industrial area when the precise grading and the architectural plans are available to ensure that all noise sensitive areas will meet the City of Corona noise standards.	City of Corona Building and Safety Planning Division	Tentative Map Approval	Prior to approval of a tentative tract map for each residential area or approval of commercial or industrial uses.	The project proponent shall prepare, submit, and receive approval from the City, a final noise analysis.		Deny Approval of the Tentative Tract Map.
4.12.6.3A: Prior to the approval of a tentative tract map for each residential area adjacent to commercial or industrial uses within the Specific Plan area, the project proponent shall	City of Corona Building and Safety	Throughout construction/on-site inspection.	Prior to approval of a tentative tract map for	The project proponent shall prepare,		Deny Approval of the Tentative Tract Map.

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
prepare, submit, and receive approval from the City, a final noise analysis. This final noise analysis shall be completed at the tract map level for each residential area or commercial/ industrial area when the precise grading and the architectural plans are available to ensure that all noise sensitive areas will meet the City of Corona noise standards.	Planning Division		each residential area or approval of commercial or industrial uses.	submit, and receive approval from the City, a final noise analysis.		
TRANSPORTATION						
4.16.6.1A: ~~Prior to the issuance of the first production home building permit~~a ~~Certificate of Occupancy for the first dwelling unit and/or commercial, office or industrial building within the Specific Plan area, t~~The master developer~~project proponent~~ shall construct ~~or guarantee the construction of~~ the improvements identified below as mitigation measures for 2017 plus Phase 1 ~~existing plus project~~ conditions~~. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place to serve the existing plus project daily volumes. The following modifications to intersection configurations for existing baseline plus project are recommended~~ to improve levels of service in accordance with City requirements: • ~~**Masters Drive/California Drive:** Install a traffic signal.~~ • **Street "C"~~Masters Drive~~/Eagle Glen Parkway**: ~~Add a stop sign on the northbound approach, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane~~Install a traffic signal.~~.~~ Prior to issuance of a Certificate of Occupancy for the first model home, install a traffic signal, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane. • **Bedford Canyon Road/Eagle Glen Parkway:** ~~A~~ Prior to issuance of the first production home building permit, ~~add~~ a northbound left-turn lane, a northbound through/right lane, ~~two northbound right turn lanes with northbound right turn overlap phasing~~, a second southbound left-turn lane, ~~a~~	City of Corona Building and Safety Public Works Planning Division	~~Once after construction.~~ Prior to the issuance of the first production home building permit.	~~Prior to the Issuance of Certificate of Occupancy.~~ Prior to the issuance of the first production home building permit.	~~Evidence of Payment of City DIF fees.~~ Evidence of construction of the improvements.		Withhold building permit.~~Certificate of Occupancy.~~

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
southbound through lane, a second~~an~~ eastbound through lane, and a~~two~~ westbound left-turn lane~~s~~. • **~~I-15 Southbound Ramps/Cajalco Road:~~** ~~Add a second southbound left-turn lane, a second southbound right-turn lane, reconstruct the eastbound approach to provide two left-turn lanes and two through lanes, and reconstruct the westbound approach to provide one through lane and one right-turn lane.~~ • **~~I-15 Northbound Ramps/Cajalco Road:~~** ~~Add a second eastbound left-turn lane.~~						
4.16.6.2A: Prior to issuance of the first production home building permit, the master developer shall pay a 64% fair share contribution towards the construction of a traffic signal at the Masters Drive/California Avenue intersection. ~~and a 27% fair-share contribution towards a the construction of either a roundabout or traffic signal at the Masters Drive/Christopher Lane intersection.~~ ~~a Certificate of Occupancy for the first dwelling unit and/or commercial, office or industrial building within the Specific Plan area, the project proponent shall construct or guarantee the construction of those improvements identified below as mitigation measures for year 2014 plus project conditions. In addition, the project proponent shall participate in the City of Corona Development Impact Fee Program and the Western Riverside Council of Governments Transportation Uniform Mitigation Fee Program. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place to serve the existing plus project daily volumes.~~ • **~~Bedford Canyon Road/Eagle Glen Parkway:~~** ~~Add a northbound left-turn lane, a northbound through lane, a northbound right-turn lane with northbound right-turn overlap phasing, a second southbound left-turn lane, a southbound through lane, and a westbound left-turn lane.~~	City of Corona Building and Safety Public Works	Prior to issuance of the first production home building permit.~~Certificate of Occupancy on first dwelling unit and/or commercial, office or industrial building.~~	Prior to the issuance of the first production home building permit.~~Certificate of Occupancy.~~	Evidence of Payment of fair-share contribution. ~~City of Corona Development Impact Fee Program Riverside County TUMF fees.~~		Withhold building permit.~~Certificate of Occupancy~~

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
• ~~**I-15 Southbound Ramps/Cajalco Road:** Reconstruct the eastbound approach to provide two left-turn lanes and one through lane.~~ • ~~**Street C/Eagle Glen Parkway:** Install a traffic signal, add a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.~~ • ~~**Street C/Street B:** Add a westbound stop sign, a northbound all-way lane, a southbound all-way lane, and a westbound all-way lane.~~ • ~~**Street A/Driveway 1:** Add an eastbound stop sign, a northbound all-way lane, a southbound all-way lane, and an eastbound all-way lane.~~						
~~**4.16.6.2B:** Prior to the issuance of a Certificate of Occupancy for a project developed within the Specific Plan area, each developer shall consult with the City to determine if a project-specific traffic analysis is required for the proposed project. The City shall determine if the proposed project meets the requirements for a preparation of a traffic analysis based on guidelines established by the City of Corona. If the City determines that a project-specific traffic analysis is required, the project proponent shall submit a project-specific traffic analysis for review and approval by the City. The traffic analysis shall identify trips that would be generated by the project and any fair-share contributions required to maintain the levels of service on these study area intersections. The payment of a fair-share contribution shall be made through an established City of Corona impact fee and participation in the WRCOG's TUMF Program, as appropriate, or construction of off-site facilities under appropriate fee credit agreements for improvements deemed appropriate by the City~~.	~~City of Corona Public Works~~	~~Prior to the Issuance of Certificate of Occupancy.~~	~~Prior to issuance of Certificate of Occupancy on any building.~~	~~Each developer shall consult with the City to determine if a project-specific traffic analysis is required for the proposed project.~~ ~~If a traffic analysis is required, it shall be prepared and submitted to the City for review and approval.~~		~~Withhold Occupancy Permits.~~
4.16.6.3A: Prior to the issuance of the first building permit after Phase 1, the master developer ~~a Certificate of Occupancy for a project developed in Phases 3 and 4 within the Specific Plan area, the project proponent~~ shall construct ~~or guarantee the construction of~~ those improvements identified below as	City of Corona Public Works	Prior to the issuance of the first building permit after Phase	Prior to issuance of the first building permit after Phase 1. ~~Certificate of~~	~~Evidence of Payment of City of Corona Development Impact Fee~~		Withhold building permit. ~~Occupancy Permits.~~

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
mitigation measures for year 2017~~2019~~ plus project conditions to improve levels of service in accordance with City requirements. ~~In addition, the project proponent shall participate in the City of Corona Development Impact Fee Program and the Western Riverside Council of Governments Transportation Uniform Mitigation Fee Program. Additionally, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) must be in place prior to issuance of any Certificates of Occupancy for a project developed in Phase 2 in order to serve the existing plus project daily volumes.~~ • **Masters Drive/Eagle Glen Parkway:** Install a traffic signal. • **Bedford Canyon Road/Eagle Glen Parkway:** Add a ~~northbound left-turn lane, a northbound through lane, two~~ northbound right-turn lane~~s~~ with northbound right-turn overlap phasing, ~~a second southbound left-turn lane, a southbound through lane, a third eastbound~~ add a shared southbound left/through lane, and add a~~two~~ westbound left-turn lane~~s~~. • ~~**I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right-turn lane, reconstruct the eastbound approach to provide two left-turn lanes and two eastbound through lanes, and reconstruct the westbound approach to provide one through lane and one shared through/right-turn lane.~~ • ~~**I-15 Northbound Ramps/Cajalco Road:** Add a second northbound left-turn lane and a second eastbound left-turn lane.~~ • ~~**Street C/Eagle Glen Parkway:** Add traffic signal, a northbound left-turn lane, a northbound right-turn lane, and a westbound left-turn lane.~~ • **Street "C"/Street "B":** Install a roundabout ~~Add an~~		1.~~Certificate of Occupancy.~~	~~Occupancy on any building within Phase 3 and 4.~~	~~Program Riverside County TUMF fees.~~ Evidence of construction of the improvements.		

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~eastbound stop sign~~ and an all-way lane at all approaches. • **Street "A" – Street "D"/Street "B"~~Driveway 1~~:** Install a roundabout and an all-way lane at all approaches. ~~traffic signal, a northbound left-turn lane, a northbound through right lane, a southbound left-turn lane, a southbound through/right-turn lane, an eastbound left-turn lane, an eastbound through/right-turn lane, a westbound left-turn lane, a westbound through lane, and a westbound right-turn lane with westbound right-turn overlap phasing.~~ • **Street "A"/Main Driveway (TAZ 4)~~Street B~~:** Install a traffic signal, ~~a northbound left-turn lane, a~~ two northbound through lanes, a southbound left-turn lane, two~~a~~ southbound through lanes, ~~an eastbound left-turn lane, an eastbound through lane,~~ a westbound left-turn lane, ~~a westbound through lane,~~ and a westbound right-turn lane. • **Street "A"/South Driveway (TAZ 4):** Install a stop sign on the westbound approach, two northbound through lanes, a southbound left-turn lane, two southbound through lanes, a westbound left-turn lane, and a single westbound approach lane. • ~~**Via Castilla Street/Masters Drive:** Modify the all way stop control by instating either: 1) a roundabout or 2) a stop sign on the southbound approach.~~ • ~~**Morales Way/Masters Drive:** Modify the all way stop control by instating either: 1) a roundabout or 2) a traffic signal.~~						
4.16.6.3B: Prior to the issuance of the first building permit after Phase 1, the master developer shall pay a 99~~100~~% fair share contribution towards the construction of either a roundabout or traffic signal at the ~~Via Castilla Street/Masters Drive and~~ Morales Way/Masters Drive intersection; a 27% fair-share contribution toward the construction of either a	City of Corona Public Works	Prior to the Issuance of the first building permit after Phase 1.	Prior to the Issuance of the first building permit after Phase 1.	Evidence of Payment of fair share contribution.		Withhold building permit.

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
roundabout or traffic signal at the Masters Drive/Christopher Lane intersection; and a 98% fair-share contribution towards the construction of either a roundabout or stop sign control at the Via Castilla Street/Masters Drive intersection.~~s.~~						
4.16.6.3C: Prior to the issuance of the first building permit ~~after Phase 1~~, the master developer shall post bonds for the full amount of the total estimated cost of the I-15/Cajalco Road Interchange Improvement project.	City of Corona Public Works	Prior to the Issuance of the first building permit after Phase 1.	Prior to the Issuance of the first building permit after Phase 1.	Evidence of bond posting.		Withhold building permit.
4.16.6.4A: ~~The project proponent shall construct or guarantee the construction of those~~ Prior to the issuance of a the first building permit after Phase 1, the master developer shall make a fair share contribution towards the improvements identified below as mitigation measures for year 2035 plus project conditions. ~~In addition, the project proponent shall construct a new I-15 southbound slip on-ramp for the Cajalco Road/I-15 Interchange.~~ • **Masters Drive/Bennett Avenue:** 32% of the cost to i~~I~~nstall a traffic signal. • ~~**Masters Drive**~~**Bedford Canyon Road/~~Eagle Glen Parkway~~Georgetown Road:** 100% of the cost to i~~I~~nstall a traffic signal. • ~~**Bedford Canyon Road/Eagle Glen Parkway:** Add a northbound left-turn lane, a northbound through lane, two northbound right-turn lanes with northbound right-turn overlap phasing, a second southbound left-turn lane, a southbound through lane, a third eastbound through lane, and two westbound left-turn lanes.~~ • **I-15 Southbound Ramps/El Cerrito Road:** 58% of the cost to a~~A~~dd an eastbound right-turn lane. • ~~**I-15 Southbound Ramps/Cajalco Road:** Add a second southbound left-turn lane, a second southbound right turn lane, reconstruct the~~	City of Corona Public Works	Prior to the Issuance of the first building permit after Phase 1.~~Certificate of Occupancy.~~	Prior to issuance of the first building permit after Phase 1. ~~Certificate of Occupancy on any building within Phase 4.~~	~~Evidence of construction of the improvements.~~ Evidence of Payment of fair share contribution.		Withhold building permit.~~Occupancy Permits.~~

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~eastbound approach to provide three through lanes and a right turn lane, and reconstruct the westbound approach to provide two through lanes and a right turn lane.~~ • ~~**I-15 Northbound Ramps/Cajalco Road:** Add a second northbound left-turn lane, reconstruct the eastbound approach to provide three through lanes and a right turn lane, and reconstruct westbound approach to provide three through lanes and a right turn lanes.~~ • **Temescal Canyon Road/Cajalco Road:** 91% of the cost to a~~A~~dd ~~a second northbound through lane,~~ a second southbound left-turn lane, a second eastbound through lane, and a westbound right-turn lane ~~with westbound right turn overlap phasing~~. • **Street "C"/Eagle Glen Parkway:** 100% of the cost to a~~A~~dd a traffic signal~~, a northbound left turn lane, a northbound right turn lane, and a westbound left turn lane~~. • ~~**Street C/Street B:** Add an eastbound stop sign and an all-way lane at all approaches.~~ • ~~**Street A/Driveway 1:** Install a traffic signal, a northbound left turn lane, a northbound through/ right turn lane, a southbound left turn lane, a southbound through/right turn lane, an eastbound left turn lane, an eastbound through/right turn lane, a westbound left turn lane, a westbound through lane, and a westbound right turn lane with westbound right turn overlap phasing.~~ • ~~**Street A/Street B:** Install a traffic signal, a northbound left turn lane, a northbound through/ right turn lane, a southbound left turn lane, a southbound through/right turn lane, an eastbound left turn lane, an eastbound through/right turn lane, a~~						

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
~~westbound left-turn lane, a westbound through lane, and a westbound right-turn lane.~~						
UTILITIES AND SERVICE SYSTEMS						
4.17.6.1A: Prior to the issuance of grading permits for any development phase that would occur under the Specific Plan, the project proponent shall obtain verification from the City that planned wastewater capacity improvements at WRF~~3~~2 or elsewhere in the city's wastewater system are in place and operational or said improvements are funded or under construction and will be available for service to completed homes and businesses.	City of Corona Public Works Water & Power	Prior to grading	Prior to Issuance of Grading Permits	Submittal of evidence that all requirements are fulfilled.		Withhold Grading Permit
4.17.6.1B: The City shall implement the mitigation and monitoring plan identified in the EIR for Wastewater Treatment Plant No. ~~3~~2 as a part of any expansion of said plant. Alternatively, the Developer shall negotiate an advanced funding option for implementation of the mitigation and monitoring plan identified in the EIR for Wastewater Treatment Plant No. ~~3~~2 in lieu of paying a Sewer Connection Fee for sewer capacity to ensure that wastewater plant capacity is available so phases of the project may proceed without being delayed.	City of Corona Public Works Water & Power	Prior to grading	Prior to Issuance of Grading Permits	Submittal of evidence that all requirements are fulfilled.		Withhold Grading Permit

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Chapter 3

California Resources Agency Farmland Mapping and Monitoring Program. Important Farmland Map Western Riverside County (2012). Website: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/riv12_w.pdf, (accessed June 23, 2015).

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Chapter 4

Arantine Hills Specific Plan Amendment No. 1WSA and WV, City of Corona, August 2015.

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APPENDIX A:

Arantine Hills Modified Project Traffic Study

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Arantine Hills Modified Project

TRAFFIC STUDY

CITY OF CORONA

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SEPTEMBER 11, 2015 (REVISED)
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LIST OF ABBREVIATED TERMS

ADT	Average Daily Traffic
Caltrans	California Department of Transportation
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
MUTCD	Manual on Uniform Traffic Control Devices
PeMS	Performance Measurement System
PHF	Peak Hour Factor
Project	Arantine Hills Modified Project
RivTAM	Riverside County Transportation Analysis Model
RTA	Riverside Transit Authority
SCAG	Southern California Association of Governments
TIA	Traffic Impact Analysis
v/c	Volume-to-Capacity Ratio
vphg	Vehicle Per Hour of Green
VPH	Vehicle Per Hour

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1.0 INTRODUCTION AND KEY FINDINGS

The purpose of this traffic study report is to evaluate the Arantine Hills Modified Project from a traffic circulation standpoint. Study objectives include (1) documentation of existing 2014 and 2015 traffic conditions in the vicinity of the site; (2) evaluation of 2017 without and with Project conditions; (3) evaluation of future year 2035 without project, with modified project conditions, without the McMillan Trust Property Development; (4) evaluation of future year 2035 without project, with modified project conditions, with the McMillan Trust Property Development; and (5) determination of on-site and off-site improvements needed to achieve City of Corona level of service (LOS) requirements. This analysis and report have been prepared in accordance with the City of Corona Traffic Impact Study Guidelines, dated July 2006.

This report presents the results of a traffic study for the Arantine Hills Modified Project ("Project") located south of Eagle Glen Parkway – Cajalco Road and west of the I-15 Freeway in the City of Corona as shown on Exhibit 1-1.

The purpose of this traffic study is to evaluate the potential traffic and circulation associated with development of the Modified Project based upon updated traffic counts, City traffic model datasets and updated 2035 projections, and to recommend improvements for 2017 (308 residential units of the Modified Project) and 2035 (buildout of the Modified Project) conditions. A sensitivity analysis of interim year with project buildout conditions is also included.

1.1 MODIFIED PROJECT OVERVIEW

The approved Arantine Hills project consists of 396,400 square feet of general retail use, 230,900 square feet of business park use, 59,000 square feet of specialty retail use, 59,000 square feet of general office use, 1,072 multi-family attached dwelling units, 549 single-family detached dwelling units, and a mix of passive and active parks.

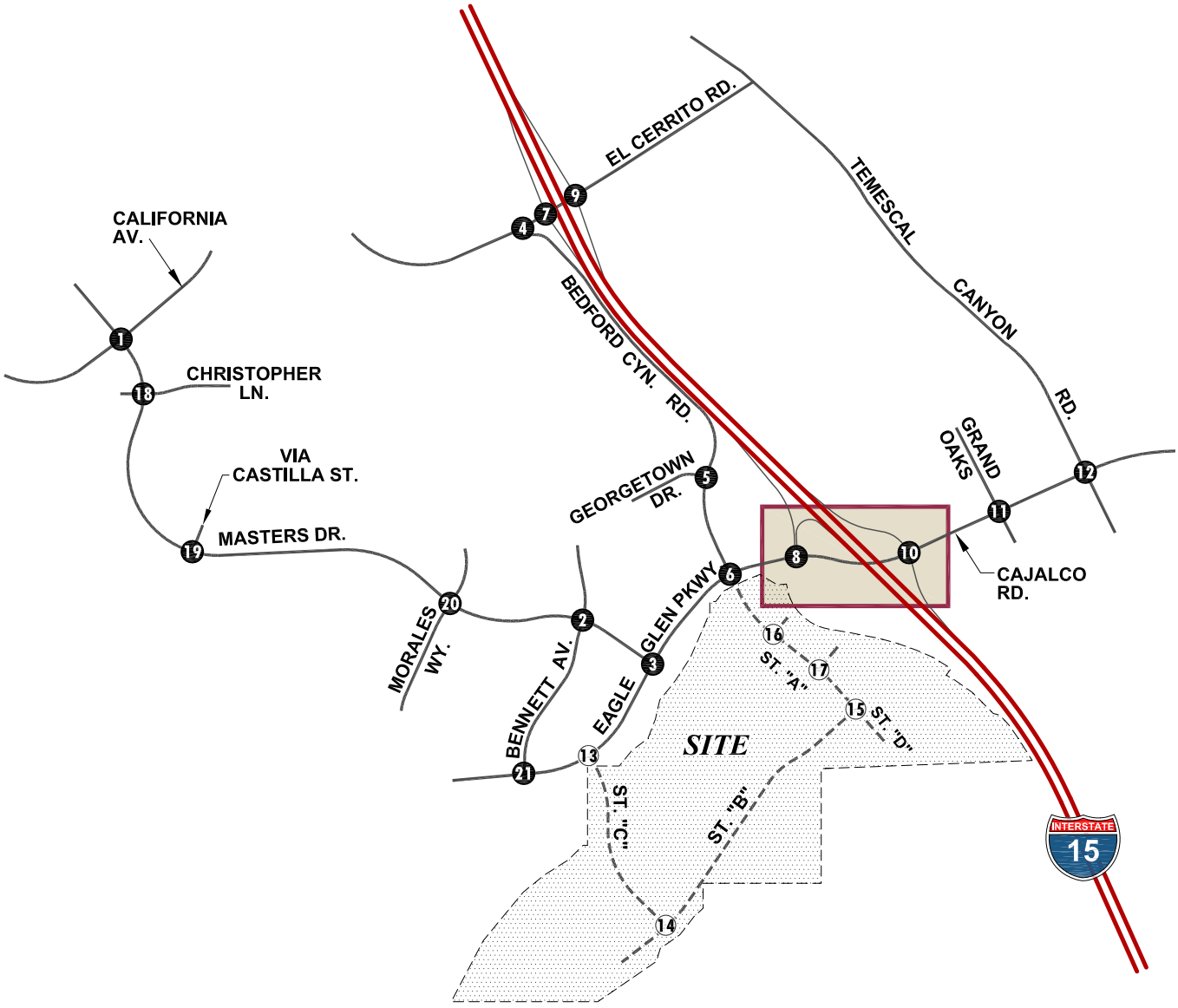
The modified project land use plan (shown on Exhibit 1-2) is less intensive than the previously approved land use plan. The modified project consists of 1,107 single-family detached dwelling units, 514 multi-family attached dwelling units, 185 senior housing units, 80,000 square feet of general retail use, and a mix of passive and active parks. The business park and office uses have been removed in the modified project land use plan. The backbone internal street configuration is similar, with two main entries from Eagle Glen Parkway.

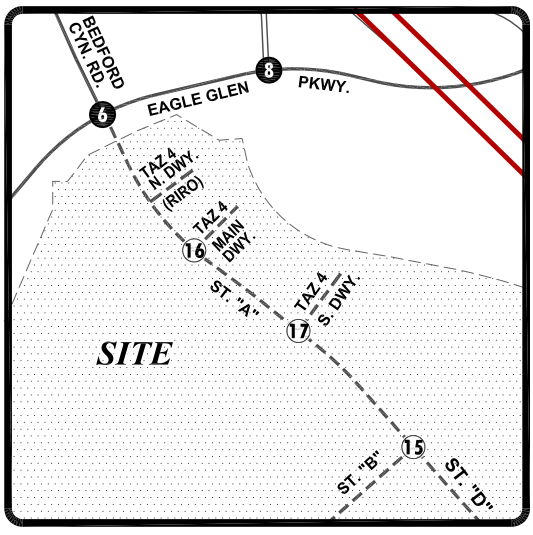
Trips generated by the Project's modified project land plan have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) as presented in ITE's most current edition of Trip Generation (9th Edition, 2012). The Modified Project is estimated to generate a total of approximately 18,621 net external trip-ends per day on a typical weekday with approximately 1,217 net external weekday AM peak hour trips and 1,756 net external weekday PM peak hour trips.

Changes to the AM (morning peak hour) and PM (evening peak hour) peak hour project volumes related to the Modified Project, as compared to the previously approved project, are presented in Exhibit 1-3 (morning peak hour) and Exhibit 1-4 (evening peak hour) for the study area intersections.

EXHIBIT 1-1

TRAFFIC STUDY AREA





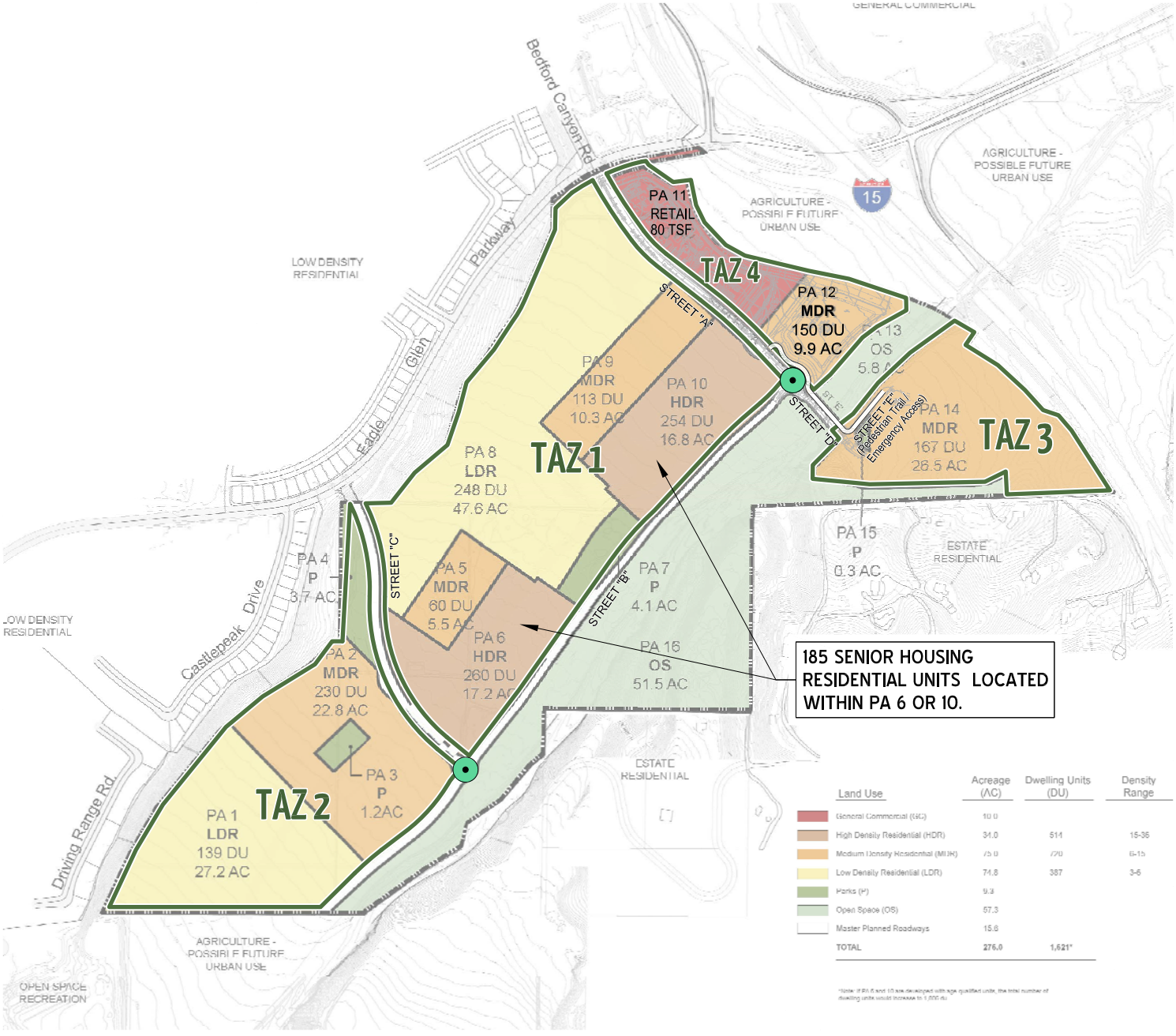
LEGEND:

- (16) = EXISTING ANALYSIS LOCATION
- (5) = FUTURE ANALYSIS LOCATION
- = FUTURE ROADWAY / DIRT
- (RIRO) = RIGHT-IN / RIGHT-OUT ACCESS ONLY

N

EXHIBIT 1-2

MODIFIED PROJECT LAND USE PLAN



Land Use	Acreage (AC)	Dwelling Units (DU)	Density Range
General Commercial (GC)	10.0		
High Density Residential (HDR)	34.0	511	15-36
Medium Density Residential (MDR)	75.0	770	6-15
Low Density Residential (LDR)	74.8	387	3-6
Parks (P)	9.8		
Open Space (OS)	57.3		
Master Planned Roadways	15.6		
TOTAL	276.0	1,621*	

*Note: If PA 8 and 10 are developed with age qualified units, the total number of dwelling units would increase to 1,900 du.

LEGEND:

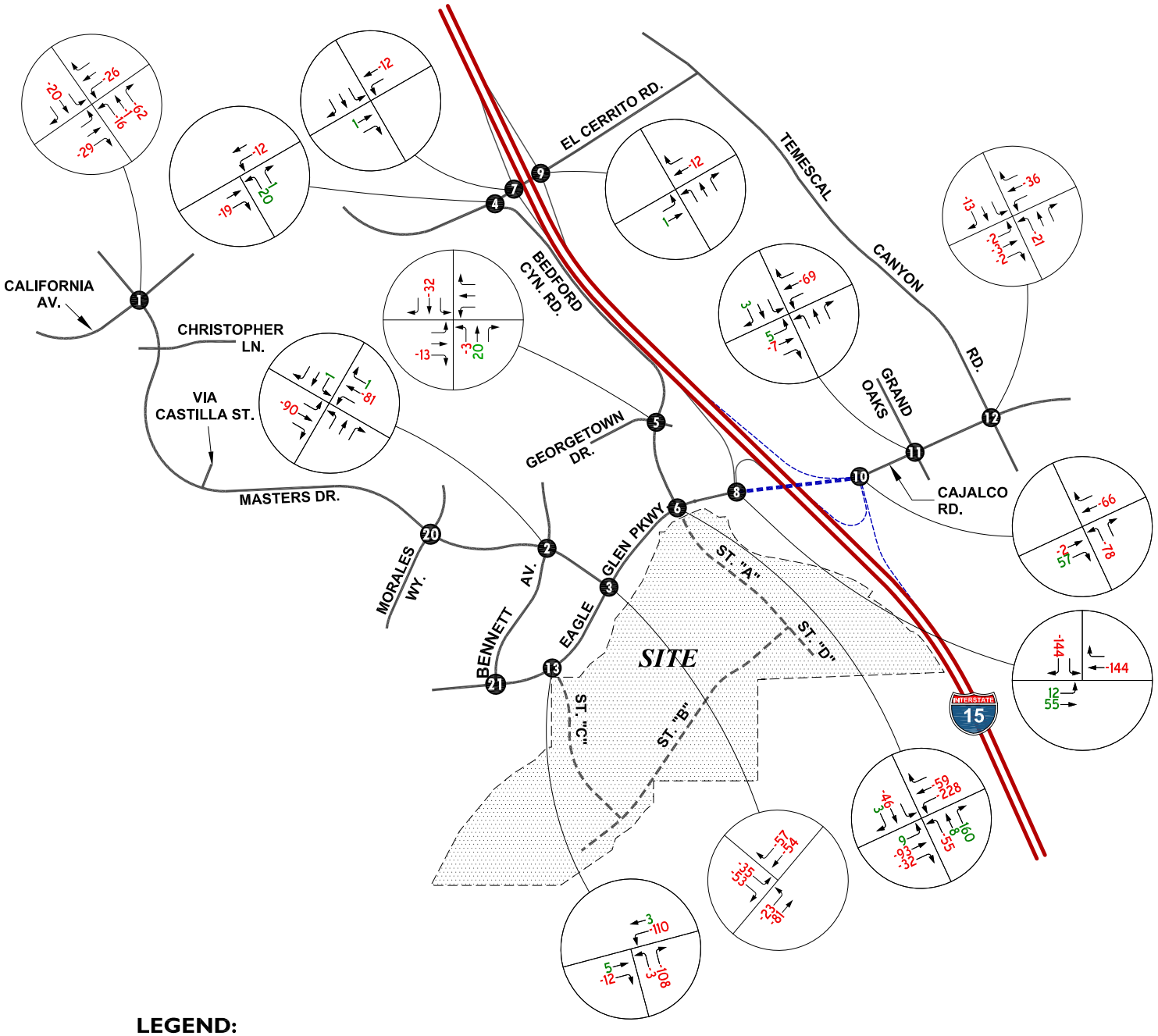
= ROUNDABOUT LOCATION

= TRAFFIC ANALYSIS ZONE (TAZ) BOUNDARY

N

EXHIBIT 1-3

CHANGES IN AM PEAK HOUR PROJECT VOLUMES
(MODIFIED VS. APPROVED)



LEGEND:

13 = INTERSECTION ID

= PROPOSED BRIDGE & RAMP ALIGNMENT

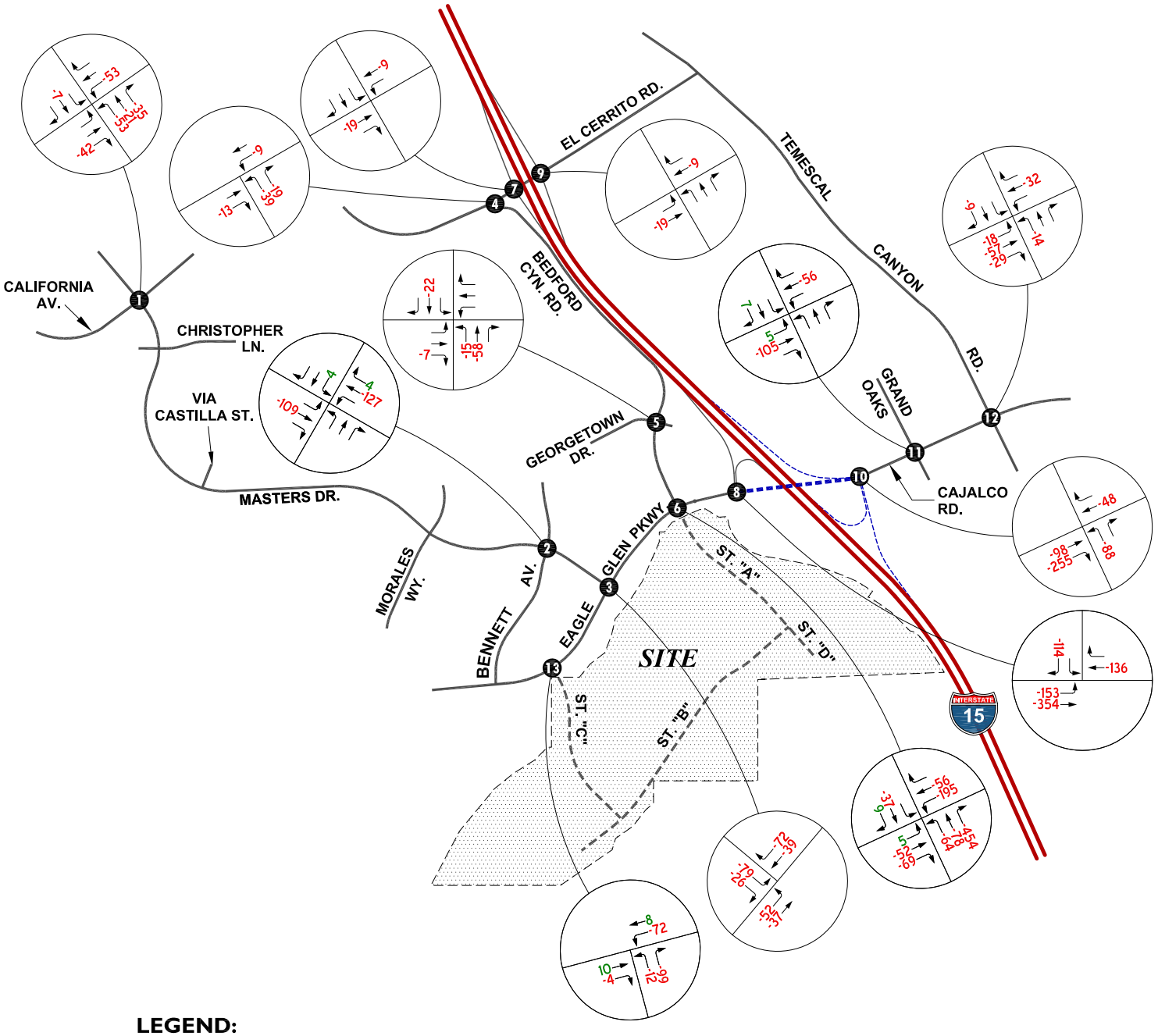
-100 = VOLUME REDUCTION ASSOCIATED WITH THE MODIFIED PROJECT IN COMPARISON TO THE APPROVED PROJECT

50 = VOLUME INCREASE ASSOCIATED WITH THE MODIFIED PROJECT IN COMPARISON TO THE APPROVED PROJECT

N

EXHIBIT 1-4

CHANGES IN PM PEAK HOUR PROJECT VOLUMES
(MODIFIED VS. APPROVED)



LEGEND:

- 13 = INTERSECTION ID
- ------ = PROPOSED BRIDGE & RAMP ALIGNMENT
- -100 = VOLUME REDUCTION ASSOCIATED WITH THE MODIFIED PROJECT IN COMPARISON TO THE APPROVED PROJECT
- 50 = VOLUME INCREASE ASSOCIATED WITH THE MODIFIED PROJECT IN COMPARISON TO THE APPROVED PROJECT

N

1.2 ANALYSIS SCENARIOS

This traffic study will be evaluated for each of the following conditions:

- Existing (2014 and 2015) Conditions
- 2017 Without Project Conditions
- 2017 With Project Phase 1 Conditions
- Interim Year With Project Buildout Conditions (Sensitivity Analysis)
- 2035 Without Project Conditions, Without McMillan Trust Property Development
- 2035 With Modified Project Conditions, Without McMillan Trust Property Development
- 2035 Without Project Conditions, With McMillan Trust Property Development
- 2035 With Modified Project Conditions, With McMillan Trust Property Development

1.2.1 STUDY AREA INTERSECTIONS

The intersection analysis locations for this traffic study are listed in Table 1-1 and previously shown on Exhibit 1-1.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
2	Masters Drive / Bennett Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona
4	Bedford Canyon Road / El Cerrito Road	Corona
5	Bedford Canyon Road / Georgetown Drive	Corona
6	Bedford Canyon Road – Street “A” / Eagle Glen Parkway	Corona
7	I-15 SB Ramps / El Cerrito Road	Caltrans
8	I-15 SB Ramps / Cajalco Road	Caltrans
9	I-15 NB Ramps / El Cerrito Road	Caltrans
10	I-15 NB Ramps / Cajalco Road	Caltrans
11	Grand Oaks / Cajalco Road	Corona
12	Temescal Canyon Road / Cajalco Road	Corona
13	Street “C” / Eagle Glen Parkway	Corona
14	Street “C” / Street “B”	Corona
15	Street “A” - Street “D” / Street “B”	Corona
16	Street “A” / TAZ 4 Main Driveway	Corona
17	Street “A” / TAZ 4 South Driveway	Corona
18	Masters Drive / Christopher Lane	Corona
19	Via Castilla Street / Masters Drive	Corona
20	Morales Way / Masters Drive	Corona
21	Bennett Avenue / Eagle Glen Parkway	Corona

1.2.2 ROADWAY SEGMENTS

The roadway segment study area utilized for this analysis is based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips. The study area identifies a total of thirty (33) existing/future roadway segments. The roadway segments include the segments on either side of the study area intersections listed previously in Table 1-1.

1.3 PLANNED INTERCHANGE AREA IMPROVEMENTS

Exhibit 1-5 shows the following planned improvements related to the Cajalco Road / I-15 interchange area:

- Widen Cajalco Road from a 2-lane divided roadway to a 4-lane divided roadway, between Bedford Canyon Road and I-15 SB Ramps.
- Construct a new Cajalco Road 6-lane bridge over the I-15 mainline, replacing the existing 2-lane divided roadway, between the I-15 SB and I-15 NB ramps.
- Widen Cajalco Road from a 5-lane divided roadway to a 6-lane divided roadway, between the I-15 NB ramps and Grand Oaks Road.
- Construct a new northbound loop on ramp to serve eastbound traffic on Cajalco Road for access to I-15 mainline.
- Other existing ramps are widened to provide additional turn lane capabilities.

Appendix "1.1" include the Cajalco Road / I-15 interchange area improvement plans.

1.4 CIRCULATION SYSTEM DEFICIENCIES

1.4.1 INTERSECTION OPERATIONS ANALYSIS

For Existing (2014 and 2015) Conditions, the following intersections are currently operating at deficient level of service during the morning peak hours:

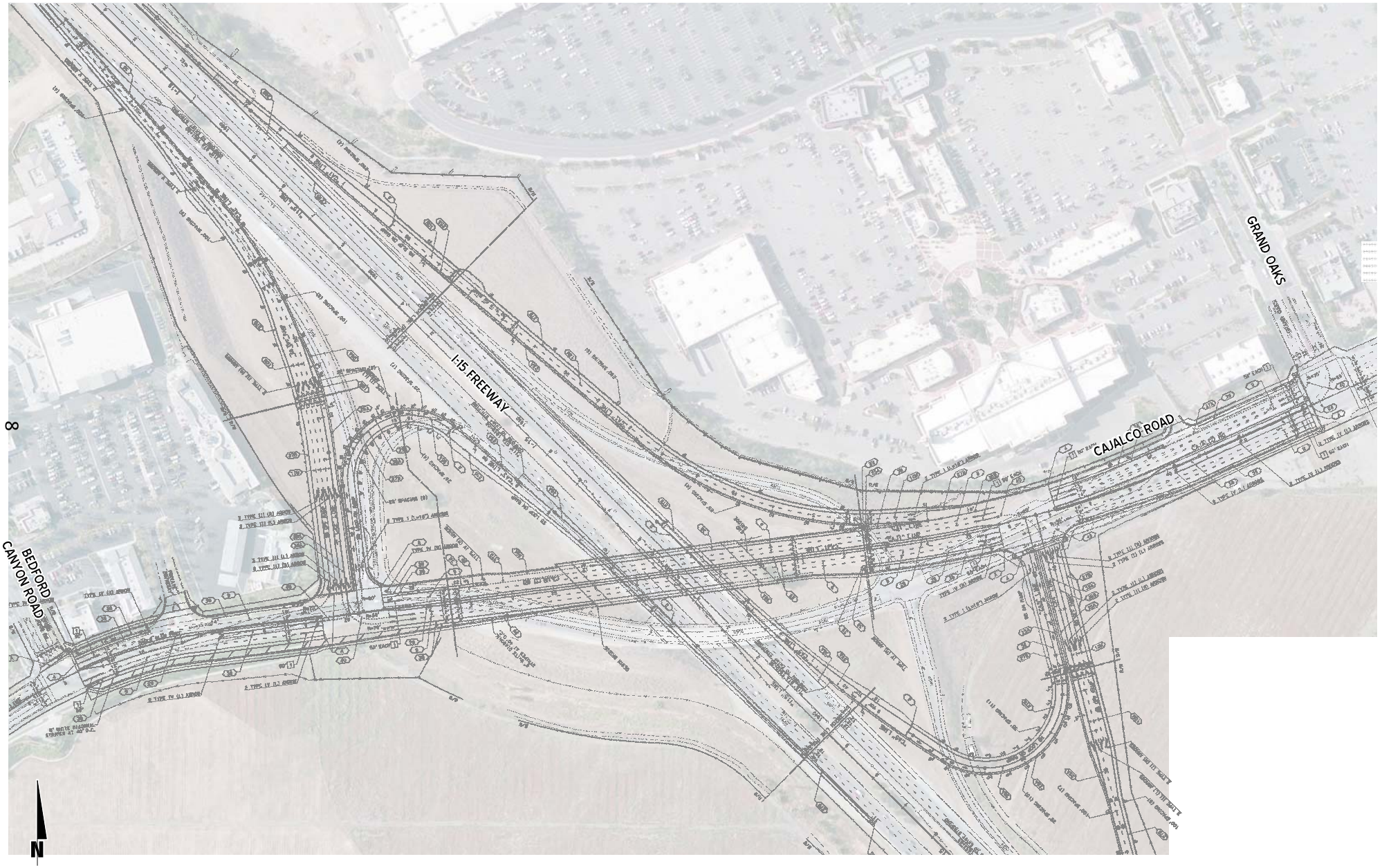
ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
18	Masters Drive / Christopher Lane	Corona

The intersections of I-15 SB Ramps / Cajalco Road (#8) and I-15 NB Ramps / Cajalco Road (#10) are operating at level of service "D" during peak hours. Consistent with the previously approved Arantine Hills Traffic Impact Analysis (2011), LOS "E" is anticipated to be considered acceptable level of service for the I-15 / Cajalco Road interchange.

For 2017 Without Modified Project (Phase 1) conditions, the intersection of I-15 NB Ramps / Cajalco Road (#10) is projected to operate at level of service "E" during peak hours.

EXHIBIT 1-5

CAJALCO ROAD / I-15 INTERCHANGE CONCEPT PLAN



It should be noted that planned improvements at or near the Cajalco Road / I-15 Interchange area may be under construction by 2017. The following roadway configurations during interchange construction are utilized for 2017 conditions and are consistent with the Stage Construction and Traffic Handling Plans provided by Caltrans:

- Temporary realignment of Cajalco Road at the I-15 SB ramps. Existing intersection configuration is maintained.
- Temporary lane closure at the intersection of I-15 NB Ramps / Cajalco Road. The 2nd EB receiving lane will be closed. One receiving lane will remain open during interchange construction.
- Temporary lane closure at the intersection of Grand Oaks / Cajalco Road. The 3rd WB approach and receiving lane will be closed. Two WB through lanes will remain open during interchange construction.

For 2035 Without Project Conditions, Without McMillan Trust Property Development, the following intersections are anticipated to operate at deficient levels of service, with planned improvements at or near the Cajalco Road / I-15 interchange area:

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona
7	I-15 SB Ramps / El Cerrito Road	Caltrans
12	Temescal Canyon Road / Cajalco Road	Corona
18	Masters Drive / Christopher Lane	Corona
19	Via Castilla Street / Masters Drive	Corona
20	Morales Way / Masters Drive	Corona

For 2035 With Modified Project Conditions, Without McMillan Trust Property Development, there are no new intersections anticipated to operate at deficient level of service, in addition to the intersections previously identified under 2035 Without Project Conditions, Without McMillan Trust Property Development.

For 2035 Without Project, With McMillan Trust Property Development, there are no new intersections anticipated to operate at unacceptable level of service, in addition to the deficient intersections previously identified under 2035 Without Project Conditions, Without McMillan Trust Property Development.

For 2035 With Modified Project Conditions, With McMillan Trust Property Development, there are no new intersections anticipated to operate at deficient LOS, in addition to the intersections previously identified under 2035 With Modified Project Conditions, Without McMillan Trust Property Development.

1.4.2 ROADWAY SEGMENT ANALYSIS

For Existing (2014 and 2015) conditions, the roadway segment along Eagle Glen Parkway – Cajalco Road, east of I-15 SB Ramps currently serves daily volumes which exceed the theoretical daily segment LOS thresholds presented in Section 4.3 of this report.

For 2017 Without Modified Project (Phase 1) conditions, the roadway segment along El Cerrito Road, west of Bedford Canyon is estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with lane reductions during interchange construction, in addition to the roadway segment previously identified under Existing (2014 and 2015) conditions.

For 2035 Without Project conditions, Without McMillan Trust Property Development, the following roadway segments are estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements:

Roadway Segment Location
Bedford Canyon, south of El Cerrito Road
Bedford Canyon, north of Georgetown Drive
El Cerrito Road, west of Bedford Canyon
El Cerrito Road, east of Bedford Canyon

For 2035 With Modified Project Conditions, Without McMillan Trust Property Development, the roadway segment along Eagle Glen Parkway, east of Bedford Canyon is estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project conditions, Without McMillan Trust Property Development.

For 2035 Without Project conditions, With McMillan Trust Property Development, there are no new roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project Conditions, Without McMillan Trust Property Development.

For 2035 With Modified Project Conditions, With McMillan Trust Property Development, the following roadway segments are estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project conditions, With McMillan Trust Property Development:

Roadway Segment Location
Eagle Glen Parkway – Cajalco Road, west of Bedford Canyon
Eagle Glen Parkway – Cajalco Road, east of Bedford Canyon

For roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, further review of the more detailed peak hour intersection analysis results indicate that the recommended interchange and intersection improvements identified in this report provide acceptable level of service for both study area intersections and roadway segments.

1.4.3 TRAFFIC SIGNAL WARRANT ANALYSIS

For Existing (2014 and 2015) Conditions, the following unsignalized intersections warrant a traffic signal:

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona

For 2017 Without Modified Project Conditions, there are no new unsignalized intersections anticipated to meet traffic signal warrants, in addition to the intersections two identified under existing (2014 and 2015) conditions. It should be noted however that although the intersection of Masters Drive / Eagle Glen Parkway meets traffic signal warrants, intersection operations analysis results indicate that Masters Drive / Eagle Glen Parkway intersection is anticipated to continue to operate at acceptable level of service under 2017 without modified project conditions. Therefore, traffic signal installation at Masters Drive / Eagle Glen Parkway is not required under 2017 conditions.

For 2035 Without Project conditions, Without McMillan Trust Property Development, the following intersections are anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2017 conditions:

ID	Intersection Location	Jurisdiction
2	Masters Drive / Bennett Avenue	Corona
5	Bedford Canyon Road / Georgetown Drive	Corona
18	Masters Drive / Christopher Lane	Corona
20	Morales Way / Masters Drive	Corona
21	Bennett Avenue / Eagle Glen Parkway	Corona

For 2035 With Modified Project conditions, Without McMillan Trust Property Development, the intersections of Street "C" / Eagle Glen Parkway (#13) and Street "A" / TAZ 4 Main Driveway (#16) are anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 Without Project conditions, Without McMillan Trust Property Development.

For 2035 Without Project, With McMillan Trust Property Development, the future intersection of Street "C" / Eagle Glen Parkway (#13) is anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 Without Project Conditions, Without McMillan Trust Property Development.

For 2035 With Modified Project conditions, With McMillan Trust Property Development, there are no new intersections anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 With Project conditions, Without McMillan Trust Property Development and 2035 Without Project conditions, With McMillan Trust Property Development.

1.5 RECOMMENDED IMPROVEMENTS

For 2017 With Modified Project Conditions, the following off-site improvements are recommended to mitigate the deficient intersection LOS identified in Section 1.4 and provide site access:

Masters Drive / California Drive (#1)

- Participate in the installation of a traffic signal.

Masters Drive / Christopher Lane (#18)

- Participate in the installation of a traffic signal, or roundabout.

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- Traffic Signal Modification.
- Adjust the east leg striping to provide a 2nd receiving lane.
- NB Approach: Construct one left turn lane and one shared through-right turn lane.
- SB Approach: Modify striping to provide a new through lane.
- EB Approach: Modify striping to provide a shared through-right turn lane.
- WB Approach: Modify striping to provide a new dedicated left turn lane.

Street "C" / Eagle Glen Parkway (#13)

- Install stop sign control on the NB approach.
- NB Approach: Construct one left turn lane and one right turn lane.
- WB Approach: Modify striping to provide left turn lane.

It should be noted that under Phase 1 conditions the modified project results in a recommendation of fewer improvements in comparison to the previously approved project, which was evaluated in the *Arantine Hills Specific Plan Traffic Impact Analysis (August 2011)*. The following improvements from the previously approved project are modified or eliminated with the Phase 1 development of the Modified Project:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- NB Approach: Separate right turn lane can be provided following Phase 1.
- SB Approach: 2nd left turn lane can be provided following Phase 1.

I-15 SB Ramps / Cajalco Road (#8)

- EB Approach: 2nd left turn lane can be provided following Phase 1, in conjunction with the new Cajalco Road bridge.

Street "C" / Eagle Glen Parkway (#13)

- Traffic signal can be provided following Phase 1.
- WB Approach: The new left turn lane can be accommodated by modifying the existing median lane striping (without physical roadway widening).

For 2035 With Modified Project conditions, Without McMillan Trust Property Development, the following off-site improvements are recommended to mitigate the deficient intersection LOS identified in Section 1.4.1 and provide site access, in addition to the 2017 Phase 1 improvements listed above:

Masters Drive / Bennett Avenue (#2)

- Participate in the installation of a traffic signal.

Masters Drive / Eagle Glen Parkway (#3)

- Participate in the installation of a traffic signal.

Bedford Canyon Road / Georgetown Drive (#5)

- Participate in the installation of a traffic signal.

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- NB Approach: Construct separate right turn lane with overlap phasing
- SB Approach: Modify striping to a shared left/through lane.
- WB Approach: Construct a 2nd left turn lane.

I-15 SB Ramps / Cajalco Road (#8)

- SB Approach: Participate in the construction of 2nd left turn lane and 2nd right turn lane.
- EB Approach: Participate in the construction of 2nd left turn lane, 2nd through lane, and 3rd through lane.
- WB Approach: Participate in the construction of 2nd through lane
- It should be noted that the planned I-15/Cajalco Road interchange improvements accommodate triple southbound left turns. However, based on the intersection operations results, providing a minimum of two southbound left turns would result to an acceptable level of service.

I-15 NB Ramps / Cajalco Road (#10)

- NB Approach: Participate in the construction of 2nd left turn lane and 2nd right turn lane.
- EB Approach: Participate in the construction of 2nd and 3rd through lanes and one right turn lane with overlap phasing.
- WB Approach: Participate in the construction of 3rd and 4th through lanes.

Grand Oaks / Cajalco Road (#11)

- EB Approach: Participate in the construction of 3rd through lane.

Temescal Canyon Road / Cajalco Road (#12)

- Participate in the widening of Cajalco Road east of Temescal Canyon Road to provide 2nd and 3rd eastbound lane within 600 feet of Temescal Canyon Road.

Street "C" / Eagle Glen Parkway (#13)

- Install a traffic signal.

Via Castilla Street / Masters Drive (#19)

- Participate in the conversion to cross-street stop control on Via Castilla Street (in conjunction with Masters Drive / Christopher Lane and Morales Way / Masters Drive traffic signals), or roundabout.

Morales Way / Masters Drive (#20)

- Participate in the installation of a traffic signal, or roundabout.

It should be noted that the Modified Project conditions, Without and With McMillan Trust Property Development recommends less improvements in comparison to the previously approved project under 2035 conditions. The following improvements from the previously approved project are eliminated with the development of the Modified Project:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- NB Approach: 2nd right turn lane is no longer needed.
- SB Approach: Provision of a separate right turn lane in addition to the through lane and 2nd left turn lane is no longer necessary.
- EB Approach: Construction of a 3rd through lane is no longer needed.

I-15 SB Ramps / El Cerrito Road (#7)

- SB Approach: Construction of a 2nd right turn lane is no longer needed.

1.6 PROJECT PHASING

For the purposes of this traffic study, the built out conditions of the modified project is evaluated under 2035 conditions. Phase 1 of the project, which is assumed to be completed in 2017, consists of Planning Area 5, 7 and 8, which include 308 single-family detached dwelling units and 0.7 acres of active park uses. Buildout of the remaining planning areas within the modified project adds 799 single-family detached dwelling units, 514 multi-family attached dwelling units, 185 senior housing residential units (cumulative total of 1,806 dwelling units), 80,000 square feet of retail use, 1.5 acres of local park use, and 7.1 acres of active park use (cumulative total of 7.8 acres of active park use). An interim year scenario which includes project buildout is also evaluated as a sensitivity analysis.

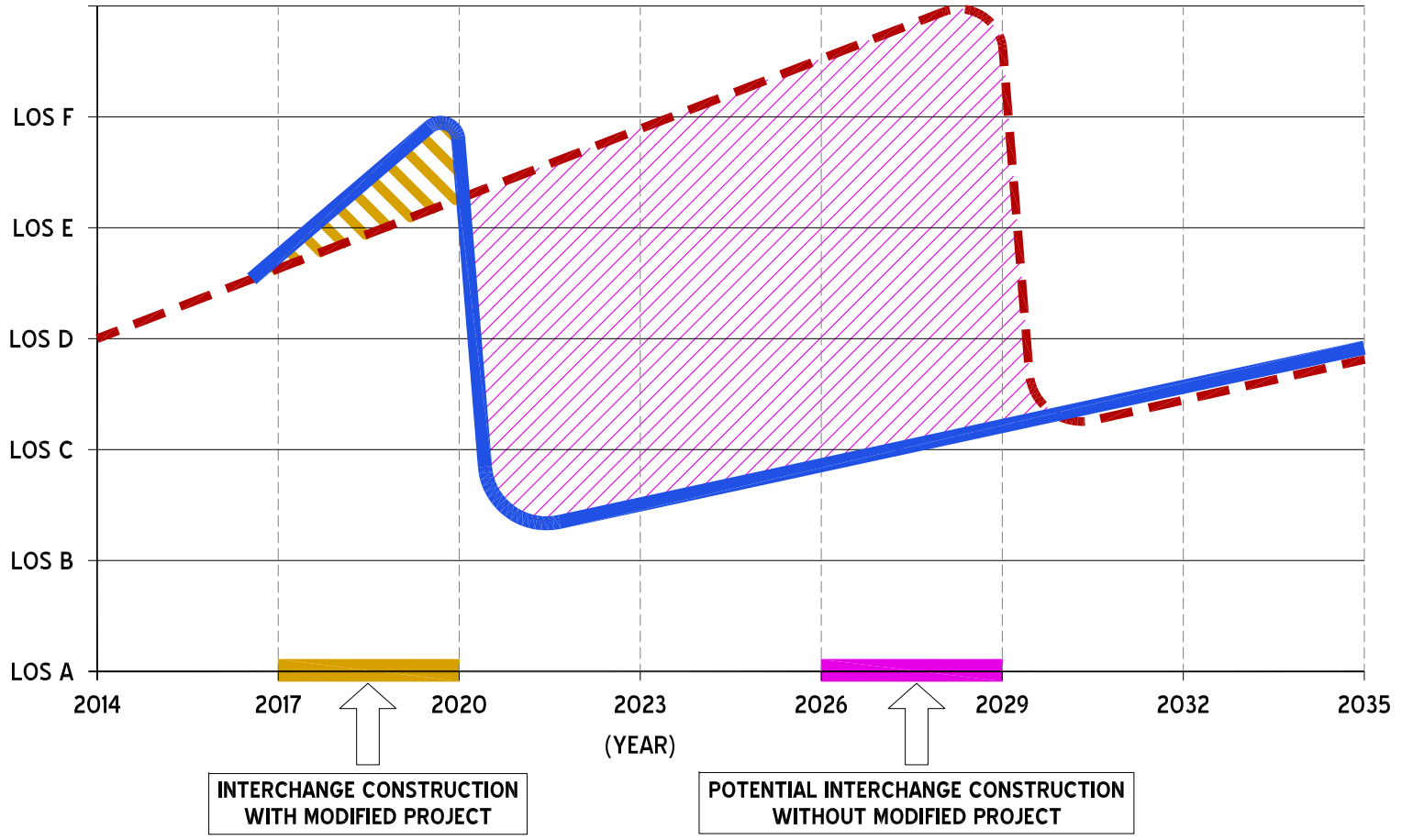
Development of the Project beyond Phase 1 (308 dwelling units) will occur in phases at a pace which becomes increasingly difficult to predict with certainty because of potential fluctuations in economic conditions. However, analysis of peak hour conditions at the Cajalco/I-15 interchange indicates that traffic conditions will worsen with or without the Modified Project until the planned capital improvements to the ramps and bridge structure are able to be implemented. Therefore, the findings of this traffic analysis include the recommendation that prior to issuance of a Certificate of Occupancy for the three hundred ninth (309th) dwelling unit within the Modified Project, full funding of the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) is recommended to be accomplished in accordance with an approved development agreement.

Even with full funding provided for the planned Cajalco/I-15 interchange improvements, the City of Corona does not maintain total control over implementation of Caltrans ramp and bridge improvements. As indicated on Exhibit 1-6, if (1) actual construction of the Cajalco/I-15 interchange improvements are completed beyond 2017, and (2) the Modified Project had provided for full funding of the interchange improvements, and (3) more than 308 new homes within the Modified Project occur at a pace of approximately 100 occupancies per year, peak hour conditions at the Cajalco/I-15 interchange ramp intersections will exceed level of service “E” and “F” until the new interchange improvements are completed.

If the Arantine Hills Modified Project does not occur, it is anticipated that full funding of the Cajalco/I-15 interchange project may be delayed for 5 to 10 years. As illustrated on Exhibit 1-6, this situation results in an extended period of time with increased traffic congestion as measured by peak hour level-of-service deficiencies at the Cajalco/I-15 interchange ramp intersections. Neither Caltrans nor the State has adopted a fee program that can ensure that the Cajalco/I-15 interchange will be implemented in a timely manner, and only Caltrans has the jurisdiction over interchange improvements.

EXHIBIT 1-6

CAJALCO/I-15 INTERCHANGE LEVEL OF SERVICE DIFFERENCES (LOS), WITH AND WITHOUT MODIFIED ARANTINE HILLS PROJECT



LEGEND:

- = WITH MODIFIED PROJECT LOS PROJECTIONS
- = WITHOUT MODIFIED PROJECT LOS PROJECTIONS
- = TEMPORARY LOS DEFICIENCY DURING CONSTRUCTION
- = EXTENDED LOS DEFICIENCY/LACK OF INTERCHANGE BENEFIT IF INTERCHANGE FUNDING AND CONSTRUCTION DELAYED

2.0 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Corona General Plan Circulation Network, and a review of existing peak hour intersection operations, roadway analyses and traffic signal warrants.

2.1 EXISTING CIRCULATION NETWORK

Per discussion with City of Corona staff, the study area includes a total of twenty-one (21) existing and future intersections as shown previously on Exhibit 1-1. Of these twenty-one (21) intersections, the existing study area circulation network includes sixteen (16) intersections. The other five (5) intersections in the study area are future planned intersections that do not currently exist (Project roadways and key project driveways).

Exhibit 2-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

2.2 CITY OF CORONA GENERAL PLAN CIRCULATION ELEMENT

As previously noted, the Project site is located within the City of Corona. Exhibit 2-2 shows the City of Corona General Plan Circulation Element, and Exhibit 2-3 illustrates the City of Corona General Plan Roadway Cross-Sections.

2.3 TRANSIT SERVICE

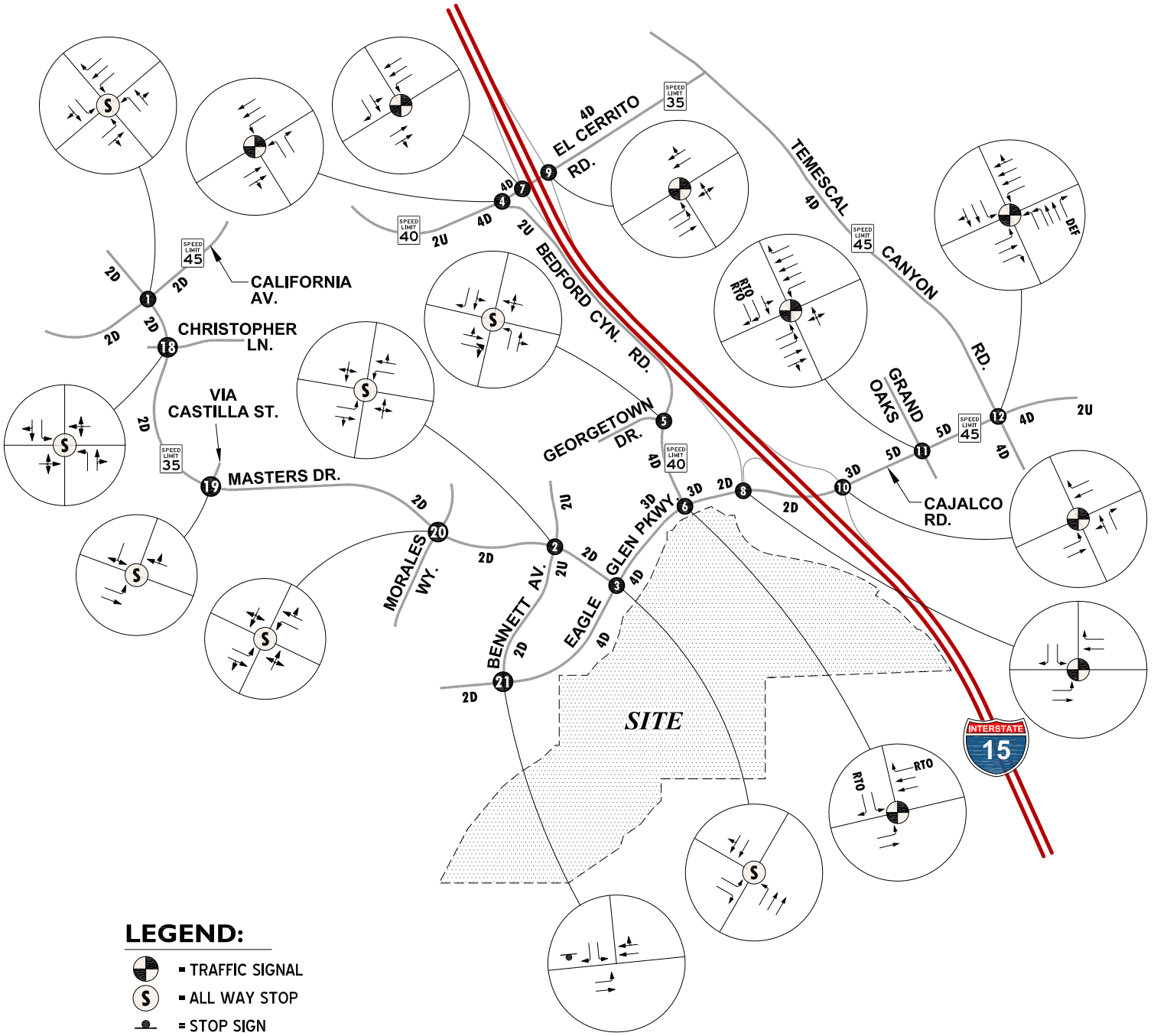
Eagle Glen Parkway adjacent to the project site is currently not served by the Riverside Transit Agency (RTA) or the Corona Cruisers bus services. However, Temescal Canyon Road north of Cajalco Road is currently served by the Corona Cruisers Red Line.

2.4 EXISTING (2014 AND 2015) TRAFFIC COUNTS

The AM peak hour traffic volumes were determined by counting traffic volumes in the two and half hour period between 6:30 and 9:00 AM. The PM peak hour traffic volumes were identified by counting traffic volumes in the two hour period from 4:00 to 6:00 PM. The manual AM and PM peak hour turning movement counts were conducted in February, March, and July 2014, and May 2015. For the counts conducted during the summer month of July, adjustments were made to reflect school traffic based on the existing counts from the Arantine Hills Specific Plan TIA (August 2011). The turning movement counts for the intersections of Masters Drive / Christopher Lane (#18), Via Castilla Street / Masters Drive (#19), Morales Way / Masters Drive (#20), and Bennett Avenue / Eagle Glen Parkway were conducted during May 2015. The raw manual peak hour turning movement traffic count data sheets and volume development summary are included in Appendix "2.1". Flow conservation checks have been performed to the existing peak hour counts in an effort to ensure the flow of traffic volumes between closely spaced intersections is maintained. Existing (2014 and 2015) AM and PM peak hour intersection volumes are shown on Exhibit 2-4 and Exhibit 2-5, respectively.

EXHIBIT 2-1

EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



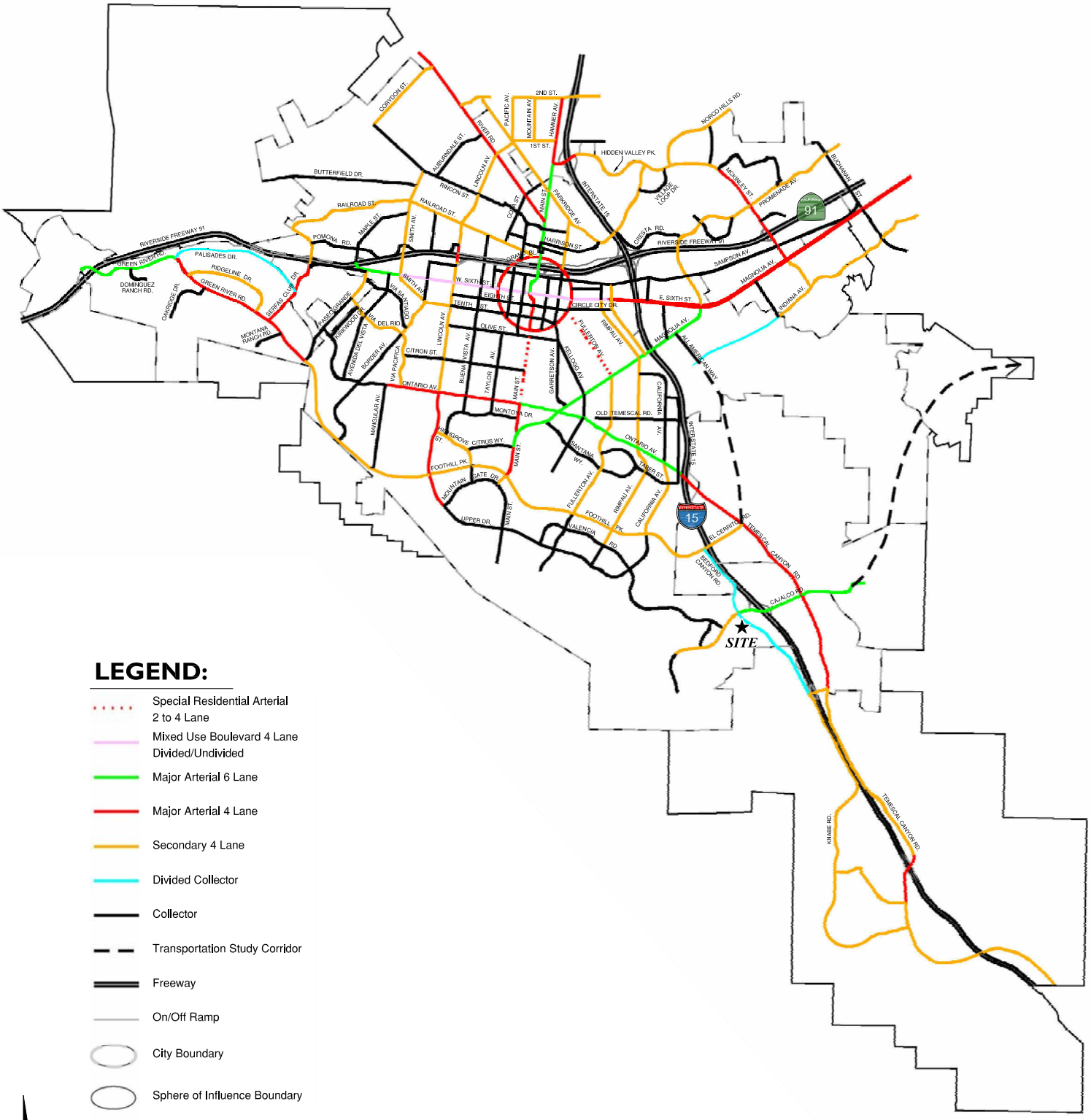
LEGEND:

- = TRAFFIC SIGNAL
- = ALL WAY STOP
- = STOP SIGN
- = FREE RIGHT TURN
- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- RTO = RIGHT TURN OVERLAP
- DEF = DEFACTO RIGHT TURN LANE
- 21 = INTERSECTION ID

N

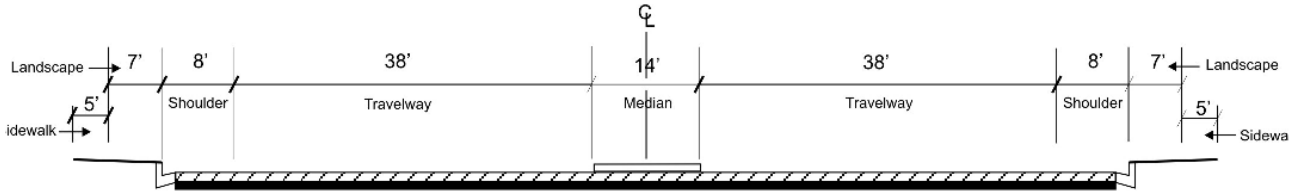
EXHIBIT 2-2

CITY OF CORONA
GENERAL PLAN CIRCULATION ELEMENT

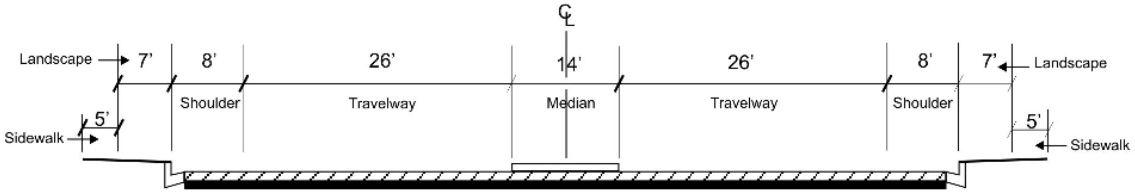


SOURCE: CITY OF CORONA (April 22, 2004)

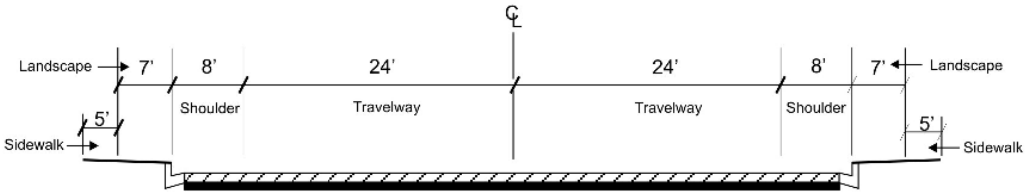
CITY OF CORONA
GENERAL PLAN ROADWAY CROSS-SECTIONS



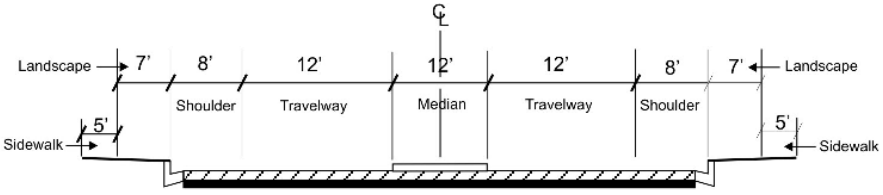
Major Arterial (6 lanes)
R.W. 130
Roadway 106



Major Arterial (4 lanes)
R.W. 106
Roadway 82



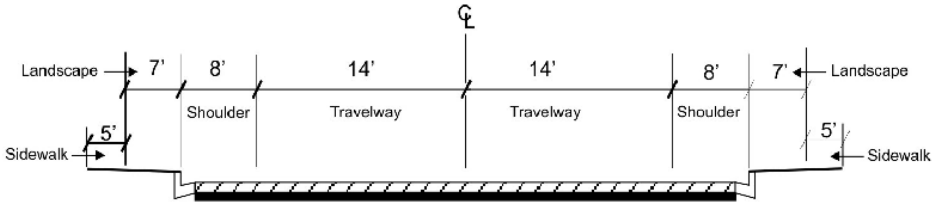
Secondary (4 lanes)
R.W. 88
Roadway 64



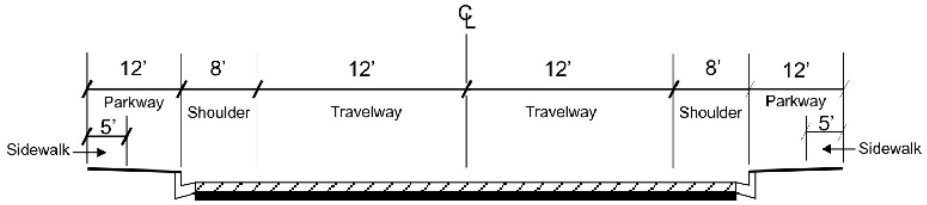
Divided Collector (2 lanes)
R.W. 76
Roadway 52

SOURCE: CITY OF CORONA

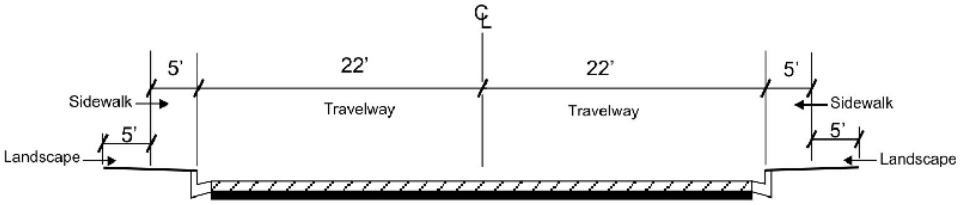
CITY OF CORONA
GENERAL PLAN ROADWAY CROSS-SECTIONS



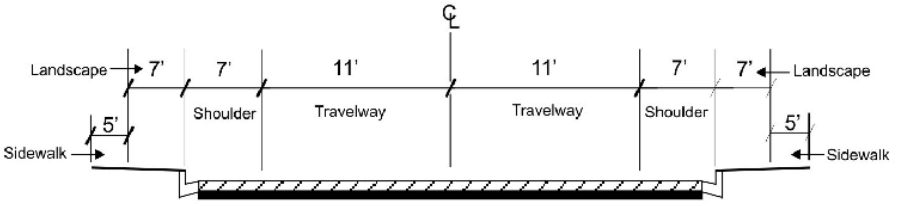
Collector (2 lanes)
R.W. 68
Roadway 44



Local Street
R.W. 64
Roadway 40
Note: See local residential street Planning Policy 6.1.10



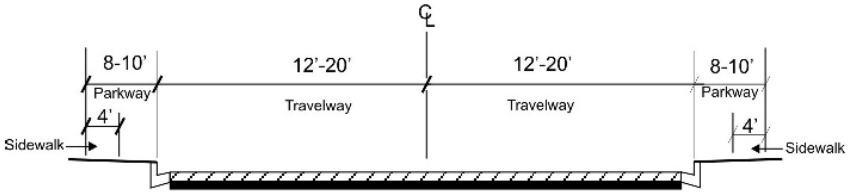
Local Industrial
R.W. 64
Roadway 44



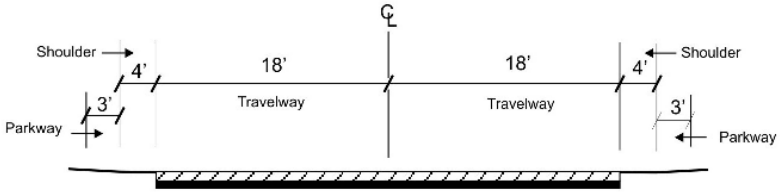
Cul-De-Sac
R.W. 60
Roadway 36

SOURCE: CITY OF CORONA

CITY OF CORONA
GENERAL PLAN ROADWAY CROSS-SECTIONS



Private Residential Street
R.W. 40-60
Roadway 24-40
Note: See local residential street Planning Policy 6.1.10

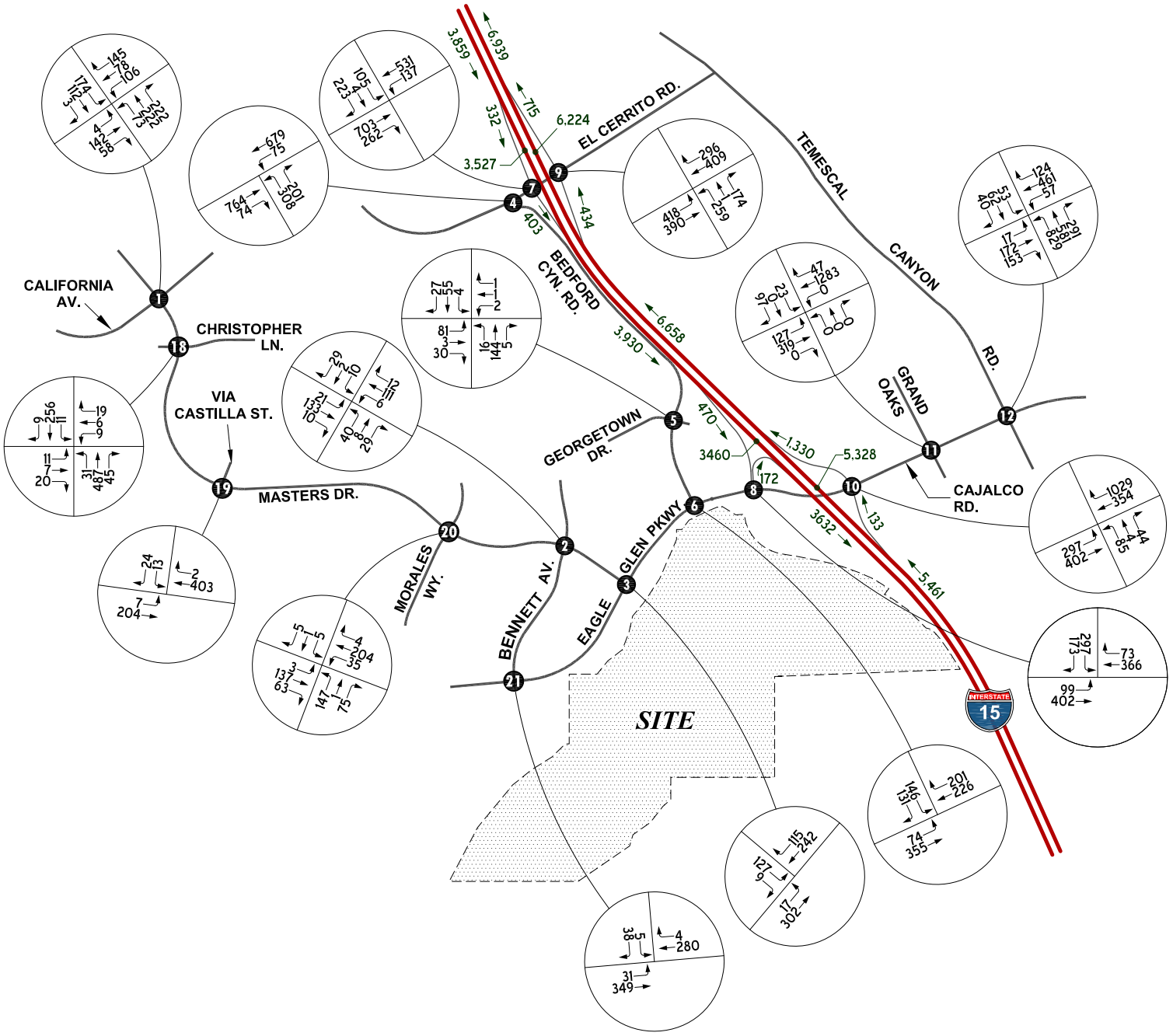


Rural Road (Traffic Volume)
R.W. 50
Roadway 36
Note: See local residential street Planning Policy 6.1.10

SOURCE: CITY OF CORONA (November 2003)

EXHIBIT 2-4

EXISTING (2014 AND 2015) AM PEAK HOUR INTERSECTION VOLUMES



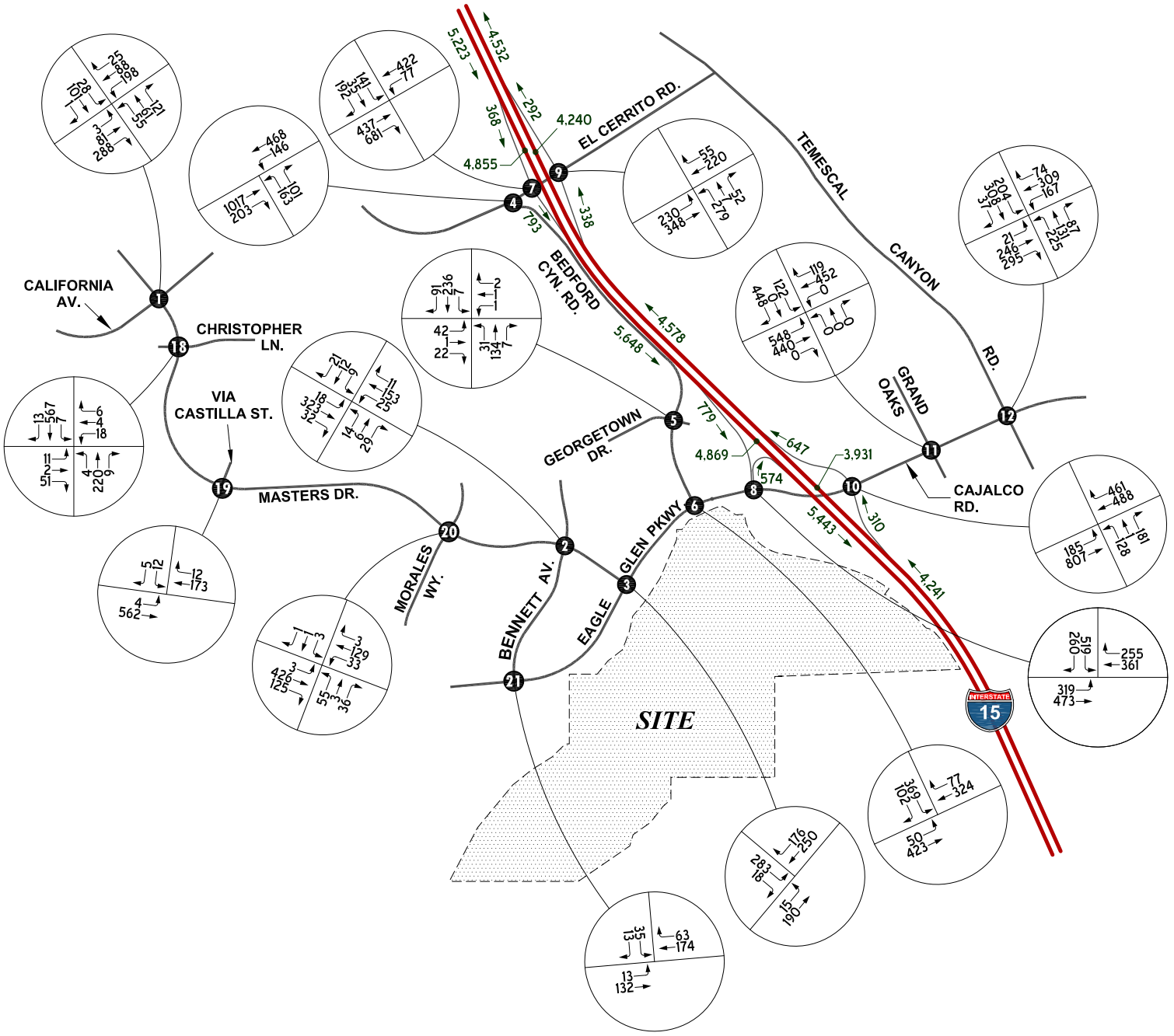
LEGEND:

21 = INTERSECTION ID

N

EXHIBIT 2-5

EXISTING (2014 AND 2015) PM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

21 = INTERSECTION ID

Existing (2014 and 2015) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 2-6. The ADT volumes are either based on traffic counts or have been estimated by factoring up peak hour counts. The following formula was used to estimate the daily volume for each intersection leg if daily traffic counts were not available:

PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

The I-15 Freeway mainline volume data were obtained from the Caltrans Performance Measurement System (PeMS) website for the purposes of this analysis. Freeway mainline peak hour volumes have been obtained for the week of May 4th through 6th, 2014 and have been flow conserved with freeway-ramp-to-arterial peak hour count data conducted during these same dates. In an effort to conduct a conservative analysis, the maximum value observed within the three (3) day period was utilized for the morning (AM) and evening (PM) peak hours. The Caltrans 2012 Annual Average Daily Truck Traffic on the California State Highway System is utilized which presents a 5.61% truck percentage along the I-15 freeway within the study area. For the purpose of this analysis, actual vehicles (as opposed to passenger-car-equivalent volumes) and a parameter of 6% (rounded value) truck percentage have been utilized for the calculation of the basic freeway merge/diverge analysis. The source data and freeway volume summary is included as Appendix "2.2" to this report.

The Existing (2014) freeway mainline directional volumes and on/off ramp volumes for the AM and PM peak hours are also provided on Exhibit 2-4 and Exhibit 2-5, respectively.

2.5 EXISTING (2014 AND 2015) CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing (2014 and 2015) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 4.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 2-1 which indicates that the intersections of Masters Drive / California Avenue (#1) (LOS "E", AM Peak Hour) and Masters Drive / Christopher Lane (#18) (LOS "D", AM Peak Hour) do not operate at acceptable LOS during the peak hours.

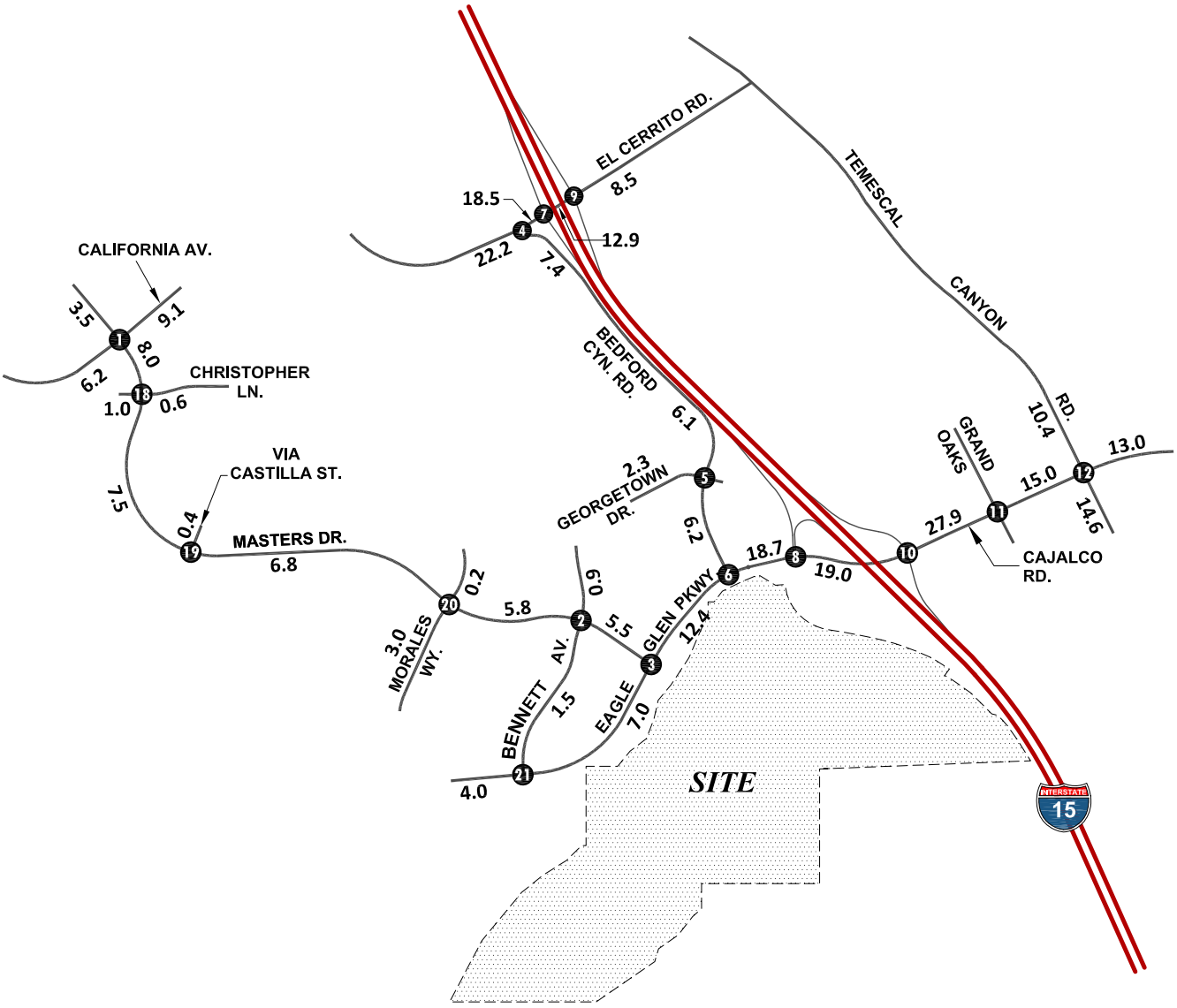
The intersection operations analysis worksheets are included in Appendix "2.3" of this TIA.

2.6 EXISTING (2014 AND 2015) CONDITIONS ROADWAY SEGMENT CAPACITY ANALYSIS

Per direction from City of Corona staff, the County of Riverside link volume capacities/level of service for county roadways is utilized and further discussed in Section 4.3 *Roadway Segment Capacity Analysis* of this report. It should be noted that the roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 2-2 provides a summary of the Existing (2014 and 2015) conditions roadway segment capacity analysis. As shown on Table 2-2, Eagle Glen Parkway – Cajalco, east of I-15 SB Ramps currently serves daily volumes which exceed the theoretical daily segment LOS thresholds presented in Section 4.3 of this report.

EXHIBIT 2-6

EXISTING (2014 AND 2015) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

21 = INTERSECTION ID

10.0 = VEHICLES PER DAY (1000'S)

N

Table 2-1

Intersection Operations Analysis Summary For Existing (2014 and 2015) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]		LOS Criteria
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
1	Masters Dr. / California Dr.	AWS	1	1	0	1	1	0	1	1	0	1	1	1	**36.0**	22.9	**E**	C	*C*
2	Masters Dr. / Bennett Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	8.5	11.0	A	B	*C*
3	Masters Dr. / Eagle Glen Pkwy.	AWS	0	0	0	1	0	1	1	2	0	0	2	0	12.4	13.5	B	B	*D*
4	Bedford Cyn. Rd. / El Cerrito Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	21.2	20.1	C	C	*D*
5	Bedford Cyn. Rd. / Georgetown Dr.	AWS	1	1	0	0	1	1	0	1	1>>	0	1!	0	8.9	9.4	A	A	*C*
6	Bedford Cyn. Rd. / Eagle Glen Pkwy.	TS	0	0	0	1	0	1>	1	1	0	0	2	1>	15.8	26.5	B	C	*D*
7	I-15 SB Ramps / El Cerrito Rd.	TS	0	0	0	0	1	1	0	2	0	1	2	0	18.8	26.3	B	C	*D*
8	I-15 SB Ramps / Cajalco Rd.	TS	0	0	0	1	0	1	1	1	0	0	1	1	27.5	45.9	C	D	*E*
9	I-15 NB Ramps / El Cerrito Rd.	TS	0	1!	0	0	0	0	2	1	0	0	2	0	42.9	28.1	D	C	*D*
10	I-15 NB Ramps / Cajalco Rd.	TS	0	1	1	0	0	0	1	1	0	0	1	1	53.8	19.1	D	B	*E*
11	Grand Oaks / Cajalco Rd.	TS	0	1!	0	0.5	0.5	2>	2	2	0	1	3	1	7.5	25.5	A	C	*D*
12	Temescal Cyn. Rd. / Cajalco Rd.	TS	2	2	1	1	2	0	1	1	1	1	3	0	33.4	35.2	C	D	*D*
13	St. "C" / Eagle Glen Pkwy.	--	Future Intersection												--	--	--	--	*D*
14	St. "C" / St. "B"	--	Future Intersection												--	--	--	--	*C*
15	St. "C" - St. "D" / St. "B"	--	Future Intersection												--	--	--	--	*C*
16	St. "A" / TAZ Main Dwy.	--	Future Intersection												--	--	--	--	*C*
17	St. "A" / TAZ S. Dwy.	--	Future Intersection												--	--	--	--	*C*
18	Masters Dr. / Christopher Ln.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	**32.4**	24.9	**D**	C	*C*
19	Via Castilla St. / Masters Dr.	AWS	0	0	0	0	1!	0	1	1	0	0	1	0	13.3	19.3	B	C	*C*
20	Morales Wy. / Masters Dr.	AWS	0	1!	0	0	1!	0	1	1	0	1	1	0	12.2	20.9	B	C	*C*
21	Bennett Av. / Eagle Glen Pkwy.	CSS	0	0	0	1	0	1	1	2	0	0	2	0	19.3	11.6	C	B	*D*

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; > = Right Turn Overlap; >> = Free-Right

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
Delay and level of service calculated using Syncrho 8.0 analysis software.

[3] AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop.

Table 2-2

Roadway Volume/Capacity Analysis For Existing (2014 and 2015) Conditions

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	3,500	0.27
	South of California Av.	2	13,000	8,000	0.62
	South of Christopher Ln.	2	13,000	7,500	0.58
	East of Via Castilla St.	2	13,000	6,800	0.52
	North of Bennett Av.	2	13,000	5,800	0.45
	North of Eagle Glen Pkwy.	2	13,000	5,500	0.42
Bennett Av.	East of Masters Dr.	2	13,000	900	0.07
	West of Masters Dr.	2	13,000	1,500	0.12
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	7,400	0.57
	North of Georgetown Dr.	2	13,000	6,100	0.47
	North of Eagle Glen Pkwy.	4	26,000	6,200	0.24
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	10,400	0.29
	South of Cajalco Rd.	4	35,900	14,600	0.41
California Dr.	West of Masters Dr.	2	13,000	6,200	0.48
	East of Masters Dr.	2	13,000	9,100	0.70
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	22,200	0.86
	East of Bedford Cyn.	4	25,900	18,500	0.71
	East of I-15 NB Ramps	4	25,900	8,500	0.33
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,300	0.18
Eagle Glen Pkwy./	West of Bennett Av.	3	19,400	4,000	0.21
Cajalco Rd.	West of Masters Dr.	4	25,900	7,000	0.27
	West of Bedford Cyn.	3	19,400	12,400	0.64
	East of Bedford Cyn.	3	26,900	18,700	0.70
	East of I-15 SB Ramps	2	18,000	**19,000**	**1.06**
	East of I-15 NB Ramps	5	44,900	27,900	0.62
	East of Grand Oaks	5	44,900	15,000	0.33
	East of Temescal Cyn. Rd.	4	35,900	13,000	0.36

[1] Number of Through lanes: 2 = Existing

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways.

[3] Existing (2014) Average Daily Traffic (ADT) expressed in vehicles per day.

BOLD = Estimated to exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

2.7 EXISTING (2014 AND 2015) CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing (2014 and 2015) traffic conditions are based on existing peak hour intersection turning volumes. For Existing (2014 and 2015) traffic conditions, the following unsignalized study area intersections appear to warrant traffic signal (See Appendix "2.4"):

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona

It should be noted that the intersection of Masters Drive / Eagle Glen Parkway currently operates at acceptable level of service. Therefore even though a signal is warranted at this location, a traffic signal control at this location is not needed for adequate LOS.

2.8 EXISTING (2014) CONDITIONS RAMP METERING ANALYSIS

A description of the ramp metering analysis methodologies is presented in subsequent Section 4.5 *Ramp Metering Analysis Methodology* of this report. The Existing (2014) conditions ramp metering analysis has been performed based upon the ramp metered lane traffic flow threshold outlined in the Caltrans Ramp Meter Design Manual. The number of required ramp metered lanes is determined based on a threshold of 900 vehicles per hour for each lane. The results of this analysis are summarized in Table 2-3. Table 2-3 indicates that the following number of ramp metered lanes are needed for each on-ramp location:

- I-15 Southbound On-Ramp at El Cerrito Road – 1 lane
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane
- I-15 Northbound On-Ramp at El Cerrito Road – 1 lane
- I-15 Northbound On-Ramp at Cajalco Road – 2 lanes

It should be noted that all the on-ramps currently do not have ramp metering except for the I-15 Northbound On-Ramp at El Cerrito Road where the two-lane on-ramp has two metered lanes.

2.9 EXISTING (2014) CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS

Existing (2014) conditions ramp merge and diverge analysis results have been calculated based on the existing number of freeway mainline travel lanes, which are three lanes on the I-15 Freeway. A detailed description of the ramp merge and diverge analysis methodologies is presented in Section 4.6 *Freeway Merge/Diverge Ramp Junctions Analysis* of this report. The results of this ramp merge and diverge analysis are summarized in Table 2-4. Table 2-4 indicates that the following ramp merge and diverge points are at or exceed acceptable levels of service, with existing geometry:

Table 2-3

Existing (2014) Conditions
Ramp Metering Analysis Summary

ID	On-Ramp Location	Volume		Required Number of Ramp Metered Lanes[1]
		AM	PM	
7	I-15 Southbound On-Ramp at El Cerrito Road	403	793	1
8	I-15 Southbound On-Ramp at Cajalco Road	172	574	1
9	I-15 Northbound On-Ramp at El Cerrito Road	715	292	1
10	I-15 Northbound On-Ramp at Cajalco Road	1,330	647	2

[1] Ramp metered lane traffic flow threshold is 900 vehicles per hour (vph)on/off ramps.

TABLE 2-4

Existing (2014) Conditions
Freeway Ramp Analysis

Freeway	Direction	Ramp Location	Junction Type	Lanes on Freeway[1]	Volume		Density[2] (pc/mi/ln)		LOS[3]	
					AM	PM	AM	PM	AM	PM
I-15 Freeway	Southbound	SB Off Ramp at El Cerrito Road	Diverge	3	332	368	15.5	22.1	B	C
		SB On Ramp at El Cerrito Road	Merge	3	403	793	26.3	38.2	C	E
		SB Off Ramp at Cajalco Road	Diverge	3	470	779	29.1	36.3	D	E
		SB On Ramp at Cajalco Road	Merge	3	172	574	22.2	32.7	C	D
	Northbound	NB On Ramp at El Cerrito Road	Merge	3	715	292	40.9	26.1	E	C
		NB Off Ramp at El Cerrito Road	Diverge	3	434	338	43.3	30.8	E	D
		NB On Ramp at Cajalco Road	Merge	3	1,330	647	41.3	28.5	E	D
		NB Off Ramp at Cajalco Road	Diverge	3	133	310	34.5	29.1	D	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.
[2] Density calculated based on the Highway Capacity Manual (HCM) analysis; (pc/mi/ln) = passenger car per mile per lane
[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.60
[4] Volume-to-Capacity ratio > 1.0, LOS = "F"

- I-15 SB On Ramp at El Cerrito Road
- I-15 SB Off Ramp at Cajalco Road
- I-15 NB On Ramp at El Cerrito Road
- I-15 NB Off Ramp at El Cerrito Road
- I-15 NB On Ramp at Cajalco Road

Ramp merge and diverge analysis worksheets for Existing (2014) conditions are included in Appendix "2.5" of this report.

3.0 PROJECTED FUTURE TRAFFIC

Projected future traffic has been estimated for near-term (2017) conditions and long-range (2035) conditions. Future 2017 traffic is represented by the combination of existing traffic, ambient growth and project traffic. The long-range 2035 traffic forecast is based on the City of Corona traffic model. This section discusses how projected future traffic from these various sources has been determined.

3.1 PROJECT TRAFFIC

3.1.1 PROJECT TRIP GENERATION

For analysis purposes, the Project was divided into 4 traffic analysis zones (TAZ), as depicted previously on Exhibit 1-2.

Trip generation represents the amount of traffic which is both attracted to and produced by a development and is based upon the specific land uses being proposed for a given development. The ITE *Trip Generation* manual is a nationally recognized source for estimating site specific trip generation. ITE released an updated edition of the *Trip Generation* manual (9th Edition) in 2012. Trip generation rates used to estimate Project traffic are shown in Table 3-1 and have been obtained from the most current version of the Trip Generation Manual.

TABLE 3-1: PROJECT TRIP GENERATION RATES[1]

Land Use	ITE CODE	Quantity	Units[2]	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
Single Family Detached	210	1,107	DU	0.19	0.56	0.75	0.63	0.37	1.00	9.52
Multi-Family (Apartment)	220	664	DU	0.10	0.41	0.51	0.40	0.22	0.62	6.65
Senior Housing	252	185	DU	0.07	0.13	0.20	0.13	0.12	0.25	3.44
Retail	820	80	TSF	1.05	0.65	1.70	3.10	3.35	6.45	73.43
Active Park	-[3]	7.8	AC	1.00	1.00	2.00	2.00	2.00	4.00	50.00
Local Park	-[4]	1.5	AC	0.33	0.32	0.65	0.23	0.22	0.45	5.00

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 9th Edition (2012). Regression Equation applied to ITE Land Use 820 (Retail).
[2] DU = Dwelling Units; AC = Acres
[3] Since ITE does not have trip rates for an Active Park, similar use based on City of San Diego Trip Generation daily rates for developed park is utilized.
[4] Since ITE does not have trip rates for a linear local park, similar use based on SANDAG's neighborhood/county (undeveloped) park daily rates are utilized. For the peak hour rates, SANDAG's in/out ratio for City (developed) park is applied.

Table 3-2 presents overall project trip generation for Phase 1 (2017, 308 residential units and 0.7 acres of active park) and Buildout of the modified project (cumulative total of 1,806 DU, 80,000 square feet of retail, 7.8 acres of active park, and 1.5 acres of local park). The Modified Project is anticipated to generate a total of approximately 18,621 external trips per day with 1,217 AM peak hour external trips and 1,756 PM peak hour external trips.

Table 3-2
Modified Project Trip Generation Summary

Traffic Analysis Zone (TAZ)	Planning Area	Land Use	ITE CODE	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
PHASE 1 (2017) CONDITIONS												
1	5	Single Family Detached	210	60	DU	11	34	45	38	22	60	571
	8	Single Family Detached	210	248	DU	47	139	186	156	92	248	2,361
		Residential Total Trips		308	DU	58	173	231	194	114	308	2,932
	7	Active Park	-[2]	0.7	AC	1	1	2	1	1	2	35
		Internal Capture with Residential (50%)				*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*	*(18)*
		Internal Capture with Active Park				*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*	*(18)*
		Phase 1 (2017) Subtotal External Trips				**57**	**172**	**229**	**193**	**113**	**306**	**2,931**
BUILDOUT (2035) MODIFIED PROJECT CONDITIONS WITH RETAIL												
1	5	Single Family Detached	210	60	DU	12	34	46	38	23	61	571
	8	Single Family Detached	210	248	DU	47	139	186	156	92	248	2,361
	9	Single Family Detached	210	113	DU	21	63	84	71	42	113	1,076
	6	Multi-Family Attached	220	260	DU	26	107	133	104	57	161	1,729
	10	Multi-Family Attached	220	254	DU	25	104	129	102	56	158	1,689
	6 & 10	Senior Housing	252	185	DU	13	24	37	24	22	46	636
		Residential Total Trips		1,120	DU	144	471	615	495	292	787	8,062
	7	Active Park	-[2]	4.1	AC	4	4	8	8	8	16	205
		TAZ 1 Subtotal				148	475	623	503	300	803	8,267
		Active Park Internal Capture with Residential (50%)				*(2)*	*(2)*	*(4)*	*(4)*	*(4)*	*(8)*	*(102)*
		Residential Internal Capture with Active Park				*(2)*	*(2)*	*(4)*	*(4)*	*(4)*	*(8)*	*(102)*
		Residential Internal Capture with TAZ 4 (Retail)				*(4)*	*(10)*	*(14)*	*(51)*	*(21)*	*(72)*	*(571)*
		TAZ 1 External Total				**140**	**461**	**601**	**444**	**271**	**715**	**7,492**
2	1	Single Family Detached	210	139	DU	26	78	104	88	51	139	1,323
	2	Single Family Detached	210	230	DU	44	129	173	145	85	230	2,190
		Residential Total Trips		369	DU	70	207	277	233	136	369	3,513
	3	Local Park	-[3]	1.2	AC	1	1	2	1	1	2	6
	4	Active Park	-[2]	3.7	AC	3	3	6	7	7	14	185
		TAZ 2 Subtotal				74	211	285	241	144	385	3,704
		Local Park Internal Capture with Residential (80%)				*(1)*	*(1)*	*(2)*	*(1)*	*(1)*	*(2)*	*(5)*
		Active Park Internal Capture with Residential (50%)				*(2)*	*(2)*	*(4)*	*(4)*	*(4)*	*(8)*	*(92)*
		Residential Internal Capture with Local & Active Park				*(3)*	*(3)*	*(6)*	*(5)*	*(5)*	*(10)*	*(97)*
		Residential Internal Capture with TAZ 4 (Retail)				*(2)*	*(3)*	*(5)*	*(16)*	*(7)*	*(23)*	*(184)*
		TAZ 2 External Total				**66**	**202**	**268**	**215**	**127**	**342**	**3,326**
3	14	Single Family Detached	210	167	DU	32	95	127	105	62	167	1,590
	15	Local Park	-[3]	0.3	AC	0	0	0	0	0	0	2
		TAZ 3 Subtotal				32	95	127	105	62	167	1,592
		Local Park Internal Capture with Residential (80%)				*0*	*0*	*0*	*0*	*0*	*0*	*(2)*
		Residential Internal Capture with Local Park				*0*	*0*	*0*	*0*	*0*	*0*	*(2)*
		Residential Internal Capture with TAZ 4 (Retail)				*(1)*	*(2)*	*(3)*	*(8)*	*(3)*	*(11)*	*(92)*
		TAZ 3 External Total				**31**	**93**	**124**	**97**	**59**	**156**	**1,496**
4	11	Retail	820	80	TSF	84	52	136	248	268	516	5,874
	12	Single Family Detached	210	150	DU	29	84	113	95	56	151	1,428
		TAZ 4 Subtotal				113	136	249	343	324	667	7,302
		Retail Internal Capture with Residential[4]				*(15)*	*(8)*	*(23)*	*(34)*	*(81)*	*(115)*	*(921)*
		Residential Internal Capture with Retail				*(1)*	*(1)*	*(2)*	*(6)*	*(3)*	*(9)*	*(74)*
		TAZ 4 External Total				**97**	**127**	**224**	**303**	**240**	**543**	**6,307**
Buildout (2035) Cumulative Total Zonal Trips Ends						367	917	1,284	1,192	830	2,022	20,865
Project Internal Trip Capture						*(33)*	*(34)*	*(67)*	*(133)*	*(133)*	*(266)*	*(2,244)*
Buildout (2035) Cumulative Total External Trips						**334**	**883**	**1,217**	**1,059**	**697**	**1,756**	**18,621**

[1] DU = Dwelling Units; TSF = Thousand Square Feet; AC = Acres

[2] Since ITE does not have trip rates for an Active Park, similar use based on City of San Diego Trip Generation daily rates for developed park is utilized.

[3] Since ITE does not have trip rates for a linear local park, similar use based on SANDAG's neighborhood/county (undeveloped) park daily rates are utilized. For the peak hour rates, SANDAG's in/out ratio for City (developed) park is applied.

[4] Internal capture calculation worksheets are included in Appendix "2.1".

It should be noted that the previously approved project consists of 396,400 square feet of general retail use, 230,900 square feet of business park use, 59,000 square feet of specialty retail use, 59,000 square feet of general office use, 1,072 multi-family attached dwelling units, 549 single-family detached dwelling units, and a mix of passive and active parks.

The Modified Project land use plan (shown on Exhibit 1-2) is less intensive than the previously approved land use plan. The Modified Project consists of 1,107 single-family detached dwelling units, 514 multi-family attached dwelling units, 185 senior housing dwelling units, 80,000 square feet of retail use, and a mix of passive and active parks. The business park and office uses have been removed in the modified project land use plan.

Table 3-3 presents the trip generation comparison between the previously approved project and the Modified Project.

TABLE 3-3: PROJECT TRIP COMPARISON RESULTS

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Currently Proposed Modified Project	334	883	1,217	1,059	697	1,756	18,621
Previously Approved Project[1]	763	881	1,644	1,436	1,405	2,841	29,517
Delta (Current - Previous)	**(429)**	**2**	**(427)**	**(377)**	**(708)**	**(1,085)**	**(10,896)**

[1] Arantine Hills Specific Plan Traffic Impact Analysis Report, dated August 2011. Prepared by Urban Crossroads, Inc.

As shown in Table 3-3, the Modified Project is anticipated to generate approximately 10,896 fewer external trips per day with 427 fewer external AM peak hour trips and 1,085 fewer external PM peak hour trips, in comparison to the approved project.

3.1.2 PROJECT TRIP DISTRIBUTION

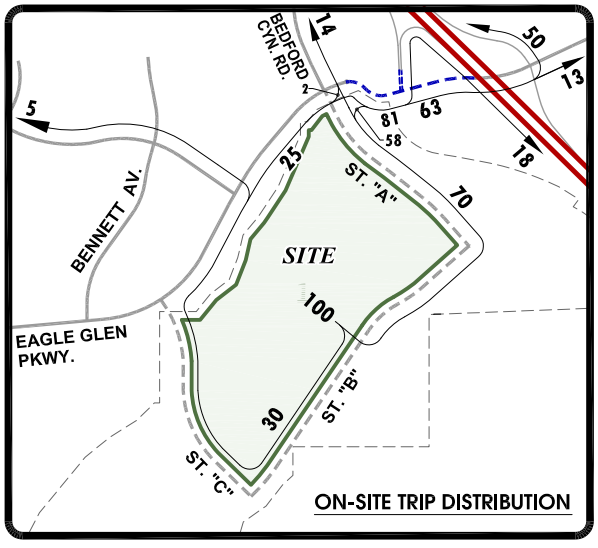
Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the routes where modified project traffic would travel. The modified project trip distribution was developed based on anticipated residential travel patterns to and from the Project site and are consistent with the residential trip distribution patterns included in the *Arantine Hills Modified Project Traffic Impact Analysis*, dated August 11, 2011.

The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Exhibits 3-1 through 3-6 include the project Phase 1 (2017) and Buildout (2035) distributions used in this study.

3.1.3 MODAL SPLIT

The traffic-reducing potential of public transit has not been considered in this report. Essentially the traffic projections are "conservative" in that public transit might be able to reduce the traffic volumes.

PROJECT TAZ 1 (2017)
(EXTERNAL) TRIP DISTRIBUTION PATTERN



LEGEND:

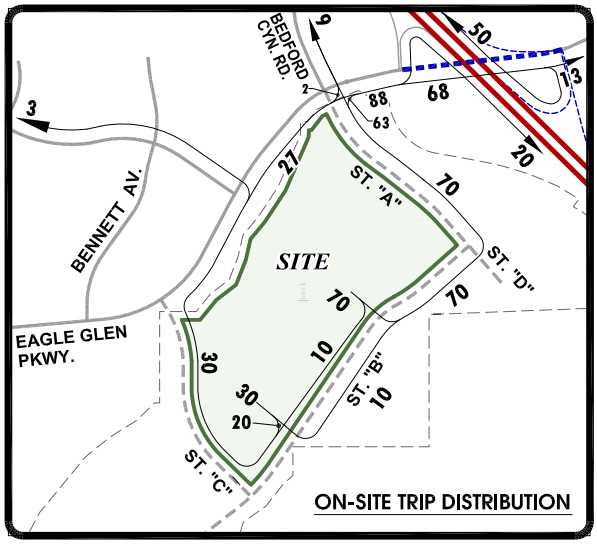
10 = PERCENT TO/FROM PROJECT

= TRAFFIC ANALYSIS ZONE (TAZ) BOUNDARY

= PROPOSED BRIDGE & RAMP ALIGNMENT

N

PROJECT TAZ 1 (2035)
(EXTERNAL) TRIP DISTRIBUTION PATTERN



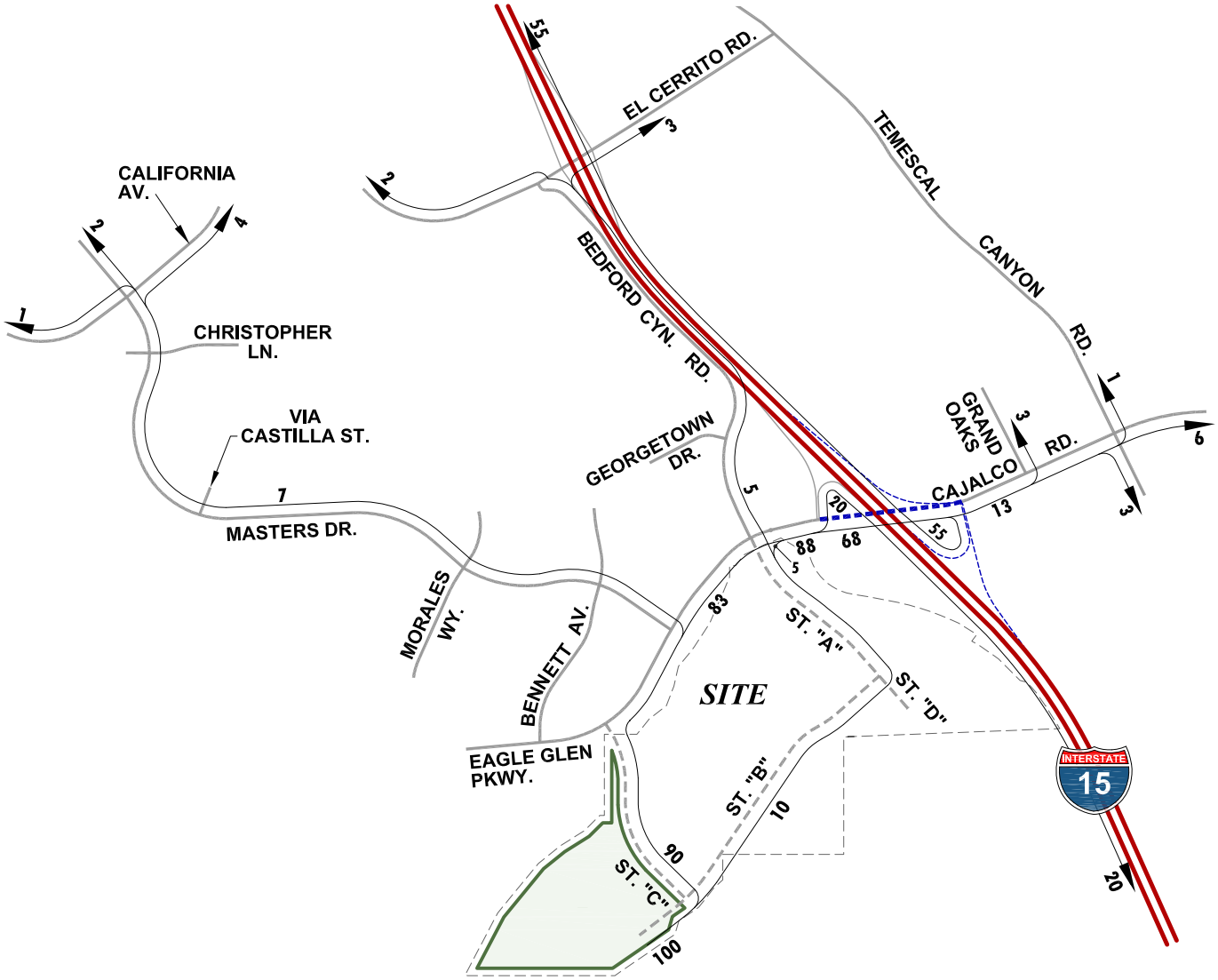
LEGEND:

10 = PERCENT TO/FROM PROJECT
= TRAFFIC ANALYSIS ZONE (TAZ) BOUNDARY
= PROPOSED BRIDGE & RAMP ALIGNMENT

N

EXHIBIT 3-2

PROJECT TAZ 2 (2035) (EXTERNAL) TRIP DISTRIBUTION PATTERN



LEGEND:

10 = PERCENT TO/FROM PROJECT

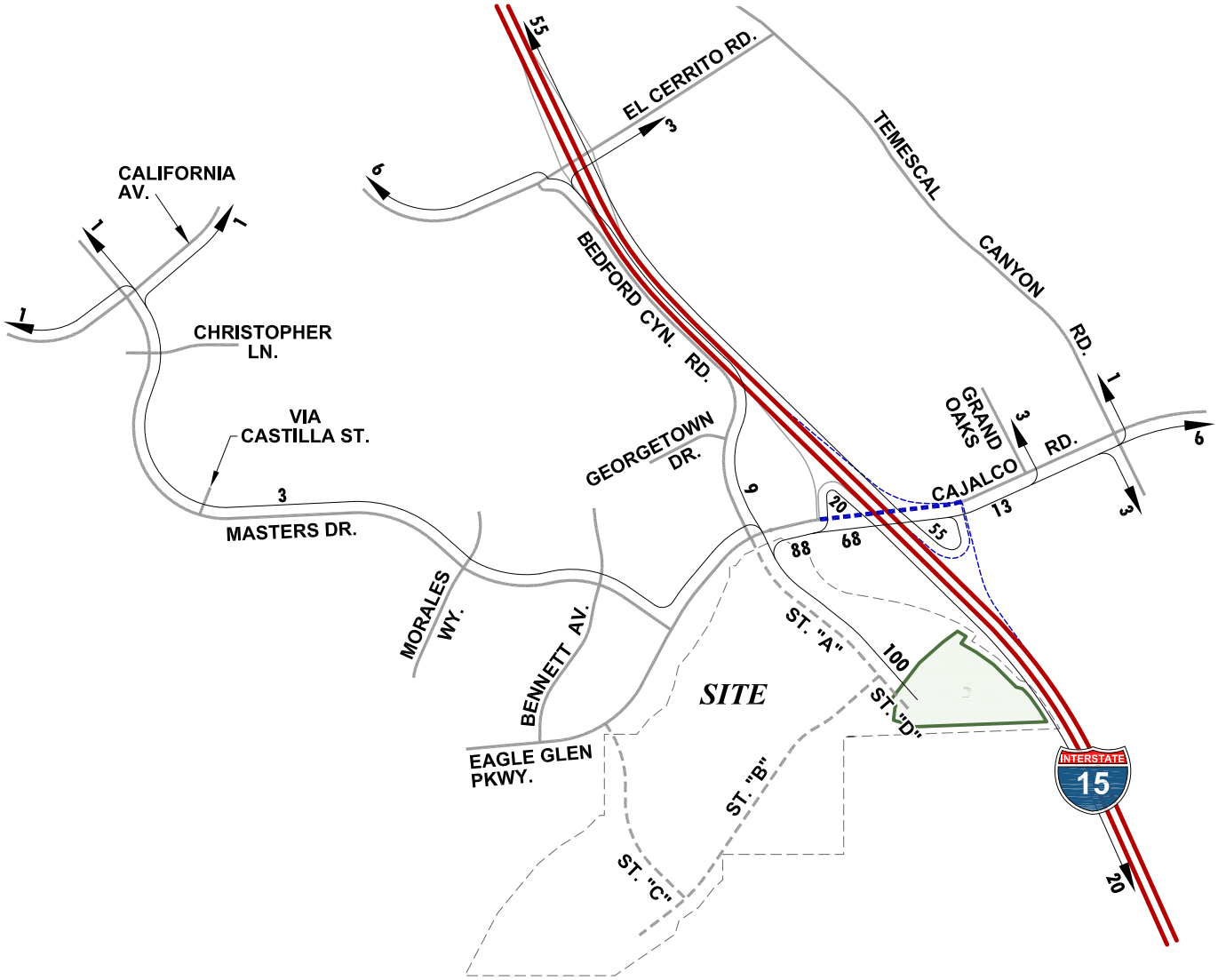
= TRAFFIC ANALYSIS ZONE (TAZ) BOUNDARY

= PROPOSED BRIDGE & RAMP ALIGNMENT

N

EXHIBIT 3-3

PROJECT TAZ 3 (2035) (EXTERNAL) TRIP DISTRIBUTION PATTERN



LEGEND:

10 = PERCENT TO/FROM PROJECT

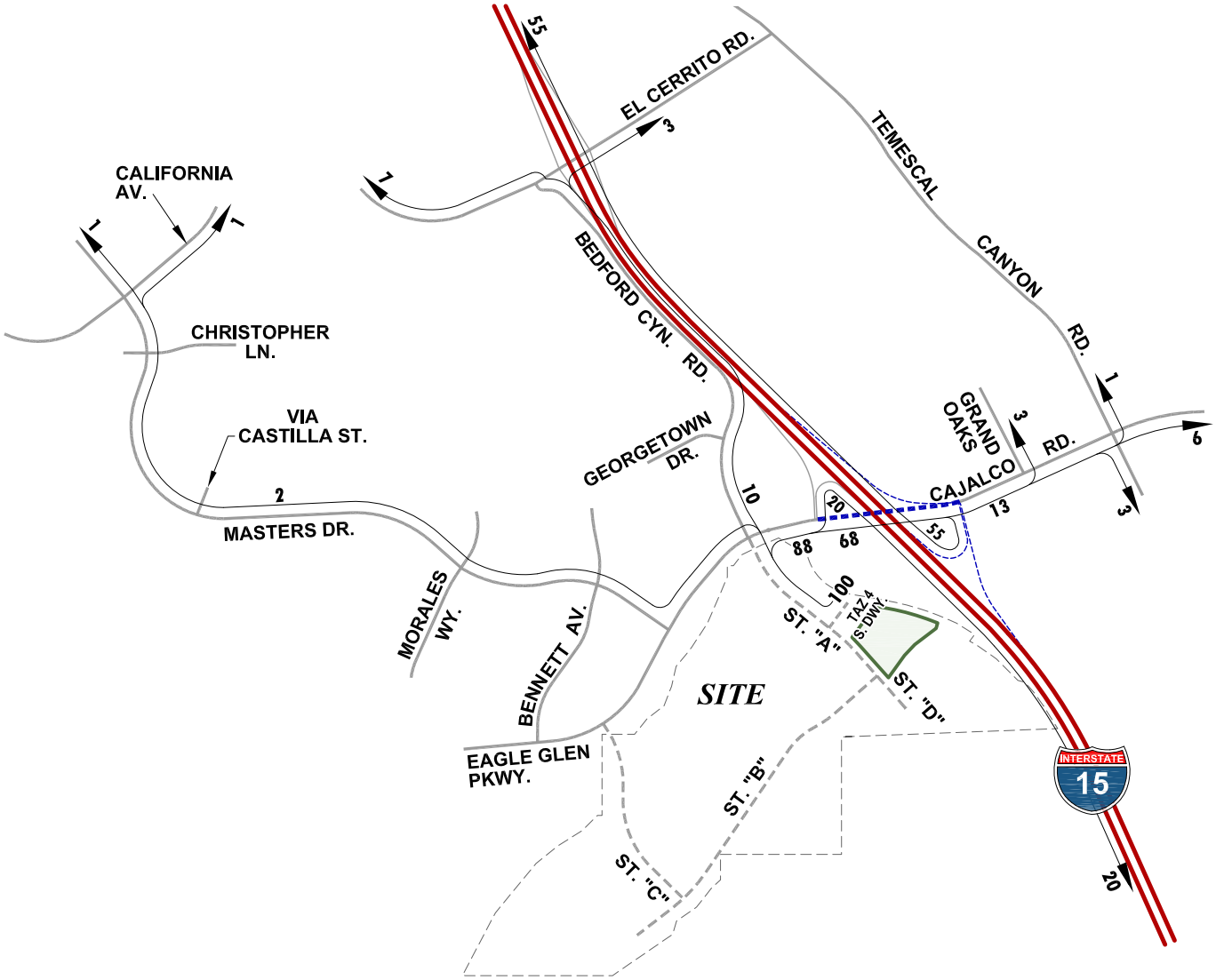
= TRAFFIC ANALYSIS ZONE (TAZ) BOUNDARY

= PROPOSED BRIDGE & RAMP ALIGNMENT

N

EXHIBIT 3-4

PROJECT TAZ 4 - RESIDENTIAL (2035) (EXTERNAL) TRIP DISTRIBUTION PATTERN



LEGEND:

10 = PERCENT TO/FROM PROJECT

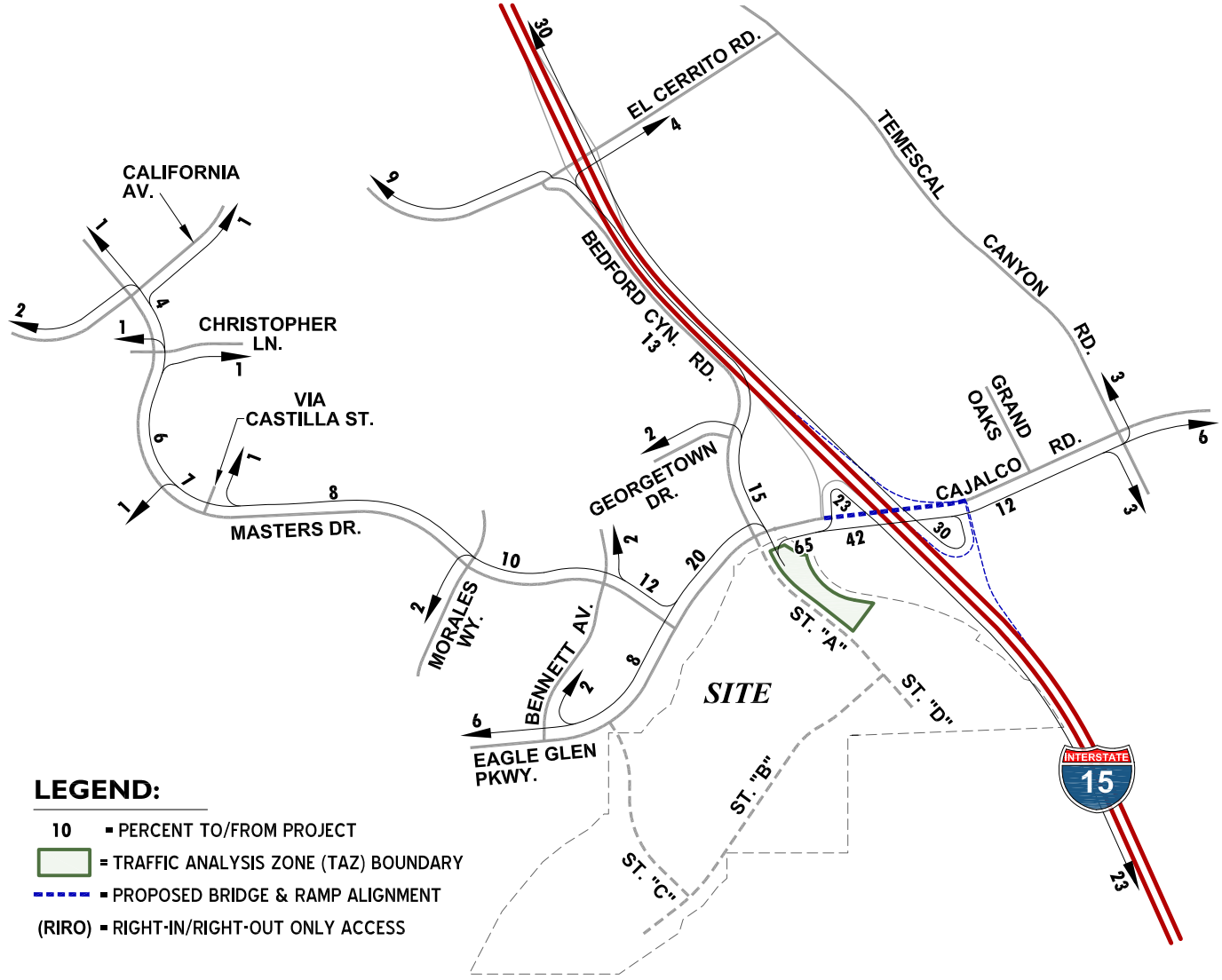
= TRAFFIC ANALYSIS ZONE (TAZ) BOUNDARY

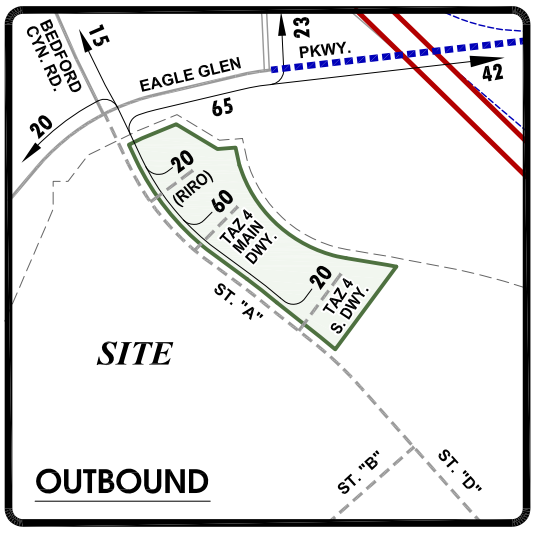
= PROPOSED BRIDGE & RAMP ALIGNMENT

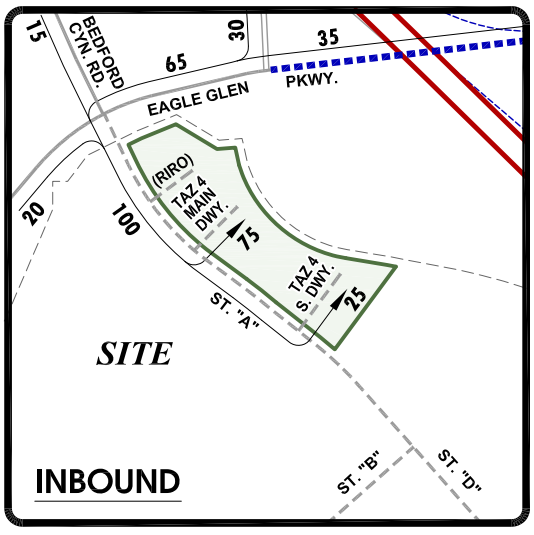
N

EXHIBIT 3-5

PROJECT TAZ 4 - RETAIL (2035) (EXTERNAL) TRIP DISTRIBUTION PATTERN



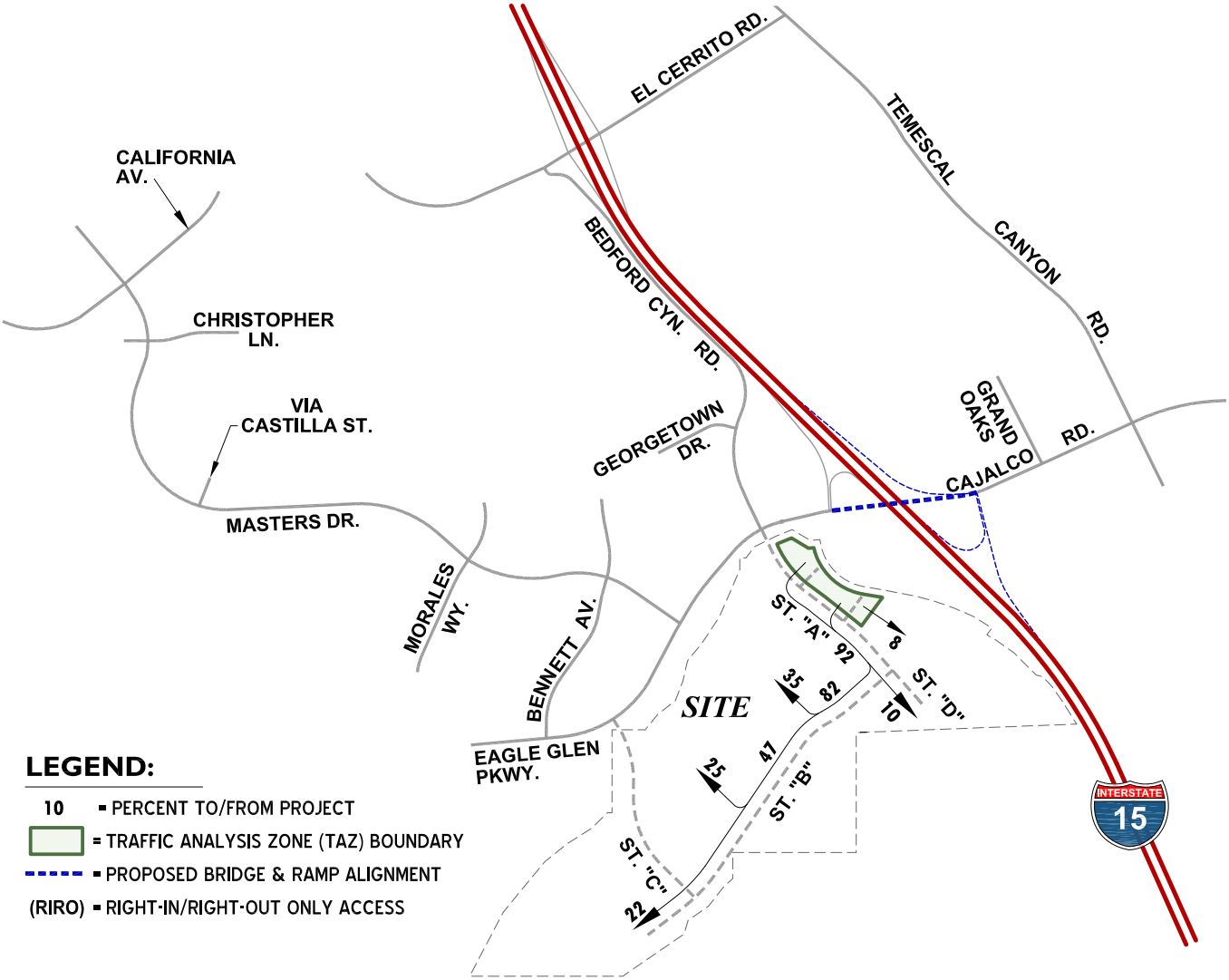


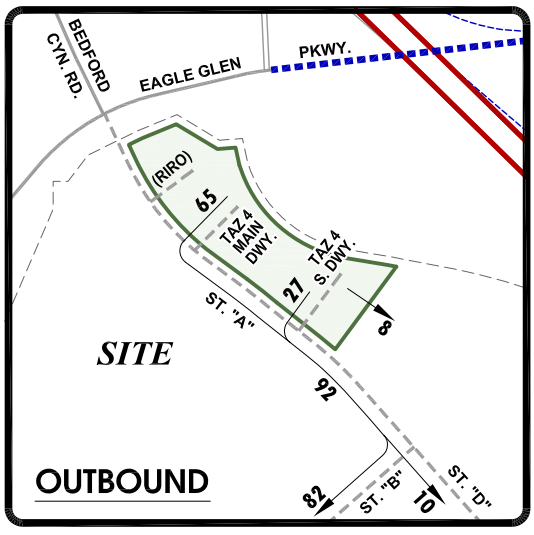


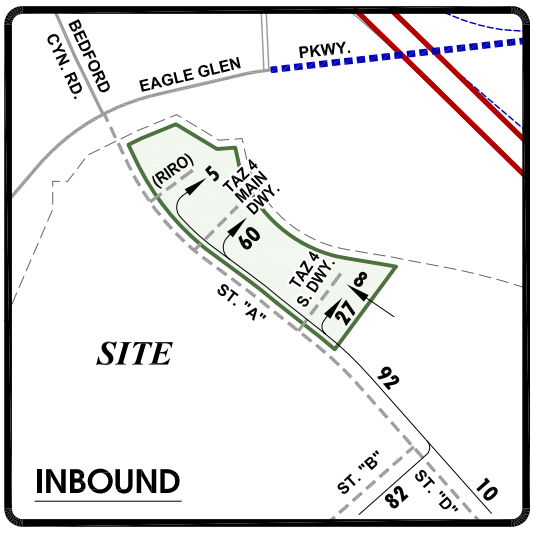
N

EXHIBIT 3-6

PROJECT TAZ 4 - RETAIL (2035)
INTERNAL INTERACTION WITH RESIDENTIAL (ON-SITE)
TRIP DISTRIBUTION PATTERN







N

3.1.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project.

Based on the identified Modified Project traffic generation and trip distribution patterns, 2017 (Phase 1) Modified Project Only AM and PM peak hour volumes are shown on Exhibit 3-7 and Exhibit 3-8, respectively. 2017 (Phase 1) Modified Project Only average daily traffic volumes are shown on Exhibit 3-9.

For 2035 (Buildout) Modified Project Only weekday AM and PM peak hour volumes are shown on Exhibit 3-10 and Exhibit 3-11, respectively. 2035 (Buildout) Modified Project Only average daily traffic volumes are shown on Exhibit 3-12.

3.2 OTHER FUTURE TRAFFIC

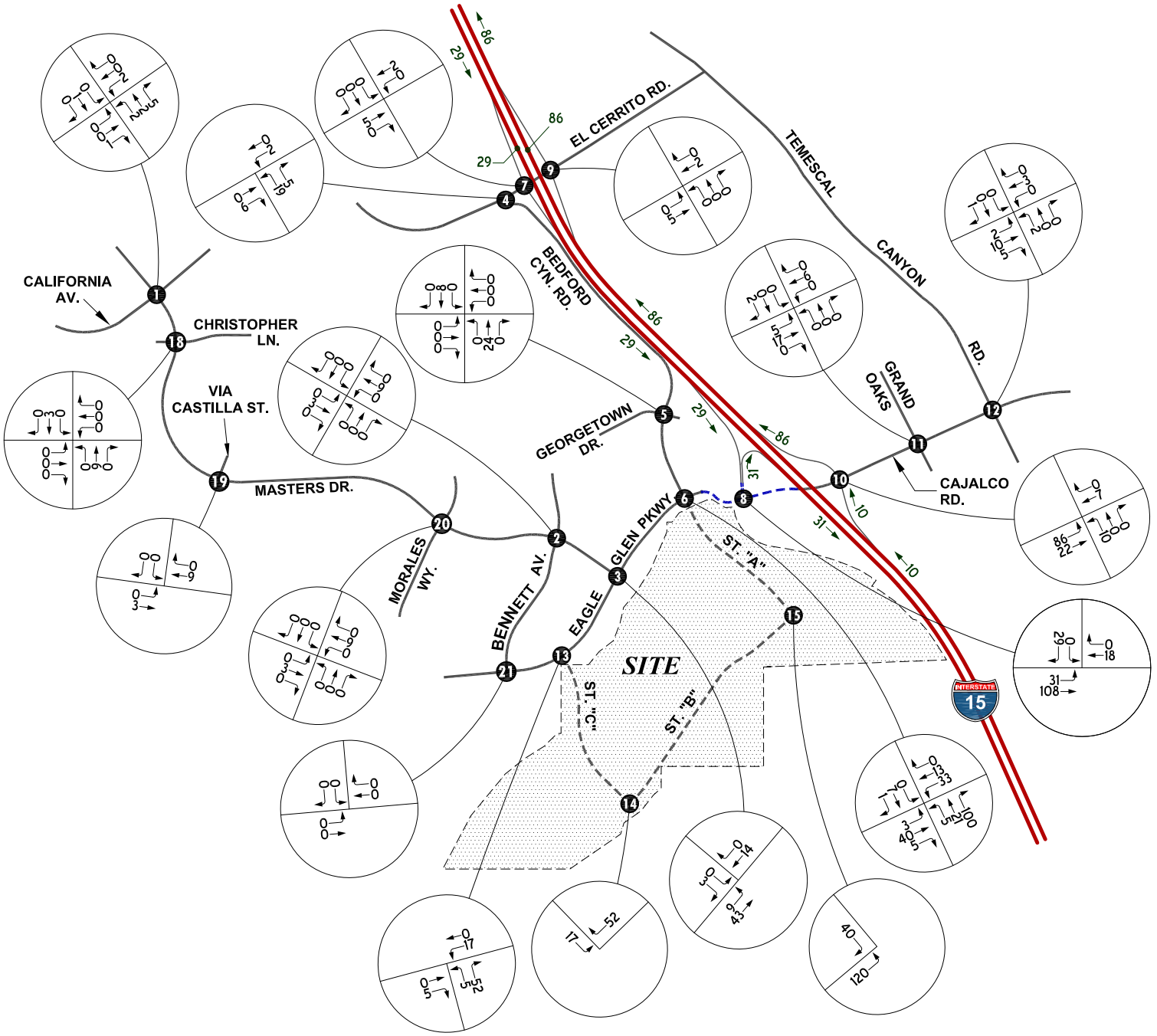
To account for ambient growth on area roadways, future 2017 traffic volumes have been calculated based on the interpolation of growth between 2014 conditions and the City of Corona Year 2035 model forecasts. The City of Corona model is based on the Riverside County Transportation Analysis Model (RIVTAM). RIVTAM is a focused traffic model that is consistent with the SCAG Regional Model and includes the entire southern California region (Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties). It includes the greatest level of detail within the primary analysis or study area, with the least detail included in those parts of the model which are geographically distant from the primary study area.

For 2035 conditions, the volumes have been based on the previously approved Arantine Hills Specific Plan TIA (August 2011) which was derived from City of Corona model data. The 2035 forecasts have been developed from the traffic model using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between the model base year (2008) conditions, existing 2014 conditions and future year 2035. For a regional model such as RIVTAM the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. The initial estimate of the future 2035 conditions peak hour turning movements has, therefore, been reviewed for reasonableness. The reasonableness checks performed include a review of flow conservation in addition to ensuring reasonable peak-to-daily relationships and a minimum growth of ten (10) percent over existing 2014 conditions. Where necessary, the initial raw model estimates were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. The final 2035 intersection turning volumes were compared to existing 2014 intersection turning volumes to determine the annual growth rate, by movement, observed between 2014 and

2035. The annual growth rate estimated for each turning movement was utilized to estimate the compounded growth between existing 2014 and the interim year 2017. Lastly, 2017 without and with project intersection turning volumes were compared to existing 2014 and future year 2035 intersection turning volumes to ensure positive and reasonable growth between the analysis scenarios.

EXHIBIT 3-7

2017 (PHASE 1) PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

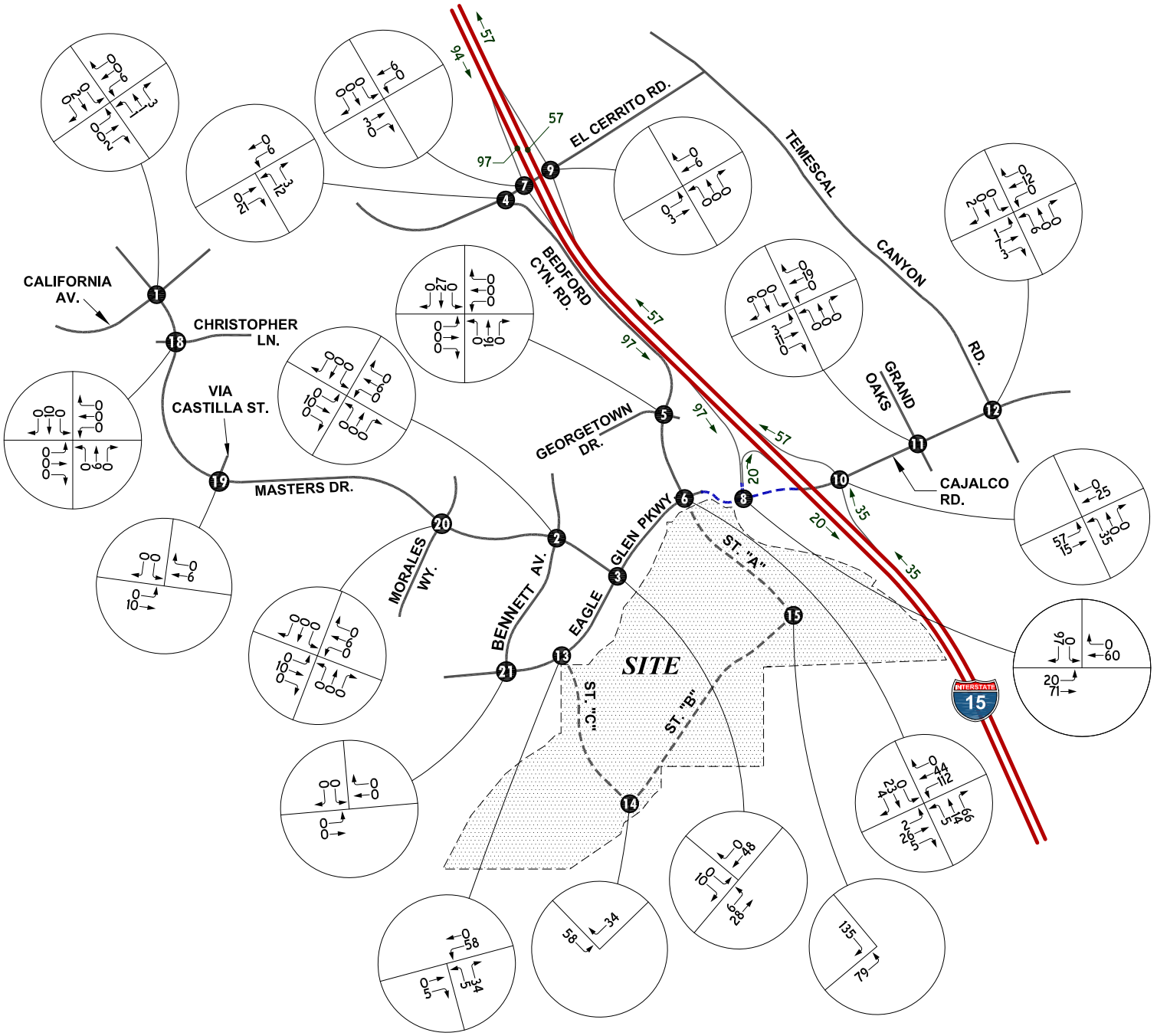
21 = INTERSECTION ID

= ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION

N

EXHIBIT 3-8

2017 (PHASE 1) PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

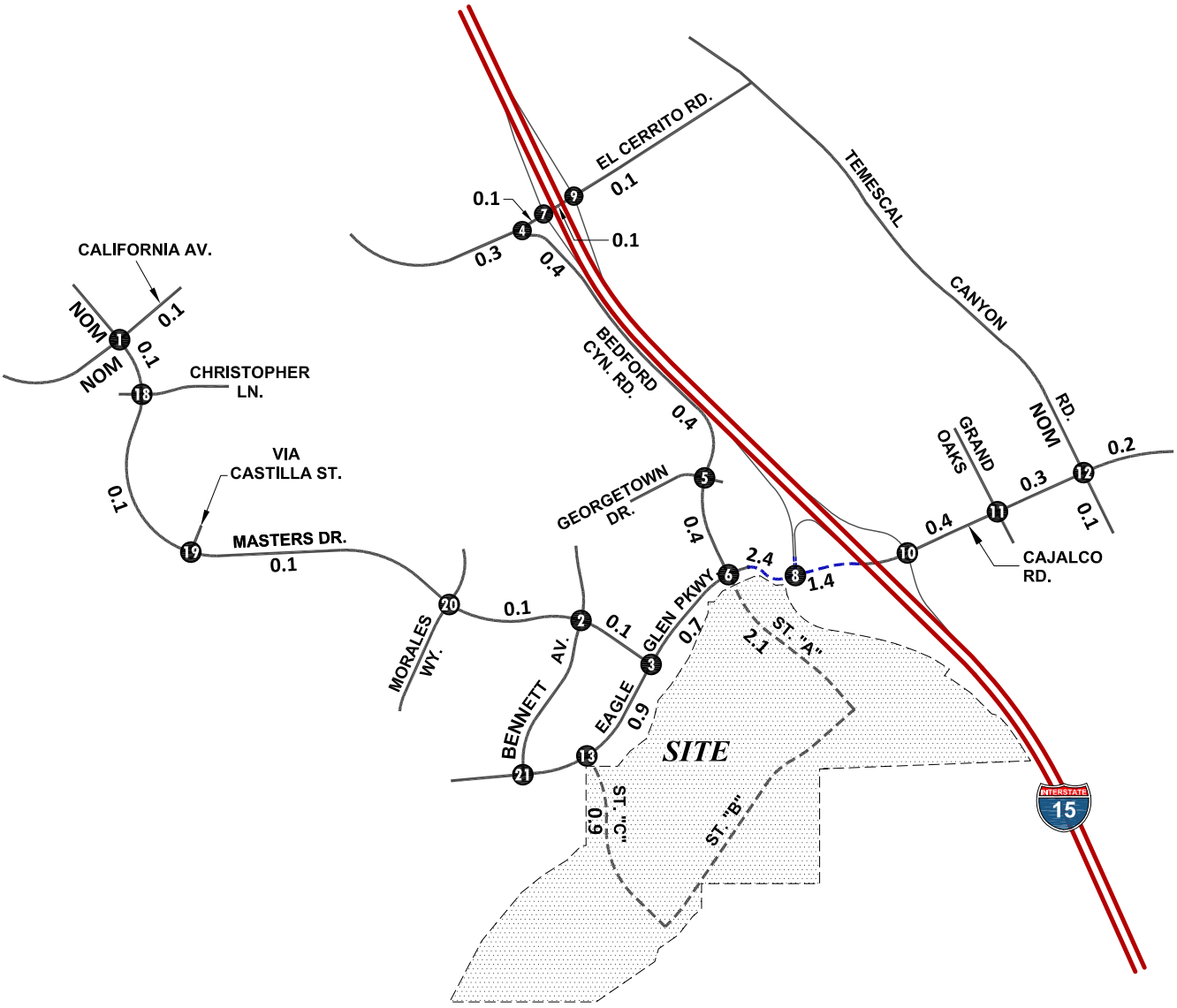
21 = INTERSECTION ID

= ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION

N

EXHIBIT 3-9

2017 (PHASE 1) MODIFIED PROJECT ONLY AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

- 21 = INTERSECTION ID
- = FUTURE ROADWAY / DIRT
- = ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION
- 10.0 = VEHICLES PER DAY (1000'S)
- NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

N

EXHIBIT 3-10

2035 (BUILDOUT) MODIFIED PROJECT ONLY AM PEAK HOUR INTERSECTION VOLUMES

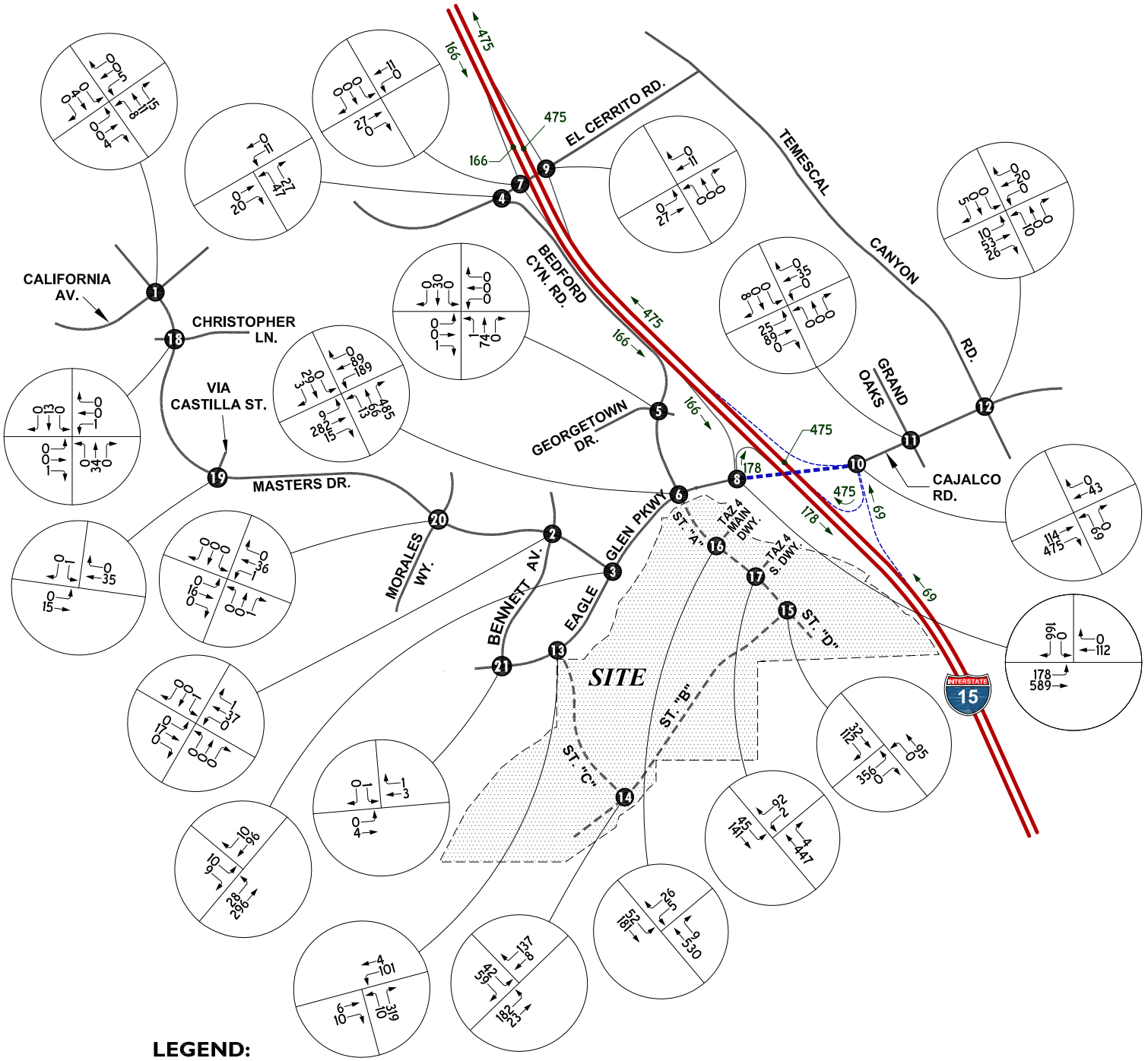


EXHIBIT 3-11

2035 (BUILDOUT) MODIFIED PROJECT ONLY PM PEAK HOUR INTERSECTION VOLUMES

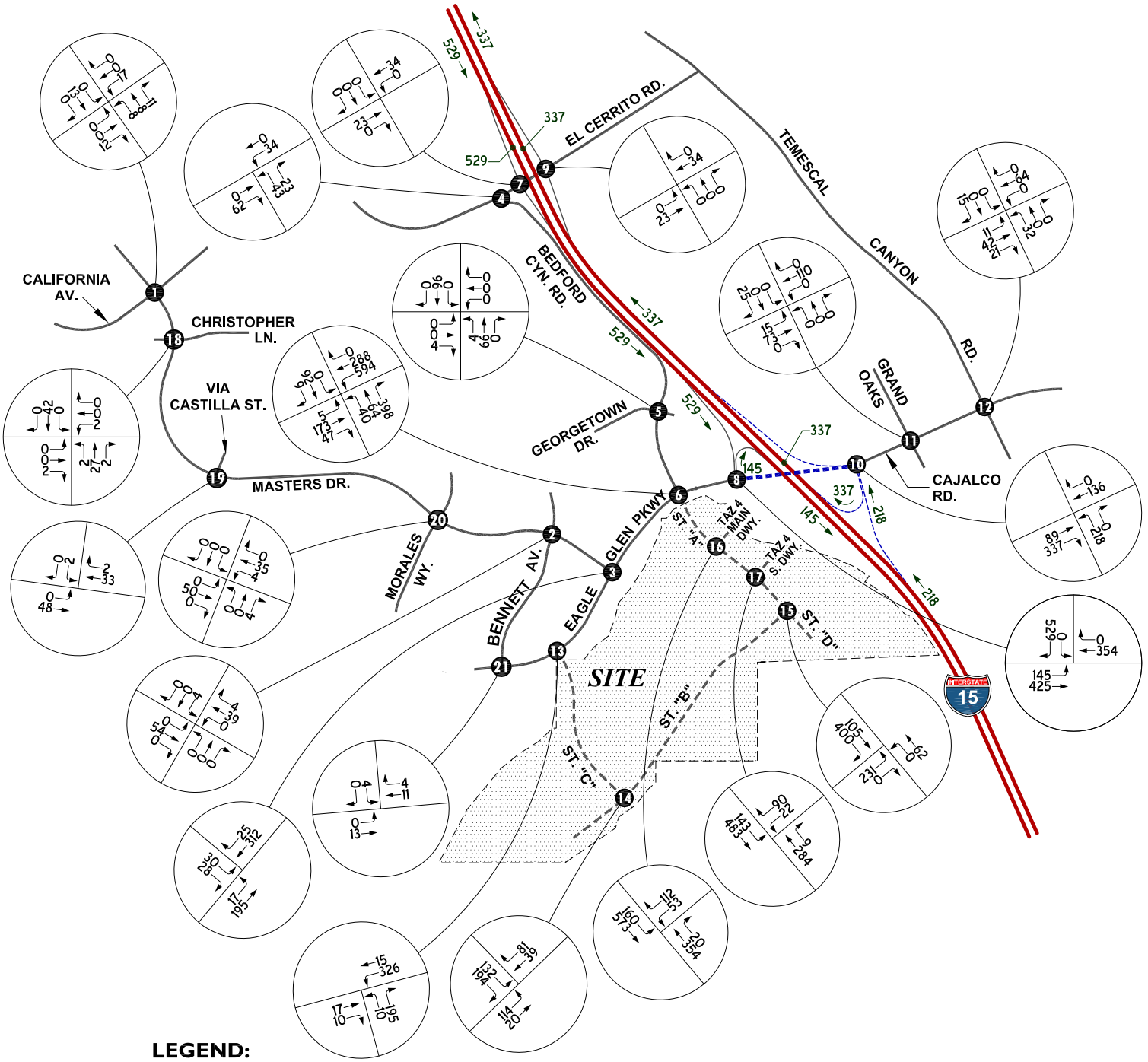
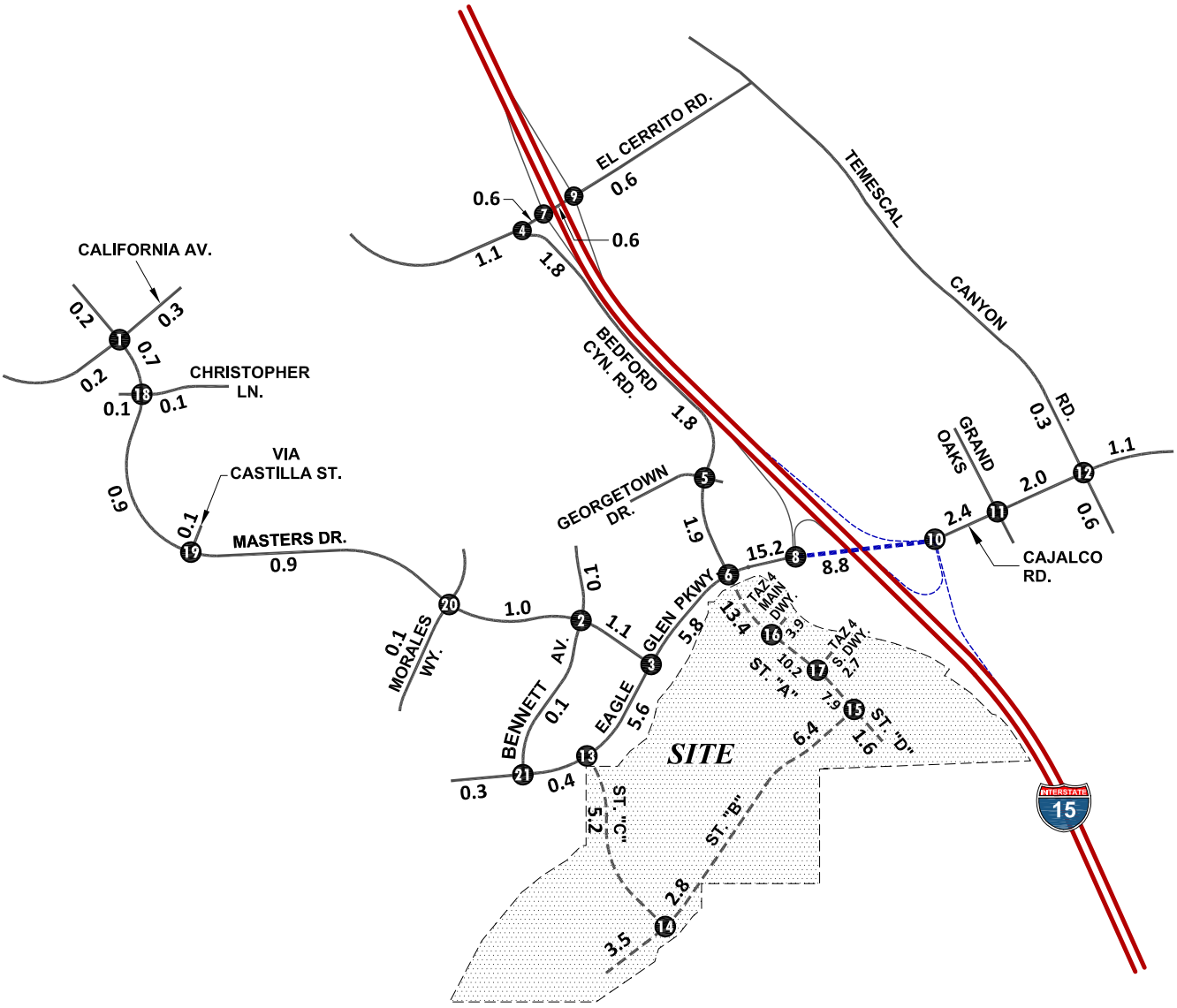


EXHIBIT 3-12

2035 (BUILDOUT) MODIFIED PROJECT ONLY AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

21 = INTERSECTION ID

= FUTURE ROADWAY / DIRT

= PROPOSED BRIDGE & RAMP ALIGNMENT

10.0 = VEHICLES PER DAY (1000'S)

N

3.3 TOTAL FUTURE TRAFFIC

This analysis assesses the following future traffic conditions without the McMillan Trust Property Development. The McMillan Trust Property Development is discussed in detail in Section 7.0 of this report.

- 2017 Without Project conditions
- 2017 With Modified Project (Phase 1) conditions
- 2035 Without Project conditions, Without McMillan Trust Property Development
- 2035 With Modified Project conditions, Without McMillan Trust Property Development

2017 Without Project conditions AM and PM peak hour intersection turning movement volumes are shown on Exhibit 3-13 and Exhibit 3-14, respectively. Average daily traffic (ADT) volumes for 2017 Without Project conditions are shown on Exhibit 3-15.

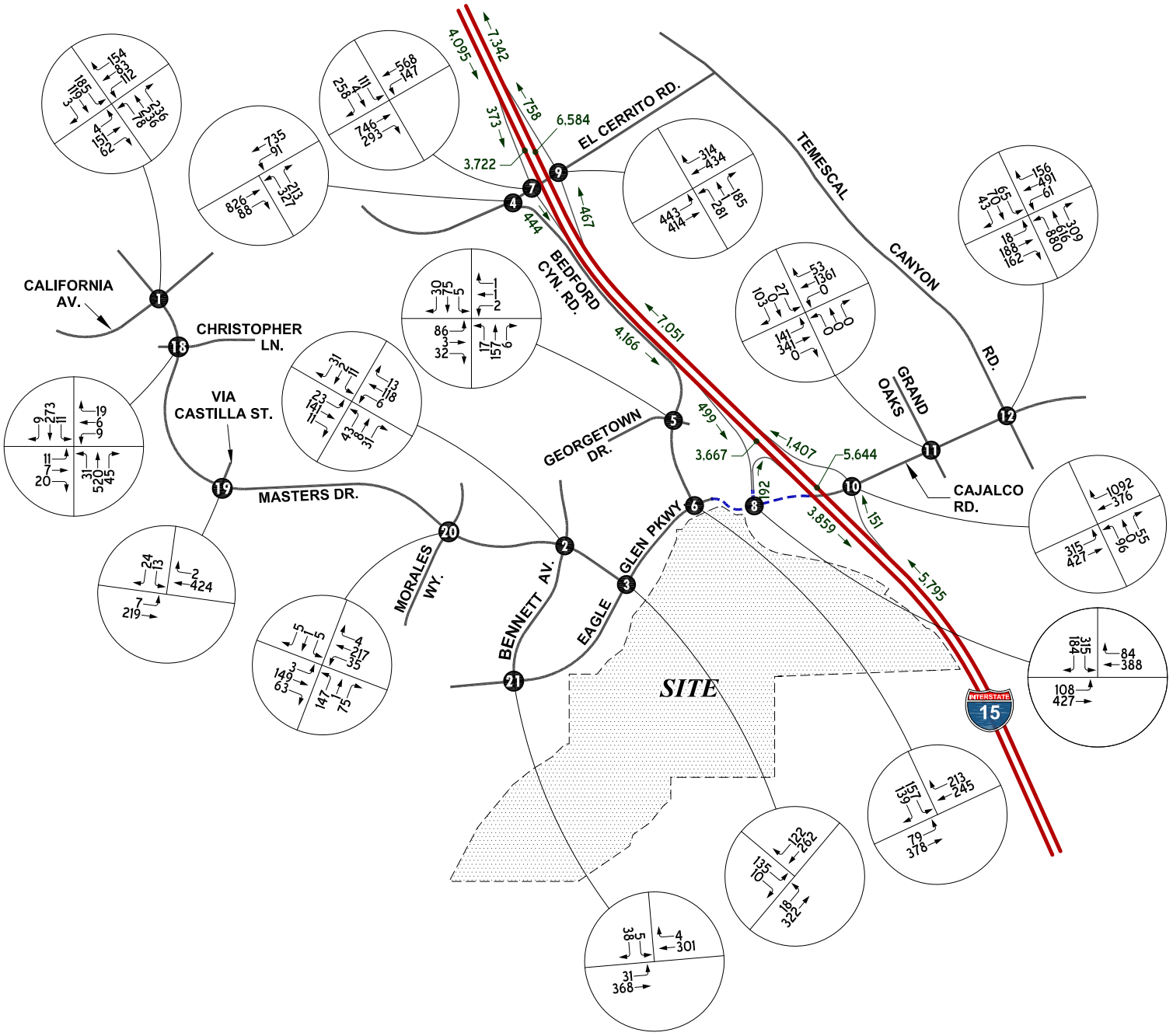
2017 With Modified Project (Phase 1) conditions AM and PM peak hour intersection turning movement volumes are shown on Exhibit 3-16 and Exhibit 3-17, respectively. Average daily traffic (ADT) volumes for 2017 With Modified Project (Phase 1) conditions are shown on Exhibit 3-18.

2035 Without Project conditions, Without McMillan Trust Property Development AM and PM peak hour intersection turning movement volumes are shown on Exhibit 3-19 and 3-20, respectively. Average daily traffic (ADT) volumes for 2035 Without Project conditions, Without McMillan Trust Property Development are shown on Exhibit 3-21.

2035 With Modified Project conditions, Without McMillan Trust Property Development AM and PM peak hour intersection turning movement volumes are shown on Exhibit 3-22 and Exhibit 3-23, respectively. Average daily traffic (ADT) volumes for 2035 With Modified Project conditions, Without McMillan Trust Property Development are shown on Exhibit 3-24.

EXHIBIT 3-13

2017 WITHOUT PROJECT AM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

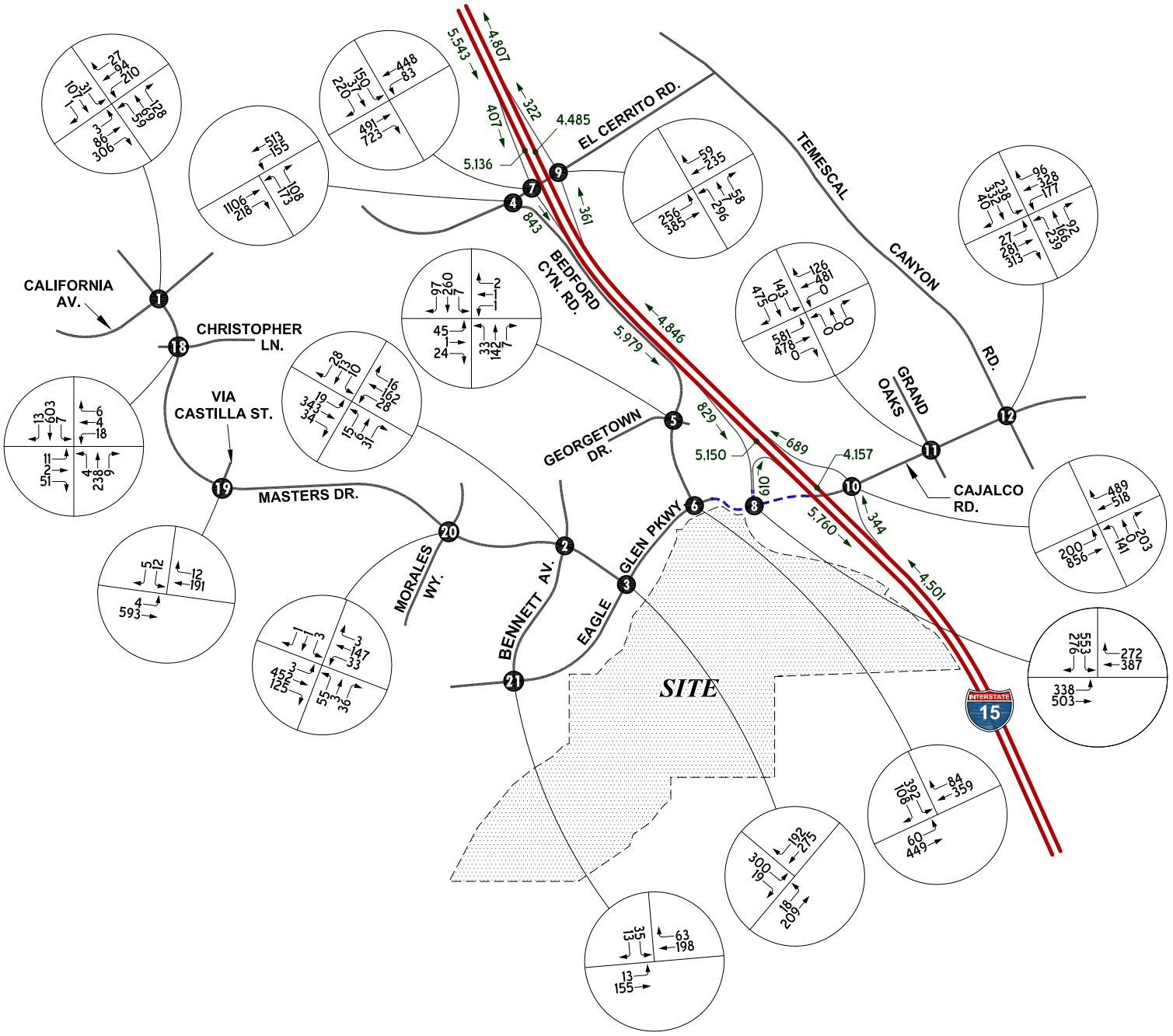
12 = INTERSECTION ID

= ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION

N

EXHIBIT 3-14

2017 WITHOUT PROJECT
PM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

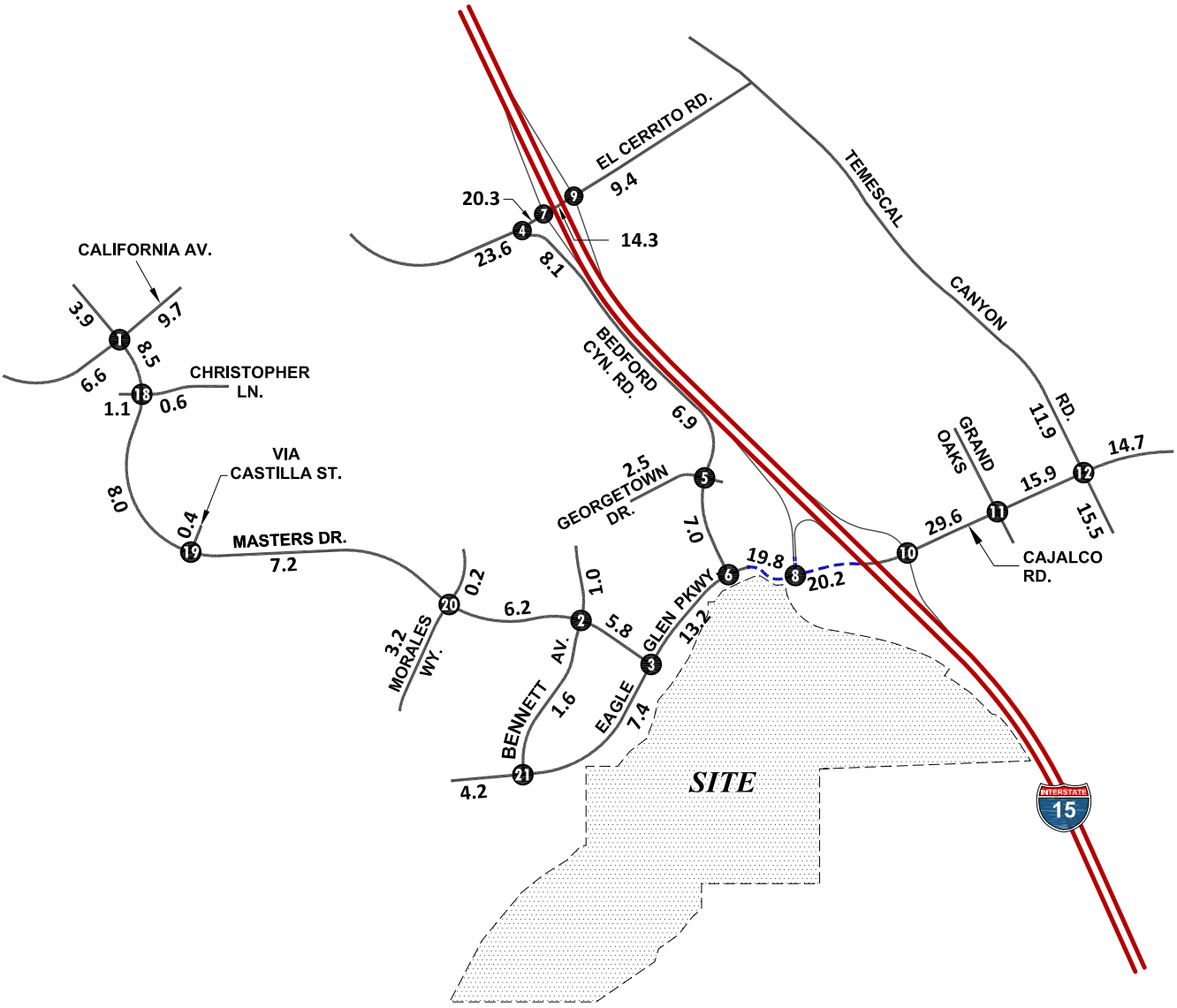
12 = INTERSECTION ID

= ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION

N

EXHIBIT 3-15

2017 WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)



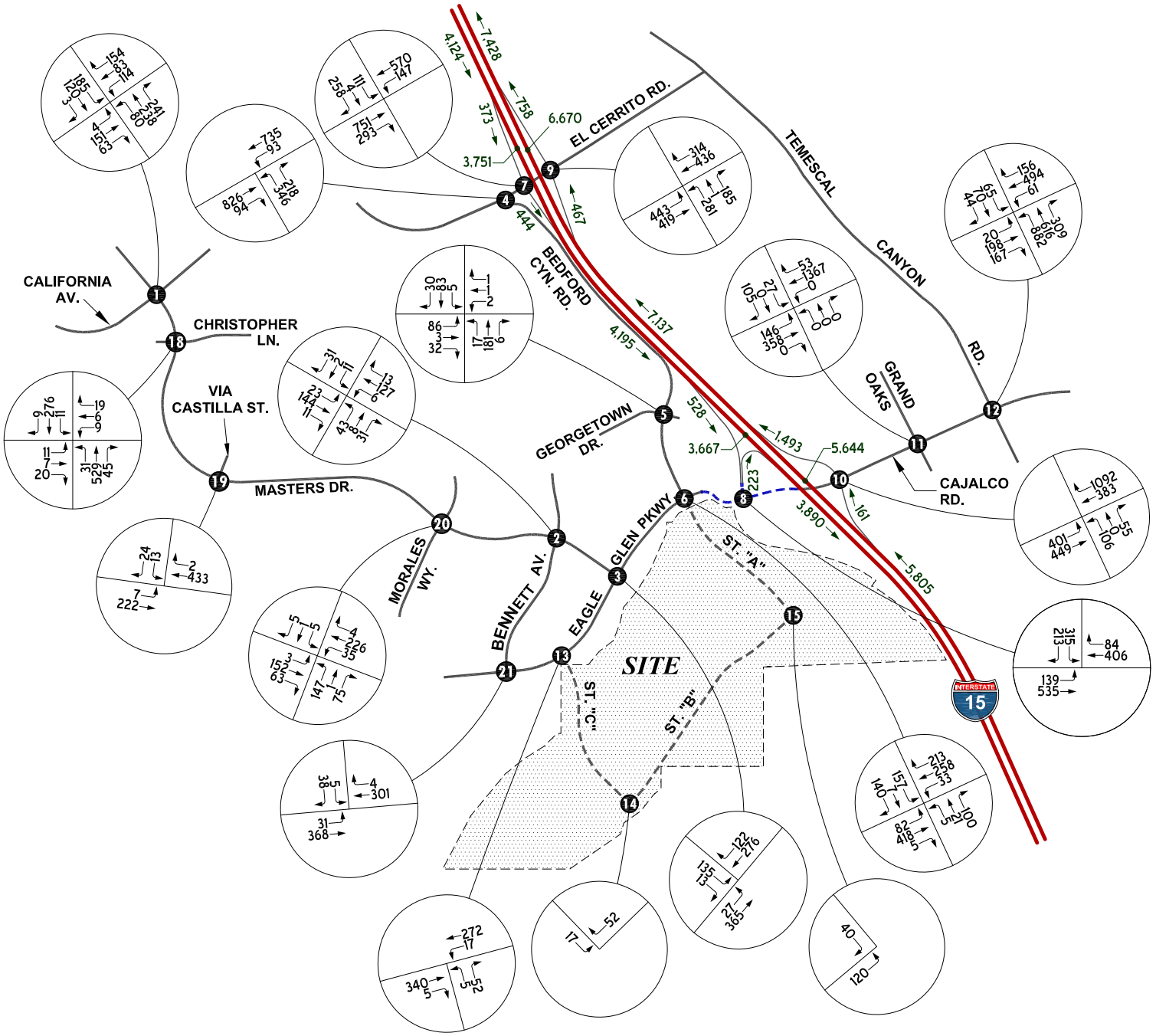
LEGEND:

- 21 = INTERSECTION ID
- = FUTURE ROADWAY / DIRT
- = ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION
- 10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 3-16

2017 WITH MODIFIED PROJECT (PHASE 1) AM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

14 = INTERSECTION ID

= ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION

N

EXHIBIT 3-17

2017 WITH MODIFIED PROJECT (PHASE 1) PM PEAK HOUR INTERSECTION VOLUMES

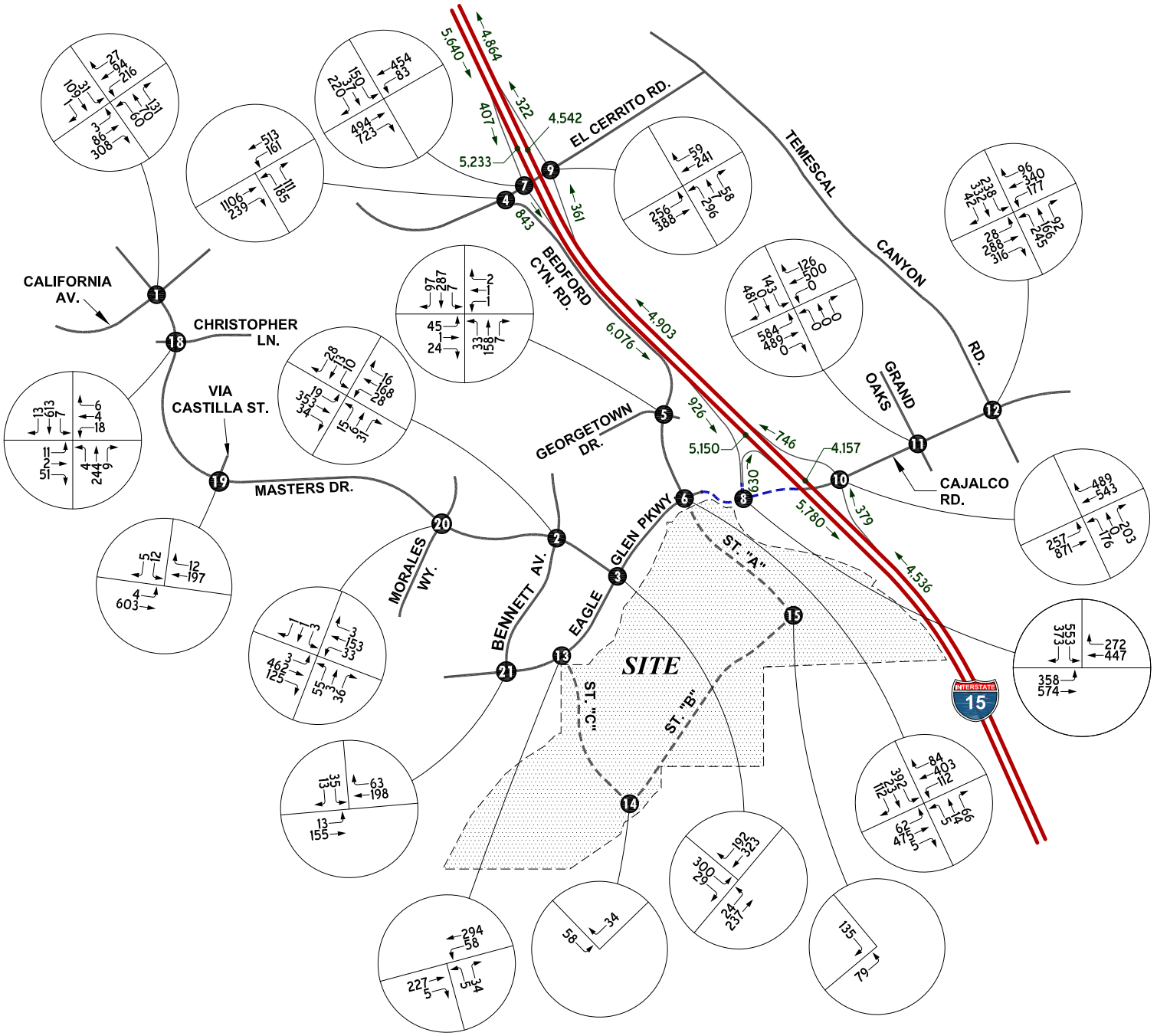
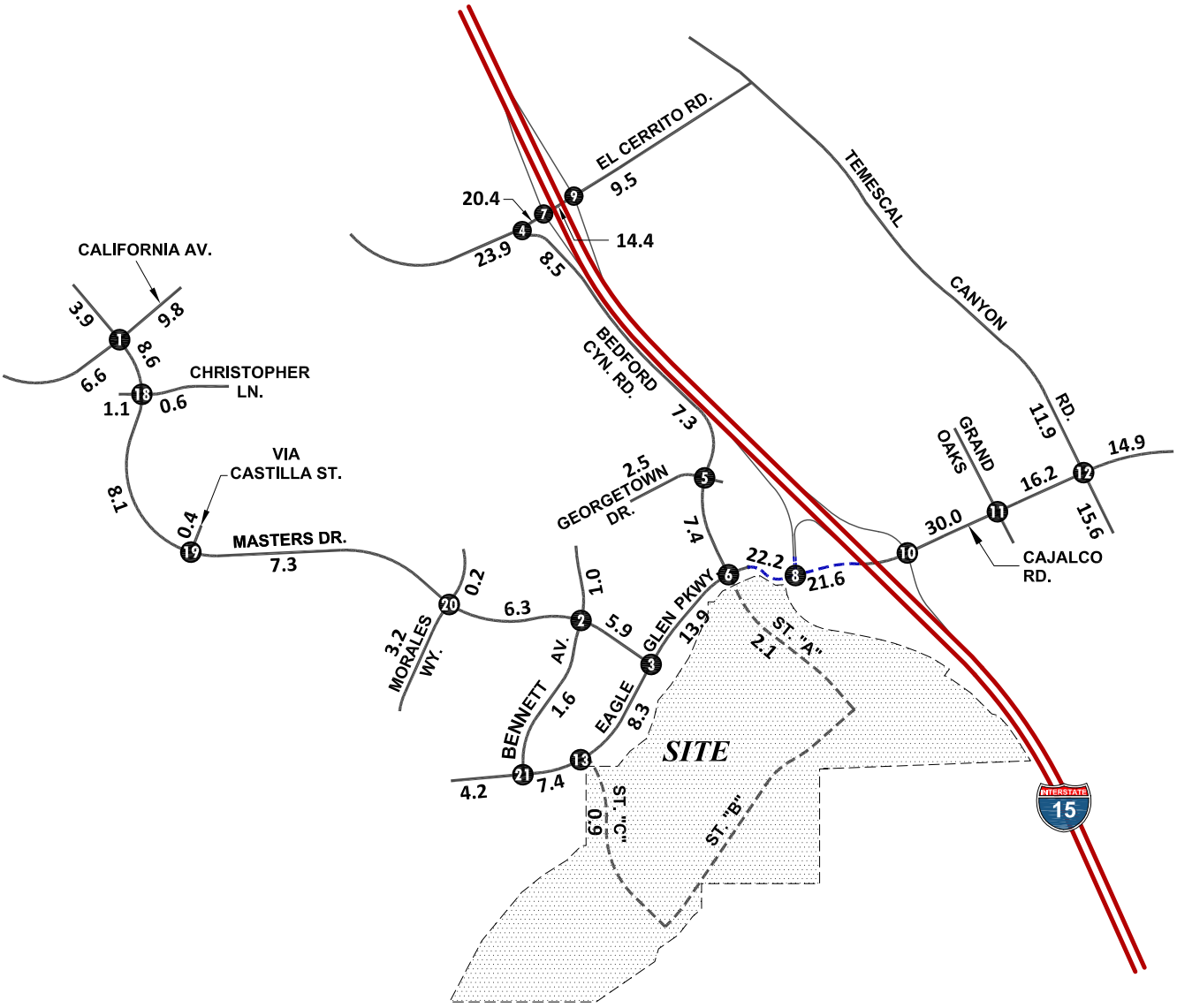


EXHIBIT 3-18

2017 WITH MODIFIED PROJECT (PHASE 1) AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

21 = INTERSECTION ID

= FUTURE ROADWAY / DIRT

= ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 3-19

2035 WITHOUT PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT AM PEAK HOUR INTERSECTION VOLUMES

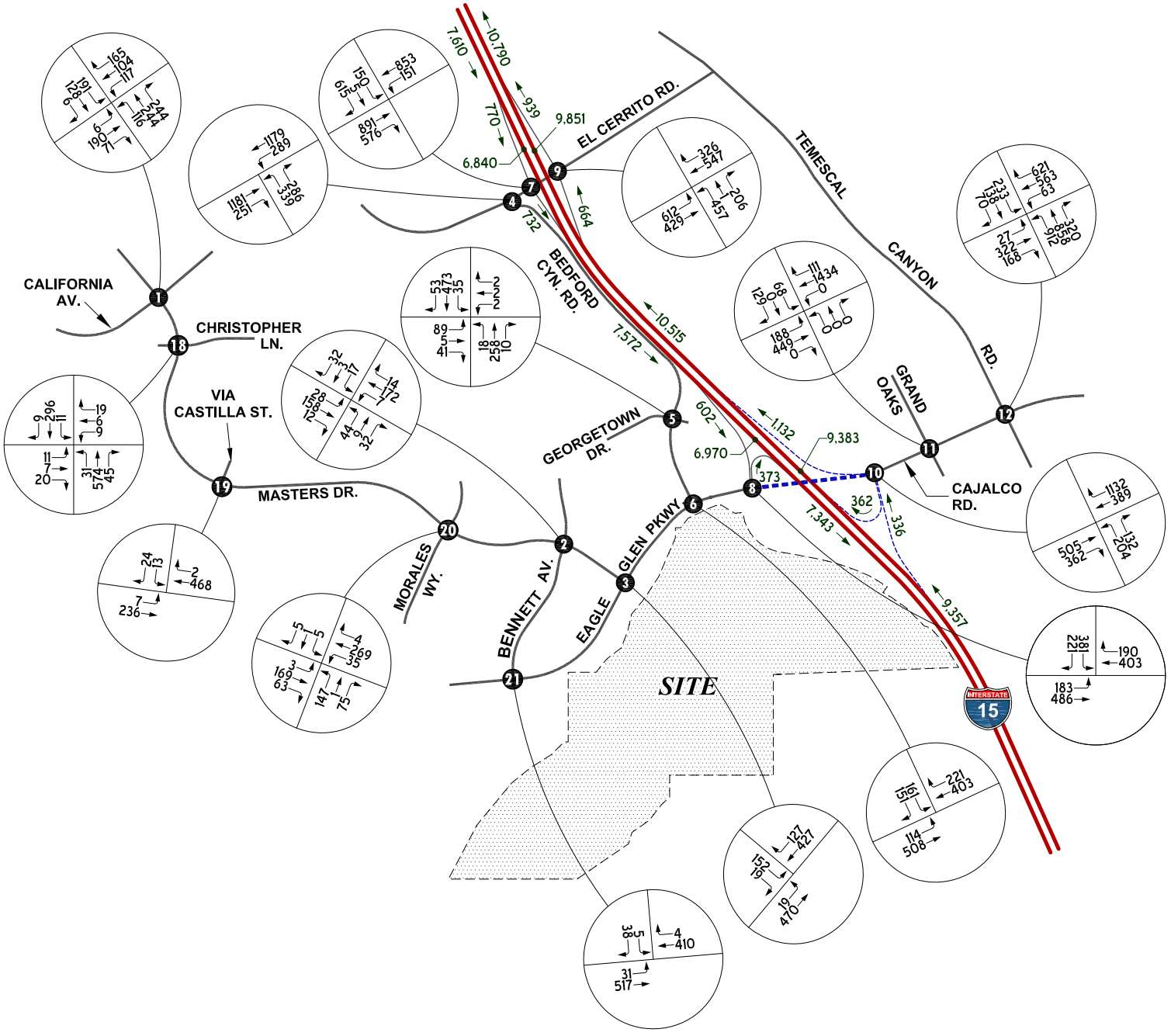
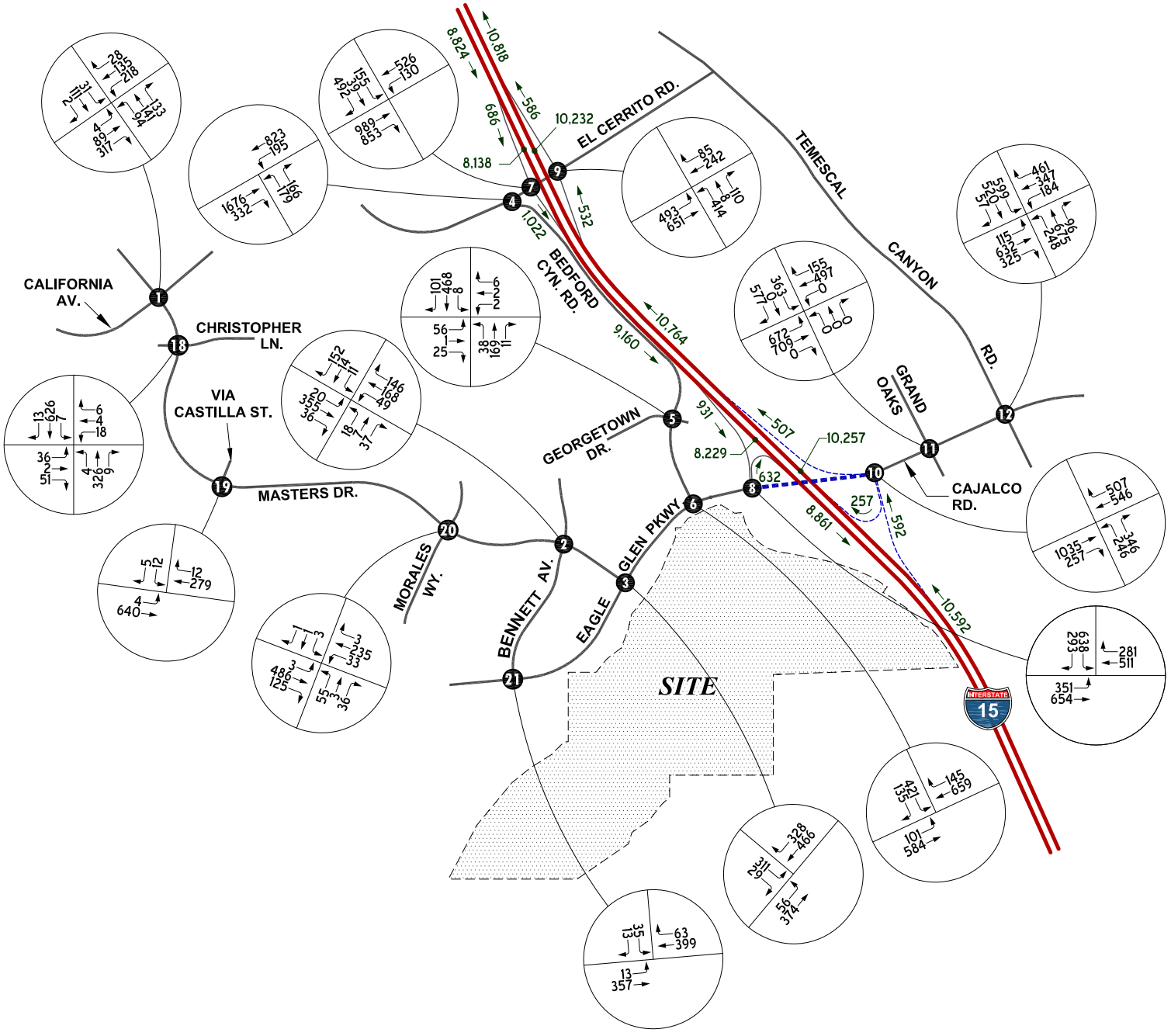


EXHIBIT 3-20

2035 WITHOUT PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT PM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

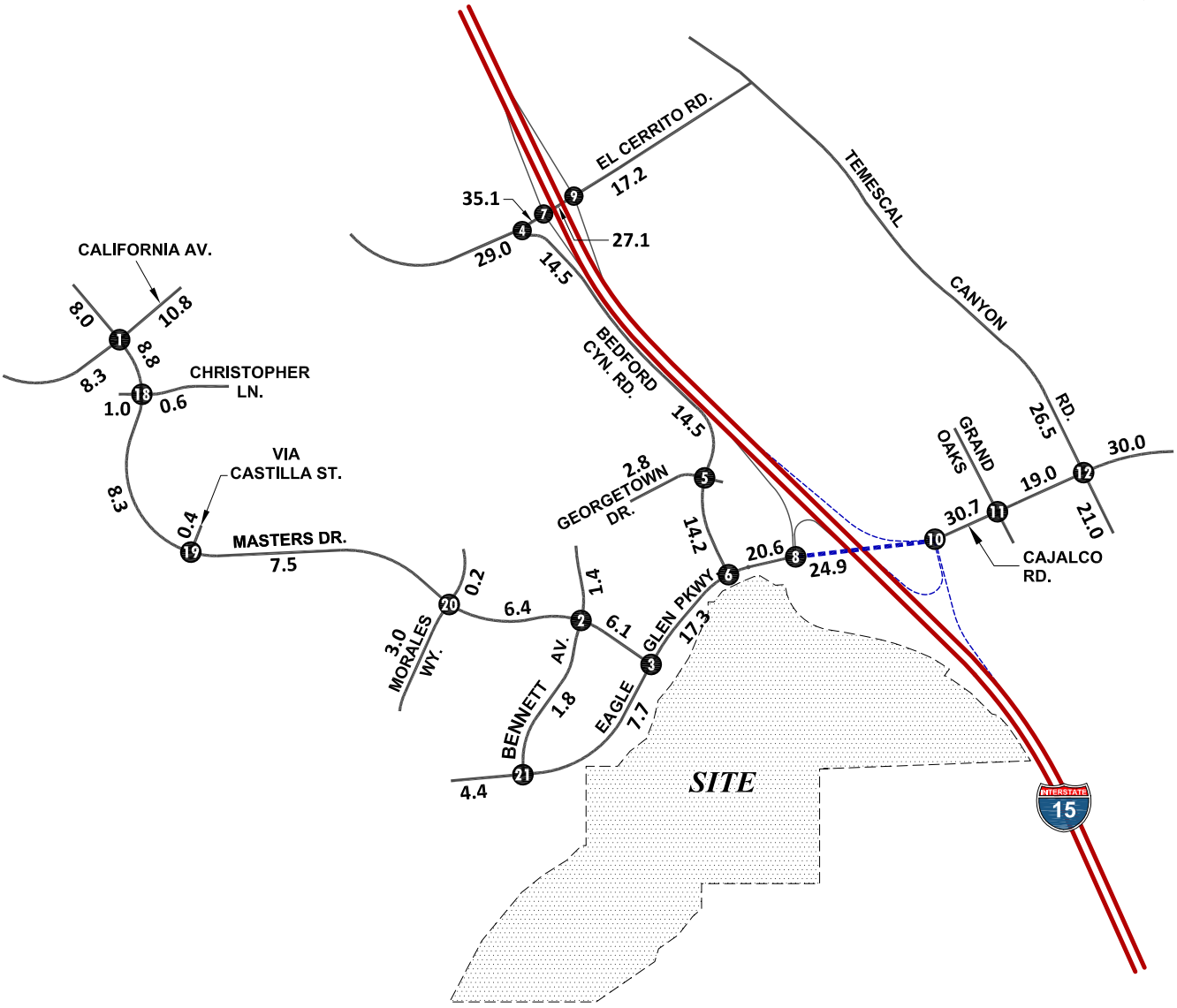
12 = INTERSECTION ID

▪ PROPOSED BRIDGE & RAMP ALIGNMENT

N

EXHIBIT 3-21

2035 WITHOUT PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

- 21 = INTERSECTION ID
- = FUTURE ROADWAY / DIRT
- = PROPOSED BRIDGE & RAMP ALIGNMENT
- 10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 3-22

2035 WITH MODIFIED PROJECT WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT AM PEAK HOUR INTERSECTION VOLUMES

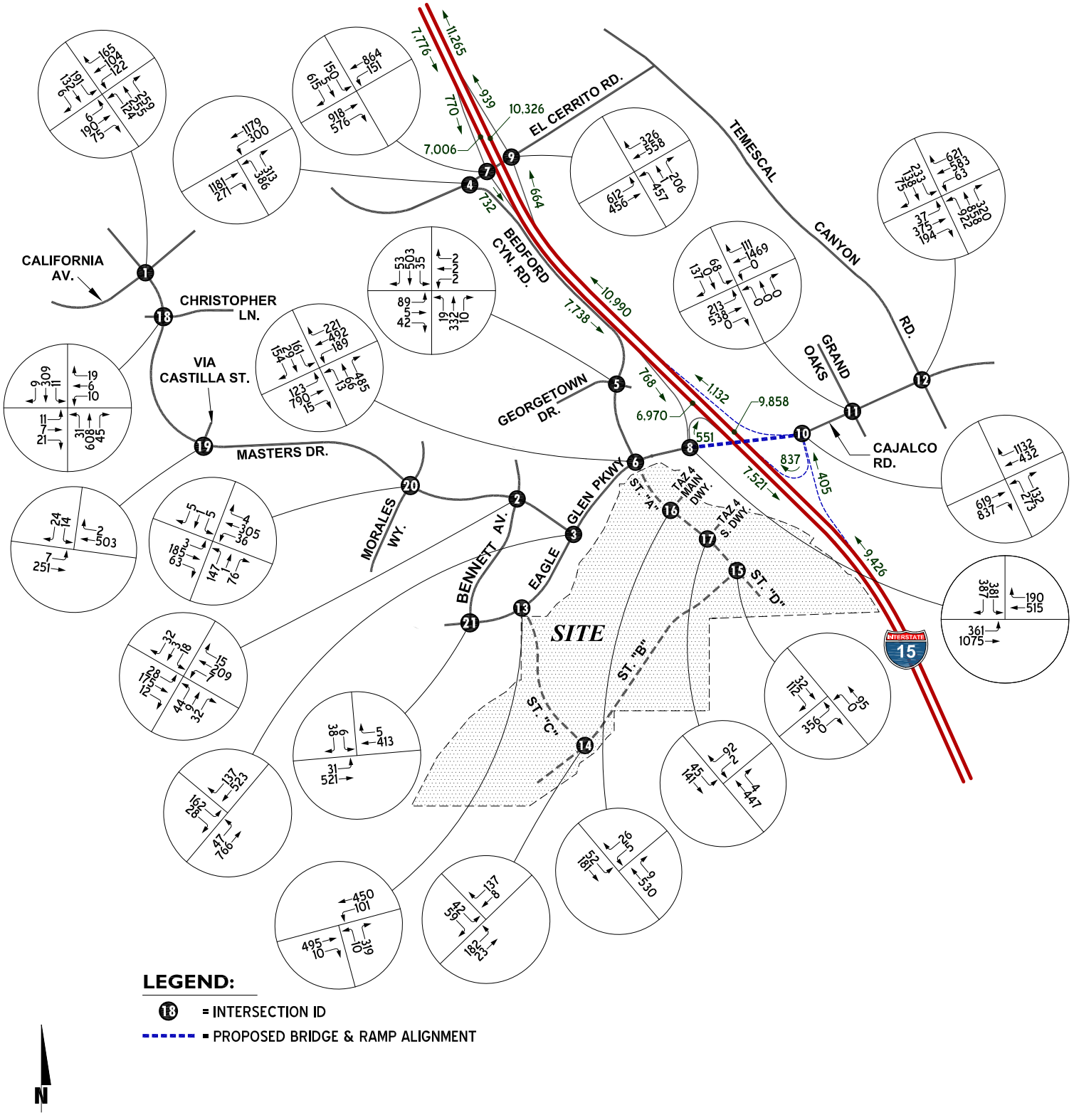


EXHIBIT 3-23

2035 WITH MODIFIED PROJECT WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT PM PEAK HOUR INTERSECTION VOLUMES

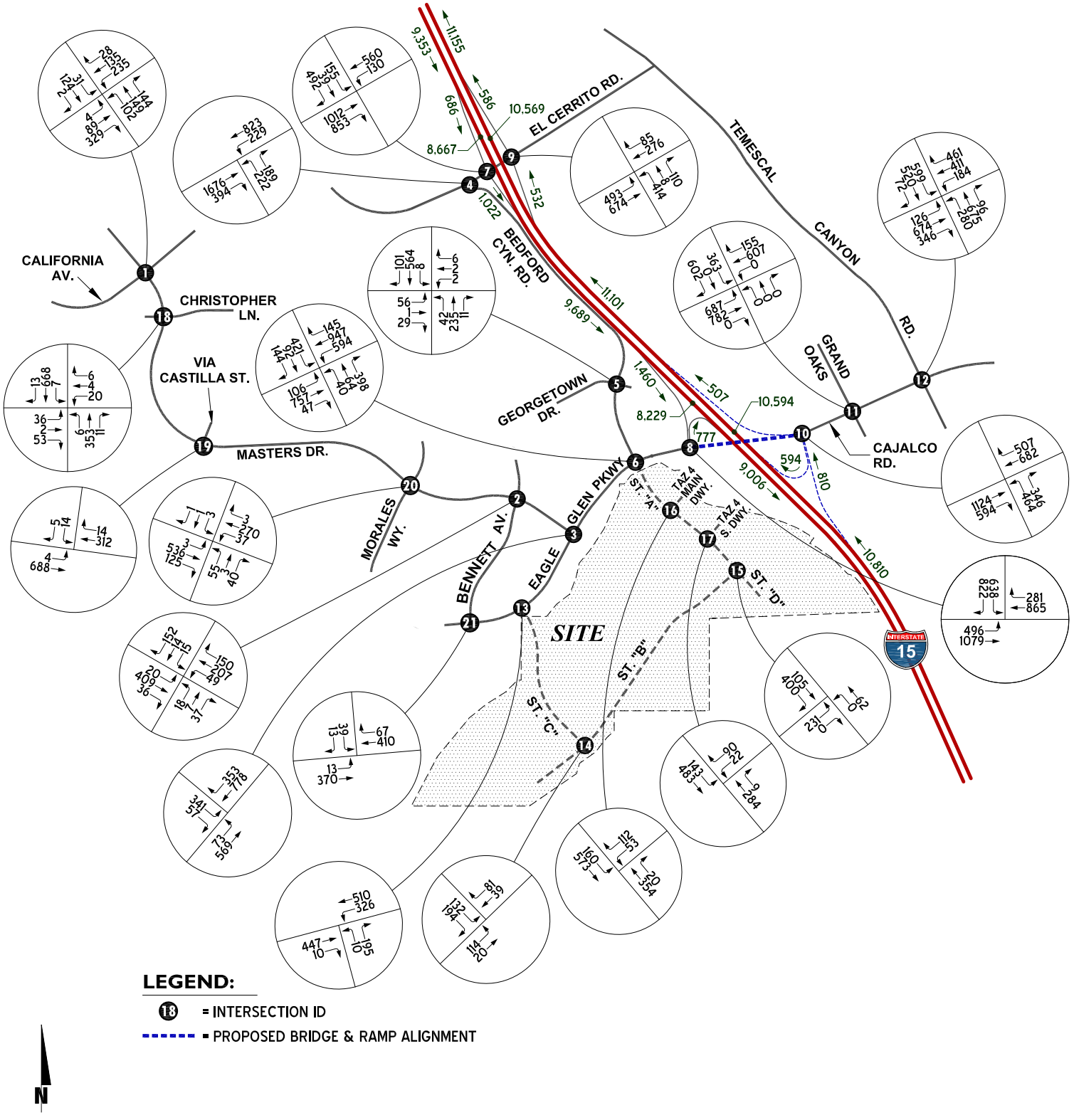
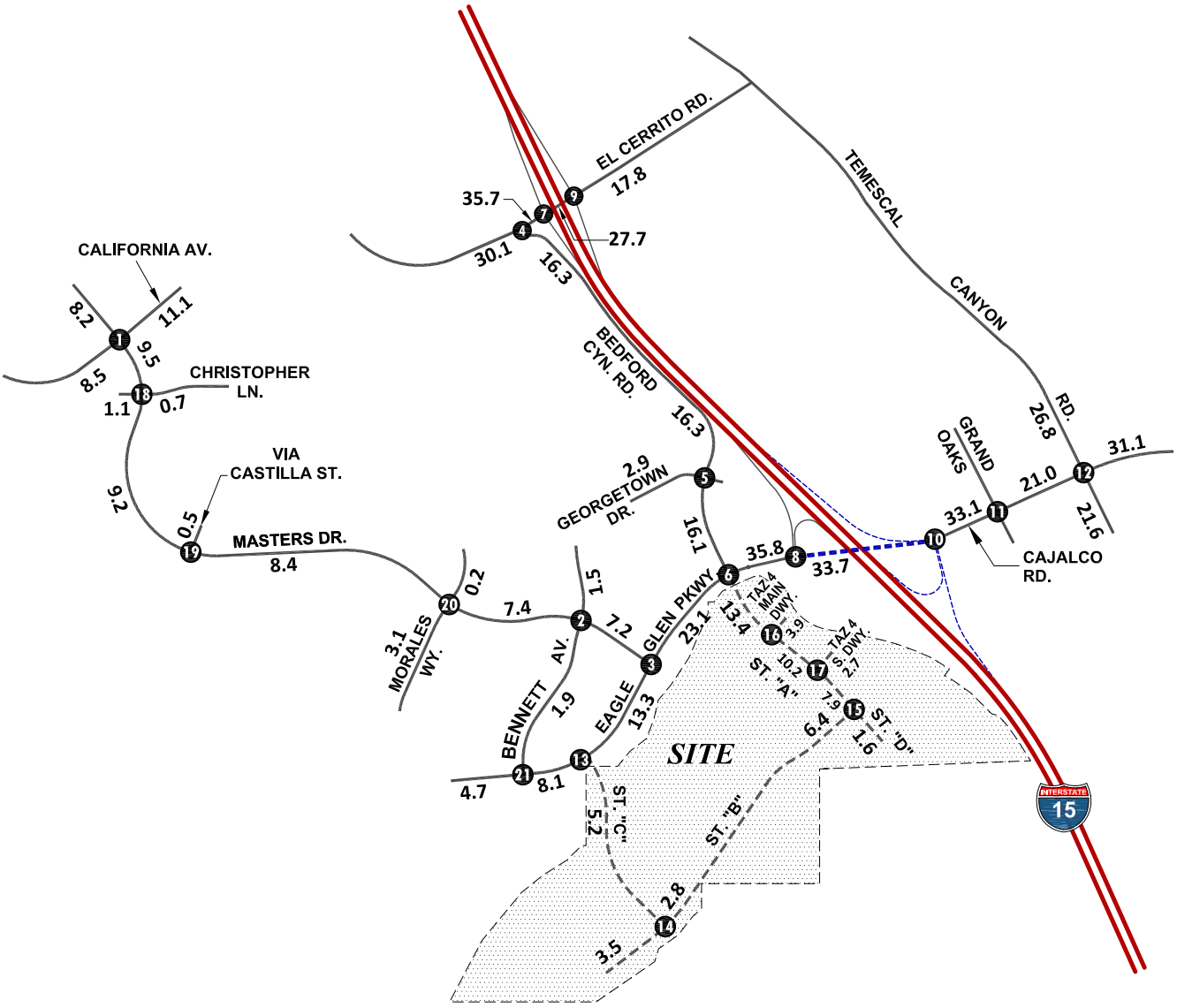


EXHIBIT 3-24

2035 WITH MODIFIED PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

21 = INTERSECTION ID

= FUTURE ROADWAY / DIRT

= PROPOSED BRIDGE & RAMP ALIGNMENT

10.0 = VEHICLES PER DAY (1000'S)

4.0 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with the City of Corona traffic impact study guidelines.

4.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

4.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control.

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data provided by the City of Corona and collected in February, March, and July 2014. The turning movement count data for the intersections of Masters Drive / Christopher Lane (#18), Via Castilla Street / Masters Drive (#19), Morales Way / Masters Drive (#20), and Bennett Avenue / Eagle Glen Parkway were conducted on May 2015. Volume adjustments for the July 2014 summer counts are discussed in Section 2.4 *Existing (2014 and 2015) Traffic Counts*. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 6:30 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

4.2.1 SIGNALIZED INTERSECTIONS

The technical guide to be used in the evaluation of traffic operations is the 2010 Highway Capacity Manual (HCM). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4-1.

TABLE 4-1: SIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM 2010, Chapter 18

Study area intersections have been analyzed using the software package Synchro 8.0. The LOS analysis for signalized intersections has been performed using optimized signal timing.

The peak hour traffic volumes will be adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs will be used for all analysis scenarios. Per Chapter 4 of the HCM 2010, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour.

Saturation flow rates of 1,900 vehicles per hour of green (vphg) have been assumed for all capacity analysis under Existing (2014 and 2015) conditions, 2017 conditions, and 2035 conditions. This saturation flow rates is consistent with the County's TIA guidelines.

4.2.2 UNSIGNALIZED INTERSECTIONS

The City of Corona require the operations of unsignalized intersections be evaluated using the methodology described in Chapter 19, Chapter 20, and Chapter 32 of the HCM 2010. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 4-2).

TABLE 4-2: UNSIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM 2010, Chapter 19 and Chapter 20

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

To evaluate roundabout intersections, the 2010 HCM methodology has been utilized. The LOS for roundabouts is based on average vehicle delay and utilizes the same LOS threshold used for unsignalized intersections and previously presented on Table 4-2.

4.3 ROADWAY SEGMENT CAPACITY ANALYSIS

Per direction from City of Corona staff, the roadway segment operations have been evaluated using the Link Volume Capacities/Level of Service for Riverside County Roadways provided in Figure C-2 of the Riverside County General Plan. The daily roadway segment capacities for each type of roadway are summarized in Table 4-3.

TABLE 4-3: ROADWAY SEGMENT CAPACITY LOS THRESHOLDS [1]

Roadway Classification	Number of Lanes	Maximum Two-Way Traffic Volume (ADT)[2]		
		Service Level C	Service Level D	Service Level E
Collector	2	10,400	11,700	13,000
Secondary	4	20,700	23,300	25,900
Major	4	27,300	30,700	34,100
Arterial[3]	2	14,400	16,200	18,000
Arterial	4	28,700	32,300	35,900
Mountain Arterial[3]	2	12,900	14,500	16,100
Mountain Arterial	3	16,700	18,800	20,900
Mountain Arterial	4	29,800	33,500	37,200
Urban Arterial	4	28,700	32,300	35,900
Urban Arterial	6	43,100	48,500	53,900
Urban Arterial	8	57,400	64,600	71,800

TABLE 4-3: ROADWAY SEGMENT CAPACITY LOS THRESHOLDS (CONTINUED…) [1]

Roadway Classification	Number of Lanes	Maximum Two-Way Traffic Volume (ADT)[2]		
		Service Level C	Service Level D	Service Level E
Urban Arterial	8	57,400	64,600	71,800
Expressway	4	32,700	36,800	40,900
Expressway	6	49,000	55,200	61,300
Expressway	8	65,400	73,500	81,700
Freeway	4	61,200	68,900	76,500
Freeway	6	94,000	105,800	117,500
Freeway	8	128,400	144,500	160,500
Freeway	10	160,500	180,500	200,600
Ramp[4]	1	16,000	18,000	20,000

Notes: (1) All capacity figures are based on optimum conditions and are intended as guidelines for planning purposes only.
(2) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.
(3) Two-lane roadways designated as future arterials that conform to arterial design standards for vertical and horizontal alignment are analyzed as arterials.
(4) Ramp capacity is given as a one-way traffic volume.

Source: Riverside County General Plan, Figure C-2.

It should be noted that these roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, and vehicle mix (truck and bus traffic). Where the ADT-based roadway segment analysis indicates a deficiency, a review of the more detailed peak hour intersection analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway performance. Roadway segment widening is typically recommended if the peak hour intersection analysis indicates the need for additional through travel lanes.

4.4 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, as amended by *the MUTCD 2012 California Supplement*, for all study area intersections.

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's *MUTCD* and the *MUTCD 2012 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are

met. Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 criteria are basically identical for both the FHWA's *MUTCD* and the *MUTCD 2012 California Supplement*. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. It should be noted that Rural warrants have been utilized along Masters Drive and Bedford Canyon Road.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for the unsignalized study area intersections listed in Table 4-4.

TABLE 4-4: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
2	Masters Drive / Bennett Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona
5	Bedford Canyon Road / Georgetown Drive	Corona
13	Street "C" / Eagle Glen Parkway – *Future Intersection*	Corona
14	Street "C" / Street "B" – *Future Intersection*	Corona
15	Street "A" / Street "B" – *Future Intersection*	Corona
16	Street "A" / TAZ 4 Main Driveway – *Future Intersection*	Corona
17	Street "A" / TAZ 4 South Driveway	Corona
18	Masters Drive / Christopher Lane	Corona
19	Via Castilla Street / Masters Drive	Corona
20	Morales Way / Masters Drive	Corona
21	Bennett Avenue / Eagle Glen Parkway	Corona

The Existing (2014 and 2015) conditions traffic signal warrant analysis is presented previously in Section 2.7. The traffic signal warrant analysis for future conditions are presented in Section 5.0 *2017 Traffic Analysis*, Section 6.0 *2035 Without McMillan Trust Property Development Traffic Analysis,* and Section 7.0 *2035 With McMillan Trust Property Development Traffic Analysis* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An

intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

4.5 RAMP METERING ANALYSIS METHODOLOGY

Ramp metering of freeway on-ramp traffic is a demand management tool that is widely recognized as maximizing freeway mainline operational efficiency. At the same time, providing adequate vehicle storage is critical to local acceptance of this important tool. The Ramp Meter Design Manual (published by State of California Department of Transportation, January, 2000) indicates that ramp meters can provide acceptable performance for flow rates between 240 vehicles per hour and 900 vehicles per hour (VPH) for a single-lane ramp, and higher flows require additional lanes. A maximum acceptable volume of 900 VPH has been used to determine the minimum necessary number of lanes for each on-ramp.

The manual also indicates that additional lanes may be desirable for purposes of providing adequate vehicular storage. The situation of a traffic flow of between 500 and 900 VPH is presented as an explicit situation where providing a two-lane ramp meter may be desirable to provide adequate vehicular storage. Therefore, adequate vehicular storage may require provision of additional lanes as long as the traffic flow rate per lane is between 240 and 900 VPH.

The impacts of ramp meter queuing have been evaluated at the following on-ramp locations:

- I-15 Southbound Ramp On-Ramp at Cajalco Road
- I-15 Northbound Ramp On-Ramp at Cajalco Road
- I-15 Southbound Ramp On-Ramp at El Cerrito Road
- I-15 Northbound Ramp On-Ramp at El Cerrito Road

The existing 2014 conditions ramp metering analysis is presented in previous Section 2.8. The future conditions ramp metering analysis is presented in Section 5.6, Section 6.6, and Section 7.6 of this report.

4.6 FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS

The ramp operation analyses have been based on the following HCM methodologies: Merge, Diverge and/or Weave analysis methods. The Weave analysis method is performed between an on-ramp and an off-ramp of adjacent interchanges spaced less than 1,500 feet apart. For ramps of adjacent interchanges spaced more than 1,500 feet apart, Merge and Diverge analysis methods are used for on-ramps and off-ramps, respectively. For this assessment, Merge and Diverge analyses have been used for the interchange at El Cerrito Road and Cajalco Road. The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations resulting in two existing on and off ramp locations.

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS 2010 software. The measure of effectiveness (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on and off ramps both at the analysis junction and at upstream and downstream locations

(if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table 4-5 presents the merge/diverge area level of service descriptions for each density range utilized for this analysis.

TABLE 4-5: DESCRIPTION OF FREEWAY MERGE AND DIVERGE LOS

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010, Chapter 13

The ramp data (per the count data presented in Appendix "2.2") were utilized to flow conserve the mainline volumes to determine the I-15 Freeway mainline volumes. Flow conservation checks ensure that traffic flows from north of El Cerrito Road to south of Cajalco Road with no unexplained loss of vehicles. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and peak hour deficiencies. As such, actual vehicles (as opposed to passenger-car-equivalent volumes) have been utilized for the purposes of the freeway ramp junction (merge/diverge) analysis.

4.7 LOS CRITERIA

In accordance with the City of Corona General Plan, the following intersection LOS thresholds from the General Plan are to be implemented:

- LOS C or better shall be maintained for local intersections in residential/industrial areas.
- LOS D or better shall be maintained on collector and arterial intersections.
- Consistent with the previously approved Arantine Hills Traffic Impact Analysis (2011), LOS "E" is anticipated to be permitted for the ramp intersections at the I-15 / Cajalco Road interchange.

The City of Corona LOS criteria for the study area intersections are listed below:

ID	Intersection	LOS Criteria
1	Masters Drive / California Avenue	*C*
2	Masters Drive / Bennett Avenue	*C*
3	Masters Drive / Eagle Glen Parkway	*D*
4	Bedford Canyon Road / El Cerrito Road	*D*
5	Bedford Canyon Road / Georgetown Drive	*C*
6	Bedford Canyon Road / Eagle Glen Parkway	*D*
7	I-15 SB Ramps / El Cerrito Road	*D*
8	I-15 SB Ramps / Cajalco Road	*E*

ID	Intersection (Continued..)	LOS Criteria
9	I-15 NB Ramps / El Cerrito Road	*D*
10	I-15 NB Ramps / Cajalco Road	*E*
11	Grand Oaks / Cajalco Road	*D*
12	Temescal Canyon Road / Cajalco Road	*D*
13	Street "C" / Eagle Glen Parkway	*D*
14	Street "C" / Street "B"	*C*
15	Street “A” - Street "D" / Street "B"	*C*
16	Street “A” / TAZ 4 Main Driveway	*C*
17	Street “A” / TAZ 4 South Driveway	*C*
18	Masters Drive / Christopher Lane	*C*
19	Via Castilla Street / Masters Drive	*C*
20	Morales Way / Masters Drive	*C*
21	Bennett Avenue / Eagle Glen Parkway	*C*

The Arantine Hills Modified Project Traffic Study provides the mitigation measures needed to satisfy the minimum level of service thresholds defined by the City of Corona. This is consistent with the Caltrans Guide for the preparation of Traffic Impact Studies that states “Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities”. However, it should be noted that Caltrans acknowledges that maintaining these levels of service thresholds may not always be feasible and recommends the lead agency consult with Caltrans to determine the appropriate target level of service. If an existing facility is operating at less than the appropriate target LOS, the existing LOS should be maintained.

5.0 2017 TRAFFIC ANALYSIS

This section discusses the methods used to develop 2017 without and with Project (Phase 1) traffic conditions, and the resulting intersection and roadway segment operations. 2017 (Phase 1) development within the modified project consists of 308 single family homes and related park uses.

5.1 ROADWAY IMPROVEMENTS AND LANE CLOSURES DURING INTERCHANGE CONSTRUCTION

The following roadway configurations during interchange construction are utilized for 2017 conditions and are consistent with the Stage Construction and Traffic Handling Plans provided by Caltrans:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are assumed to be in place for With Modified Project conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Temporary realignment of Cajalco Road at the I-15 SB Ramps during interchange construction. Existing intersection configuration is maintained.
- Temporary lane closure at the intersection of I-15 NB Ramps / Cajalco Road. The 2nd EB receiving lane will be closed. Only one receiving lane will remain open during interchange construction.
- Temporary lane closure at the intersection of Grand Oaks / Cajalco Road. The 3rd WB approach and receiving lane will be closed. Only two WB through lanes will remain open during interchange construction.

5.2 2017 PROJECT TRIP GENERATION AND TRAFFIC VOLUME FORECASTS

For 2017 conditions, Planning Areas 5, 7, and 8 of the Arantine Hills Modified Project are projected to generate a total of approximately 2,931 external trip-ends per day with 229 vehicles per hour during the AM peak hour and 306 vehicles per hour during the PM peak hour as shown previously in Table 3-2.

To account for ambient growth on area roadways, 2017 traffic volumes have been calculated based on the interpolation of growth between 2014 conditions and the Year 2035 forecasts.

The 2017 Without Project conditions peak hour intersection turning movement and ADT volumes were shown previously on Exhibits 3-8 through 3-10. The 2017 With Modified Project (Phase 1) conditions peak hour intersection turning movement and ADT volumes were shown previously on Exhibits 3-11 through 3-13.

5.3 INTERSECTION OPERATIONS ANALYSIS AND RECOMMENDED IMPROVEMENTS

Table 5-1 provides an overall summary of intersection operations in the study area with 2017 without and with Project conditions. The "With" Project conditions include the development of 308 single family residential units and 0.7 acres of local park use.

Table 5-1

Intersection Operations Analysis Summary For 2017 Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												2017 Without Project				2017 With Modified Project				LOS Criteria
			Northbound			Southbound			Eastbound			Westbound			Delay[2] (Secs)		Level of Service[2]		Delay[2] (Secs)		Level of Service[2]		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
1	Masters Dr. / California Av.																						
	- Without Improvements	AWS	1	1	0	1	1	0	1	1	0	1	1	1	37.6	19.8	**E**	C	37.8	20.4	**E**	C	*C*
	- With Improvements	**TS**	1	1	0	1	1	0	1	1	0	1	1	1	20.7	14.4	C	B	11.5	14.5	B	B	*C*
2	Masters Dr. / Bennett Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	8.6	11.5	A	B	8.7	11.8	A	B	*C*
3	Masters Dr. / Eagle Glen Pkwy.	AWS	0	0	0	1	0	1	1	2	0	0	2	0	10.7	15.2	B	C	11.1	16.3	B	C	*D*
4	Bedford Cyn. Rd. / El Cerrito Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	20.4	21.1	C	C	21.0	21.7	C	C	*D*
5	Bedford Cyn. Rd. / Georgetown Dr.	AWS	1	1	0	0	1	1	0	1	1>>	0	1!	0	8.8	9.6	A	A	9.1	10.0	A	A	*C*
6	Bedford Cyn. Rd. / Eagle Glen Pkwy.																						
	- Without Project	TS	0	0	0	1	0	1>	1	1	0	0	2	1>	21.4	27.1	C	C	--	--	--	--	*D*
	- With Modified Project Improvements	TS	**1**	**1**	0	1	**1**	1>	1	**2**	0	**1**	2	1>	--	--	--	--	32.3	45.1	C	D	*D*
7	I-15 SB Ramps / El Cerrito Rd.	TS	0	0	0	0	1	1	0	2	0	1	2	0	14.4	33.8	B	C	14.3	33.7	B	C	*D*
8	I-15 SB Ramps / Cajalco Rd.	TS	0	0	0	1	0	1	1	1	0	0	1	1	20.8	37.6	C	D	27.2	38.8	C	D	*E*
9	I-15 NB Ramps / El Cerrito Rd.	TS	0	1!	0	0	0	0	2	1	0	0	2	0	34.3	24.2	C	C	34.3	33.7	C	C	*D*
10	I-15 NB Ramps / Cajalco Rd.	TS	0	1	1	0	0	0	1	1	0	0	1	1	61.0	20.1	E	C	76.9	23.9	E	C	*E*
11	Grand Oaks / Cajalco Rd.	TS	0	1!	0	0.5	0.5	2>	2	2	0	1	***2***	1	11.4	27.6	B	C	26.7	31.7	C	C	*D*
12	Temescal Cyn. Rd. / Cajalco Rd.	TS	2	2	1	1	2	0	1	1	1	1	3	0	35.4	39.8	D	D	35.5	41.3	D	D	*D*
13	St. "C" / Eagle Glen Pkwy.	**CSS**	**1**	0	**1**	0	0	0	0	2	0	**1**	1	0	--	--	--	--	12.3	12.5	B	B	*C*
18	Masters Dr. / Christopher Ln.																						
	- Without Improvements	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	38.4	27.4	**E**	**D**	38.6	29.1	**E**	**D**	*C*
	- With Roundabout	**RDB**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	12.0	9.5	B	A	12.3	9.6	B	A	*C*
	- With Traffic Signal	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	5.2	3.7	A	A	4.0	3.6	A	A	*C*
19	Via Castilla St. / Masters Dr.	AWS	0	0	0	0	1!	0	1	1	0	0	1	0	11.5	20.3	B	C	11.7	21.2	B	C	*C*
20	Morales Wy. / Masters Dr.	AWS	0	1!	0	0	1!	0	1	1	0	1	1	0	10.7	20.4	B	C	10.8	21.5	B	C	*C*
21	Bennett Av. / Eagle Glen Pkwy.	CSS	0	0	0	1	0	1	1	1	0	0	2	0	15.7	11.9	C	B	15.7	11.9	C	B	*C*

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; > = Right Turn Overlap; >> = Free-Right; **1** = Improvement; ***1*** = Lane reduction during interchange construction.

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[3] AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop; RDB = Roundabout

The 2017 Without Project conditions intersection operations analysis worksheets are provided in Appendix "5.1". The 2017 With Modified Project (Phase 1) conditions intersection operations analysis worksheets are provided in Appendix "5.2".

For 2017 Without Project and With Modified Project scenarios, similar to Existing (2014 and 2015) LOS results, LOS deficiencies occur at the intersections of Masters Drive / California Avenue (#1) and Masters Drive / Christopher Lane (#18).

With the recommended intersection improvements listed below and illustrated on Exhibit 5-1, the deficient intersections identified under 2017 Without Project conditions are projected to operate at acceptable level of service during both AM and PM peak hours.

Masters Drive / California Drive (#1)

- Install a traffic signal.

Masters Drive / Christopher Lane (#18)

- Provide traffic signal, or small roundabout (within existing right-of-way).

For 2017 With Modified Project Conditions, the improvements listed below and illustrated on Exhibit 5-2 are recommended to provide site access, in addition to the previously identified improvements under 2017 Without Project Conditions:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- Traffic Signal Modification.
- Adjust the east leg striping to provide a 2nd receiving lane.
- NB Approach: Construct one left turn lane and one shared through-right turn lane.
- SB Approach: Modify striping to provide a through lane.
- EB Approach: Modify striping to provide a shared through-right turn lane.
- WB Approach: Modify striping to provide a new dedicated left turn lane.

Street "C" / Eagle Glen Parkway (#13)

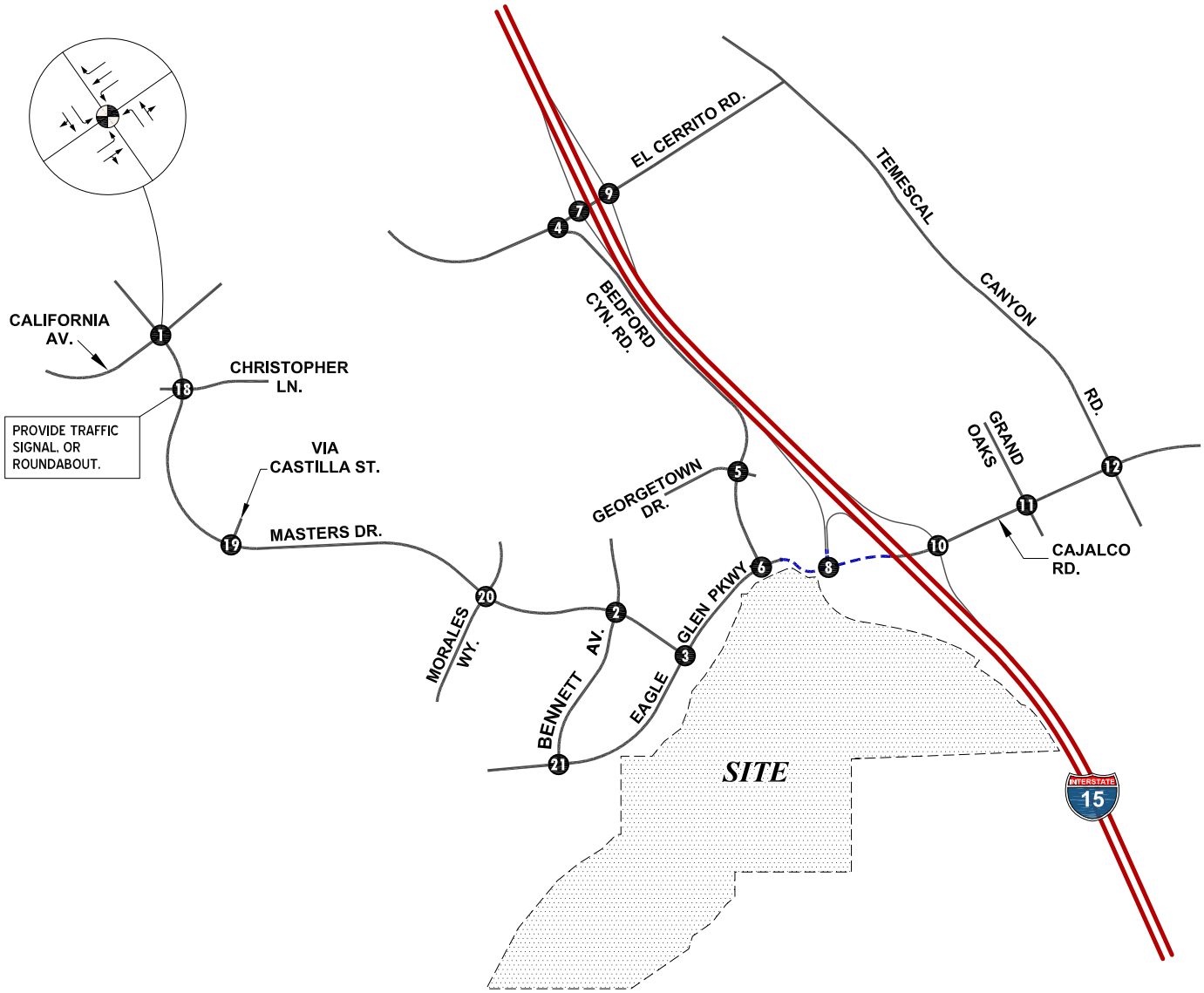
- Construct Street "C" from Eagle Glen Parkway to Street "B" as a two-lane divided collector.
- Install stop sign control on the NB approach.
- NB Approach: Construct one left turn lane and one right turn lane.
- WB Approach: Modify striping to provide left turn lane.

5.4 ROADWAY SEGMENT CAPACITY ANALYSIS

The 2017 Without Project conditions roadway segment capacity analysis are presented on Table 5-2. As shown on Table 5-2, the roadway segment along El Cerrito Road, west of Bedford Canyon is estimated serve daily volumes which exceed the theoretical daily segment LOS thresholds, in addition to the Cajalco interchange bridge segment previously identified under Existing (2014 and 2015) conditions.

EXHIBIT 5-1

RECOMMENDED OFF-SITE INTERSECTION IMPROVEMENTS FOR 2017 WITHOUT PROJECT CONDITIONS



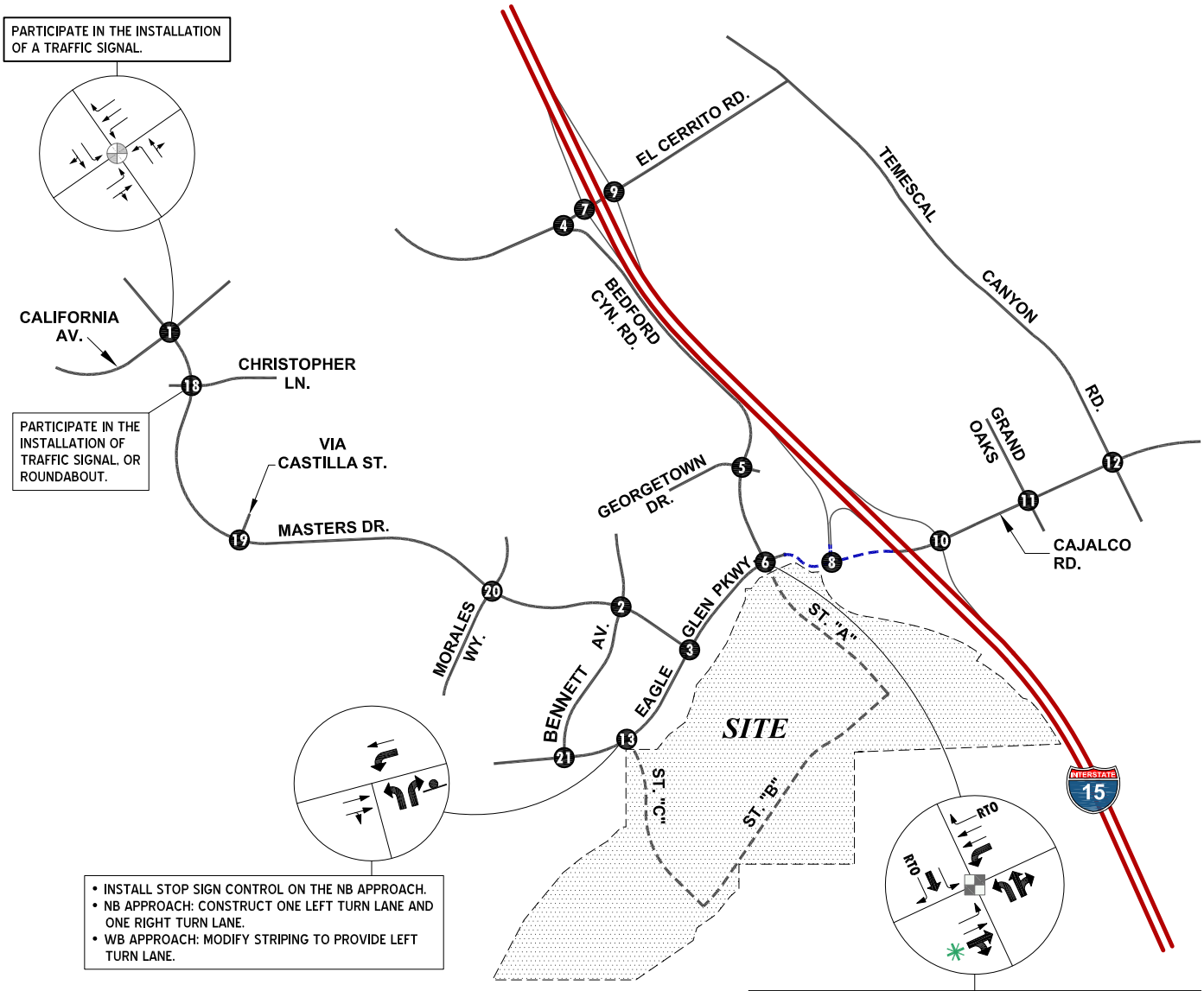
LEGEND:

- 21 = INTERSECTION ID
- = ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION
- = CURRENT PHASE TRAFFIC SIGNAL IMPROVEMENT
- = EXISTING LANE

N

EXHIBIT 5-2

RECOMMENDED OFF-SITE INTERSECTION IMPROVEMENTS FOR 2017 WITH MODIFIED PROJECT (PHASE 1) CONDITIONS



LEGEND:

- = INTERSECTION ID
- = ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION
- = TRAFFIC SIGNAL IMPROVEMENT NEEDED WITHOUT PROJECT
- = TRAFFIC SIGNAL MODIFICATION
- = NEW STOP SIGN CONTROL
- = EXISTING LANE
- = PROJECT LANE IMPROVEMENT
- = LANE IMPROVEMENT NEEDED WITHOUT PROJECT
- = CURRENT PHASE, PROVIDE NEW RECEIVING LANE
- RTO = EXISTING RIGHT TURN OVERLAP

N

Table 5-2

Roadway Volume/Capacity Analysis For 2017 Without Project Conditions

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	3,900	0.30
	South of California Av.	2	13,000	8,500	0.65
	South of Christopher Ln.	2	13,000	8,000	0.62
	East of Via Castilla St.	2	13,000	7,200	0.55
	North of Bennett Av.	2	13,000	6,200	0.48
	North of Eagle Glen Pkwy.	2	13,000	5,800	0.45
Bennett Av.	East of Masters Dr.	2	13,000	1,000	0.08
	West of Masters Dr.	2	13,000	1,600	0.12
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	8,100	0.62
	North of Georgetown Dr.	2	13,000	6,900	0.53
	North of Eagle Glen Pkwy.	4	26,000	7,000	0.27
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	11,900	0.33
	South of Cajalco Rd.	4	35,900	15,500	0.43
California Dr.	West of Masters Dr.	2	13,000	6,600	0.51
	East of Masters Dr.	2	13,000	9,700	0.75
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	**23,600**	**0.91**
	East of Bedford Cyn.	4	25,900	20,300	0.78
	East of I-15 NB Ramps	4	25,900	9,400	0.36
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,500	0.19
Eagle Glen Pkwy./ Cajalco Rd.	West of Bennett Av.	3	19,400	4,200	0.22
	West of Masters Dr.	4	25,900	7,400	0.29
	West of Bedford Cyn.	3	19,400	13,200	0.68
	East of Bedford Cyn.	3	26,900	19,800	0.74
	East of I-15 SB Ramps[4]	2	18,000	**20,200**	**1.12**
	East of I-15 NB Ramps	***4***	35,900	29,600	0.82
	East of Grand Oaks	***4***	35,900	15,900	0.44
	East of Temescal Cyn. Rd.	4	35,900	14,700	0.41

[1] Number of Through lanes: 2 = Existing; ***2*** = Lane reduction during interchange construction.

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways.

[3] 2017 Without Project Average Daily Traffic (ADT) expressed in vehicles per day.
BOLD = Estimated to exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

[4] Planned interchange improvements at the Cajalco / I-15 interchange are not assumed to be completed in 2017.

The 2017 With Modified Project conditions roadway segment capacity analysis are presented on Table 5-3. As shown on Table 5-3, there are no new roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, in addition to the roadway segments previously identified under 2017 Without Project conditions.

It should be noted that the peak hour analysis for 2017 Without and With Modified Project indicates that the adjacent study area intersections of the deficient roadway segment are anticipated to operate at acceptable LOS.

5.5 TRAFFIC SIGNAL WARRANT ANALYSIS

For 2017 Without and With Modified Project traffic conditions, there are no new unsignalized intersections anticipated to meet traffic signal warrants, in addition to the intersections identified under Existing (2014 and 2015) conditions which includes Masters Drive / California Drive and Masters Drive / Eagle Glen Parkway.

While the intersection of Masters Drive at Eagle Glen Parkway meets traffic signal warrants under existing conditions, it is anticipated to continue to operate at acceptable levels of service under 2017 without and with modified project conditions, therefore, no improvements are recommended.

The 2017 Without and With Modified Project (Phase 1) traffic signal warrant analysis worksheets are provided in Appendix "5.3". For 2017 conditions without the modified project, the intersection of Masters Drive / Christopher Lane (#18) morning peak hour level of service worsens to LOS "E" without converting to signal control or implementing a roundabout at this location. The Masters Drive / Christopher Lane intersection is projected to eventually warrant a traffic signal (see Section 6.5 of this report).

5.6 RAMP METERING ANALYSIS

The ramp metering analysis results for 2017 Without Project and With Modified Project (Phase 1) conditions are summarized in Table 5-4 and Table 5-5, respectively. Table 5-4 and Table 5-5 indicate that the following metered lanes are needed for each on-ramp location under 2017 Without and With Modified Project (Phase 1) Conditions:

- I-15 Southbound On-Ramp at El Cerrito Road – 1 lane
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane
- I-15 Northbound On-Ramp at El Cerrito Road – 1 lane
- I-15 Northbound On-Ramp at Cajalco Road – 2 lanes

5.7 FREEWAY MERGE/DIVERGE ANALYSIS

The freeway merge/diverge analysis results for 2017 Without and With Modified Project (Phase 1) conditions are summarized in Table 5-6 and Table 5-7, respectively. Table 5-6 and Table 5-7 indicate that the following ramp merge and diverge points are at or exceed acceptable levels of service with existing geometry:

Table 5-3

Roadway Volume/Capacity Analysis For 2017 With Modified Project Conditions

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	3,900	0.30
	South of California Av.	2	13,000	8,600	0.66
	South of Christopher Ln.	2	13,000	8,100	0.62
	East of Via Castilla St.	2	13,000	7,300	0.56
	North of Bennett Av.	2	13,000	6,300	0.48
	North of Eagle Glen Pkwy.	2	13,000	5,900	0.45
Bennett Av.	East of Masters Dr.	2	13,000	1,000	0.08
	West of Masters Dr.	2	13,000	1,600	0.12
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	8,500	0.65
	North of Georgetown Dr.	2	13,000	7,300	0.56
	North of Eagle Glen Pkwy.	4	26,000	7,400	0.28
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	11,900	0.33
	South of Cajalco Rd.	4	35,900	15,600	0.43
California Dr.	West of Masters Dr.	2	13,000	6,600	0.51
	East of Masters Dr.	2	13,000	9,800	0.75
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	**23,900**	**0.92**
	East of Bedford Cyn.	4	25,900	20,400	0.79
	East of I-15 NB Ramps	4	25,900	9,500	0.37
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,500	0.19
Eagle Glen Pkwy./ Cajalco Rd.	West of Bennett	3	19,400	4,200	0.22
	West of Masters Dr.	4	25,900	8,300	0.32
	West of Bedford Cyn.	3	19,400	13,900	0.72
	East of Bedford Cyn.	3	26,900	22,200	0.83
	East of I-15 SB Ramps[4]	2	18,000	**21,600**	**1.20**
	East of I-15 NB Ramps	***4***	35,900	30,000	0.84
	East of Grand Oaks	***4***	35,900	16,200	0.45
	East of Temescal Cyn. Rd.	4	35,900	14,900	0.42
Steet "A"	South of Eagle Glen Pkwy.	2	13,000	2,100	0.16
Steet "B"	West of Street "C"	-	-	-	-
	East of Street "C"	2	13,000	900	0.07
	West of Street "E"	2	13,000	2,100	0.16
Steet "C"	South of Eagle Glen Pkwy.	2	13,000	900	0.07
Steet "D"	South of Street "B"	-	-	-	-

[1] Number of Through lanes: 2 = Existing; ***2*** = Lane reduction during interchange construction.

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways.

[3] 2017 With Modified Project Average Daily Traffic (ADT) expressed in vehicles per day.

BOLD = Estimated to exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

[4] Planned interchange improvements at the Cajalco / I-15 interchange are not assumed to be completed in 2017.

Table 5-4

2017 Without Project Conditions
Ramp Metering Analysis Summary

ID	On-Ramp Location	Volume		Required Number of Ramp Metered Lanes[1]
		AM	PM	
7	I-15 Southbound On-Ramp at El Cerrito Road	444	843	1
8	I-15 Southbound On-Ramp at Cajalco Road	192	610	1
9	I-15 Northbound On-Ramp at El Cerrito Road	758	322	1
10	I-15 Northbound On-Ramp at Cajalco Road	1,407	689	2

[1] Ramp metered lane traffic flow threshold is 900 vehicles per hour (vph)on/off ramps.

Table 5-5

2017 With Modified Project (Phase 1) Conditions
Ramp Metering Analysis Summary

ID	On-Ramp Location	Volume		Required Number of Ramp Metered Lanes[1]
		AM	PM	
7	I-15 Southbound On-Ramp at El Cerrito Road	444	843	1
8	I-15 Southbound On-Ramp at Cajalco Road	223	630	1
9	I-15 Northbound On-Ramp at El Cerrito Road	758	322	1
10	I-15 Northbound On-Ramp at Cajalco Road	1,493	746	2

[1] Ramp metered lane traffic flow threshold is 900 vehicles per hour (vph)on/off ramps.

TABLE 5-6

2017 Without Project Conditions

Freeway Ramp Analysis

Freeway	Direction	Ramp Location	Junction Type	Lanes on Freeway[1]	Volume		Density [2] (pc/mi/ln)		LOS [3]	
					AM	PM	AM	PM	AM	PM
I-15 Freeway	Southbound	SB Off Ramp at El Cerrito Road	Diverge	3	373	407	16.8	23.5	B	C
		SB On Ramp at El Cerrito Road	Merge	3	444	843	27.8	40.5	C	E
		SB Off Ramp at Cajalco Road	Diverge	3	499	829	29.1	37.7	D	E
		SB On Ramp at Cajalco Road	Merge	3	192	610	23.4	34.4	C	D
	Northbound	NB On Ramp at El Cerrito Road	Merge	3	758	322	44.4	27.6	E	C
		NB Off Ramp at El Cerrito Road	Diverge	3	467	361	47.1	32.0	F	D
		NB On Ramp at Cajalco Road	Merge	3	1,407	689	43.5	29.9	E	D
		NB Off Ramp at Cajalco Road	Diverge	3	151	344	36.0	30.4	E	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.

[2] Density calculated based on the Highway Capacity Manual (HCM) analysis; (pc/mi/ln) = passenger car per mile per lane

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.60

[4] Volume-to-Capacity ratio > 1.0, LOS = "F"

TABLE 5-7

2017 With Modified Project (Phase 1) Conditions

Freeway Ramp Analysis

Freeway	Direction	Ramp Location	Junction Type	Lanes on Freeway[1]	Volume		Density [2] (pc/mi/ln)		LOS [3]	
					AM	PM	AM	PM	AM	PM
I-15 Freeway	Southbound	SB Off Ramp at El Cerrito Road	Diverge	3	373	407	16.9	23.9	B	C
		SB On Ramp at El Cerrito Road	Merge	3	444	843	28.0	41.6	C	E
		SB Off Ramp at Cajalco Road	Diverge	3	528	926	29.3	38.2	D	E
		SB On Ramp at Cajalco Road	Merge	3	223	630	23.6	34.6	C	D
	Northbound	NB On Ramp at El Cerrito Road	Merge	3	758	322	44.9	27.9	E	C
		NB Off Ramp at El Cerrito Road	Diverge	3	467	361	47.9	32.3	F	D
		NB On Ramp at Cajalco Road	Merge	3	1,493	746	44.2	30.4	E	D
		NB Off Ramp at Cajalco Road	Diverge	3	161	379	36.0	30.7	E	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.

[2] Density calculated based on the Highway Capacity Manual (HCM) analysis; (pc/mi/ln) = passenger car per mile per lane

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.60

[4] Volume-to-Capacity ratio > 1.0, LOS = "F"

- I-15 SB On Ramp at El Cerrito Road
- I-15 SB Off Ramp at Cajalco Road
- I-15 NB On Ramp at El Cerrito Road
- I-15 NB Off Ramp at El Cerrito Road
- I-15 NB On Ramp at Cajalco Road

Ramp merge and diverge analysis worksheets for 2017 Without Project conditions are included in Appendix "5.4". For 2017 With Modified Project (Phase 1) conditions ramp merge and diverge analysis worksheets are included in Appendix "5.5".

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6.0 2035 TRAFFIC ANALYSIS WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT

6.1 ROADWAY IMPROVEMENTS AND PLANNED INTERCHANGE IMPROVEMENTS

The lane configurations and traffic controls assumed for Buildout (2035) without McMillan Trust Property Development conditions are as follows:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are assumed to be in place for With Modified Project conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

Planned improvements for Buildout (2035) at or near the Cajalco Road/I-15 interchange area include the following:

- Widen Cajalco Road from a 2-lane divided roadway to a 4-lane divided roadway, between Bedford Canyon Road and I-15 SB Ramps.
- Widen Cajalco Road from a 2-lane divided roadway to a 6-lane divided roadway, between the I-15 SB and I-15 NB ramps.
- Widen Cajalco Road from a 5-lane divided roadway to a 6-lane divided roadway, between the I-15 NB ramps Temescal Canyon Road.

6.2 2035 PROJECT TRIP GENERATION AND TRAFFIC VOLUME FORECASTS WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT

For 2035 conditions, the Arantine Hills With Modified Project is projected to generate a total of approximately 18,621 external trip-ends per day with 1,217 vehicles per hour during the AM peak hour and 1,756 vehicles per hour during the PM peak hour as shown previously in Table 3-2.

The 2035 without McMillan Trust Property Development volumes have been derived from City of Corona model data and has been reviewed for reasonableness. The reasonableness checks performed include a review of flow conservation in addition to ensuring reasonable peak-to-daily relationships and a minimum growth of ten (10) percent over Existing (2014 and 2015) conditions. Where necessary, the initial raw model estimates were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes.

The 2035 Without Project conditions, Without McMillan Trust Property Development peak hour intersection turning movement and ADT volumes were shown previously on Exhibits 3-19 through 3-21.

The 2035 With Modified Project conditions, Without McMillan Trust Property Development conditions peak hour intersection turning movement and ADT volumes were shown previously on Exhibits 3-22 through 3-24.

6.3 INTERSECTION OPERATIONS ANALYSIS AND RECOMMENDED IMPROVEMENTS

Table 6-1 provides an overall summary of intersection operations in the study area with 2035 Without Project and With Modified Project, Without McMillan Trust Property Development conditions.

For the purposes of this traffic study, the built out conditions of the modified project is evaluated under 2035 conditions. Phase 1 of the project, which is assumed to be completed in 2017, consists of Planning Area 5, 7 and 8, which include 308 single-family detached dwelling units and 0.7 acres of active park uses. Buildout of the remaining planning areas within the modified project adds 799 single-family detached dwelling units, 514 multi-family attached dwelling units, 185 senior housing residential units (cumulative total of 1,806 dwelling units), 80,000 square feet of retail use, 1.5 acres of local park use, and 7.1 acres of active park use (cumulative total of 7.8 acres of active park use).

The 2035 Without Project conditions, Without McMillan Trust Property Development intersection operations analysis worksheets are provided in Appendix "6.1". The 2035 With Modified Project conditions, Without McMillan Trust Property Development intersection operations analysis worksheets are provided in Appendix "6.2".

For 2035 Without Project conditions, Without McMillan Trust Property Development, the following intersections are anticipated to operate at unacceptable level of service, with planned improvements at or near the Cajalco Road / I-15 interchange area:

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona
7	I-15 SB Ramps / El Cerrito Road	Caltrans
12	Temescal Canyon Road / Cajalco Road	Corona
18	Masters Drive / Christopher Lane	Corona
19	Via Castilla Street / Masters Drive	Corona
20	Morales Way / Masters Drive	Corona

For 2035 With Modified Project conditions, Without McMillan Trust Property Development, there are no new intersections anticipated to operate at deficient level of service, in addition to the intersections previously identified under 2035 Without Project Conditions, Without McMillan Trust Property Development.

With the recommended intersection improvements listed below and illustrated on Exhibit 6-1, the deficient intersections identified under 2035 Without Project conditions, Without McMillan Trust Property Development are projected to operate at acceptable level of service during both AM and PM peak hours, in addition to the previously identified improvements under 2017 Without Project conditions. Planned improvements at or near the Cajalco Road / I-15 Interchange area are also included below.

Table 6-1

Intersection Operations Analysis Summary For 2035 Conditions, Without McMillan Trust Property Development Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												2035 Without Project				2035 With Modified Project				LOS Criteria
			Northbound			Southbound			Eastbound			Westbound			Delay[2] (Secs)		Level of Service[2]		Delay[2] (Secs)		Level of Service[2]		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
1	Masters Dr. / California Av.																						
	- Without Improvements	AWS	1	1	0	1	1	0	1	1	0	1	1	1	41.9	29.2	**E**	**D**	43.1	36.6	**E**	**E**	*C*
	- With Improvements	**TS**	1	1	0	1	1	0	1	1	0	1	1	1	21.5	16.9	C	B	22.9	14.0	C	B	*C*
2	Masters Dr. / Bennett Av.																						
	- Without Improvements	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	9.2	14.6	A	B	9.6	18.3	A	C	*C*
	- With Improvements	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	8.4	8.8	A	A	7.8	8.7	A	A	*C*
3	Masters Dr. / Eagle Glen Pkwy.																						
	- Without Improvements	AWS	0	0	0	1	0	1	1	2	0	0	2	0	14.1	37.8	B	**E**	24.9	56.3	C	**F**	*D*
	- With Improvements	**TS**	0	0	0	1	0	1	1	2	0	0	2	0	12.4	20.7	B	C	16.1	22.1	B	C	*D*
4	Bedford Cyn. Rd. / El Cerrito Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	33.0	41.9	C	D	38.5	50.5	D	D	*D*
5	Bedford Cyn. Rd. / Georgetown Dr.																						
	- Without Improvements	AWS	1	1	0	0	1	1	0	1	1>>	0	1!	0	18.9	14.6	C	B	24.1	22.1	C	C	*C*
	- With Improvements	**TS**	1	1	0	0	1	1	0	1	1>>	0	1!	0	5.3	4.1	A	A	5.1	3.9	A	A	*C*
6	Bedford Cyn. Rd. / Eagle Glen Pkwy.																						
	- Without Project[4]	TS	0	0	0	1	0	1>	1	***2***	0	0	2	1>	22.4	24.8	C	C	--	--	--	--	*D*
	- With Project Improvements	TS	**1**	**1**	**1>**	**1.5**	**1.5**	1>	1	***2***	0	**2**	2	1>	--	--	--	--	40.5	37.2	D	D	*D*
7	I-15 SB Ramps / El Cerrito Rd.																						
	- Without Improvements	TS	0	0	0	0	1	1	0	2	0	1	2	0	57.6	68.0	**E**	**E**	58.6	86.2	**E**	**F**	*D*
	- With Improvements	TS	0	0	0	0	1	1	0	2	**1**	1	2	0	44.9	47.8	D	D	46.0	50.4	D	D	*D*
8	I-15 SB Ramps / Cajalco Rd.																						
	- With Planned Improvements[4]	TS	0	0	0	***2***	0	***2***	***2***	***2***	0	0	***2***	1	21.1	24.3	C	C	21.9	38.7	C	D	*E*
	- With Additional Improvements[5]	TS	0	0	0	***2***	0	***2***	***2***	**3**	0	0	***2***	1	21.0	24.2	C	C	20.3	37.1	C	D	*E*
9	I-15 NB Ramps / El Cerrito Rd.	TS	0	1!	0	0	0	0	2	1	0	0	2	0	52.3	32.1	D	C	51.6	25.8	D	C	*D*
10	I-15 NB Ramps / Cajalco Rd.[4]	TS	***2***	0	***2***	0	0	0	0	***3***	***1>***	0	***4***	0	12.1	15.8	B	B	19.7	17.7	B	B	*E*
11	Grand Oaks / Cajalco Rd.[4]	TS	0	1!	0	0.5	0.5	2>	2	***3***	0	1	3	1	36.9	30.2	D	C	37.6	30.8	D	C	*D*
12	Temescal Cyn. Rd. / Cajalco Rd.																						
	- Without Improvements	TS	2	2	1	1	2	0	1	1	1	1	3	0	55.5	96.4	**E**	**F**	60.4	101.6	**E**	**F**	*D*
	- With Improvements	TS	2	2	1	**2**	2	0	1	**2**	1	1	3	**1**	49.7	47.8	D	D	52.0	49.4	D	D	*D*

Table 6-1

Intersection Operations Analysis Summary For 2035 Conditions, Without McMillan Trust Property Development Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												2035 Without Project				2035 With Modified Project				LOS Criteria
			Northbound			Southbound			Eastbound			Westbound			Delay[2] (Secs)		Level of Service[2]		Delay[2] (Secs)		Level of Service[2]		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
13	St. "C" / Eagle Glen Pkwy.	**TS**	**1**	0	**1**	0	0	0	0	2	0	**1**	1	0	--	--	--	--	25.6	27.0	C	C	*D*
14	St. "C" / St. "B"	**RDB**	0	0	0	0	**1!**	0	**0.5**	**0.5**	0	0	**1**	0	--	--	--	--	5.1	5.9	A	A	*C*
15	St. "A" - St. "D" / St. "B"	**RDB**	0	**1**	0	0	**1**	0	0	**1**	0	0	0	0	--	--	--	--	6.2	7.6	A	A	*C*
16	St. "A" / TAZ 4 Main Dwy.	**TS**	0	**2**	0	**1**	**2**	0	0	0	0	**1**	0	**1**	--	--	--	--	6.6	11.1	A	B	*C*
17	St. "A" / TAZ 4 S. Dwy.	**CSS**	0	**2**	0	**1**	**2**	0	0	0	0	0	**1!**	0	--	--	--	--	10.5	12.6	B	B	*C*
18	Masters Dr. / Christopher Ln.																						
	- Without Improvements	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	39.3	35.5	**E**	**E**	39.8	39.3	**E**	**E**	*C*
	- With Roundabout	**RDB**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	14.1	10.0	B	A	16.0	10.9	C	B	*C*
	- With Traffic Signal	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	5.4	4.1	A	A	5.5	4.1	A	A	*C*
19	Via Castilla St. / Masters Dr.																						
	- Without Improvements	AWS	0	0	0	0	1!	0	1	1	0	0	1	0	12.6	25.2	B	**D**	13.6	36.1	B	**E**	*C*
	- With Roundabout	**RDB**	0	0	0	0	1!	0	0	1	0	0	1	0	7.2	9.7	A	A	7.6	10.7	A	B	*C*
	- With CSS control	CSS	0	0	0	0	1!	0	1	1	0	0	1	0	13.1	16.3	B	C	13.7	18.1	B	C	*C*
20	Morales Wy. / Masters Dr.																						
	- Without Improvements	AWS	0	1!	0	0	1!	0	1	1	0	1	1	0	11.5	25.1	B	**D**	12.5	34.9	B	**D**	*C*
	- With Roundabout	**RDB**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	6.6	9.6	A	A	7.0	10.7	A	B	*C*
	- With Traffic Signal	**TS**	0	1!	0	0	1!	0	1	1	0	1	1	0	12.5	14.6	B	B	12.4	15.9	B	B	*C*
21	Bennett Av. / Eagle Glen Pkwy.	CSS	0	0	0	1	0	1	1	1	0	0	2	0	20.9	18.3	C	C	21.2	19.1	C	C	*C*

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; > = Right Turn Overlap; >> = Free-Right; **1** = Improvement; ***1*** = Planned Interchange Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service calculated using Syncrho 8.0 analysis software.
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

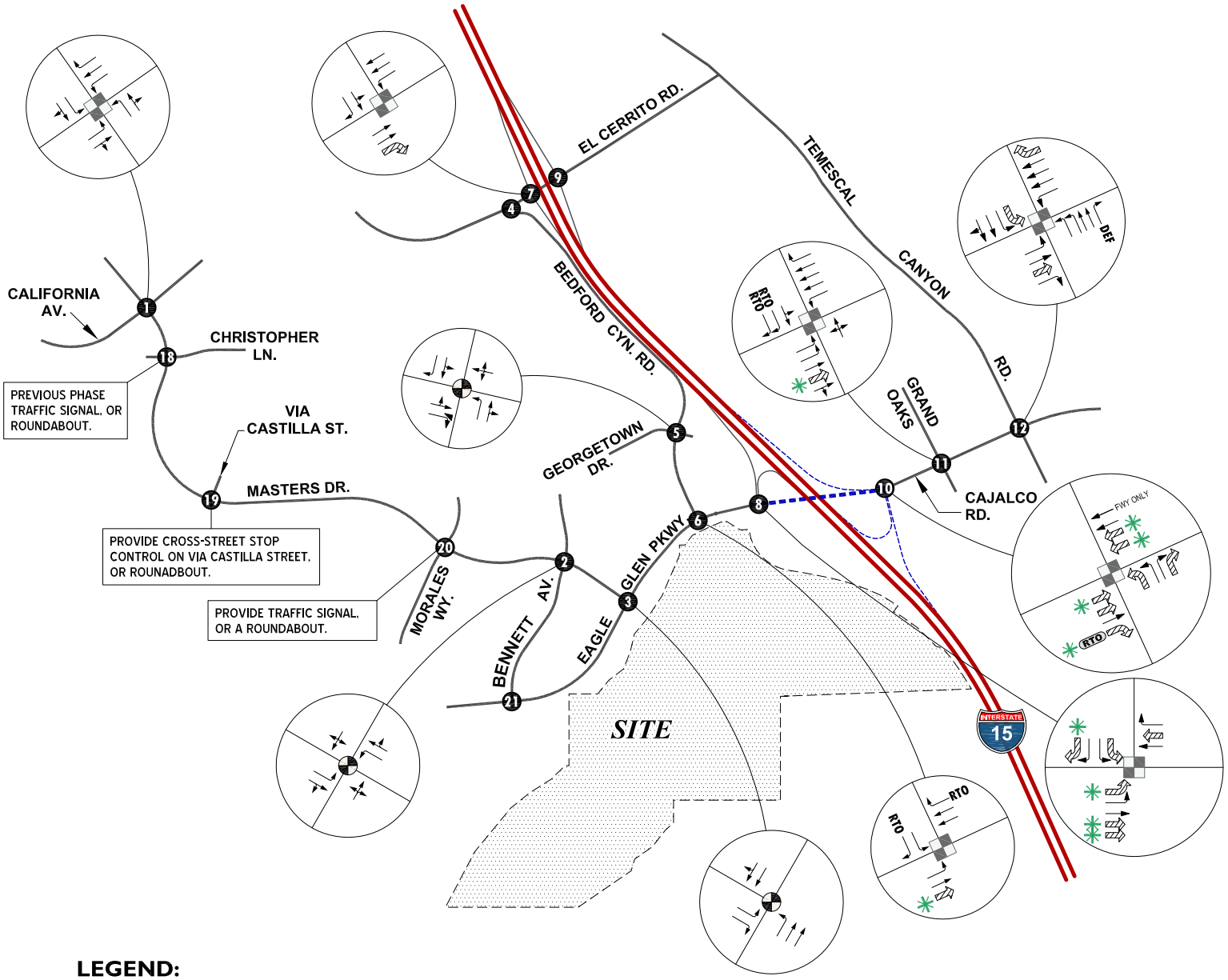
[3] AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop; RDB = Roundabout

[4] Planned Interchange improvements

[5] Per City of Corona staff, a 3rd EBT lane is recommended.

EXHIBIT 6-1

RECOMMENDED OFF-SITE INTERSECTION IMPROVEMENTS FOR FOR 2035 WITHOUT PROJECT CONDITIONS, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT



LEGEND:

- 21 = INTERSECTION ID
- = PROPOSED BRIDGE & RAMP ALIGNMENT
- = CURRENT PHASE TRAFFIC SIGNAL IMPROVEMENT
- = EXISTING/PREVIOUS PHASE TRAFFIC SIGNAL
- = EXISTING LANE
- = LANE IMPROVEMENT NEEDED WITHOUT PROJECT
- = CURRENT PHASE, PROVIDE NEW RECEIVING LANE
- RTO = EXISTING RIGHT TURN OVERLAP
- RTO = RIGHT TURN OVERLAP NEEDED WITHOUT PROJECT
- DEF = DEFACTO RIGHT TURN LANE

N

Masters Drive / Eagle Glen Parkway (#3)

- Install a traffic signal.

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- Adjust the east leg striping to provide a 2nd receiving lane.
- EB Approach: Modify striping to provide a shared through-right turn lane.

I-15 SB Ramps / El Cerrito Road (#7)

- EB Approach: Construct a separate right turn lane

I-15 SB Ramps / Cajalco Road (#8)

- SB Approach: Construct a 2nd left turn lane and 2nd right turn lane.
- EB Approach: Construct a 2nd left turn lane, 2nd through lane, and 3rd through lane.
- WB Approach: Construct a 2nd through lane

I-15 NB Ramps / Cajalco Road (#10)

- NB Approach: Construct a 2nd left turn lane and 2nd right turn lane.
- EB Approach: Construct a 2nd and 3rd through lanes and one right turn lane with overlap phasing.
- WB Approach: Construct a 2nd and 3rd through lanes.

Grand Oaks / Cajalco Road (#11)

- EB Approach: Construct a 3rd through lane.

Temescal Canyon Road / Cajalco Road (#12)

- Widen Cajalco Road from four-lane divided to six-lane divided roadway, east of Temescal Canyon Road.
- SB Approach: Modify striping to provide a 2nd left turn lane, in addition to the existing two through lanes.
- EB Approach: Modify striping to provide a 2nd through lane, in addition to the existing left turn lane and right turn lane.
- WB Approach: Construct one right turn lane.

Masters Drive / Christopher Lane (#18)

- Provide traffic signal, or roundabout.

Via Castilla Street / Masters Drive (#19)

- Provide cross-street stop control on Via Castilla Street, or roundabout.

Morales Way / Masters Drive (#20)

- Provide traffic signal, or roundabout.

Traffic signal improvements are also recommended at the following intersections based on the traffic signal warrant results discussed in section 6.5:

Masters Drive / Bennett Avenue (#2)

- Install a traffic signal.

Bedford Canyon Road / Georgetown Drive (#5)

- Install a traffic signal.

For 2035 With Modified Project conditions, Without McMillan Trust Property Development, the improvements listed below and illustrated on Exhibit 6-2 are recommended to provide site access, in addition to the previously identified improvements under 2017 With Modified Project (Phase 1) and 2035 Without Project Without McMillan Trust Property Development conditions:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- Construct Street "A" (southerly extension of Bedford Canyon Road) from Eagle Glen Parkway to Street "B" as a four-lane Modified Divided Collector.
- NB Approach: Construct a separate right turn lane with overlap phasing.
- SB Approach: Modify striping to provide a shared left/through lane.
- WB Approach: Construct a 2nd left turn lane.

Street "C" / Eagle Glen Parkway (#13)

- Install a traffic signal.

Street "C" / Street "B" (#14)

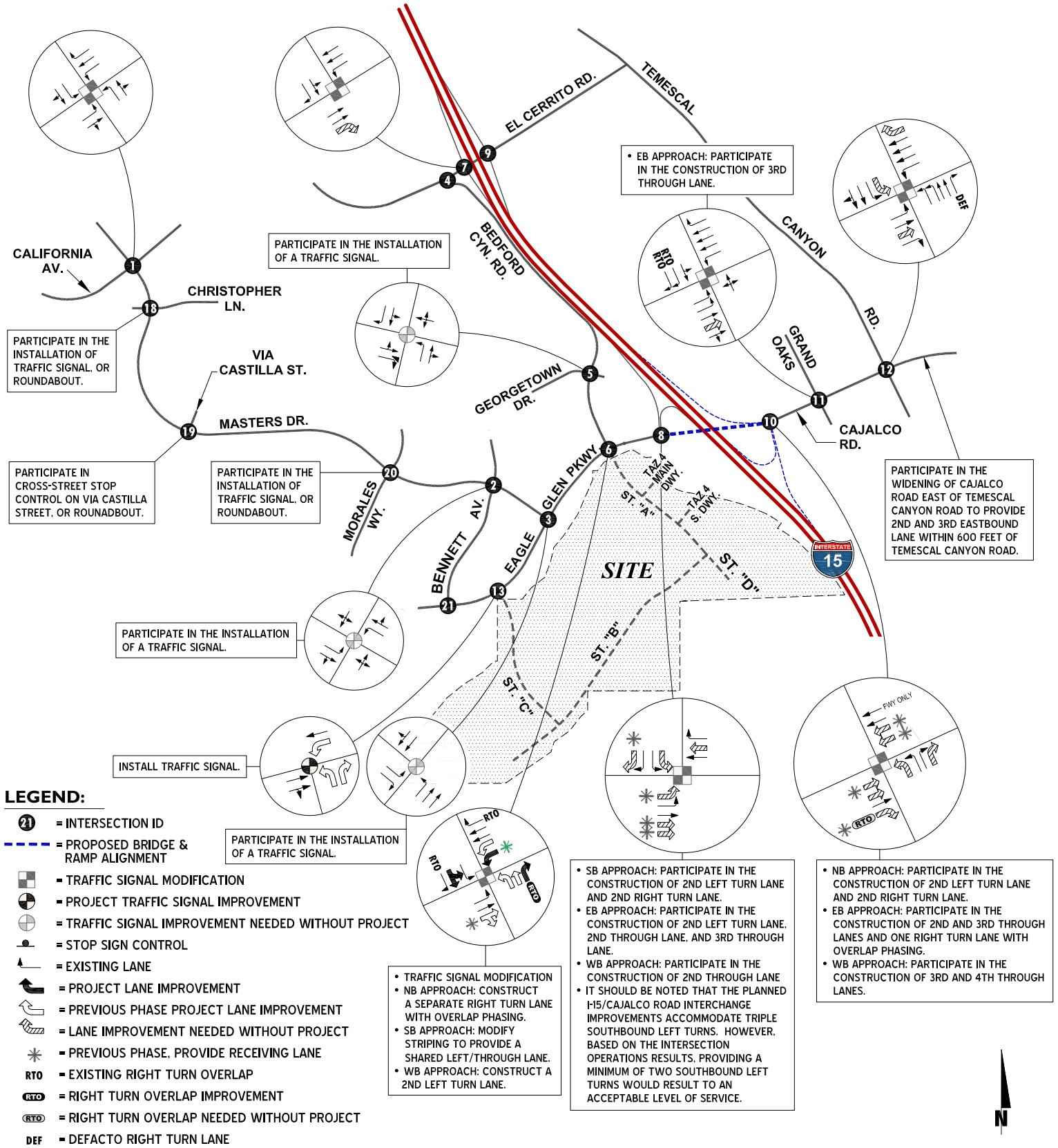
- Construct Street "B", west of Street "C", as a two-lane modified collector.
- Install roundabout.
- SB Approach: Provide a shared left/right turn lane.
- EB Approach: Provide a shared left/through lane.
- WB Approach: Provide a shared through/right turn lane.

Street "A" - Street "D" / Street "B" (#15)

- Construct Street "D", south of Street "B", as a two-lane modified local.
- Install roundabout.
- NB Approach: Provide a shared left/through lane.
- SB Approach: Provide a shared through/right turn lane.
- EB Approach: Provide a shared left/right turn lane.

EXHIBIT 6-2

RECOMMENDED OFF-SITE INTERSECTION IMPROVEMENTS FOR 2035 WITH MODIFIED PROJECT CONDITIONS, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT



LEGEND:

- = INTERSECTION ID
- = PROPOSED BRIDGE & RAMP ALIGNMENT
- = TRAFFIC SIGNAL MODIFICATION
- = PROJECT TRAFFIC SIGNAL IMPROVEMENT
- = TRAFFIC SIGNAL IMPROVEMENT NEEDED WITHOUT PROJECT
- = STOP SIGN CONTROL
- = EXISTING LANE
- = PROJECT LANE IMPROVEMENT
- = PREVIOUS PHASE PROJECT LANE IMPROVEMENT
- = LANE IMPROVEMENT NEEDED WITHOUT PROJECT
- = PREVIOUS PHASE, PROVIDE RECEIVING LANE
- RTO = EXISTING RIGHT TURN OVERLAP
- RTO = RIGHT TURN OVERLAP IMPROVEMENT
- RTO = RIGHT TURN OVERLAP NEEDED WITHOUT PROJECT
- DEF = DEFACTO RIGHT TURN LANE

Street "A" / TAZ 4 Main Driveway (#16)

- Install a traffic signal.
- NB Approach: Provide one through lane and one shared through/right turn lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one left turn lane and one right turn lane.

Street "A" / TAZ 4 South Driveway (#17)

- Install a stop sign control on the westbound approach.
- NB Approach: Provide one through lane and one shared through/right turn lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one shared left/right turn lane.

6.4 ROADWAY SEGMENT CAPACITY ANALYSIS

The 2035 Without Project conditions, Without McMillan Trust Property Development roadway segment capacity analysis are presented on Table 6-2. As shown on Table 6-2, the following roadway segments are estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements.

Roadway Segment Location
Bedford Canyon, south of El Cerrito Road
Bedford Canyon, north of Georgetown Drive
El Cerrito Road, west of Bedford Canyon
El Cerrito Road, east of Bedford Canyon

The 2035 With Modified Project Conditions, Without McMillan Trust Property Development roadway segment capacity analysis are presented on Table 6-3. As shown on Table 6-3, there are no new roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project conditions, Without McMillan Trust Property Development.

For roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, further review of the more detailed peak hour intersection analysis results indicate that the recommended interchange and intersection improvements identified in Section 6.1 and Section 6.3 of this report provide acceptable level of service for both study area intersections and roadway segments.

6.5 TRAFFIC SIGNAL WARRANT ANALYSIS

For 2035 Without Project conditions, Without McMillan Trust Property Development, the following intersections are anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2017 Without Project conditions which includes

Table 6-2

Roadway Volume/Capacity Analysis For

2035 Without Project Conditions, Without McMillan Trust Property Development

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	8,000	0.62
	South of California Av.	2	13,000	8,800	0.68
	South of Christopher Ln.	2	13,000	8,300	0.64
	East of Via Castilla St.	2	13,000	7,500	0.58
	North of Bennett Av.	2	13,000	6,400	0.49
	North of Eagle Glen Pkwy.	2	13,000	6,100	0.47
Bennett Av.	East of Masters Dr.	2	13,000	1,400	0.11
	West of Masters Dr.	2	13,000	1,800	0.14
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	**14,500**	**1.12**
	North of Georgetown Dr.	2	13,000	**14,500**	**1.12**
	North of Eagle Glen Pkwy.	4	26,000	14,200	0.55
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	26,500	0.74
	South of Cajalco Rd.	4	35,900	21,000	0.58
California Dr.	West of Masters Dr.	2	13,000	8,300	0.64
	East of Masters Dr.	2	13,000	10,800	0.83
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	**29,000**	**1.12**
	East of Bedford Cyn.	4	25,900	**35,100**	**1.36**
	East of I-15 NB Ramps	4	25,900	17,200	0.66
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,800	0.22
Eagle Glen Pkwy./	West of Bennett	3	19,400	4,400	0.23
Cajalco Rd.	West of Masters Dr.	4	25,900	7,700	0.30
	West of Bedford Cyn.	***4***	25,900	17,300	0.67
	East of Bedford Cyn.				
	- With Planned Improvements	***4***	35,900	20,600	0.57
	- With Additional Improvements[4]	**5**	44,900	20,600	0.46
	East of I-15 SB Ramps	***6***	53,900	24,900	0.46
	East of I-15 NB Ramps	***7***	62,800	30,700	0.49
	East of Grand Oaks	5	44,900	19,000	0.42
	East of Temescal Cyn. Rd.	4	35,900	30,000	0.84

[1] Number of Through lanes: 2 = Existing; ***2*** = Planned Interchange Improvement.

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways

[3] 2035 Without Project Conditions, Without McMillan Trust Property Development Average Daily Traffic (ADT) expressed in vehicles per day.
BOLD = Estimated to exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

[4] Per City of Corona staff, a 3rd EBT lane is recommended.

Table 6-3

Roadway Volume/Capacity Analysis For 2035 With Modified Project Conditions, Without McMillan Trust Property Development

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	8,200	0.63
	South of California Av.	2	13,000	9,500	0.73
	South of Christopher Ln.	2	13,000	9,200	0.71
	East of Via Castilla St.	2	13,000	8,400	0.65
	North of Bennett Av.	2	13,000	7,400	0.57
	North of Eagle Glen Pkwy.	2	13,000	7,200	0.55
Bennett Av.	East of Masters Dr.	2	13,000	1,500	0.12
	West of Masters Dr.	2	13,000	1,800	0.14
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	**16,300**	**1.25**
	North of Georgetown Dr.	2	13,000	**16,300**	**1.25**
	North of Eagle Glen Pkwy.	4	26,000	16,100	0.62
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	26,800	0.75
	South of Cajalco Rd.	4	35,900	21,600	0.60
California Dr.	West of Masters Dr.	2	13,000	8,500	0.65
	East of Masters Dr.	2	13,000	11,100	0.85
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	**30,100**	**1.16**
	East of Bedford Cyn.	4	25,900	**35,700**	**1.38**
	East of I-15 NB Ramps	4	25,900	17,800	0.69
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,900	0.22
Eagle Glen Pkwy./	West of Bennett Av.	3	19,400	4,700	0.24
Cajalco Rd.	West of Masters Dr.	4	25,900	13,300	0.51
	West of Bedford Cyn.	***4***	25,900	23,100	0.89
	East of Bedford Cyn.				
	- With Planned Improvements	***4***	35,900	**35,800**	**1.00**
	- With Additional Improvements[4]	**5**	44,900	35,800	0.80
	East of I-15 SB Ramps	***6***	53,900	33,700	0.63
	East of I-15 NB Ramps	***7***	62,800	33,100	0.53
	East of Grand Oaks	5	44,900	21,000	0.47
	East of Temescal Cyn. Rd.	4	35,900	31,100	0.87
Steet "A"	South of Eagle Glen Pkwy.	4	26,000	13,400	0.52
Steet "B"	West of Street "C"	2	13,000	3,500	0.27
	East of Street "C"	2	13,000	2,800	0.22
	West of Street "E"	2	13,000	6,400	0.49
Steet "C"	South of Eagle Glen Pkwy.	2	13,000	5,200	0.40
Steet "D"	South of Street "B"	2	13,000	1,600	0.12

[1] Number of Through lanes: 2 = Existing; ***2*** = Planned Interchange Improvement.

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways.

[3] 2035 With 1,806 DU Modified Project - Age Qualified Alternative Conditions, Without McMillan Trust Property Development Average Daily Traffic (ADT) expressed in vehicles per day.

BOLD = Estimated to meet or exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

[4] Per City of Corona staff, a 3rd EBT lane is recommended.

Masters Drive / California Drive (#1) and Masters Drive / Eagle Glen Parkway (#3).

ID	Intersection Location	Jurisdiction
2	Masters Drive / Bennett Avenue	Corona
5	Bedford Canyon Road / Georgetown Drive	Corona
18	Masters Drive / Christopher Lane	Corona
20	Morales Way / Masters Drive	Corona

For 2035 With Modified Project Conditions, Without McMillan Trust Property Development, the intersection of Street "C" / Eagle Glen Parkway (#13) and Street "A" / TAZ 4 Main Driveway (#16) are anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 Without Project Conditions, Without McMillan Trust Property Development.

The 2035 Conditions Without McMillan Trust Property Development traffic signal warrant analysis worksheets are provided in Appendix "6.3".

6.6 RAMP METERING ANALYSIS

The ramp metering analysis results for 2035 Without Project and With Modified Project conditions, Without McMillan Trust Property Development are summarized in Tables 6-4 and 6-5, respectively. Tables 6-4 and 6-5 indicate that the following metered lanes are needed for each on-ramp location under 2035 Without Project and With Modified Project, Without McMillan Trust Property Development conditions:

- I-15 Southbound On-Ramp at El Cerrito Road – 2 lanes
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane
- I-15 Northbound On-Ramp at El Cerrito Road – 2 lanes
- I-15 Northbound Slip On-Ramp at Cajalco Road – 2 lanes
- I-15 Northbound Loop On-Ramp at Cajalco Road – 1 lanes

6.7 FREEWAY MERGE/DIVERGE ANALYSIS

The freeway merge/diverge analysis results for 2035 Without Project and With Modified Project conditions, Without McMillan Trust Property Development conditions are summarized in Tables 6-6 and 6-7, respectively. Tables 6-6 and 6-7 indicates that the following ramp merge and diverge points are at or exceed acceptable levels of service with planned interchange improvements:

- I-15 SB Off Ramp at El Cerrito Road
- I-15 SB On Ramp at El Cerrito Road
- I-15 SB Off Ramp at Cajalco Road
- I-15 SB On Ramp at Cajalco Road
- I-15 NB On Ramp at El Cerrito Road
- I-15 NB Off Ramp at El Cerrito Road

Table 6-4

2035 Without Project Conditions, Without McMillan Trust Property Development
Ramp Metering Analysis Summary

ID	On-Ramp Location	Volume		Required Number of Ramp Metered Lanes[1]
		AM	PM	
7	I-15 Southbound On-Ramp at El Cerrito Road	732	1,022	2
8	I-15 Southbound On-Ramp at Cajalco Road	373	632	1
9	I-15 Northbound On-Ramp at El Cerrito Road	939	586	2
10a	I-15 Northbound Slip On-Ramp at Cajalco Road	1,132	507	2
10b	I-15 Northbound Loop On-Ramp at Cajalco Road	362	257	1

[1] Ramp metered lane traffic flow threshold is 900 vehicles per hour (vph)on/off ramps.

Table 6-5

2035 With Modified Project Conditions,
Without McMillan Trust Property Development Ramp Metering Analysis Summary

ID	On-Ramp Location	Volume		Required Number of Ramp Metered Lanes[1]
		AM	PM	
7	I-15 Southbound On-Ramp at El Cerrito Road	732	1,022	2
8	I-15 Southbound On-Ramp at Cajalco Road	551	777	1
9	I-15 Northbound On-Ramp at El Cerrito Road	939	586	2
10a	I-15 Northbound On-Ramp at Cajalco Road	1,132	507	2
10b	I-15 Northbound Loop On-Ramp at Cajalco Road	837	594	1

[1] Ramp metered lane traffic flow threshold is 900 vehicles per hour (vph)on/off ramps.

TABLE 6-6

2035 Without Project Conditions, Without McMillan Trust Property Development Conditions

Freeway Ramp Analysis

Freeway	Direction	Ramp Location	Junction Type	Lanes on Freeway	Ramp Lanes	Volume		Density [1] (pc/mi/ln)		LOS [2]	
						AM	PM	AM	PM	AM	PM
I-15 Freeway	Southbound	SB Off Ramp at El Cerrito Road	Diverge	3	1	770	686	40.8	52.5	E	F
		SB On Ramp at El Cerrito Road	Merge	3	1	732	1,022	48.9	62.6	F	F
		SB Off Ramp at Cajalco Road	Diverge	3	2[4]	602	931	45.8	61.1	F	F
		SB On Ramp at Cajalco Road	Merge	3	1	373	632	45.8	59.0	F	F
	Northbound	NB On Ramp at El Cerrito Road	Merge	3	1	939	586	74.4	73.9	F	F
		NB Off Ramp at El Cerrito Road	Diverge	3	1	664	532	80.5	81.9	F	F
		NB Slip On Ramp at Cajalco Road	Merge	3	1	1,132	507	73.1	74.8	F	F
		NB Loop On Ramp at Cajalco Road	Merge	3	1	362	257	63.7	70.5	F	F
		NB Off Ramp at Cajalco Road	Diverge	3	1	336	592	69.3	81.2	F	F

[1] Density calculated based on the Highway Capacity Manual (HCM) analysis; (pc/mi/ln) = passenger car per mile per lane

[2] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.60

[3] Volume-to-Capacity ratio > 1.0, LOS = "F"

[4] Planned Interchange Improvement

TABLE 6-7

2035 With Modified Project Conditions,

Without McMillan Trust Property Development Freeway Ramp Analysis

Freeway	Direction	Ramp Location	Junction Type	Lanes on Freeway	Ramp Lanes	Volume		Density [1] (pc/mi/ln)		LOS [2]	
						AM	PM	AM	PM	AM	PM
I-15 Freeway	Southbound	SB Off Ramp at El Cerrito Road	Diverge	3	1	770	686	42.2	57.0	E	F
		SB On Ramp at El Cerrito Road	Merge	3	1	732	1,022	50.2	67.3	F	F
		SB Off Ramp at Cajalco Road	Diverge	3	2[4]	768	1,460	47.3	65.6	F	F
		SB On Ramp at Cajalco Road	Merge	3	1	551	777	47.1	60.0	F	F
	Northbound	NB On Ramp at El Cerrito Road	Merge	3	1	939	586	78.1	76.6	F	F
		NB Off Ramp at El Cerrito Road	Diverge	3	1	664	532	84.5	84.8	F	F
		NB Slip On Ramp at Cajalco Road	Merge	3	1	1,132	507	76.8	77.4	F	F
		NB Loop On Ramp at Cajalco Road	Merge	3	1	837	594	67.1	72.9	F	F
		NB Off Ramp at Cajalco Road	Diverge	3	1	405	810	69.9	83.1	F	F

[1] Density calculated based on the Highway Capacity Manual (HCM) analysis; (pc/mi/ln) = passenger car per mile per lane

[2] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.60

[3] Volume-to-Capacity ratio > 1.0, LOS = "F"

[4] Planned Interchange Improvement

- I-15 NB Slip On Ramp at Cajalco Road
- I-15 NB Loop On Ramp at Cajalco Road
- I-15 NB Off Ramp at Cajalco Road

Ramp merge and diverge analysis worksheets for 2035 Without Project conditions, Without McMillan Trust Property Development are included in Appendix "6.4". For 2035 With Modified Project conditions, Without McMillan Trust Property Development ramp merge and diverge analysis worksheets are included in Appendix "6.5".

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7.0 2035 TRAFFIC ANALYSIS WITH MCMILLAN TRUST PROPERTY DEVELOPMENT

The McMillan Trust Property Development (APN: 282-040-003-7) consists of 300 single family residential units. As shown on Exhibit 7-1, this property is located south of the Arantine Hills Modified project.

7.1 ADJACENT DEVELOPMENT TRIP GENERATION AND DISTRIBUTION

Trip generation rates used to estimate McMillan Trust Property Development (also referred to as "adjacent development") traffic are shown in Table 7-1 and have been obtained from the current version of the ITE Trip Generation Manual.

TABLE 7-1: MCMILLAN TRUST PROPERTY DEVELOPMENT TRIP GENERATION RATES[1]

Land Use	ITE CODE	Quantity	Units[2]	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
Single Family Detached	210	300	DU	0.19	0.56	0.75	0.63	0.37	1.00	9.52

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 9th Edition (2012).
[2] DU = Dwelling Units

Table 7-2 presents the McMillan Trust Property Development trip generation summary. The McMillan Trust Property Development is anticipated to generate a total of approximately 2,856 trips per day with 225 AM peak hour trips and 300 PM peak hour trips.

TABLE 7-2: MCMILLAN TRUST PROPERTY DEVELOPMENT TRIP GENERATION SUMMARY

Land Use	ITE CODE	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
Single Family Detached	210	300	DU	57	168	225	189	111	300	2,856
McMillan Trust Property Development Total Trips				**57**	**168**	**225**	**189**	**111**	**300**	**2,856**

[1] DU = Dwelling Unit

It should be noted that for "With Modified Project" conditions, interaction between the McMillan Trust Property Development and Modified Project's retail use is anticipated. Therefore, Table 7-3 presents the total trip generation summary with internal capture adjustments for the McMillan Trust Property with the Modified Project. As shown in Table 7-3, the McMillan Trust Property Development, with interaction with the Modified Project's retail use is anticipated to generate 2,676 external trips per day with 220 AM peak hour external trips and 280 PM peak hour external trips. Consequently, the Modified Project with McMillan Trust Property interaction is anticipated to generate a total of approximately 18,441 external trips per day with 1,212 AM peak hour external trips and 1,736 PM peak hour trips

Table 7-3

McMillan Trust Property Development Trip Generation Results with Internal Interaction With Modified Project

Land Use	ITE CODE	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
Single Family Detached	210	300	DU	57	168	225	189	111	300	2,856
McMillan Residential Internal Capture with Mod. Proj. Retail				*(2)*	*(3)*	*(5)*	*(15)*	*(5)*	*(20)*	*(178)*
McMillan Trust Property Development Total External Trips *(less Modified Project retail interaction)*				**55**	**165**	**220**	**174**	**106**	**280**	**2,678**
Modified Project, Without McMillan Trust Property Development Total External Trips				322	863	1,185	1,024	674	1,698	18,199
Mod. Proj. Retail Internal Capture with McMillan Residential				*(3)*	*(2)*	*(5)*	*(5)*	*(15)*	*(20)*	*(178)*
Modified Project Total External Trips *(less McMillan Residential interaction)*				**319**	**861**	**1,180**	**1,019**	**659**	**1,678**	**18,021**
Arantine Hills Modified Project, With McMillan Trust Property Development Total External Trips				**374**	**1,026**	**1,400**	**1,193**	**765**	**1,958**	**20,699**

[1] DU = Dwelling Units

The McMillan Trust Property Development Without Modified Project and With Project Roadway trip distribution patterns are presented on Exhibits 7-1 and Exhibit 7-2. Exhibit 7-3 illustrates the internal interaction trip distribution pattern between the Modified Project Retail (TAZ 4) and McMillan Trust Property Development.

7.2 2035 Traffic Volume Forecasts With Adjacent Development

The 2035 Without Project conditions, With McMillan Trust Property Development peak hour intersection turning movement and ADT volumes are shown on Exhibits 7-4 through 7-6.

The 2035 With Modified Project conditions, With McMillan Trust Property Development peak hour intersection turning movement and ADT volumes are shown on Exhibits 7-7 through 7-9.

7.3 Intersection Operations Analysis and Recommended Improvements

Table 7-4 provides an overall summary of intersection operations in the study area with 2035 Without Project and With Modified Project, With McMillan Trust Property Development conditions.

The 2035 Without Project conditions, With McMillan Trust Property Development intersection operations analysis worksheets are provided in Appendix "7.1". The 2035 With Modified Project conditions, With McMillan Trust Property Development intersection operations analysis worksheets are provided in Appendix "7.2".

For 2035 Without Project conditions, With McMillan Trust Property Development, there are no new intersections anticipated to operate at unacceptable level of service, in addition to the deficient intersections previously identified in Section 6.3 under 2035 Without Project Without McMillan Trust Property Development conditions

For 2035 With Modified Project conditions, With McMillan Trust Property Development, there are no new intersections anticipated to operate at deficient LOS, in addition to the intersections previously identified under 2035 Without Project conditions, With McMillan Trust Property Development conditions.

There improvements listed below and illustrated on Exhibit 7-10 are recommended under 2035 Without Project conditions, With McMillan Trust Property Development, in addition to the previously identified improvements in Section 6.3 under 2035 Without Project conditions, Without McMillan Trust Property Development.

Street "C" / Eagle Glen Parkway (#13)

- Install a traffic signal.
- NB Approach: Construct one left turn lane and one right turn lane.
- WB Approach: Modify striping to provide left turn lane.

EXHIBIT 7-1

MCMILLAN TRUST PROPERTY DEVELOPMENT
WITHOUT PROJECT ROADWAY TRIP DISTRIBUTION PATTERN

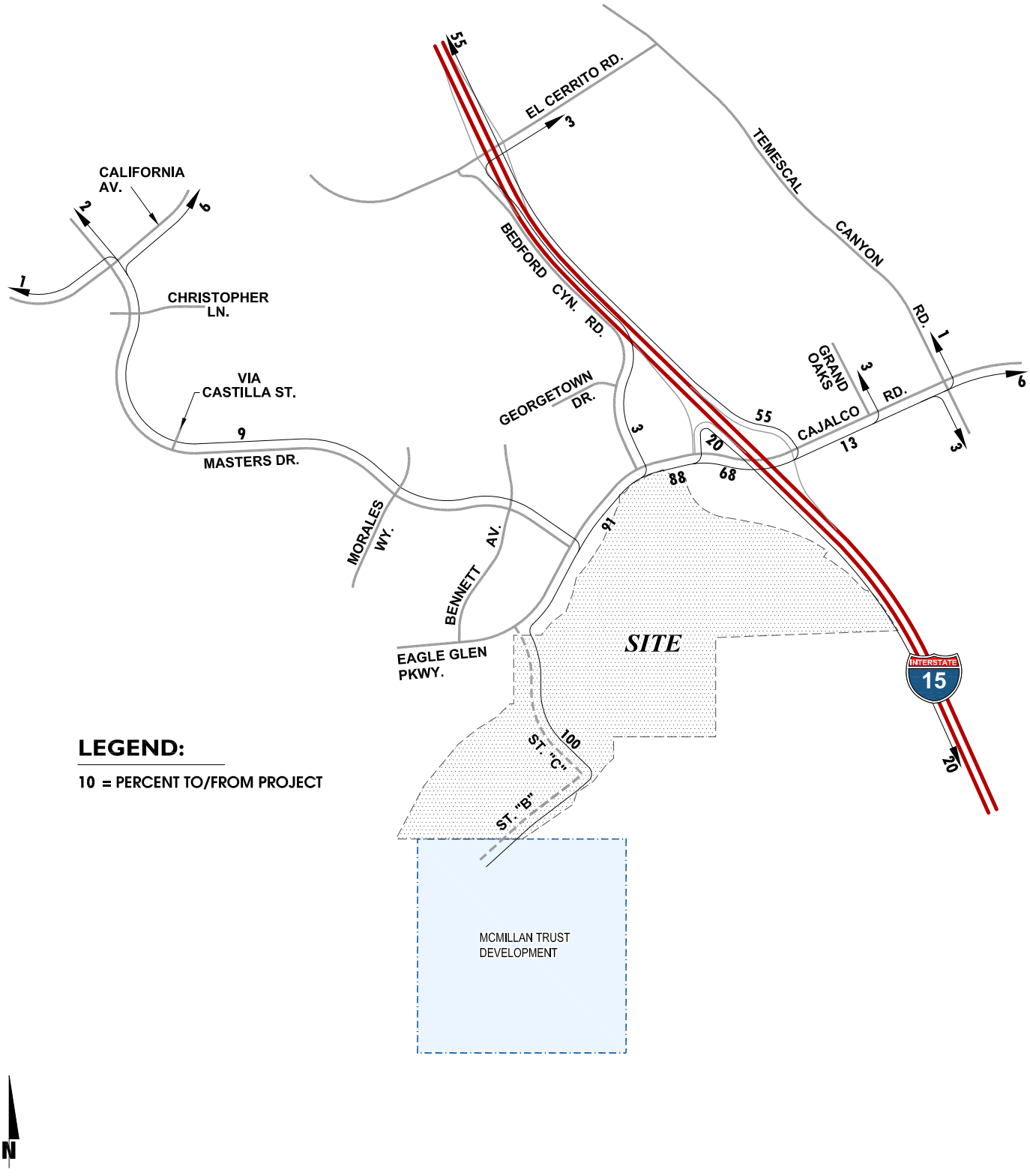


EXHIBIT 7-2

MCMILLAN TRUST PROPERTY DEVELOPMENT WITH MODIFIED PROJECT ROADWAY TRIP DISTRIBUTION PATTERN

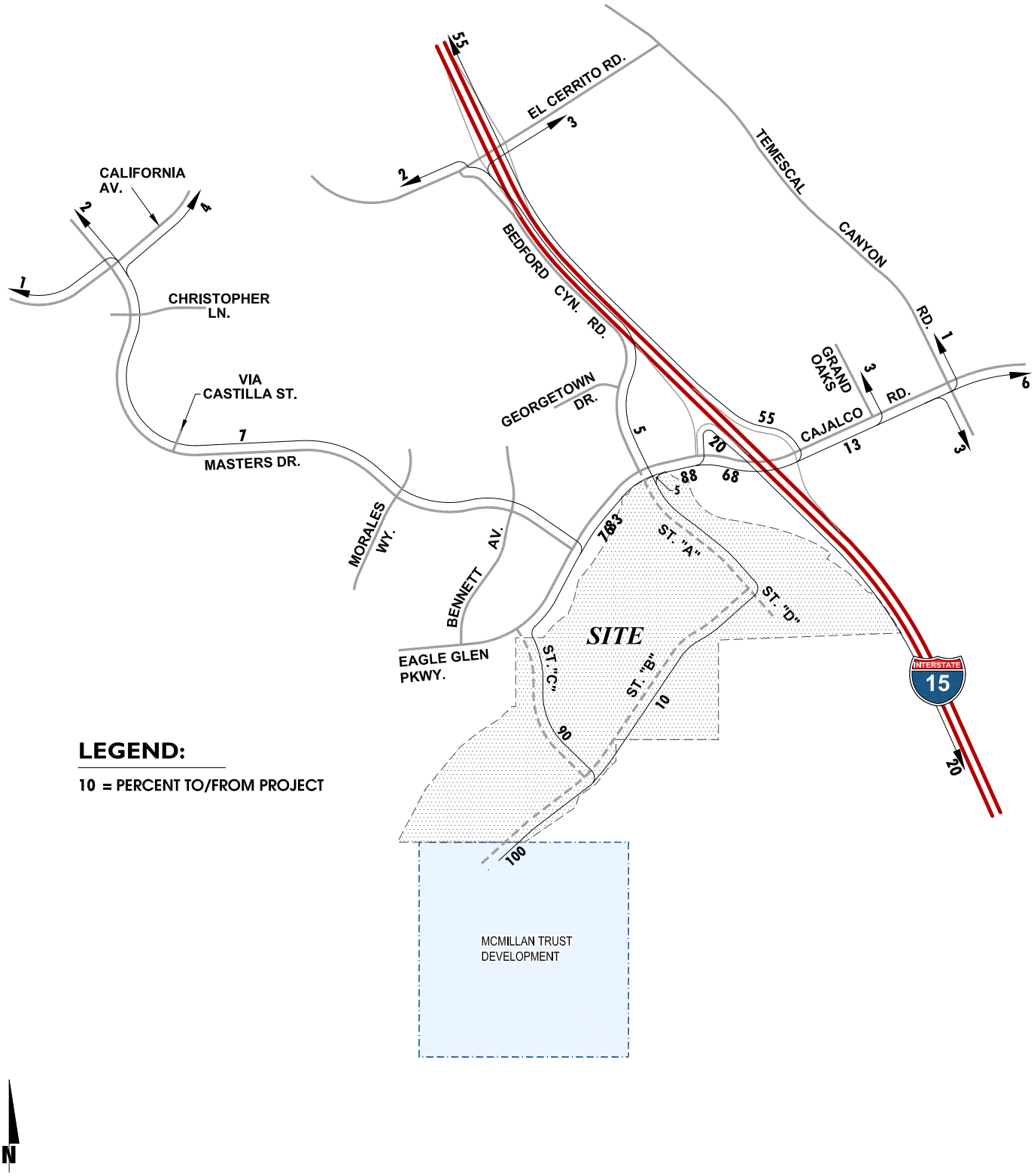
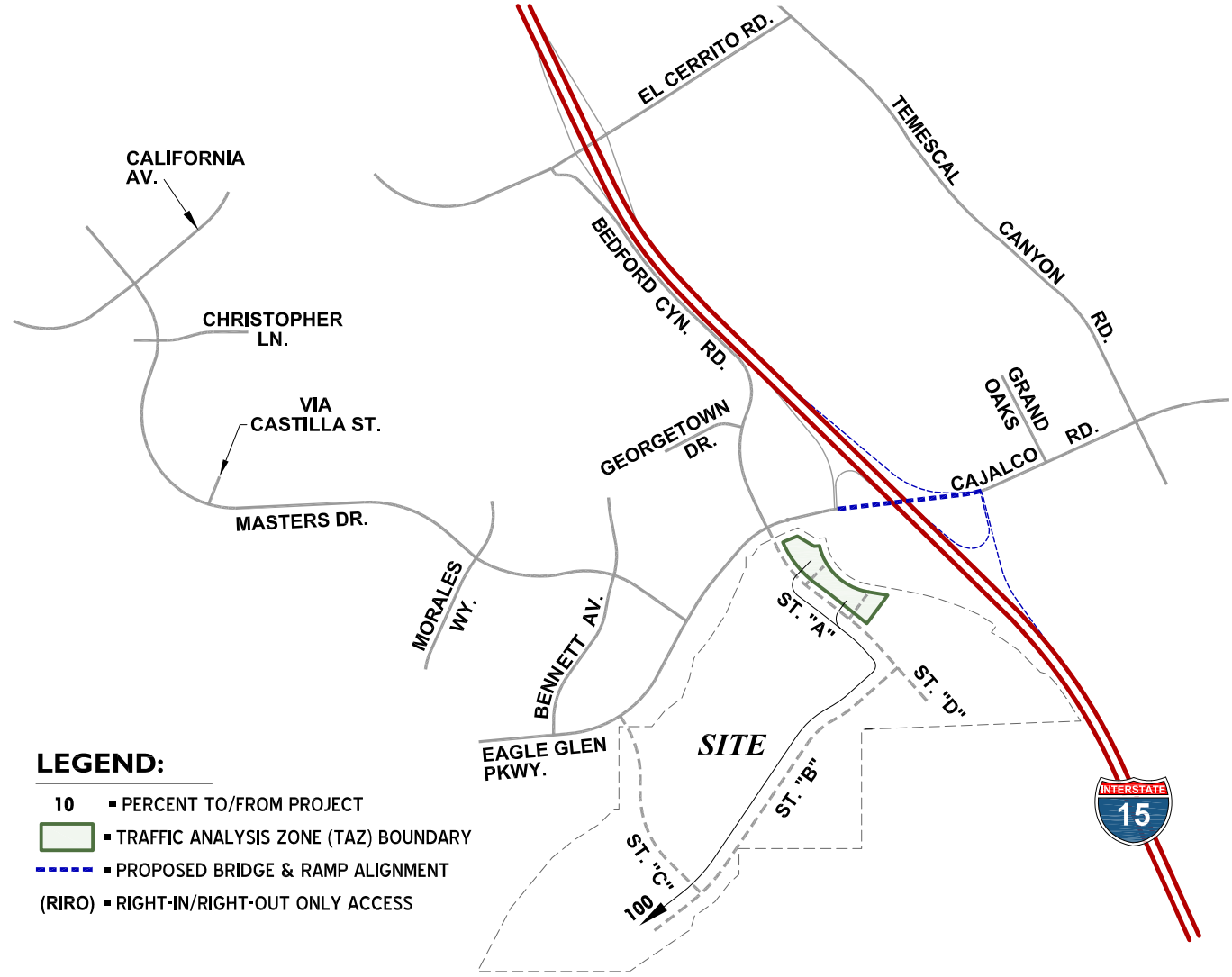
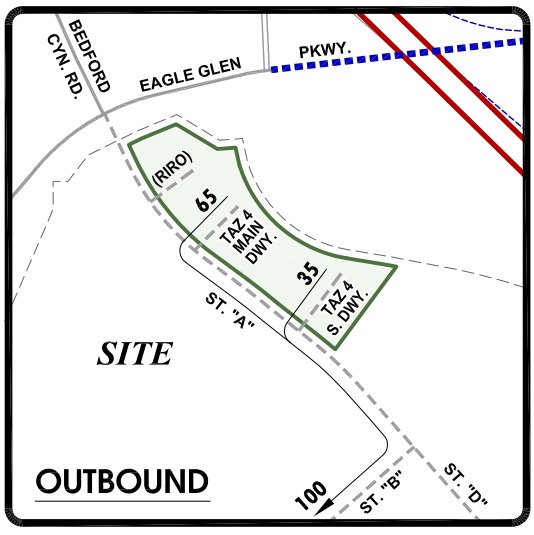
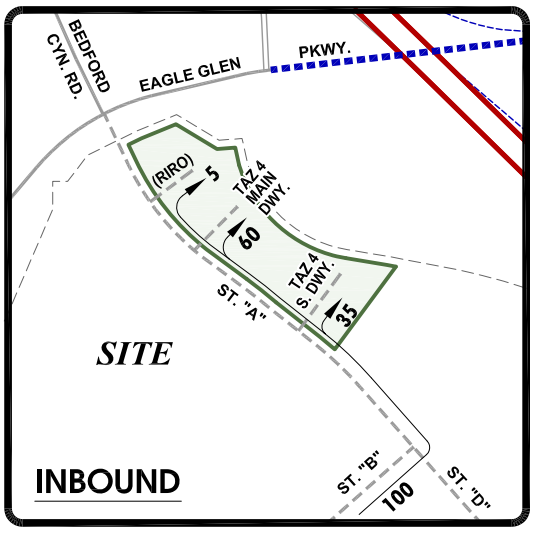


EXHIBIT 7-3

PROJECT TAZ 4 - RETAIL (2035)
INTERNAL INTERACTION WITH MCMILLAN RESIDENTIAL
TRIP DISTRIBUTION PATTERN







N

EXHIBIT 7-4

2035 WITHOUT PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT AM PEAK HOUR INTERSECTION VOLUMES

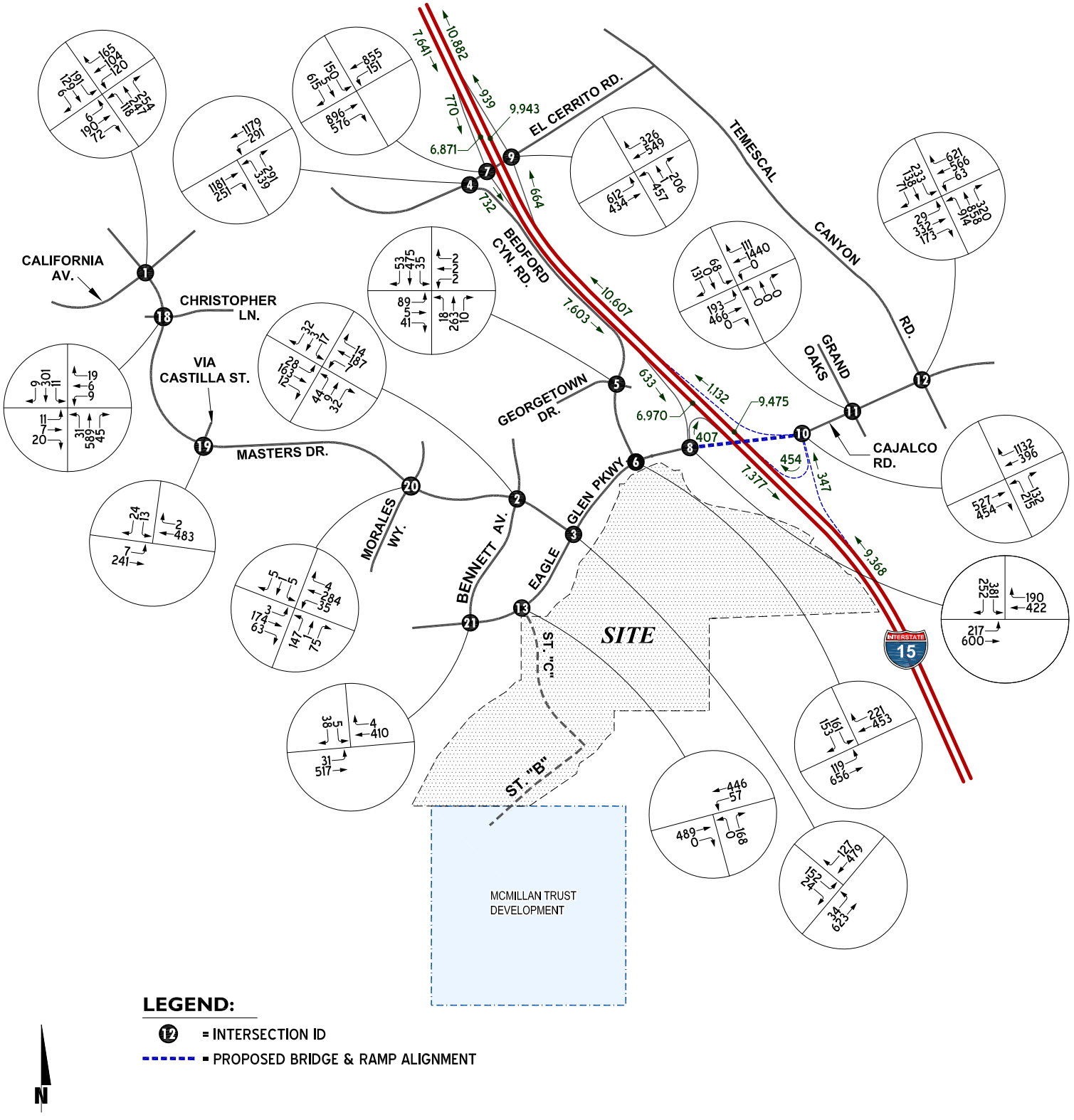


EXHIBIT 7-5

2035 WITHOUT PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT PM PEAK HOUR INTERSECTION VOLUMES

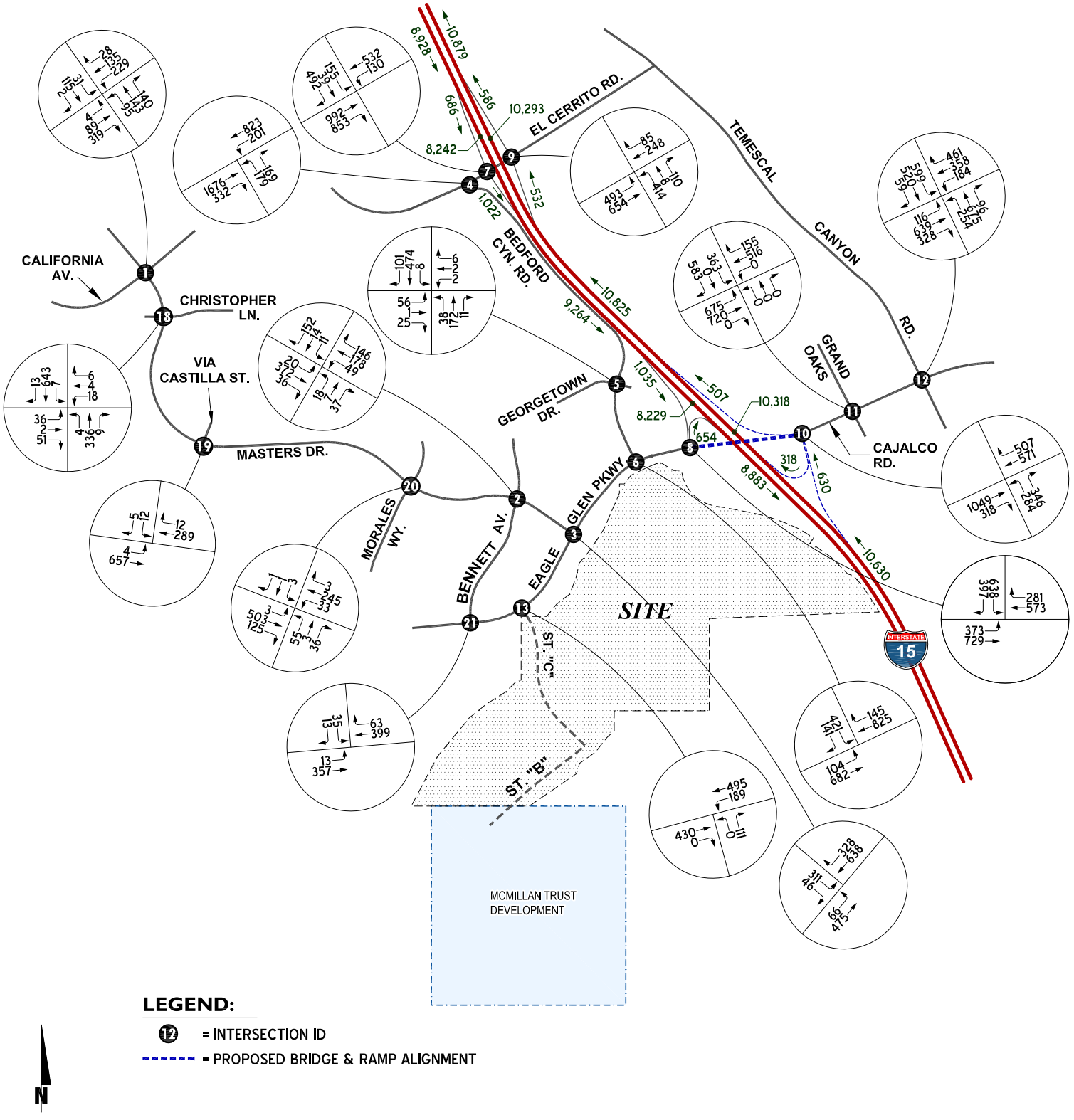
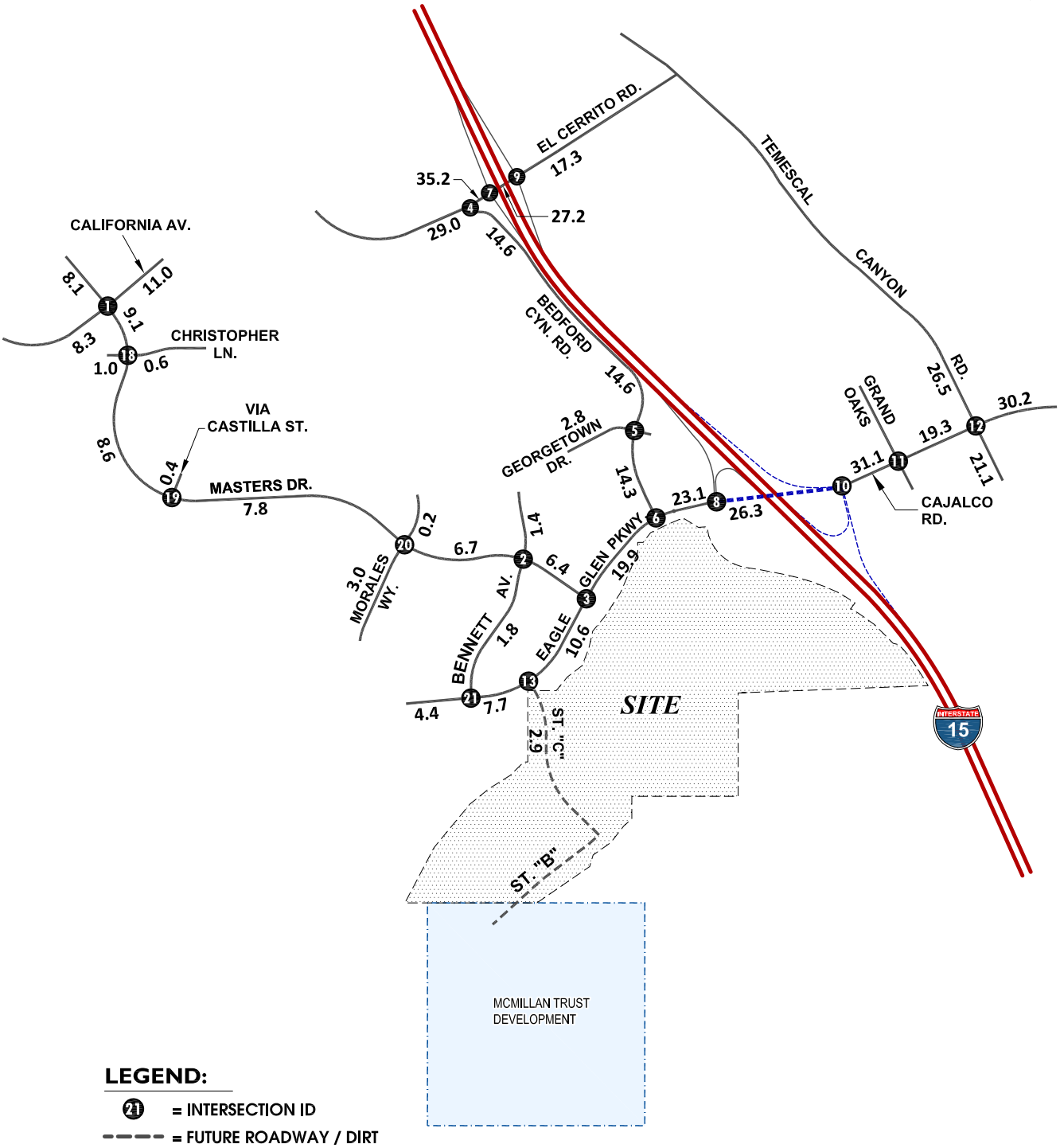


EXHIBIT 7-6

2035 WITHOUT PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

- 21 = INTERSECTION ID
- = FUTURE ROADWAY / DIRT
- = PROPOSED BRIDGE & RAMP ALIGNMENT
- 10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 7-7

2035 WITH MODIFIED PROJECT WITH MCMILLAN TRUST PROPERTY DEVELOPMENT AM PEAK HOUR INTERSECTION VOLUMES

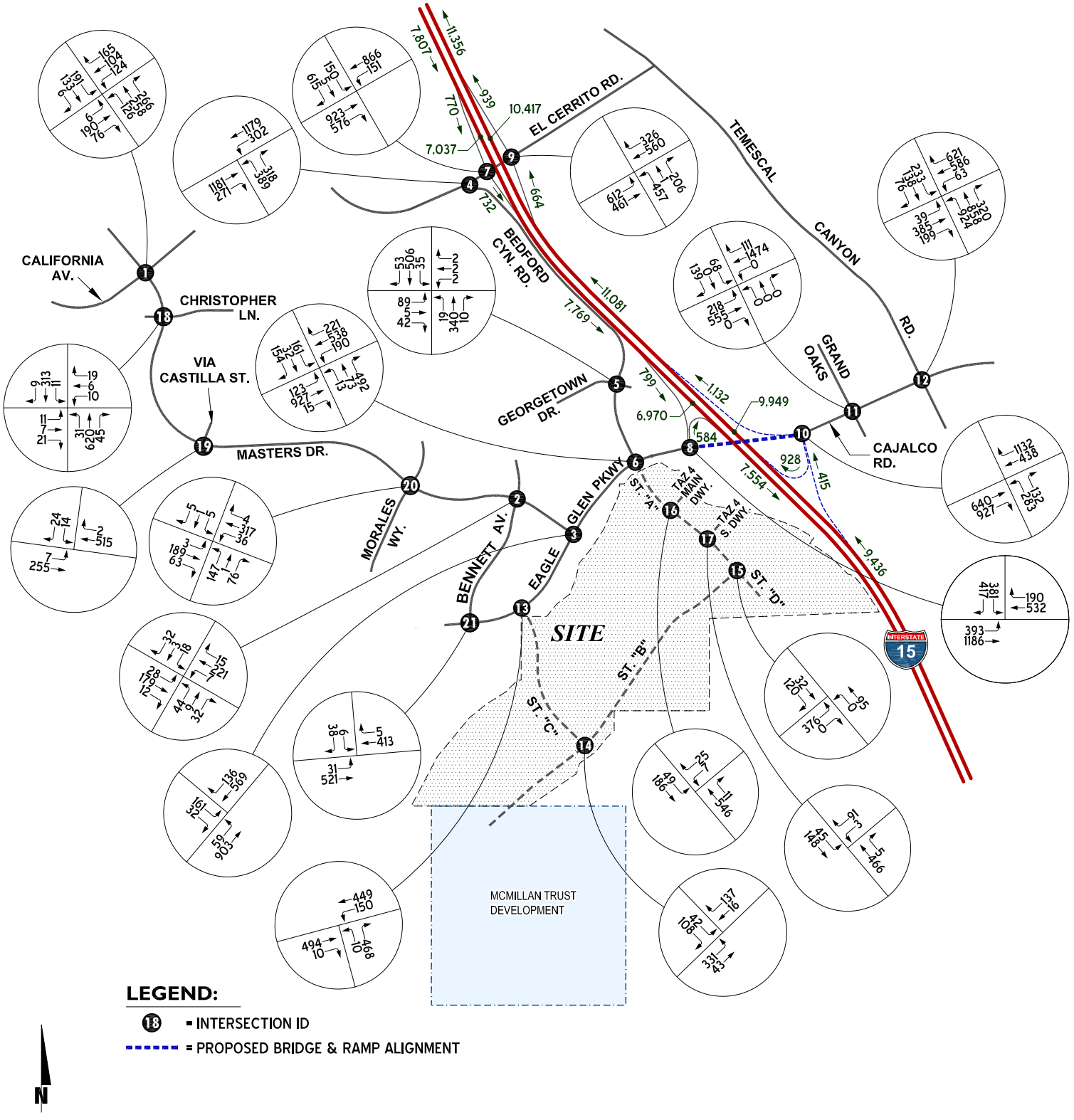


EXHIBIT 7-8

2035 WITH MODIFIED PROJECT WITH MCMILLAN TRUST PROPERTY DEVELOPMENT PM PEAK HOUR INTERSECTION VOLUMES

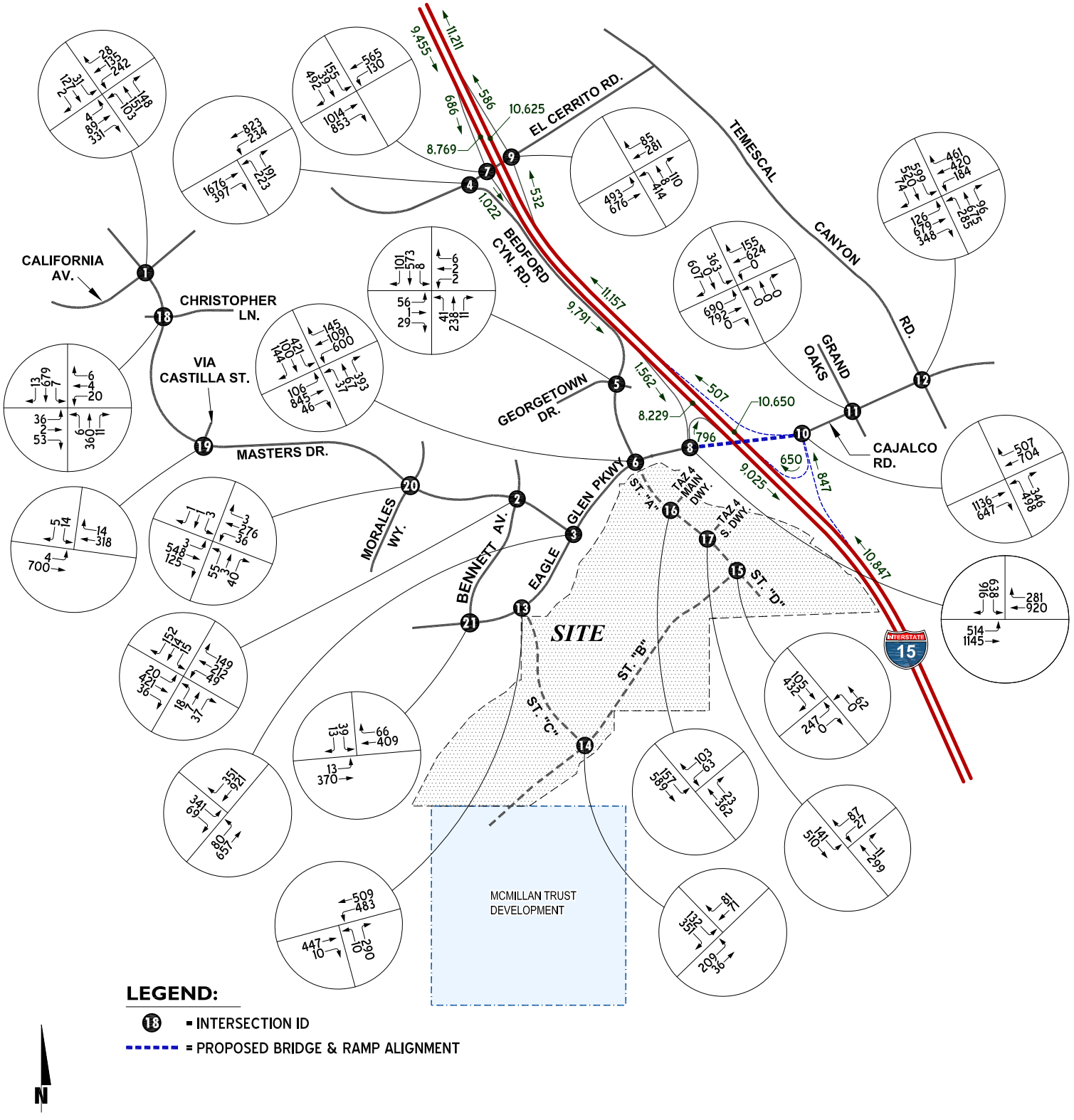
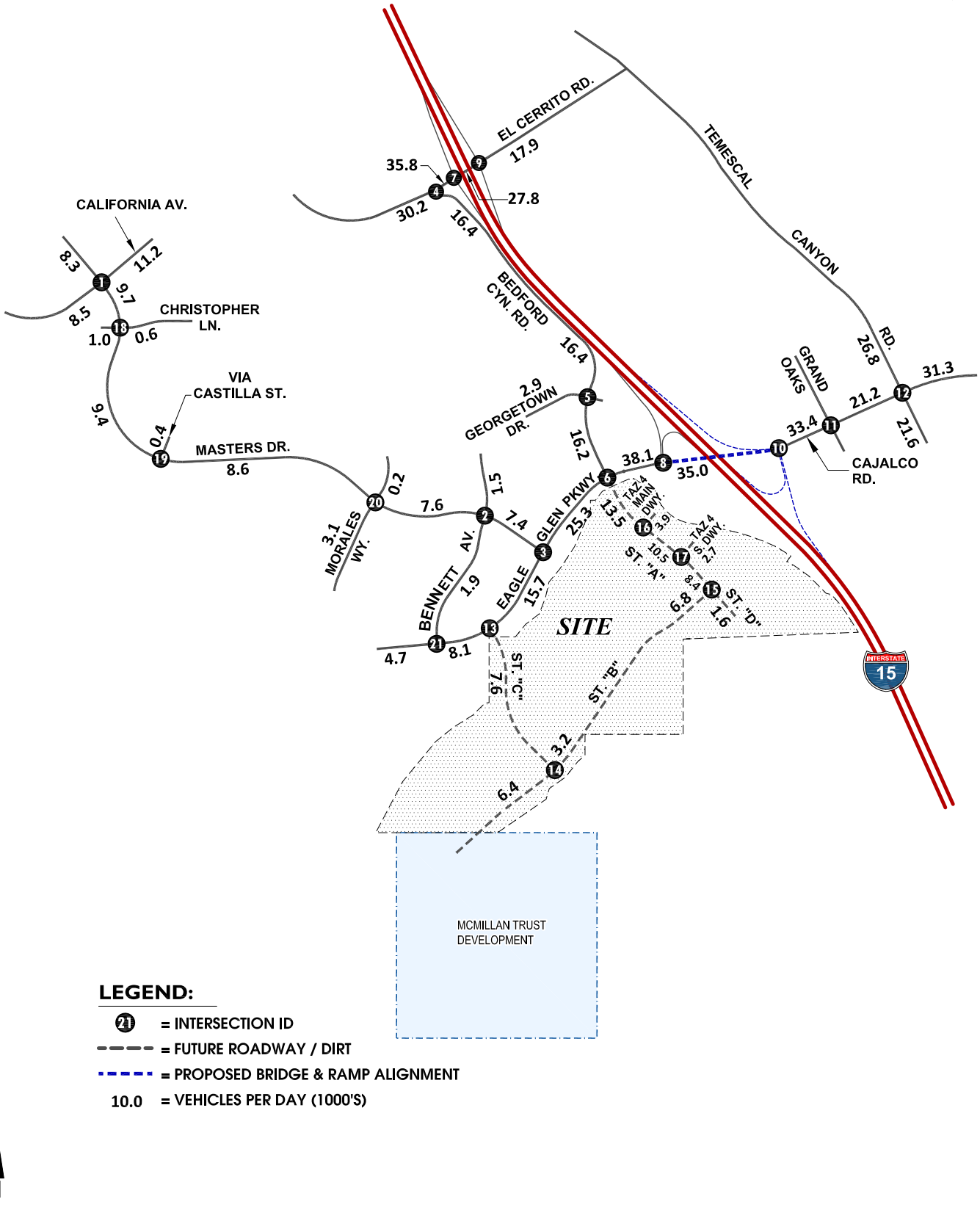


EXHIBIT 7-9

2035 WITH MODIFIED PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

- 21 = INTERSECTION ID
- = FUTURE ROADWAY / DIRT
- = PROPOSED BRIDGE & RAMP ALIGNMENT
- 10.0 = VEHICLES PER DAY (1000'S)

N

Table 7-4

Intersection Operations Analysis Summary For 2035 Conditions, With McMillan Trust Property Development Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												2035 Without Project, With McMillan Trust Property Development				2035 With Modified Project, With McMillan Trust Property Development				LOS Criteria
			Northbound			Southbound			Eastbound			Westbound			Delay[2] (Secs)		Level of Service[2]		Delay[2] (Secs)		Level of Service[2]		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
1	Masters Dr. / California Av.																						
	- Without Improvements	AWS	1	1	0	1	1	0	1	1	0	1	1	1	42.4	31.6	**E**	**D**	43.5	38.4	**E**	**E**	*C*
	- With Improvements	**TS**	1	1	0	1	1	0	1	1	0	1	1	1	22.2	17.2	C	B	23.5	21.1	C	C	*C*
2	Masters Dr. / Bennett Av.																						
	- Without Improvements	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	9.3	15.5	A	C	9.8	19.3	A	C	*C*
	- With Improvements	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	8.1	8.8	A	A	7.7	8.6	A	A	*C*
3	Masters Dr. / Eagle Glen Pkwy.																						
	- Without Improvements	AWS	0	0	0	1	0	1	1	2	0	0	2	0	17.6	49.9	C	**E**	38.3	60.4	**E**	**F**	*D*
	- With Improvements	**TS**	0	0	0	1	0	1	1	2	0	0	2	0	16.8	26.0	B	C	10.5	21.1	B	C	*D*
4	Bedford Cyn. Rd. / El Cerrito Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	33.3	42.6	C	D	39.1	53.8	D	D	*D*
5	Bedford Cyn. Rd. / Georgetown Dr.																						
	- Without Improvements	AWS	1	1	0	0	1	1	0	1	1>>	0	1!	0	19.2	14.9	C	B	24.6	23.1	C	C	*C*
	- With Improvements	**TS**	1	1	0	0	1	1	0	1	1>>	0	1!	0	5.3	4.1	A	A	5.1	3.9	A	A	*C*
6	Bedford Cyn. Rd. / Eagle Glen Pkwy.																						
	- Without Project[4]	TS	0	0	0	1	0	1>	1	***2***	0	0	2	1>	18.2	27.8	B	C	--	--	--	--	*D*
	- With Project Improvements	TS	**1**	**1**	**1>**	**1.5**	**1.5**	1>	1	***2***	0	**2**	2	1>	--	--	--	--	43.2	42.8	D	D	*D*
7	I-15 SB Ramps / El Cerrito Rd.																						
	- Without Improvements	TS	0	0	0	0	1	1	0	2	0	1	2	0	57.9	68.1	**E**	**E**	67.6	72.1	**E**	**E**	*D*
	- With Improvements	TS	0	0	0	0	1	1	0	2	**1**	1	2	0	47.9	47.7	D	D	48.0	39.5	D	D	*D*
8	I-15 SB Ramps / Cajalco Rd.																						
	- With Planned Improvements[4]	TS	0	0	0	***2***	0	***2***	***2***	***2***	0	0	***2***	1	20.8	24.7	C	C	20.0	43.7	B	D	*E*
	- With Additional Improvements[5]	TS	0	0	0	***2***	0	***2***	***2***	**3**	0	0	***2***	1	20.8	25.0	C	C	18.2	25.2	B	C	*E*
9	I-15 NB Ramps / El Cerrito Rd.	TS	0	1!	0	0	0	0	2	1	0	0	2	0	52.3	35.8	D	D	51.6	26.0	D	C	*D*
10	I-15 NB Ramps / Cajalco Rd.[4]	TS	***2***	0	***2***	0	0	0	0	***3***	***1>***	0	***4***	0	13.6	15.9	B	B	20.5	18.5	C	B	*E*
11	Grand Oaks / Cajalco Rd.[4]	TS	0	1!	0	0.5	0.5	2>	2	***3***	0	1	3	1	36.7	30.3	D	C	37.7	31.0	D	C	*D*
12	Temescal Cyn. Rd. / Cajalco Rd.																						
	- Without Improvements	TS	2	2	1	1	2	0	1	1	1	1	3	0	58.5	97.7	**E**	**F**	67.5	102.2	**E**	**F**	*D*
	- With Improvements	TS	2	2	1	**2**	2	0	1	**2**	1	1	3	**1**	50.9	52.8	D	D	52.7	52.6	D	D	*D*

Table 7-4

Intersection Operations Analysis Summary For 2035 Conditions, With McMillan Trust Property Development Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												2035 Without Project, With McMillan Trust Property Development				2035 With Modified Project, With McMillan Trust Property Development				LOS Criteria
			Northbound			Southbound			Eastbound			Westbound			Delay[2] (Secs)		Level of Service[2]		Delay[2] (Secs)		Level of Service[2]		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
13	St. "C" / Eagle Glen Pkwy.	**TS**	**1**	0	**1**	0	0	0	0	2	0	**1**	1	0	20.3	21.4	C	C	20.6	21.8	C	C	*D*
14	St. "C" / St. "B"	**RDB**	0	0	0	0	**1!**	0	**0.5**	**0.5**	0	0	**1**	0	--	--	--	--	6.6	7.9	A	A	*C*
15	St. "A" - St. "D" / St. "B"	**RDB**	0	**1**	0	0	**1**	0	0	**1**	0	0	0	0	--	--	--	--	6.4	8.0	A	A	*C*
16	St. "A" / TAZ 4 Main Dwy.	**TS**	0	**2**	0	**1**	**2**	0	0	0	0	**1**	0	**1**	--	--	--	--	6.3	10.9	A	B	*C*
17	St. "A" / TAZ 4 S. Dwy.	**CSS**	0	**2**	0	**1**	**2**	0	0	0	0	0	**1!**	0	--	--	--	--	10.7	13.5	B	B	*C*
18	Masters Dr. / Christopher Ln.																						
	- Without Improvements	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	39.5	39.0	**E**	**E**	40.0	39.4	**E**	**E**	*C*
	- With Roundabout	**RDB**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	14.9	10.3	B	B	16.7	11.2	C	B	*C*
	- With Traffic Signal	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	5.4	4.1	A	A	5.6	4.1	A	A	*C*
19	Via Castilla St. / Masters Dr.																						
	- Without Improvements	AWS	0	0	0	0	1!	0	1	1	0	0	1	0	13.0	27.6	B	**D**	14.1	38.8	B	**E**	*C*
	- With Roundabout	**RDB**	0	0	0	0	1!	0	0	1	0	0	1	0	7.4	10.1	A	B	7.7	10.9	A	B	*C*
	- With CSS control	CSS	0	0	0	0	1!	0	1	1	0	0	1	0	13.3	16.7	B	C	13.9	18.4	B	C	*C*
20	Morales Wy. / Masters Dr.																						
	- Without Improvements	AWS	0	1!	0	0	1!	0	1	1	0	1	1	0	11.8	27.8	B	**D**	12.7	37.9	B	**E**	*C*
	- With Roundabout	**RDB**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	6.8	9.9	A	A	7.1	10.9	A	B	*C*
	- With Traffic Signal	**TS**	0	1!	0	0	1!	0	1	1	0	1	1	0	12.3	15.0	B	B	12.5	16.3	B	B	*C*
21	Bennett Av. / Eagle Glen Pkwy.	CSS	0	0	0	1	0	1	1	1	0	0	2	0	20.9	18.3	C	C	21.2	19.1	C	C	*C*

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; > = Right Turn Overlap; >> = Free-Right; **1** = Improvement; ***1*** = Planned Interchange Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service calculated using Syncrho 8.0 analysis software.
BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

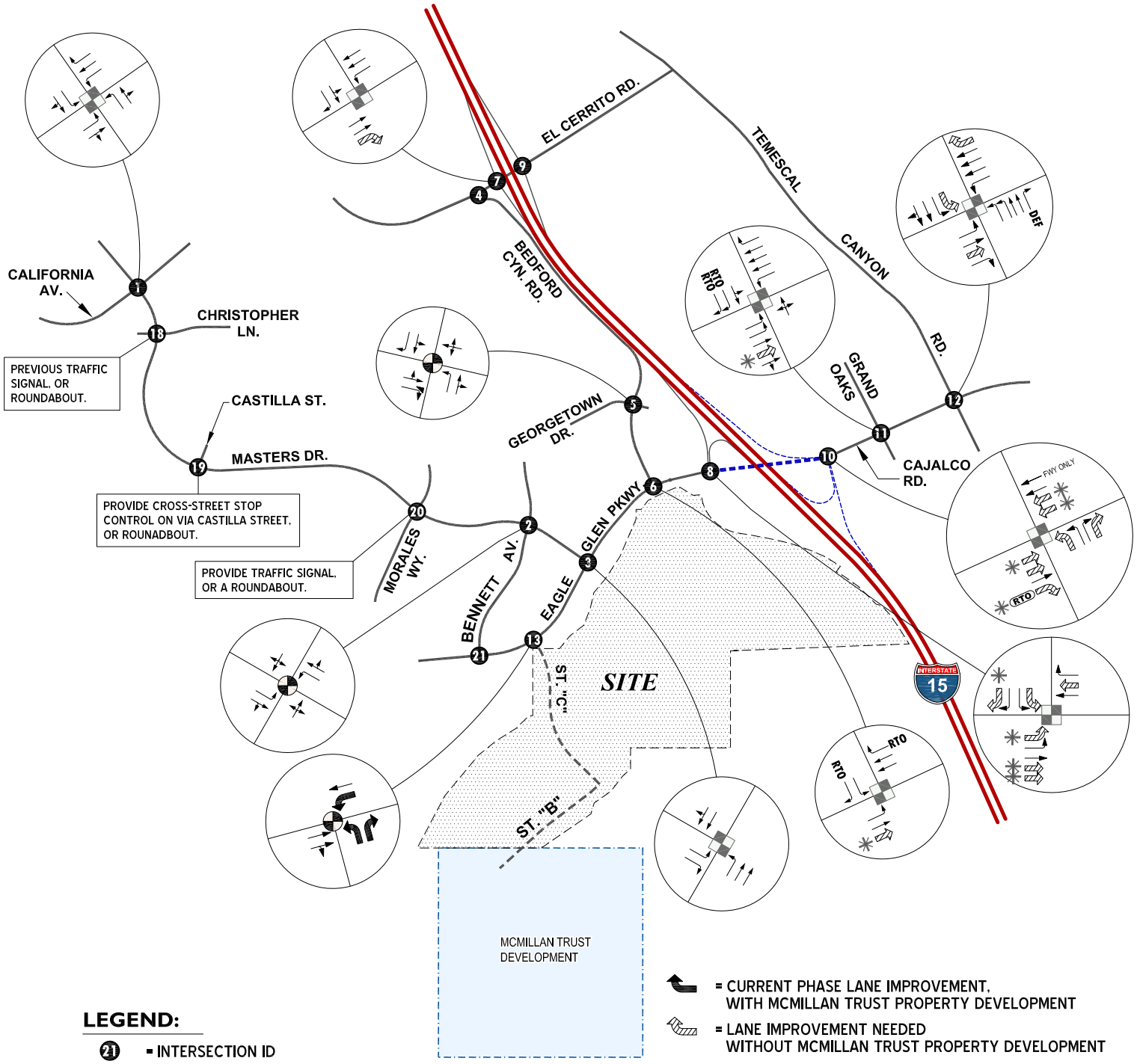
[3] AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop

[4] Planned Interchange improvements

[5] Per City of Corona staff, a 3rd EBT lane is recommended.

EXHIBIT 7-10

RECOMMENDED OFF-SITE INTERSECTION IMPROVEMENTS FOR FOR 2035 WITHOUT PROJECT CONDITIONS, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT



LEGEND:

- 21 = INTERSECTION ID
- = PROPOSED BRIDGE & RAMP ALIGNMENT
- = CURRENT PHASE TRAFFIC SIGNAL IMPROVEMENT
- = EXISTING/PREVIOUS PHASE TRAFFIC SIGNAL
- = STOP SIGN CONTROL
- = EXISTING LANE
- = CURRENT PHASE LANE IMPROVEMENT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT
- = LANE IMPROVEMENT NEEDED WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT
- = PROVIDE RECEIVING LANE NEEDED WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT
- RTO = EXISTING RIGHT TURN OVERLAP
- (RTO) = RIGHT TURN OVERLAP NEEDED WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT
- DEF = DEFACTO RIGHT TURN LANE

NOTE: PREVIOUS PHASE REFERS TO 2017 CONDITIONS.

N

For 2035 With Modified Project conditions, With McMillan Trust Property Development, improvements identified previously in Section 6.3 under 2035 With Modified Project conditions, Without McMillan Trust Property Development and illustrated on Exhibit 7-11 are anticipated to mitigate the deficient intersections to operate at acceptable LOS.

7.4 ROADWAY SEGMENT CAPACITY ANALYSIS

The 2035 Without Project conditions, With McMillan Trust Property Development roadway segment capacity analysis are presented on Table 7-5. As shown on Table 7-5, there are no new roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project Conditions, Without McMillan Trust Property Development.

The 2035 With Modified Project Conditions, With McMillan Trust Property Development roadway segment capacity analysis are presented on Table 7-6. As shown on Table 7-6, the following roadway segments are estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project conditions, With McMillan Trust Property Development:

Roadway Segment Location
Eagle Glen Parkway – Cajalco Road, west of Bedford Canyon
Eagle Glen Parkway – Cajalco Road, east of Bedford Canyon

For roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, further review of the more detailed peak hour intersection analysis results indicate that the recommended interchange and intersection improvements identified in Section 7.3 of this report provide acceptable level of service for both study area intersections and roadway segments.

7.5 TRAFFIC SIGNAL WARRANT ANALYSIS

For 2035 Without Project conditions, With McMillan Trust Property Development, the future intersection of Street "C" / Eagle Glen Parkway (#13) is anticipated to meet traffic signal warrants, in addition to the intersections identified previously in Section 6.5 under 2035 Without Project conditions, Without McMillan Trust Property Development.

For 2035 With Modified Project conditions, With McMillan Trust Property Development, there are no new intersections anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 With Project conditions, without McMillan Trust Property Development and 2035 Without Project conditions, With McMillan Trust Property Development.

EXHIBIT 7-11

RECOMMENDED OFF-SITE INTERSECTION IMPROVEMENTS FOR 2035 WITH MODIFIED PROJECT CONDITIONS, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT

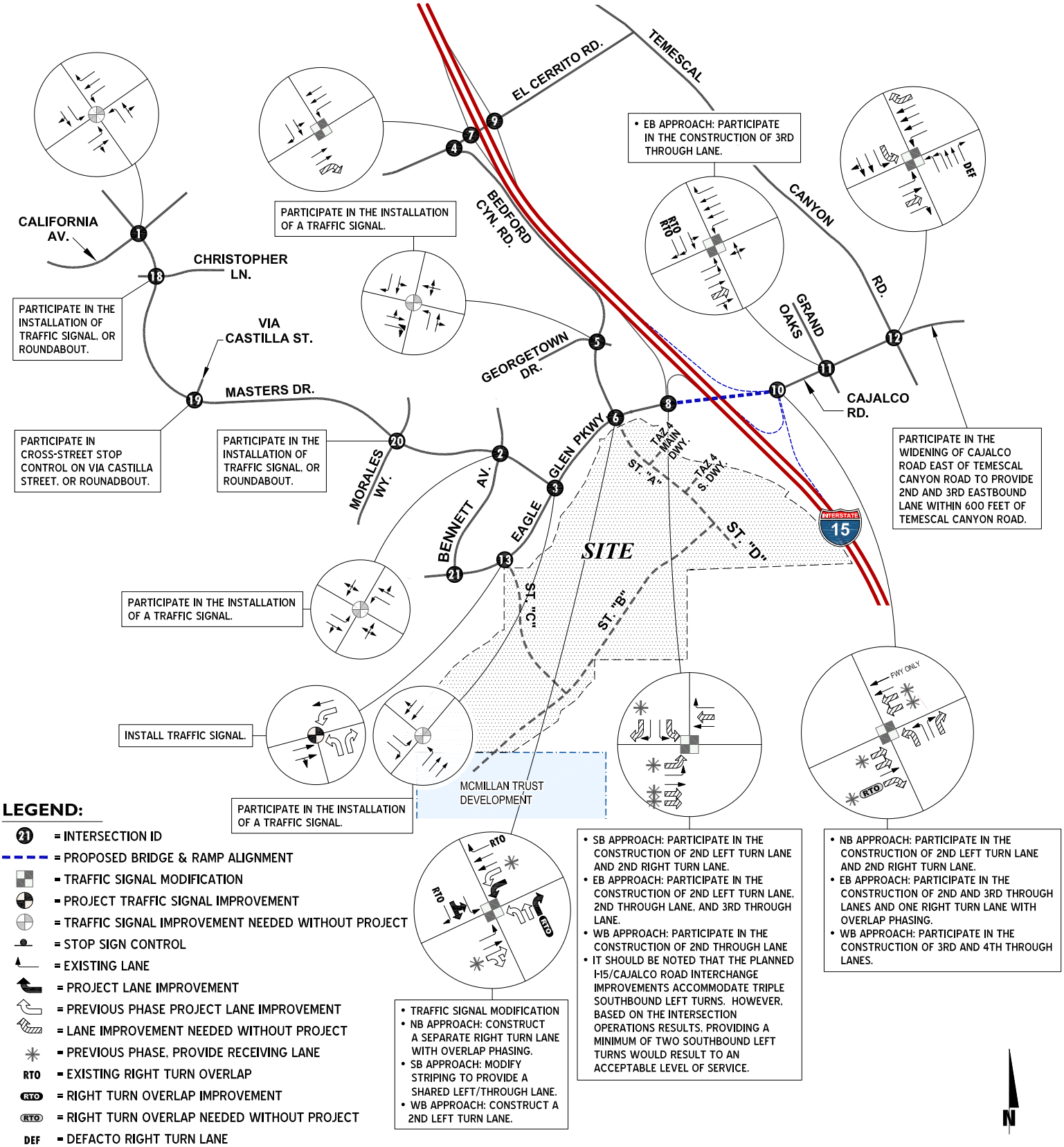


Table 7-5

Roadway Volume/Capacity Analysis For
2035 Without Project Conditions, With McMillan Trust Property Development

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	8,100	0.62
	South of California Av.	2	13,000	9,100	0.70
	South of Christopher Ln.	2	13,000	8,600	0.66
	East of Via Castilla St.	2	13,000	7,800	0.60
	North of Bennett Av.	2	13,000	6,700	0.52
	North of Eagle Glen Pkwy.	2	13,000	6,400	0.49
Bennett Av.	East of Masters Dr.	2	13,000	1,400	0.11
	West of Masters Dr.	2	13,000	1,800	0.14
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	**14,600**	**1.12**
	North of Georgetown Dr.	2	13,000	**14,600**	**1.12**
	North of Eagle Glen Pkwy.	4	26,000	14,300	0.55
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	26,500	0.74
	South of Cajalco Rd.	4	35,900	21,100	0.59
California Dr.	West of Masters Dr.	2	13,000	8,300	0.64
	East of Masters Dr.	2	13,000	11,000	0.85
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	**29,000**	**1.12**
	East of Bedford Cyn.	4	25,900	**35,200**	**1.36**
	East of I-15 NB Ramps	4	25,900	17,300	0.67
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,800	0.22
Eagle Glen Pkwy./	West of Bennett Av.	3	19,400	4,400	0.23
Cajalco Rd.	West of Masters Dr.	4	25,900	10,600	0.41
	West of Bedford Cyn.	***4***	25,900	19,900	0.77
	East of Bedford Cyn.				
	- With Planned Improvements	***4***	35,900	23,100	0.64
	- With Additional Improvements[4]	**5**	44,900	23,100	0.51
	East of I-15 SB Ramps	***6***	53,900	26,300	0.49
	East of I-15 NB Ramps	***7***	62,800	31,100	0.50
	East of Grand Oaks	5	44,900	19,300	0.43
	East of Temescal Cyn. Rd.	4	35,900	30,200	0.84

[1] Number of Through lanes: 2 = Existing; ***2*** = Planned Interchange Improvement

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways

[3] 2035 Without Project Conditions, With McMillan Trust Property Development Average Daily Traffic (ADT) expressed in vehicles per day.
BOLD = Estimated to exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

[4] Per City of Corona staff, a 3rd EBT lane is recommended.

Table 7-6

Roadway Volume/Capacity Analysis For 2035 With Modified Project Conditions, With McMillan Trust Property Development

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	8,300	0.64
	South of California Av.	2	13,000	9,700	0.75
	South of Christopher Ln.	2	13,000	9,400	0.72
	East of Via Castilla St.	2	13,000	8,600	0.66
	North of Bennett Av.	2	13,000	7,600	0.58
	North of Eagle Glen Pkwy.	2	13,000	7,400	0.57
Bennett Av.	East of Masters Dr.	2	13,000	1,500	0.12
	West of Masters Dr.	2	13,000	1,800	0.14
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	**16,400**	**1.26**
	North of Georgetown Dr.	2	13,000	**16,400**	**1.26**
	North of Eagle Glen Pkwy.	4	26,000	16,200	0.62
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	26,800	0.75
	South of Cajalco Rd.	4	35,900	21,600	0.60
California Dr.	West of Masters Dr.	2	13,000	8,500	0.65
	East of Masters Dr.	2	13,000	11,200	0.86
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	**30,200**	**1.17**
	East of Bedford Cyn.	4	25,900	**35,800**	**1.38**
	East of I-15 NB Ramps	4	25,900	17,900	0.69
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,900	0.22
Eagle Glen Pkwy./	West of Bennett Av.	3	19,400	4,700	0.24
Cajalco Rd.	West of Masters Dr.	4	25,900	15,700	0.61
	West of Bedford Cyn.	***4***	25,900	**25,300**	**0.98**
	East of Bedford Cyn.				
	- With Planned Improvements	***4***	35,900	**38,100**	**1.06**
	- With Additional Improvements[4]	**5**	44,900	38,100	0.85
	East of I-15 SB Ramps	***6***	53,900	35,000	0.65
	East of I-15 NB Ramps	***7***	62,800	33,400	0.53
	East of Grand Oaks	5	44,900	21,200	0.47
	East of Temescal Cyn. Rd.	4	35,900	31,300	0.87
Steet "A"	South of Eagle Glen Pkwy.	4	26,000	13,500	0.52
Steet "B"	West of Street "C"	2	13,000	6,400	0.49
	East of Street "C"	2	13,000	3,200	0.25
	West of Street "E"	2	13,000	6,800	0.52
Steet "C"	South of Eagle Glen Pkwy.	2	13,000	7,600	0.58
Steet "D"	South of Street "B"	2	13,000	1,600	0.12

[1] Number of Through lanes: 2 = Existing; ***2*** = Planned Interchange Improvement.

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways

[3] 2035 With 1,806 DU Modified Project - Age Qualified Alternative Conditions, With McMillan Trust Property Developmen
Average Daily Traffic (ADT) expressed in vehicles per day
BOLD = Estimated to approach or exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

[4] Per City of Corona staff, a 3rd EBT lane is recommended.

The 2035 Without Project and With Modified Project, With McMillan Trust Property Development traffic signal warrant analysis worksheets are provided in Appendix "7.3".

7.6 RAMP METERING ANALYSIS

The ramp metering analysis results for 2035 Without Project and 2035 With Modified Project, conditions, With McMillan Trust Property Development conditions are summarized in Tables 7-7 and 7-8, respectively. Similar to the results presented Section 6.6 under 2035 Conditions Without McMillan Trust Property Development conditions, Tables 7-7 and 7-8 indicate that the following metered lanes are needed for each on-ramp location under 2035 Without Project and 2035 With Modified Project conditions, With McMillan Trust Property Development conditions:

- I-15 Southbound On-Ramp at El Cerrito Road – 2 lanes
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane
- I-15 Northbound On-Ramp at El Cerrito Road – 2 lanes
- I-15 Northbound Slip On-Ramp at Cajalco Road – 2 lanes
- I-15 Northbound Loop On-Ramp at Cajalco Road – 1 lanes

7.7 FREEWAY MERGE/DIVERGE ANALYSIS

The freeway merge/diverge analysis results for 2035 Without Project, 2035 With Modified Project conditions, With McMillan Trust Property Development are summarized in Tables 7-9 and 7-10, respectively. As shown in Tables 7-9 and 7-10, there are no new merge/diverge points, in addition to the merge/diverge points previously identified in Section 6.7 under 2035 conditions Without McMillan Trust Property Development, that are anticipated to continue to exceed acceptable levels of service with planned interchange improvements.

Ramp merge and diverge analysis worksheets for 2035 Without Project conditions, With McMillan Trust Property Development are included in Appendix "7.4". For 2035 With Modified Project conditions, With McMillan Trust Property Development ramp merge and diverge analysis worksheets are included in Appendix "7.5".

Table 7-7

2035 Without Project Conditions, With McMillan Trust Property Development
Ramp Metering Analysis Summary

ID	On-Ramp Location	Volume		Required Number of Ramp Metered Lanes[1]
		AM	PM	
7	I-15 Southbound On-Ramp at El Cerrito Road	732	1,022	2
8	I-15 Southbound On-Ramp at Cajalco Road	407	654	1
9	I-15 Northbound On-Ramp at El Cerrito Road	939	586	2
10a	I-15 Northbound Slip On-Ramp at Cajalco Road	1,132	507	2
10b	I-15 Northbound Loop On-Ramp at Cajalco Road	454	318	1

[1] Ramp metered lane traffic flow threshold is 900 vehicles per hour (vph)on/off ramps.

Table 7-8

2035 With Modified Project Conditions,
With McMillan Trust Property Development Ramp Metering Analysis Summary

ID	On-Ramp Location	Volume		Required Number of Ramp Metered Lanes[1]
		AM	PM	
7	I-15 Southbound On-Ramp at El Cerrito Road	732	1,022	2
8	I-15 Southbound On-Ramp at Cajalco Road	584	796	1
9	I-15 Northbound On-Ramp at El Cerrito Road	939	586	2
10a	I-15 Northbound On-Ramp at Cajalco Road	1,132	507	2
10b	I-15 Northbound Loop On-Ramp at Cajalco Road	928	650	2

[1] Ramp metered lane traffic flow threshold is 900 vehicles per hour (vph)on/off ramps.

TABLE 7-9

2035 Without Project Conditions, With McMillan Trust Property Development Conditions

Freeway Ramp Analysis

Freeway	Direction	Ramp Location	Junction Type	Lanes on Freeway	Ramp Lanes	Volume		Density [1] (pc/mi/ln)		LOS [2]	
						AM	PM	AM	PM	AM	PM
I-15 Freeway	Southbound	SB Off Ramp at El Cerrito Road	Diverge	3	1	770	686	41.1	53.4	E	F
		SB On Ramp at El Cerrito Road	Merge	3	1	732	1,022	49.2	63.5	F	F
		SB Off Ramp at Cajalco Road	Diverge	3	2[4]	633	1,035	46.1	62.0	F	F
		SB On Ramp at Cajalco Road	Merge	3	1	407	654	46.1	59.1	F	F
	Northbound	NB On Ramp at El Cerrito Road	Merge	3	1	939	586	75.1	74.4	F	F
		NB Off Ramp at El Cerrito Road	Diverge	3	1	664	532	81.3	82.4	F	F
		NB Slip On Ramp at Cajalco Road	Merge	3	1	1,132	507	73.9	75.3	F	F
		NB Loop On Ramp at Cajalco Road	Merge	3	1	454	318	64.3	70.9	F	F
		NB Off Ramp at Cajalco Road	Diverge	3	1	347	630	69.4	81.5	F	F

[1] Density calculated based on the Highway Capacity Manual (HCM) analysis; (pc/mi/ln) = passenger car per mile per lane

[2] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.60

[3] Volume-to-Capacity ratio > 1.0, LOS = "F"

[4] Planned Interchange Improvement

TABLE 7-10

2035 With Modified Project Conditions,

With McMillan Trust Property Development Freeway Ramp Analysis

Freeway	Direction	Ramp Location	Junction Type	Lanes on Freeway	Ramp Lanes	Volume		Density [1] (pc/mi/ln)		LOS [2]	
						AM	PM	AM	PM	AM	PM
I-15 Freeway	Southbound	SB Off Ramp at El Cerrito Road	Diverge	3	1	770	686	42.5	57.9	E	F
		SB On Ramp at El Cerrito Road	Merge	3	1	732	1,022	50.4	68.8	F	F
		SB Off Ramp at Cajalco Road	Diverge	3	2[4]	799	1,562	47.5	66.6	F	F
		SB On Ramp at Cajalco Road	Merge	3	1	584	796	47.4	60.2	F	F
	Northbound	NB On Ramp at El Cerrito Road	Merge	3	1	939	586	78.8	77.0	F	F
		NB Off Ramp at El Cerrito Road	Diverge	3	1	664	532	85.3	85.3	F	F
		NB Slip On Ramp at Cajalco Road	Merge	3	1	1,132	507	77.6	77.8	F	F
		NB Loop On Ramp at Cajalco Road	Merge	3	1	928	650	67.8	73.4	F	F
		NB Off Ramp at Cajalco Road	Diverge	3	1	415	847	70.0	83.4	F	F

[1] Density calculated based on the Highway Capacity Manual (HCM) analysis; (pc/mi/ln) = passenger car per mile per lane

[2] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.60

[3] Volume-to-Capacity ratio > 1.0, LOS = "F"

[4] Planned Interchange Improvement

8.0 INTERIM YEAR WITH PROJECT BUILDOUT ANALYSIS

This section discusses the methods used to develop Interim Year With Project Buildout traffic conditions, and the resulting intersection and roadway segment operations. The sensitivity analysis documented in this section includes Buildout of the modified project (a cumulative total of 1,806 DU, 80,000 square feet of retail, 7.8 acres of active park, and 1.5 acres of local park) in interim year conditions.

8.1 PROJECT BUILDOUT TRIP GENERATION AND DISTRIBUTION

At buildout, the Modified Project is anticipated to generate a total of approximately 18,621 external trips per day with 1,217 AM peak hour external trips and 1,756 PM peak hour external trips (see Chapter 3).

The project trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. For purposes of this Interim Year With Project Buildout analysis, the trip distribution is consistent with the 2035 project trip distribution presented in Chapter 3.

8.2 INTERIM YEAR WITH PROJECT BUILDOUT TRAFFIC VOLUME FORECASTS

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place during interim year conditions.

Based on the identified Project traffic generation and trip distribution patterns, the Interim Year With Project Buildout conditions AM and PM peak hour intersection turning movement volumes are shown on Exhibits 8-1 and Exhibit 8-2, respectively. Average daily traffic (ADT) volumes for Interim Year With Project Buildout conditions are shown on Exhibit 8-3.

8.3 INTERSECTION OPERATIONS ANALYSIS AND RECOMMENDED IMPROVEMENTS

Table 8-1 provides an overall summary of intersection operations in the study area for Interim Year With Project Buildout conditions. The “With” Project conditions include the development of 1,806 DU, 80,000 square feet of retail, 7.8 acres of active park, and 1.5 acres of local park.

The Interim Year With Project Buildout conditions intersection operations analysis worksheets are provided in Appendix “8.1”.

For Interim Year With Project Buildout scenario, similar to 2017 LOS results, LOS deficiencies occur at the intersections of Masters Drive / California Avenue (#1) and Masters Drive / Christopher Lane (#18).

With the recommended intersection improvements listed below, the deficient intersections identified under Interim Year With Project Buildout conditions are projected to operate at acceptable level of service during both AM and PM peak hours.

EXHIBIT 8-1

INTERIM YEAR WITH PROJECT BUILDOUT AM PEAK HOUR INTERSECTION VOLUMES

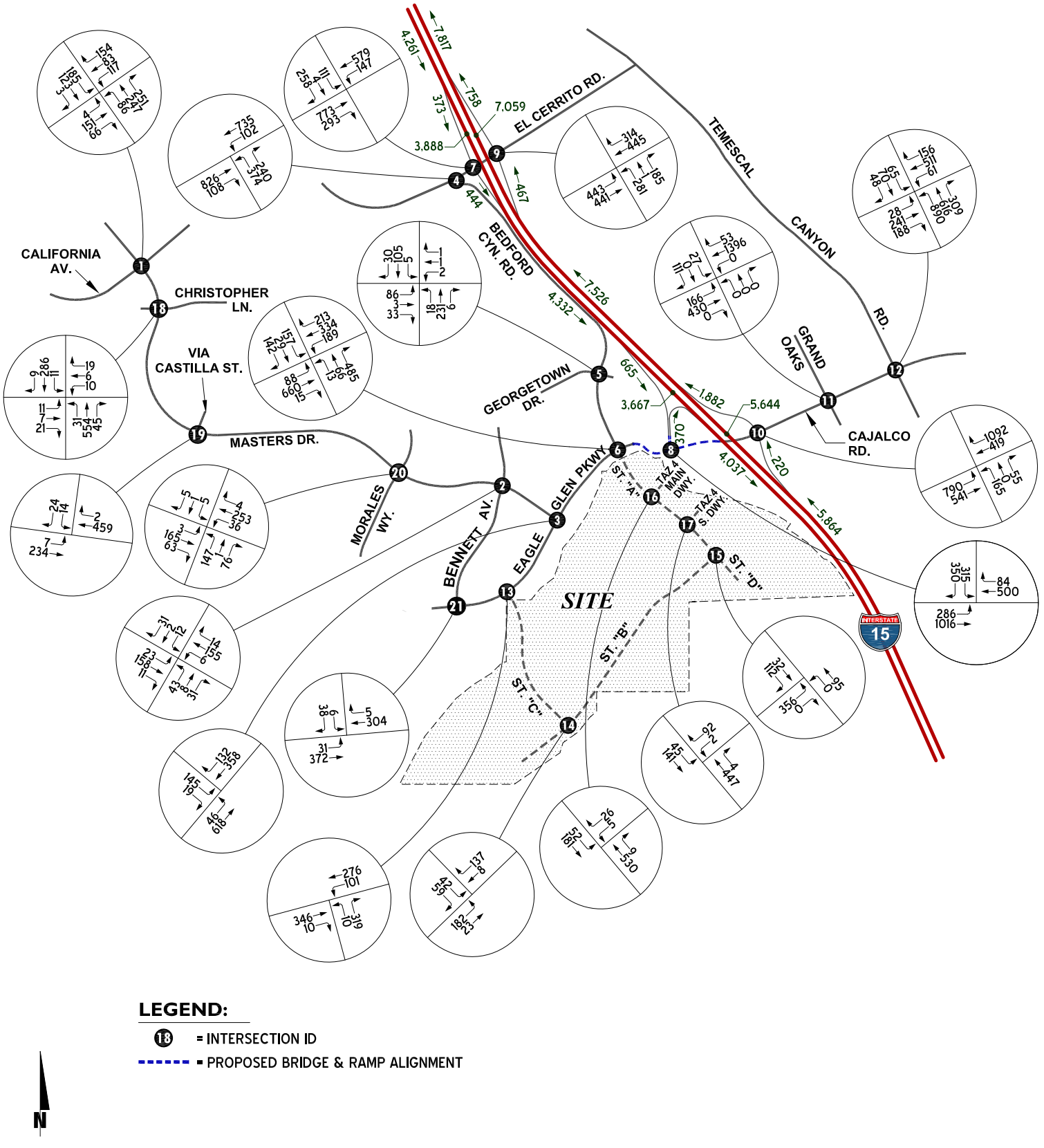
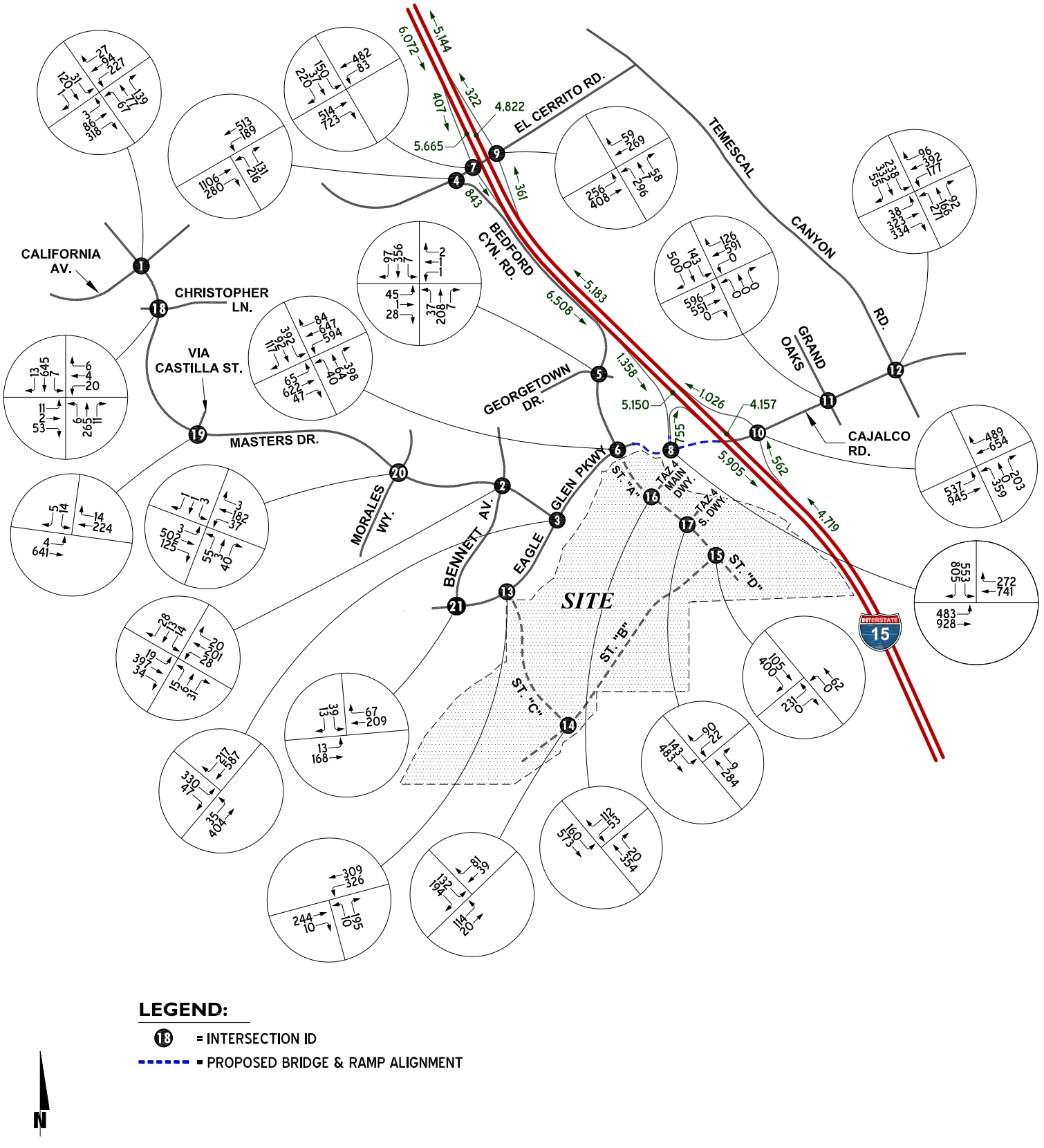


EXHIBIT 8-2

INTERIM YEAR WITH PROJECT BUILDOUT PM PEAK HOUR INTERSECTION VOLUMES



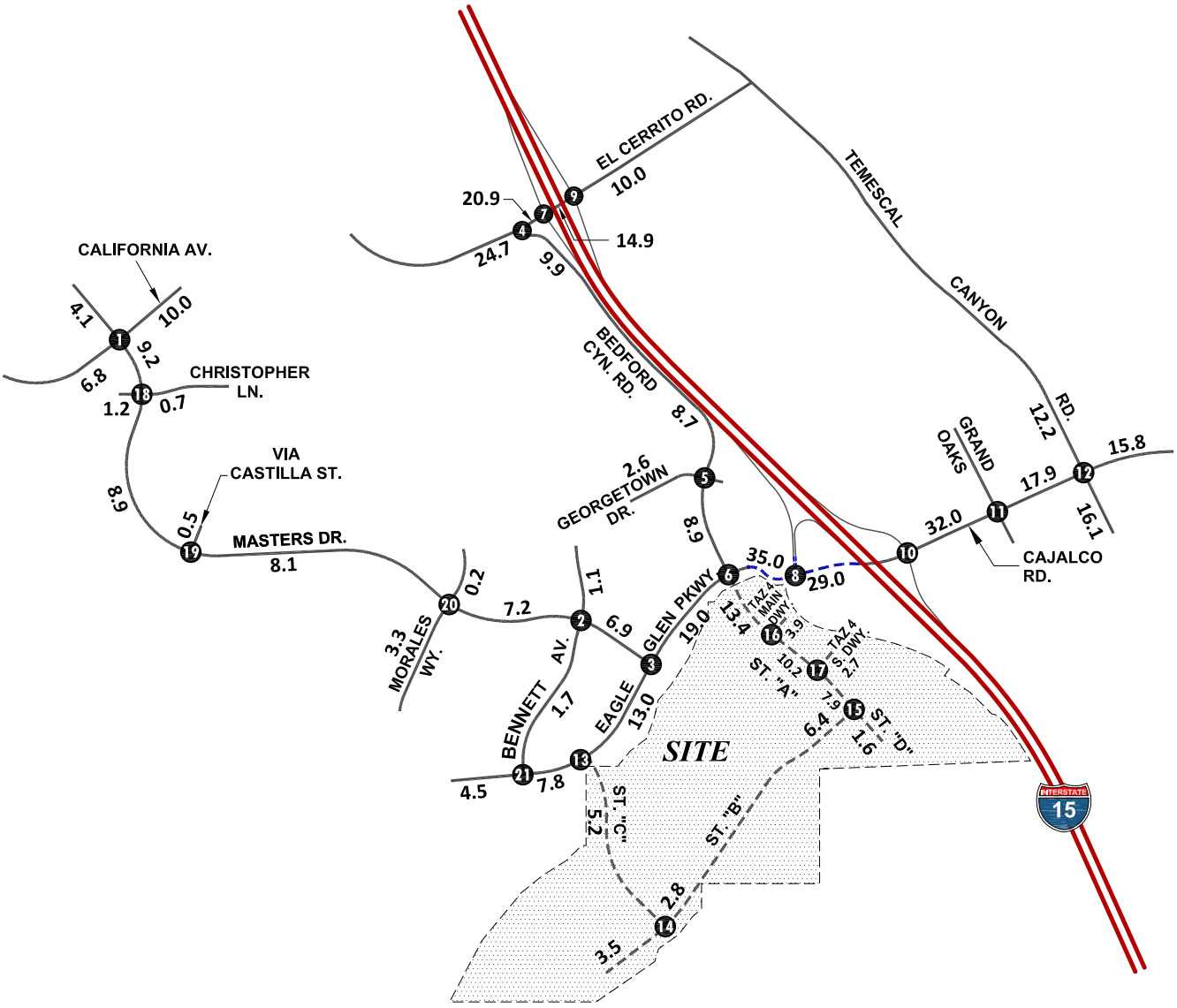
LEGEND:

18 = INTERSECTION ID

------ = PROPOSED BRIDGE & RAMP ALIGNMENT

EXHIBIT 8-3

INTERIM YEAR WITH PROJECT BUILDOUT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

21 = INTERSECTION ID

= FUTURE ROADWAY / DIRT

= ROADWAY CONFIGURATION DURING INTERCHANGE CONSTRUCTION

10.0 = VEHICLES PER DAY (1000'S)

N

Table 8-1

Intersection Operations Analysis Summary For Interim Year with Project Buildout Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Interim Year With Project Buildout				LOS Criteria
			Northbound			Southbound			Eastbound			Westbound			Delay[2] (Secs)		Level of Service[2]		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
1	Masters Dr. / California Av.																		
	- Without Improvements	AWS	1	1	0	1	1	0	1	1	0	1	1	1	38.4	23.2	**E**	C	*C*
	- With Improvements	**TS**	1	1	0	1	1	0	1	1	0	1	1	1	21.8	16.5	C	B	*C*
2	Masters Dr. / Bennett Av.	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	9.0	13.2	A	B	*C*
3	Masters Dr. / Eagle Glen Pkwy.																		
	- Without Improvements	AWS	0	0	0	1	0	1	1	2	0	0	2	0	14.7	37.8	B	**E**	*D*
	- With Improvements	**TS**	0	0	0	1	0	1	1	2	0	0	2	0	17.2	20.3	B	C	*D*
4	Bedford Cyn. Rd. / El Cerrito Rd.	TS	1	0	1	0	0	0	0	2	0	1	2	0	22.1	25.0	C	C	*D*
5	Bedford Cyn. Rd. / Georgetown Dr.	AWS	1	1	0	0	1	1	0	1	1>>	0	1!	0	9.6	11.3	A	B	*C*
6	Bedford Cyn. Rd. / Eagle Glen Pkwy.																		
	- Without Project	TS	0	0	0	1	0	1>	1	1	0	0	2	1>	--	--	--	--	*D*
	- With Modified Project Improvements	TS	**1**	**1**	**1>**	**1.5**	**1.5**	1>	1	***2***	0	**2**	2	1>	37.7	35.8	D	D	*D*
7	I-15 SB Ramps / El Cerrito Rd.	TS	0	0	0	0	1	1	0	2	0	1	2	0	14.7	27.1	B	C	*D*
8	I-15 SB Ramps / Cajalco Rd.																		
	- Without Improvements	TS	0	0	0	1	0	1	1	1	0	0	1	1	31.5	133.1	C	**F**	*E*
	- With Improvements[4]	TS	0	0	0	***2***	0	***2***	***2***	**3**	0	0	***2***	1	19.0	36.2	B	D	*E*
9	I-15 NB Ramps / El Cerrito Rd.	TS	0	1!	0	0	0	0	2	1	0	0	2	0	34.4	33.8	C	C	*D*
10	I-15 NB Ramps / Cajalco Rd.																		
	- Without Improvements	TS	0	1	1	0	0	0	1	1	0	0	1	1	162.4	43.9	**F**	D	*E*
	- With Improvements[4]	TS	***2***	0	***2***	0	0	0	0	***3***	***1>***	0	***4***	0	12.9	16.7	B	B	*E*
11	Grand Oaks / Cajalco Rd.	TS	0	1!	0	0.5	0.5	2>	2	2	0	1	***2***	1	27.0	32.0	C	C	*D*
12	Temescal Cyn. Rd. / Cajalco Rd.	TS	2	2	1	1	2	0	1	1	1	1	3	0	35.9	41.8	D	D	*D*
13	St. "C" / Eagle Glen Pkwy.	**CSS**	**1**	0	**1**	0	0	0	0	2	0	**1**	1	0	14.2	22.7	B	C	*C*
14	St. "C" / St. "B"	**RDB**	0	0	0	0	**1!**	0	**0.5**	**0.5**	0	0	**1**	0	5.1	5.9	A	A	*C*
15	St. "A" - St. "D" / St. "B"	**RDB**	0	**1**	0	0	**1**	0	0	**1**	0	0	0	0	6.2	7.6	A	A	*C*
16	St. "A" / TAZ 4 Main Dwy.	**TS**	0	**2**	0	**1**	**2**	0	0	0	0	**1**	0	**1**	6.6	11.1	A	B	*C*
17	St. "A" / TAZ 4 S. Dwy.	**CSS**	0	**2**	0	**1**	**2**	0	0	0	0	0	**1!**	0	10.5	12.6	B	B	*C*
18	Masters Dr. / Christopher Ln.																		
	- Without Improvements	AWS	1	1	0	1	1	0	0	1!	0	0	1!	0	39.0	36.2	**E**	**E**	*C*
	- With Roundabout	**RDB**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	13.2	10.3	B	B	*C*
	- With Traffic Signal	**TS**	1	1	0	1	1	0	0	1!	0	0	1!	0	5.4	4.0	A	A	*C*
19	Via Castilla St. / Masters Dr.																		
	- Without Improvements	AWS	0	0	0	0	1!	0	1	1	0	0	1	0	12.3	25.5	B	**D**	*C*
	- With Roundabout	**RDB**	0	0	0	0	1!	0	0	1	0	0	1	0	7.1	9.8	A	A	*C*
	- With CSS control	CSS	0	0	0	0	1!	0	1	1	0	0	1	0	13.1	15.7	B	C	*C*
20	Morales Wy. / Masters Dr.																		
	- Without Improvements	AWS	0	1!	0	0	1!	0	1	1	0	1	1	0	11.3	27.1	B	**D**	*C*
	- With Roundabout	**RDB**	0	1!	0	0	1!	0	0	1!	0	0	1!	0	6.5	10.0	A	B	*C*
	- With Traffic Signal	**TS**	0	1!	0	0	1!	0	1	1	0	1	1	0	12.1	15.2	B	B	*C*
21	Bennett Av. / Eagle Glen Pkwy.	CSS	0	0	0	1	0	1	1	1	0	0	2	0	15.8	12.2	C	B	*C*

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 1! = Shared Left-Through-Right turn lane; > = Right Turn Overlap; >> = Free-Right; **1** = Improvement; ***1*** = Lane reduction during interchange construction; ***1*** = Planned Interchange Improvement.

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all-way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). Delay and level of service calculated using Syncrho 8.0 analysis software.

[3] AWS = All Way Stop; TS = Traffic Signal; CSS = Cross Street Stop; RDB = Roundabout

For Interim Year With Project Buildout conditions, the improvements listed below are recommended to provide site access, in addition to the previously identified improvements under 2017 With Project Phase 1 Conditions:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- Construct Street "A" (southerly extension of Bedford Canyon Road) from Eagle Glen Parkway to Street "B" as a four-lane Modified Divided Collector.
- NB Approach: Construct a separate right turn lane with overlap phasing.
- SB Approach: Modify striping to provide a shared left/through lane.
- WB Approach: Construct a 2nd left turn lane.

Street "C" / Street "B" (#14)

- Construct Street "B", west of Street "C", as a two-lane modified collector.
- Install roundabout.
- SB Approach: Provide a shared left/right turn lane.
- EB Approach: Provide a shared left/through lane.
- WB Approach: Provide a shared through/right turn lane.

Street "A" - Street "D" / Street "B" (#15)

- Construct Street "D", south of Street "B", as a two-lane modified local.
- Install roundabout.
- NB Approach: Provide a shared left/through lane.
- SB Approach: Provide a shared through/right turn lane.
- EB Approach: Provide a shared left/right turn lane.

Street "A" / TAZ 4 Main Driveway (#16)

- Install a traffic signal.
- NB Approach: Provide one through lane and one shared through/right turn lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one left turn lane and one right turn lane.

Street "A" / TAZ 4 South Driveway (#17)

- Install a stop sign control on the westbound approach.
- NB Approach: Provide one through lane and one shared through/right turn lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one shared left/right turn lane.

For Interim Year With Project Buildout conditions, the following intersections are anticipated to operate at unacceptable level of service:

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona
8	I-15 SB Ramps /Cajalco Road	Caltrans
10	I-15 NB Ramps /Cajalco Road	Caltrans
18	Masters Drive / Christopher Lane	Corona
19	Via Castilla Street / Masters Drive	Corona
20	Morales Way / Masters Drive	Corona

With the recommended intersection improvements listed below and illustrated on Exhibit 8-4, the deficient intersections identified under Interim Year With Project Buildout conditions are projected to operate at acceptable level of service during both AM and PM peak hours, in addition to the previously identified improvements under 2017 With Project Phase 1 conditions. Planned improvements at or near the Cajalco Road / I-15 Interchange area are also included.

Masters Drive / Eagle Glen Parkway (#3)

- Install a traffic signal.

I-15 SB Ramps / Cajalco Road (#8)

- SB Approach: Construct a 2nd left turn lane and 2nd right turn lane.
- EB Approach: Construct a 2nd left turn lane, 2nd through lane, and 3rd through lane.
- WB Approach: Construct a 2nd through lane

I-15 NB Ramps / Cajalco Road (#10)

- NB Approach: Construct a 2nd left turn lane and 2nd right turn lane.
- EB Approach: Construct a 2nd and 3rd through lanes and one right turn lane with overlap phasing.
- WB Approach: Construct a 2nd and 3rd through lanes.

Via Castilla Street / Masters Drive (#19)

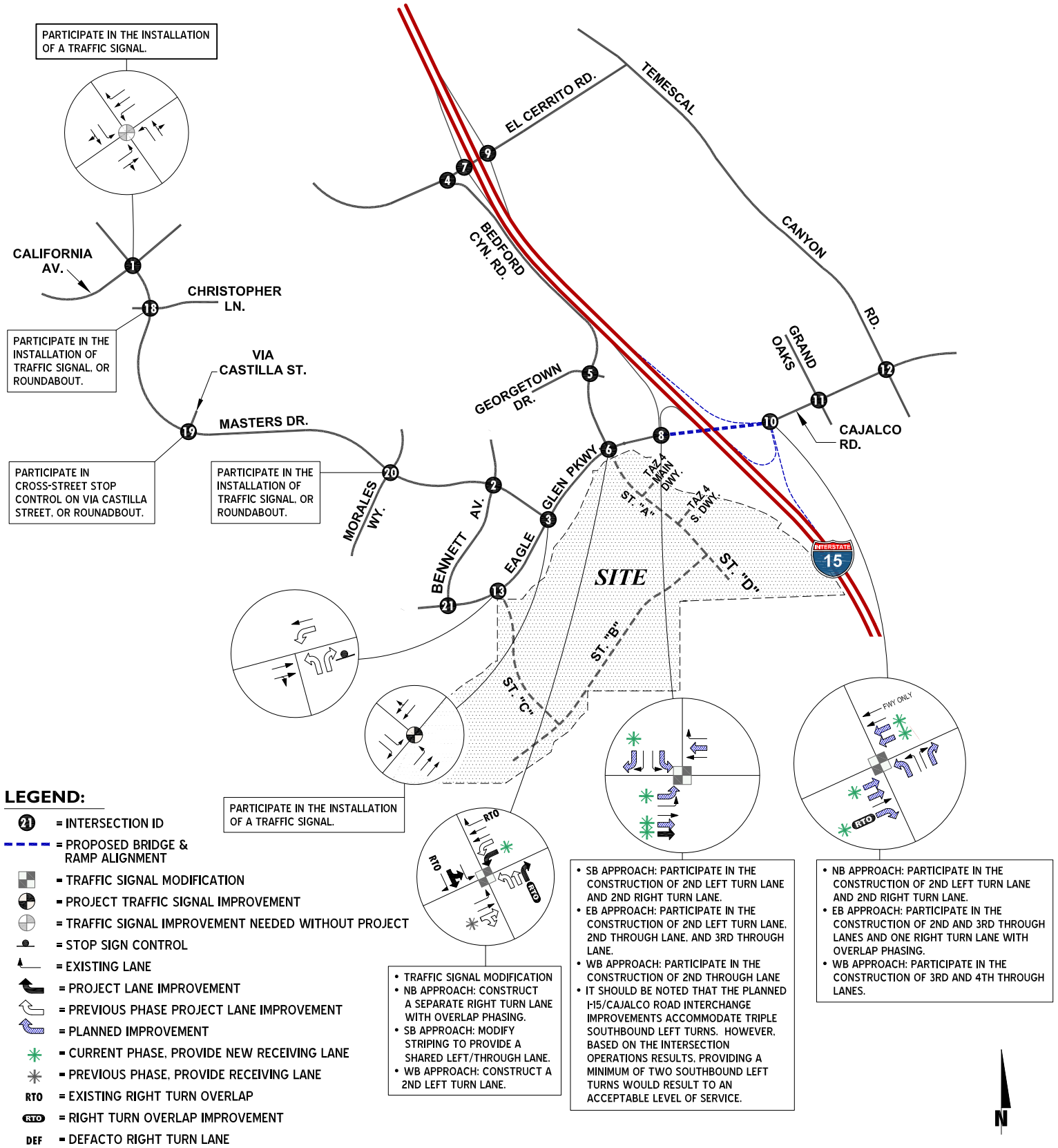
- Provide cross-street stop control on Via Castilla Street, or roundabout.

Morales Way / Masters Drive (#20)

- Provide traffic signal, or roundabout.

EXHIBIT 8-4

RECOMMENDED OFF-SITE INTERSECTION IMPROVEMENTS FOR INTERIM YEAR WITH PROJECT BUILDOUT CONDITIONS



8.4 ROADWAY SEGMENT CAPACITY ANALYSIS

The Interim Year With Project Buildout conditions roadway segment capacity analysis are presented on Table 8-2. As shown on Table 8-2, the following roadway segments are estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds.

Roadway Segment Location
Eagle Glen Parkway/Cajalco Road, east of Bedford Canyon
Eagle Glen Parkway/Cajalco Road, east of I-15 Southbound Ramps

For roadway segments estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, further review of the more detailed peak hour intersection analysis results indicate that the recommended interchange and intersection improvements identified in Section 8.3 of this report provide acceptable level of service for both study area intersections and roadway segments.

8.5 TRAFFIC SIGNAL WARRANT ANALYSIS

For Interim Year With Project Buildout conditions, the following intersections are anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2017 With Project Phase 1 conditions which includes Masters Drive / California Drive (#1) and Masters Drive / Eagle Glen Parkway (#3).

ID	Intersection Location	Jurisdiction
13	Street "C" / Eagle Glen Parkway	Corona
16	Street "A" / TAZ 4 Main Driveway	Corona
20	Morales Way / Masters Drive	Corona

For Interim Year With Project Buildout Conditions, the intersection of Street "C" / Eagle Glen Parkway (#13) and Street "A" / TAZ 4 Main Driveway (#16) are the on-site intersections anticipated to meet traffic signal warrants.

The Interim Year With Project Buildout traffic signal warrant analysis worksheets are provided in Appendix "8.2".

While the intersection of Street "C" at Eagle Glen Parkway meets traffic signal warrants under Interim Year With Project Buildout conditions, it is anticipated to operate at acceptable levels of service as a cross-street stop intersection, therefore, traffic signal is not recommended.

For Interim Year with Project Buildout conditions, the intersection of Masters Drive / Christopher Lane (#18) level of service worsens to LOS "E" without converting to signal control or implementing a roundabout at this location. The Masters Drive / Christopher Lane intersection is projected to eventually warrant a traffic signal (see Section 6.5 of this report).

Table 8-2

Roadway Volume/Capacity Analysis For Interim Year with Project Buildout Conditions

Roadway	Segment	Through Travel Lanes[1]	LOS "E" Capacity[2]	ADT[3]	Volume/ Capacity Ratio
Masters Dr.	North of California Av.	2	13,000	4,100	0.32
	South of California Av.	2	13,000	9,200	0.71
	South of Christopher Ln.	2	13,000	8,900	0.68
	East of Via Castilla St.	2	13,000	8,100	0.62
	North of Bennett Av.	2	13,000	7,200	0.55
	North of Eagle Glen Pkwy.	2	13,000	6,900	0.53
Bennett Av.	East of Masters Dr.	2	13,000	1,100	0.08
	West of Masters Dr.	2	13,000	1,600	0.12
Bedford Cyn.	South of El Cerrito Rd.	2	13,000	9,900	0.76
	North of Georgetown Dr.	2	13,000	8,700	0.67
	North of Eagle Glen Pkwy.	4	26,000	8,900	0.34
Temescal Canyon Rd.	North of Cajalco Rd.	4	35,900	12,200	0.34
	South of Cajalco Rd.	4	35,900	16,100	0.45
California Dr.	West of Masters Dr.	2	13,000	6,800	0.52
	East of Masters Dr.	2	13,000	10,000	0.77
El Cerrito Rd.	West of Bedford Cyn.	4	25,900	**24,700**	**0.95**
	East of Bedford Cyn.	4	25,900	20,900	0.81
	East of I-15 NB Ramps	4	25,900	10,000	0.39
Georgetown Dr.	West of Bedford Cyn.	2	13,000	2,600	0.20
Eagle Glen Pkwy./	West of Bennett	3	19,400	4,500	0.23
Cajalco Rd.	West of Masters Dr.	4	25,900	13,000	0.50
	West of Bedford Cyn.	3	19,400	**19,000**	**0.98**
	East of Bedford Cyn.				
	- Without Improvements	3	26,900	**35,000**	**1.30**
	- With Planned Improvements	***4***	35,900	**35,000**	**0.97**
	- With Additional Improvements	**5**	44,900	35,000	0.78
	East of I-15 SB Ramps				
	- Without Improvements	2	18,000	**29,000**	**1.61**
	- With Planned Improvements	***6***	53,900	29,000	0.54
	East of I-15 NB Ramps	***4***	35,900	32,000	0.89
	East of Grand Oaks	***4***	35,900	17,900	0.50
	East of Temescal Cyn. Rd.	4	35,900	15,800	0.44
Steet "A"	South of Eagle Glen Pkwy.	4	26,000	13,400	0.52
Steet "B"	West of Street "C"	2	13,000	3,500	0.27
	East of Street "C"	2	13,000	2,800	0.22
	West of Street "E"	2	13,000	6,400	0.49
Steet "C"	South of Eagle Glen Pkwy.	2	13,000	5,200	0.40
Steet "D"	South of Street "B"	2	13,000	1,600	0.12

[1] Number of Through lanes: 2 = Existing; ***2*** = Lane reduction during interchange construction.**2** = Planned Interchange Improvement.

[2] Source: County of Riverside General Plan, Figure C-2 Link Volume Capacities/Level of Service for Riverside County Roadways.

[3] Interim Year With Project Buildout Average Daily Traffic (ADT) expressed in vehicles per day.

BOLD = Estimated to exceed threshold daily LOS values and subject to further evaluation of peak hour performance at key intersections along these routes.

9.0 FINDINGS AND CONCLUSIONS

This study assesses the traffic circulation of the various scenarios for the Arantine Hills Modified Project. The conclusions and recommendations are summarized below.

9.1 PROJECT TRIP GENERATION

Phase 1 (2017) of the project is anticipated to generate approximately, 2,931 external trips per day with 229 AM peak hour external trips and 306 PM peak hour external trips. Buildout of the Modified Project is anticipated to generate a cumulative total of approximately 18,621 external trips per day with 1,217 AM peak hour external trips and 1,756 PM peak hour external trips. Internal capture reduction is applied to the project trips to account for traffic interaction between residential, retail, and park uses within the project site.

9.2 TRAFFIC IMPACTS AND INTERSECTION LEVEL OF SERVICE

For Existing (2014 and 2015) Conditions, the intersections of Masters Drive / California Avenue (#1) and Masters Drive / Christopher Lane (#18) currently operating at deficient level of service during the morning peak hour. The intersections of I-15 SB Ramps / Cajalco Road (#8) and I-15 NB Ramps / Cajalco Road (#10) are operating at level of service "D" during peak hours. The City of Corona level of service criteria stipulate "E" as the upper range of acceptability at the I-15 / Cajalco Road interchange.

For 2017 Without and With Modified Project (Phase 1) conditions, the intersection of I-15 NB Ramps / Cajalco Road (#10) is projected to operate at level of service "E" during peak hours.

For 2035 Without Project Conditions, Without McMillan Trust Property Development, the following intersections are anticipated to operate at deficient levels of service, with planned improvements at or near the Cajalco Road / I-15 interchange area:

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona
7	I-15 SB Ramps / El Cerrito Road	Caltrans
12	Temescal Canyon Road / Cajalco Road	Corona
18	Masters Drive / Christopher Lane	Corona
19	Via Castilla Street / Masters Drive	Corona
20	Morales Way / Masters Drive	Corona

For 2035 With Modified Project Conditions, Without McMillan Trust Property Development, there are no new intersections anticipated to operate at deficient level of service, in addition to the intersections previously identified under 2035 Without Project Without McMillan Trust Property Development Conditions.

For both 2035 Without Project and With Modified Project Conditions, With McMillan Trust Property Development, there are no new intersections anticipated to operate at unacceptable level of service, in addition to the deficient intersections previously identified under 2035 Conditions, Without McMillan Trust Property Development.

However, with the recommended intersection improvements identified in Sections 5.0, 6.0, and 7.0 all of the study area intersections are projected to operate at acceptable level of service. It should be noted that the following intersections include improvements to accommodate new project access:

- Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)
- Street "C" / Eagle Glen Parkway (#13)
- Street "C" / Street "B" (#14)
- Street "A" - Street "D" / Street "B" (#15)
- Street "A" / TAZ 4 Main Driveway (#16)
- Street "A" / TAZ 4 South Driveway (#17)

9.3 ROADWAY SEGMENT ANALYSIS

For Existing (2014 and 2015) conditions, the roadway segment along Eagle Glen Parkway – Cajalco Road, east of I-15 SB Ramps currently serves daily volumes which exceed the theoretical daily segment LOS thresholds.

For 2017 Without and With Modified Project (Phase 1) conditions, the roadway segment along El Cerrito Road, west of Bedford Canyon is estimated to serve daily volumes which exceed threshold daily capacity values, in addition to the roadway segment previously identified under Existing (2014 and 2015) conditions.

Where the ADT-based roadway segment analysis indicates a deficiency, a review of the more detailed peak hour intersection analysis is undertaken. Review of the peak hour intersection analysis results indicate that the recommended intersection improvements identified under 2017 conditions provide acceptable level of service for both study area intersections and roadway segments.

For 2035 Without Project conditions, Without and With McMillan Trust Property Development, the following roadway segments are estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements:

Roadway Segment Location
Bedford Canyon, south of El Cerrito Road
Bedford Canyon, north of Georgetown Drive
El Cerrito Road, west of Bedford Canyon
El Cerrito Road, east of Bedford Canyon

For 2035 With Modified Project Conditions, Without McMillan Trust Property Development, the roadway segment along Eagle Glen Parkway, east of Bedford Canyon is estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project conditions, Without McMillan Trust Property Development.

For 2035 With Modified Project Conditions, With McMillan Trust Property Development, the following roadway segments are estimated to serve daily volumes which exceed the theoretical daily segment LOS thresholds, with planned interchange improvements, in addition to the roadway segments previously identified under 2035 Without Project conditions, With McMillan Trust Property Development:

Roadway Segment Location
Eagle Glen Parkway – Cajalco Road, west of Bedford Canyon
Eagle Glen Parkway – Cajalco Road, east of Bedford Canyon

For 2035 conditions, roadway segments that are estimated to exceed the daily volume threshold values are further reviewed based on the more detailed peak hour intersection analysis, which explicitly account for factors that affect roadway during peak periods. Review of the peak hour intersection analysis results indicate that the recommended interchange and intersection improvements identified under 2035 conditions provide acceptable level of service for both study area intersections and roadway segments.

9.4 TRAFFIC SIGNAL WARRANT ANALYSIS

For Existing (2014 and 2015) traffic conditions, the following unsignalized study area intersections are currently warranted for traffic signals:

ID	Intersection Location	Jurisdiction
1	Masters Drive / California Avenue	Corona
3	Masters Drive / Eagle Glen Parkway	Corona

For 2017 Without and With Modified Project Conditions, there are no new unsignalized intersections anticipated to meet traffic signal warrants, in addition to the intersections identified under Existing (2014 and 2015) conditions. It should be noted however that even though the intersection of Masters Drive / Eagle Glen Parkway (#3) meets traffic signal warrants, intersection operations analysis results indicate that Masters Drive / Eagle Glen Parkway intersection is anticipated to continue to operate at acceptable level of service under 2017 without and with modified project conditions. Therefore, traffic signal installation at Masters Drive / Eagle Glen Parkway (#3) is not recommended under 2017 conditions.

For 2035 Without Project conditions, Without McMillan Trust Property Development, the following intersections are anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2017 conditions:

ID	Intersection Location	Jurisdiction
2	Masters Drive / Bennett Avenue	Corona
5	Bedford Canyon Road / Georgetown Drive	Corona
18	Masters Drive / Christopher Lane	Corona
20	Morales Way / Masters Drive	Corona

For 2035 With Modified Project Conditions, Without McMillan Trust Property Development, the intersection of Street "C" / Eagle Glen Parkway (#13) and Street "A" / TAZ 4 Main Driveway (#16) are anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 Without Project conditions, Without McMillan Trust Property Development.

For 2035 Without Project, With McMillan Trust Property Development, the future intersection of Street "C" / Eagle Glen Parkway (#13) is anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 Without Project Conditions, Without McMillan Trust Property Development.

For 2035 With Modified Project Conditions, With McMillan Trust Property Development, there are no new intersections anticipated to meet traffic signal warrants, in addition to the intersections identified previously under 2035 With Project conditions, Without McMillan Trust Property Development and 2035 Without Project conditions, With McMillan Trust Property Development.

It should be noted that the following unsignalized study area intersections are not warranted for a traffic signal under existing or future traffic conditions:

ID	Intersection Location	Jurisdiction
14	Street "C" / Street "B"	Corona
15	Street "A" - Street "D" / Street "B"	Corona
17	Street "A" / TAZ 4 South Driveway	Corona
21	Bennett Avenue / Eagle Glen Parkway	Corona

9.5 DETERMINATION OF RAMP METERED LANES

The minimum number of ramp metered lanes at on-ramps within the study area has been determined based upon the thresholds outlined in the Caltrans Ramp Meter Design Manual. The results have been calculated based on the AM and PM peak hour ramp volumes with a threshold of 900 vehicles per hour for each lane. It should be noted that all the on-ramps currently do not have ramp metering except for the I-15 Northbound On-Ramp at El Cerrito Road where the two-lane on-ramp has a one metered lane and one free-flow lane.

For existing conditions (2014 and 2015), the following metered lanes are needed for each on-ramp location:

- I-15 Southbound On-Ramp at El Cerrito Road – 1 lane
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane
- I-15 Northbound On-Ramp at El Cerrito Road – 1 lane
- I-15 Northbound On-Ramp at Cajalco Road – 2 lanes

For 2017 Without and With Modified Project Conditions, there are no changes to the number of ramp metered lanes needed for each on-ramp location as identified under Existing (2014 and 2015) conditions.

For 2035 Without Project and 2035 With Modified Project conditions, Without McMillan Trust Property Development, the following metered lanes are needed for each on-ramp location:

- I-15 Southbound On-Ramp at El Cerrito Road – 2 lanes
- I-15 Southbound On-Ramp at Cajalco Road – 1 lane
- I-15 Northbound On-Ramp at El Cerrito Road – 2 lanes
- I-15 Northbound Slip On-Ramp at Cajalco Road – 2 lanes
- I-15 Northbound On-Ramp at Cajalco Road – 1 lane

9.6 PROJECT RELATED OFF-SITE CIRCULATION RECOMMENDATIONS

For interim year 2017 conditions, the following intersection improvements (illustrated on Exhibit 5-1) are needed without the Modified Project and the project should contribute to implementation of these improvements on a fair share basis:

Masters Drive / California Drive (#1)

- Install a traffic signal.

Masters Drive / Christopher Lane (#18)

- Provide traffic signal, or roundabout.

For 2017 conditions without the modified project, the intersection of Masters Drive / Christopher Lane (#18) morning peak hour level of service worsens to LOS "E" without converting to signal control or implementing a roundabout at this location. The Masters Drive / Christopher Lane intersection is projected to eventually warrant a traffic signal under 2035 without project conditions.

For Phase 1 project conditions (up to 308 dwelling units), the following intersection improvements are required with the Modified Project:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- NB Approach: Construct one left turn lane and one shared through-right turn lane.
- SB Approach: Modify striping to provide a through lane.
- EB Approach: Modify striping to provide a shared through-right turn lane.

- WB Approach: Modify striping to provide a new dedicated left turn lane. Adjust the east leg striping to provide a 2nd receiving lane.
- Traffic signal modifications as required to accommodate the above geometry.

Street "C" / Eagle Glen Parkway (#13)

- Construct Street "C" from Eagle Glen Parkway to Street "B" as a two-lane divided collector.
- Install stop sign control on the NB approach.
- NB Approach: Construct one left turn lane and one right turn lane.
- WB Approach: Modify striping to provide left turn lane.

For long range future cumulative conditions (2035), the following intersection improvements (illustrated on Exhibit 6-1) are needed without the Modified Project and the project should contribute to implementation of these improvements on a fair share basis, in addition to the previously identified improvements under interim year 2017 conditions.

Masters Drive / Bennett Avenue (#2)

- Install a traffic signal.

Masters Drive / Eagle Glen Parkway (#3)

- Install a traffic signal.

Bedford Canyon Road / Georgetown Drive (#5)

- Install a traffic signal.

I-15 SB Ramps / El Cerrito Road (#7)

- EB Approach: Construct a separate right turn lane.

Temescal Canyon Road / Cajalco Road (#12)

- Widen Cajalco Road east of Temescal Canyon Road from four-lane divided to six-lane divided roadway, within 600 feet of Temescal Canyon Road.
- SB Approach: Modify striping to provide a 2nd left turn lane, in addition to the existing two through lanes.
- EB Approach: Modify striping to provide a 2nd through lane, in addition to the existing left turn lane and right turn lane.
- WB Approach: Construct one right turn lane.

Via Castilla Street / Masters Drive (#19)

- Provide cross-street stop control on Via Castilla Street, or roundabout.

Morales Way / Masters Drive (#20)

- Provide traffic signal, or roundabout.

Recommended improvements along Masters Drive consist of basic traffic signals at the Masters Drive / Christopher Lane (#18) and Morales Way / Masters Drive (#20) intersections, while converting to cross street stop control at Via Castilla Street / Masters Drive (#19) (Via Castilla / Masters Drive Street does not warrant a signal, and can benefit from gaps caused by the Masters Drive / Christopher Lane and Morales Way / Masters Drive signals). A feasible alternative consists of the installation of small roundabouts (within existing right-of-way) at the Masters Drive / Christopher Lane, Via Castilla Street / Masters Drive, and Morales Way / Masters Drive intersections.

Prior to issuance of a Certificate of Occupancy for the three hundred ninth (309th) dwelling unit within the Modified Project, the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) is recommended to be fully funded in accordance with an approved development agreement. Planned intersection improvements related to the Cajalco Road / I-15 Interchange project include the following:

I-15 SB Ramps / Cajalco Road (#8)

- SB Approach: Construct a 2nd left turn lane and 2nd right turn lane.
- EB Approach: Construct a 2nd left turn lane and 2nd through lane.
  - Per City of Corona staff, a 3rd EB through lane is also recommended as an additional improvement.
- WB Approach: Construct a 2nd through lane.

I-15 NB Ramps / Cajalco Road (#10)

- NB Approach: Construct a 2nd left turn lane and 2nd right turn lane.
- EB Approach: Construct a 2nd and 3rd through lanes and one right turn lane with overlap phasing.
- WB Approach: Construct a 2nd and 3rd through lanes.

Grand Oaks / Cajalco Road (#11)

- EB Approach: Construct a 3rd through lane.

In addition to the I-15/Cajalco interchange improvements, previously identified improvements under 2017 With Modified Project (Phase 1), and previously identified fair-share cumulative improvements (needed for 2035 Without Project conditions), the following intersection improvements are required with the Modified Project (beyond 308 dwelling units):

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- NB Approach: Construct a separate right turn lane with overlap phasing.
- SB Approach: Modify striping to provide a shared left/through lane.
- WB Approach: Construct a 2nd left turn lane.

Street "C" / Eagle Glen Parkway (#13)

- Install a traffic signal.

Exhibits 9-1 through 9-5 provide concept striping plan overlays of improvements along Eagle Glen Parkway between Street "C" / Eagle Glen Parkway (#13) and Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6).

The project proponent shall also participate in the City of Corona Development Impact Fee Program and the Western Riverside Council of Governments Transportation Uniform Mitigation Fee Program, with appropriate credits for overlapping participation in the above off-site improvements.

9.7 PROJECT PHASING

For the purposes of this traffic study, the built out conditions of the modified project is evaluated under 2035 conditions. Phase 1 of the project, which is assumed to be completed in 2017, consists of Planning Area 5, 7 and 8, which include 308 single-family detached dwelling units and 0.7 acres of active park uses. A sensitivity analysis has also been included which evaluates Interim Year With Project Buildout conditions.

Development of the Project beyond Phase 1 (308 dwelling units) will occur in phases at a pace which becomes increasingly difficult to predict with certainty because of potential fluctuations in economic conditions. However, analysis of peak hour conditions at the Cajalco/I-15 interchange indicates that traffic conditions will worsen with or without the Modified Project until the planned capital improvements to the ramps and bridge structure are able to be implemented. As noted above, the findings of this traffic analysis include the recommendation that prior to issuance of a Certificate of Occupancy for the three hundred ninth (309th) dwelling unit within the Modified Project, full funding of the Cajalco Road/I-15 Interchange project (which includes a new 6-lane bridge over Interstate 15) is recommended to be accomplished in accordance with an approved development agreement.

Even with full funding provided for the planned Cajalco/I-15 interchange improvements, the City of Corona does not maintain total control over implementation of Caltrans ramp and bridge improvements. As indicated on Exhibit 1-6 in Section of this report, if (1) actual construction of the Cajalco/I-15 interchange improvements are completed beyond 2017, and (2) the Modified Project had provided for full funding of the interchange improvements, and (3) more than 308 new homes within the Modified Project occur at a pace of approximately 100 occupancies per year, peak hour conditions at the Cajalco/I-15 interchange ramp intersections will exceed level of service "E" and "F" until the new interchange improvements are completed.

If the Arantine Hills Modified Project does not occur, it is anticipated that full funding of the Cajalco/I-15 interchange project may be delayed for 5 to 10 years. As illustrated on Exhibit 1-6, this situation results in an extended period of time with increased traffic congestion as measured by peak hour level-of-service deficiencies at the Cajalco/I-15 interchange ramp intersections. Neither Caltrans nor the State has adopted a fee program that can ensure that the Cajalco/I-15 interchange will be implemented in a timely manner, and only Caltrans has the jurisdiction over interchange improvements.

EXHIBIT 9-1

CONCEPT STRIPING PLAN OVERLAY OF EAGLE GLEN PARKWAY WITH ARANTINE HILLS MODIFIED PROJECT ACCESS (REACH 1 OF 5)

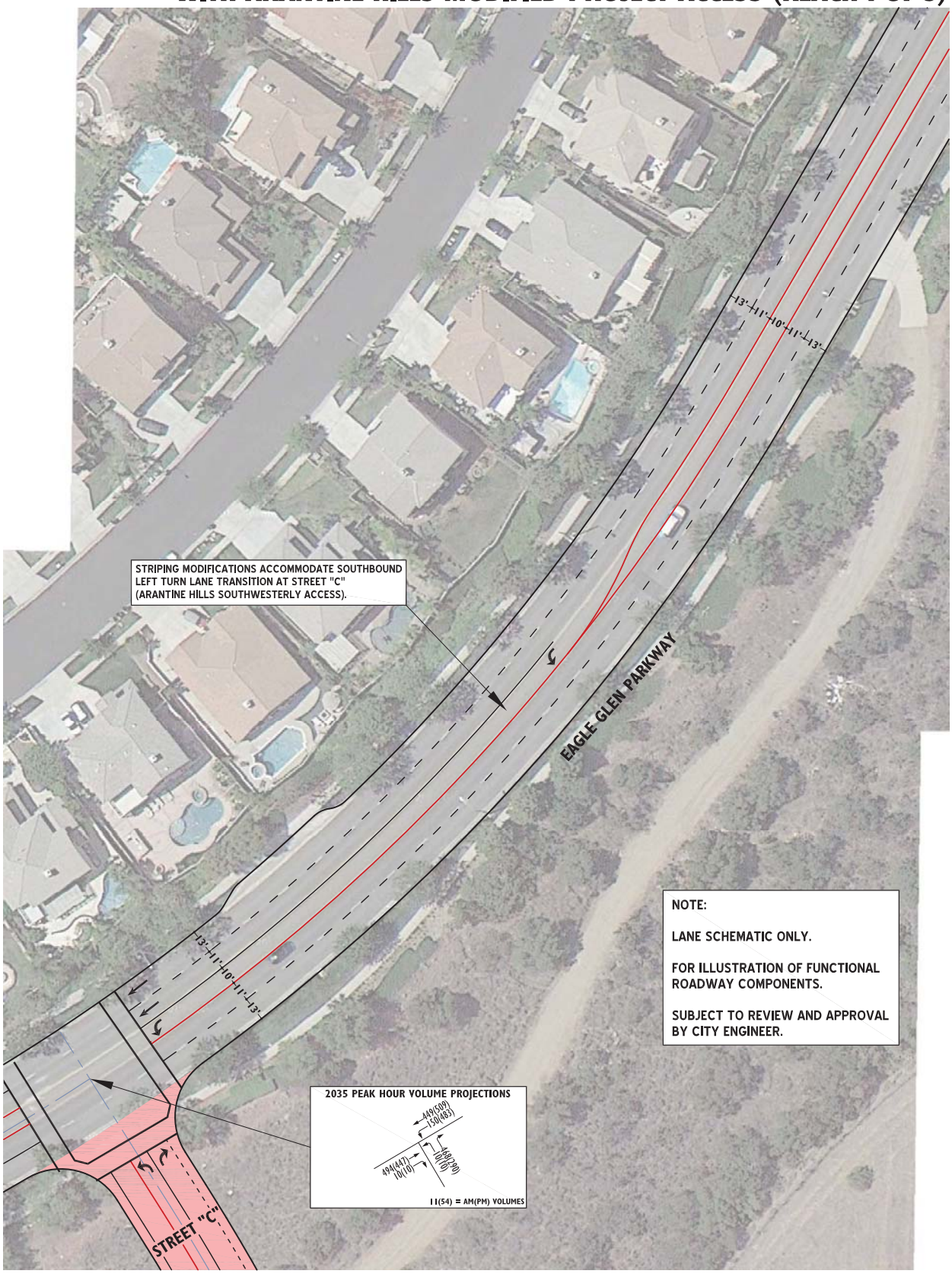
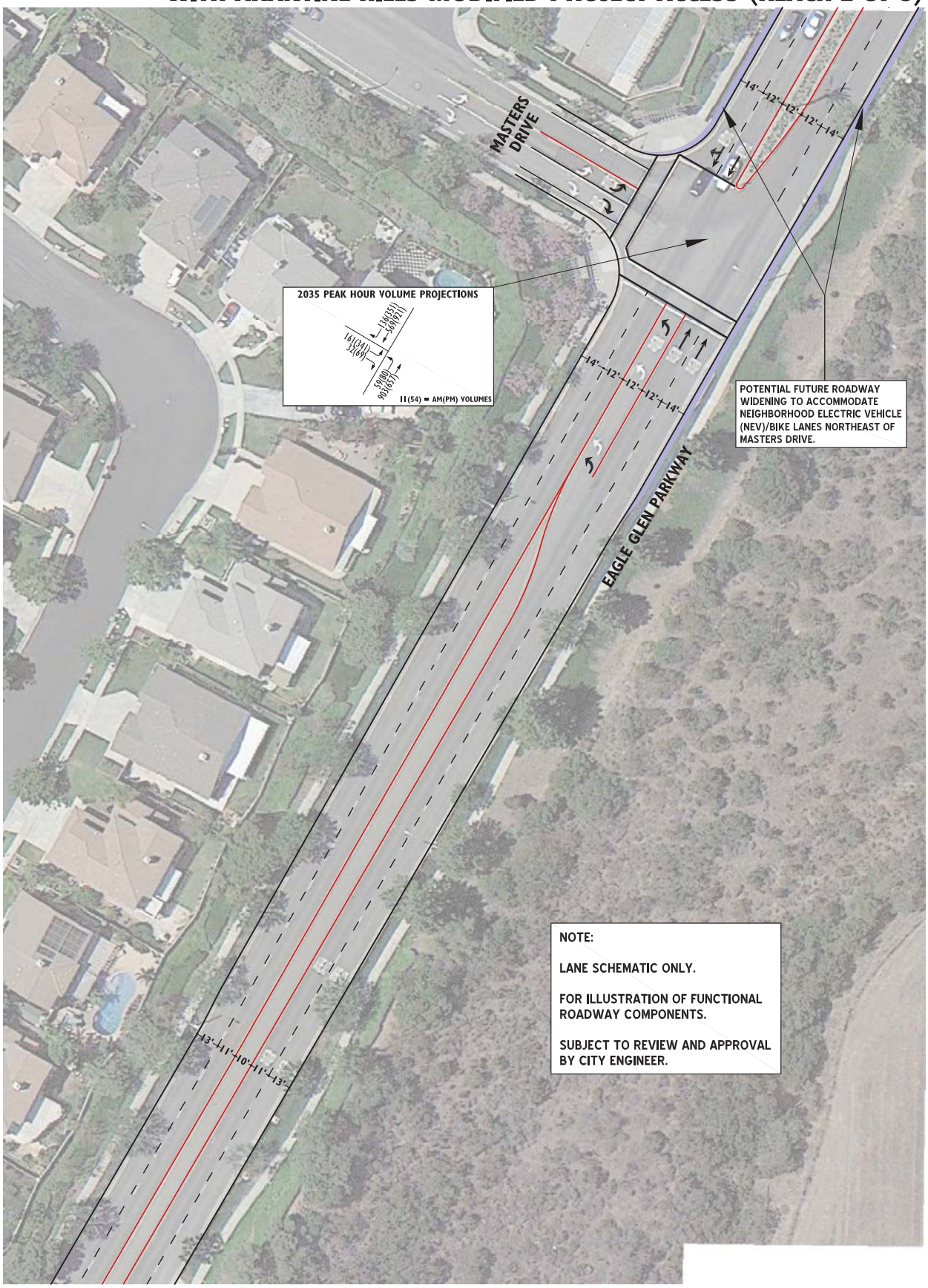


EXHIBIT 9-2

CONCEPT STRIPING PLAN OVERLAY OF EAGLE GLEN PARKWAY WITH ARANTINE HILLS MODIFIED PROJECT ACCESS (REACH 2 OF 5)



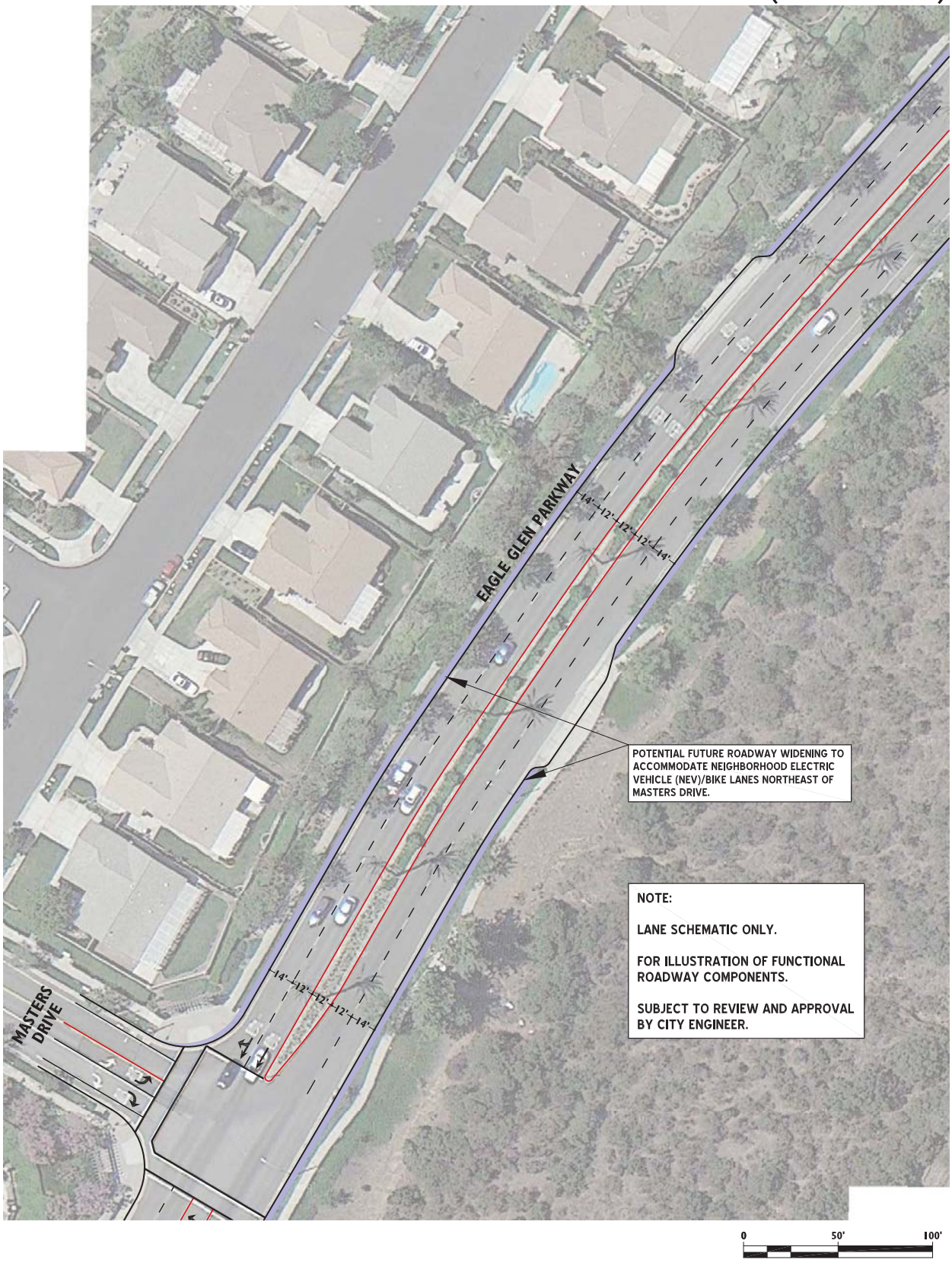
LEGEND:

= POTENTIAL FUTURE ADDITIONAL PAVED AREA FOR NEV/BIKE LANES

0 50' 100'

EXHIBIT 9-3

CONCEPT STRIPING PLAN OVERLAY OF EAGLE GLEN PARKWAY WITH ARANTINE HILLS MODIFIED PROJECT ACCESS (REACH 3 OF 5)



LEGEND:

= POTENTIAL FUTURE ADDITIONAL PAVED AREA FOR NEV/BIKE LANES

EXHIBIT 9-4

CONCEPT STRIPING PLAN OVERLAY OF EAGLE GLEN PARKWAY WITH ARANTINE HILLS MODIFIED PROJECT ACCESS (REACH 4 OF 5)

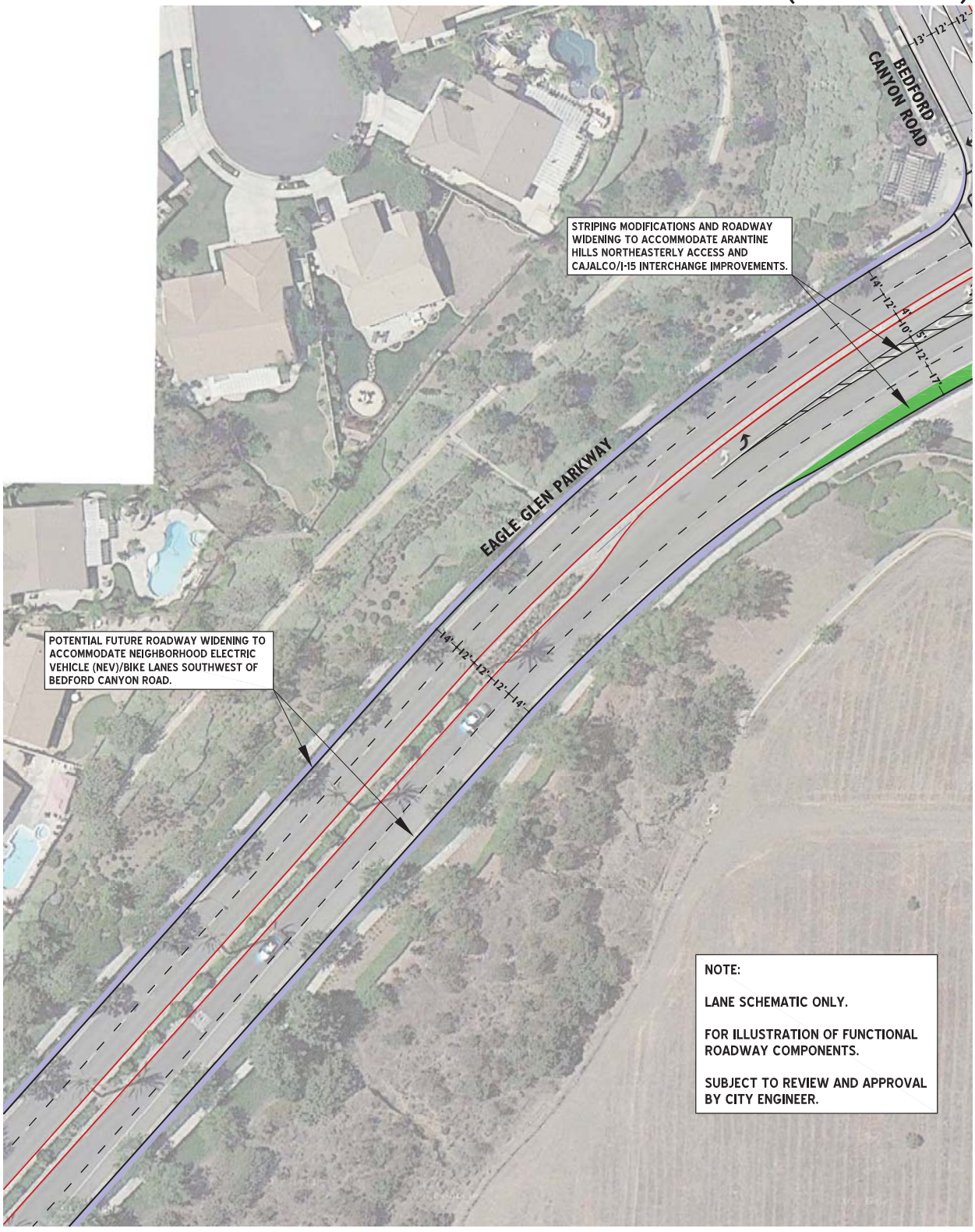
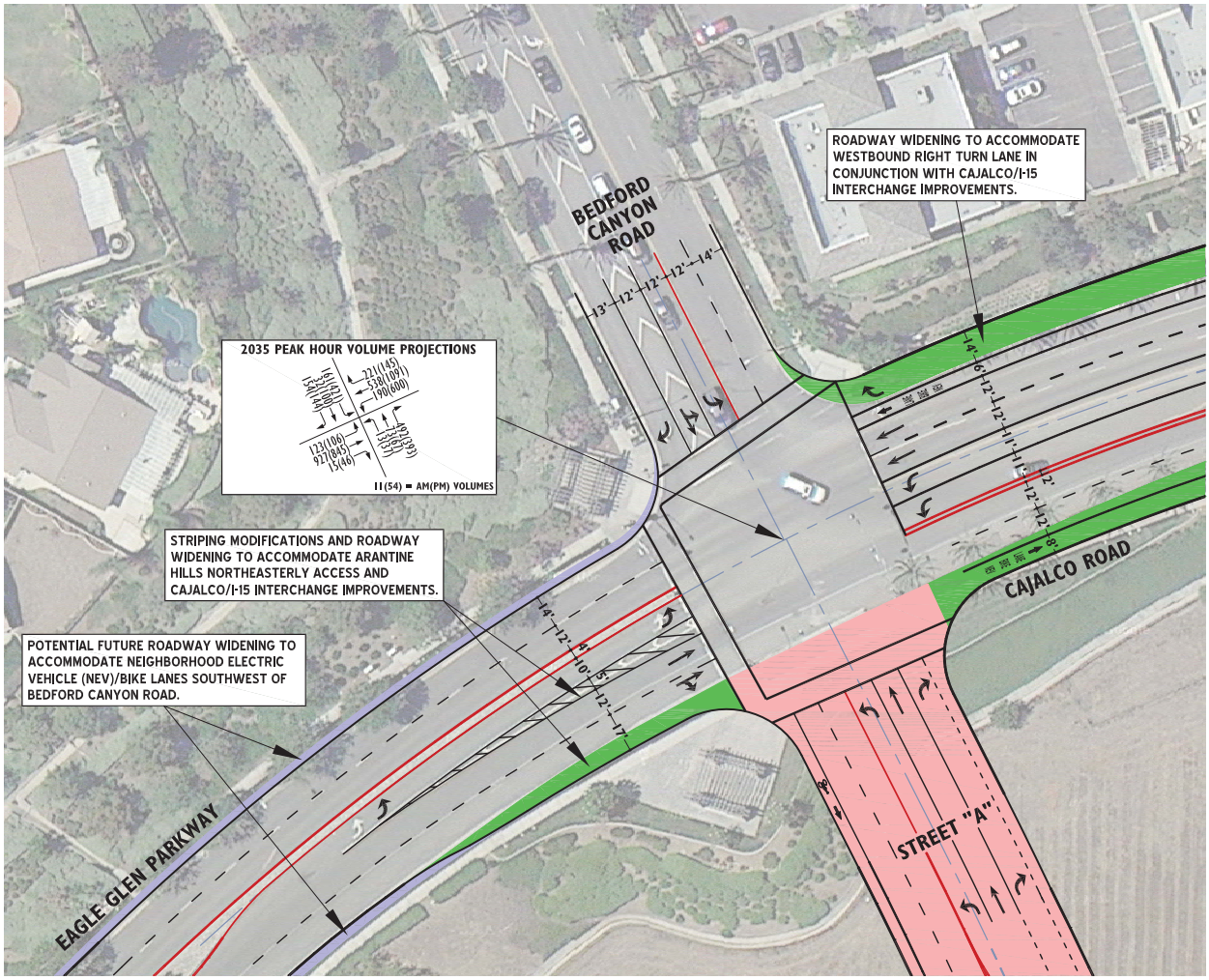


EXHIBIT 9-5

CONCEPT STRIPING PLAN OVERLAY OF EAGLE GLEN PARKWAY WITH ARANTINE HILLS MODIFIED PROJECT ACCESS (REACH 5 OF 5)



NOTE:

LANE SCHEMATIC ONLY.

FOR ILLUSTRATION OF FUNCTIONAL ROADWAY COMPONENTS.

SUBJECT TO REVIEW AND APPROVAL BY CITY ENGINEER.

LEGEND:

= FUTURE ACCESS ROAD RELATED IMPROVEMENTS

= CALTRANS INTERCHANGE IMPROVEMENTS

= POTENTIAL FUTURE ADDITIONAL PAVED AREA FOR NEV/BIKE LANES

9.8 ON-SITE CIRCULATION RECOMMENDATIONS

The recommended on-site roadway and intersection improvements are described below and illustrated on Exhibit 9-6.

- Construct Street "A" (southerly extension of Bedford Canyon Road) from Eagle Glen Parkway to Street "B" as a four-lane Modified Divided Collector (see Exhibit 9-7).
- Construct Street "B" as a two-lane Modified Collector, with a parallel multi-purpose trail (see Exhibit 9-8).
- Construct Street "C" as a two-lane Divided Collector.
- Construct Street "D" as a two-lane Modified Local with parallel emergency access at Bedford Wash Crossing (See Exhibits 9-7 & 9-9).
- On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site.
- Sight distance at each project access driveway should be reviewed with respect to Caltrans and City of Corona sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

On-site backbone intersection improvements within the Modified Project include the following:

Street "C" / Street "B" (#14)

- Install roundabout.
- SB Approach: Provide a shared left/right turn lane.
- EB Approach: Provide a shared left/through lane.
- WB Approach: Provide a shared through/right turn lane.

Street "A" - Street "D" / Street "B" (#15)

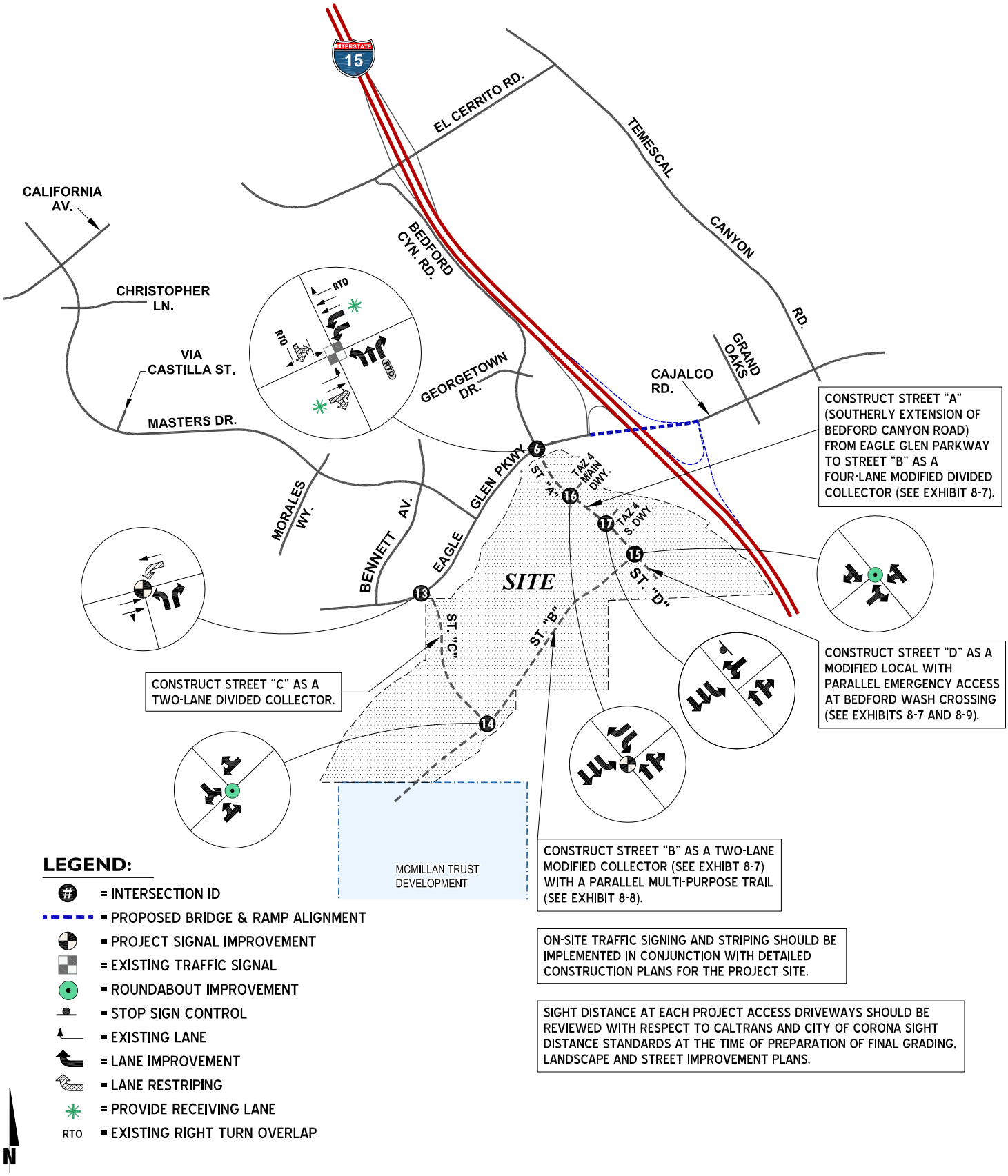
- Install roundabout.
- NB Approach: Provide a shared left/through lane.
- SB Approach: Provide a shared through/right turn lane.
- EB Approach: Provide a shared left/right turn lane.

Street "A" / TAZ 4 Main Driveway (#16)

- Install a traffic signal.
- NB Approach: Provide one through lane and one shared through/right turn lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one left turn lane and one right turn lane.

EXHIBIT 9-6

ON-SITE CIRCULATION RECOMMENDATIONS



Street "A" / TAZ 4 South Driveway (#17)

- Install a stop sign control on the westbound approach.
- NB Approach: Provide one through lane and one shared through/right turn lane.
- SB Approach: Provide one left turn lane and two through lanes.
- WB Approach: Provide one shared left/right turn lane.

The Arantine Hills Modified Project typical cross-sections are shown on Exhibit 9-7. The Project bicycle circulation plan is illustrated on Exhibit 9-8. Exhibit 9-9 presents the conceptual roundabout layout for Street "A" at Street "B".

9.9 GATE STACKING ANALYSIS

The Modified Project is planned to have a gated access along Street "A" and Street "C". The gated access located along Street "A" is approximately 300 feet south of TAZ 4 S. Driveway and the gated access located along Street "C" is approximately 600 feet south of Eagle Glen Parkway. The gate stacking length evaluation results for Street "A" and Street "C" are summarized on Table 9-1. As shown on Table 9-1, a maximum distance of 275 feet is needed at Street "A" entry gate (2 entry lanes) and a maximum distance of 525 feet is needed at Street "C" entry gate (1 entry lane) to serve all future scenarios based on the minimum driveway length requirements provided in the City of Corona Traffic Impact Study Guidelines, dated July 2006.

9.10 MODIFIED PROJECT COMPARISON TO APPROVED PROJECT

9.10.1 PROJECT TRIP GENERATION

The approved Arantine Hills project consists of 396,400 square feet of general retail use, 230,900 square feet of business park use, 59,000 square feet of specialty retail use, 59,000 square feet of general office use, 1,072 multi-family attached dwelling units, 549 single-family detached dwelling units, and a mix of passive and active parks.

The Modified Project land use plan (shown previously on Exhibit 1-2) is less intensive than the previously approved land use plan. The modified project consists of 1,107 single-family detached dwelling units, 514 multi-family attached dwelling units, 185 senior housing units, 80,000 square feet of general retail use, and a mix of passive and active parks. The business park and office uses have been removed in the modified project land use plan.

As shown previously in Table 3-3, the Modified Project is anticipated to generate approximately 10,896 fewer external trips per day with 427 fewer external AM peak hour trips and 1,085 fewer external PM peak hour trips, in comparison to the approved project.

Changes to the AM (morning peak hour) and PM (evening peak hour) peak hour project volumes related to the Modified Project, as compared to the previously approved project, are presented in previously in Exhibit 1-3 (morning peak hour) and Exhibit 1-4 (evening peak hour) for the study area intersections.

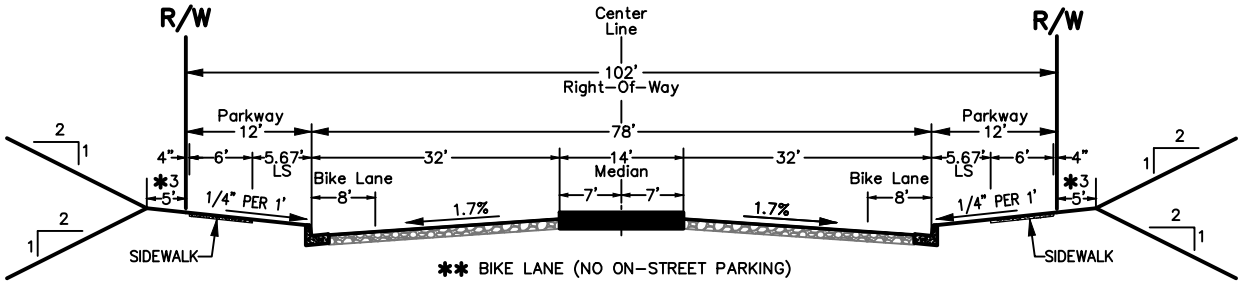
For 2017 With Modified Project conditions, the following improvements from the previously approved project are modified or eliminated with the Phase 1 development of the Modified Project:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- NB Approach: Separate right turn lane with overlap phasing can be provided following Phase 1.
- SB Approach: Modified shared left/through lane can be provided following Phase 1.

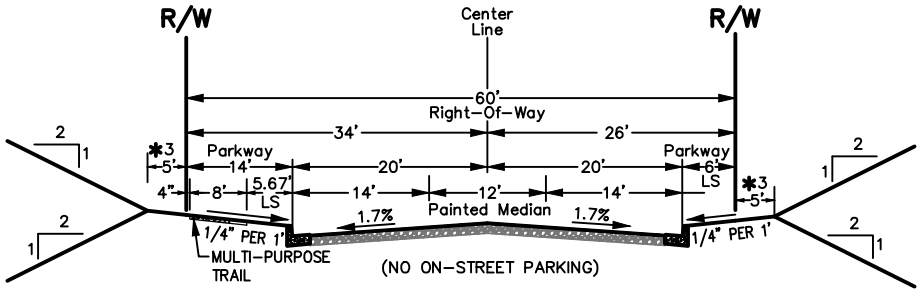
ARANTINE HILLS MODIFIED PROJECT
TYPICAL CROSS-SECTIONS

102' Modified Divided Collector Street Section
(Street 'A')



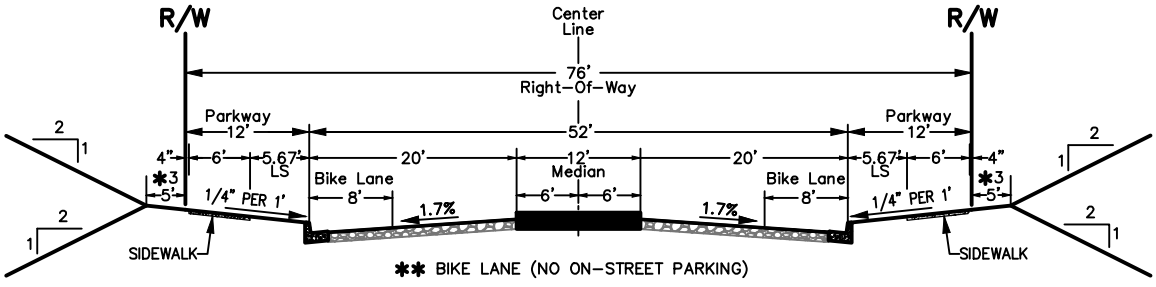
✱3 Note: H/2 slope setback area to a maximum of 5 feet.

60' Modified Collector Street Section
(Street 'B')



✱3 Note: H/2 slope setback area to a maximum of 5 feet.

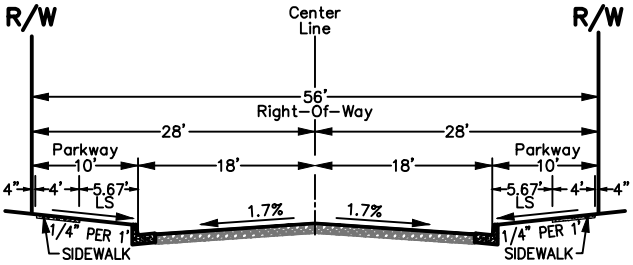
76' Divided Collector Street Section
(Street 'C')



✱3 Note: H/2 slope setback area to a maximum of 5 feet.

ARANTINE HILLS MODIFIED PROJECT
TYPICAL CROSS-SECTIONS

56' Modified Local Street Section
(Interior Streets)



40' Modified Local Street Section (Street 'D') and
28' Pedestrian Trail / Emergency Access (Street 'E')
(Only for Bedford Wash Crossing)

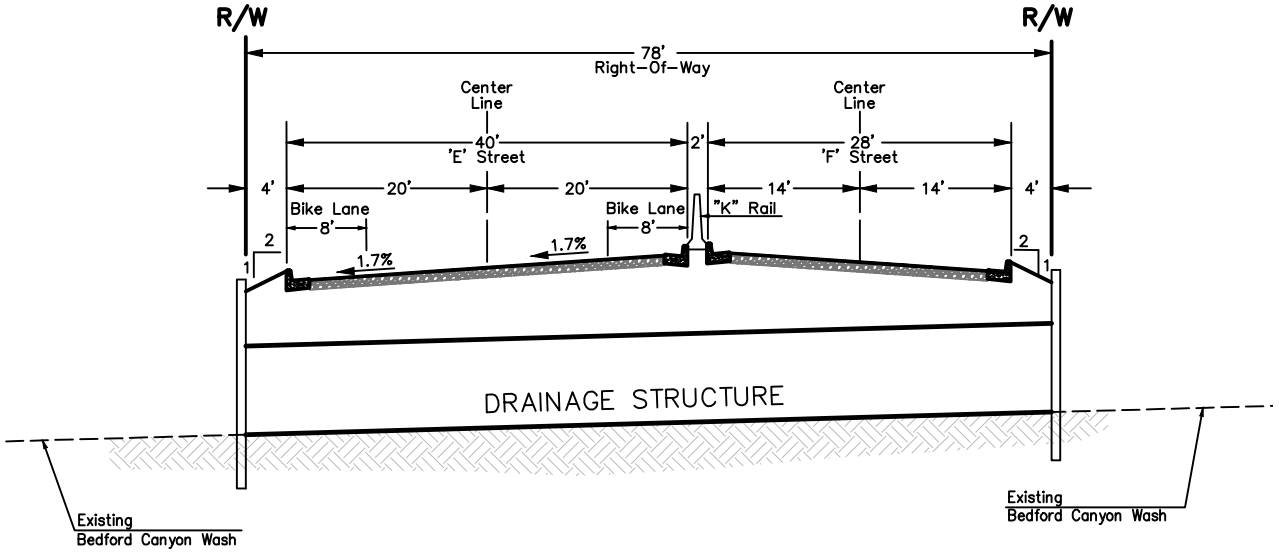
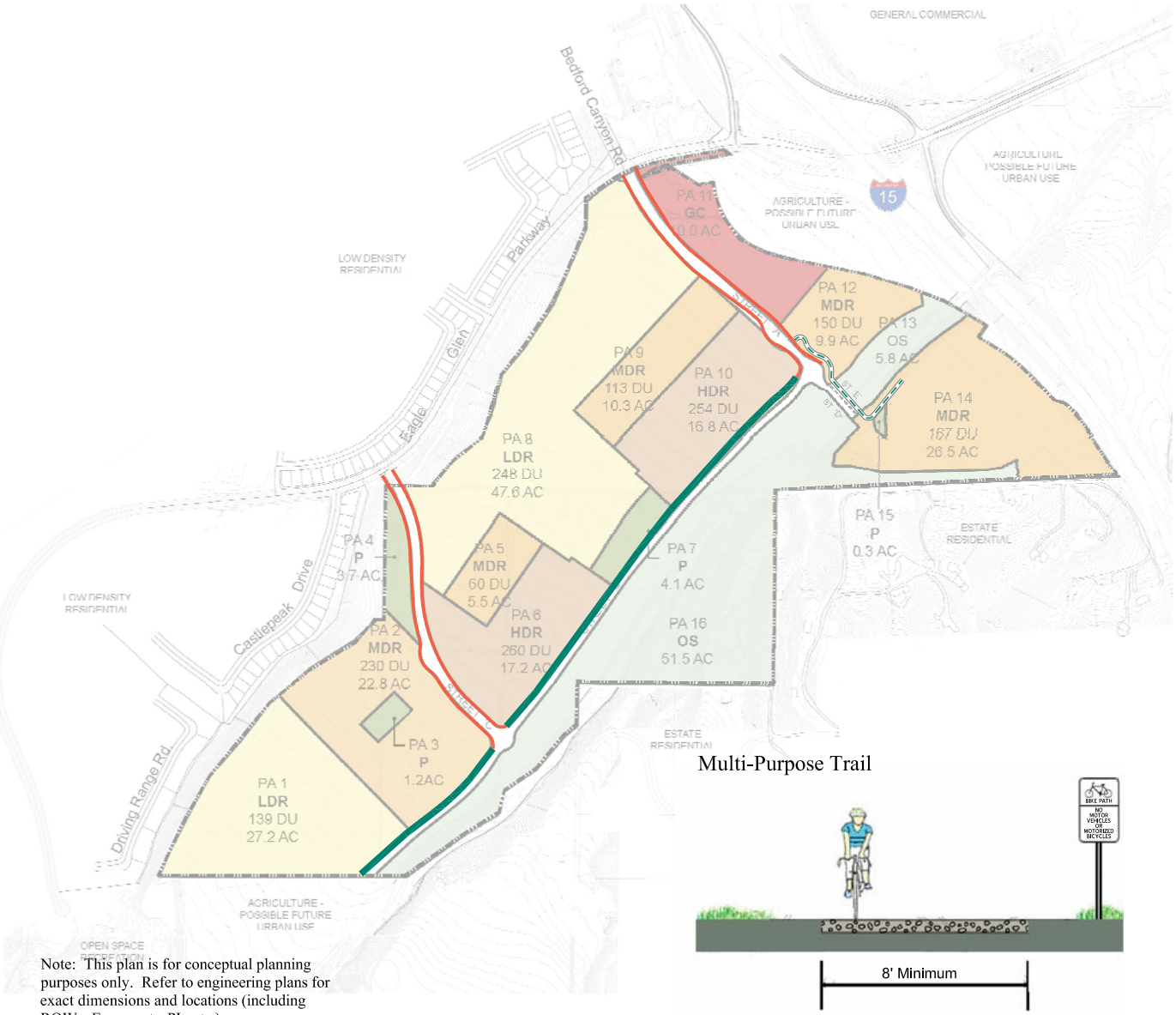


EXHIBIT 9-8

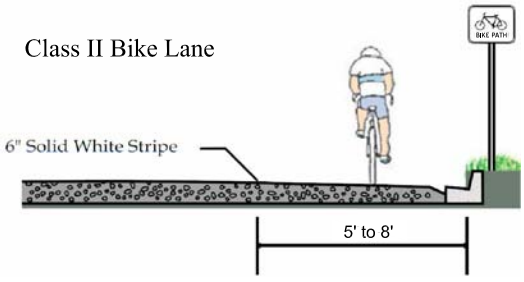
ARANTINE HILLS MODIFIED PROJECT BICYCLE CIRCULATION PLAN



Note: This plan is for conceptual planning purposes only. Refer to engineering plans for exact dimensions and locations (including ROWs, Easements, PL, etc.)

Multi-Purpose Trail

Class II Bike Lane



LEGEND:

- Proposed Multi-Purpose Trail (BIKE PATH / NO MOTOR VEHICLES OR MOTORIZED BICYCLES)
- Proposed Class II Bike Lane (BIKE PATH)
- Shared Emergency Access/Bike/Pedestrian Path

N

EXHIBIT 9-9

STREET "A" AT STREET "B" - CONCEPTUAL ROUNDABOUT LAYOUT

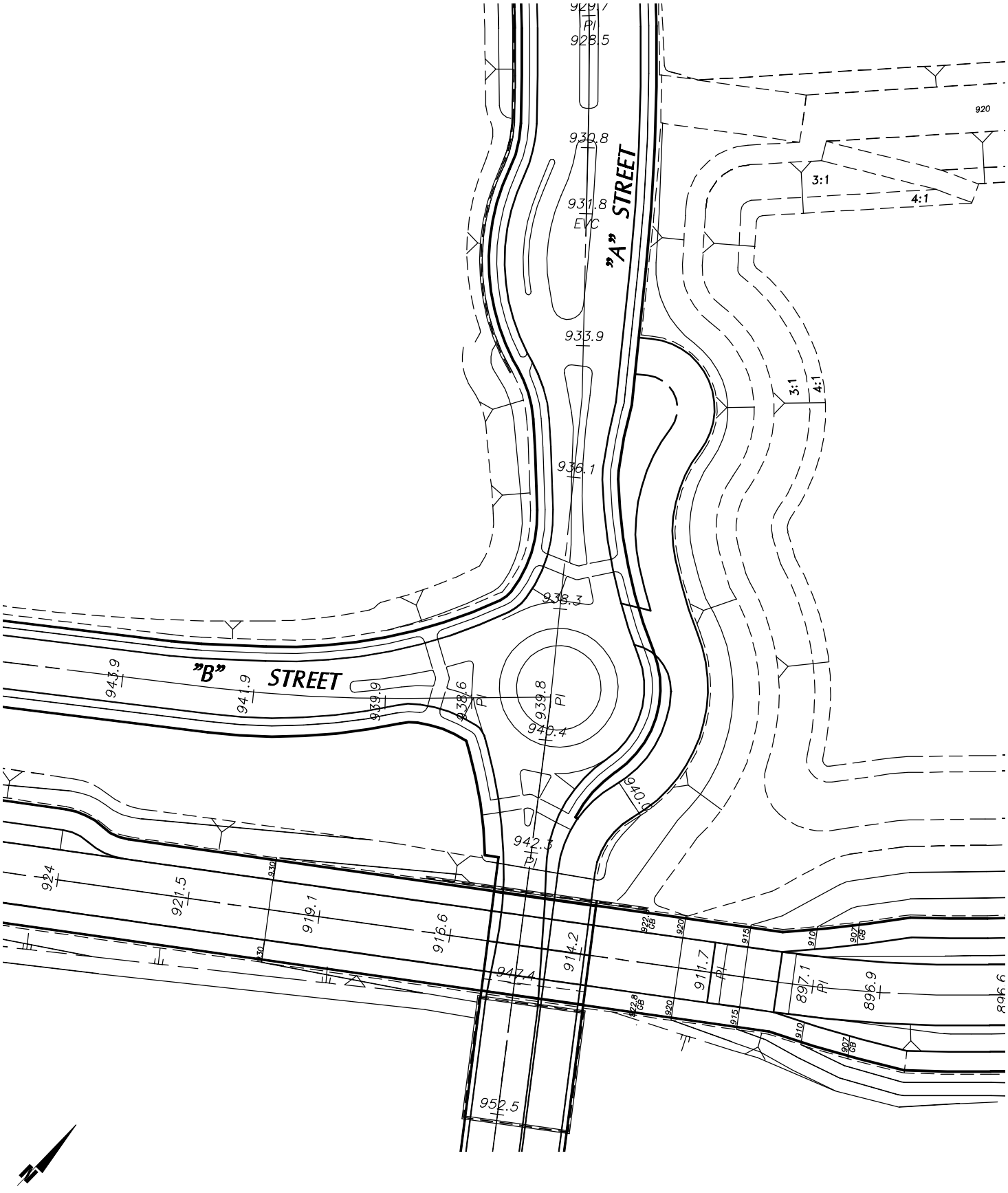


Table 9-1

2035 On-Site Driveway Length Evaluation for Gated Access Locations

Gate Location and Analysis Scenario	Traffic Control[1]	# of Lanes	Entering Direction Peak Hour Volume Per Lane		Minimum Queuing Length (ft)[2]	Queuing Length Provided (ft)	Acceptable?[3]
			AM	PM			
Street "C"							
• *Without McMillan Trust Property Development*	TS	1	111	336	375	600	Yes
• *With McMillan Trust Property Development*	TS	1	160	493	**550**	600	Yes
Street "A"							
• *Without McMillan Trust Property Development*	CSS	2	72	253	250	300	Yes
• *Without McMillan Trust Property Development*	CSS	2	76	269	**275**	300	Yes

[1] TS = Traffic Signal; CSS = Cross Street Stop

[2] Source: City of Corona Traffic Impact Study Guidelines (2006)

BOLD = Minimum Driveway Length

[3] Driveway length is acceptable if the minimum driveway length requirements are satisfied.

I-15 SB Ramps / Cajalco Road (#8)

- EB Approach: 2nd left turn lane can be provided following Phase 1, in conjunction with the new Cajalco Road bridge.

Street "C" / Eagle Glen Parkway (#13)

- Traffic signal can be provided following Phase 1.
- WB Approach: The new left turn lane can be accommodated by modifying the existing median lane striping (without physical roadway widening).

For 2035 With Modified Project conditions, Without and With McMillan Trust Property Development, the following improvements from the previously approved project are eliminated with the development of the Modified Project:

Bedford Canyon Road – Street "A" / Eagle Glen Parkway - Cajalco Road (#6)

- NB Approach: 2nd right turn lane is no longer needed.
- SB Approach: Provision of a separate right turn lane in addition to the through lane is no longer necessary.
- EB Approach: Construction of a 3rd through lane is no longer needed.

I-15 SB Ramps / El Cerrito Road (#7)

- SB Approach: Construction of a 2nd right turn lane is no longer needed.

9.10.2 PROJECT FAIR SHARE CALCULATIONS

The City of Corona Traffic Impact Study Guidelines provide a formula for estimating the project fair share percentages based on average intersection delay. The percentage of fair share for the project shall be calculated at each location as the ratio of the increase in delay from project trips divided by the difference between total delay (including) and delay at acceptable Level of Service. In addition, for non-master planned facilities where there is no reasonable expectation that future development will significantly impact the facility, the project will be responsible for 100% of the mitigation cost and "fair share" will not apply. The following equation is used to calculate the project fair share percentage:

$$\text{Project Fair Share \%} = \frac{\text{Project Only Delay}}{\text{(Total Delay "with project" – Max Acceptable Delay Traffic)}}$$

The volume-based share calculation results are based on both the project percentage of total traffic (Project Only Traffic / 2035 With Project Traffic) and project percentage of new traffic (Project Only Traffic / Total New Traffic).

Tables 9-2 and 9-3 present the peak hour fair share comparisons between the previously Approved Arantine Hills and the Modified Project, without and with the McMillan Trust Property Development assumed in the background traffic projections.

9.11 SUMMARY OF IMPROVEMENT RECOMMENDATIONS

The recommended study area intersection improvement measures for the future traffic conditions are listed in Table 9-4. Table 9-4 identifies improvements that would allow the study intersections to operate at acceptable levels of service with the project and with cumulative growth, in addition to improvements for the new project access connections.

Previous Section 9.6 documents off-site intersection improvements by scenario. The resulting intersection geometrics are summarized on Exhibit 9-10 for each of the study area intersections for existing (2014/2015), 2017 Without Project, 2035 Without Project, 2017 With Project Phase 1, Interim Year With Project Buildout, and 2035 With Project Buildout. This summary exhibit provides an overview of intersection geometrics by scenario / timeframe.

TABLE 9-2

2035 With Modified Project, Without McMillan Trust Property Development
Arantine Hills Fair Share Percentages for Various Scenarios

ID	Intersection	Funding Source	Acceptable LOS & Delay Criteria[3,4] LOS	Acceptable LOS & Delay Criteria[3,4] Delay (AD)	2035 Without Project[5,9] (NP)	Approved Project[1] Project Responsibility	Modified Project[2] 2035 With Project[5,9] (WP)	Modified Project[2] Project Only[6] (P)	Modified Project[2] Project Fair Share[7]	Modified Project[2] Project Responsibility
1	Masters Dr. / California Dr.	DIF								
	• Delay									
	- AM Peak Hour		C	25.0	41.9	**92%**	43.1	1.2	7%	**64%**
	- PM Peak Hour		C	25.0	29.2		36.6	7.4	64%	
2	Masters Dr. / Bennett Av.									
	• Delay									
	- AM Peak Hour		C	25.0	9.2	**100%**	9.6	0.4	-3%	**N/A**
	- PM Peak Hour		C	25.0	14.6		18.3	3.7	-55%	
3	Masters Dr. / Eagle Glen Pkwy.									
	• Delay									
	- AM Peak Hour		D	35.0	14.1	**100%**	24.9	10.8	-107%	**87%**
	- PM Peak Hour		D	35.0	37.8		56.3	18.5	87%	
5	Bedford Cyn. Rd. / Georgetown Dr.	DIF								
	• Delay									
	- AM Peak Hour		C	25.0	18.9	--	24.1	5.2	-578%	**N/A**
	- PM Peak Hour		C	25.0	14.6		22.1	7.5	-259%	
6	Bedford Cyn. Rd. / Eagle Glen Pkwy.									
	• Delay									
	- AM Peak Hour		D	55.0	22.4	**100%**	40.5	18.1	-125%	**N/A[8]**
	- PM Peak Hour		D	55.0	24.8		37.2	12.4	-70%	
7	I-15 SB Ramps / El Cerrito Rd.									
	• Delay									
	- AM Peak Hour		D	55.0	57.6	**29%**	58.6	1.0	28%	**58%**
	- PM Peak Hour		D	55.0	68.0		86.2	18.2	58%	
11	Grand Oaks / Cajalco Rd.									
	• Delay									
	- AM Peak Hour		D	55.0	36.9	--	37.6	0.7	-4%	**N/A**
	- PM Peak Hour		D	55.0	30.2		30.8	0.6	-2%	
12	Temescal Cyn. Rd. / Cajalco Rd.									
	• Delay									
	- AM Peak Hour		D	55.0	55.5	**7%**	60.4	4.9	91%	**91%**
	- PM Peak Hour		D	55.0	96.4		101.6	5.2	11%	
13	St. "C" / Eagle Glen Pkwy.									
	• Delay									
	- AM Peak Hour		D	35.0	N/A	**100%**	25.6	25.6	100%	**100%**
	- PM Peak Hour		D	35.0	N/A		27.0	27.0	100%	
14	St. "C" / St. "B"									
	• Delay									
	- AM Peak Hour		C	25.0	N/A	**100%**	5.1	5.1	100%	**100%**
	- PM Peak Hour		C	25.0	N/A		5.9	5.9	100%	
15	St. "A" - St. "D" / St. "B"									
	• Delay									
	- AM Peak Hour		C	25.0	N/A	**100%**	6.2	6.2	100%	**100%**
	- PM Peak Hour		C	25.0	N/A		7.6	7.6	100%	
16	St. "A" / TAZ Main Dwy.									
	• Delay									
	- AM Peak Hour		C	35.0	N/A	**100%**	6.6	6.6	100%	**100%**
	- PM Peak Hour		C	35.0	N/A		11.1	11.1	100%	
17	St. "A" / TAZ S. Dwy.									
	• Delay									
	- AM Peak Hour		C	25.0	N/A	--	10.5	10.5	100%	**100%**
	- PM Peak Hour		C	25.0	N/A		12.6	12.6	100%	
18	Masters Dr. / Christopher Ln.									
	• Delay									
	- AM Peak Hour		C	25.0	39.3	--	39.8	0.5	3%	**27%**
	- PM Peak Hour		C	25.0	35.5		39.3	3.8	27%	
19	Via Castilla St. / Masters Dr.									
	• Delay									
	- AM Peak Hour		C	25.0	12.6	--	13.6	1.0	-9%	**98%**
	- PM Peak Hour		C	25.0	25.2		36.1	10.9	98%	

TABLE 9-2

2035 With Modified Project, Without McMillan Trust Property Development
Arantine Hills Fair Share Percentages for Various Scenarios

ID	Intersection	Funding Source	Acceptable LOS & Delay Criteria[3,4]		2035 Without Project[5,9] (NP)	Approved Project[1]	Modified Project[2]			
			LOS	Delay (AD)		Project Responsibility	2035 With Project[5,9] (WP)	Project Only[6] (P)	Project Fair Share[7]	Project Responsibility
20	Morales Wy. / Masters Dr.									
	• Delay									
	- AM Peak Hour		C	25.0	11.5	--	12.5	1.0	-8%	**99%**
	- PM Peak Hour		C	25.0	25.1		34.9	9.8	99%	

ID	Intersection	Funding Source	Acceptable LOS & Delay Criteria[3,4]		2035 Without Project (NP)	Approved Project[1]	Modified Project[2]			
						Project Responsibility	2035 With Project (WP)	Project Only[6] (P)	Project Fair Share[7]	Project Responsibility
CAJALCO ROAD / I-15 INTERCHANGE AREA										
8	I-15 SB Ramps / Cajalco Rd.	TUMF								
	• Delay									
	- AM Peak Hour		E	80	20.2	**100%**	39.0	18.8	-46%	**100%**
	- PM Peak Hour		E	80	40.1		193.9	153.8	100%	
10	I-15 NB Ramps / Cajalco Rd.	TUMF								
	• Delay									
	- AM Peak Hour		E	80	97.8	**100%**	200.3	102.5	85%	**85%**
	- PM Peak Hour		E	80	30.2		67.5	37.3	-298%	

1 Approved Project Fair Share Source: Arantine Hills Specific Plan Traffic Impact Analysis (Revised), dated June 2011. Prepared by Urban Crossroads, Inc.
2 Modified Project Delay and Traffic Volume Source: Arantine Hills Modified Project Traffic Study (Revised), dated September 2015. Prepared by Urban Crossroads, Inc.
3 Study area intersection Level of Service threshold as presented in Section 4.7 of this report.
4 Acceptable intersection vehicle delay based on the LOS standards shown in Table 4-1 and Table 4-2.
5 Intersection delay as shown on Table 6-1
6 Project only average intersection delay increase (With Project - Without Project).
7 Project Fair Share Calculation based on the City of Corona Traffic Study Guidelines: [Project Only/(With Project - Acceptable Delay)]
8 For With Project conditions, project access improvements are included for the intersection of Bedford Canyon Road/Eagle Glen Parkway (#6). Therefore, intersection delay is not anticipated to exceed LOS threshold.
9 With Planned interchange improvements.

TABLE 9-3

2035 With Modified Project Conditions, With McMillan Trust Property Development
Arantine Hills Fair Share Percentages for Various Scenarios

ID	Intersection	Funding Source	Acceptable LOS & Delay Criteria[3,4] LOS	Delay (AD)	2035 Without Project, With McMillan[5,9] (NP)	Approved Project[1] Project Responsibility	Modified Project[2] 2035 With Project[5,9] (WP)	Project Only[6] (P)	Project Fair Share[7]	Project Responsibility
1	Masters Dr. / California Dr.	DIF								
	• Delay									
	- AM Peak Hour		C	25.0	42.4	**92%**	43.5	1.1	6%	**51%**
	- PM Peak Hour		C	25.0	31.6		38.4	6.8	51%	
2	Masters Dr. / Bennett Av.									
	• Delay									
	- AM Peak Hour		C	25.0	9.3	**100%**	9.8	0.5	-3%	N/A
	- PM Peak Hour		C	25.0	15.5		19.3	3.8	-67%	
3	Masters Dr. / Eagle Glen Pkwy.									
	• Delay									
	- AM Peak Hour		D	35.0	17.6	**100%**	38.3	20.7	100%	**100%**
	- PM Peak Hour		D	35.0	49.9		60.4	10.5	41%	
5	Bedford Cyn. Rd. / Georgetown Dr.	DIF								
	• Delay									
	- AM Peak Hour		C	25.0	19.2	--	24.6	5.4	-1350%	N/A
	- PM Peak Hour		C	25.0	14.9		23.1	8.2	-432%	
6	Bedford Cyn. Rd. / Eagle Glen Pkwy.									
	• Delay									
	- AM Peak Hour		D	55.0	18.2	**100%**	43.2	25.0	-212%	N/A[8]
	- PM Peak Hour		D	55.0	27.8		42.8	15.0	-123%	
7	I-15 SB Ramps / El Cerrito Rd.									
	• Delay									
	- AM Peak Hour		D	55.0	57.9	**29%**	67.6	9.7	77%	**77%**
	- PM Peak Hour		D	55.0	68.1		72.1	4.0	23%	
11	Grand Oaks / Cajalco Rd.									
	• Delay									
	- AM Peak Hour		D	55.0	36.7	--	37.7	1.0	-6%	N/A
	- PM Peak Hour		D	55.0	30.3		31.0	0.7	-3%	
12	Temescal Cyn. Rd. / Cajalco Rd.									
	• Delay									
	- AM Peak Hour		D	55.0	58.5	**7%**	67.5	9.0	72%	**72%**
	- PM Peak Hour		D	55.0	97.7		102.2	4.5	10%	
13	St. "C" / Eagle Glen Pkwy.									
	• Delay									
	- AM Peak Hour		D	35.0	20.3	**100%**	20.6	0.3	-2%	**100%**
	- PM Peak Hour		D	35.0	21.4		21.8	0.4	-3%	
14	St. "C" / St. "B"									
	• Delay									
	- AM Peak Hour		C	25.0	N/A	**100%**	6.6	6.6	100%	**100%**
	- PM Peak Hour		C	25.0	N/A		7.9	7.9	100%	
15	St. "A" - St. "D" / St. "B"									
	• Delay									
	- AM Peak Hour		C	25.0	N/A	**100%**	6.4	6.4	100%	**100%**
	- PM Peak Hour		C	25.0	N/A		8.0	8.0	100%	
16	St. "A" / TAZ Main Dwy.									
	• Delay									
	- AM Peak Hour		C	35.0	N/A	**100%**	6.3	6.3	100%	**100%**
	- PM Peak Hour		C	35.0	N/A		10.9	10.9	100%	
17	St. "A" / TAZ S. Dwy.									
	• Delay									
	- AM Peak Hour		C	25.0	N/A	--	10.7	10.7	100%	**100%**
	- PM Peak Hour		C	25.0	N/A		13.5	13.5	100%	
18	Masters Dr. / Christopher Ln.									
	• Delay									
	- AM Peak Hour		C	25.0	39.5	--	40.0	0.5	3%	**3%**
	- PM Peak Hour		C	25.0	39.0		39.4	0.4	3%	
19	Via Castilla St. / Masters Dr.									
	• Delay									
	- AM Peak Hour		C	25.0	13.0	--	14.1	1.1	-10%	**81%**
	- PM Peak Hour		C	25.0	27.6		38.8	11.2	81%	

TABLE 9-3

2035 With Modified Project Conditions, With McMillan Trust Property Development
Arantine Hills Fair Share Percentages for Various Scenarios

ID	Intersection	Funding Source	Acceptable LOS & Delay Criteria[3,4] LOS	Acceptable LOS & Delay Criteria[3,4] Delay (AD)	2035 Without Project, With McMillan[5,9] (NP)	Approved Project[1] Project Responsibility	Modified Project[2] 2035 With Project[5,9] (WP)	Modified Project[2] Project Only[6] (P)	Modified Project[2] Project Fair Share[7]	Modified Project[2] Project Responsibility
20	Morales Wy. / Masters Dr.									
	• Delay									
	- AM Peak Hour		C	25.0	11.8	--	12.7	0.9	-7%	**78%**
	- PM Peak Hour		C	25.0	27.8		37.9	10.1	78%	

ID	Intersection	Funding Source	Acceptable LOS & Delay Criteria[3,4]		2035 Without Project (NP)	Approved Project[1] Project Responsibility	Modified Project[2] 2035 With Project (WP)	Modified Project[2] Project Only[6] (P)	Modified Project[2] Project Fair Share[7]	Modified Project[2] Project Responsibility
CAJALCO ROAD / I-15 INTERCHANGE AREA										
8	I-15 SB Ramps / Cajalco Rd.	TUMF								
	• Delay									
	- AM Peak Hour		E	80	21.0	**100%**	49.2	28.2	-92%	**100%**
	- PM Peak Hour		E	80	46.8		224.6	177.8	100%	
10	I-15 NB Ramps / Cajalco Rd.	TUMF								
	• Delay									
	- AM Peak Hour		E	80	115.3	**100%**	220.8	105.5	75%	**100%**
	- PM Peak Hour		E	80	34.9		82.6	47.7	100%	

1 Approved Project Fair Share Source: Arantine Hills Specific Plan Traffic Impact Analysis (Revised), dated June 2011. Prepared by Urban Crossroads, Inc.
2 Modified Project Delay and Traffic Volume Source: Arantine Hills Modified Project Traffic Study (Revised), dated September 2015. Prepared by Urban Crossroads, Inc.
3 Study area intersection Level of Service threshold as presented in Section 4.7 of this report.
4 Acceptable intersection vehicle delay based on the LOS standards shown in Table 4-1 and Table 4-2.
5 Intersection delay as shown on Table 7-4.
6 Project only average intersection delay increase (With Project - Without Project).
7 Project Fair Share Calculation based on the City of Corona Traffic Study Guidelines: [Project Only/(With Project - Acceptable Delay)]
8 For With Project conditions, project access improvements are included for the intersection of Bedford Canyon Road/Eagle Glen Parkway (#6). Therefore, intersection delay is not anticipated to exceed LOS threshold.
9 With Planned interchange improvements.

TABLE 9-4

Intersection Improvement Summary

ID	Intersection	2017		Interim Year	2035	
		Without Project	With Project Phase 1	With Project Buildout	Without Project	With Project
1	Masters Dr. (NS) at: • California Dr. (EW)	• Traffic signal	• Same	• Same	• Same	• Same
2	Masters Dr. (NS) at: • Bennett Av. (EW)				• Traffic signal	• Same
3	Masters Dr. (NS) at: • Eagle Glen Pkwy. (EW)			• Traffic signal	• Traffic signal	• Same
4	Bedford Cyn. Rd. (NS) at: • El Cerrito Rd. (EW)					
5	Bedford Cyn. Rd. (NS) at: • Georgetown Dr. (EW)				• Traffic signal	• Same
6	Bedford Cyn. Rd. (NS) at: • Eagle Glen Pkwy. (EW)		• NB left turn lane • NB thru/right lane • SB thru lane • 2nd EB thru lane • WB left turn lane	• Same • NB thru lane • SB left/thru lane • Same • Same • NB right turn lane • NB right turn overlap phasing • 2nd WB left turn		• Same • Same • Same • Same • Same • Same • Same • Same
7	I-15 SB Ramps (NS) at: • El Cerrito Rd. (EW)				• EB right turn lane	• Same
8	I-15 SB Ramps (NS) at: • Cajalco Rd. (EW)			• 2nd SB left turn lane • 2nd SB right turn • 2nd EB left turn • 2nd EB thru lane • 3rd EB thru lane • 2nd WB thru lane	• 2nd SB left turn lane • 2nd SB right turn • 2nd EB left turn • 2nd EB thru lane • 3rd EB thru lane • 2nd WB thru lane	• Same • Same • Same • Same • Same • Same
9	I-15 NB Ramps (NS) at: • El Cerrito Rd. (EW)					
10	I-15 NB Ramps (NS) at: • Cajalco Rd. (EW)			• 2nd NB left turn • 2nd NB right turn • 2nd EB thru lane • 3rd EB thru lane • EB right turn lane • EB right turn overlap phasing • 2nd WB thru lane • 3rd WB thru lane	• 2nd NB left turn • 2nd NB right turn • 2nd EB thru lane • 3rd EB thru lane • EB right turn lane • EB right turn overlap p • 2nd WB thru lane • 3rd WB thru lane	• Same • Same • Same • Same • Same • Same • Same • Same
11	Grand Oaks (NS) at: • Cajalco Rd. (EW)				• 3rd EB thru lane	• Same
12	Temescal Cyn. Rd. (NS) at: • Cajalco Rd. (EW)				• 2nd SB left turn • 2nd EB thru lane • WB right turn lane	• Same • Same • Same
13	St. "C" (NS) at: • Eagle Glen Pkwy. (EW)		• NB Stop sign • NB left turn lane • NB right turn lane • WB left turn lane	• Same • Same • Same • Same		• Traffic Control • Same • Same • Same
14	St. "C" (NS) at: • St. "B" (EW)		• SB left turn lane • WB right turn lane	• SB all-way lane • WB all-way lane • EB all-way lane • Roundabout		• Same • Same • Same • Same

TABLE 9-4

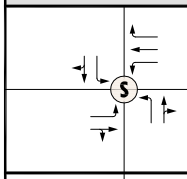
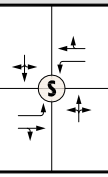
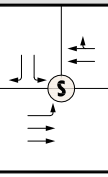
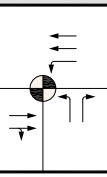
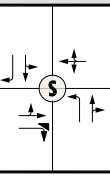
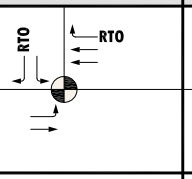
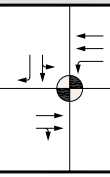
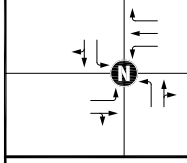
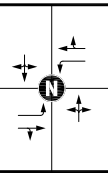
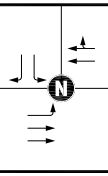
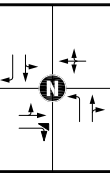
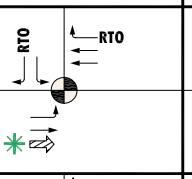
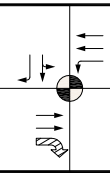
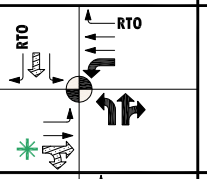
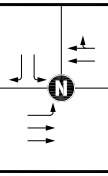
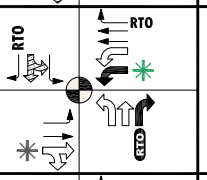
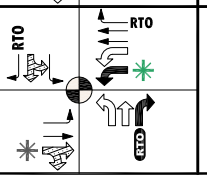
Intersection Improvement Summary

ID	Intersection	2017		Interim Year	2035	
		Without Project	With Project Phase 1	With Project Buildout	Without Project	With Project
15	St. "A" - St. "D" (NS) at: • St. "B" (EW)		• SB right turn lane • EB left turn lane	• SB all-way lane • EB all-way lane • NB all-way lane • Roundabout		• Same • Same • Same • Same
16	St. "A" (NS) at: • TAZ 4 Main Dwy. (EW)			• Traffic signal • NB thru lane • 2nd NB thru lane • SB left turn lane • SB thru lane • 2nd SB thru lane • WB left turn lane • WB right turn lane		• Same • Same • Same • Same • Same • Same • Same • Same
17	St. "A" (NS) at: • TAZ 4 S. Dwy. (EW)			• WB stop sign • NB thru lane • 2nd NB thru lane • SB left turn lane • SB thru lane • 2nd SB thru lane • WB left/right lane		• Same • Same • Same • Same • Same • Same • Same
18	Masters Dr. (NS) at: • Christopher Ln. (EW)	• Traffic Signal *OR* • Roundabout (one lane)	• Same • Same	• Same • Same	• Same • Same	• Same • Same
19	Via Castilla St. (NS) at: • Masters Dr. (EW)			• Cross-Street Stop (SB approach) *OR* • Roundabout	• Same • Same	• Same • Same
20	Morales Wy. (NS) at: • Masters Dr. (EW)			• Traffic Signal *OR* • Roundabout (one lane)	• Same • Same	• Same • Same
21	Bennett Av.(NS) at: • Eagle Glen Pkwy. (EW)					

[1] Per the City of Corona Traffic Impact Study Guidelines 7/2006, "where there is no reasonable expectation that future development will significantly impact the facili the project will be responsible for 100% of the mitigation cost and "fair share" will not apply.

[2] On-site project improvement.

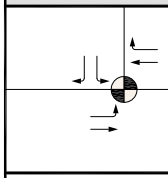
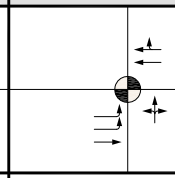
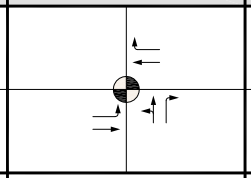
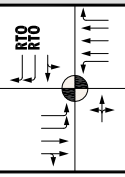
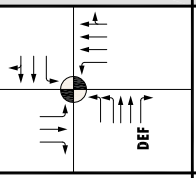
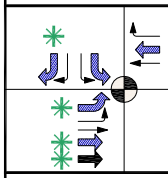
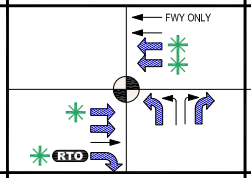
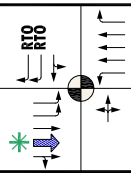
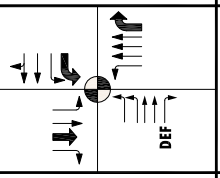
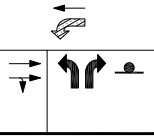
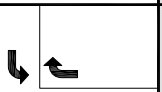
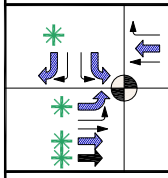
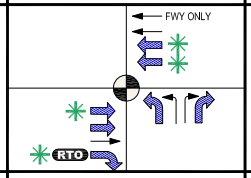
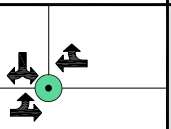
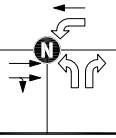
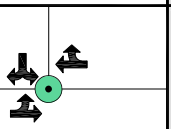
INTERSECTION LANE GEOMETRY AND TRAFFIC CONTROL, BY SCENARIO

1 MASTERS DR. & CALIFORNIA DR.	2 MASTERS DR. & BENNETT AV.	3 MASTERS DR. & EAGLE GLEN PKWY.	4 BEDFORD CYN. RD. & EL CERRITO RD.	5 BEDFORD CYN. RD. & GEORGETOWN DR.	6 BEDFORD CYN. RD. & EAGLE GLEN PKWY.	7 I-15 SB RAMPS & EL CERRITO RD.	
							EXISTING (2014/2015)
	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	2017 WITHOUT PROJECT
NO CHANGE			***NO CHANGE***				2035 WITHOUT PROJECT
NO CHANGE	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***		***NO CHANGE***	2017 WITH PROJECT PHASE 1
NO CHANGE	***NO CHANGE***		***NO CHANGE***	***NO CHANGE***		***NO CHANGE***	INTERIM YEAR WITH PROJECT BUILDOUT
NO CHANGE	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***		***NO CHANGE***	2035 WITH PROJECT

LEGEND:

- = EXISTING TRAFFIC SIGNAL
- = NEW TRAFFIC SIGNAL IMPROVEMENT
- = PREVIOUS TRAFFIC SIGNAL IMPROVEMENT
- = EXISTING ALL WAY STOP
- = STOP SIGN CONTROL
- RTO = EXISTING RIGHT TURN OVERLAP
- RTO = CURRENT PHASE RIGHT TURN OVERLAP PHASING IMPROVEMENT
- RTO = PREVIOUS PHASE RIGHT TURN OVERLAP PHASING IMPROVEMENT
- = EXISTING LANE
- = EXISTING FREE-RIGHT TURN LANE
- = CURRENT PHASE LANE IMPROVEMENT
- = CURRENT PHASE FREE-RIGHT TURN LANE IMPROVEMENT
- = PLANNED LANE IMPROVEMENT
- = LANE RESTRIPING
- = PREVIOUS PHASE IMPROVEMENT
- = PREVIOUS PHASE FREE-RIGHT TURN LANE IMPROVEMENT
- = ROUNDABOUT IMPROVEMENT
- = CURRENT PHASE, PROVIDE RECEIVING LANE
- = PREVIOUS PHASE, PROVIDE RECEIVING LANE

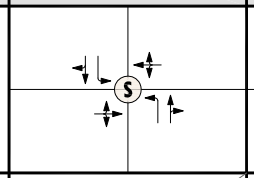
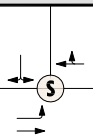
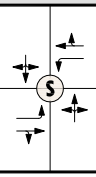
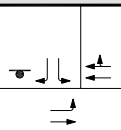
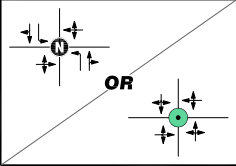
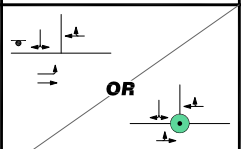
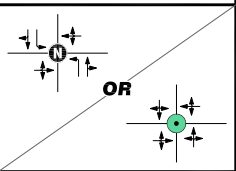
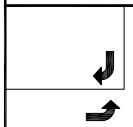
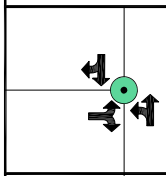
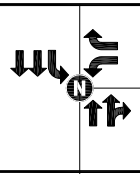
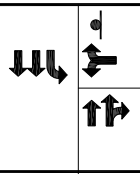
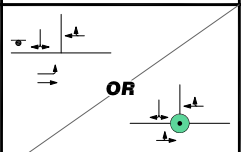
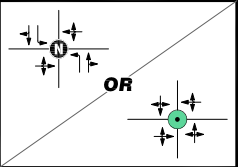
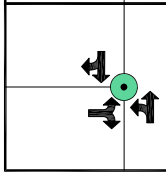
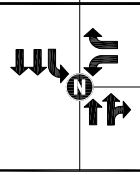
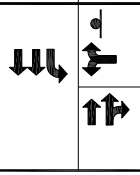
INTERSECTION LANE GEOMETRY AND TRAFFIC CONTROL, BY SCENARIO

8 I-15 SB RAMPS & CAJALCO RD.	9 I-15 NB RAMPS & EL CERRITO RD.	10 I-15 NB RAMPS & CAJALCO RD.	11 GRAND OAKS & CAJALCO RD.	12 TEMESCAL CYN. RD. & CAJALCO RD.	13 ST. "C" & EAGLE GLEN PKWY.	14 ST. "C" & ST. "B"	
					***FUTURE***	***FUTURE***	EXISTING (2014/2015)
NO CHANGE	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***FUTURE***	***FUTURE***	2017 WITHOUT PROJECT
	***NO CHANGE***				***FUTURE***	***FUTURE***	2035 WITHOUT PROJECT
NO CHANGE	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***			2017 WITH PROJECT PHASE 1
	***NO CHANGE***		***NO CHANGE***	***NO CHANGE***	***NO CHANGE***		INTERIM YEAR WITH PROJECT BUILDOUT
NO CHANGE	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***	***NO CHANGE***			2035 WITH PROJECT

LEGEND:

- = EXISTING TRAFFIC SIGNAL
- = NEW TRAFFIC SIGNAL IMPROVEMENT
- = PREVIOUS TRAFFIC SIGNAL IMPROVEMENT
- = EXISTING ALL WAY STOP
- = STOP SIGN CONTROL
- RTO = EXISTING RIGHT TURN OVERLAP
- RTO = CURRENT PHASE RIGHT TURN OVERLAP PHASING IMPROVEMENT
- RTO = PREVIOUS PHASE RIGHT TURN OVERLAP PHASING IMPROVEMENT
- = EXISTING LANE
- = EXISTING FREE-RIGHT TURN LANE
- = CURRENT PHASE LANE IMPROVEMENT
- = CURRENT PHASE FREE-RIGHT TURN LANE IMPROVEMENT
- = PLANNED LANE IMPROVEMENT
- = LANE RESTRIPING
- = PREVIOUS PHASE IMPROVEMENT
- = PREVIOUS PHASE FREE-RIGHT TURN LANE IMPROVEMENT
- = ROUNDABOUT IMPROVEMENT
- = CURRENT PHASE, PROVIDE RECEIVING LANE
- = PREVIOUS PHASE, PROVIDE RECEIVING LANE

INTERSECTION LANE GEOMETRY AND TRAFFIC CONTROL, BY SCENARIO

15 ST. "A" - ST. "D" & ST. "B"	16 ST. "A" & TAZ MAIN DWY.	17 ST. "A" & TAZ S. DWY.	18 MASTERS DR. & CHRISTOPHER LN.	19 VIA CASTILLA ST. & MASTERS DR.	20 MORALES WY. & MASTERS DR.	21 BENNETT AV. & EAGLE GLEN PKWY.	
FUTURE	FUTURE	FUTURE					EXISTING (2014/2015)
FUTURE	FUTURE	FUTURE		NO CHANGE	NO CHANGE	NO CHANGE	2017 WITHOUT PROJECT
FUTURE	FUTURE	FUTURE	NO CHANGE			NO CHANGE	2035 WITHOUT PROJECT
	FUTURE	FUTURE	NO CHANGE	NO CHANGE	NO CHANGE	NO CHANGE	2017 WITH PROJECT PHASE I
			NO CHANGE			NO CHANGE	INTERIM YEAR WITH PROJECT BUILDOUT
			NO CHANGE	NO CHANGE	NO CHANGE	NO CHANGE	2035 WITH PROJECT

LEGEND:

- = EXISTING TRAFFIC SIGNAL
- = NEW TRAFFIC SIGNAL IMPROVEMENT
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- = CURRENT PHASE, PROVIDE RECEIVING LANE
- = PREVIOUS PHASE, PROVIDE RECEIVING LANE

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APPENDIX 1.1:

I-15 / CAJALCO INTERCHANGE AREA IMPROVEMENT PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GARY HANSEN — No. 26543 — Exp. 3-31-16 — CIVIL — STATE OF CALIFORNIA

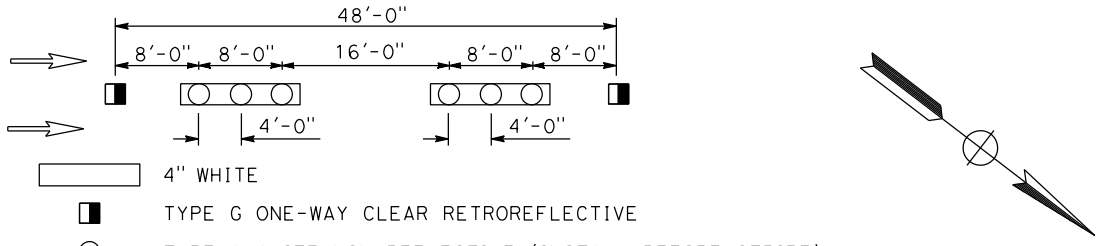
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE
SUITE 230
TUSTIN, CA 92780

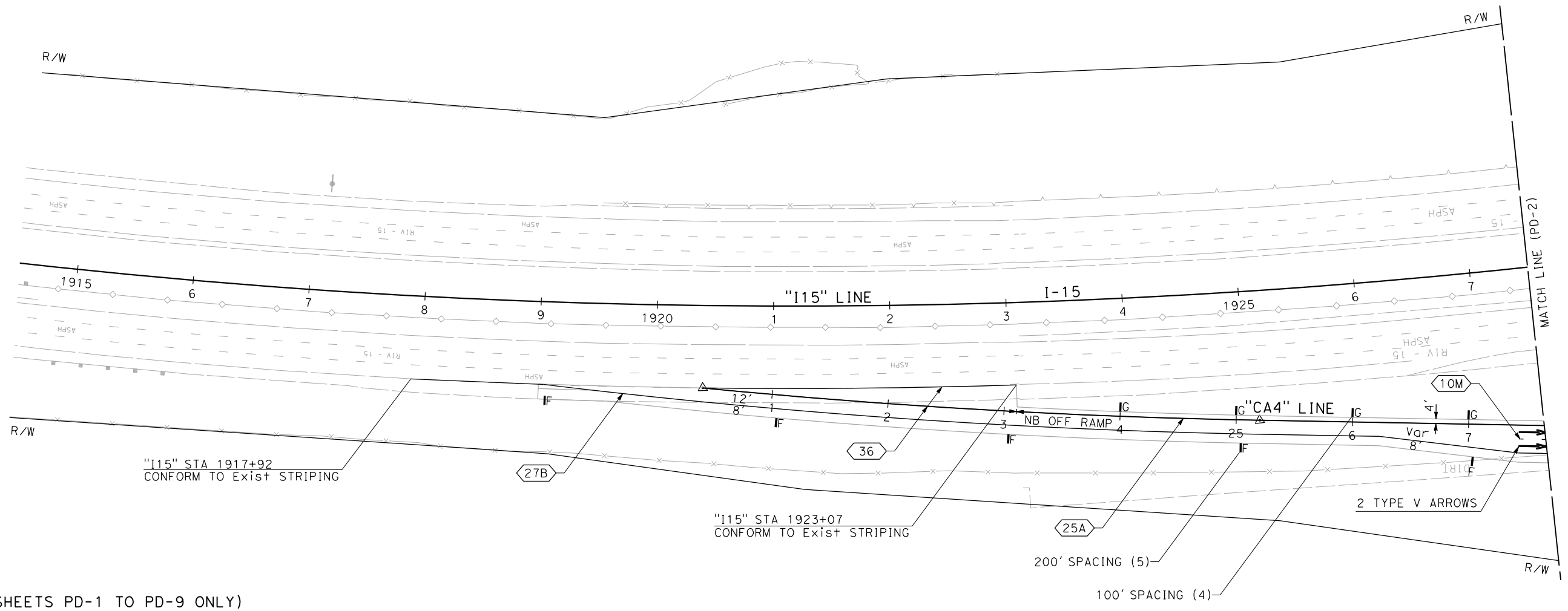
CITY OF CORONA
400 S. VICENTIA Ave
CORONA, CA 92882

GENERAL NOTES: (FOR SHEETS PD-1 TO PD-9 ONLY)

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. REMOVE ALL CONFLICTING TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS.
3. DIMENSIONS ALONG MEDIAN BARRIER ARE GIVEN TO FACE OF BARRIER, DIMENSIONS ALONG CURB AND GUTTER ARE GIVEN TO FACE OF CURB.
4. ALL TRAFFIC STRIPES AND PAVEMENT MARKINGS ARE THERMOPLASTIC UNLESS OTHERWISE NOTED.
5. PLACE ARROWS 8' BEFORE LIMIT LINE/CROSSWALK.
6. EXACT LOCATION OF PAVEMENT MARKINGS SHALL BE DETERMINED BY THE ENGINEER.
7. REFRESH ALL STRIPING ON I-15 AFFECTED DURING STAGE CONSTRUCTION.



DETAIL 10M
NO SCALE



LEGEND: (FOR SHEETS PD-1 TO PD-9 ONLY)

XX	PAVEMENT DELINEATION DETAIL No.	◊	DIAMOND SYMBOL PAVEMENT MARKING (SEE CALTRANS STD PLAN A24C)
A	12" SOLID WHITE LINE	H	"HOV" PAVEMENT MARKING
	CHANGE IN PAVEMENT DELINEATION DETAIL	L	"LANE" (96") PAVEMENT MARKING (SEE CALTRANS STD PLAN A24E)
F	TYPE F DELINEATOR (CLASS 1)	S	"SIGNAL" PAVEMENT MARKING
G	TYPE G DELINEATOR (CLASS 1)	A	"AHEAD" PAVEMENT MARKING
	BIKE LANE ARROW (SEE CALTRANS STD PLAN A24A)	F	"FWY" PAVEMENT MARKING
L	"LANE" (48") PAVEMENT MARKING (SEE CALTRANS STD PLAN A24D)	O	"ONLY" PAVEMENT MARKING
B	"BIKE" PAVEMENT MARKING (SEE CALTRANS STD PLAN A24D)		

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: RYAN WALBERT
CHECKED BY: RAY KOMMIDI
FUNCTIONAL SUPERVISOR: GARY HANSEN
CONSULTANT

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 6/9/2014
TIME PLOTTED => 9:22:16 AM

1.1-1

BORDER LAST REVISED 7/2/2010 | USERNAME => rwalbert | DGN FILE => 0800000308ua101 (PD-1).dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 08000003081

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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CITY OF CORONA
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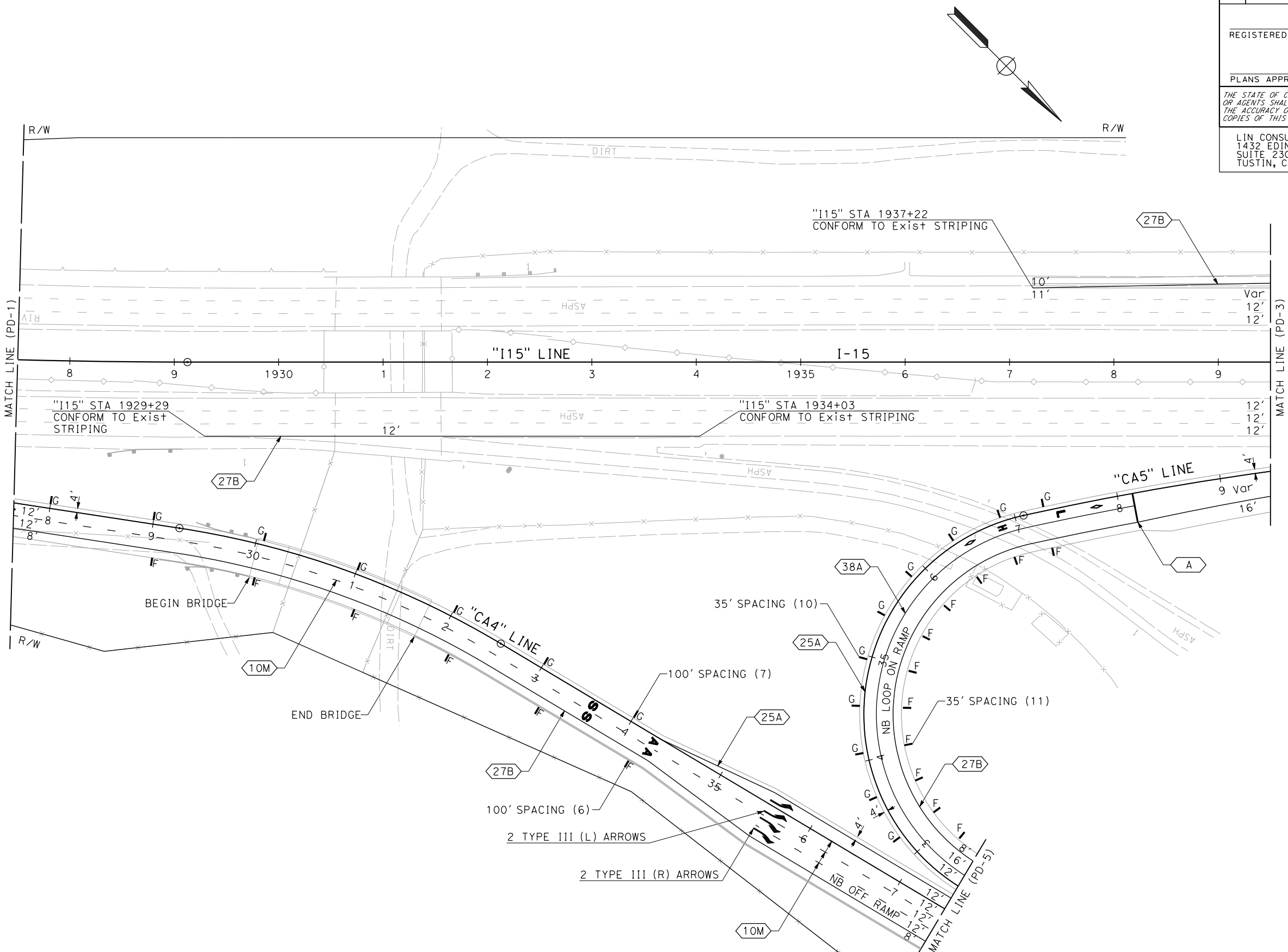

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-2

LAST REVISION	DATE PLOTTED => 6/9/2014
00-00-00	TIME PLOTTED => 9:22:17 AM

REVISED BY	DATE REVISED
RYAN WALBERT	
RAY KOMMIDI	

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: GARY HANSEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

1.1-2

BORDER LAST REVISED 7/2/2010

USERNAME => rwalbert
DGN FILE => 0800000308ua102 (PD-2).dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 08000003081

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GARY HANSEN — No. 26543 — Exp. 3-31-16 — CIVIL — STATE OF CALIFORNIA

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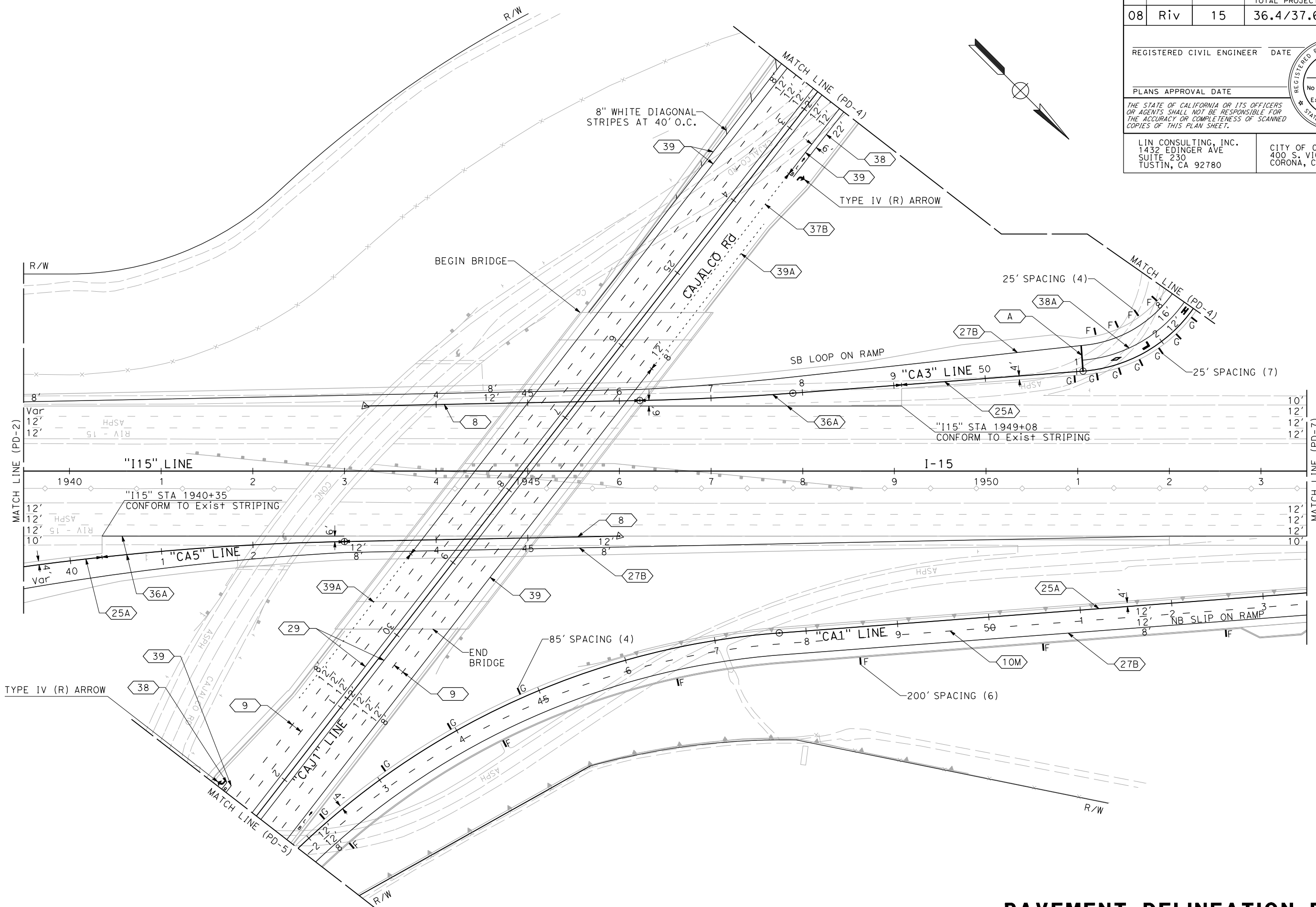
TUSTIN, CA 92780

CITY OF CORONA
400 S. VICENTIA Ave
CORONA, CA 92882



APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-3

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
RYAN WALBERT	RAY KOMMIDI		

CONSULTANT FUNCTIONAL SUPERVISOR: GARY HANSEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

1.1-3

LAST REVISION 00-00-00
DATE PLOTTED => 6/9/2014
TIME PLOTTED => 9:22:18 AM

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GARY HANSEN — No. 26543 — Exp. 3-31-16 — CIVIL — STATE OF CALIFORNIA

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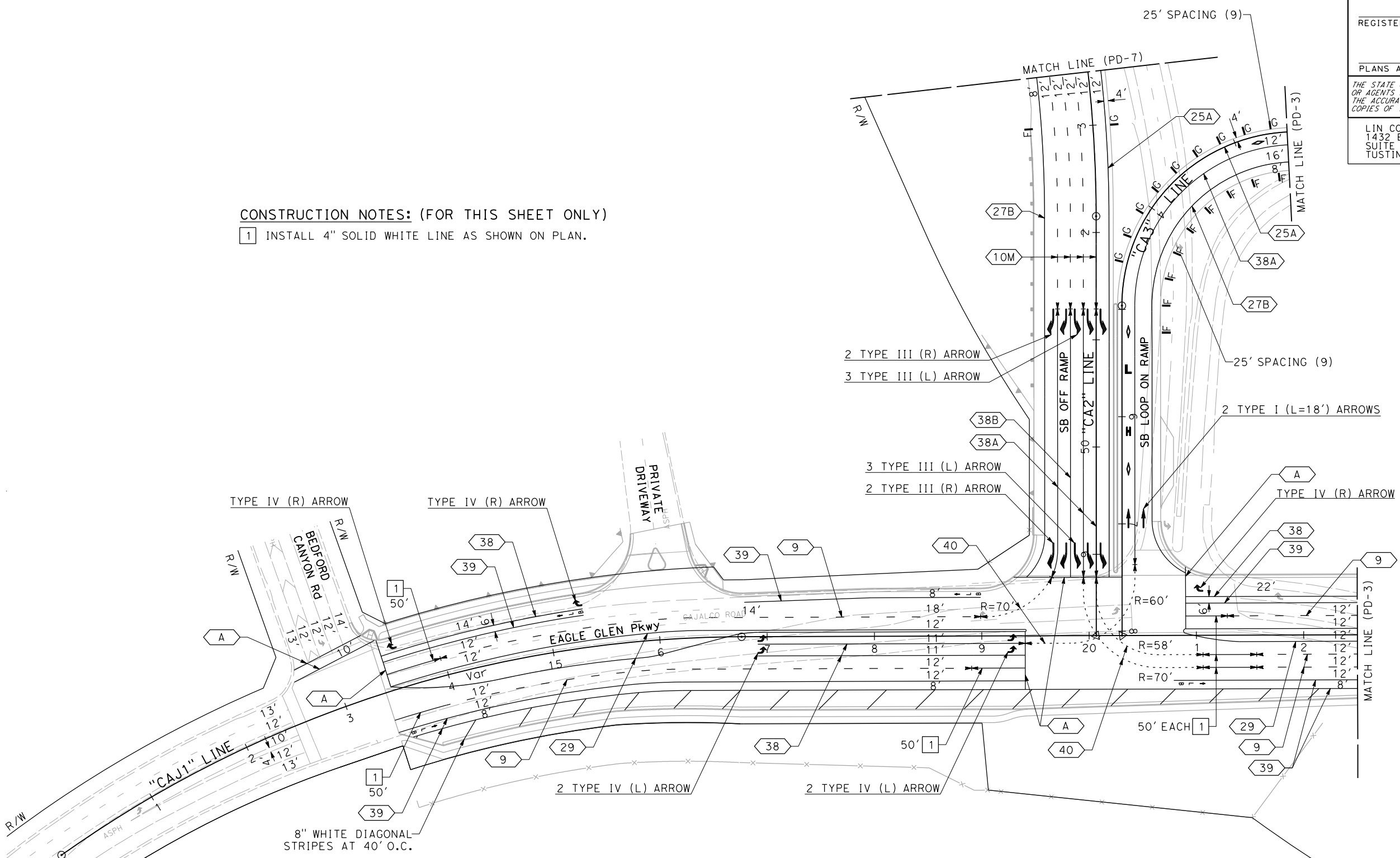
TUSTIN, CA 92780

CITY OF CORONA
400 S. VICENTIA Ave
CORONA, CA 92882

CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

1 INSTALL 4" SOLID WHITE LINE AS SHOWN ON PLAN.



APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®

CONSULTANT FUNCTIONAL SUPERVISOR: GARY HANSEN

CALCULATED-DESIGNED BY: RYAN WALBERT

CHECKED BY: RAY KOMMIDI

REVISED BY	DATE REVISED

LAST REVISION: 00-00-00

DATE PLOTTED => 6/9/2014
TIME PLOTTED => 9:22:25 AM

1.1-4

BORDER LAST REVISED 7/2/2010

USERNAME => rwalbert
DGN FILE => 0800000308ua104 (PD-4).dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 08000003081

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
GARY HANSEN
No. 26543
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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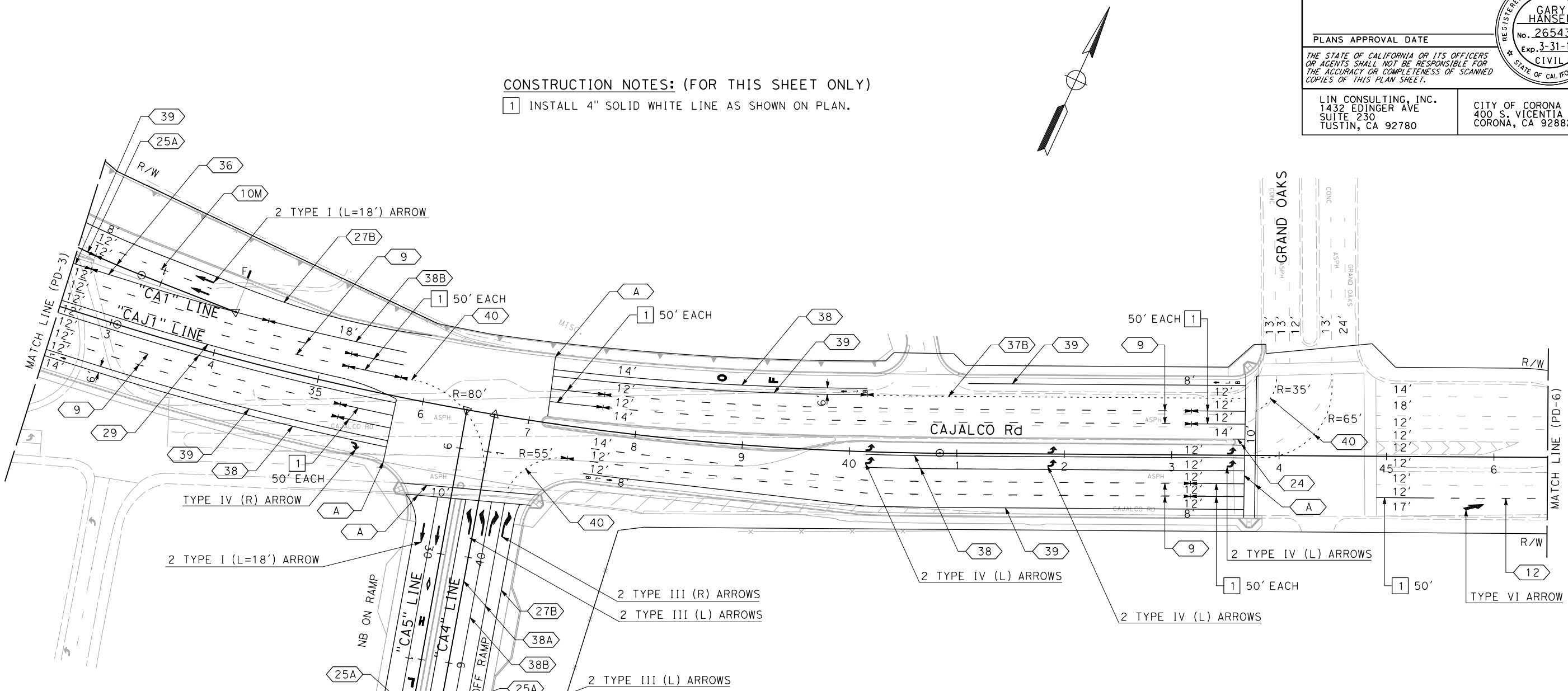
SUITE 230
TUSTIN, CA 92780

CITY OF CORONA
400 S. VICENTIA Ave
CORONA, CA 92882

CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

[1] INSTALL 4" SOLID WHITE LINE AS SHOWN ON PLAN.



APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-5

REVISED BY	DATE REVISED
RYAN WALBERT	RAY KOMMIDI

CALCULATED-DESIGNED BY | CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: GARY HANSEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

1.1-5

LAST REVISION 00-00-00 | DATE PLOTTED => 6/9/2014 | TIME PLOTTED => 9:22:26 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => rwalbert | DGN FILE => 0800000308ua105 (PD-5).dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 08000003081

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GARY HANSEN
No. 26543
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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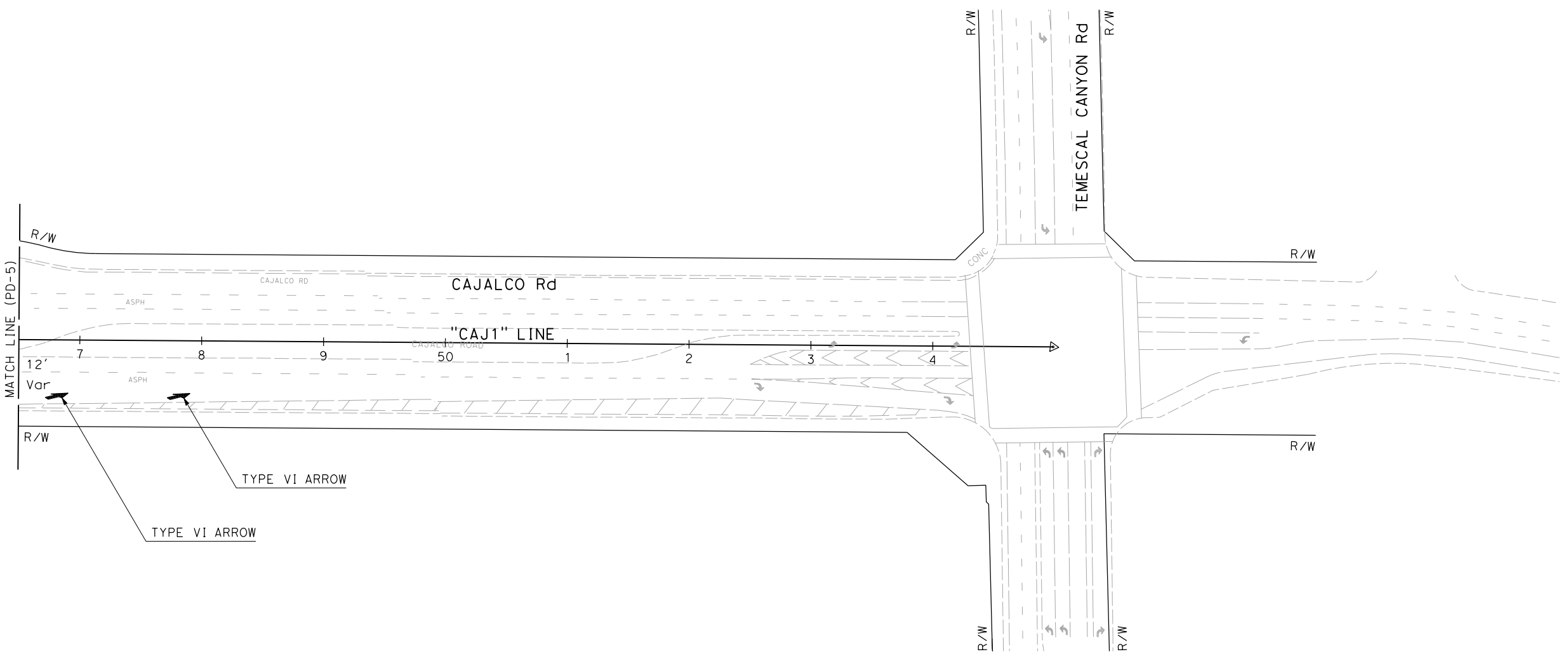
CITY OF CORONA
400 S. VICENTIA Ave
CORONA, CA 92882



APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
Caltrans	GARY HANSEN	RYAN WALBERT	RAY KOMMIDI		

1.1-6

LAST REVISION 00-00-00
DATE PLOTTED => 6/9/2014
TIME PLOTTED => 9:22:27 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => rwalbert | DGN FILE => 0800000308ua106 (PD-6).dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 08000003081

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GARY HANSEN — No. 26543 — Exp. 3-31-16 — CIVIL — STATE OF CALIFORNIA

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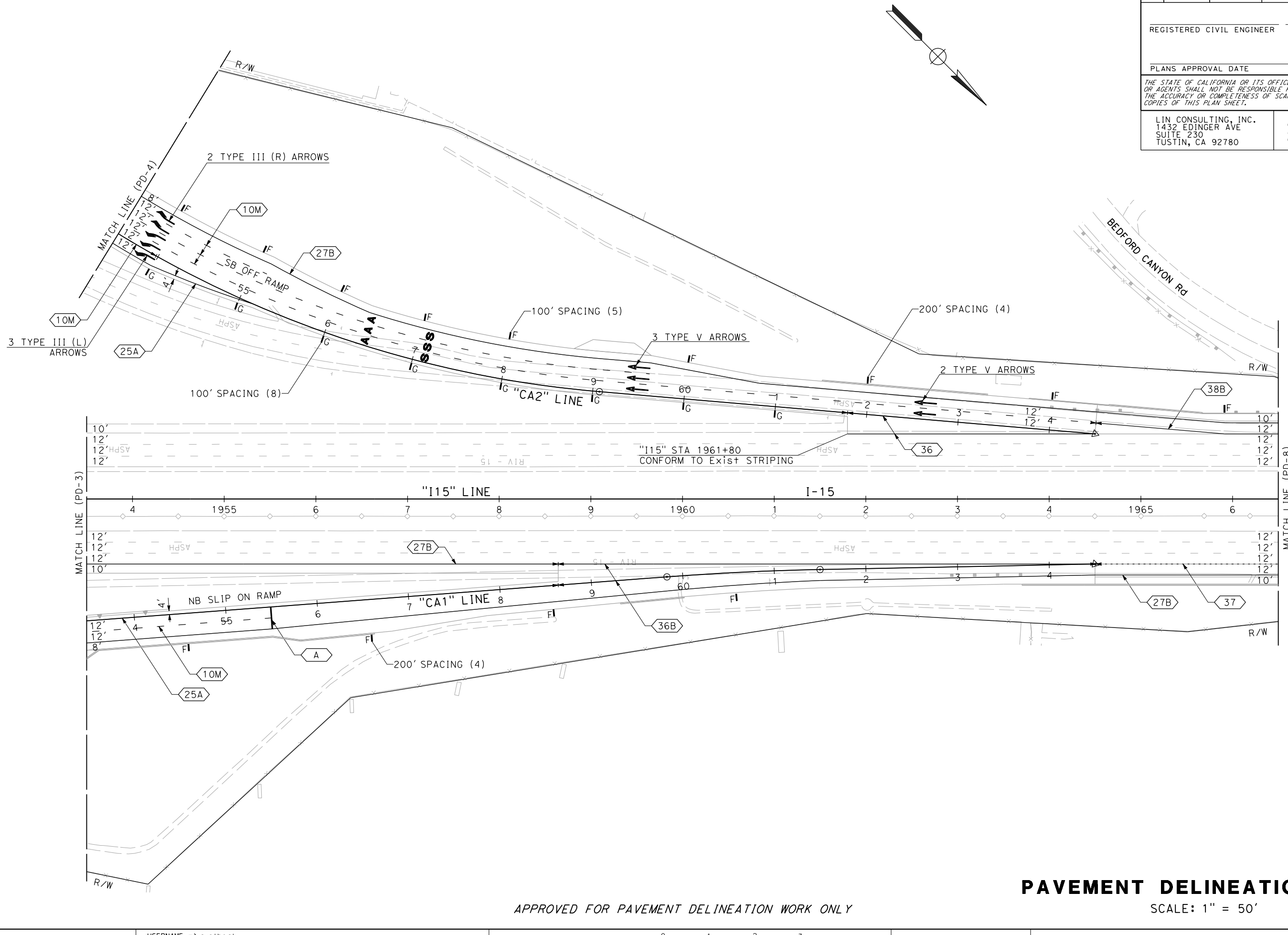
CITY OF CORONA
400 S. VICENTIA Ave
CORONA, CA 92882



APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-7

REVISED BY	DATE REVISED
RYAN WALBERT	
RAY KOMMIDI	

CALCULATED-DESIGNED BY

CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: GARY HANSEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

1.4.7

LAST REVISION 00-00-00 | DATE PLOTTED => 6/9/2014 | TIME PLOTTED => 9:22:32 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => rwalbert | DGN FILE => 0800000308ua107 (PD-7).dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 08000003081

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GARY HANSEN
No. 26543
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

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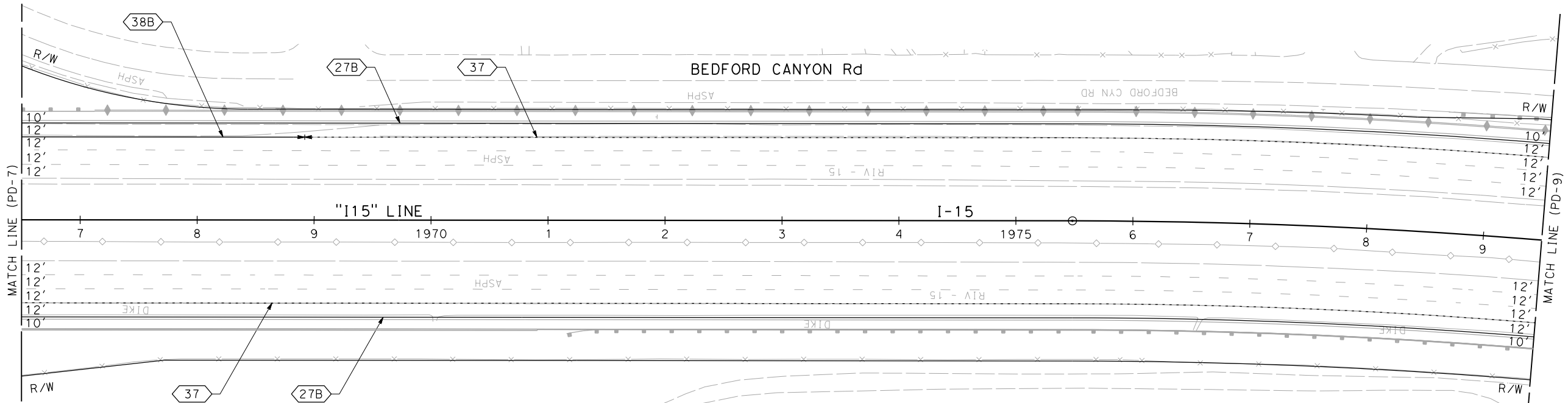

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-8

LAST REVISION	DATE PLOTTED => 6/9/2014
00-00-00	TIME PLOTTED => 9:22:33 AM

REVISED BY	RYAN WALBERT	CALCULATED-DESIGNED BY	CONSULTANT FUNCTIONAL SUPERVISOR	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans
DATE REVISED	RAY KOMMIDI	CHECKED BY	GARY HANSEN		

1.1*8

BORDER LAST REVISED 7/2/2010

USERNAME => rwalbert
DGN FILE => 0800000308ua108 (PD-8).dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 08000003081

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	36.4/37.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GARY HANSEN
No. 26543
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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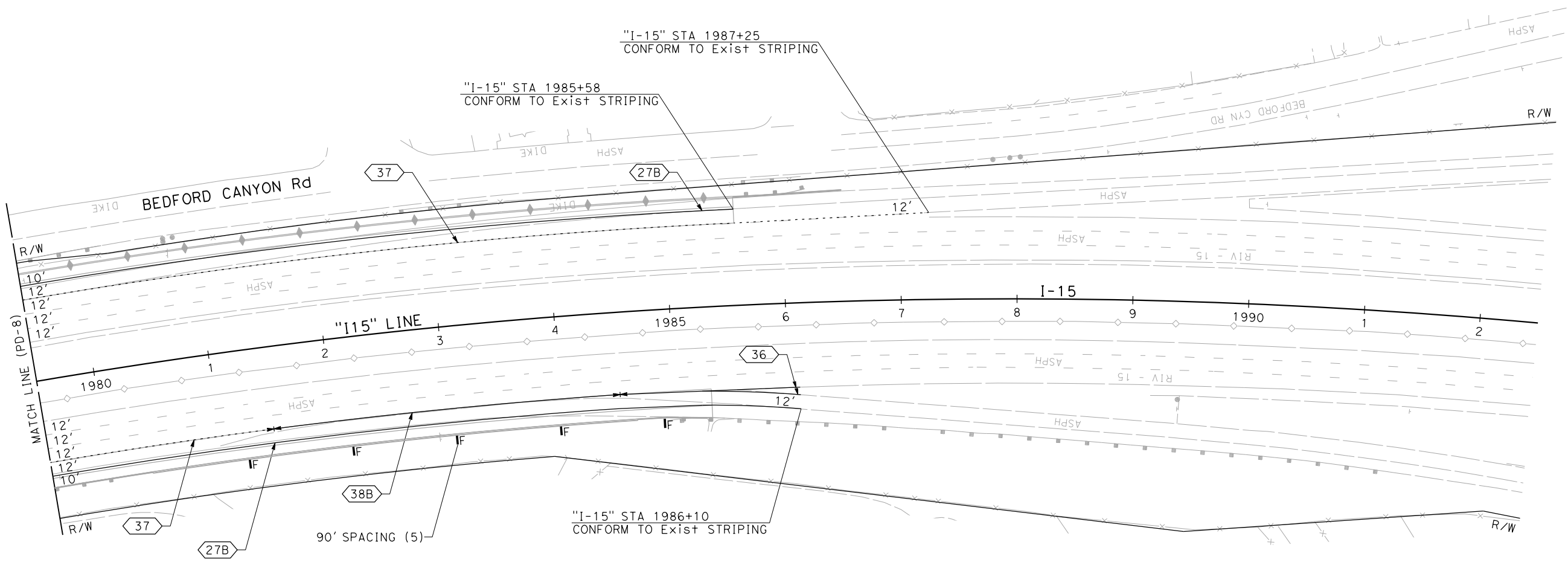
SUITE 230
TUSTIN, CA 92780

CITY OF CORONA
400 S. VICENTIA Ave
CORONA, CA 92882



APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION PLAN

SCALE: 1" = 50'

PD-9

LAST REVISION	DATE PLOTTED => 6/9/2014
00-00-00	TIME PLOTTED => 9:22:34 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: GARY HANSEN

CALCULATED-DESIGNED BY: RYAN WALBERT

CHECKED BY: RAY KOMMIDI

REVISED BY	DATE REVISED

1.1-9

BORDER LAST REVISED 7/2/2010

USERNAME => rwalbert
DGN FILE => 0800000308ua109 (PD-9).dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 08000003081

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APPENDIX 2.1:

TRAFFIC COUNT DATA SHEETS, VOLUME DEVELOPMENT SUMMARY, AND INTERNAL CAPTURE CALCULATION WORKSHEET

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

SUMMER COUNTS

City of Corona
N/S: Masters Drive
E/W: California Drive
Weather: Clear

File Name : CORMACAAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	2	4	0	6	5	0	1	6	8	8	33	49	0	8	1	9	70
06:45 AM	6	1	1	8	7	3	0	10	5	13	25	43	0	20	6	26	87
Total	8	5	1	14	12	3	1	16	13	21	58	92	0	28	7	35	157
07:00 AM	4	2	0	6	3	13	3	19	9	17	13	39	1	12	2	15	79
07:15 AM	1	2	0	3	2	8	0	10	6	12	20	38	0	16	9	25	76
07:30 AM	6	6	0	12	2	7	1	10	7	23	27	57	0	19	6	25	104
07:45 AM	9	1	0	10	11	8	3	22	12	15	32	59	1	24	8	33	124
Total	20	11	0	31	18	36	7	61	34	67	92	193	2	71	25	98	383
08:00 AM	5	5	1	11	9	9	0	18	12	14	19	45	0	8	5	13	87
08:15 AM	9	2	1	12	15	8	4	27	6	15	34	55	0	15	5	20	114
Grand Total	42	23	3	68	54	56	12	122	65	117	203	385	2	122	42	166	741
Apprch %	61.8	33.8	4.4		44.3	45.9	9.8		16.9	30.4	52.7		1.2	73.5	25.3		
Total %	5.7	3.1	0.4	9.2	7.3	7.6	1.6	16.5	8.8	15.8	27.4	52	0.3	16.5	5.7	22.4	
Passenger Vehicles	42	22	3	67	51	52	12	115	63	117	203	383	2	121	42	165	730
% Passenger Vehicles	100	95.7	100	98.5	94.4	92.9	100	94.3	96.9	100	100	99.5	100	99.2	100	99.4	98.5
Large 2 Axle Vehicles	0	1	0	1	3	3	0	6	2	0	0	2	0	1	0	1	10
% Large 2 Axle Vehicles	0	4.3	0	1.5	5.6	5.4	0	4.9	3.1	0	0	0.5	0	0.8	0	0.6	1.3
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% 4+ Axle Trucks	0	0	0	0	0	1.8	0	0.8	0	0	0	0	0	0	0	0	0.1

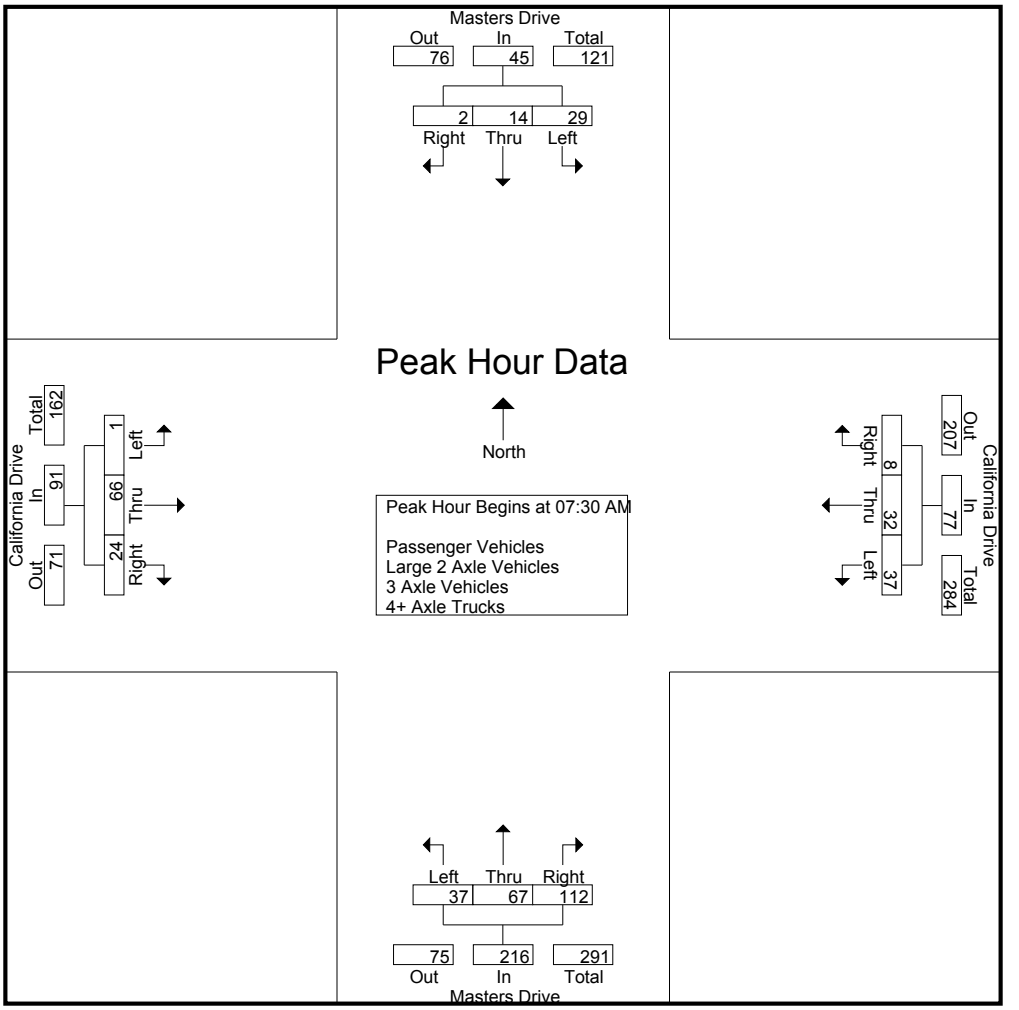
	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	6	**6**	0	**12**	2	7	1	10	7	**23**	27	57	0	19	6	25	104
07:45 AM	**9**	1	0	10	11	8	3	22	**12**	15	32	**59**	**1**	**24**	**8**	**33**	**124**
08:00 AM	5	5	**1**	11	9	**9**	0	18	12	14	19	45	0	8	5	13	87
08:15 AM	9	2	1	12	**15**	8	**4**	**27**	6	15	**34**	55	0	15	5	20	114
Total Volume	29	14	2	45	37	32	8	77	37	67	112	216	1	66	24	91	429
% App. Total	64.4	31.1	4.4		48.1	41.6	10.4		17.1	31	51.9		1.1	72.5	26.4		
PHF	.806	.583	.500	.938	.617	.889	.500	.713	.771	.728	.824	.915	.250	.688	.750	.689	.865

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

SUMMER COUNTS

City of Corona
N/S: Masters Drive
E/W: California Drive
Weather: Clear

File Name : CORMACAAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 2



Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:00 AM			
+0 mins.	6	**6**	0	**12**	2	7	1	10	7	**23**	27	57	**1**	12	2	15
+15 mins.	**9**	1	0	10	11	8	3	22	**12**	15	32	**59**	0	16	**9**	25
+30 mins.	5	5	**1**	11	9	**9**	0	18	12	14	19	45	0	19	6	25
+45 mins.	9	2	1	12	**15**	8	**4**	**27**	6	15	**34**	55	1	**24**	8	**33**
Total Volume	29	14	2	45	37	32	8	77	37	67	112	216	2	71	25	98
% App. Total	64.4	31.1	4.4		48.1	41.6	10.4		17.1	31	51.9		2	72.4	25.5	
PHF	.806	.583	.500	.938	.617	.889	.500	.713	.771	.728	.824	.915	.500	.740	.694	.742

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Corona
N/S: Masters Drive
E/W: California Drive
Weather: Clear

File Name : CORMACAAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Passenger Vehicles

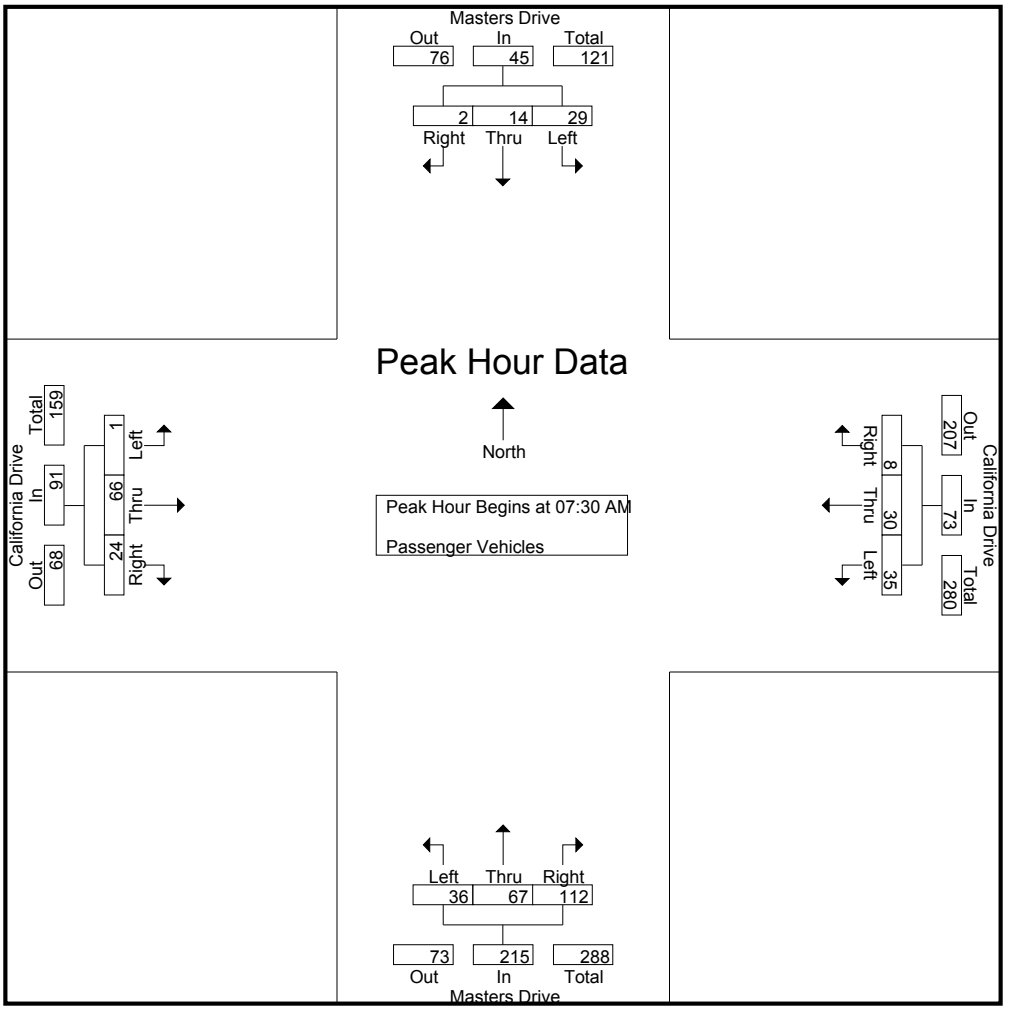
	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	2	4	0	6	5	0	1	6	8	8	33	49	0	8	1	9	70
06:45 AM	6	1	1	8	7	3	0	10	5	13	25	43	0	20	6	26	87
Total	8	5	1	14	12	3	1	16	13	21	58	92	0	28	7	35	157
07:00 AM	4	2	0	6	2	12	3	17	8	17	13	38	1	12	2	15	76
07:15 AM	1	1	0	2	2	7	0	9	6	12	20	38	0	15	9	24	73
07:30 AM	6	6	0	12	1	7	1	9	6	23	27	56	0	19	6	25	102
07:45 AM	9	1	0	10	10	8	3	21	12	15	32	59	1	24	8	33	123
Total	20	10	0	30	15	34	7	56	32	67	92	191	2	70	25	97	374
08:00 AM	5	5	1	11	9	7	0	16	12	14	19	45	0	8	5	13	85
08:15 AM	9	2	1	12	15	8	4	27	6	15	34	55	0	15	5	20	114
Grand Total	42	22	3	67	51	52	12	115	63	117	203	383	2	121	42	165	730
Apprch %	62.7	32.8	4.5		44.3	45.2	10.4		16.4	30.5	53		1.2	73.3	25.5		
Total %	5.8	3	0.4	9.2	7	7.1	1.6	15.8	8.6	16	27.8	52.5	0.3	16.6	5.8	22.6	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	6	**6**	0	**12**	1	7	1	9	6	**23**	27	56	0	19	6	25	102
07:45 AM	**9**	1	0	10	10	**8**	3	21	**12**	15	32	**59**	**1**	**24**	**8**	**33**	**123**
08:00 AM	5	5	**1**	11	9	7	0	16	12	14	19	45	0	8	5	13	85
08:15 AM	9	2	1	12	**15**	8	**4**	**27**	6	15	**34**	55	0	15	5	20	114
Total Volume	29	14	2	45	35	30	8	73	36	67	112	215	1	66	24	91	424
% App. Total	64.4	31.1	4.4		47.9	41.1	11		16.7	31.2	52.1		1.1	72.5	26.4		
PHF	.806	.583	.500	.938	.583	.938	.500	.676	.750	.728	.824	.911	.250	.688	.750	.689	.862

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Corona
N/S: Masters Drive
E/W: California Drive
Weather: Clear

File Name : CORMACAAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	6	**6**	0	**12**	1	7	1	9	6	**23**	27	56	0	19	6	25
+15 mins.	**9**	1	0	10	10	**8**	3	21	**12**	15	32	**59**	**1**	**24**	**8**	**33**
+30 mins.	5	5	**1**	11	9	7	0	16	12	14	19	45	0	8	5	13
+45 mins.	9	2	1	12	**15**	8	**4**	**27**	6	15	**34**	55	0	15	5	20
Total Volume	29	14	2	45	35	30	8	73	36	67	112	215	1	66	24	91
% App. Total	64.4	31.1	4.4		47.9	41.1	11		16.7	31.2	52.1		1.1	72.5	26.4	
PHF	.806	.583	.500	.938	.583	.938	.500	.676	.750	.728	.824	.911	.250	.688	.750	.689

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Corona
N/S: Masters Drive
E/W: California Drive
Weather: Clear

File Name : CORMACAAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	1	1	0	2	1	0	0	1	0	0	0	0	3
07:15 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	1	3
07:30 AM	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	2
07:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	3	2	0	5	2	0	0	2	0	1	0	1	9
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	3	3	0	6	2	0	0	2	0	1	0	1	10
Apprch %	0	100	0		50	50	0		100	0	0		0	100	0		
Total %	0	10	0	10	30	30	0	60	20	0	0	20	0	10	0	10	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	**1**	0	0	**1**	**1**	0	0	**1**	0	0	0	0	**2**
07:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	1	0	3	1	0	0	1	0	0	0	0	4
% App. Total	0	0	0		66.7	33.3	0		100	0	0		0	0	0		
PHF	.000	.000	.000	.000	.500	.250	.000	.750	.250	.000	.000	.250	.000	.000	.000	.000	.500

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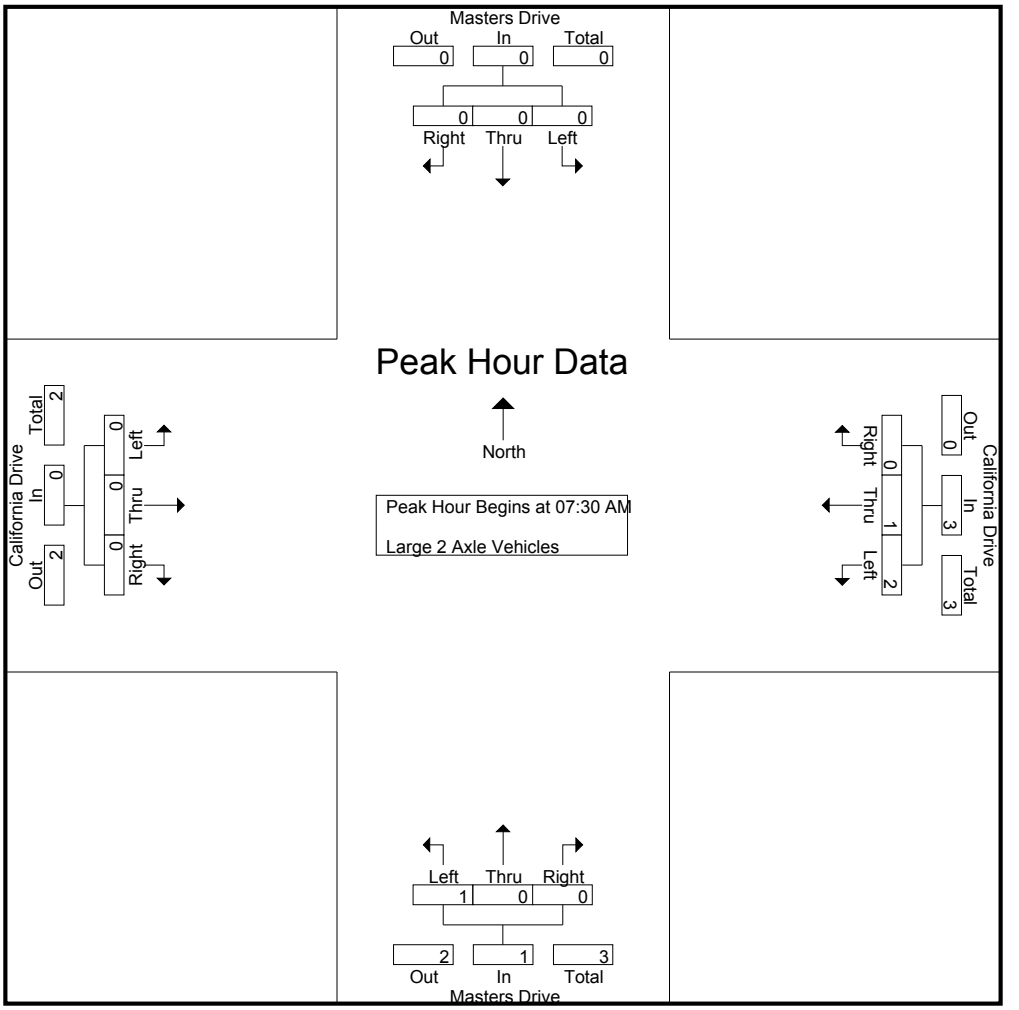

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	**1**	0	0	**1**	**1**	0	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	1	0	3	1	0	0	1	0	0	0	0
% App. Total	0	0	0		66.7	33.3	0		100	0	0		0	0	0	
PHF	.000	.000	.000	.000	.500	.250	.000	.750	.250	.000	.000	.250	.000	.000	.000	.000

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Groups Printed- 3 Axle Vehicles

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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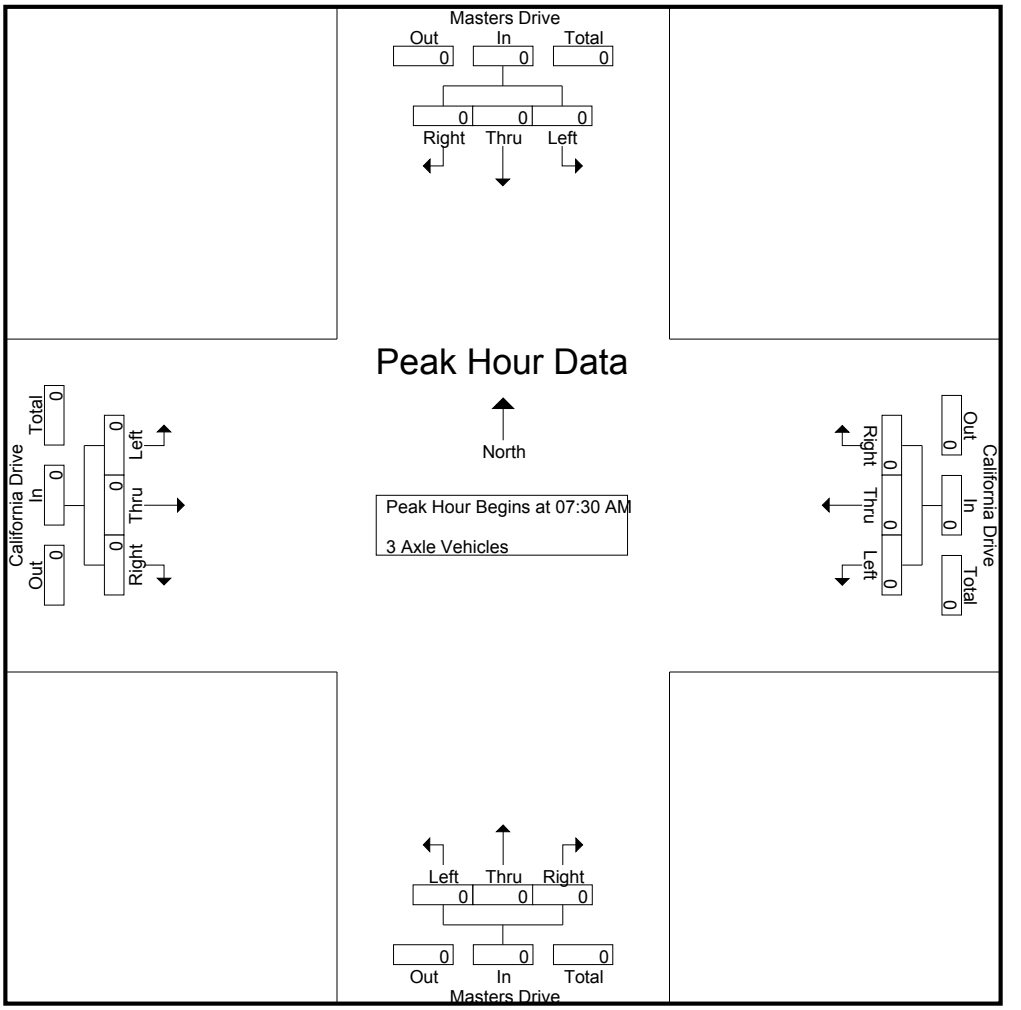

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Apprch %	0	0	0		0	100	0		0	0	0		0	0	0		
Total %	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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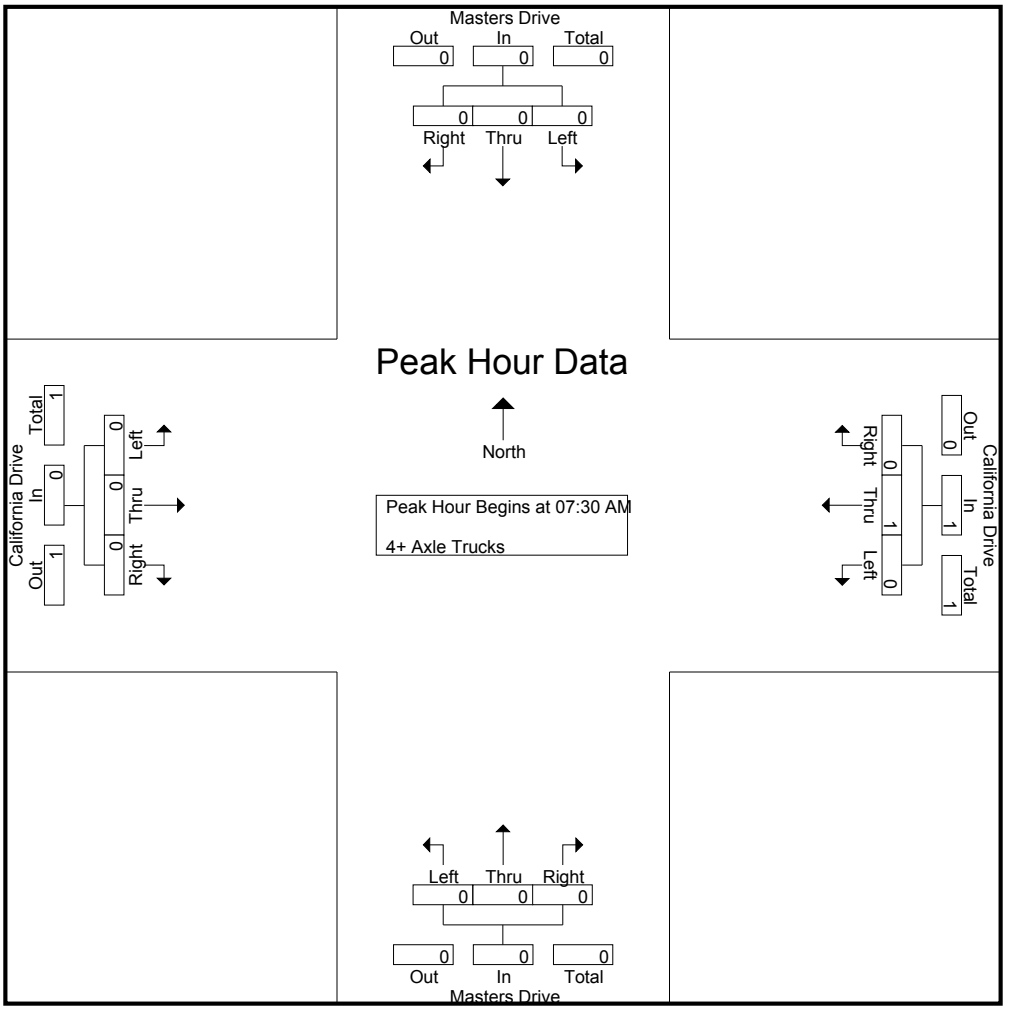

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000

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SUMMER COUNTS

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	10	0	15	29	17	10	56	8	17	12	37	0	13	15	28	136
04:15 PM	6	22	0	28	31	19	3	53	10	14	23	47	0	17	25	42	170
04:30 PM	5	22	0	27	41	13	7	61	6	16	18	40	1	17	26	44	172
04:45 PM	3	20	0	23	42	17	8	67	7	14	27	48	0	21	34	55	193
Total	19	74	0	93	143	66	28	237	31	61	80	172	1	68	100	169	671
05:00 PM	4	22	0	26	56	6	6	68	14	8	21	43	0	15	37	52	189
05:15 PM	10	26	0	36	29	18	8	55	12	10	18	40	0	20	38	58	189
05:30 PM	2	20	0	22	52	15	2	69	6	14	22	42	0	19	40	59	192
05:45 PM	6	33	0	39	61	17	9	87	6	13	32	51	0	27	35	62	239
Total	22	101	0	123	198	56	25	279	38	45	93	176	0	81	150	231	809
Grand Total	41	175	0	216	341	122	53	516	69	106	173	348	1	149	250	400	1480
Apprch %	19	81	0		66.1	23.6	10.3		19.8	30.5	49.7		0.2	37.2	62.5		
Total %	2.8	11.8	0	14.6	23	8.2	3.6	34.9	4.7	7.2	11.7	23.5	0.1	10.1	16.9	27	
Passenger Vehicles	39	174	0	213	336	121	52	509	69	104	170	343	1	144	244	389	1454
% Passenger Vehicles	95.1	99.4	0	98.6	98.5	99.2	98.1	98.6	100	98.1	98.3	98.6	100	96.6	97.6	97.2	98.2
Large 2 Axle Vehicles	2	1	0	3	5	1	1	7	0	2	3	5	0	5	6	11	26
% Large 2 Axle Vehicles	4.9	0.6	0	1.4	1.5	0.8	1.9	1.4	0	1.9	1.7	1.4	0	3.4	2.4	2.8	1.8
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	22	0	26	56	6	6	68	**14**	8	21	43	0	15	37	52	189
05:15 PM	**10**	26	0	36	29	**18**	8	55	12	10	18	40	0	20	38	58	189
05:30 PM	2	20	0	22	52	15	2	69	6	**14**	22	42	0	19	**40**	59	192
05:45 PM	6	**33**	0	**39**	**61**	17	**9**	**87**	6	13	**32**	**51**	0	**27**	35	**62**	**239**
Total Volume	22	101	0	123	198	56	25	279	38	45	93	176	0	81	150	231	809
% App. Total	17.9	82.1	0		71	20.1	9		21.6	25.6	52.8		0	35.1	64.9		
PHF	.550	.765	.000	.788	.811	.778	.694	.802	.679	.804	.727	.863	.000	.750	.938	.931	.846

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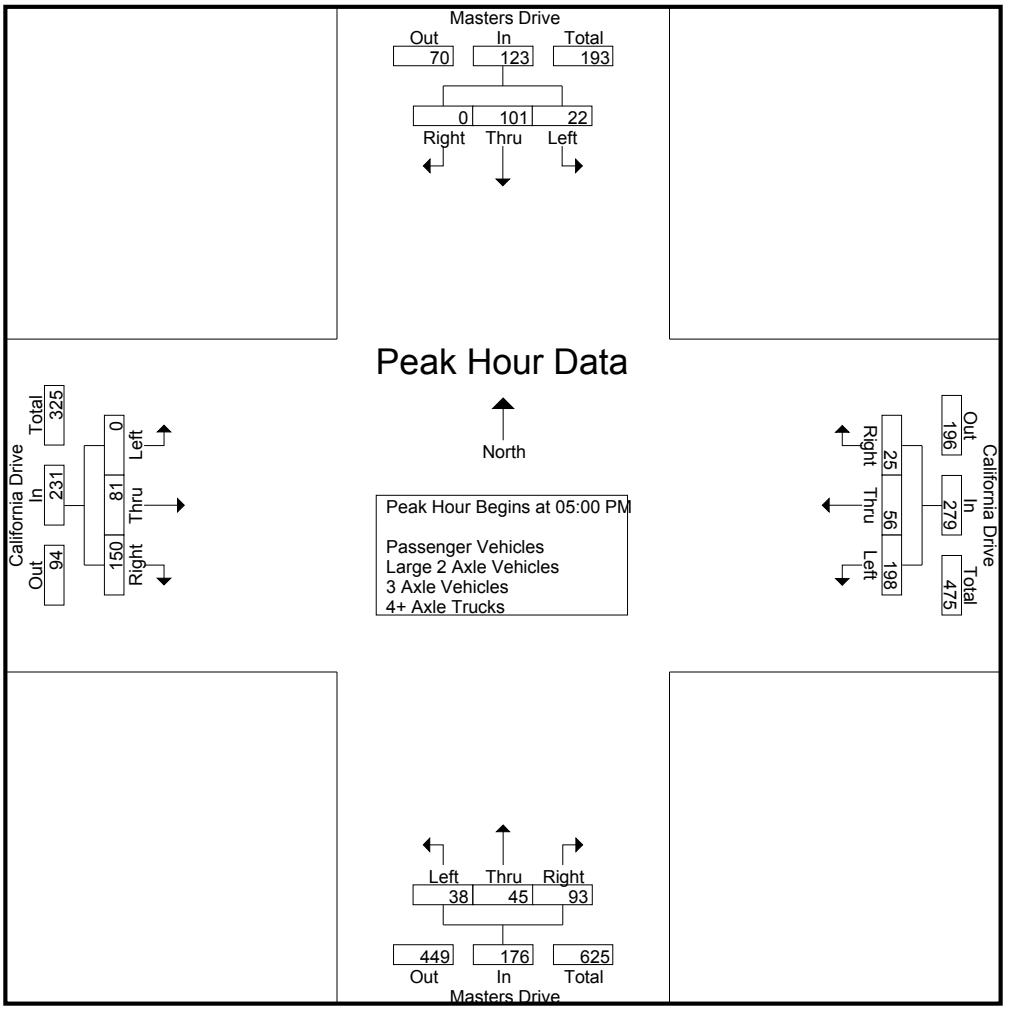

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				04:15 PM				05:00 PM			
+0 mins.	4	22	0	26	56	6	6	68	10	14	23	47	0	15	37	52
+15 mins.	**10**	26	0	36	29	**18**	8	55	6	**16**	18	40	0	20	38	58
+30 mins.	2	20	0	22	52	15	2	69	7	14	**27**	**48**	0	19	**40**	59
+45 mins.	6	**33**	0	**39**	**61**	17	**9**	**87**	**14**	8	21	43	0	**27**	35	**62**
Total Volume	22	101	0	123	198	56	25	279	37	52	89	178	0	81	150	231
% App. Total	17.9	82.1	0		71	20.1	9		20.8	29.2	50		0	35.1	64.9	
PHF	.550	.765	.000	.788	.811	.778	.694	.802	.661	.813	.824	.927	.000	.750	.938	.931

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Groups Printed- Passenger Vehicles

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	10	0	14	29	17	10	56	8	17	12	37	0	12	14	26	133
04:15 PM	6	22	0	28	30	19	3	52	10	14	22	46	0	17	25	42	168
04:30 PM	4	22	0	26	39	13	6	58	6	16	18	40	1	17	25	43	167
04:45 PM	3	19	0	22	41	16	8	65	7	13	27	47	0	19	34	53	187
Total	17	73	0	90	139	65	27	231	31	60	79	170	1	65	98	164	655
05:00 PM	4	22	0	26	55	6	6	67	14	7	19	40	0	15	35	50	183
05:15 PM	10	26	0	36	29	18	8	55	12	10	18	40	0	18	38	56	187
05:30 PM	2	20	0	22	52	15	2	69	6	14	22	42	0	19	38	57	190
05:45 PM	6	33	0	39	61	17	9	87	6	13	32	51	0	27	35	62	239
Total	22	101	0	123	197	56	25	278	38	44	91	173	0	79	146	225	799
Grand Total	39	174	0	213	336	121	52	509	69	104	170	343	1	144	244	389	1454
Apprch %	18.3	81.7	0		66	23.8	10.2		20.1	30.3	49.6		0.3	37	62.7		
Total %	2.7	12	0	14.6	23.1	8.3	3.6	35	4.7	7.2	11.7	23.6	0.1	9.9	16.8	26.8	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	22	0	26	55	6	6	67	**14**	7	19	40	0	15	35	50	183
05:15 PM	**10**	26	0	36	29	**18**	8	55	12	10	18	40	0	18	**38**	56	187
05:30 PM	2	20	0	22	52	15	2	69	6	**14**	22	42	0	19	38	57	190
05:45 PM	6	**33**	0	**39**	**61**	17	**9**	**87**	6	13	**32**	**51**	0	**27**	35	**62**	**239**
Total Volume	22	101	0	123	197	56	25	278	38	44	91	173	0	79	146	225	799
% App. Total	17.9	82.1	0		70.9	20.1	9		22	25.4	52.6		0	35.1	64.9		
PHF	.550	.765	.000	.788	.807	.778	.694	.799	.679	.786	.711	.848	.000	.731	.961	.907	.836

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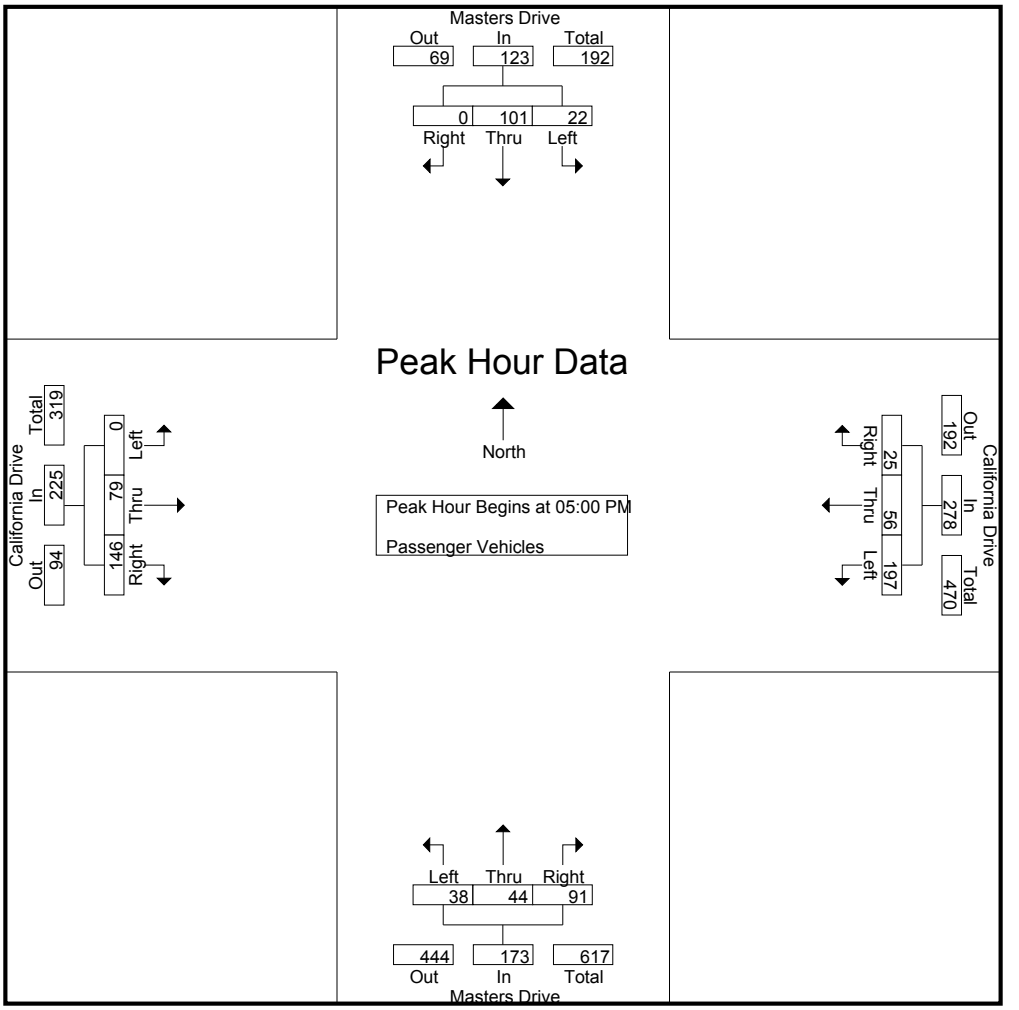

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	4	22	0	26	55	6	6	67	**14**	7	19	40	0	15	35	50
+15 mins.	**10**	26	0	36	29	**18**	8	55	12	10	18	40	0	18	**38**	56
+30 mins.	2	20	0	22	52	15	2	69	6	**14**	22	42	0	19	38	57
+45 mins.	6	**33**	0	**39**	**61**	17	**9**	**87**	6	13	**32**	**51**	0	**27**	35	**62**
Total Volume	22	101	0	123	197	56	25	278	38	44	91	173	0	79	146	225
% App. Total	17.9	82.1	0		70.9	20.1	9		22	25.4	52.6		0	35.1	64.9	
PHF	.550	.765	.000	.788	.807	.778	.694	.799	.679	.786	.711	.848	.000	.731	.961	.907

Counts Unlimited, Inc.
PO Box 1178
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(951) 268-6268

City of Corona
N/S: Masters Drive
E/W: California Drive
Weather: Clear

File Name : CORMACAPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1	2	3
04:15 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
04:30 PM	1	0	0	1	2	0	1	3	0	0	0	0	0	0	1	1	5
04:45 PM	0	1	0	1	1	1	0	2	0	1	0	1	0	2	0	2	6
Total	2	1	0	3	4	1	1	6	0	1	1	2	0	3	2	5	16
05:00 PM	0	0	0	0	1	0	0	1	0	1	2	3	0	0	2	2	6
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	1	2	3	0	2	4	6	10
Grand Total	2	1	0	3	5	1	1	7	0	2	3	5	0	5	6	11	26
Apprch %	66.7	33.3	0		71.4	14.3	14.3		0	40	60		0	45.5	54.5		
Total %	7.7	3.8	0	11.5	19.2	3.8	3.8	26.9	0	7.7	11.5	19.2	0	19.2	23.1	42.3	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	**1**	0	0	**1**	0	**1**	**2**	**3**	0	0	**2**	**2**	**6**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	1	2	3	0	2	4	6	10
% App. Total	0	0	0		100	0	0		0	33.3	66.7		0	33.3	66.7		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.250	.250	.250	.000	.250	.500	.750	.417

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Site Code : 00000053
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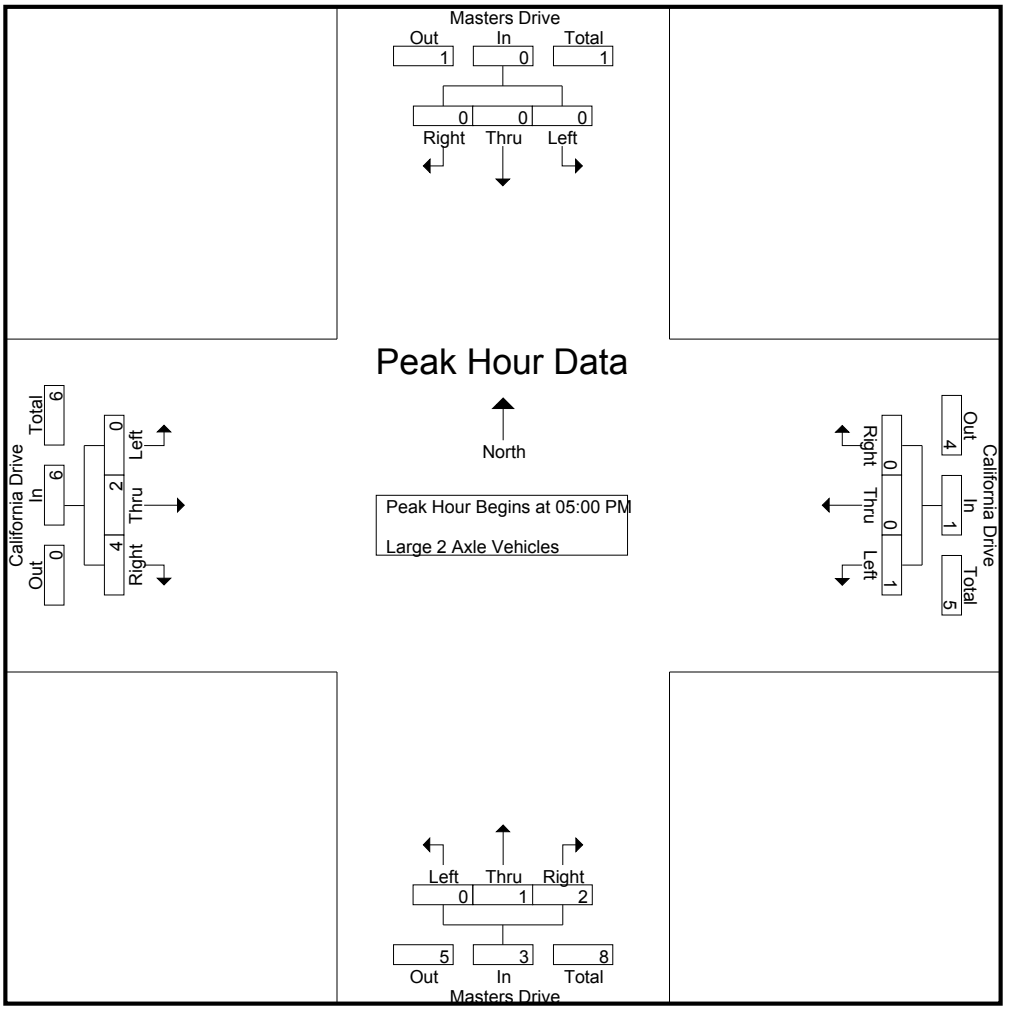

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	**1**	0	0	**1**	0	**1**	**2**	**3**	0	0	**2**	**2**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	2
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	1	2	3	0	2	4	6
% App. Total	0	0	0		100	0	0		0	33.3	66.7		0	33.3	66.7	
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.250	.250	.250	.000	.250	.500	.750

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City of Corona
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File Name : CORMACAPM
Site Code : 00000053
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Groups Printed- 3 Axle Vehicles

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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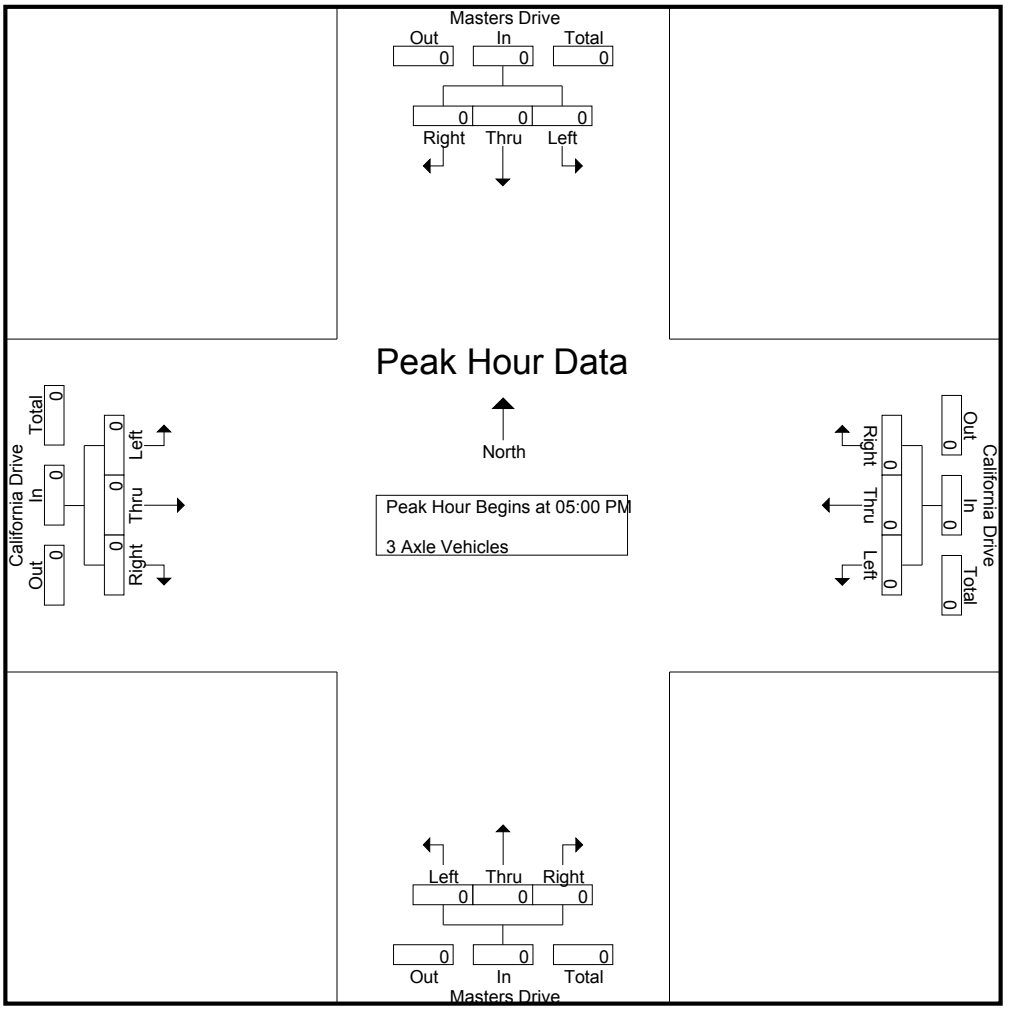

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Site Code : 00000053
Start Date : 7/10/2014
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Groups Printed- 4+ Axle Trucks

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Masters Drive Southbound				California Drive Westbound				Masters Drive Northbound				California Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: Masters Drive
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Weather: Clear

File Name : CORMACAPM
Site Code : 00000053
Start Date : 7/10/2014
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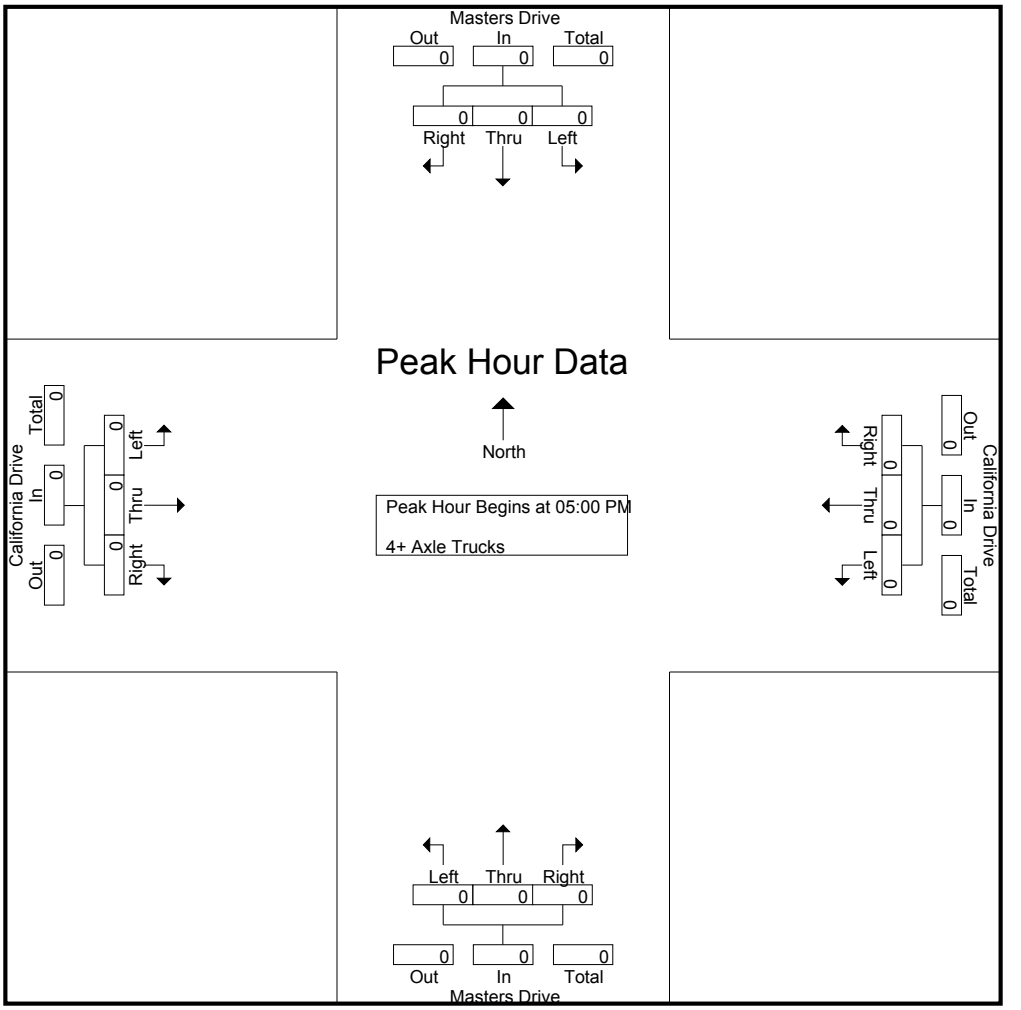

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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SUMMER COUNTS

City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	2	27	2	31	1	1	1	3	2	13	0	15	2	1	5	8	57
06:45 AM	0	19	2	21	1	1	3	5	3	17	0	20	4	0	4	8	54
Total	2	46	4	52	2	2	4	8	5	30	0	35	6	1	9	16	111
07:00 AM	0	25	2	27	1	0	3	4	1	22	2	25	1	0	6	7	63
07:15 AM	1	28	0	29	1	1	1	3	0	25	0	25	0	1	3	4	61
07:30 AM	0	28	0	28	1	0	2	3	3	18	0	21	4	0	9	13	65
07:45 AM	0	21	2	23	2	0	1	3	1	15	0	16	4	0	11	15	57
Total	1	102	4	107	5	1	7	13	5	80	2	87	9	1	29	39	246
08:00 AM	0	20	1	21	0	0	1	1	4	19	0	23	3	2	3	8	53
08:15 AM	0	18	1	19	2	1	1	4	2	12	3	17	5	0	3	8	48
Grand Total	3	186	10	199	9	4	13	26	16	141	5	162	23	4	44	71	458
Apprch %	1.5	93.5	5		34.6	15.4	50		9.9	87	3.1		32.4	5.6	62		
Total %	0.7	40.6	2.2	43.4	2	0.9	2.8	5.7	3.5	30.8	1.1	35.4	5	0.9	9.6	15.5	
Passenger Vehicles	3	185	10	198	9	4	13	26	16	139	4	159	23	4	44	71	454
% Passenger Vehicles	100	99.5	100	99.5	100	100	100	100	100	98.6	80	98.1	100	100	100	100	99.1
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	20	0.6	0	0	0	0	0.2
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
% 4+ Axle Trucks	0	0.5	0	0.5	0	0	0	0	0	1.4	0	1.2	0	0	0	0	0.7

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	25	**2**	27	1	0	**3**	**4**	1	22	**2**	**25**	1	0	6	7	63
07:15 AM	**1**	**28**	0	**29**	1	**1**	1	3	0	**25**	0	25	0	**1**	3	4	61
07:30 AM	0	28	0	28	1	0	2	3	**3**	18	0	21	**4**	0	9	13	**65**
07:45 AM	0	21	2	23	**2**	0	1	3	1	15	0	16	4	0	**11**	**15**	57
Total Volume	1	102	4	107	5	1	7	13	5	80	2	87	9	1	29	39	246
% App. Total	0.9	95.3	3.7		38.5	7.7	53.8		5.7	92	2.3		23.1	2.6	74.4		
PHF	.250	.911	.500	.922	.625	.250	.583	.813	.417	.800	.250	.870	.563	.250	.659	.650	.946

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SUMMER COUNTS

City of Corona
N/S: Masters Drive
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File Name : CORMABEAM
Site Code : 00000053
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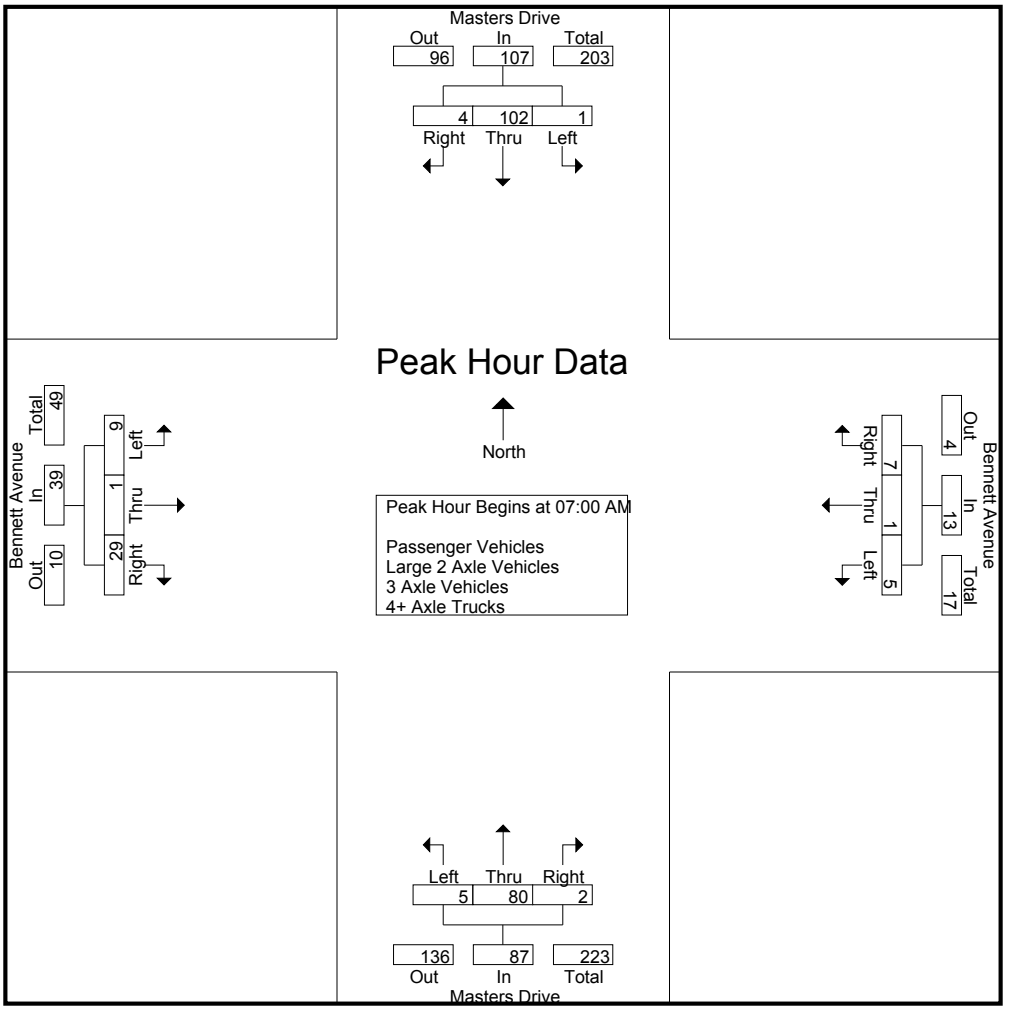

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:30 AM				06:30 AM				06:45 AM				07:30 AM			
+0 mins.	**2**	27	**2**	**31**	**1**	**1**	1	3	**3**	17	0	20	4	0	9	13
+15 mins.	0	19	2	21	1	1	**3**	**5**	1	22	**2**	**25**	4	0	**11**	**15**
+30 mins.	0	25	2	27	1	0	3	4	0	**25**	0	25	3	**2**	3	8
+45 mins.	1	**28**	0	29	1	1	1	3	3	18	0	21	**5**	0	3	8
Total Volume	3	99	6	108	4	3	8	15	7	82	2	91	16	2	26	44
% App. Total	2.8	91.7	5.6		26.7	20	53.3		7.7	90.1	2.2		36.4	4.5	59.1	
PHF	.375	.884	.750	.871	1.000	.750	.667	.750	.583	.820	.250	.910	.800	.250	.591	.733

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City of Corona
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File Name : CORMABEAM
Site Code : 00000053
Start Date : 7/10/2014
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Groups Printed- Passenger Vehicles

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	2	27	2	31	1	1	1	3	2	13	0	15	2	1	5	8	57
06:45 AM	0	19	2	21	1	1	3	5	3	17	0	20	4	0	4	8	54
Total	2	46	4	52	2	2	4	8	5	30	0	35	6	1	9	16	111
07:00 AM	0	25	2	27	1	0	3	4	1	22	2	25	1	0	6	7	63
07:15 AM	1	28	0	29	1	1	1	3	0	24	0	24	0	1	3	4	60
07:30 AM	0	28	0	28	1	0	2	3	3	18	0	21	4	0	9	13	65
07:45 AM	0	20	2	22	2	0	1	3	1	15	0	16	4	0	11	15	56
Total	1	101	4	106	5	1	7	13	5	79	2	86	9	1	29	39	244
08:00 AM	0	20	1	21	0	0	1	1	4	18	0	22	3	2	3	8	52
08:15 AM	0	18	1	19	2	1	1	4	2	12	2	16	5	0	3	8	47
Grand Total	3	185	10	198	9	4	13	26	16	139	4	159	23	4	44	71	454
Apprch %	1.5	93.4	5.1		34.6	15.4	50		10.1	87.4	2.5		32.4	5.6	62		
Total %	0.7	40.7	2.2	43.6	2	0.9	2.9	5.7	3.5	30.6	0.9	35	5.1	0.9	9.7	15.6	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	25	**2**	27	1	0	**3**	**4**	1	22	**2**	**25**	1	0	6	7	63
07:15 AM	**1**	**28**	0	**29**	1	**1**	1	3	0	**24**	0	24	0	**1**	3	4	60
07:30 AM	0	28	0	28	1	0	2	3	**3**	18	0	21	**4**	0	9	13	**65**
07:45 AM	0	20	2	22	**2**	0	1	3	1	15	0	16	4	0	**11**	**15**	56
Total Volume	1	101	4	106	5	1	7	13	5	79	2	86	9	1	29	39	244
% App. Total	0.9	95.3	3.8		38.5	7.7	53.8		5.8	91.9	2.3		23.1	2.6	74.4		
PHF	.250	.902	.500	.914	.625	.250	.583	.813	.417	.823	.250	.860	.563	.250	.659	.650	.938

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City of Corona
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E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEAM
Site Code : 00000053
Start Date : 7/10/2014
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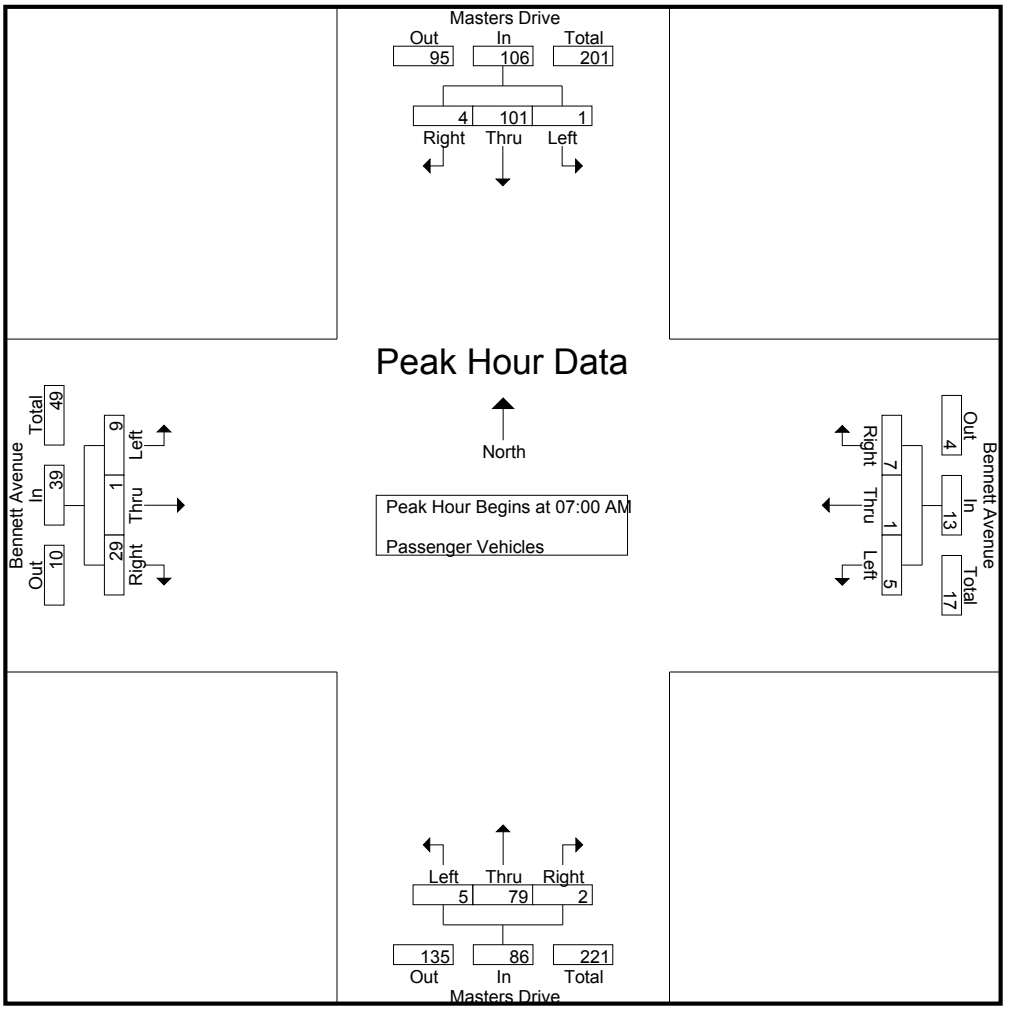

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	25	**2**	27	1	0	**3**	**4**	1	22	**2**	**25**	1	0	6	7
+15 mins.	**1**	**28**	0	**29**	1	**1**	1	3	0	**24**	0	24	0	**1**	3	4
+30 mins.	0	28	0	28	1	0	2	3	**3**	18	0	21	**4**	0	9	13
+45 mins.	0	20	2	22	**2**	0	1	3	1	15	0	16	4	0	**11**	**15**
Total Volume	1	101	4	106	5	1	7	13	5	79	2	86	9	1	29	39
% App. Total	0.9	95.3	3.8		38.5	7.7	53.8		5.8	91.9	2.3		23.1	2.6	74.4	
PHF	.250	.902	.500	.914	.625	.250	.583	.813	.417	.823	.250	.860	.563	.250	.659	.650

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Groups Printed- Large 2 Axle Vehicles

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Apprch %	0	0	0		0	0	0		0	0	100		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
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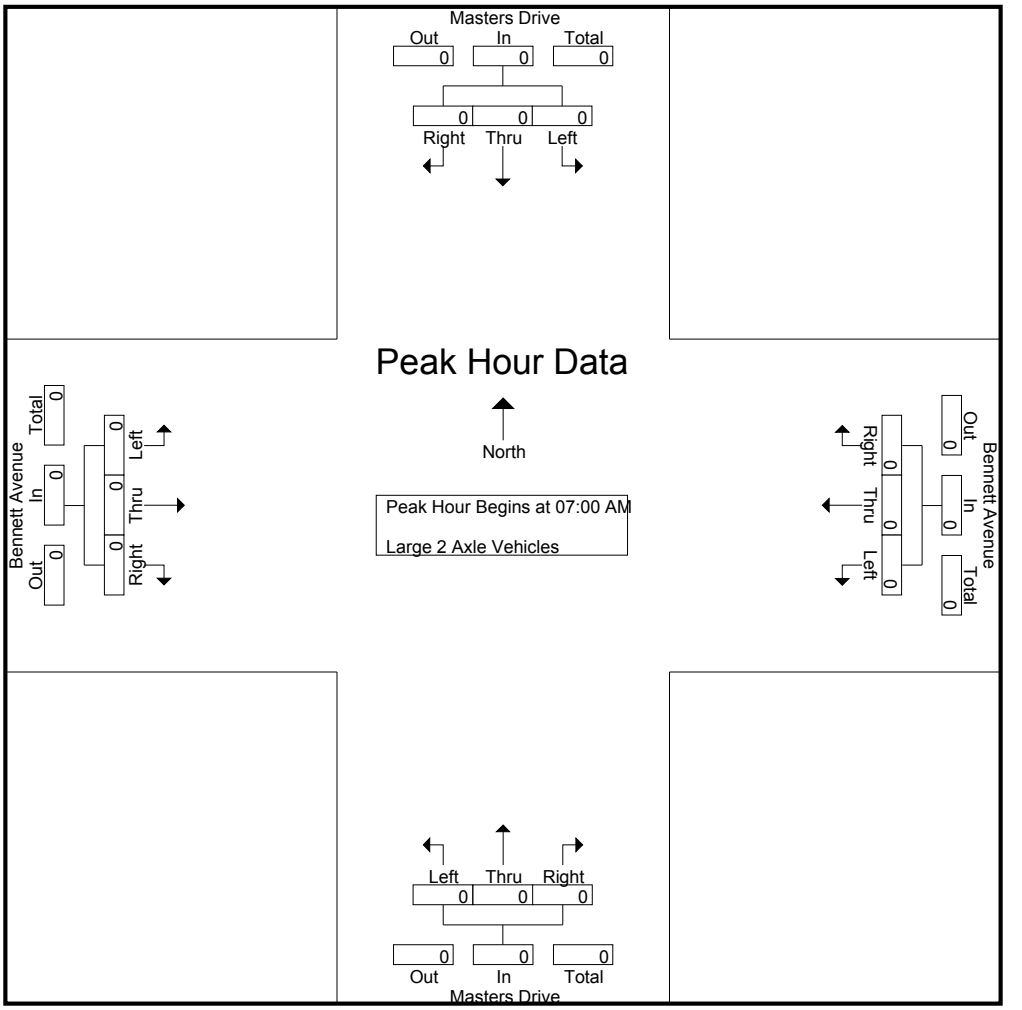

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- 3 Axle Vehicles

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
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Site Code : 00000053
Start Date : 7/10/2014
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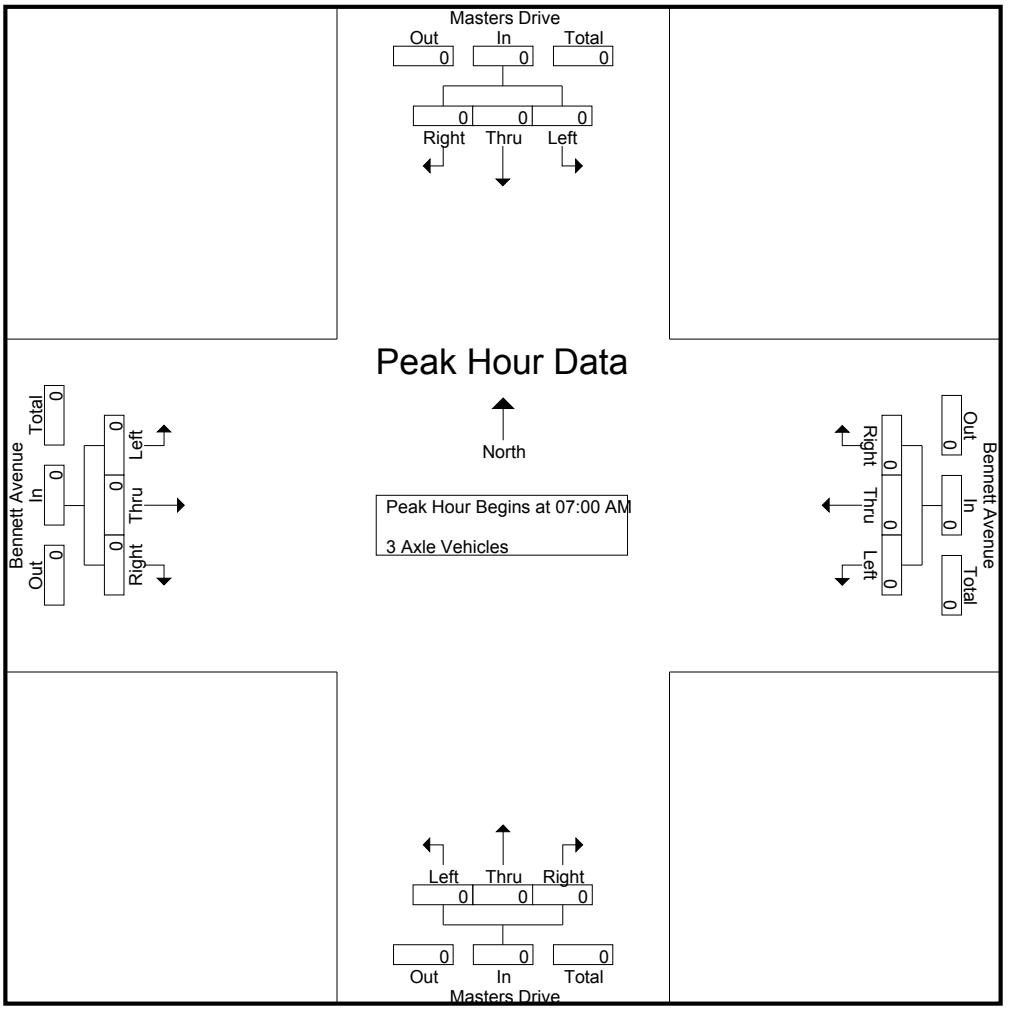

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	33.3	0	33.3	0	0	0	0	0	66.7	0	66.7	0	0	0	0	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.500

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City of Corona
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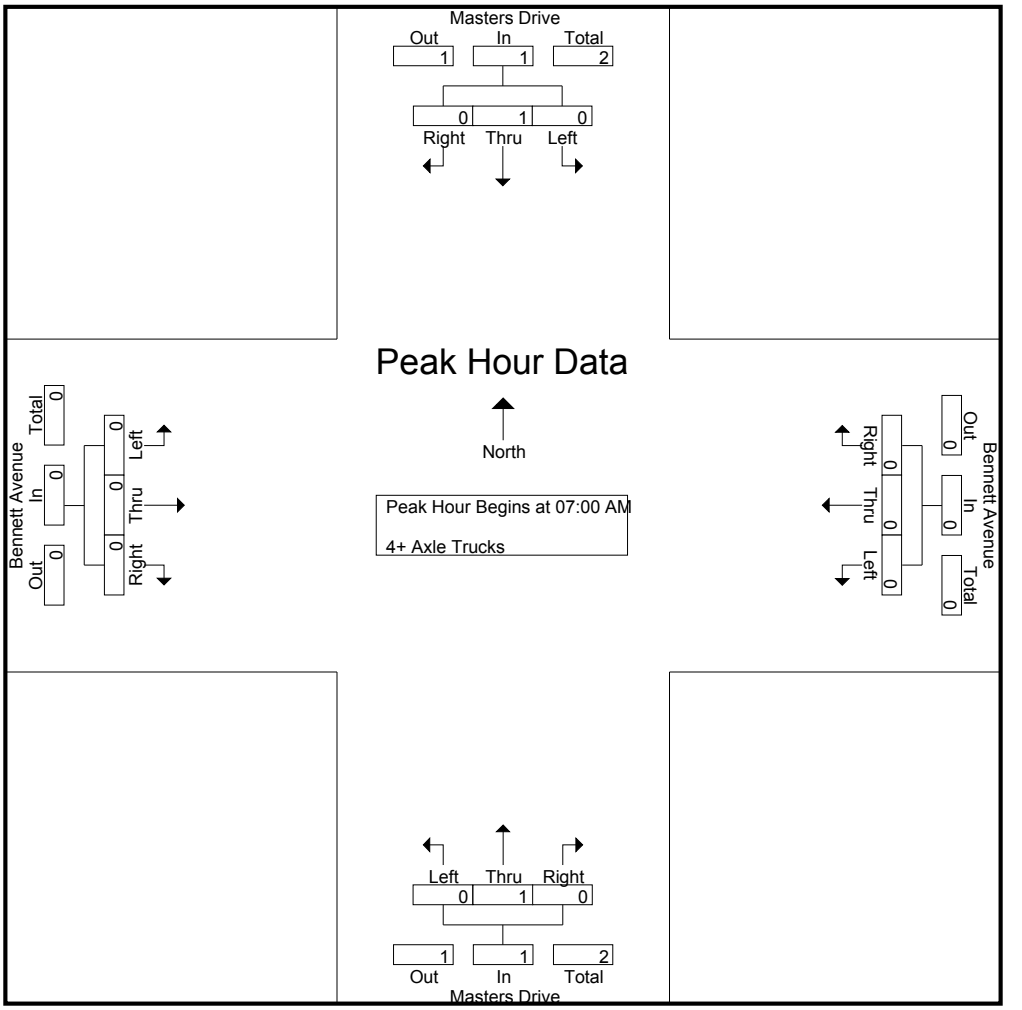

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

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SUMMER COUNTS

City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	63	4	68	1	3	4	8	3	34	0	37	2	1	6	9	122
04:15 PM	5	58	12	75	0	1	4	5	4	29	1	34	3	1	3	7	121
04:30 PM	1	85	5	91	1	1	3	5	3	32	0	35	2	4	7	13	144
04:45 PM	6	83	7	96	1	4	2	7	4	25	1	30	1	0	4	5	138
Total	13	289	28	330	3	9	13	25	14	120	2	136	8	6	20	34	525
05:00 PM	3	78	12	93	1	6	3	10	5	34	1	40	6	1	5	12	155
05:15 PM	5	74	6	85	1	3	5	9	2	32	1	35	2	3	6	11	140
05:30 PM	8	91	11	110	1	1	1	3	4	27	1	32	4	2	3	9	154
05:45 PM	2	80	3	85	4	1	4	9	4	36	2	42	2	0	3	5	141
Total	18	323	32	373	7	11	13	31	15	129	5	149	14	6	17	37	590
Grand Total	31	612	60	703	10	20	26	56	29	249	7	285	22	12	37	71	1115
Apprch %	4.4	87.1	8.5		17.9	35.7	46.4		10.2	87.4	2.5		31	16.9	52.1		
Total %	2.8	54.9	5.4	63	0.9	1.8	2.3	5	2.6	22.3	0.6	25.6	2	1.1	3.3	6.4	
Passenger Vehicles	31	609	60	700	10	20	25	55	29	246	7	282	22	11	37	70	1107
% Passenger Vehicles	100	99.5	100	99.6	100	100	96.2	98.2	100	98.8	100	98.9	100	91.7	100	98.6	99.3
Large 2 Axle Vehicles	0	3	0	3	0	0	1	1	0	3	0	3	0	1	0	1	8
% Large 2 Axle Vehicles	0	0.5	0	0.4	0	0	3.8	1.8	0	1.2	0	1.1	0	8.3	0	1.4	0.7
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	78	**12**	93	1	**6**	3	**10**	**5**	34	1	40	**6**	1	5	**12**	**155**
05:15 PM	5	74	6	85	1	3	**5**	9	2	32	1	35	2	**3**	**6**	11	140
05:30 PM	**8**	**91**	11	**110**	1	1	1	3	4	27	1	32	4	2	3	9	154
05:45 PM	2	80	3	85	**4**	1	4	9	4	**36**	**2**	**42**	2	0	3	5	141
Total Volume	18	323	32	373	7	11	13	31	15	129	5	149	14	6	17	37	590
% App. Total	4.8	86.6	8.6		22.6	35.5	41.9		10.1	86.6	3.4		37.8	16.2	45.9		
PHF	.563	.887	.667	.848	.438	.458	.650	.775	.750	.896	.625	.887	.583	.500	.708	.771	.952

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SUMMER COUNTS

City of Corona
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Start Date : 7/10/2014
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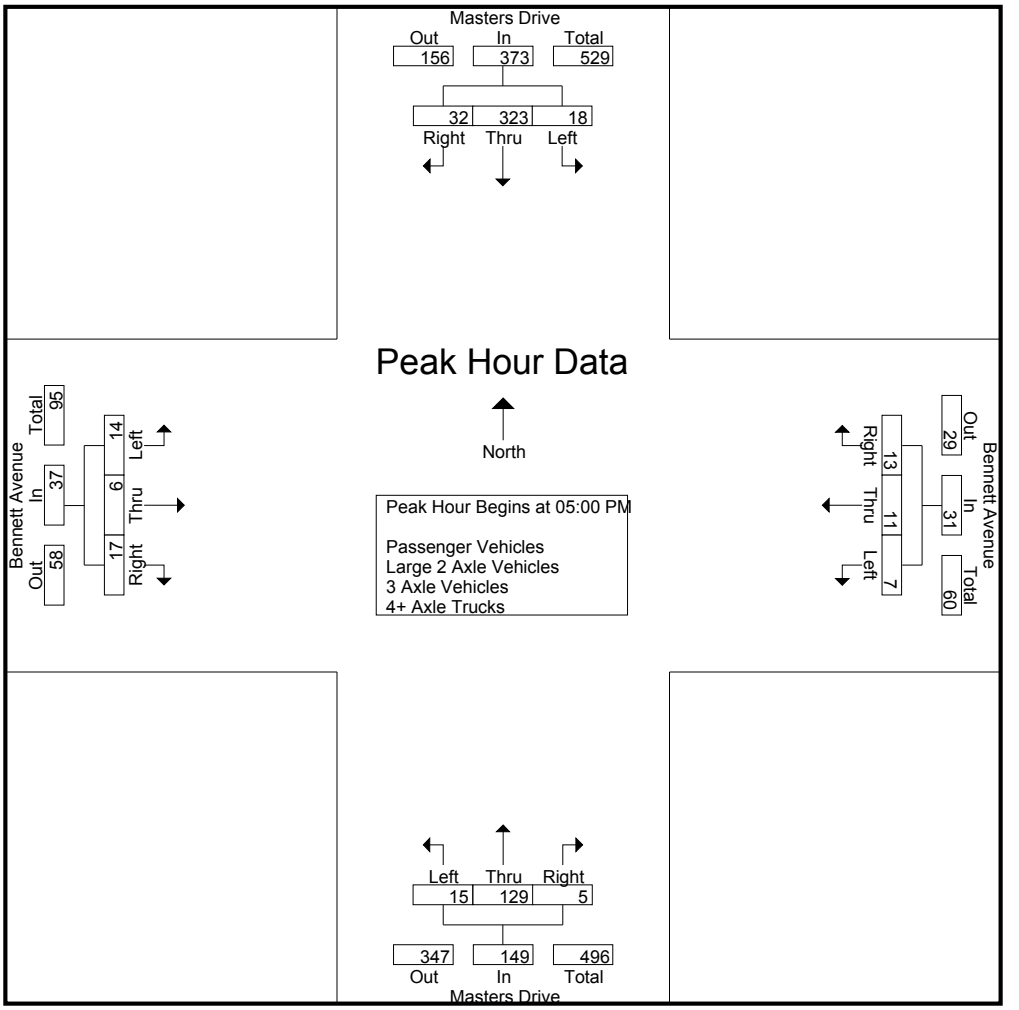

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				05:00 PM				04:30 PM			
+0 mins.	6	83	7	96	**1**	1	3	5	**5**	34	1	40	2	**4**	**7**	**13**
+15 mins.	3	78	**12**	93	1	4	2	7	2	32	1	35	1	0	4	5
+30 mins.	5	74	6	85	1	**6**	3	**10**	4	27	1	32	**6**	1	5	12
+45 mins.	**8**	**91**	11	**110**	1	3	**5**	9	4	**36**	**2**	**42**	2	3	6	11
Total Volume	22	326	36	384	4	14	13	31	15	129	5	149	11	8	22	41
% App. Total	5.7	84.9	9.4		12.9	45.2	41.9		10.1	86.6	3.4		26.8	19.5	53.7	
PHF	.688	.896	.750	.873	1.000	.583	.650	.775	.750	.896	.625	.887	.458	.500	.786	.788

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Passenger Vehicles

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	63	4	68	1	3	3	7	3	32	0	35	2	1	6	9	119
04:15 PM	5	57	12	74	0	1	4	5	4	28	1	33	3	1	3	7	119
04:30 PM	1	85	5	91	1	1	3	5	3	32	0	35	2	3	7	12	143
04:45 PM	6	83	7	96	1	4	2	7	4	25	1	30	1	0	4	5	138
Total	13	288	28	329	3	9	12	24	14	117	2	133	8	5	20	33	519
05:00 PM	3	77	12	92	1	6	3	10	5	34	1	40	6	1	5	12	154
05:15 PM	5	74	6	85	1	3	5	9	2	32	1	35	2	3	6	11	140
05:30 PM	8	91	11	110	1	1	1	3	4	27	1	32	4	2	3	9	154
05:45 PM	2	79	3	84	4	1	4	9	4	36	2	42	2	0	3	5	140
Total	18	321	32	371	7	11	13	31	15	129	5	149	14	6	17	37	588
Grand Total	31	609	60	700	10	20	25	55	29	246	7	282	22	11	37	70	1107
Apprch %	4.4	87	8.6		18.2	36.4	45.5		10.3	87.2	2.5		31.4	15.7	52.9		
Total %	2.8	55	5.4	63.2	0.9	1.8	2.3	5	2.6	22.2	0.6	25.5	2	1	3.3	6.3	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	3	77	**12**	92	1	**6**	3	**10**	**5**	34	1	40	**6**	1	5	**12**	**154**
05:15 PM	5	74	6	85	1	3	**5**	9	2	32	1	35	2	**3**	**6**	11	140
05:30 PM	**8**	**91**	11	**110**	1	1	1	3	4	27	1	32	4	2	3	9	154
05:45 PM	2	79	3	84	**4**	1	4	9	4	**36**	**2**	**42**	2	0	3	5	140
Total Volume	18	321	32	371	7	11	13	31	15	129	5	149	14	6	17	37	588
% App. Total	4.9	86.5	8.6		22.6	35.5	41.9		10.1	86.6	3.4		37.8	16.2	45.9		
PHF	.563	.882	.667	.843	.438	.458	.650	.775	.750	.896	.625	.887	.583	.500	.708	.771	.955

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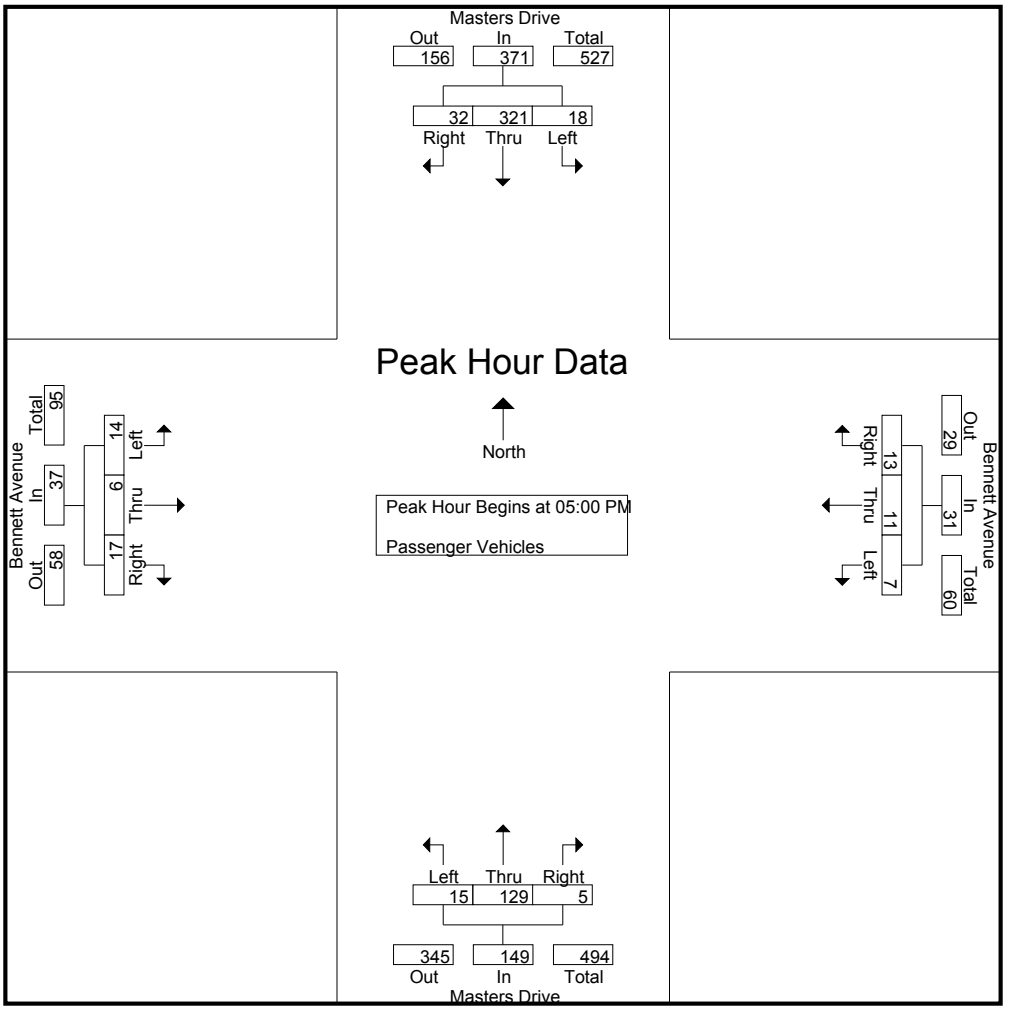
City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	3	77	**12**	92	1	**6**	3	**10**	**5**	34	1	40	**6**	1	5	**12**
+15 mins.	5	74	6	85	1	3	**5**	9	2	32	1	35	2	**3**	**6**	11
+30 mins.	**8**	**91**	11	**110**	1	1	1	3	4	27	1	32	4	2	3	9
+45 mins.	2	79	3	84	**4**	1	4	9	4	**36**	**2**	**42**	2	0	3	5
Total Volume	18	321	32	371	7	11	13	31	15	129	5	149	14	6	17	37
% App. Total	4.9	86.5	8.6		22.6	35.5	41.9		10.1	86.6	3.4		37.8	16.2	45.9	
PHF	.563	.882	.667	.843	.438	.458	.650	.775	.750	.896	.625	.887	.583	.500	.708	.771

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City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	0	0	0	3
04:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	1	1	0	3	0	3	0	1	0	1	6
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	3	0	3	0	0	1	1	0	3	0	3	0	1	0	1	8
Apprch %	0	100	0		0	0	100		0	100	0		0	100	0		
Total %	0	37.5	0	37.5	0	0	12.5	12.5	0	37.5	0	37.5	0	12.5	0	12.5	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500

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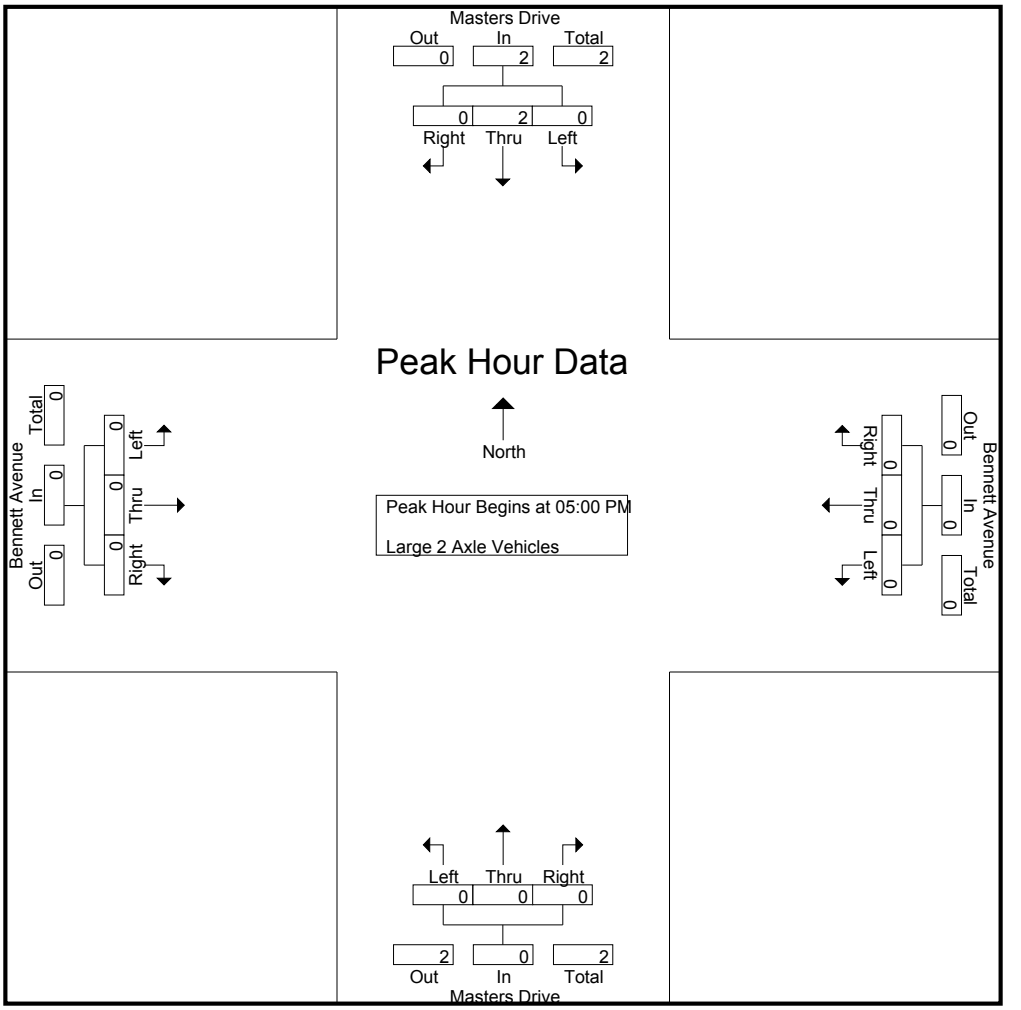
City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- 3 Axle Vehicles

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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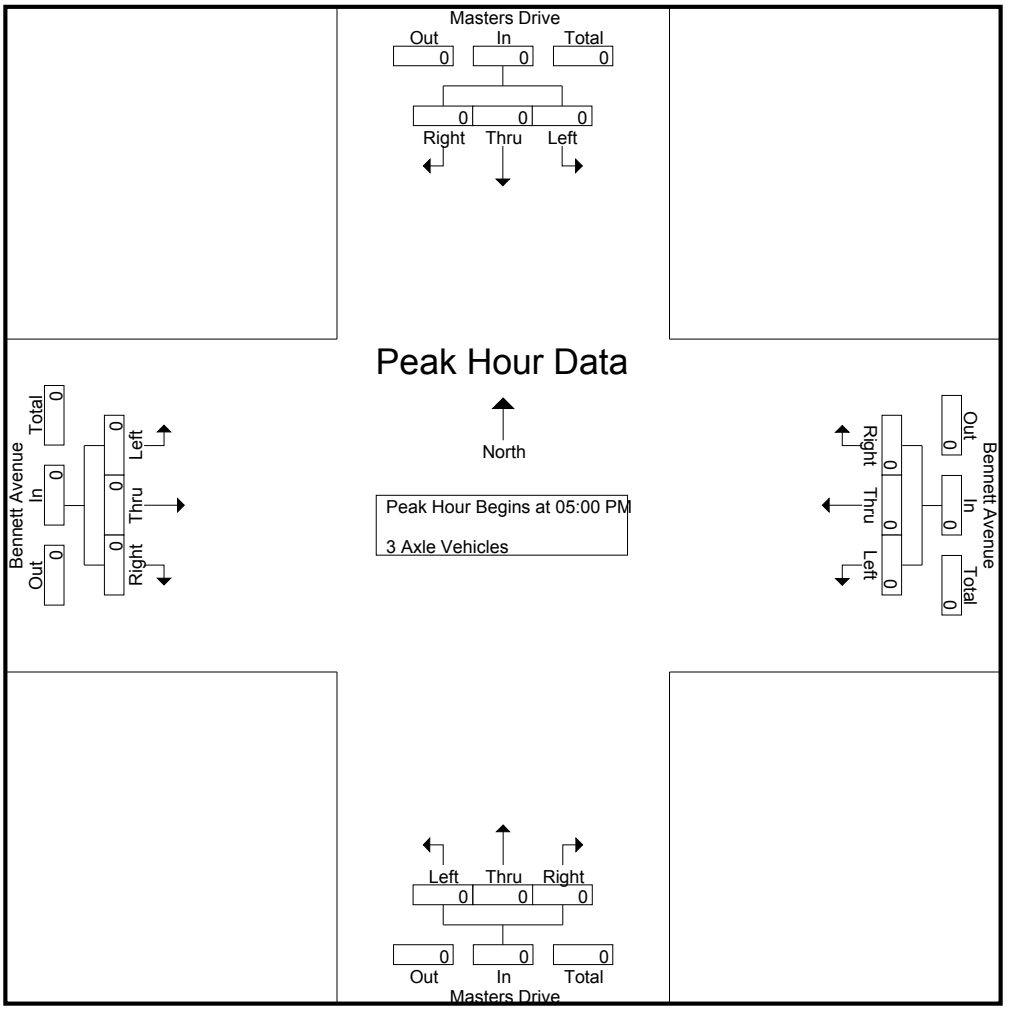
City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- 4+ Axle Trucks

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Masters Drive Southbound				Bennett Avenue Westbound				Masters Drive Northbound				Bennett Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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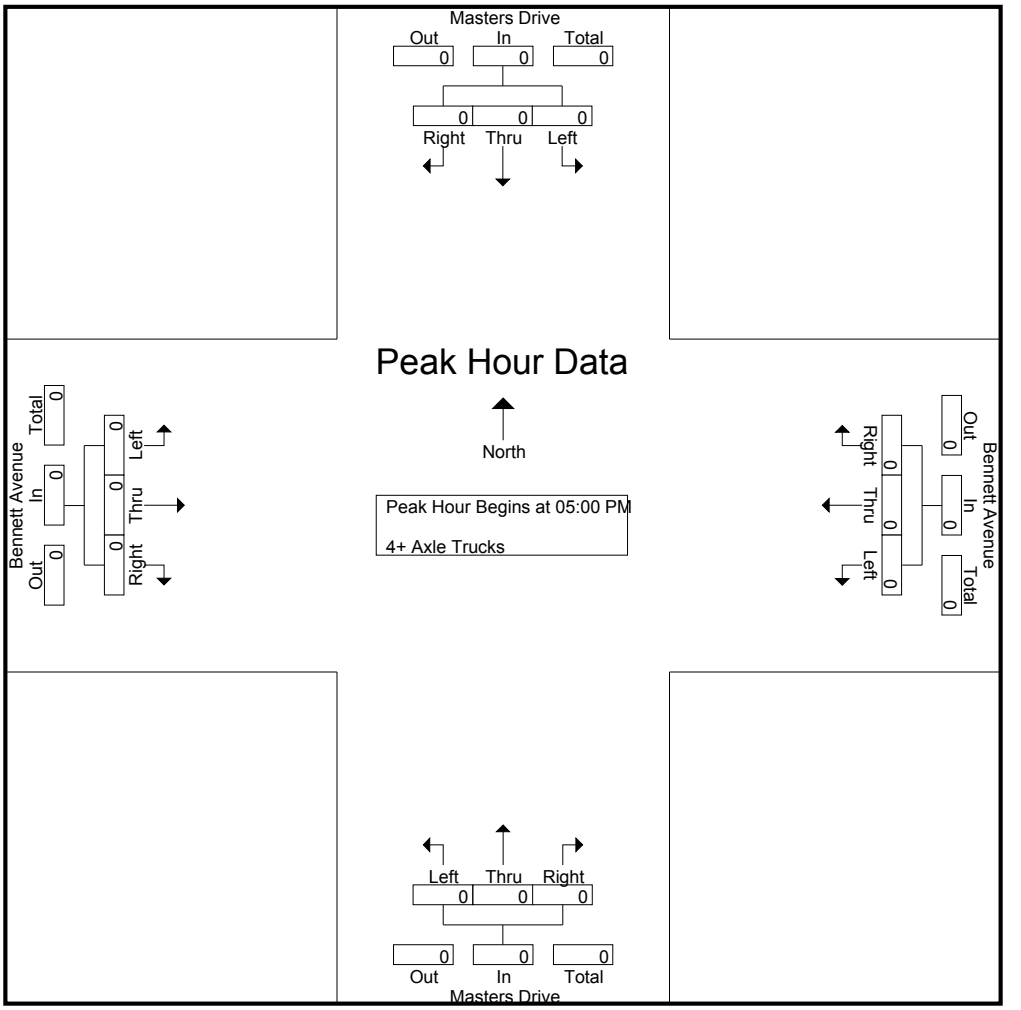
City of Corona
N/S: Masters Drive
E/W: Bennett Avenue
Weather: Clear

File Name : CORMABEPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: Masters Drive
E/W: Eagle Glen Parkway
Weather: Clear

File Name : CORMAEGAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Total Volume

	Masters Drive Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	29	1	30	14	15	29	0	29	29	88
06:45 AM	27	1	28	18	27	45	1	36	37	110
Total	56	2	58	32	42	74	1	65	66	198
07:00 AM	39	3	42	23	30	53	8	58	66	161
07:15 AM	52	3	55	28	30	58	5	84	89	202
07:30 AM	43	3	46	49	42	91	6	62	68	205
07:45 AM	37	0	37	40	23	63	3	44	47	147
Total	171	9	180	140	125	265	22	248	270	715
08:00 AM	15	2	17	57	24	81	1	33	34	132
08:15 AM	32	4	36	96	26	122	7	87	94	252
Grand Total	274	17	291	325	217	542	31	433	464	1297
Apprch %	94.2	5.8		60	40		6.7	93.3		
Total %	21.1	1.3	22.4	25.1	16.7	41.8	2.4	33.4	35.8	

	Masters Drive Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**43**	3	**46**	49	**42**	91	6	62	68	205
07:45 AM	37	0	37	40	23	63	3	44	47	147
08:00 AM	15	2	17	57	24	81	1	33	34	132
08:15 AM	32	**4**	36	**96**	26	**122**	**7**	**87**	**94**	**252**
Total Volume	127	9	136	242	115	357	17	226	243	736
% App. Total	93.4	6.6		67.8	32.2		7	93		
PHF	.738	.563	.739	.630	.685	.732	.607	.649	.646	.730

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City of Corona
N/S: Masters Drive
E/W: Eagle Glen Parkway
Weather: Clear

File Name : CORMAEGAM
Site Code : 05614031
Start Date : 2/4/2014
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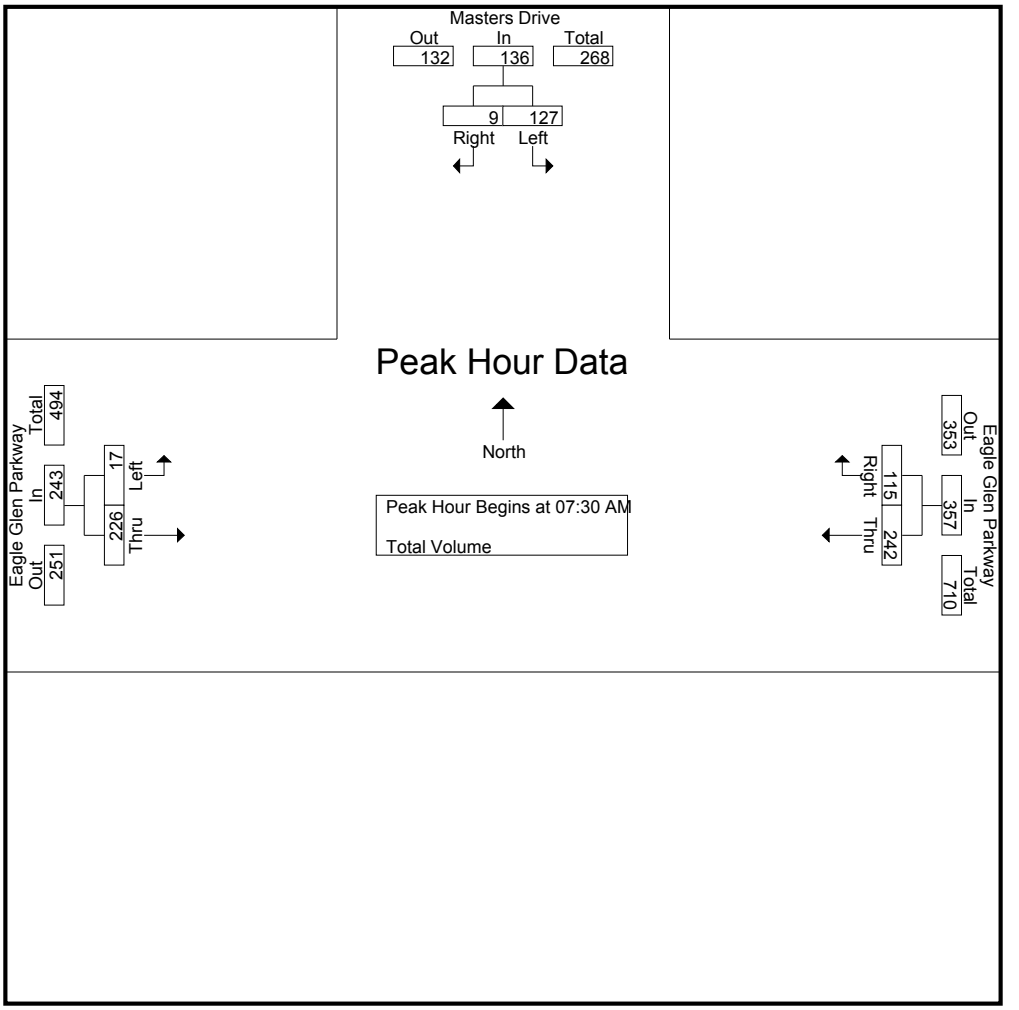

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:00 AM		
+0 mins.	39	**3**	42	49	**42**	91	**8**	58	66
+15 mins.	**52**	3	**55**	40	23	63	5	**84**	**89**
+30 mins.	43	3	46	57	24	81	6	62	68
+45 mins.	37	0	37	**96**	26	**122**	3	44	47
Total Volume	171	9	180	242	115	357	22	248	270
% App. Total	95	5		67.8	32.2		8.1	91.9	
PHF	.822	.750	.818	.630	.685	.732	.688	.738	.758

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City of Corona
N/S: Masters Drive
E/W: Eagle Glen Parkway
Weather: Clear

File Name : CORMAEGPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Total Volume

	Masters Drive Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	55	6	61	62	41	103	4	53	57	221
04:15 PM	50	0	50	52	44	96	4	52	56	202
04:30 PM	50	2	52	54	37	91	2	36	38	181
04:45 PM	70	5	75	72	46	118	2	44	46	239
Total	225	13	238	240	168	408	12	185	197	843
05:00 PM	73	5	78	65	43	108	2	53	55	241
05:15 PM	69	2	71	53	44	97	6	46	52	220
05:30 PM	71	6	77	60	43	103	5	47	52	232
05:45 PM	62	6	68	78	29	107	3	45	48	223
Total	275	19	294	256	159	415	16	191	207	916
Grand Total	500	32	532	496	327	823	28	376	404	1759
Apprch %	94	6		60.3	39.7		6.9	93.1		
Total %	28.4	1.8	30.2	28.2	18.6	46.8	1.6	21.4	23	

	Masters Drive Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	70	5	75	**72**	**46**	**118**	2	44	46	239
05:00 PM	**73**	5	**78**	65	43	108	2	**53**	**55**	**241**
05:15 PM	69	2	71	53	44	97	**6**	46	52	220
05:30 PM	71	**6**	77	60	43	103	5	47	52	232
Total Volume	283	18	301	250	176	426	15	190	205	932
% App. Total	94	6		58.7	41.3		7.3	92.7		
PHF	.969	.750	.965	.868	.957	.903	.625	.896	.932	.967

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City of Corona
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Weather: Clear

File Name : CORMAEGPM
Site Code : 05614031
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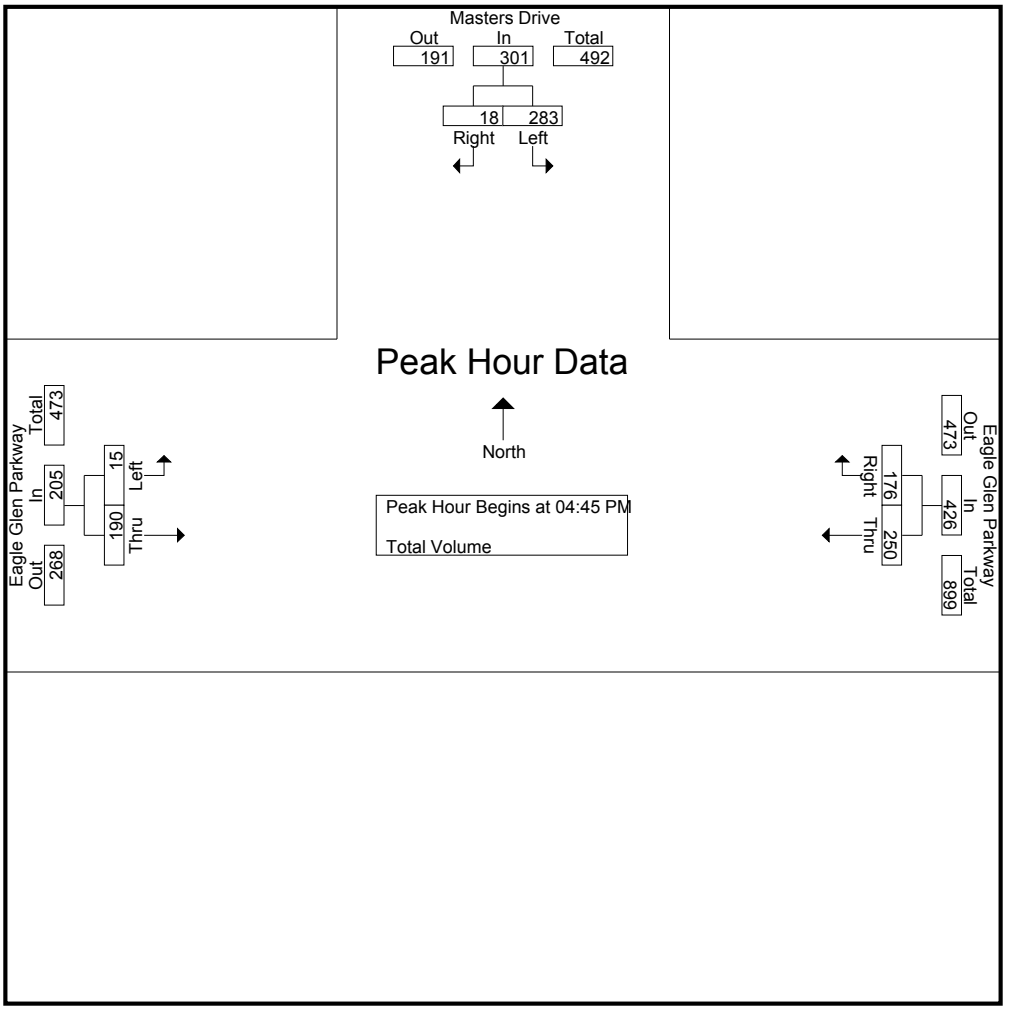

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			05:00 PM		
+0 mins.	70	5	75	**72**	**46**	**118**	2	**53**	**55**
+15 mins.	**73**	5	**78**	65	43	108	**6**	46	52
+30 mins.	69	2	71	53	44	97	5	47	52
+45 mins.	71	**6**	77	60	43	103	3	45	48
Total Volume	283	18	301	250	176	426	16	191	207
% App. Total	94	6		58.7	41.3		7.7	92.3	
PHF	.969	.750	.965	.868	.957	.903	.667	.901	.941

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City of Corona
N/S: Bedford Canyon
E/W: Foothill Parkway
Weather: Clear

File Name : CORBCFOAM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 1

Groups Printed- Total Volume

	Foothill Parkway Westbound			Bedford Canyon Northbound			Foothill Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
06:30 AM	2	79	81	24	31	55	82	3	85	221
06:45 AM	5	88	93	31	28	59	107	1	108	260
Total	7	167	174	55	59	114	189	4	193	481
07:00 AM	10	157	167	55	53	108	144	7	151	426
07:15 AM	20	239	259	108	59	167	218	16	234	660
07:30 AM	25	187	212	89	56	145	243	34	277	634
07:45 AM	20	96	116	56	33	89	159	17	176	381
Total	75	679	754	308	201	509	764	74	838	2101
08:00 AM	21	77	98	32	27	59	81	10	91	248
08:15 AM	25	88	113	31	34	65	113	9	122	300
Grand Total	128	1011	1139	426	321	747	1147	97	1244	3130
Apprch %	11.2	88.8		57	43		92.2	7.8		
Total %	4.1	32.3	36.4	13.6	10.3	23.9	36.6	3.1	39.7	

	Foothill Parkway Westbound			Bedford Canyon Northbound			Foothill Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	10	157	167	55	53	108	144	7	151	426
07:15 AM	20	**239**	**259**	**108**	**59**	**167**	218	16	234	**660**
07:30 AM	**25**	187	212	89	56	145	**243**	**34**	**277**	634
07:45 AM	20	96	116	56	33	89	159	17	176	381
Total Volume	75	679	754	308	201	509	764	74	838	2101
% App. Total	9.9	90.1		60.5	39.5		91.2	8.8		
PHF	.750	.710	.728	.713	.852	.762	.786	.544	.756	.796

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City of Corona
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File Name : CORBCFOAM
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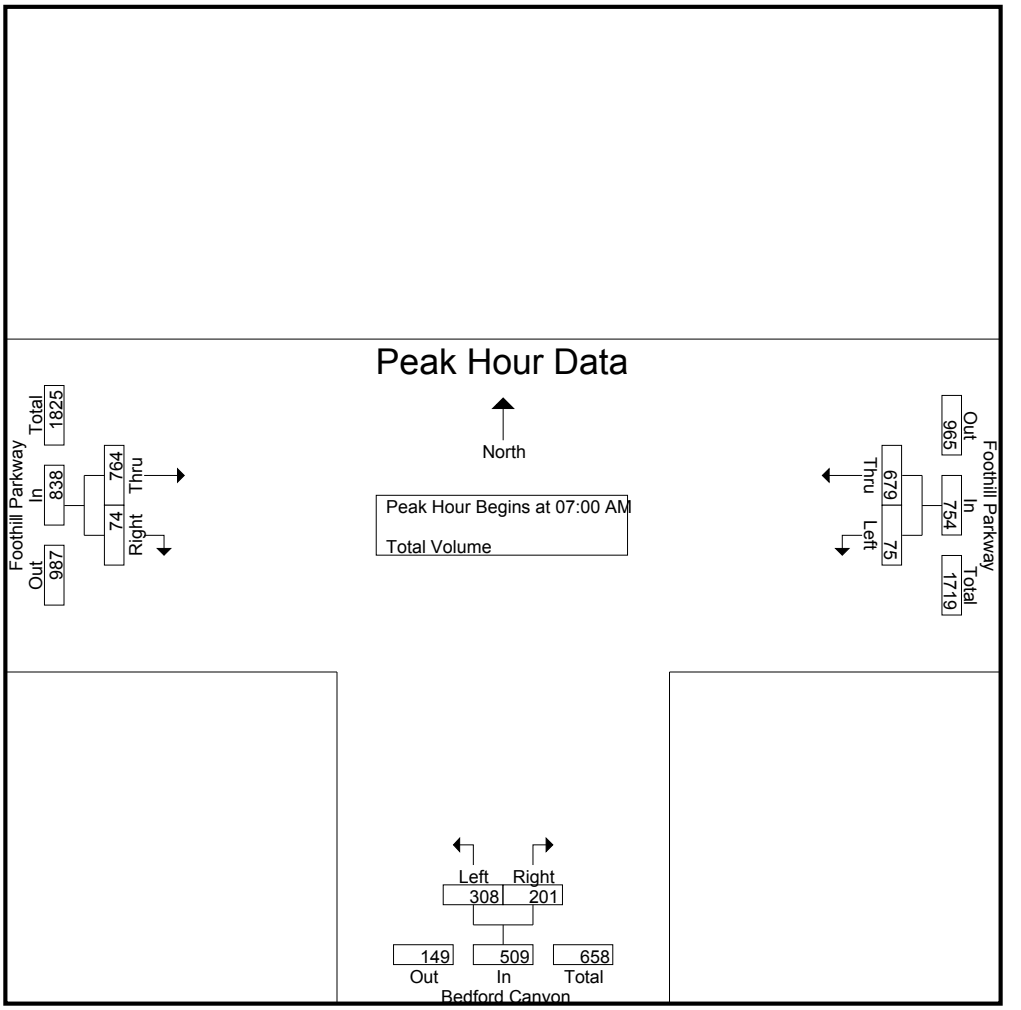

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	10	157	167	55	53	108	144	7	151
+15 mins.	20	**239**	**259**	**108**	**59**	**167**	218	16	234
+30 mins.	**25**	187	212	89	56	145	**243**	**34**	**277**
+45 mins.	20	96	116	56	33	89	159	17	176
Total Volume	75	679	754	308	201	509	764	74	838
% App. Total	9.9	90.1		60.5	39.5		91.2	8.8	
PHF	.750	.710	.728	.713	.852	.762	.786	.544	.756

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City of Corona
N/S: Bedford Canyon
E/W: Foothill Parkway
Weather: Clear

File Name : CORBCFOPM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 1

Groups Printed- Total Volume

	Foothill Parkway Westbound			Bedford Canyon Northbound			Foothill Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	34	106	140	74	24	98	222	40	262	500
04:15 PM	21	88	109	65	40	105	235	40	275	489
04:30 PM	25	99	124	64	27	91	240	38	278	493
04:45 PM	34	107	141	60	27	87	267	50	317	545
Total	114	400	514	263	118	381	964	168	1132	2027
05:00 PM	36	129	165	52	27	79	236	49	285	529
05:15 PM	34	114	148	32	22	54	244	51	295	497
05:30 PM	42	113	155	19	25	44	270	53	323	522
05:45 PM	45	112	157	22	26	48	251	51	302	507
Total	157	468	625	125	100	225	1001	204	1205	2055
Grand Total	271	868	1139	388	218	606	1965	372	2337	4082
Apprch %	23.8	76.2		64	36		84.1	15.9		
Total %	6.6	21.3	27.9	9.5	5.3	14.8	48.1	9.1	57.3	

	Foothill Parkway Westbound			Bedford Canyon Northbound			Foothill Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	34	107	141	**60**	**27**	**87**	267	50	317	**545**
05:00 PM	36	**129**	**165**	52	27	79	236	49	285	529
05:15 PM	34	114	148	32	22	54	244	51	295	497
05:30 PM	**42**	113	155	19	25	44	**270**	**53**	**323**	522
Total Volume	146	463	609	163	101	264	1017	203	1220	2093
% App. Total	24	76		61.7	38.3		83.4	16.6		
PHF	.869	.897	.923	.679	.935	.759	.942	.958	.944	.960

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City of Corona
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File Name : CORBCFOPM
Site Code : 05614031
Start Date : 3/5/2014
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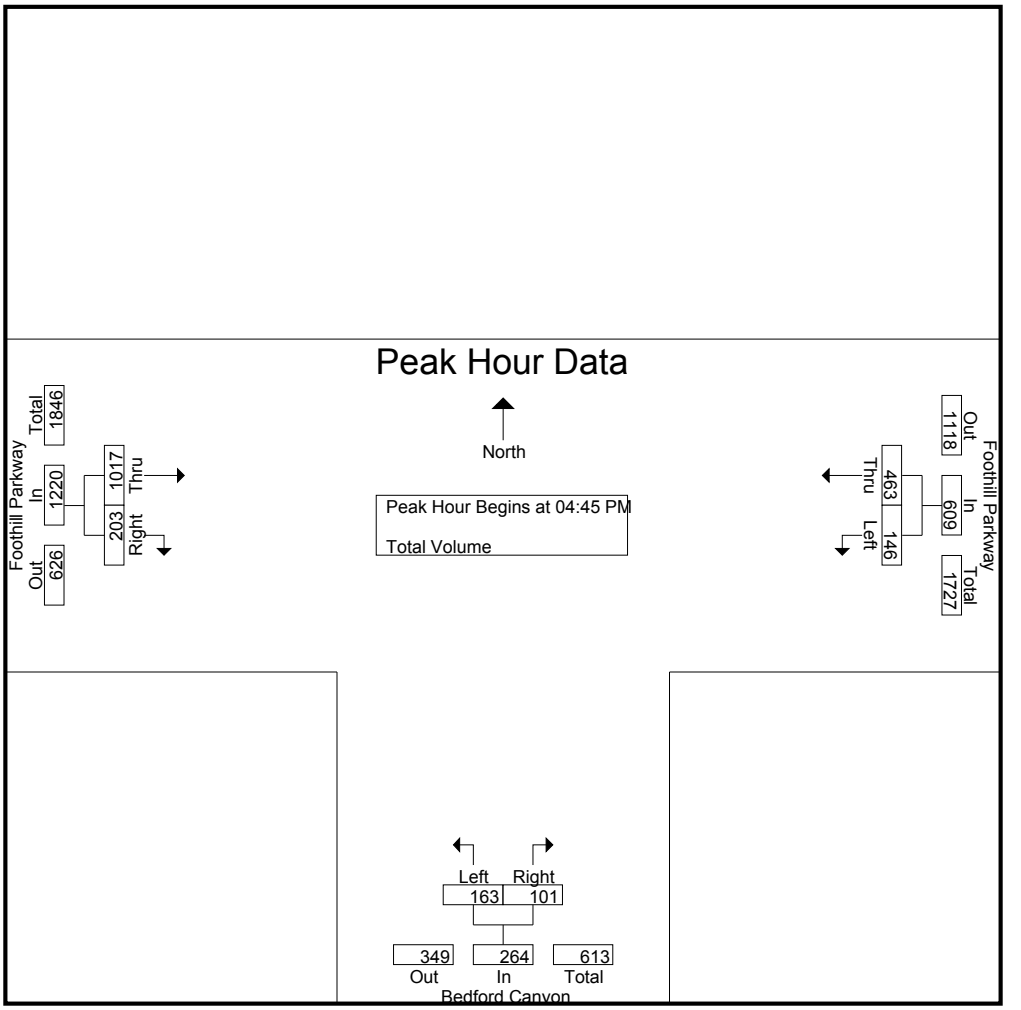

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:45 PM		
+0 mins.	36	**129**	**165**	**74**	24	98	267	50	317
+15 mins.	34	114	148	65	**40**	**105**	236	49	285
+30 mins.	42	113	155	64	27	91	244	51	295
+45 mins.	**45**	112	157	60	27	87	**270**	**53**	**323**
Total Volume	157	468	625	263	118	381	1017	203	1220
% App. Total	25.1	74.9		69	31		83.4	16.6	
PHF	.872	.907	.947	.889	.738	.907	.942	.958	.944

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SUMMER COUNTS

City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	2	2	4	0	0	0	0	2	7	1	10	12	0	1	13	27
06:45 AM	0	3	0	3	0	0	0	0	0	14	0	14	15	0	2	17	34
Total	0	5	2	7	0	0	0	0	2	21	1	24	27	0	3	30	61
07:00 AM	0	8	4	12	0	0	0	0	1	13	0	14	21	0	5	26	52
07:15 AM	0	3	2	5	1	0	0	1	6	12	1	19	12	0	8	20	45
07:30 AM	1	8	5	14	0	0	0	0	2	20	0	22	10	0	4	14	50
07:45 AM	1	11	3	15	0	0	0	0	4	24	0	28	11	0	3	14	57
Total	2	30	14	46	1	0	0	1	13	69	1	83	54	0	20	74	204
08:00 AM	0	22	3	25	1	0	0	1	0	24	0	24	17	0	2	19	69
08:15 AM	0	11	4	15	1	0	0	1	1	18	0	19	12	0	6	18	53
Grand Total	2	68	23	93	3	0	0	3	16	132	2	150	110	0	31	141	387
Apprch %	2.2	73.1	24.7		100	0	0		10.7	88	1.3		78	0	22		
Total %	0.5	17.6	5.9	24	0.8	0	0	0.8	4.1	34.1	0.5	38.8	28.4	0	8	36.4	
Passenger Vehicles	2	68	23	93	3	0	0	3	16	130	2	148	110	0	31	141	385
% Passenger Vehicles	100	100	100	100	100	0	0	100	100	98.5	100	98.7	100	0	100	100	99.5
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	1.5	0	1.3	0	0	0	0	0.5
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	8	**5**	14	0	0	0	0	2	20	0	22	10	0	4	14	50
07:45 AM	1	11	3	15	0	0	0	0	**4**	**24**	0	**28**	11	0	3	14	57
08:00 AM	0	**22**	3	**25**	**1**	0	0	**1**	0	24	0	24	**17**	0	2	**19**	**69**
08:15 AM	0	11	4	15	1	0	0	1	1	18	0	19	12	0	**6**	18	53
Total Volume	2	52	15	69	2	0	0	2	7	86	0	93	50	0	15	65	229
% App. Total	2.9	75.4	21.7		100	0	0		7.5	92.5	0		76.9	0	23.1		
PHF	.500	.591	.750	.690	.500	.000	.000	.500	.438	.896	.000	.830	.735	.000	.625	.855	.830

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SUMMER COUNTS

City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTAM
Site Code : 00000053
Start Date : 7/10/2014
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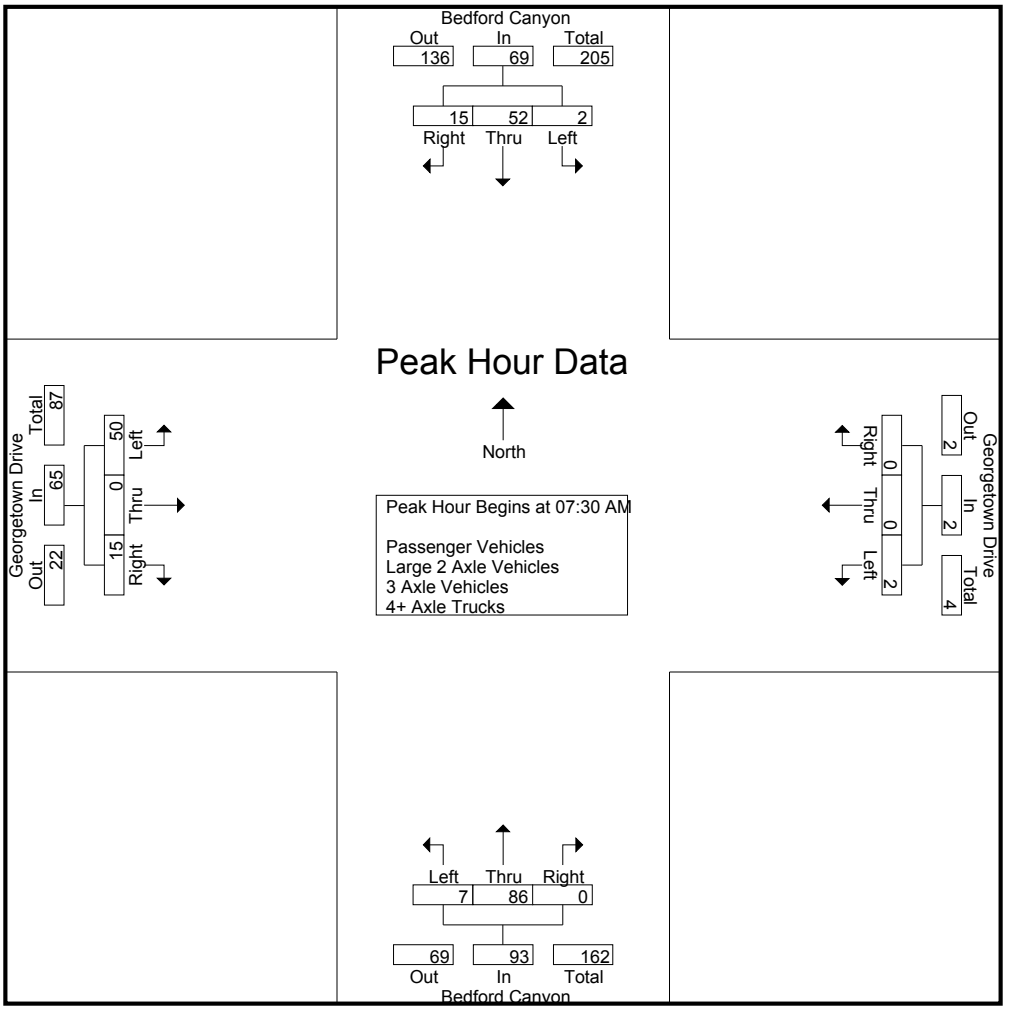

Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:15 AM				07:00 AM			
+0 mins.	**1**	8	**5**	14	**1**	0	0	**1**	**6**	12	**1**	19	**21**	0	5	**26**
+15 mins.	1	11	3	15	0	0	0	0	2	20	0	22	12	0	**8**	20
+30 mins.	0	**22**	3	**25**	0	0	0	0	4	**24**	0	**28**	10	0	4	14
+45 mins.	0	11	4	15	1	0	0	1	0	24	0	24	11	0	3	14
Total Volume	2	52	15	69	2	0	0	2	12	80	1	93	54	0	20	74
% App. Total	2.9	75.4	21.7		100	0	0		12.9	86	1.1		73	0	27	
PHF	.500	.591	.750	.690	.500	.000	.000	.500	.500	.833	.250	.830	.643	.000	.625	.712

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City of Corona
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File Name : CORBCGTAM
Site Code : 00000053
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Groups Printed- Passenger Vehicles

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	2	2	4	0	0	0	0	2	7	1	10	12	0	1	13	27
06:45 AM	0	3	0	3	0	0	0	0	0	14	0	14	15	0	2	17	34
Total	0	5	2	7	0	0	0	0	2	21	1	24	27	0	3	30	61
07:00 AM	0	8	4	12	0	0	0	0	1	13	0	14	21	0	5	26	52
07:15 AM	0	3	2	5	1	0	0	1	6	12	1	19	12	0	8	20	45
07:30 AM	1	8	5	14	0	0	0	0	2	20	0	22	10	0	4	14	50
07:45 AM	1	11	3	15	0	0	0	0	4	23	0	27	11	0	3	14	56
Total	2	30	14	46	1	0	0	1	13	68	1	82	54	0	20	74	203
08:00 AM	0	22	3	25	1	0	0	1	0	24	0	24	17	0	2	19	69
08:15 AM	0	11	4	15	1	0	0	1	1	17	0	18	12	0	6	18	52
Grand Total	2	68	23	93	3	0	0	3	16	130	2	148	110	0	31	141	385
Apprch %	2.2	73.1	24.7		100	0	0		10.8	87.8	1.4		78	0	22		
Total %	0.5	17.7	6	24.2	0.8	0	0	0.8	4.2	33.8	0.5	38.4	28.6	0	8.1	36.6	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	8	**5**	14	0	0	0	0	2	20	0	22	10	0	4	14	50
07:45 AM	1	11	3	15	0	0	0	0	**4**	23	0	**27**	11	0	3	14	56
08:00 AM	0	**22**	3	**25**	**1**	0	0	**1**	0	**24**	0	24	**17**	0	2	**19**	**69**
08:15 AM	0	11	4	15	1	0	0	1	1	17	0	18	12	0	**6**	18	52
Total Volume	2	52	15	69	2	0	0	2	7	84	0	91	50	0	15	65	227
% App. Total	2.9	75.4	21.7		100	0	0		7.7	92.3	0		76.9	0	23.1		
PHF	.500	.591	.750	.690	.500	.000	.000	.500	.438	.875	.000	.843	.735	.000	.625	.855	.822

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City of Corona
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Site Code : 00000053
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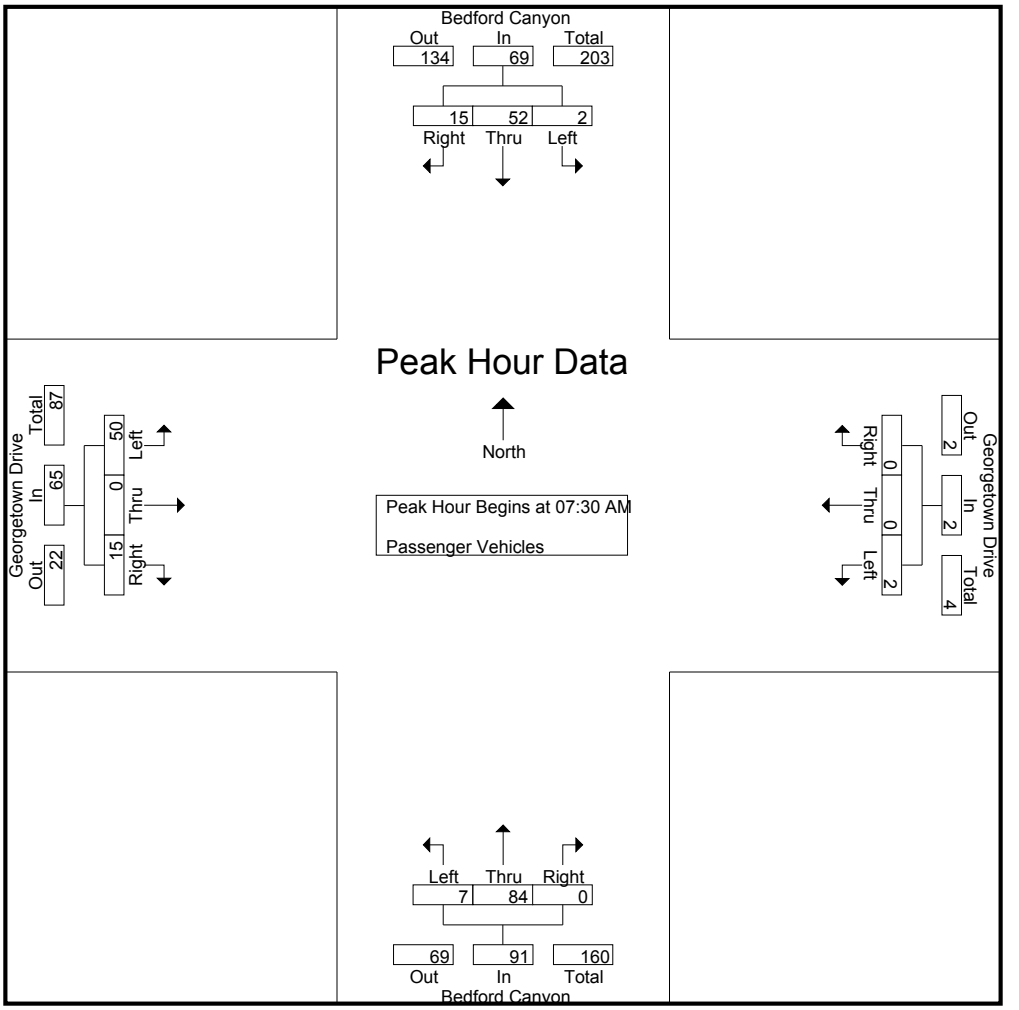

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	**1**	8	**5**	14	0	0	0	0	2	20	0	22	10	0	4	14
+15 mins.	1	11	3	15	0	0	0	0	**4**	23	0	**27**	11	0	3	14
+30 mins.	0	**22**	3	**25**	**1**	0	0	**1**	0	**24**	0	24	**17**	0	2	**19**
+45 mins.	0	11	4	15	1	0	0	1	1	17	0	18	12	0	**6**	18
Total Volume	2	52	15	69	2	0	0	2	7	84	0	91	50	0	15	65
% App. Total	2.9	75.4	21.7		100	0	0		7.7	92.3	0		76.9	0	23.1	
PHF	.500	.591	.750	.690	.500	.000	.000	.500	.438	.875	.000	.843	.735	.000	.625	.855

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City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0		
Total %	0	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.500

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City of Corona
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Weather: Clear

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Site Code : 00000053
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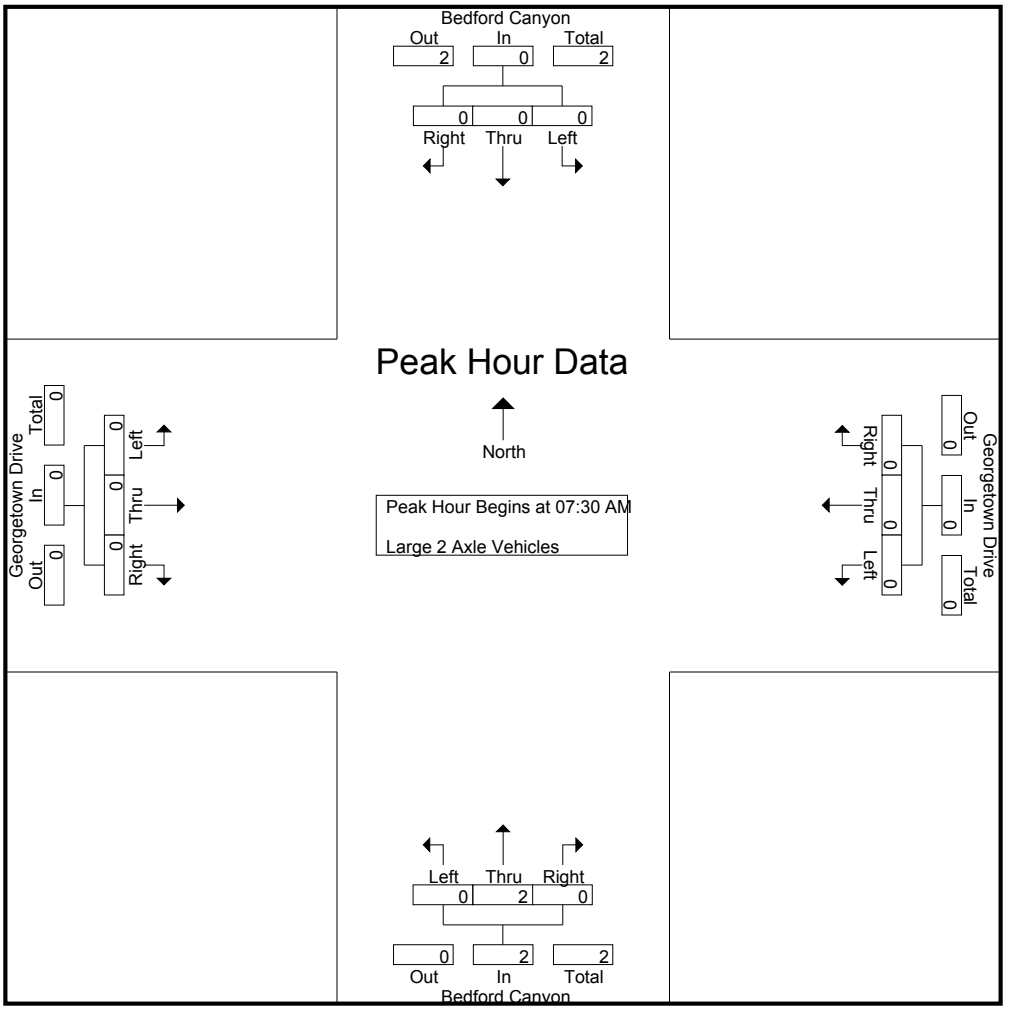

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

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Weather: Clear

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Site Code : 00000053
Start Date : 7/10/2014
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Groups Printed- 3 Axle Vehicles

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: Bedford Canyon
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Site Code : 00000053
Start Date : 7/10/2014
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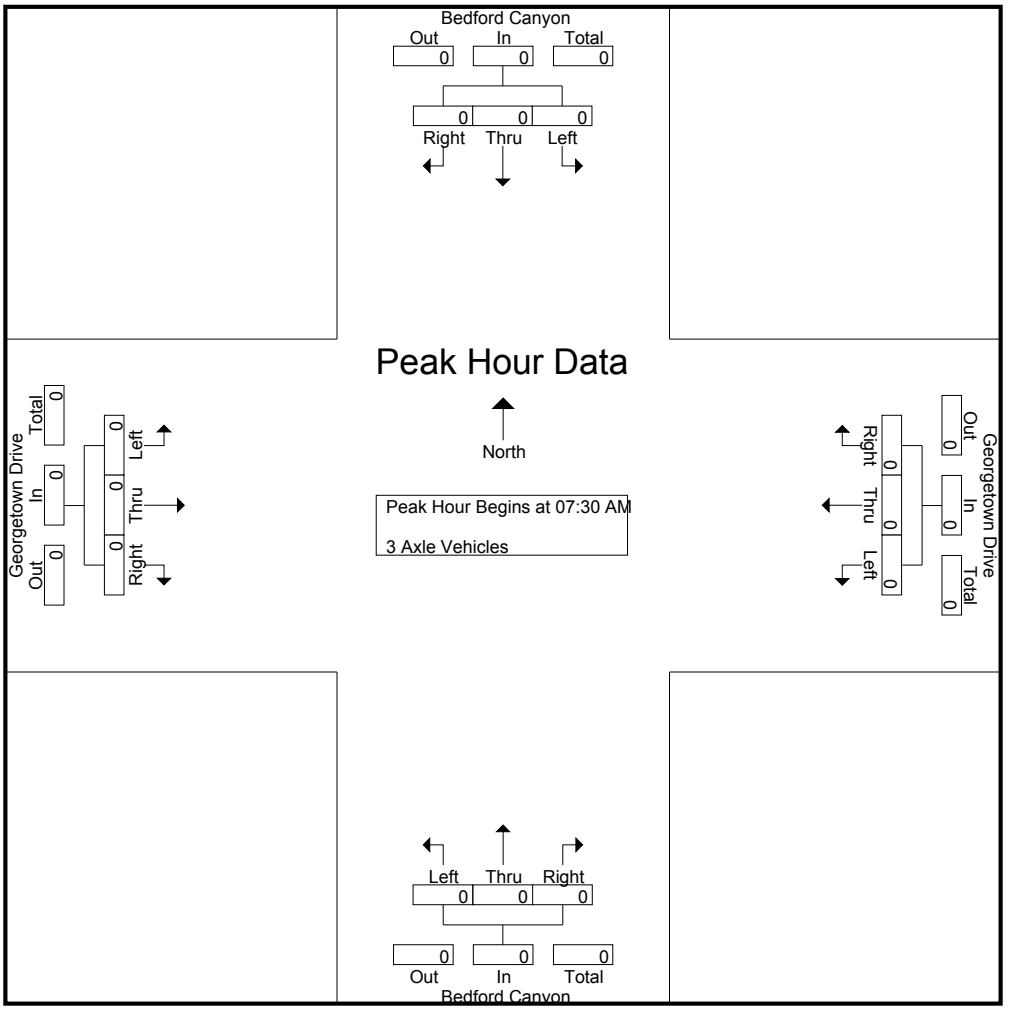

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTAM
Site Code : 00000053
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Groups Printed- 4+ Axle Trucks

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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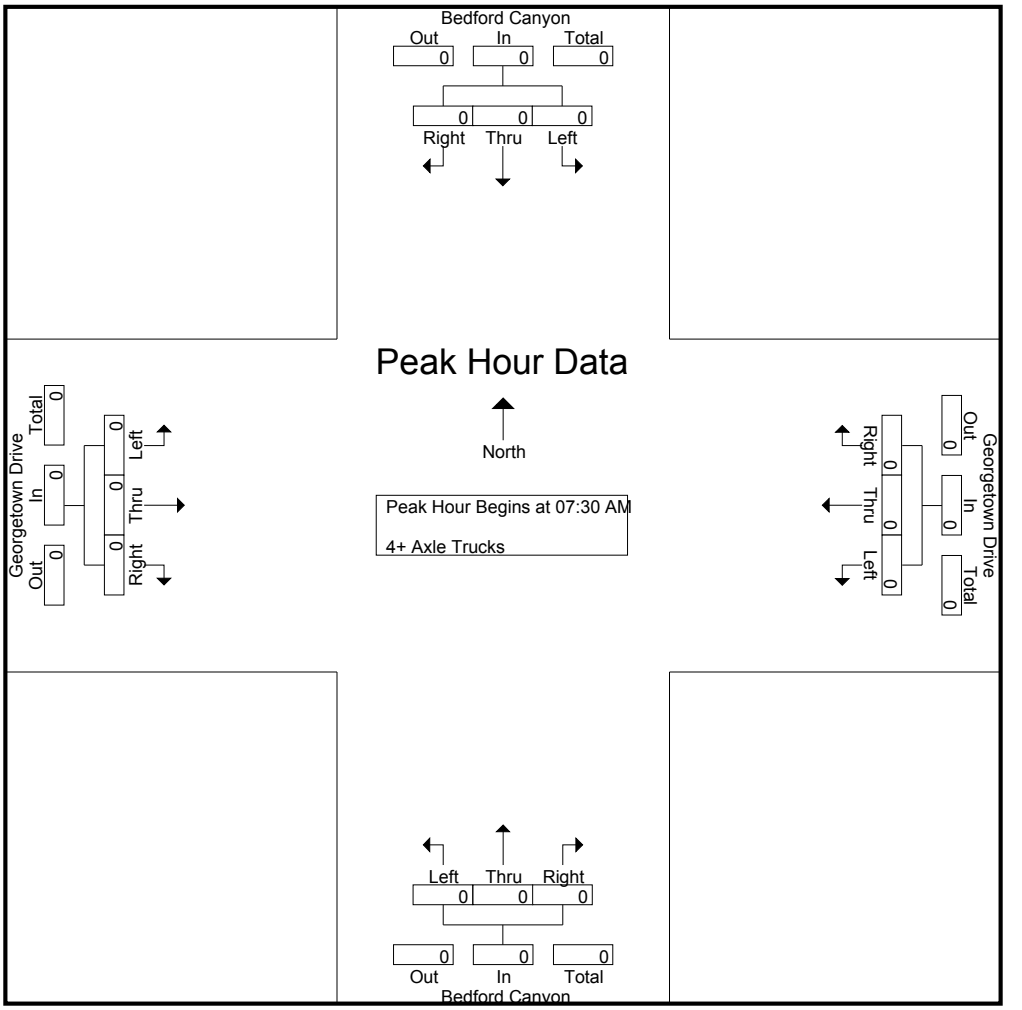
City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTAM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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SUMMER COUNTS

City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTPM
Site Code : 00000053
Start Date : 7/10/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	36	11	47	1	0	1	2	10	35	0	45	7	1	9	17	111
04:15 PM	1	51	16	68	0	0	1	1	5	25	0	30	10	0	3	13	112
04:30 PM	0	48	12	60	0	0	0	0	9	28	0	37	6	0	6	12	109
04:45 PM	0	64	11	75	0	0	0	0	4	23	0	27	8	0	4	12	114
Total	1	199	50	250	1	0	2	3	28	111	0	139	31	1	22	54	446
05:00 PM	0	63	11	74	0	0	0	0	7	34	0	41	10	0	10	20	135
05:15 PM	0	55	12	67	0	0	0	0	7	28	0	35	9	0	3	12	114
05:30 PM	1	64	21	86	1	0	0	1	9	30	0	39	9	0	2	11	137
05:45 PM	0	54	19	73	0	0	1	1	8	42	0	50	13	0	5	18	142
Total	1	236	63	300	1	0	1	2	31	134	0	165	41	0	20	61	528
Grand Total	2	435	113	550	2	0	3	5	59	245	0	304	72	1	42	115	974
Apprch %	0.4	79.1	20.5		40	0	60		19.4	80.6	0		62.6	0.9	36.5		
Total %	0.2	44.7	11.6	56.5	0.2	0	0.3	0.5	6.1	25.2	0	31.2	7.4	0.1	4.3	11.8	
Passenger Vehicles	2	433	112	547	2	0	2	4	58	244	0	302	71	1	41	113	966
% Passenger Vehicles	100	99.5	99.1	99.5	100	0	66.7	80	98.3	99.6	0	99.3	98.6	100	97.6	98.3	99.2
Large 2 Axle Vehicles	0	1	1	2	0	0	1	1	1	1	0	2	1	0	1	2	7
% Large 2 Axle Vehicles	0	0.2	0.9	0.4	0	0	33.3	20	1.7	0.4	0	0.7	1.4	0	2.4	1.7	0.7
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% 4+ Axle Trucks	0	0.2	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.1

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	63	11	74	0	0	0	0	7	34	0	41	10	0	**10**	**20**	135
05:15 PM	0	55	12	67	0	0	0	0	7	28	0	35	9	0	3	12	114
05:30 PM	**1**	**64**	**21**	**86**	**1**	0	0	**1**	**9**	30	0	39	9	0	2	11	137
05:45 PM	0	54	19	73	0	0	**1**	1	8	**42**	0	**50**	**13**	0	5	18	**142**
Total Volume	1	236	63	300	1	0	1	2	31	134	0	165	41	0	20	61	528
% App. Total	0.3	78.7	21		50	0	50		18.8	81.2	0		67.2	0	32.8		
PHF	.250	.922	.750	.872	.250	.000	.250	.500	.861	.798	.000	.825	.788	.000	.500	.763	.930

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SUMMER COUNTS

City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTPM
Site Code : 00000053
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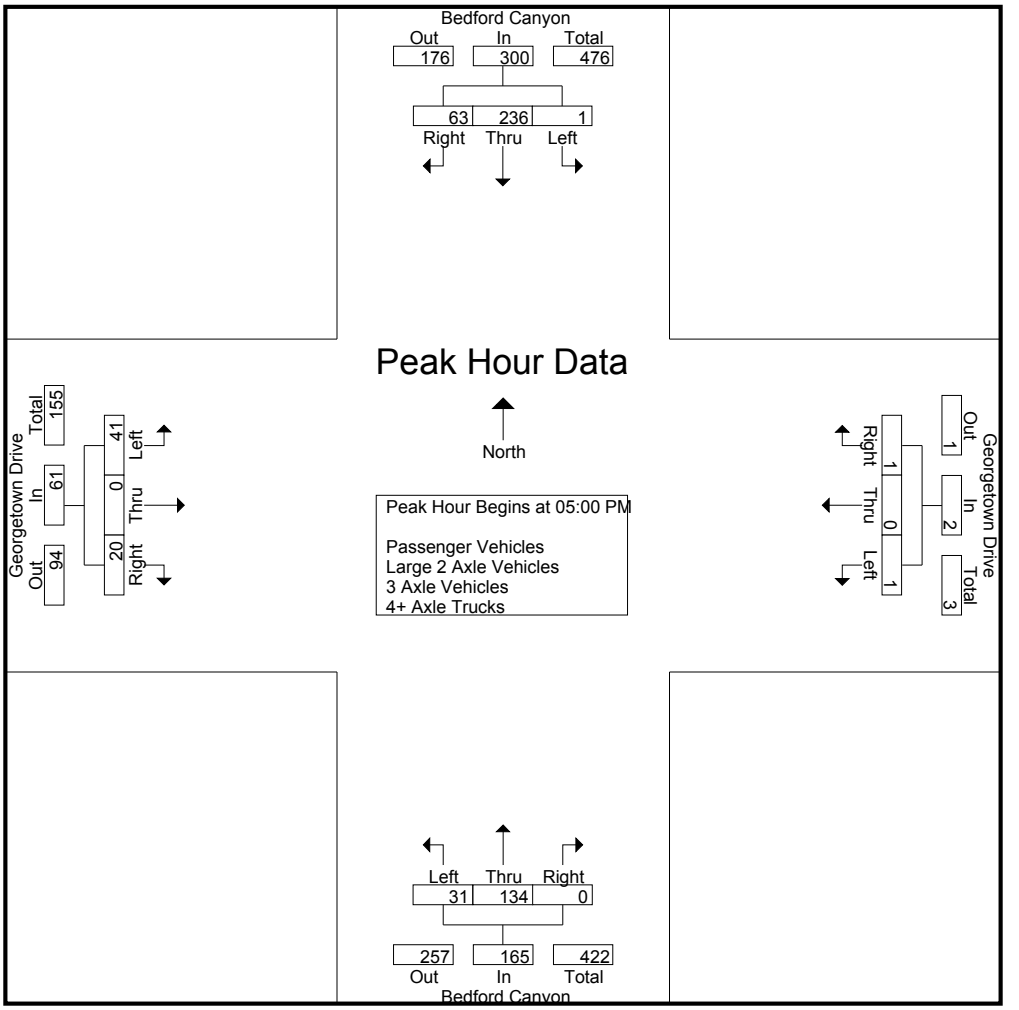

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	**64**	11	75	**1**	0	**1**	**2**	7	34	0	41	10	0	**10**	**20**
+15 mins.	0	63	11	74	0	0	1	1	7	28	0	35	9	0	3	12
+30 mins.	0	55	12	67	0	0	0	0	**9**	30	0	39	9	0	2	11
+45 mins.	**1**	64	**21**	**86**	0	0	0	0	8	**42**	0	**50**	**13**	0	5	18
Total Volume	1	246	55	302	1	0	2	3	31	134	0	165	41	0	20	61
% App. Total	0.3	81.5	18.2		33.3	0	66.7		18.8	81.2	0		67.2	0	32.8	
PHF	.250	.961	.655	.878	.250	.000	.500	.375	.861	.798	.000	.825	.788	.000	.500	.763

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City of Corona
N/S: Bedford Canyon
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Weather: Clear

File Name : CORBCGTPM
Site Code : 00000053
Start Date : 7/10/2014
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Groups Printed- Passenger Vehicles

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	36	11	47	1	0	1	2	10	35	0	45	7	1	8	16	110
04:15 PM	1	51	16	68	0	0	1	1	5	24	0	29	9	0	3	12	110
04:30 PM	0	48	12	60	0	0	0	0	9	28	0	37	6	0	6	12	109
04:45 PM	0	64	10	74	0	0	0	0	4	23	0	27	8	0	4	12	113
Total	1	199	49	249	1	0	2	3	28	110	0	138	30	1	21	52	442
05:00 PM	0	63	11	74	0	0	0	0	7	34	0	41	10	0	10	20	135
05:15 PM	0	54	12	66	0	0	0	0	7	28	0	35	9	0	3	12	113
05:30 PM	1	64	21	86	1	0	0	1	9	30	0	39	9	0	2	11	137
05:45 PM	0	53	19	72	0	0	0	0	7	42	0	49	13	0	5	18	139
Total	1	234	63	298	1	0	0	1	30	134	0	164	41	0	20	61	524
Grand Total	2	433	112	547	2	0	2	4	58	244	0	302	71	1	41	113	966
Apprch %	0.4	79.2	20.5		50	0	50		19.2	80.8	0		62.8	0.9	36.3		
Total %	0.2	44.8	11.6	56.6	0.2	0	0.2	0.4	6	25.3	0	31.3	7.3	0.1	4.2	11.7	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	63	11	74	0	0	0	0	7	34	0	41	10	0	**10**	**20**	135
05:15 PM	0	54	12	66	0	0	0	0	7	28	0	35	9	0	3	12	113
05:30 PM	**1**	**64**	**21**	**86**	**1**	0	0	**1**	**9**	30	0	39	9	0	2	11	137
05:45 PM	0	53	19	72	0	0	0	0	7	**42**	0	**49**	**13**	0	5	18	**139**
Total Volume	1	234	63	298	1	0	0	1	30	134	0	164	41	0	20	61	524
% App. Total	0.3	78.5	21.1		100	0	0		18.3	81.7	0		67.2	0	32.8		
PHF	.250	.914	.750	.866	.250	.000	.000	.250	.833	.798	.000	.837	.788	.000	.500	.763	.942

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City of Corona
N/S: Bedford Canyon
E/W: Georgetown Drive
Weather: Clear

File Name : CORBCGTPM
Site Code : 00000053
Start Date : 7/10/2014
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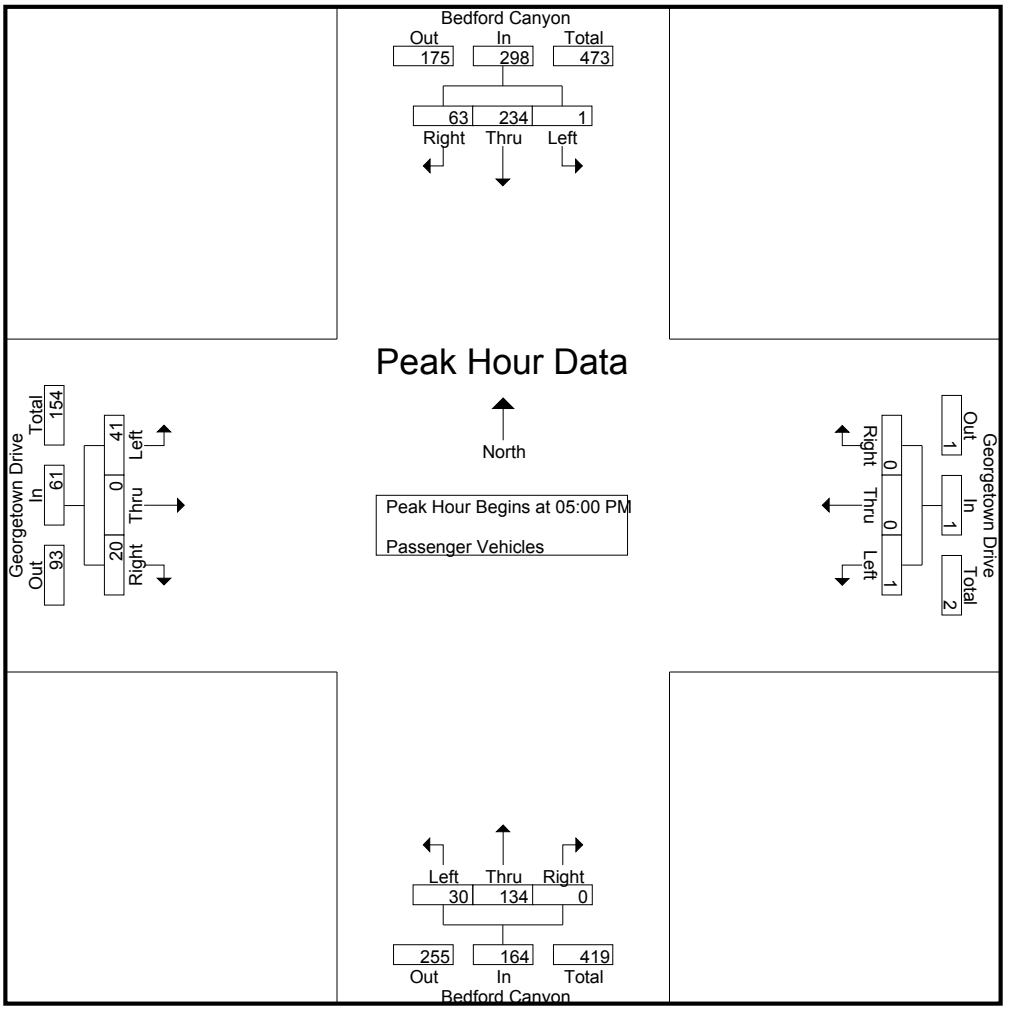

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	63	11	74	0	0	0	0	7	34	0	41	10	0	**10**	**20**
+15 mins.	0	54	12	66	0	0	0	0	7	28	0	35	9	0	3	12
+30 mins.	**1**	**64**	**21**	**86**	**1**	0	0	**1**	**9**	30	0	39	9	0	2	11
+45 mins.	0	53	19	72	0	0	0	0	7	**42**	0	**49**	**13**	0	5	18
Total Volume	1	234	63	298	1	0	0	1	30	134	0	164	41	0	20	61
% App. Total	0.3	78.5	21.1		100	0	0		18.3	81.7	0		67.2	0	32.8	
PHF	.250	.914	.750	.866	.250	.000	.000	.250	.833	.798	.000	.837	.788	.000	.500	.763

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Groups Printed- Large 2 Axle Vehicles

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	1	0	0	0	0	0	1	0	1	1	0	1	2	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	0	1	0	0	1	1	1	0	0	1	0	0	0	0	3
Total	0	1	0	1	0	0	1	1	1	0	0	1	0	0	0	0	3
Grand Total	0	1	1	2	0	0	1	1	1	1	0	2	1	0	1	2	7
Apprch %	0	50	50		0	0	100		50	50	0		50	0	50		
Total %	0	14.3	14.3	28.6	0	0	14.3	14.3	14.3	14.3	0	28.6	14.3	0	14.3	28.6	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	**1**	0	**1**	0	0	**1**	**1**	**1**	0	0	**1**	0	0	0	0	**3**
Total Volume	0	1	0	1	0	0	1	1	1	0	0	1	0	0	0	0	3
% App. Total	0	100	0		0	0	100		100	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.250	.000	.000	.250	.000	.000	.000	.000	.250

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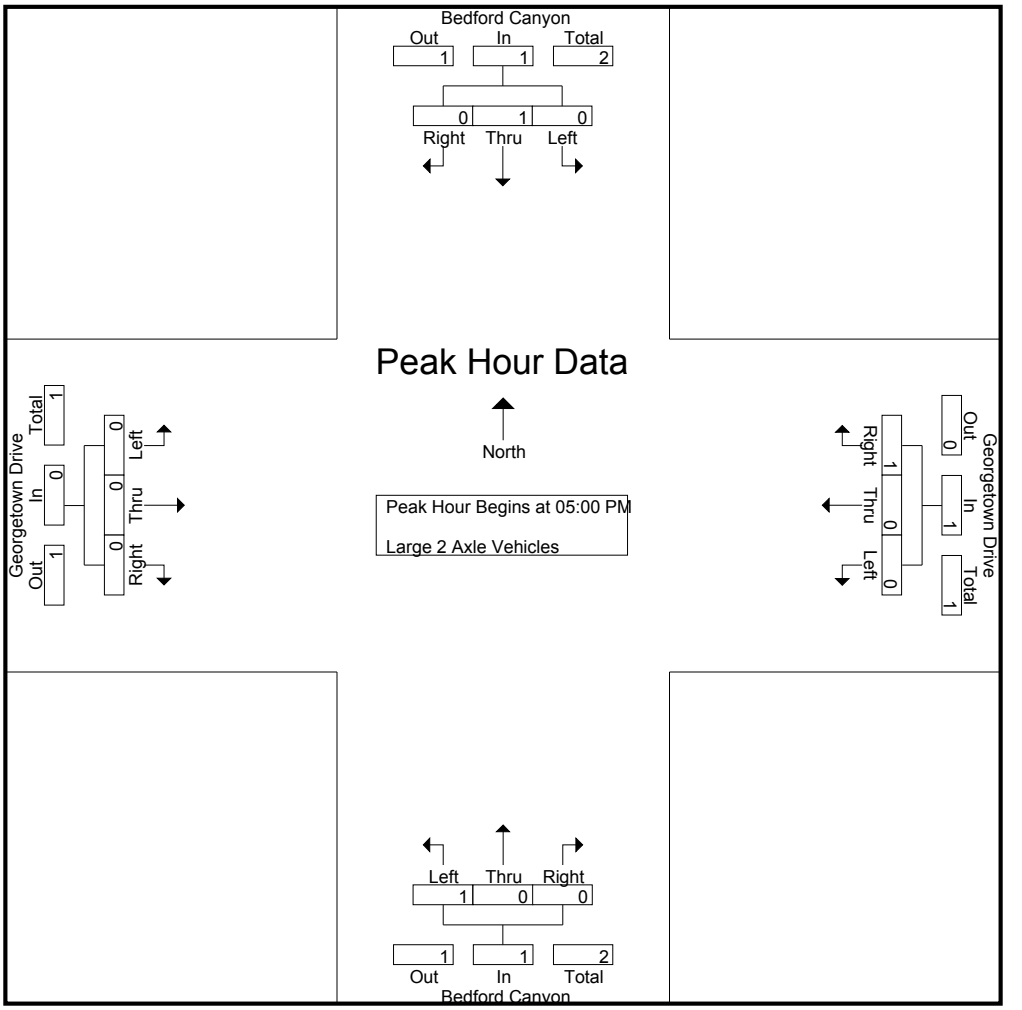

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	**1**	0	**1**	0	0	**1**	**1**	**1**	0	0	**1**	0	0	0	0
Total Volume	0	1	0	1	0	0	1	1	1	0	0	1	0	0	0	0
% App. Total	0	100	0		0	0	100		100	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.250	.000	.000	.250	.000	.000	.000	.000

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Groups Printed- 3 Axle Vehicles

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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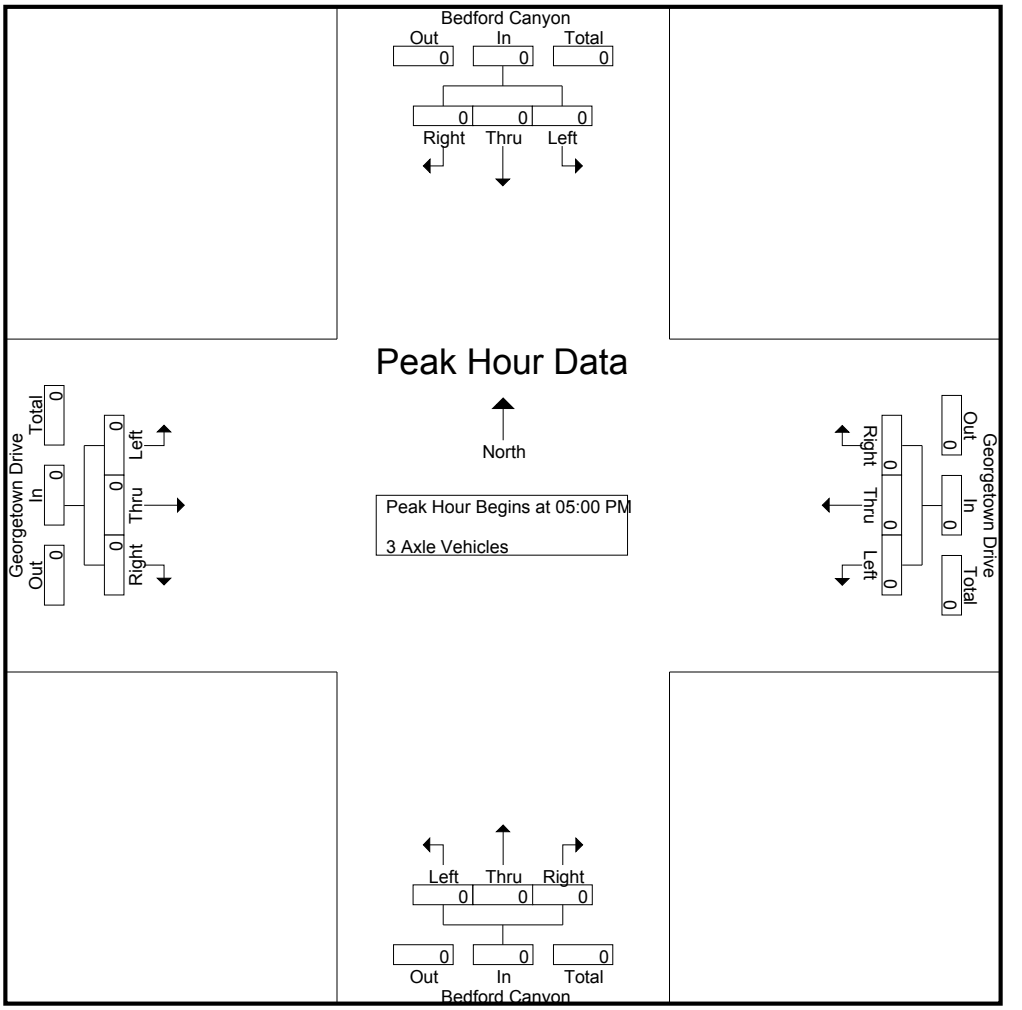

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0		
Total %	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Bedford Canyon Southbound				Georgetown Drive Westbound				Bedford Canyon Northbound				Georgetown Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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City of Corona
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File Name : CORBCGTPM
Site Code : 00000053
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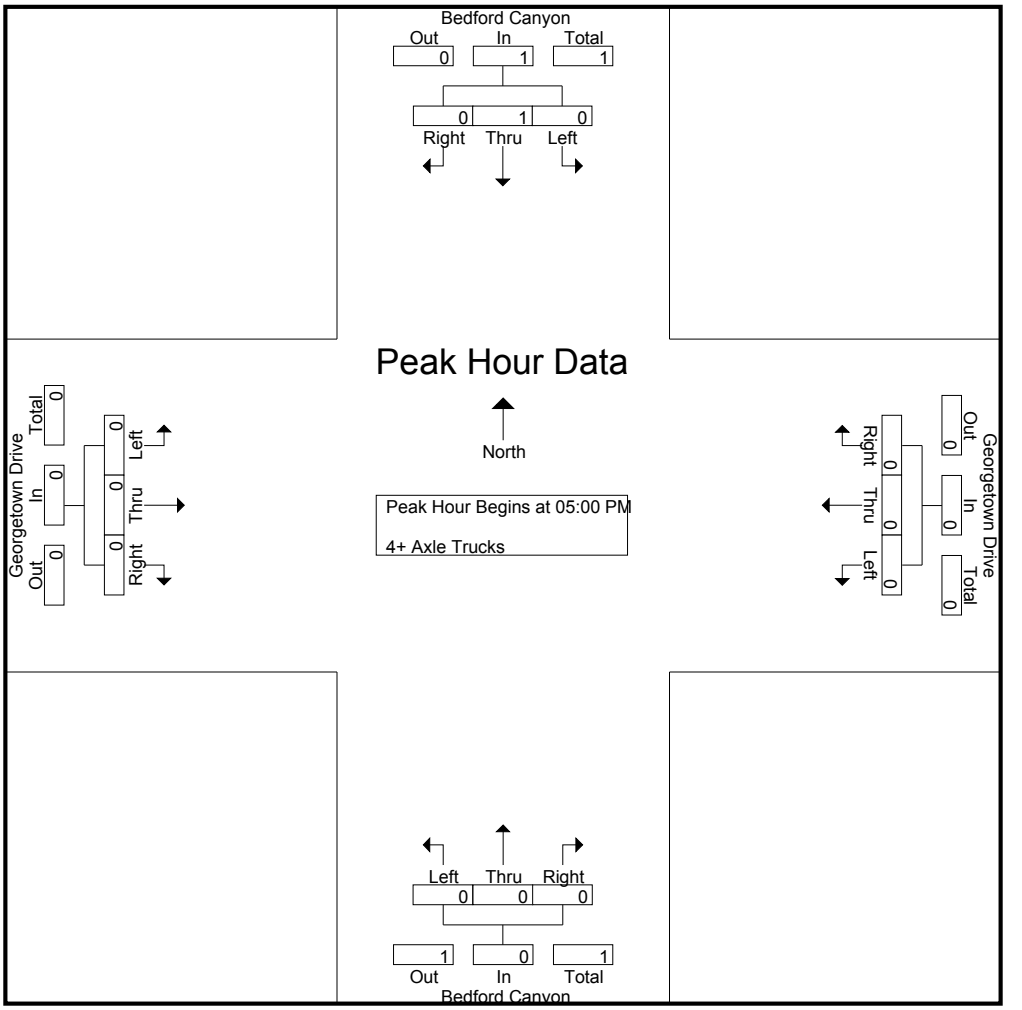

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: Bedford Canyon
E/W: Eagle Glen
Weather: Clear

File Name : CORBCEGAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Total Volume

	Bedford Canyon Southbound			Eagle Glen Westbound			Eagle Glen Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	21	5	26	31	16	47	6	55	61	134
06:45 AM	18	3	21	34	22	56	4	61	65	142
Total	39	8	47	65	38	103	10	116	126	276
07:00 AM	17	7	24	59	33	92	18	83	101	217
07:15 AM	35	11	46	52	65	117	30	110	140	303
07:30 AM	34	20	54	64	76	140	16	89	105	299
07:45 AM	37	11	48	51	27	78	10	73	83	209
Total	123	49	172	226	201	427	74	355	429	1028
08:00 AM	25	12	37	80	23	103	6	48	54	194
08:15 AM	38	17	55	110	23	133	19	101	120	308
Grand Total	225	86	311	481	285	766	109	620	729	1806
Apprch %	72.3	27.7		62.8	37.2		15	85		
Total %	12.5	4.8	17.2	26.6	15.8	42.4	6	34.3	40.4	

	Bedford Canyon Southbound			Eagle Glen Westbound			Eagle Glen Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	17	7	24	59	33	92	18	83	101	217
07:15 AM	35	11	46	52	65	117	**30**	**110**	**140**	**303**
07:30 AM	34	**20**	**54**	**64**	**76**	**140**	16	89	105	299
07:45 AM	**37**	11	48	51	27	78	10	73	83	209
Total Volume	123	49	172	226	201	427	74	355	429	1028
% App. Total	71.5	28.5		52.9	47.1		17.2	82.8		
PHF	.831	.613	.796	.883	.661	.763	.617	.807	.766	.848

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Weather: Clear

File Name : CORBCEGAM
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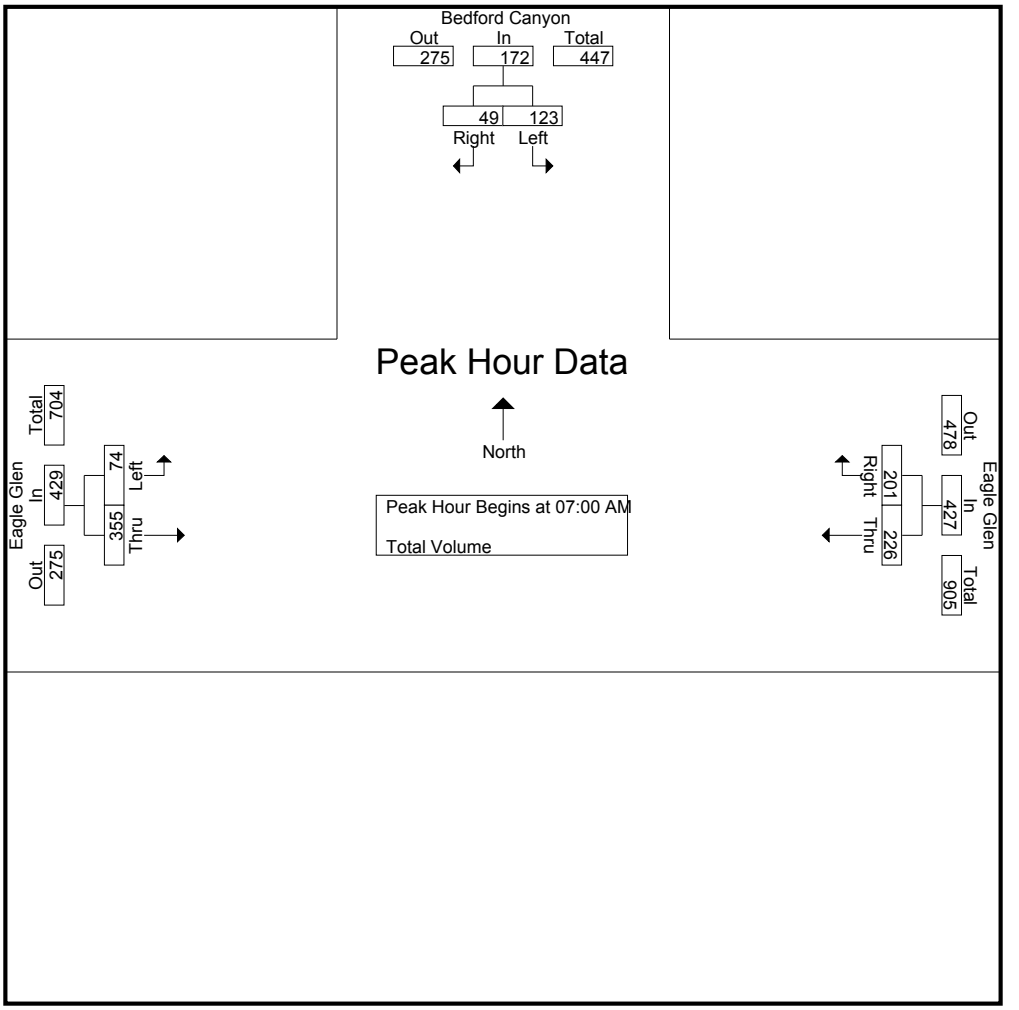

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:00 AM		
+0 mins.	34	**20**	54	64	**76**	**140**	18	83	101
+15 mins.	37	11	48	51	27	78	**30**	**110**	**140**
+30 mins.	25	12	37	80	23	103	16	89	105
+45 mins.	**38**	17	**55**	**110**	23	133	10	73	83
Total Volume	134	60	194	305	149	454	74	355	429
% App. Total	69.1	30.9		67.2	32.8		17.2	82.8	
PHF	.882	.750	.882	.693	.490	.811	.617	.807	.766

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City of Corona
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E/W: Eagle Glen
Weather: Clear

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Site Code : 05614031
Start Date : 2/4/2014
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Groups Printed- Total Volume

	Bedford Canyon Southbound			Eagle Glen Westbound			Eagle Glen Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	84	23	107	80	21	101	9	103	112	320
04:15 PM	67	18	85	77	14	91	12	91	103	279
04:30 PM	88	19	107	73	13	86	8	71	79	272
04:45 PM	77	21	98	90	14	104	11	111	122	324
Total	316	81	397	320	62	382	40	376	416	1195
05:00 PM	92	17	109	92	25	117	9	115	124	350
05:15 PM	91	21	112	77	23	100	14	101	115	327
05:30 PM	83	23	106	80	12	92	12	112	124	322
05:45 PM	103	31	134	75	17	92	7	95	102	328
Total	369	92	461	324	77	401	42	423	465	1327
Grand Total	685	173	858	644	139	783	82	799	881	2522
Apprch %	79.8	20.2		82.2	17.8		9.3	90.7		
Total %	27.2	6.9	34	25.5	5.5	31	3.3	31.7	34.9	

	Bedford Canyon Southbound			Eagle Glen Westbound			Eagle Glen Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	92	17	109	**92**	**25**	**117**	9	**115**	**124**	**350**
05:15 PM	91	21	112	77	23	100	**14**	101	115	327
05:30 PM	83	23	106	80	12	92	12	112	124	322
05:45 PM	**103**	**31**	**134**	75	17	92	7	95	102	328
Total Volume	369	92	461	324	77	401	42	423	465	1327
% App. Total	80	20		80.8	19.2		9	91		
PHF	.896	.742	.860	.880	.770	.857	.750	.920	.938	.948

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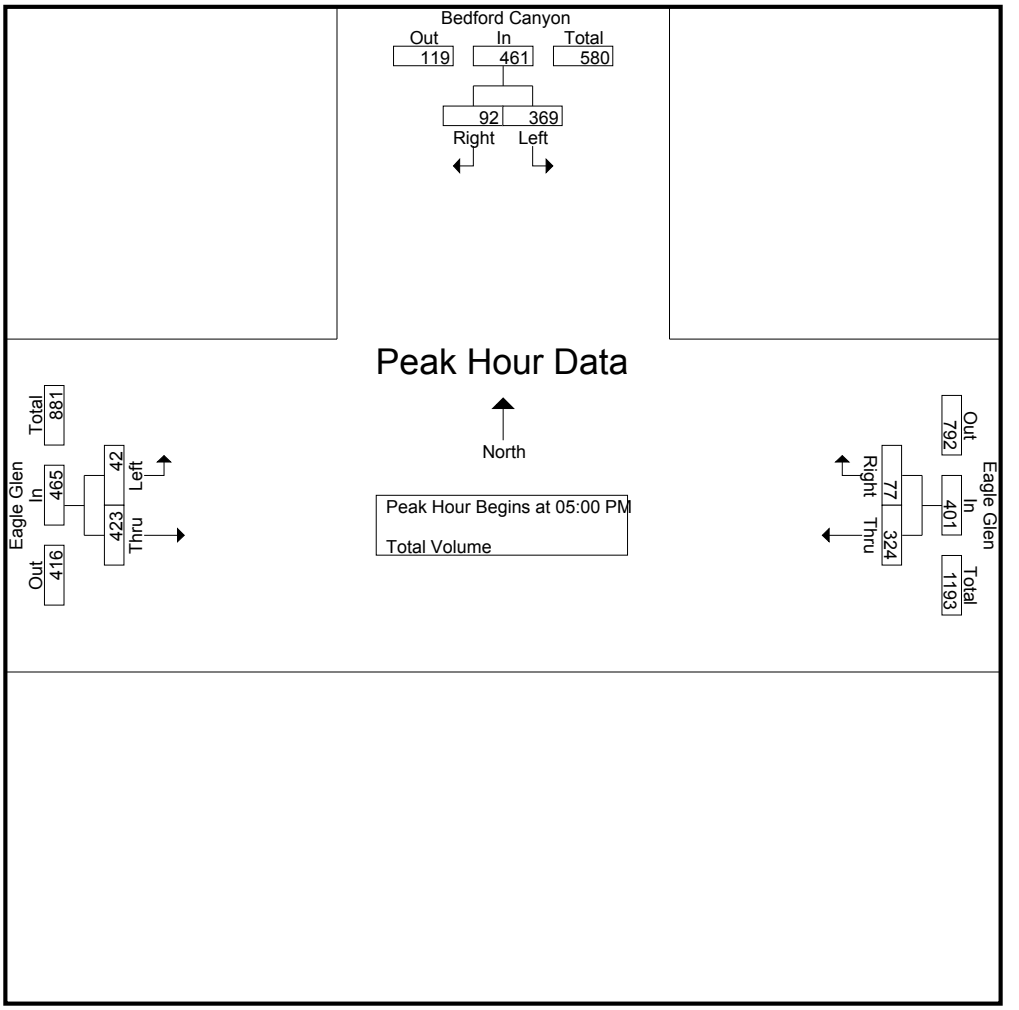
City of Corona
N/S: Bedford Canyon
E/W: Eagle Glen
Weather: Clear

File Name : CORBCEGPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:45 PM			04:45 PM		
+0 mins.	92	17	109	90	14	104	11	111	122
+15 mins.	91	21	112	**92**	**25**	**117**	9	**115**	**124**
+30 mins.	83	23	106	77	23	100	**14**	101	115
+45 mins.	**103**	**31**	**134**	80	12	92	12	112	124
Total Volume	369	92	461	339	74	413	46	439	485
% App. Total	80	20		82.1	17.9		9.5	90.5	
PHF	.896	.742	.860	.921	.740	.882	.821	.954	.978

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City of Corona
N/S: I-15 Southbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15SECAM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 1

Groups Printed- Total Volume

	I-15 Southbound Off Ramp Southbound				El Cerrito Road Westbound				I-15 Southbound On Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	2	1	15	18	5	62	0	67	0	0	0	0	0	94	19	113	198
06:45 AM	10	0	34	44	6	66	0	72	0	0	0	0	0	100	38	138	254
Total	12	1	49	62	11	128	0	139	0	0	0	0	0	194	57	251	452
07:00 AM	14	1	60	75	13	121	0	134	0	0	0	0	0	157	41	198	407
07:15 AM	35	0	80	115	51	185	0	236	0	0	0	0	0	204	57	261	612
07:30 AM	43	2	51	96	55	143	0	198	0	0	0	0	0	212	82	294	588
07:45 AM	13	1	25	39	18	79	0	97	0	0	0	0	0	120	67	187	323
Total	105	4	216	325	137	528	0	665	0	0	0	0	0	693	247	940	1930
08:00 AM	10	0	46	56	10	66	0	76	0	0	0	0	0	93	29	122	254
08:15 AM	10	3	36	49	14	84	0	98	0	0	0	0	0	101	44	145	292
Grand Total	137	8	347	492	172	806	0	978	0	0	0	0	0	1081	377	1458	2928
Apprch %	27.8	1.6	70.5		17.6	82.4	0		0	0	0		0	74.1	25.9		
Total %	4.7	0.3	11.9	16.8	5.9	27.5	0	33.4	0	0	0	0	0	36.9	12.9	49.8	

	I-15 Southbound Off Ramp Southbound				El Cerrito Road Westbound				I-15 Southbound On Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	14	1	60	75	13	121	0	134	0	0	0	0	0	157	41	198	407
07:15 AM	35	0	**80**	**115**	51	**185**	0	**236**	0	0	0	0	0	204	57	261	**612**
07:30 AM	**43**	**2**	51	96	**55**	143	0	198	0	0	0	0	0	**212**	**82**	**294**	588
07:45 AM	13	1	25	39	18	79	0	97	0	0	0	0	0	120	67	187	323
Total Volume	105	4	216	325	137	528	0	665	0	0	0	0	0	693	247	940	1930
% App. Total	32.3	1.2	66.5		20.6	79.4	0		0	0	0		0	73.7	26.3		
PHF	.610	.500	.675	.707	.623	.714	.000	.704	.000	.000	.000	.000	.000	.817	.753	.799	.788

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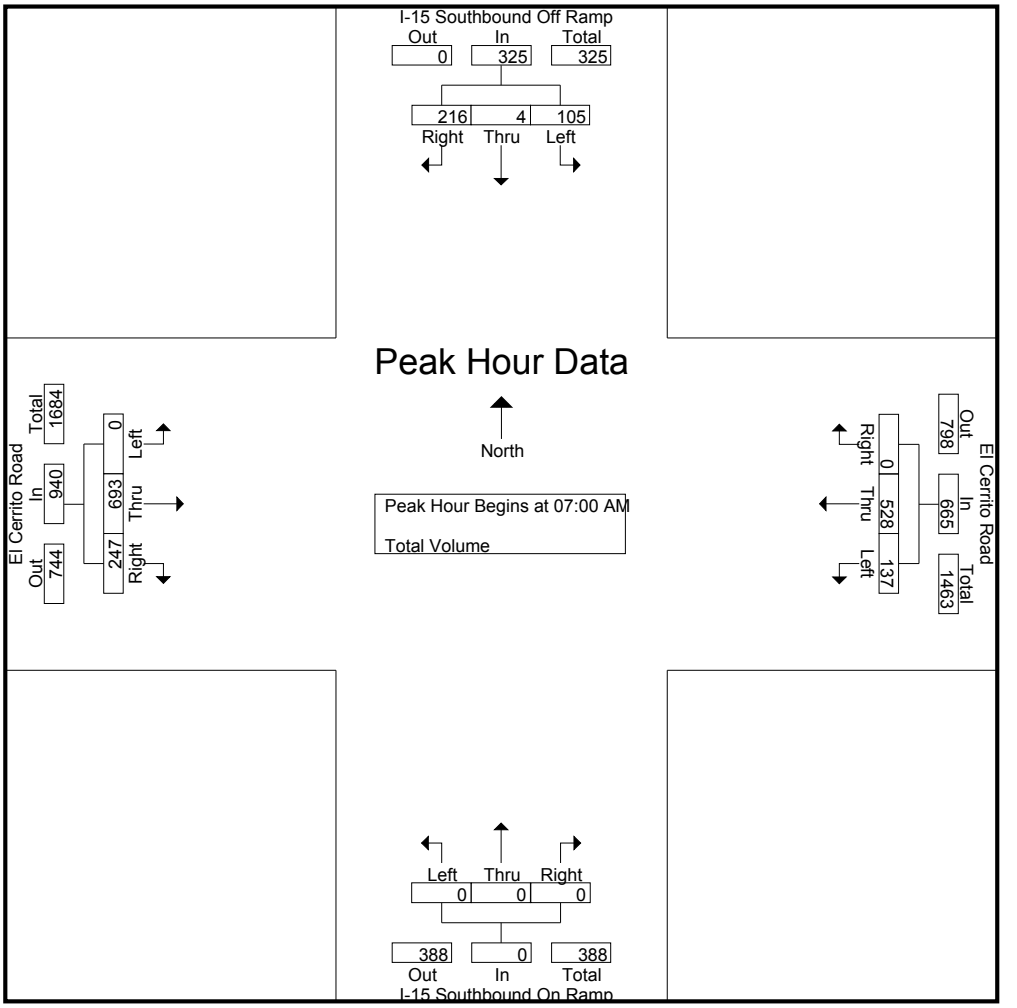
City of Corona
N/S: I-15 Southbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15SECAM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 2



Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:45 AM				07:00 AM				06:30 AM				07:00 AM			
+0 mins.	10	0	34	44	13	121	0	134	0	0	0	0	0	157	41	198
+15 mins.	14	1	60	75	51	**185**	0	**236**	0	0	0	0	0	204	57	261
+30 mins.	35	0	**80**	**115**	**55**	143	0	198	0	0	0	0	0	**212**	**82**	**294**
+45 mins.	**43**	**2**	51	96	18	79	0	97	0	0	0	0	0	120	67	187
Total Volume	102	3	225	330	137	528	0	665	0	0	0	0	0	693	247	940
% App. Total	30.9	0.9	68.2		20.6	79.4	0		0	0	0		0	73.7	26.3	
PHF	.593	.375	.703	.717	.623	.714	.000	.704	.000	.000	.000	.000	.000	.817	.753	.799

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City of Corona
N/S: I-15 Southbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15SECPM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 1

Groups Printed- Total Volume

	I-15 Southbound Off Ramp Southbound				El Cerrito Road Westbound				I-15 Southbound On Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	14	4	37	55	12	91	0	103	0	0	0	0	0	107	149	256	414
04:15 PM	20	0	39	59	8	79	0	87	0	0	0	0	0	99	166	265	411
04:30 PM	27	3	32	62	17	84	0	101	0	0	0	0	0	102	150	252	415
04:45 PM	22	6	53	81	10	97	0	107	0	0	0	0	1	114	178	293	481
Total	83	13	161	257	47	351	0	398	0	0	0	0	1	422	643	1066	1721
05:00 PM	35	5	30	70	17	126	0	143	0	0	0	0	0	100	166	266	479
05:15 PM	19	10	41	70	22	101	0	123	0	0	0	0	0	96	173	269	462
05:30 PM	51	6	62	119	13	93	0	106	0	0	0	0	0	114	178	292	517
05:45 PM	36	14	59	109	25	92	0	117	0	0	0	0	0	127	150	277	503
Total	141	35	192	368	77	412	0	489	0	0	0	0	0	437	667	1104	1961
Grand Total	224	48	353	625	124	763	0	887	0	0	0	0	1	859	1310	2170	3682
Apprch %	35.8	7.7	56.5		14	86	0		0	0	0		0	39.6	60.4		
Total %	6.1	1.3	9.6	17	3.4	20.7	0	24.1	0	0	0	0	0	23.3	35.6	58.9	

	I-15 Southbound Off Ramp Southbound				El Cerrito Road Westbound				I-15 Southbound On Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	35	5	30	70	17	**126**	0	**143**	0	0	0	0	0	100	166	266	479
05:15 PM	19	10	41	70	22	101	0	123	0	0	0	0	0	96	173	269	462
05:30 PM	**51**	6	**62**	**119**	13	93	0	106	0	0	0	0	0	114	**178**	**292**	**517**
05:45 PM	36	**14**	59	109	**25**	92	0	117	0	0	0	0	0	**127**	150	277	503
Total Volume	141	35	192	368	77	412	0	489	0	0	0	0	0	437	667	1104	1961
% App. Total	38.3	9.5	52.2		15.7	84.3	0		0	0	0		0	39.6	60.4		
PHF	.691	.625	.774	.773	.770	.817	.000	.855	.000	.000	.000	.000	.000	.860	.937	.945	.948

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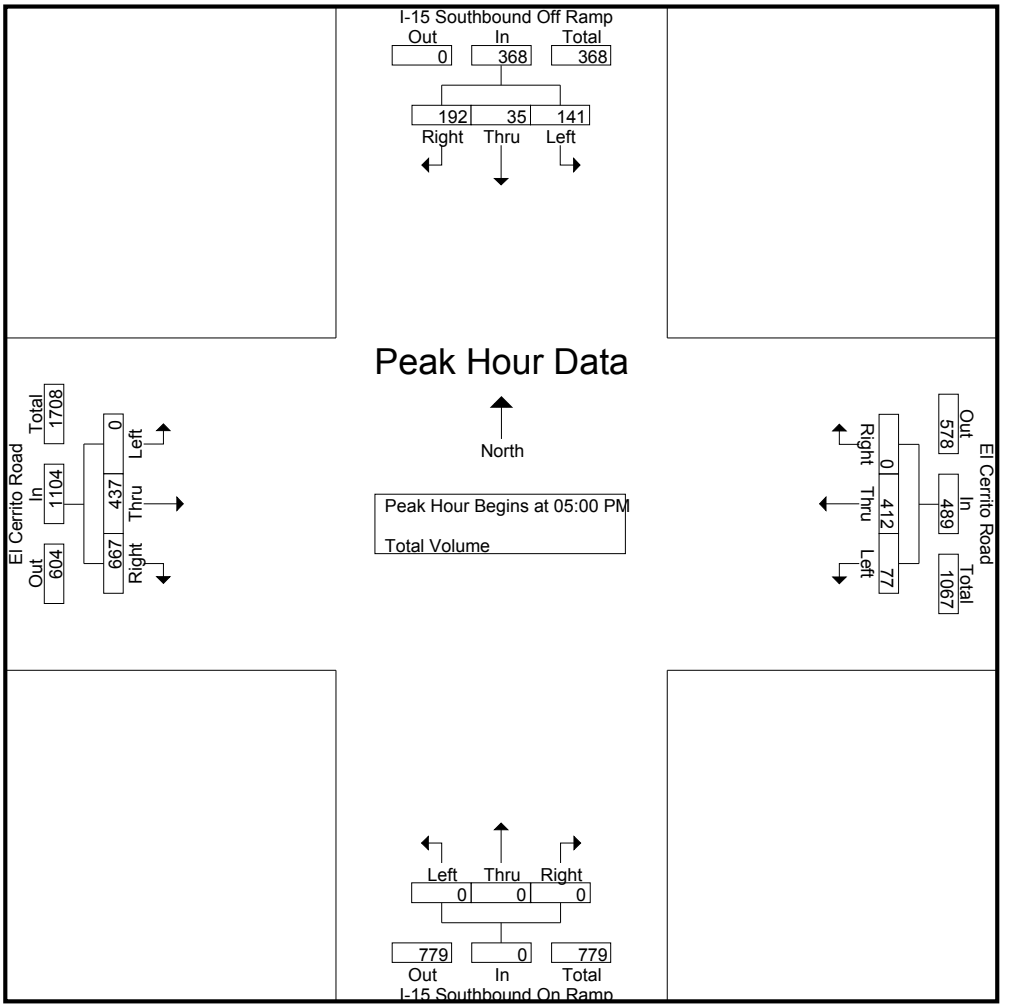
City of Corona
N/S: I-15 Southbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15SECPM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				04:00 PM				04:45 PM			
+0 mins.	35	5	30	70	17	**126**	0	**143**	0	0	0	0	**1**	**114**	**178**	**293**
+15 mins.	19	10	41	70	22	101	0	123	0	0	0	0	0	100	166	266
+30 mins.	**51**	6	**62**	**119**	13	93	0	106	0	0	0	0	0	96	173	269
+45 mins.	36	**14**	59	109	**25**	92	0	117	0	0	0	0	0	114	178	292
Total Volume	141	35	192	368	77	412	0	489	0	0	0	0	1	424	695	1120
% App. Total	38.3	9.5	52.2		15.7	84.3	0		0	0	0		0.1	37.9	62.1	
PHF	.691	.625	.774	.773	.770	.817	.000	.855	.000	.000	.000	.000	.250	.930	.976	.956

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	54	24	78	41	15	56	15	58	73	207
06:45 AM	77	25	102	47	13	60	15	62	77	239
Total	131	49	180	88	28	116	30	120	150	446
07:00 AM	64	38	102	75	21	96	16	92	108	306
07:15 AM	66	30	96	120	13	133	26	122	148	377
07:30 AM	74	58	132	111	22	133	29	98	127	392
07:45 AM	93	47	140	60	12	72	28	90	118	330
Total	297	173	470	366	68	434	99	402	501	1405
08:00 AM	69	56	125	75	17	92	26	54	80	297
08:15 AM	67	80	147	86	17	103	42	91	133	383
Grand Total	564	358	922	615	130	745	197	667	864	2531
Apprch %	61.2	38.8		82.6	17.4		22.8	77.2		
Total %	22.3	14.1	36.4	24.3	5.1	29.4	7.8	26.4	34.1	
Passenger Vehicles	465	341	806	601	117	718	189	654	843	2367
% Passenger Vehicles	82.4	95.3	87.4	97.7	90	96.4	95.9	98.1	97.6	93.5
Large 2 Axle Vehicles	27	12	39	13	6	19	8	7	15	73
% Large 2 Axle Vehicles	4.8	3.4	4.2	2.1	4.6	2.6	4.1	1	1.7	2.9
3 Axle Vehicles	6	1	7	0	0	0	0	0	0	7
% 3 Axle Vehicles	1.1	0.3	0.8	0	0	0	0	0	0	0.3
4+ Axle Trucks	66	4	70	1	7	8	0	6	6	84
% 4+ Axle Trucks	11.7	1.1	7.6	0.2	5.4	1.1	0	0.9	0.7	3.3

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	64	38	102	75	21	96	16	92	108	306
07:15 AM	66	30	96	**120**	13	**133**	26	**122**	**148**	377
07:30 AM	74	**58**	132	111	**22**	133	**29**	98	127	**392**
07:45 AM	**93**	47	**140**	60	12	72	28	90	118	330
Total Volume	297	173	470	366	68	434	99	402	501	1405
% App. Total	63.2	36.8		84.3	15.7		19.8	80.2		
PHF	.798	.746	.839	.763	.773	.816	.853	.824	.846	.896

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
Start Date : 2/4/2014
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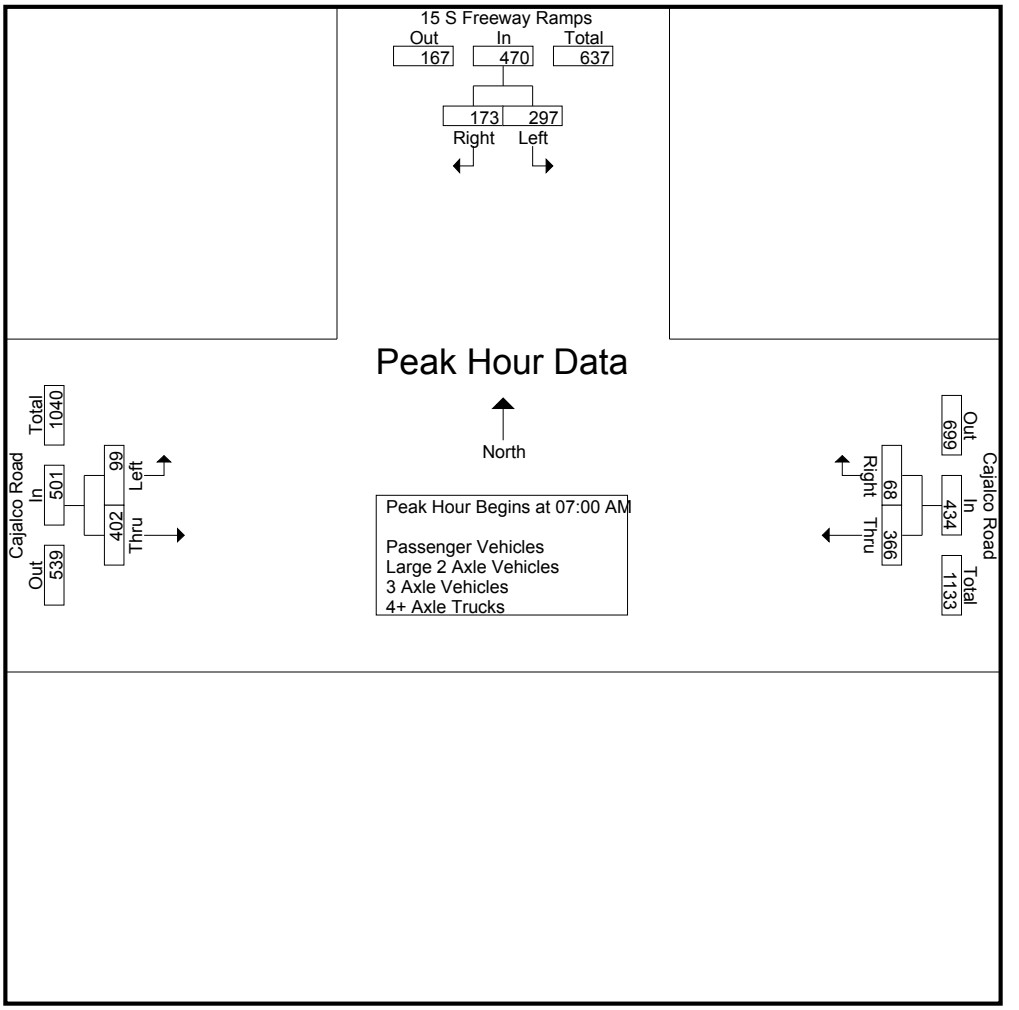

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:00 AM		
+0 mins.	74	58	132	75	21	96	16	92	108
+15 mins.	**93**	47	140	**120**	13	**133**	26	**122**	**148**
+30 mins.	69	56	125	111	**22**	133	**29**	98	127
+45 mins.	67	**80**	**147**	60	12	72	28	90	118
Total Volume	303	241	544	366	68	434	99	402	501
% App. Total	55.7	44.3		84.3	15.7		19.8	80.2	
PHF	.815	.753	.925	.763	.773	.816	.853	.824	.846

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Passenger Vehicles

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	43	21	64	39	13	52	15	58	73	189
06:45 AM	65	24	89	45	11	56	15	60	75	220
Total	108	45	153	84	24	108	30	118	148	409
07:00 AM	60	36	96	74	17	91	15	91	106	293
07:15 AM	54	28	82	120	12	132	26	121	147	361
07:30 AM	60	56	116	111	22	133	27	97	124	373
07:45 AM	67	45	112	59	12	71	26	88	114	297
Total	241	165	406	364	63	427	94	397	491	1324
08:00 AM	60	53	113	71	14	85	25	52	77	275
08:15 AM	56	78	134	82	16	98	40	87	127	359
Grand Total	465	341	806	601	117	718	189	654	843	2367
Apprch %	57.7	42.3		83.7	16.3		22.4	77.6		
Total %	19.6	14.4	34.1	25.4	4.9	30.3	8	27.6	35.6	

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	60	36	96	74	17	91	15	91	106	293
07:15 AM	54	28	82	**120**	12	132	26	**121**	**147**	361
07:30 AM	60	**56**	**116**	111	**22**	**133**	**27**	97	124	**373**
07:45 AM	**67**	45	112	59	12	71	26	88	114	297
Total Volume	241	165	406	364	63	427	94	397	491	1324
% App. Total	59.4	40.6		85.2	14.8		19.1	80.9		
PHF	.899	.737	.875	.758	.716	.803	.870	.820	.835	.887

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
Start Date : 2/4/2014
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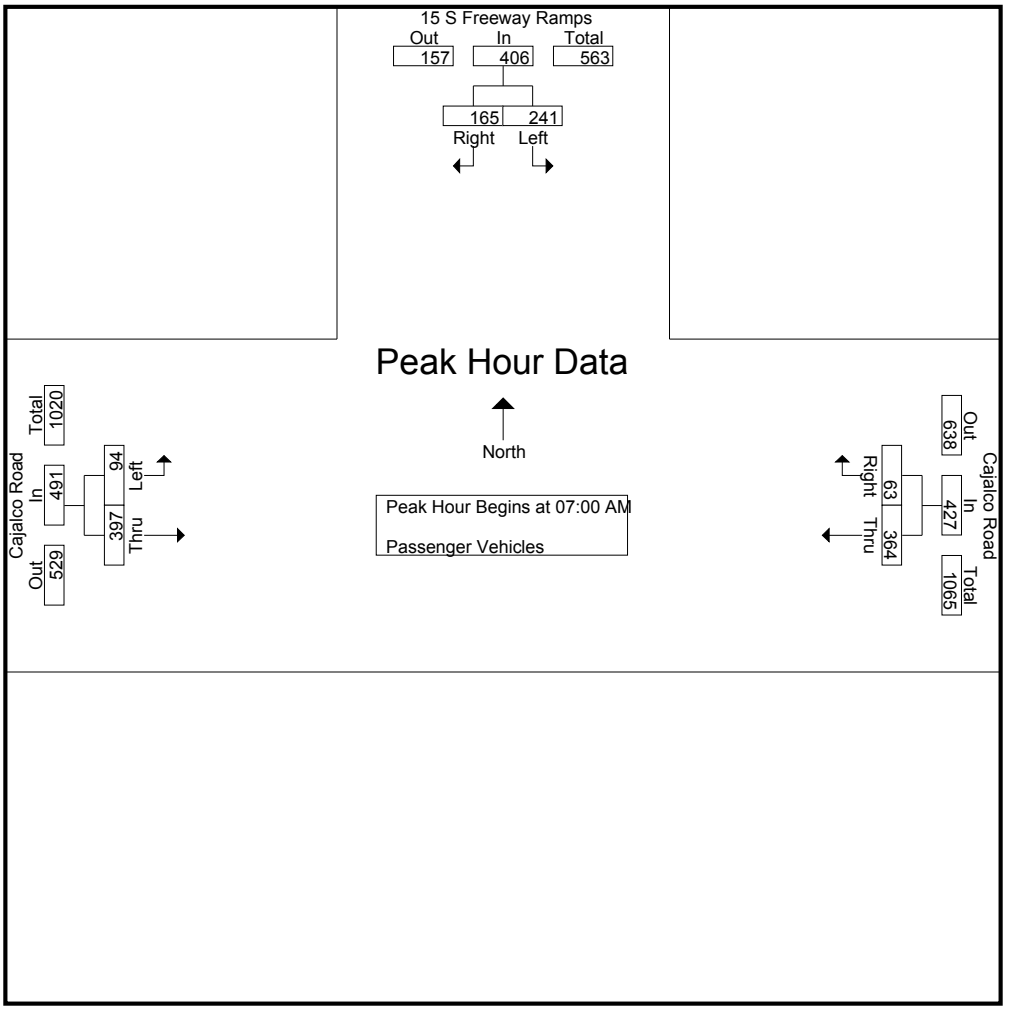

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	60	36	96	74	17	91	15	91	106
+15 mins.	54	28	82	**120**	12	132	26	**121**	**147**
+30 mins.	60	**56**	**116**	111	**22**	**133**	**27**	97	124
+45 mins.	**67**	45	112	59	12	71	26	88	114
Total Volume	241	165	406	364	63	427	94	397	491
% App. Total	59.4	40.6		85.2	14.8		19.1	80.9	
PHF	.899	.737	.875	.758	.716	.803	.870	.820	.835

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	4	1	5	1	1	2	0	0	0	7
06:45 AM	4	1	5	2	2	4	0	0	0	9
Total	8	2	10	3	3	6	0	0	0	16
07:00 AM	3	2	5	1	0	1	1	1	2	8
07:15 AM	5	2	7	0	1	1	0	0	0	8
07:30 AM	3	2	5	0	0	0	2	1	3	8
07:45 AM	4	0	4	1	0	1	2	1	3	8
Total	15	6	21	2	1	3	5	3	8	32
08:00 AM	2	3	5	4	2	6	1	1	2	13
08:15 AM	2	1	3	4	0	4	2	3	5	12
Grand Total	27	12	39	13	6	19	8	7	15	73
Apprch %	69.2	30.8		68.4	31.6		53.3	46.7		
Total %	37	16.4	53.4	17.8	8.2	26	11	9.6	20.5	

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	3	**2**	5	**1**	0	**1**	1	**1**	2	**8**
07:15 AM	**5**	2	**7**	0	**1**	1	0	0	0	8
07:30 AM	3	2	5	0	0	0	**2**	1	**3**	8
07:45 AM	4	0	4	1	0	1	2	1	3	8
Total Volume	15	6	21	2	1	3	5	3	8	32
% App. Total	71.4	28.6		66.7	33.3		62.5	37.5		
PHF	.750	.750	.750	.500	.250	.750	.625	.750	.667	1.00

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
Start Date : 2/4/2014
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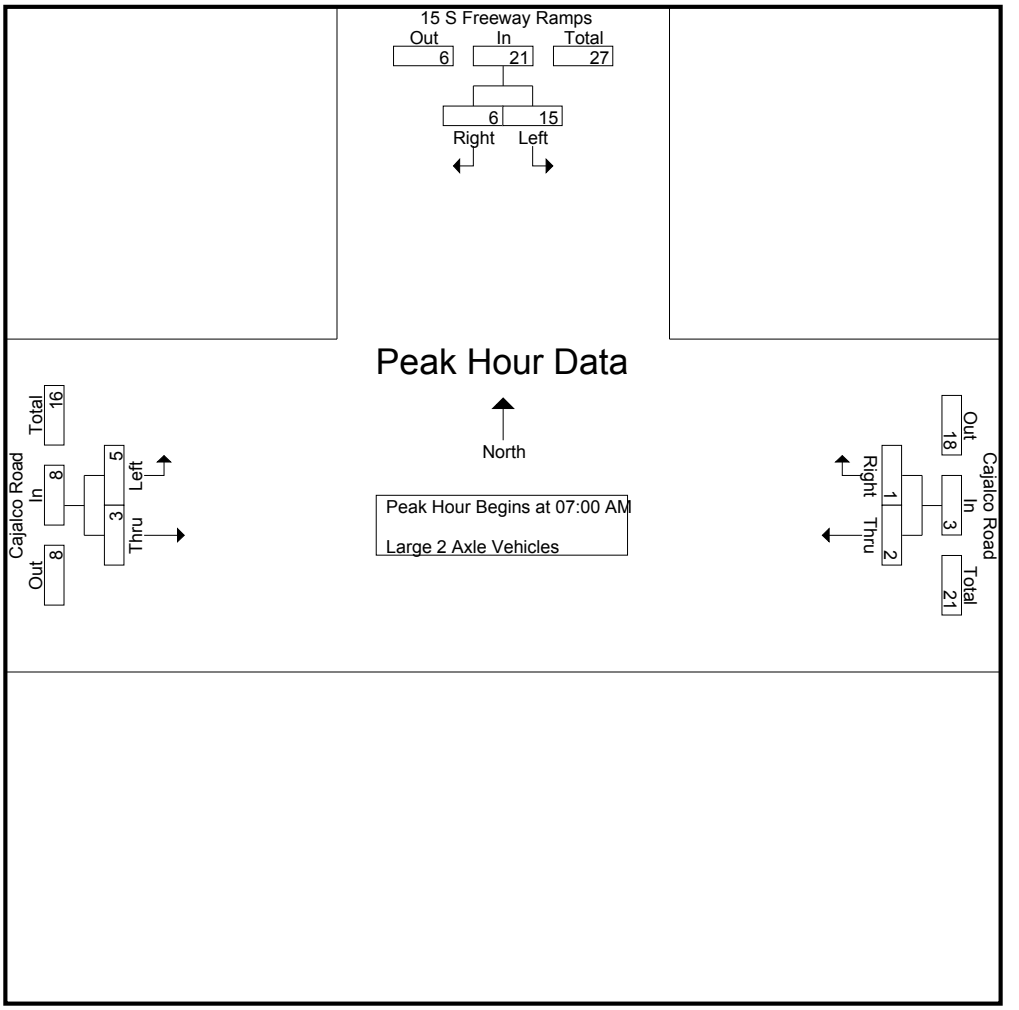

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	3	**2**	5	**1**	0	**1**	1	**1**	2
+15 mins.	**5**	2	**7**	0	**1**	1	0	0	0
+30 mins.	3	2	5	0	0	0	**2**	1	**3**
+45 mins.	4	0	4	1	0	1	2	1	3
Total Volume	15	6	21	2	1	3	5	3	8
% App. Total	71.4	28.6		66.7	33.3		62.5	37.5	
PHF	.750	.750	.750	.500	.250	.750	.625	.750	.667

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
Start Date : 2/4/2014
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Groups Printed- 3 Axle Vehicles

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	2	0	2	0	0	0	0	0	0	2
06:45 AM	0	0	0	0	0	0	0	0	0	0
Total	2	0	2	0	0	0	0	0	0	2
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	3	0	3	0	0	0	0	0	0	3
Total	4	0	4	0	0	0	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	1	0	0	0	0	0	0	1
Grand Total	6	1	7	0	0	0	0	0	0	7
Apprch %	85.7	14.3		0	0		0	0		
Total %	85.7	14.3	100	0	0	0	0	0	0	

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	**3**	0	**3**	0	0	0	0	0	0	**3**
Total Volume	4	0	4	0	0	0	0	0	0	4
% App. Total	100	0		0	0		0	0		
PHF	.333	.000	.333	.000	.000	.000	.000	.000	.000	.333

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
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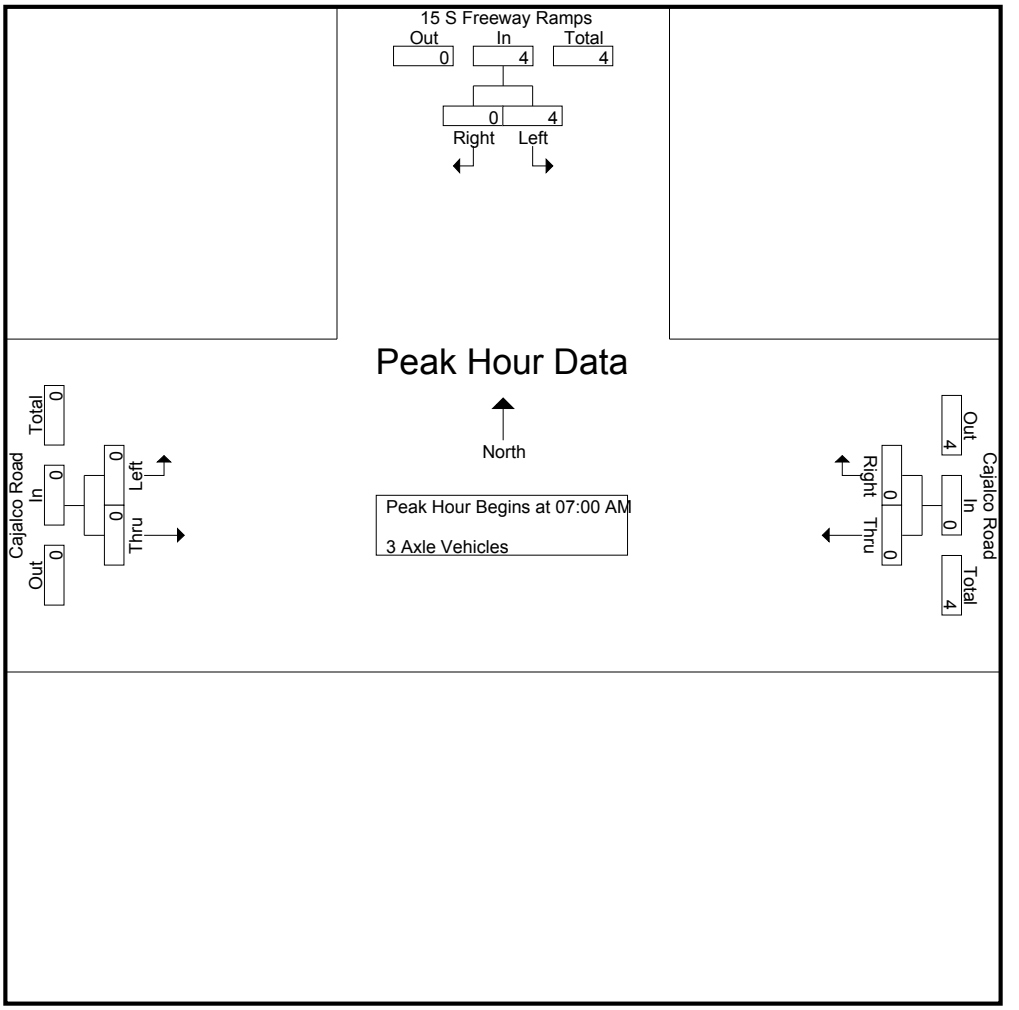

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	**3**	0	**3**	0	0	0	0	0	0
Total Volume	4	0	4	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.333	.000	.333	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAAM
Site Code : 05614031
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Groups Printed- 4+ Axle Trucks

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	5	2	7	1	1	2	0	0	0	9
06:45 AM	8	0	8	0	0	0	0	2	2	10
Total	13	2	15	1	1	2	0	2	2	19
07:00 AM	1	0	1	0	4	4	0	0	0	5
07:15 AM	7	0	7	0	0	0	0	1	1	8
07:30 AM	10	0	10	0	0	0	0	0	0	10
07:45 AM	19	2	21	0	0	0	0	1	1	22
Total	37	2	39	0	4	4	0	2	2	45
08:00 AM	7	0	7	0	1	1	0	1	1	9
08:15 AM	9	0	9	0	1	1	0	1	1	11
Grand Total	66	4	70	1	7	8	0	6	6	84
Apprch %	94.3	5.7		12.5	87.5		0	100		
Total %	78.6	4.8	83.3	1.2	8.3	9.5	0	7.1	7.1	

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	0	1	0	**4**	**4**	0	0	0	5
07:15 AM	7	0	7	0	0	0	0	**1**	**1**	8
07:30 AM	10	0	10	0	0	0	0	0	0	10
07:45 AM	**19**	**2**	**21**	0	0	0	0	1	1	**22**
Total Volume	37	2	39	0	4	4	0	2	2	45
% App. Total	94.9	5.1		0	100		0	100		
PHF	.487	.250	.464	.000	.250	.250	.000	.500	.500	.511

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City of Corona
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File Name : COR15SCAAM
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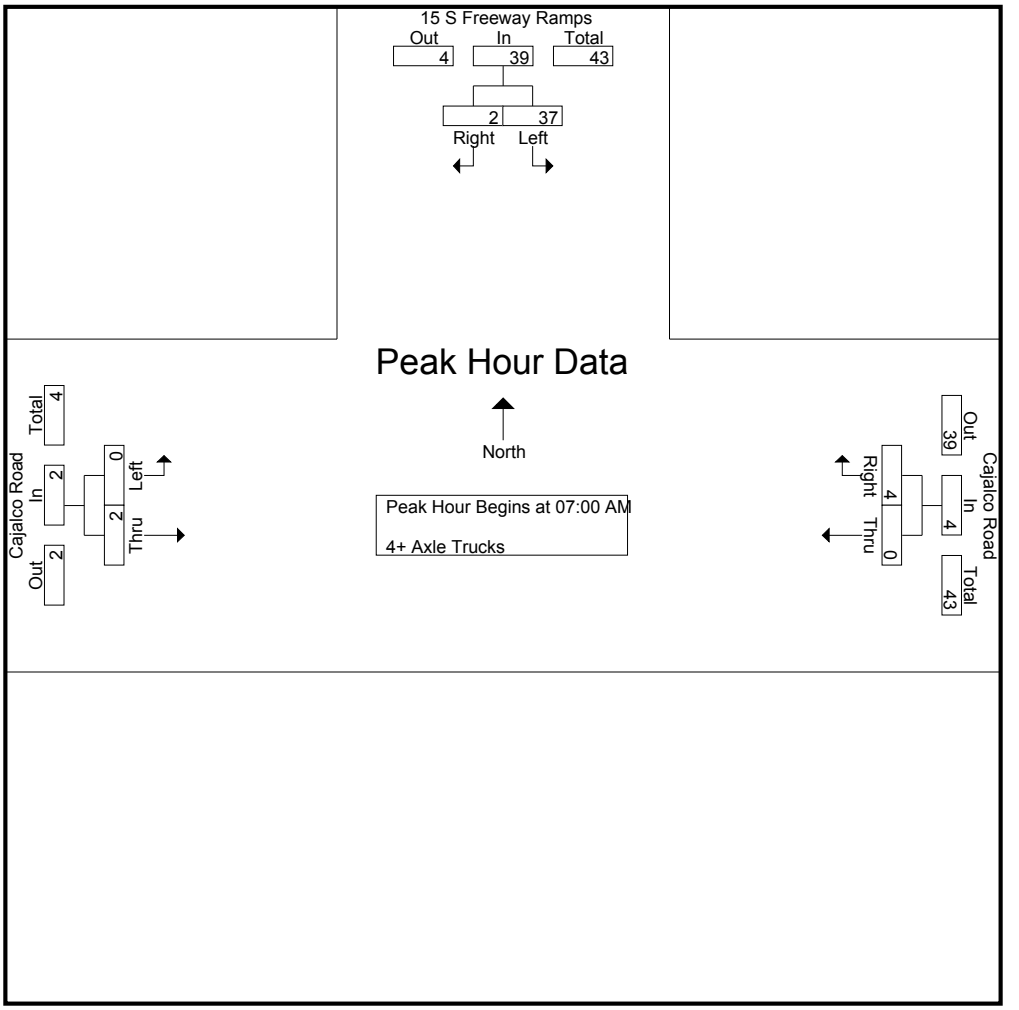

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	0	1	0	**4**	**4**	0	0	0
+15 mins.	7	0	7	0	0	0	0	**1**	**1**
+30 mins.	10	0	10	0	0	0	0	0	0
+45 mins.	**19**	**2**	**21**	0	0	0	0	1	1
Total Volume	37	2	39	0	4	4	0	2	2
% App. Total	94.9	5.1		0	100		0	100	
PHF	.487	.250	.464	.000	.250	.250	.000	.500	.500

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAPM
Site Code : 05614031
Start Date : 2/4/2014
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	124	75	199	90	43	133	67	110	177	509
04:15 PM	118	56	174	79	65	144	61	100	161	479
04:30 PM	117	57	174	92	61	153	52	102	154	481
04:45 PM	127	77	204	74	75	149	61	113	174	527
Total	486	265	751	335	244	579	241	425	666	1996
05:00 PM	150	52	202	103	51	154	65	131	196	552
05:15 PM	110	59	169	100	66	166	79	114	193	528
05:30 PM	132	72	204	84	61	145	70	114	184	533
05:45 PM	111	62	173	102	44	146	67	128	195	514
Total	503	245	748	389	222	611	281	487	768	2127
Grand Total	989	510	1499	724	466	1190	522	912	1434	4123
Apprch %	66	34		60.8	39.2		36.4	63.6		
Total %	24	12.4	36.4	17.6	11.3	28.9	12.7	22.1	34.8	
Passenger Vehicles	979	508	1487	718	465	1183	519	907	1426	4096
% Passenger Vehicles	99	99.6	99.2	99.2	99.8	99.4	99.4	99.5	99.4	99.3
Large 2 Axle Vehicles	4	1	5	6	0	6	3	5	8	19
% Large 2 Axle Vehicles	0.4	0.2	0.3	0.8	0	0.5	0.6	0.5	0.6	0.5
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	6	1	7	0	1	1	0	0	0	8
% 4+ Axle Trucks	0.6	0.2	0.5	0	0.2	0.1	0	0	0	0.2

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	127	**77**	**204**	74	**75**	149	61	113	174	527
05:00 PM	**150**	52	202	**103**	51	154	65	**131**	**196**	**552**
05:15 PM	110	59	169	100	66	**166**	**79**	114	193	528
05:30 PM	132	72	204	84	61	145	70	114	184	533
Total Volume	519	260	779	361	253	614	275	472	747	2140
% App. Total	66.6	33.4		58.8	41.2		36.8	63.2		
PHF	.865	.844	.955	.876	.843	.925	.870	.901	.953	.969

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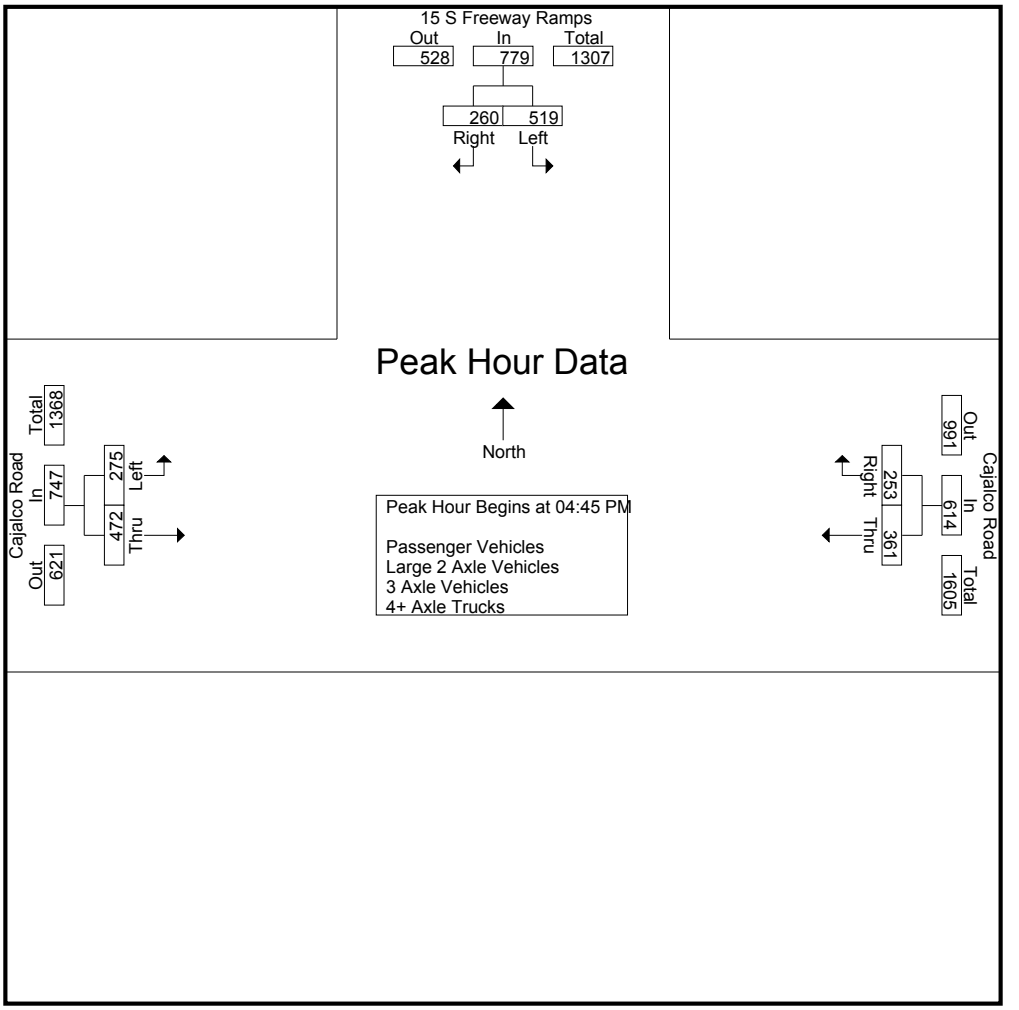

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:30 PM			05:00 PM		
+0 mins.	127	**77**	**204**	92	61	153	65	**131**	**196**
+15 mins.	**150**	52	202	74	**75**	149	**79**	114	193
+30 mins.	110	59	169	**103**	51	154	70	114	184
+45 mins.	132	72	204	100	66	**166**	67	128	195
Total Volume	519	260	779	369	253	622	281	487	768
% App. Total	66.6	33.4		59.3	40.7		36.6	63.4	
PHF	.865	.844	.955	.896	.843	.937	.889	.929	.980

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City of Corona
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E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAPM
Site Code : 05614031
Start Date : 2/4/2014
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Groups Printed- Passenger Vehicles

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	122	74	196	89	42	131	67	110	177	504
04:15 PM	115	56	171	79	65	144	60	99	159	474
04:30 PM	116	57	173	91	61	152	52	102	154	479
04:45 PM	127	77	204	74	75	149	61	112	173	526
Total	480	264	744	333	243	576	240	423	663	1983
05:00 PM	150	51	201	102	51	153	65	130	195	549
05:15 PM	106	59	165	99	66	165	77	114	191	521
05:30 PM	132	72	204	83	61	144	70	114	184	532
05:45 PM	111	62	173	101	44	145	67	126	193	511
Total	499	244	743	385	222	607	279	484	763	2113
Grand Total	979	508	1487	718	465	1183	519	907	1426	4096
Apprch %	65.8	34.2		60.7	39.3		36.4	63.6		
Total %	23.9	12.4	36.3	17.5	11.4	28.9	12.7	22.1	34.8	

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	127	**77**	**204**	74	**75**	149	61	112	173	526
05:00 PM	**150**	51	201	**102**	51	153	65	**130**	**195**	**549**
05:15 PM	106	59	165	99	66	**165**	**77**	114	191	521
05:30 PM	132	72	204	83	61	144	70	114	184	532
Total Volume	515	259	774	358	253	611	273	470	743	2128
% App. Total	66.5	33.5		58.6	41.4		36.7	63.3		
PHF	.858	.841	.949	.877	.843	.926	.886	.904	.953	.969

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City of Corona
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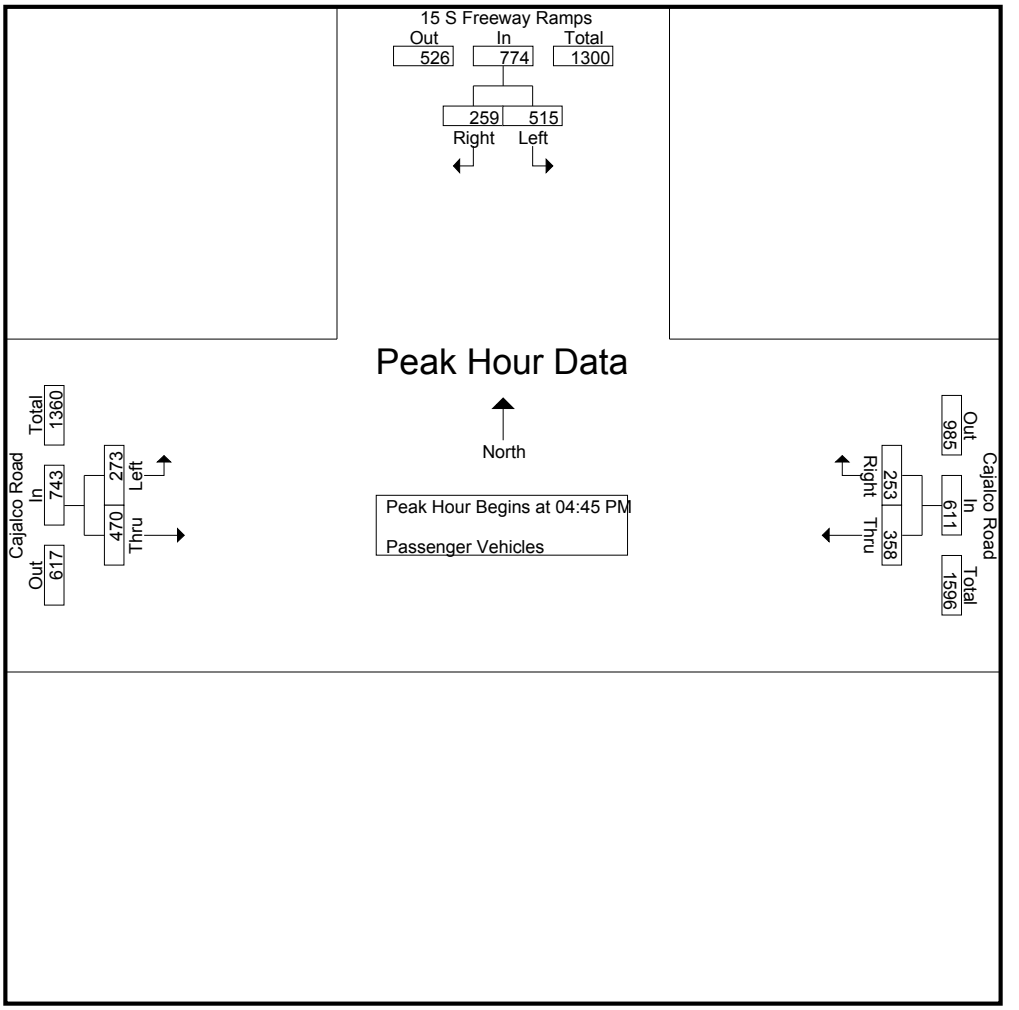

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	127	**77**	**204**	74	**75**	149	61	112	173
+15 mins.	**150**	51	201	**102**	51	153	65	**130**	**195**
+30 mins.	106	59	165	99	66	**165**	**77**	114	191
+45 mins.	132	72	204	83	61	144	70	114	184
Total Volume	515	259	774	358	253	611	273	470	743
% App. Total	66.5	33.5		58.6	41.4		36.7	63.3	
PHF	.858	.841	.949	.877	.843	.926	.886	.904	.953

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City of Corona
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Groups Printed- Large 2 Axle Vehicles

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	1	1	1	0	1	0	0	0	2
04:15 PM	2	0	2	0	0	0	1	1	2	4
04:30 PM	1	0	1	1	0	1	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	1	1	1
Total	3	1	4	2	0	2	1	2	3	9
05:00 PM	0	0	0	1	0	1	0	1	1	2
05:15 PM	1	0	1	1	0	1	2	0	2	4
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	1	0	1	0	2	2	3
Total	1	0	1	4	0	4	2	3	5	10
Grand Total	4	1	5	6	0	6	3	5	8	19
Apprch %	80	20		100	0		37.5	62.5		
Total %	21.1	5.3	26.3	31.6	0	31.6	15.8	26.3	42.1	

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	**1**	1	1
05:00 PM	0	0	0	**1**	0	**1**	0	1	1	2
05:15 PM	**1**	0	**1**	1	0	1	**2**	0	**2**	**4**
05:30 PM	0	0	0	1	0	1	0	0	0	1
Total Volume	1	0	1	3	0	3	2	2	4	8
% App. Total	100	0		100	0		50	50		
PHF	.250	.000	.250	.750	.000	.750	.250	.500	.500	.500

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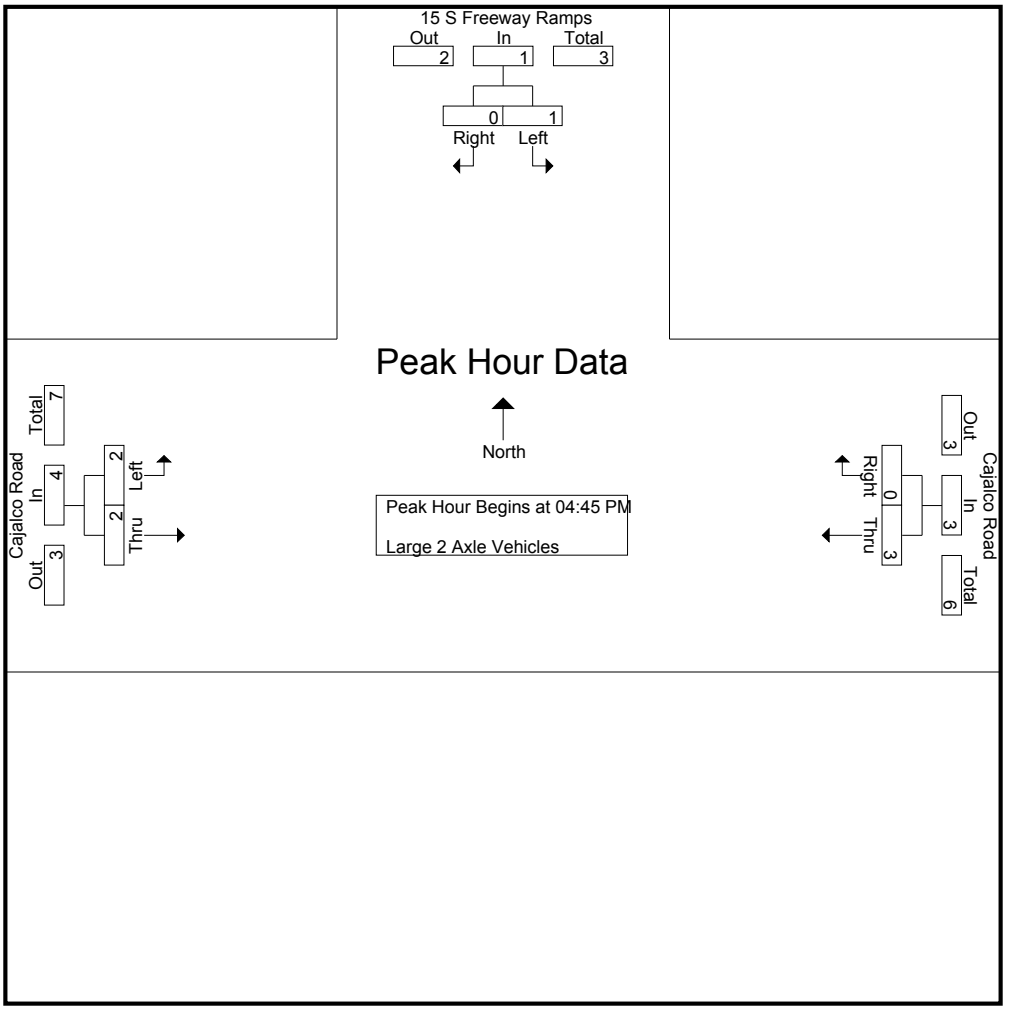

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	**1**	1
+15 mins.	0	0	0	**1**	0	**1**	0	1	1
+30 mins.	**1**	0	**1**	1	0	1	**2**	0	**2**
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	1	0	1	3	0	3	2	2	4
% App. Total	100	0		100	0		50	50	
PHF	.250	.000	.250	.750	.000	.750	.250	.500	.500

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File Name : COR15SCAPM
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Groups Printed- 3 Axle Vehicles

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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PO Box 1178
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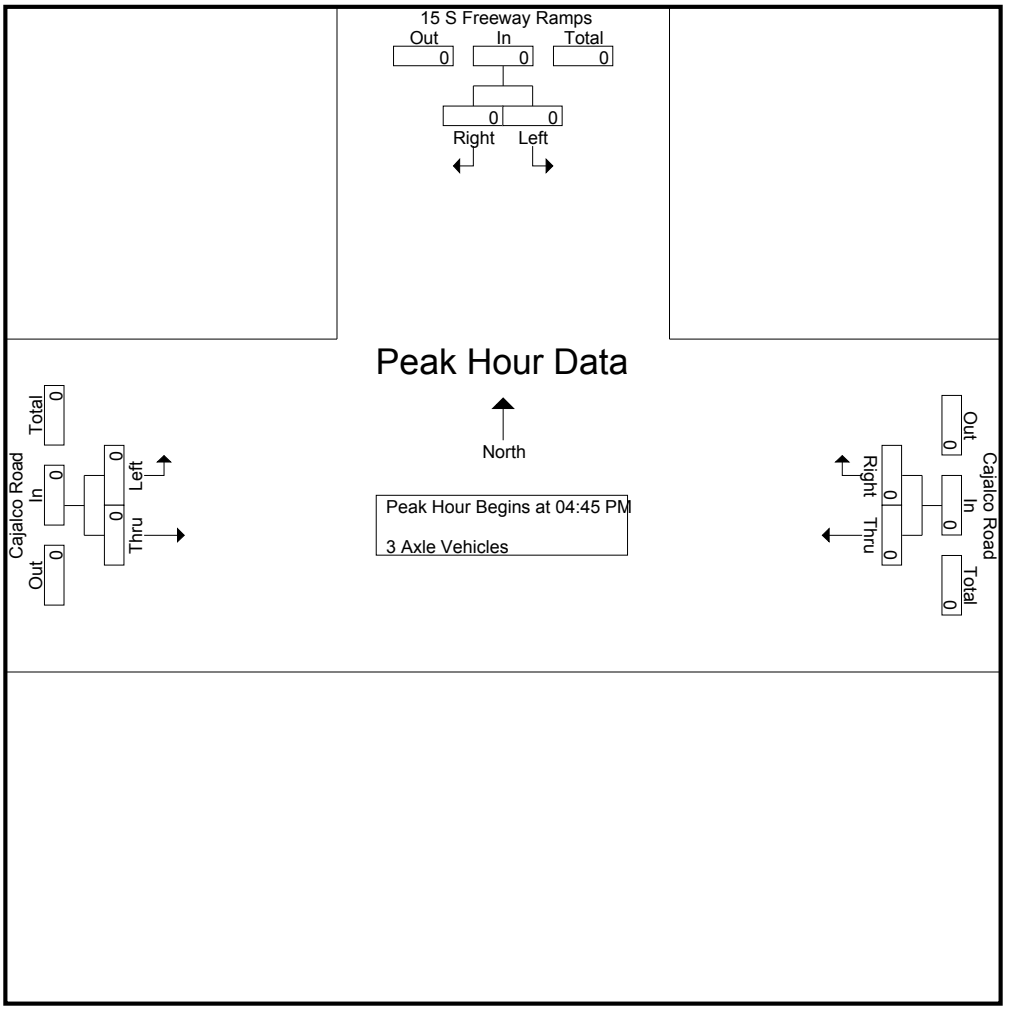
City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- 4+ Axle Trucks

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	2	0	2	0	1	1	0	0	0	3
04:15 PM	1	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	3	0	3	0	1	1	0	0	0	4
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	3	0	3	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	3	1	4	0	0	0	0	0	0	4
Grand Total	6	1	7	0	1	1	0	0	0	8
Apprch %	85.7	14.3		0	100		0	0		
Total %	75	12.5	87.5	0	12.5	12.5	0	0	0	

	15 S Freeway Ramps Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	**1**	1	0	0	0	0	0	0	1
05:15 PM	**3**	0	**3**	0	0	0	0	0	0	**3**
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	3	1	4	0	0	0	0	0	0	4
% App. Total	75	25		0	0		0	0		
PHF	.250	.250	.333	.000	.000	.000	.000	.000	.000	.333

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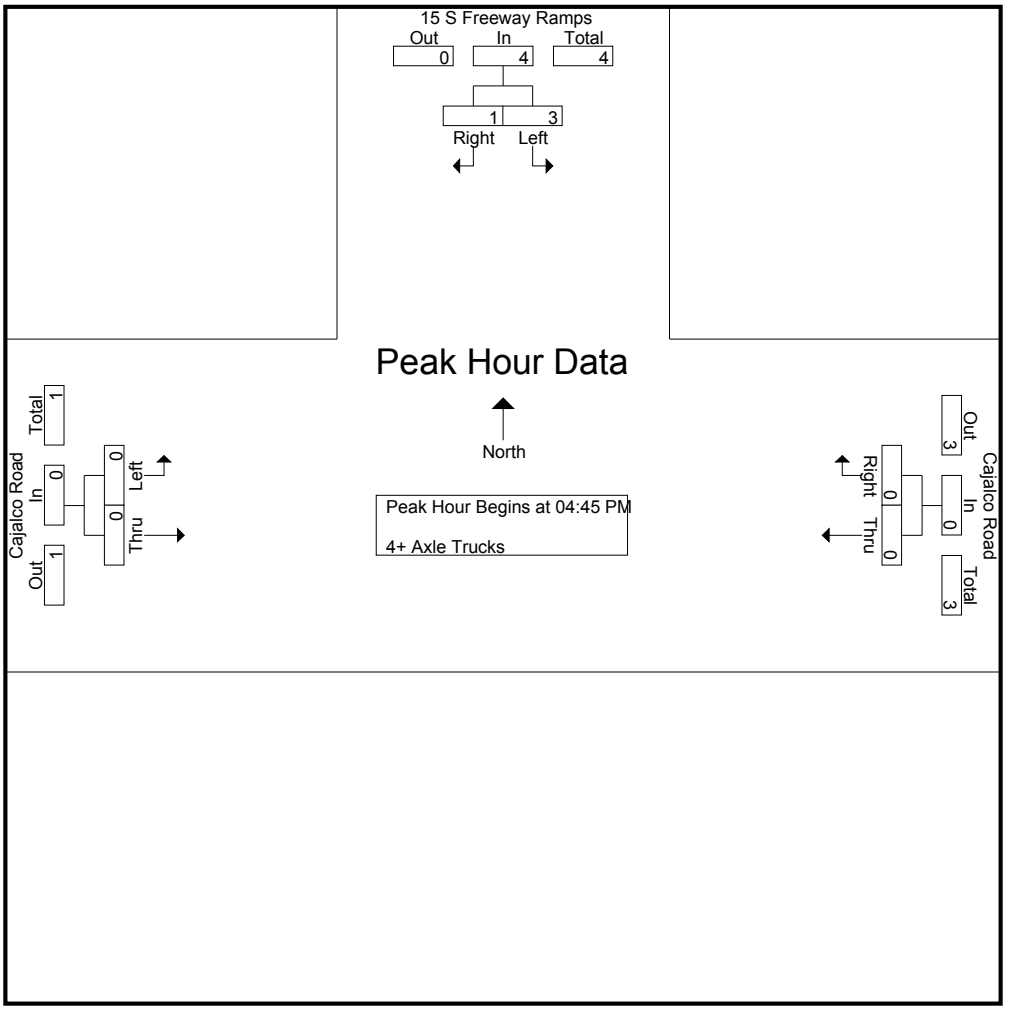
City of Corona
N/S: I-15 Southbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15SCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	**1**	1	0	0	0	0	0	0
+30 mins.	**3**	0	**3**	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	3	1	4	0	0	0	0	0	0
% App. Total	75	25		0	0		0	0	
PHF	.250	.250	.333	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: I-15 Northbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15NECAM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 1

Groups Printed- Total Volume

	I-15 Northbound On Ramp Southbound				El Cerrito Road Westbound				I-15 Northbound Off Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	14	10	24	54	1	4	59	87	12	0	99	182
06:45 AM	0	0	0	0	0	21	21	42	46	2	9	57	88	20	0	108	207
Total	0	0	0	0	0	35	31	66	100	3	13	116	175	32	0	207	389
07:00 AM	0	0	0	0	0	51	58	109	85	0	35	120	96	74	0	170	399
07:15 AM	0	0	0	0	0	155	75	230	76	1	63	140	96	140	0	236	606
07:30 AM	0	0	0	0	0	140	124	264	63	0	68	131	129	137	0	266	661
07:45 AM	0	0	0	0	0	63	39	102	35	0	8	43	97	39	0	136	281
Total	0	0	0	0	0	409	296	705	259	1	174	434	418	390	0	808	1947
08:00 AM	0	0	0	0	0	33	21	54	42	1	6	49	69	34	0	103	206
08:15 AM	0	0	0	0	0	47	25	72	49	2	22	73	71	41	0	112	257
Grand Total	0	0	0	0	0	524	373	897	450	7	215	672	733	497	0	1230	2799
Apprch %	0	0	0		0	58.4	41.6		67	1	32		59.6	40.4	0		
Total %	0	0	0	0	0	18.7	13.3	32	16.1	0.3	7.7	24	26.2	17.8	0	43.9	

	I-15 Northbound On Ramp Southbound				El Cerrito Road Westbound				I-15 Northbound Off Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	51	58	109	**85**	0	35	120	96	74	0	170	399
07:15 AM	0	0	0	0	0	**155**	75	230	76	**1**	63	**140**	96	**140**	0	236	606
07:30 AM	0	0	0	0	0	140	**124**	**264**	63	0	**68**	131	**129**	137	0	**266**	**661**
07:45 AM	0	0	0	0	0	63	39	102	35	0	8	43	97	39	0	136	281
Total Volume	0	0	0	0	0	409	296	705	259	1	174	434	418	390	0	808	1947
% App. Total	0	0	0		0	58	42		59.7	0.2	40.1		51.7	48.3	0		
PHF	.000	.000	.000	.000	.000	.660	.597	.668	.762	.250	.640	.775	.810	.696	.000	.759	.736

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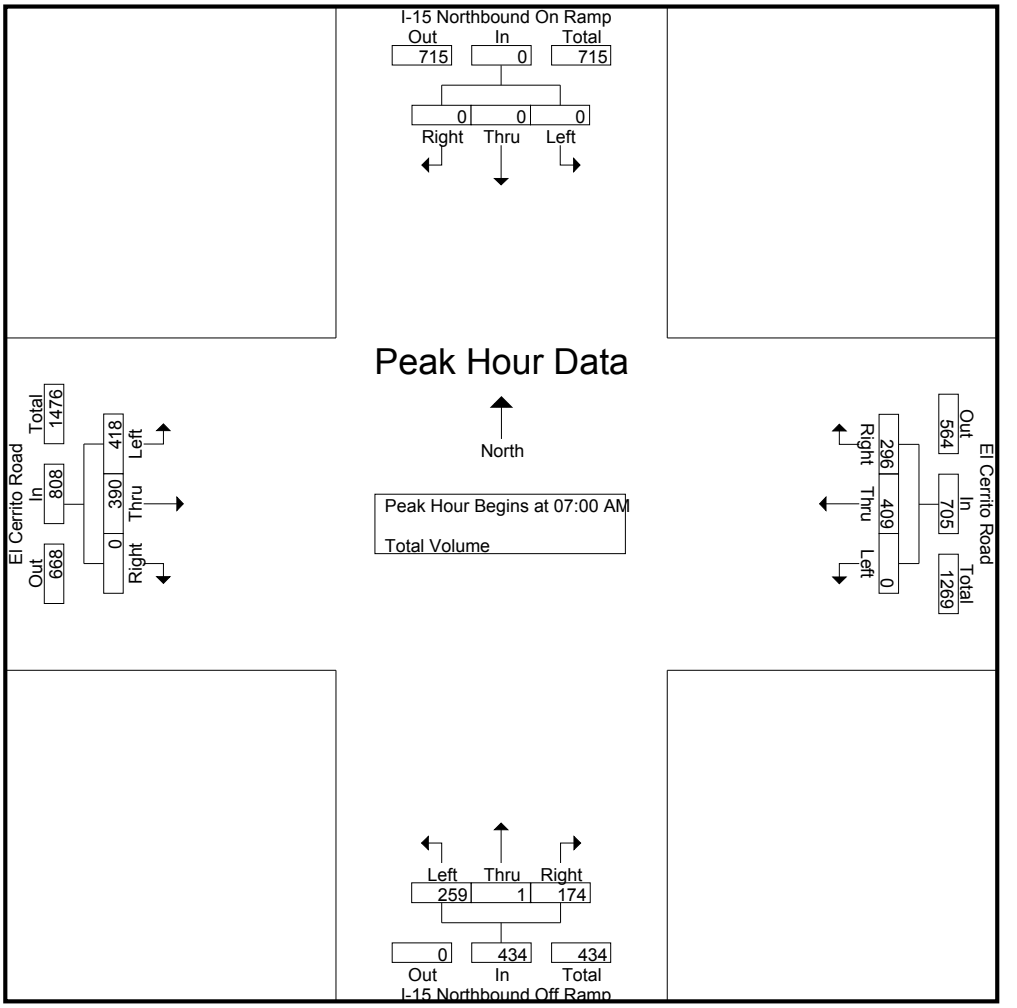
City of Corona
N/S: I-15 Northbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15NECAM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 2



Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:30 AM				07:00 AM				06:45 AM				07:00 AM			
+0 mins.	0	0	0	0	0	51	58	109	46	**2**	9	57	96	74	0	170
+15 mins.	0	0	0	0	0	**155**	75	230	**85**	0	35	120	96	**140**	0	236
+30 mins.	0	0	0	0	0	140	**124**	**264**	76	1	63	**140**	**129**	137	0	**266**
+45 mins.	0	0	0	0	0	63	39	102	63	0	**68**	131	97	39	0	136
Total Volume	0	0	0	0	0	409	296	705	270	3	175	448	418	390	0	808
% App. Total	0	0	0		0	58	42		60.3	0.7	39.1		51.7	48.3	0	
PHF	.000	.000	.000	.000	.000	.660	.597	.668	.794	.375	.643	.800	.810	.696	.000	.759

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City of Corona
N/S: I-15 Northbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15NECPM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 1

Groups Printed- Total Volume

	I-15 Northbound On Ramp Southbound				El Cerrito Road Westbound				I-15 Northbound Off Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	43	10	53	58	7	20	85	40	65	0	105	243
04:15 PM	0	0	0	0	0	29	20	49	51	6	12	69	53	73	0	126	244
04:30 PM	0	0	0	0	0	39	13	52	64	1	18	83	48	79	0	127	262
04:45 PM	0	0	0	0	0	40	9	49	63	3	21	87	48	86	0	134	270
Total	0	0	0	0	0	151	52	203	236	17	71	324	189	303	0	492	1019
05:00 PM	0	0	0	0	0	59	11	70	85	2	22	109	52	82	0	134	313
05:15 PM	0	0	0	0	0	64	10	74	65	3	12	80	50	64	0	114	268
05:30 PM	0	0	0	0	0	39	20	59	64	1	11	76	60	103	0	163	298
05:45 PM	0	0	0	0	0	58	14	72	65	1	7	73	68	99	0	167	312
Total	0	0	0	0	0	220	55	275	279	7	52	338	230	348	0	578	1191
Grand Total	0	0	0	0	0	371	107	478	515	24	123	662	419	651	0	1070	2210
Apprch %	0	0	0		0	77.6	22.4		77.8	3.6	18.6		39.2	60.8	0		
Total %	0	0	0	0	0	16.8	4.8	21.6	23.3	1.1	5.6	30	19	29.5	0	48.4	

	I-15 Northbound On Ramp Southbound				El Cerrito Road Westbound				I-15 Northbound Off Ramp Northbound				El Cerrito Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	59	11	70	**85**	2	**22**	**109**	52	82	0	134	**313**
05:15 PM	0	0	0	0	0	**64**	10	**74**	65	**3**	12	80	50	64	0	114	268
05:30 PM	0	0	0	0	0	39	**20**	59	64	1	11	76	60	**103**	0	163	298
05:45 PM	0	0	0	0	0	58	14	72	65	1	7	73	**68**	99	0	**167**	312
Total Volume	0	0	0	0	0	220	55	275	279	7	52	338	230	348	0	578	1191
% App. Total	0	0	0		0	80	20		82.5	2.1	15.4		39.8	60.2	0		
PHF	.000	.000	.000	.000	.000	.859	.688	.929	.821	.583	.591	.775	.846	.845	.000	.865	.951

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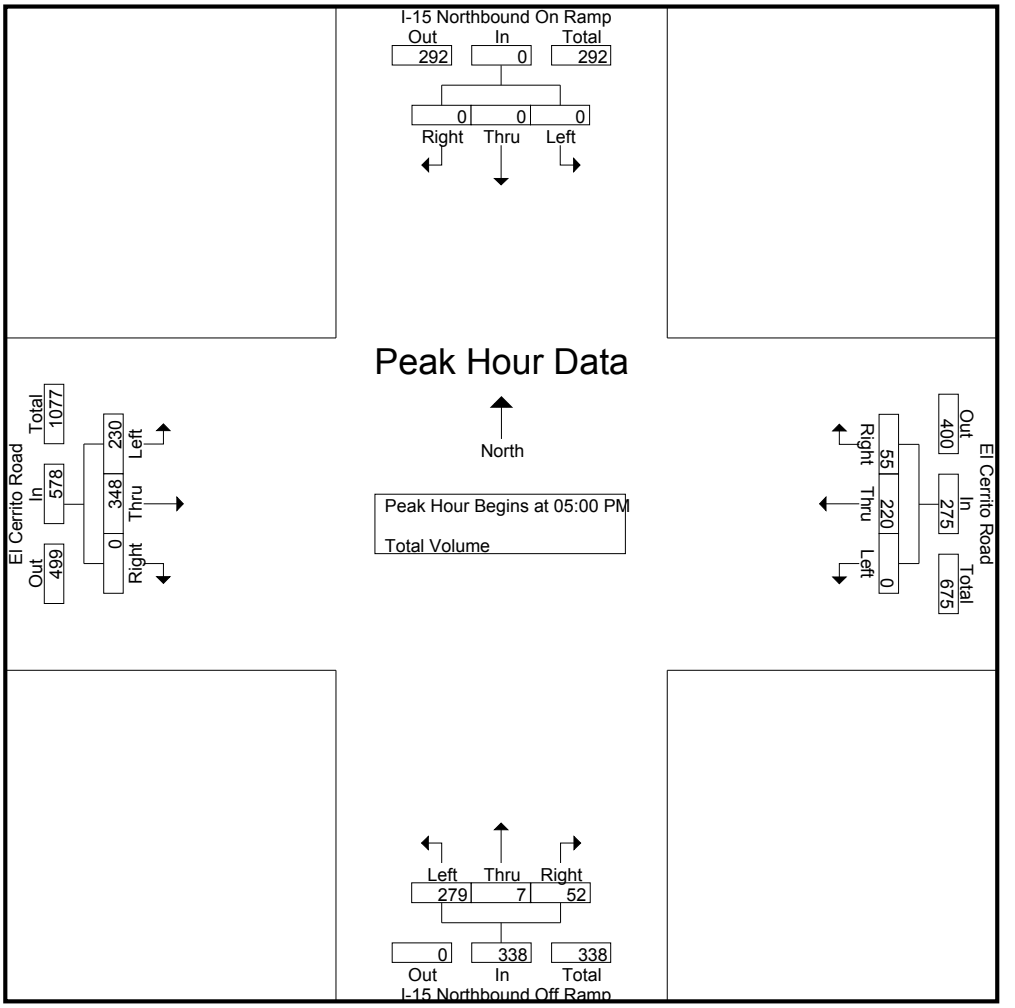
City of Corona
N/S: I-15 Northbound On / Off Ramps
E/W: El Cerrito Road
Weather: Clear

File Name : COR15NECPM
Site Code : 05614031
Start Date : 3/5/2014
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:30 PM				05:00 PM			
+0 mins.	0	0	0	0	0	59	11	70	64	1	18	83	52	82	0	134
+15 mins.	0	0	0	0	0	**64**	10	**74**	63	**3**	21	87	50	64	0	114
+30 mins.	0	0	0	0	0	39	**20**	59	**85**	2	**22**	**109**	60	**103**	0	163
+45 mins.	0	0	0	0	0	58	14	72	65	3	12	80	**68**	99	0	**167**
Total Volume	0	0	0	0	0	220	55	275	277	9	73	359	230	348	0	578
% App. Total	0	0	0		0	80	20		77.2	2.5	20.3		39.8	60.2	0	
PHF	.000	.000	.000	.000	.000	.859	.688	.929	.815	.750	.830	.823	.846	.845	.000	.865

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	41	129	170	18	2	17	37	47	64	0	111	318
06:45 AM	0	0	0	0	0	46	156	202	17	1	22	40	51	84	0	135	377
Total	0	0	0	0	0	87	285	372	35	3	39	77	98	148	0	246	695
07:00 AM	0	0	0	0	0	79	241	320	23	0	12	35	72	80	0	152	507
07:15 AM	0	0	0	0	0	113	260	373	25	1	13	39	92	96	0	188	600
07:30 AM	0	0	0	0	0	100	302	402	21	1	9	31	64	99	0	163	596
07:45 AM	0	0	0	0	0	62	226	288	16	2	10	28	65	120	0	185	501
Total	0	0	0	0	0	354	1029	1383	85	4	44	133	293	395	0	688	2204
08:00 AM	0	0	0	0	0	62	137	199	23	0	17	40	38	82	0	120	359
08:15 AM	0	0	0	0	0	70	137	207	34	1	36	71	63	92	0	155	433
Grand Total	0	0	0	0	0	573	1588	2161	177	8	136	321	492	717	0	1209	3691
Apprch %	0	0	0		0	26.5	73.5		55.1	2.5	42.4		40.7	59.3	0		
Total %	0	0	0	0	0	15.5	43	58.5	4.8	0.2	3.7	8.7	13.3	19.4	0	32.8	
Passenger Vehicles	0	0	0	0	0	551	1497	2048	173	8	112	293	484	614	0	1098	3439
% Passenger Vehicles	0	0	0	0	0	96.2	94.3	94.8	97.7	100	82.4	91.3	98.4	85.6	0	90.8	93.2
Large 2 Axle Vehicles	0	0	0	0	0	14	17	31	4	0	2	6	4	31	0	35	72
% Large 2 Axle Vehicles	0	0	0	0	0	2.4	1.1	1.4	2.3	0	1.5	1.9	0.8	4.3	0	2.9	2
3 Axle Vehicles	0	0	0	0	0	1	9	10	0	0	0	0	0	5	0	5	15
% 3 Axle Vehicles	0	0	0	0	0	0.2	0.6	0.5	0	0	0	0	0	0.7	0	0.4	0.4
4+ Axle Trucks	0	0	0	0	0	7	65	72	0	0	22	22	4	67	0	71	165
% 4+ Axle Trucks	0	0	0	0	0	1.2	4.1	3.3	0	0	16.2	6.9	0.8	9.3	0	5.9	4.5

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	79	241	320	23	0	12	35	72	80	0	152	507
07:15 AM	0	0	0	0	0	**113**	260	373	**25**	1	**13**	**39**	**92**	96	0	**188**	**600**
07:30 AM	0	0	0	0	0	100	**302**	**402**	21	1	9	31	64	99	0	163	596
07:45 AM	0	0	0	0	0	62	226	288	16	**2**	10	28	65	**120**	0	185	501
Total Volume	0	0	0	0	0	354	1029	1383	85	4	44	133	293	395	0	688	2204
% App. Total	0	0	0		0	25.6	74.4		63.9	3	33.1		42.6	57.4	0		
PHF	.000	.000	.000	.000	.000	.783	.852	.860	.850	.500	.846	.853	.796	.823	.000	.915	.918

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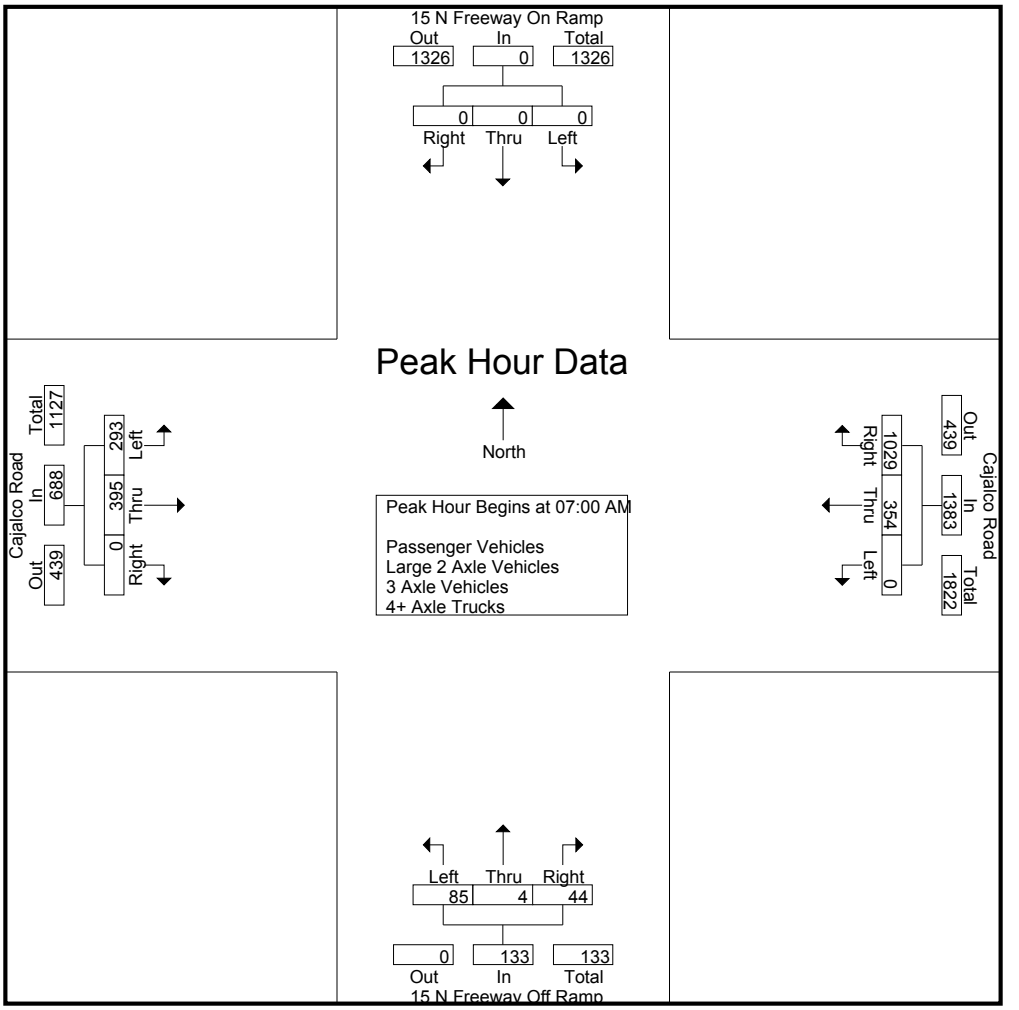
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014



Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:30 AM				07:00 AM				07:30 AM				07:00 AM			
+0 mins.	0	0	0	0	0	79	241	320	21	1	9	31	72	80	0	152
+15 mins.	0	0	0	0	0	**113**	260	373	16	**2**	10	28	**92**	96	0	**188**
+30 mins.	0	0	0	0	0	100	**302**	**402**	23	0	17	40	64	99	0	163
+45 mins.	0	0	0	0	0	62	226	288	**34**	1	**36**	**71**	65	**120**	0	185
Total Volume	0	0	0	0	0	354	1029	1383	94	4	72	170	293	395	0	688
% App. Total	0	0	0		0	25.6	74.4		55.3	2.4	42.4		42.6	57.4	0	
PHF	.000	.000	.000	.000	.000	.783	.852	.860	.691	.500	.500	.599	.796	.823	.000	.915

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Passenger Vehicles

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	36	117	153	18	2	14	34	47	54	0	101	288
06:45 AM	0	0	0	0	0	44	149	193	15	1	20	36	50	71	0	121	350
Total	0	0	0	0	0	80	266	346	33	3	34	70	97	125	0	222	638
07:00 AM	0	0	0	0	0	76	232	308	23	0	9	32	71	75	0	146	486
07:15 AM	0	0	0	0	0	112	249	361	25	1	10	36	92	83	0	175	572
07:30 AM	0	0	0	0	0	100	297	397	21	1	8	30	64	85	0	149	576
07:45 AM	0	0	0	0	0	61	220	281	16	2	9	27	65	92	0	157	465
Total	0	0	0	0	0	349	998	1347	85	4	36	125	292	335	0	627	2099
08:00 AM	0	0	0	0	0	58	117	175	21	0	12	33	34	75	0	109	317
08:15 AM	0	0	0	0	0	64	116	180	34	1	30	65	61	79	0	140	385
Grand Total	0	0	0	0	0	551	1497	2048	173	8	112	293	484	614	0	1098	3439
Apprch %	0	0	0		0	26.9	73.1		59	2.7	38.2		44.1	55.9	0		
Total %	0	0	0	0	0	16	43.5	59.6	5	0.2	3.3	8.5	14.1	17.9	0	31.9	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	76	232	308	23	0	9	32	71	75	0	146	486
07:15 AM	0	0	0	0	0	**112**	249	361	**25**	1	**10**	**36**	**92**	83	0	**175**	572
07:30 AM	0	0	0	0	0	100	**297**	**397**	21	1	8	30	64	85	0	149	**576**
07:45 AM	0	0	0	0	0	61	220	281	16	**2**	9	27	65	**92**	0	157	465
Total Volume	0	0	0	0	0	349	998	1347	85	4	36	125	292	335	0	627	2099
% App. Total	0	0	0		0	25.9	74.1		68	3.2	28.8		46.6	53.4	0		
PHF	.000	.000	.000	.000	.000	.779	.840	.848	.850	.500	.900	.868	.793	.910	.000	.896	.911

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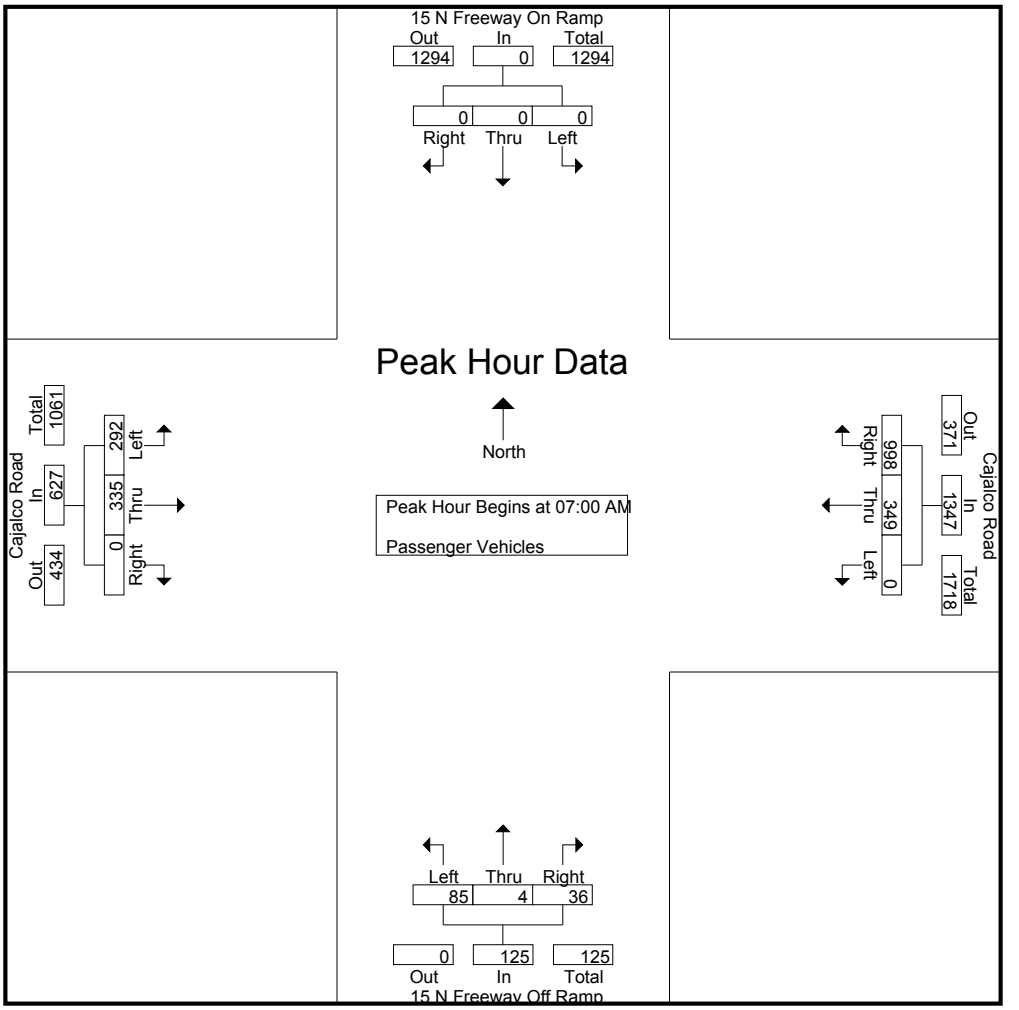
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	76	232	308	23	0	9	32	71	75	0	146
+15 mins.	0	0	0	0	0	**112**	249	361	**25**	1	**10**	**36**	**92**	83	0	**175**
+30 mins.	0	0	0	0	0	100	**297**	**397**	21	1	8	30	64	85	0	149
+45 mins.	0	0	0	0	0	61	220	281	16	**2**	9	27	65	**92**	0	157
Total Volume	0	0	0	0	0	349	998	1347	85	4	36	125	292	335	0	627
% App. Total	0	0	0		0	25.9	74.1		68	3.2	28.8		46.6	53.4	0	
PHF	.000	.000	.000	.000	.000	.779	.840	.848	.850	.500	.900	.868	.793	.910	.000	.896

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	3	2	5	0	0	0	0	0	5	0	5	10
06:45 AM	0	0	0	0	0	1	2	3	2	0	1	3	0	4	0	4	10
Total	0	0	0	0	0	4	4	8	2	0	1	3	0	9	0	9	20
07:00 AM	0	0	0	0	0	0	2	2	0	0	1	1	1	3	0	4	7
07:15 AM	0	0	0	0	0	1	2	3	0	0	0	0	0	4	0	4	7
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	4	0	4	5
07:45 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	5	0	5	7
Total	0	0	0	0	0	2	6	8	0	0	1	1	1	16	0	17	26
08:00 AM	0	0	0	0	0	3	3	6	2	0	0	2	2	2	0	4	12
08:15 AM	0	0	0	0	0	5	4	9	0	0	0	0	1	4	0	5	14
Grand Total	0	0	0	0	0	14	17	31	4	0	2	6	4	31	0	35	72
Apprch %	0	0	0		0	45.2	54.8		66.7	0	33.3		11.4	88.6	0		
Total %	0	0	0	0	0	19.4	23.6	43.1	5.6	0	2.8	8.3	5.6	43.1	0	48.6	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	**2**	2	0	0	**1**	**1**	**1**	3	0	4	**7**
07:15 AM	0	0	0	0	0	**1**	2	**3**	0	0	0	0	0	4	0	4	7
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	4	0	4	5
07:45 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	**5**	0	**5**	7
Total Volume	0	0	0	0	0	2	6	8	0	0	1	1	1	16	0	17	26
% App. Total	0	0	0		0	25	75		0	0	100		5.9	94.1	0		
PHF	.000	.000	.000	.000	.000	.500	.750	.667	.000	.000	.250	.250	.250	.800	.000	.850	.929

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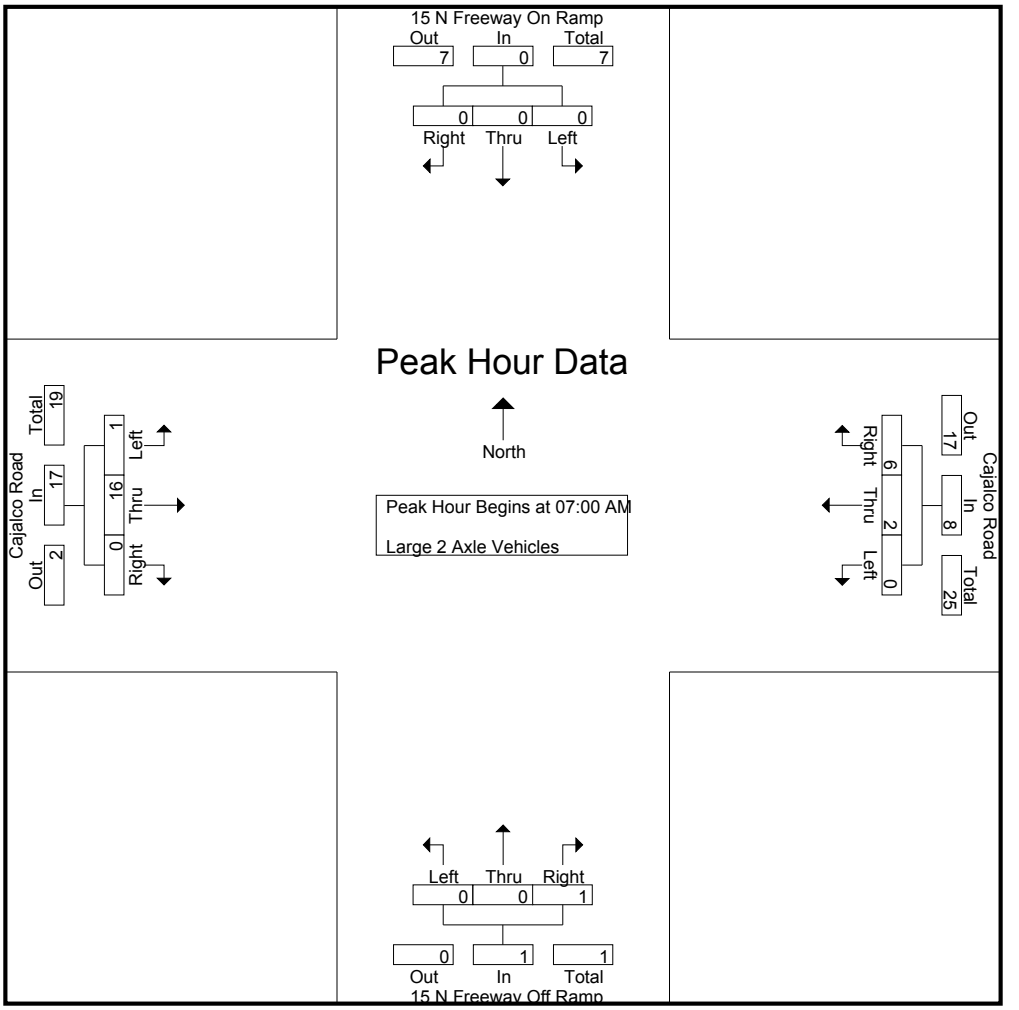
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	**2**	2	0	0	**1**	**1**	**1**	3	0	4
+15 mins.	0	0	0	0	0	**1**	2	**3**	0	0	0	0	0	4	0	4
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	4	0	4
+45 mins.	0	0	0	0	0	1	1	2	0	0	0	0	0	**5**	0	**5**
Total Volume	0	0	0	0	0	2	6	8	0	0	1	1	1	16	0	17
% App. Total	0	0	0		0	25	75		0	0	100		5.9	94.1	0	
PHF	.000	.000	.000	.000	.000	.500	.750	.667	.000	.000	.250	.250	.250	.800	.000	.850

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
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Groups Printed- 3 Axle Vehicles

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	3
06:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	0	0	3	3	0	0	0	0	0	2	0	2	5
07:00 AM	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	1	5	6	0	0	0	0	0	3	0	3	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	1	9	10	0	0	0	0	0	5	0	5	15
Apprch %	0	0	0		0	10	90		0	0	0		0	100	0		
Total %	0	0	0	0	0	6.7	60	66.7	0	0	0	0	0	33.3	0	33.3	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**1**	**2**	**3**	0	0	0	0	0	0	0	0	**3**
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	**2**	0	**2**	3
Total Volume	0	0	0	0	0	1	5	6	0	0	0	0	0	3	0	3	9
% App. Total	0	0	0		0	16.7	83.3		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.625	.500	.000	.000	.000	.000	.000	.375	.000	.375	.750

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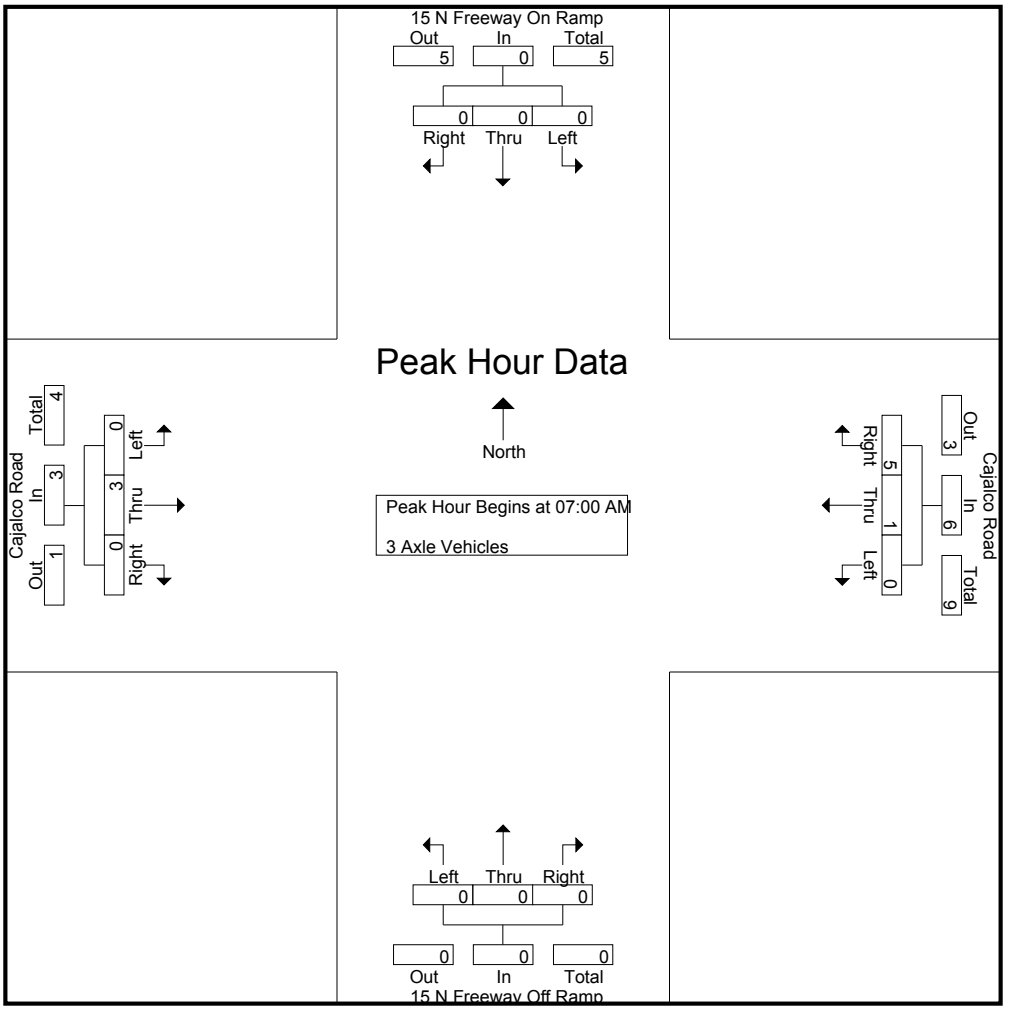
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	**1**	**2**	**3**	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	**2**	0	**2**
Total Volume	0	0	0	0	0	1	5	6	0	0	0	0	0	3	0	3
% App. Total	0	0	0		0	16.7	83.3		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.625	.500	.000	.000	.000	.000	.000	.375	.000	.375

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- 4+ Axle Trucks

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	2	8	10	0	0	3	3	0	4	0	4	17
06:45 AM	0	0	0	0	0	1	4	5	0	0	1	1	1	8	0	9	15
Total	0	0	0	0	0	3	12	15	0	0	4	4	1	12	0	13	32
07:00 AM	0	0	0	0	0	2	5	7	0	0	2	2	0	2	0	2	11
07:15 AM	0	0	0	0	0	0	8	8	0	0	3	3	0	8	0	8	19
07:30 AM	0	0	0	0	0	0	3	3	0	0	1	1	0	10	0	10	14
07:45 AM	0	0	0	0	0	0	4	4	0	0	1	1	0	21	0	21	26
Total	0	0	0	0	0	2	20	22	0	0	7	7	0	41	0	41	70
08:00 AM	0	0	0	0	0	1	17	18	0	0	5	5	2	5	0	7	30
08:15 AM	0	0	0	0	0	1	16	17	0	0	6	6	1	9	0	10	33
Grand Total	0	0	0	0	0	7	65	72	0	0	22	22	4	67	0	71	165
Apprch %	0	0	0		0	9.7	90.3		0	0	100		5.6	94.4	0		
Total %	0	0	0	0	0	4.2	39.4	43.6	0	0	13.3	13.3	2.4	40.6	0	43	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**2**	5	7	0	0	2	2	0	2	0	2	11
07:15 AM	0	0	0	0	0	0	**8**	**8**	0	0	**3**	**3**	0	8	0	8	19
07:30 AM	0	0	0	0	0	0	3	3	0	0	1	1	0	10	0	10	14
07:45 AM	0	0	0	0	0	0	4	4	0	0	1	1	0	**21**	0	**21**	**26**
Total Volume	0	0	0	0	0	2	20	22	0	0	7	7	0	41	0	41	70
% App. Total	0	0	0		0	9.1	90.9		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.625	.688	.000	.000	.583	.583	.000	.488	.000	.488	.673

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAAM
Site Code : 05614031
Start Date : 2/4/2014
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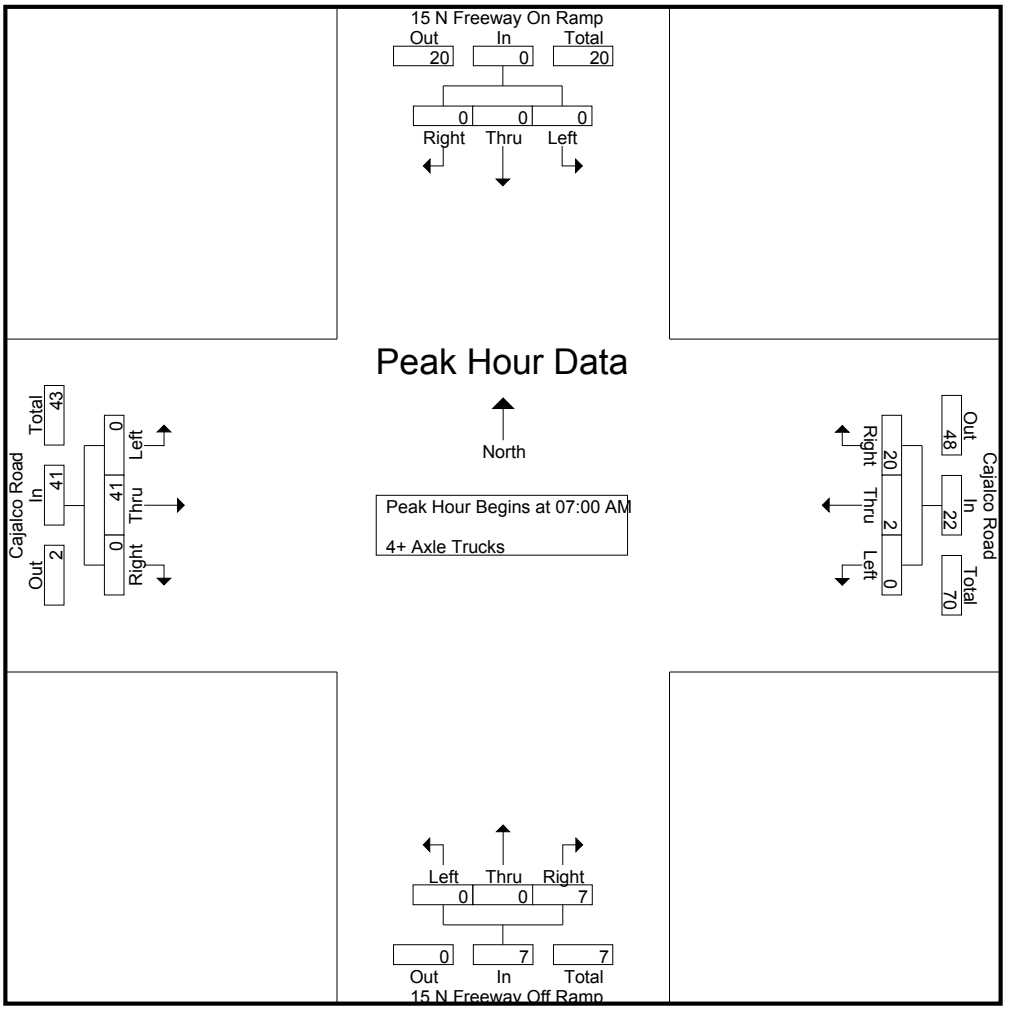

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	**2**	5	7	0	0	2	2	0	2	0	2
+15 mins.	0	0	0	0	0	0	**8**	**8**	0	0	**3**	**3**	0	8	0	8
+30 mins.	0	0	0	0	0	0	3	3	0	0	1	1	0	10	0	10
+45 mins.	0	0	0	0	0	0	4	4	0	0	1	1	0	**21**	0	**21**
Total Volume	0	0	0	0	0	2	20	22	0	0	7	7	0	41	0	41
% App. Total	0	0	0		0	9.1	90.9		0	0	100		0	100	0	
PHF	.000	.000	.000	.000	.000	.250	.625	.688	.000	.000	.583	.583	.000	.488	.000	.488

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	108	145	253	31	0	42	73	37	190	0	227	553
04:15 PM	0	0	0	0	0	114	142	256	30	0	50	80	44	181	0	225	561
04:30 PM	0	0	0	0	0	112	124	236	31	1	37	69	50	174	0	224	529
04:45 PM	0	0	0	0	0	130	123	253	26	1	42	69	58	173	0	231	553
Total	0	0	0	0	0	464	534	998	118	2	171	291	189	718	0	907	2196
05:00 PM	0	0	0	0	0	124	122	246	36	0	47	83	47	229	0	276	605
05:15 PM	0	0	0	0	0	119	121	240	28	0	43	71	45	174	0	219	530
05:30 PM	0	0	0	0	0	117	111	228	37	1	47	85	47	202	0	249	562
05:45 PM	0	0	0	0	0	128	107	235	27	0	44	71	46	202	0	248	554
Total	0	0	0	0	0	488	461	949	128	1	181	310	185	807	0	992	2251
Grand Total	0	0	0	0	0	952	995	1947	246	3	352	601	374	1525	0	1899	4447
Apprch %	0	0	0		0	48.9	51.1		40.9	0.5	58.6		19.7	80.3	0		
Total %	0	0	0	0	0	21.4	22.4	43.8	5.5	0.1	7.9	13.5	8.4	34.3	0	42.7	
Passenger Vehicles	0	0	0	0	0	948	975	1923	243	3	336	582	371	1512	0	1883	4388
% Passenger Vehicles	0	0	0	0	0	99.6	98	98.8	98.8	100	95.5	96.8	99.2	99.1	0	99.2	98.7
Large 2 Axle Vehicles	0	0	0	0	0	3	12	15	3	0	2	5	3	7	0	10	30
% Large 2 Axle Vehicles	0	0	0	0	0	0.3	1.2	0.8	1.2	0	0.6	0.8	0.8	0.5	0	0.5	0.7
3 Axle Vehicles	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% 3 Axle Vehicles	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	1	7	8	0	0	14	14	0	6	0	6	28
% 4+ Axle Trucks	0	0	0	0	0	0.1	0.7	0.4	0	0	4	2.3	0	0.4	0	0.3	0.6

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	124	**122**	**246**	36	0	**47**	83	**47**	**229**	0	**276**	**605**
05:15 PM	0	0	0	0	0	119	121	240	28	0	43	71	45	174	0	219	530
05:30 PM	0	0	0	0	0	117	111	228	**37**	**1**	47	**85**	47	202	0	249	562
05:45 PM	0	0	0	0	0	**128**	107	235	27	0	44	71	46	202	0	248	554
Total Volume	0	0	0	0	0	488	461	949	128	1	181	310	185	807	0	992	2251
% App. Total	0	0	0		0	51.4	48.6		41.3	0.3	58.4		18.6	81.4	0		
PHF	.000	.000	.000	.000	.000	.953	.945	.964	.865	.250	.963	.912	.984	.881	.000	.899	.930

Counts Unlimited, Inc.
PO Box 1178
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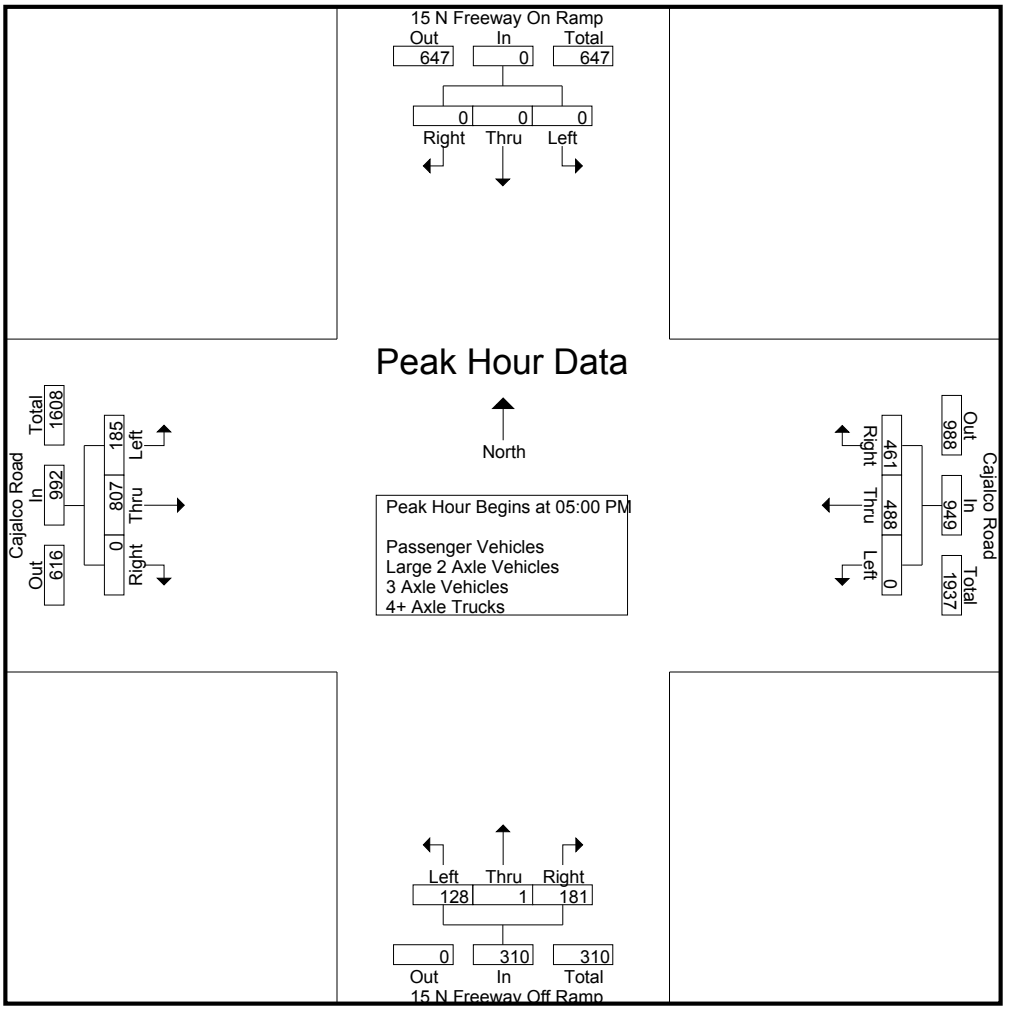
(951) 268-6268

City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	108	**145**	253	36	0	**47**	83	**47**	**229**	0	**276**
+15 mins.	0	0	0	0	0	114	142	**256**	28	0	43	71	45	174	0	219
+30 mins.	0	0	0	0	0	112	124	236	**37**	**1**	47	**85**	47	202	0	249
+45 mins.	0	0	0	0	0	**130**	123	253	27	0	44	71	46	202	0	248
Total Volume	0	0	0	0	0	464	534	998	128	1	181	310	185	807	0	992
% App. Total	0	0	0		0	46.5	53.5		41.3	0.3	58.4		18.6	81.4	0	
PHF	.000	.000	.000	.000	.000	.892	.921	.975	.865	.250	.963	.912	.984	.881	.000	.899

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Passenger Vehicles

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	106	140	246	31	0	40	71	37	188	0	225	542
04:15 PM	0	0	0	0	0	114	138	252	30	0	49	79	44	177	0	221	552
04:30 PM	0	0	0	0	0	112	122	234	30	1	33	64	50	173	0	223	521
04:45 PM	0	0	0	0	0	130	119	249	26	1	42	69	58	172	0	230	548
Total	0	0	0	0	0	462	519	981	117	2	164	283	189	710	0	899	2163
05:00 PM	0	0	0	0	0	123	120	243	36	0	42	78	46	229	0	275	596
05:15 PM	0	0	0	0	0	119	121	240	27	0	42	69	45	170	0	215	524
05:30 PM	0	0	0	0	0	117	109	226	36	1	45	82	46	202	0	248	556
05:45 PM	0	0	0	0	0	127	106	233	27	0	43	70	45	201	0	246	549
Total	0	0	0	0	0	486	456	942	126	1	172	299	182	802	0	984	2225
Grand Total	0	0	0	0	0	948	975	1923	243	3	336	582	371	1512	0	1883	4388
Apprch %	0	0	0		0	49.3	50.7		41.8	0.5	57.7		19.7	80.3	0		
Total %	0	0	0	0	0	21.6	22.2	43.8	5.5	0.1	7.7	13.3	8.5	34.5	0	42.9	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	123	120	**243**	**36**	0	42	78	**46**	**229**	0	**275**	**596**
05:15 PM	0	0	0	0	0	119	**121**	240	27	0	42	69	45	170	0	215	524
05:30 PM	0	0	0	0	0	117	109	226	36	**1**	**45**	**82**	46	202	0	248	556
05:45 PM	0	0	0	0	0	**127**	106	233	27	0	43	70	45	201	0	246	549
Total Volume	0	0	0	0	0	486	456	942	126	1	172	299	182	802	0	984	2225
% App. Total	0	0	0		0	51.6	48.4		42.1	0.3	57.5		18.5	81.5	0		
PHF	.000	.000	.000	.000	.000	.957	.942	.969	.875	.250	.956	.912	.989	.876	.000	.895	.933

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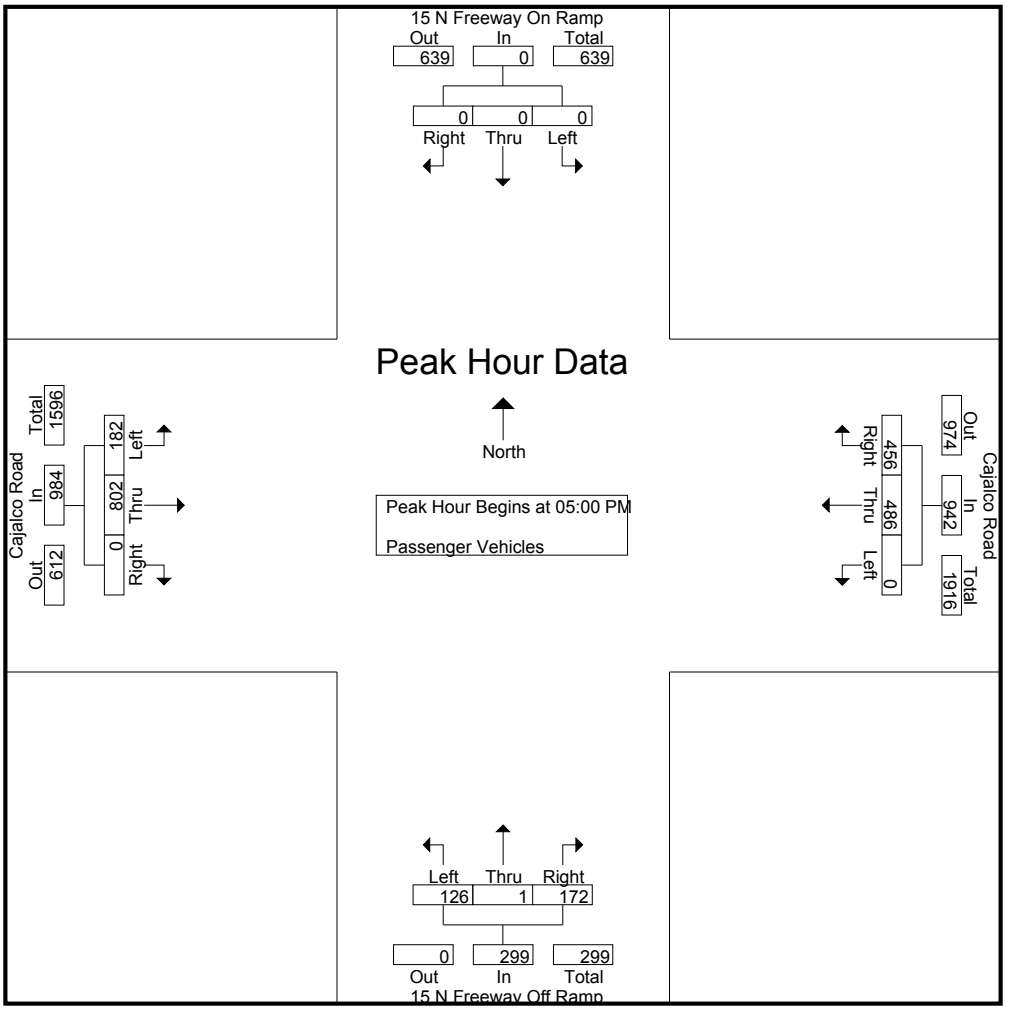
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	123	120	**243**	**36**	0	42	78	**46**	**229**	0	**275**
+15 mins.	0	0	0	0	0	119	**121**	240	27	0	42	69	45	170	0	215
+30 mins.	0	0	0	0	0	117	109	226	36	**1**	**45**	**82**	46	202	0	248
+45 mins.	0	0	0	0	0	**127**	106	233	27	0	43	70	45	201	0	246
Total Volume	0	0	0	0	0	486	456	942	126	1	172	299	182	802	0	984
% App. Total	0	0	0		0	51.6	48.4		42.1	0.3	57.5		18.5	81.5	0	
PHF	.000	.000	.000	.000	.000	.957	.942	.969	.875	.250	.956	.912	.989	.876	.000	.895

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	4	5	0	0	0	0	0	0	0	0	5
04:15 PM	0	0	0	0	0	0	3	3	0	0	0	0	0	3	0	3	6
04:30 PM	0	0	0	0	0	0	1	1	1	0	1	2	0	1	0	1	4
04:45 PM	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	1	10	11	1	0	1	2	0	5	0	5	18
05:00 PM	0	0	0	0	0	1	1	2	0	0	0	0	1	0	0	1	3
05:15 PM	0	0	0	0	0	0	0	0	1	0	1	2	0	1	0	1	3
05:30 PM	0	0	0	0	0	0	1	1	1	0	0	1	1	0	0	1	3
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	2	3
Total	0	0	0	0	0	2	2	4	2	0	1	3	3	2	0	5	12
Grand Total	0	0	0	0	0	3	12	15	3	0	2	5	3	7	0	10	30
Apprch %	0	0	0		0	20	80		60	0	40		30	70	0		
Total %	0	0	0	0	0	10	40	50	10	0	6.7	16.7	10	23.3	0	33.3	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	**1**	0	0	1	**3**
05:15 PM	0	0	0	0	0	0	0	0	**1**	0	**1**	**2**	0	**1**	0	1	3
05:30 PM	0	0	0	0	0	0	1	1	1	0	0	1	1	0	0	1	3
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	**2**	3
Total Volume	0	0	0	0	0	2	2	4	2	0	1	3	3	2	0	5	12
% App. Total	0	0	0		0	50	50		66.7	0	33.3		60	40	0		
PHF	.000	.000	.000	.000	.000	.500	.500	.500	.500	.000	.250	.375	.750	.500	.000	.625	1.00

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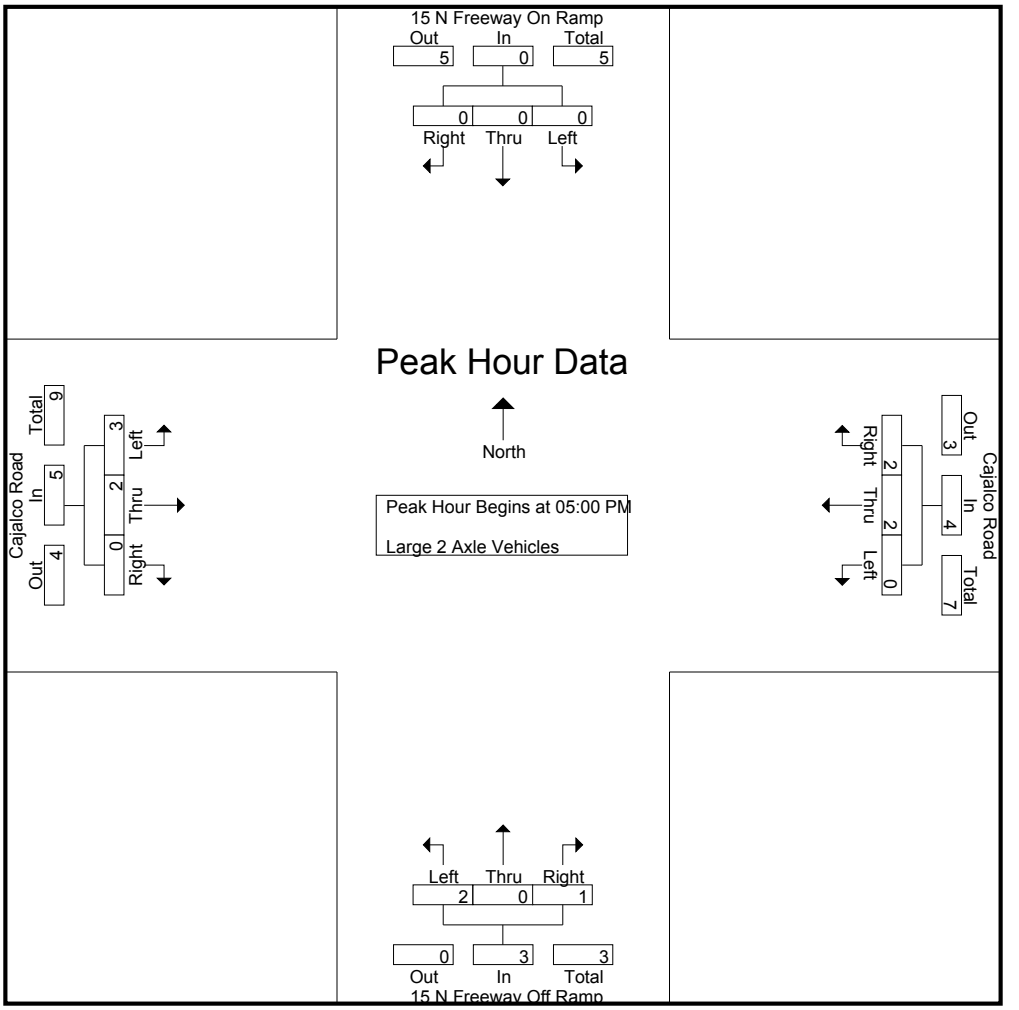
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	**1**	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	**1**	0	**1**	**2**	0	**1**	0	1
+30 mins.	0	0	0	0	0	0	1	1	1	0	0	1	1	0	0	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	**2**
Total Volume	0	0	0	0	0	2	2	4	2	0	1	3	3	2	0	5
% App. Total	0	0	0		0	50	50		66.7	0	33.3		60	40	0	
PHF	.000	.000	.000	.000	.000	.500	.500	.500	.500	.000	.250	.375	.750	.500	.000	.625

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014

Groups Printed- 3 Axle Vehicles

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Apprch %	0	0	0		0	0	100		0	0	0		0	0	0		
Total %	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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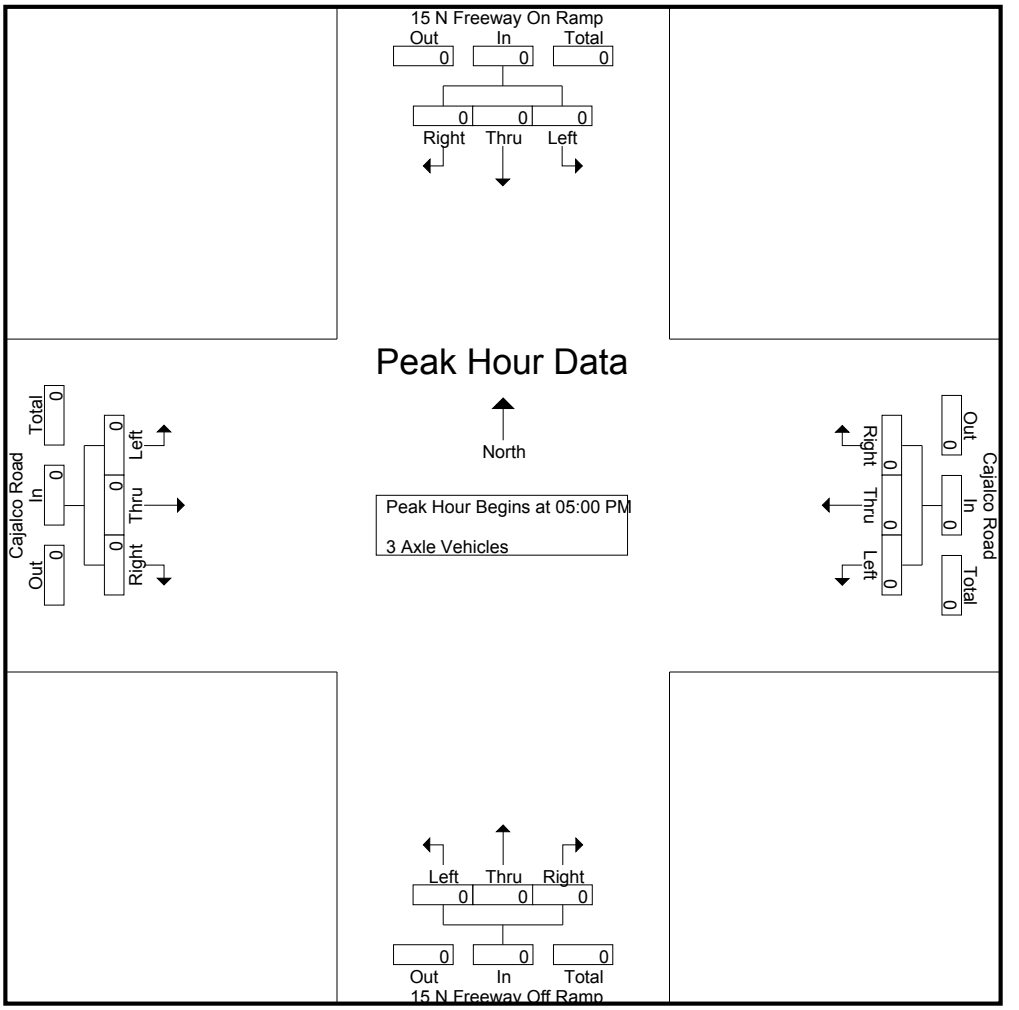
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- 4+ Axle Trucks

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	1	2	0	0	2	2	0	2	0	2	6
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	3	3	0	0	0	0	4
04:45 PM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	1	4	5	0	0	6	6	0	3	0	3	14
05:00 PM	0	0	0	0	0	0	1	1	0	0	5	5	0	0	0	0	6
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
05:30 PM	0	0	0	0	0	0	1	1	0	0	2	2	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	2
Total	0	0	0	0	0	0	3	3	0	0	8	8	0	3	0	3	14
Grand Total	0	0	0	0	0	1	7	8	0	0	14	14	0	6	0	6	28
Apprch %	0	0	0		0	12.5	87.5		0	0	100		0	100	0		
Total %	0	0	0	0	0	3.6	25	28.6	0	0	50	50	0	21.4	0	21.4	

	15 N Freeway On Ramp Southbound				Cajalco Road Westbound				15 N Freeway Off Ramp Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	**1**	**1**	0	0	**5**	**5**	0	0	0	0	**6**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	**3**	3
05:30 PM	0	0	0	0	0	0	1	1	0	0	2	2	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	2
Total Volume	0	0	0	0	0	0	3	3	0	0	8	8	0	3	0	3	14
% App. Total	0	0	0		0	0	100		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.750	.000	.000	.400	.400	.000	.250	.000	.250	.583

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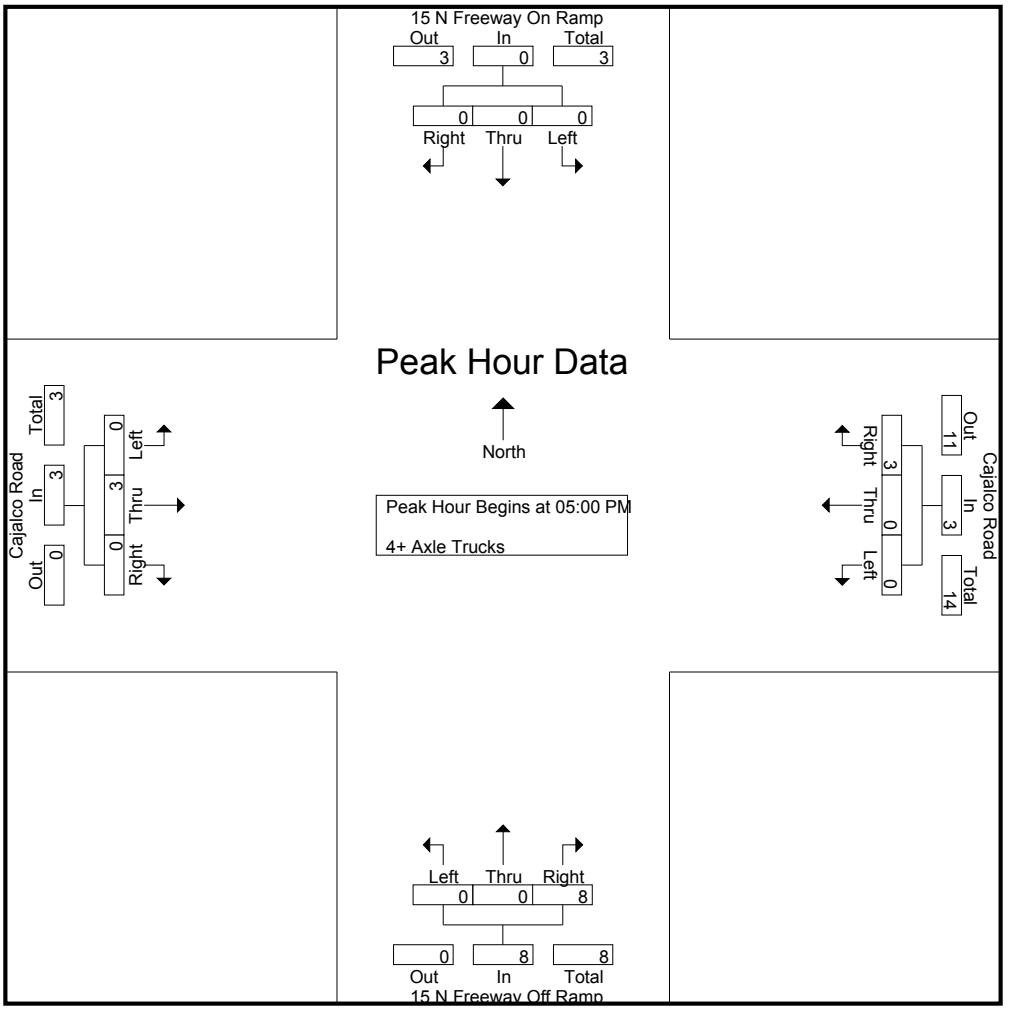
City of Corona
N/S: I-15 Northbound Ramps
E/W: Cajalco Road
Weather: Sunny

File Name : COR15NCAPM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	**1**	**1**	0	0	**5**	**5**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	0	**3**
+30 mins.	0	0	0	0	0	0	1	1	0	0	2	2	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
Total Volume	0	0	0	0	0	0	3	3	0	0	8	8	0	3	0	3
% App. Total	0	0	0		0	0	100		0	0	100		0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.750	.750	.000	.000	.400	.400	.000	.250	.000	.250

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City of Corona
N/S: Grand Oaks
E/W: Cajalco Road
Weather: Clear

File Name : CORGOCAAM
Site Code : 05614031
Start Date : 2/4/2014
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	2	12	14	148	3	151	22	62	84	249
06:45 AM	2	10	12	182	21	203	41	64	105	320
Total	4	22	26	330	24	354	63	126	189	569
07:00 AM	5	19	24	293	11	304	29	68	97	425
07:15 AM	6	27	33	375	9	384	35	71	106	523
07:30 AM	6	28	34	358	15	373	32	81	113	520
07:45 AM	6	23	29	257	12	269	31	99	130	428
Total	23	97	120	1283	47	1330	127	319	446	1896
08:00 AM	6	21	27	174	13	187	32	64	96	310
08:15 AM	4	26	30	171	18	189	60	76	136	355
Grand Total	37	166	203	1958	102	2060	282	585	867	3130
Apprch %	18.2	81.8		95	5		32.5	67.5		
Total %	1.2	5.3	6.5	62.6	3.3	65.8	9	18.7	27.7	
Passenger Vehicles	37	152	189	1844	100	1944	266	467	733	2866
% Passenger Vehicles	100	91.6	93.1	94.2	98	94.4	94.3	79.8	84.5	91.6
Large 2 Axle Vehicles	0	8	8	30	1	31	7	27	34	73
% Large 2 Axle Vehicles	0	4.8	3.9	1.5	1	1.5	2.5	4.6	3.9	2.3
3 Axle Vehicles	0	0	0	10	0	10	0	5	5	15
% 3 Axle Vehicles	0	0	0	0.5	0	0.5	0	0.9	0.6	0.5
4+ Axle Trucks	0	6	6	74	1	75	9	86	95	176
% 4+ Axle Trucks	0	3.6	3	3.8	1	3.6	3.2	14.7	11	5.6

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	5	19	24	293	11	304	29	68	97	425
07:15 AM	**6**	27	33	**375**	9	**384**	**35**	71	106	**523**
07:30 AM	6	**28**	**34**	358	**15**	373	32	81	113	520
07:45 AM	6	23	29	257	12	269	31	**99**	**130**	428
Total Volume	23	97	120	1283	47	1330	127	319	446	1896
% App. Total	19.2	80.8		96.5	3.5		28.5	71.5		
PHF	.958	.866	.882	.855	.783	.866	.907	.806	.858	.906

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File Name : CORGOCAAM
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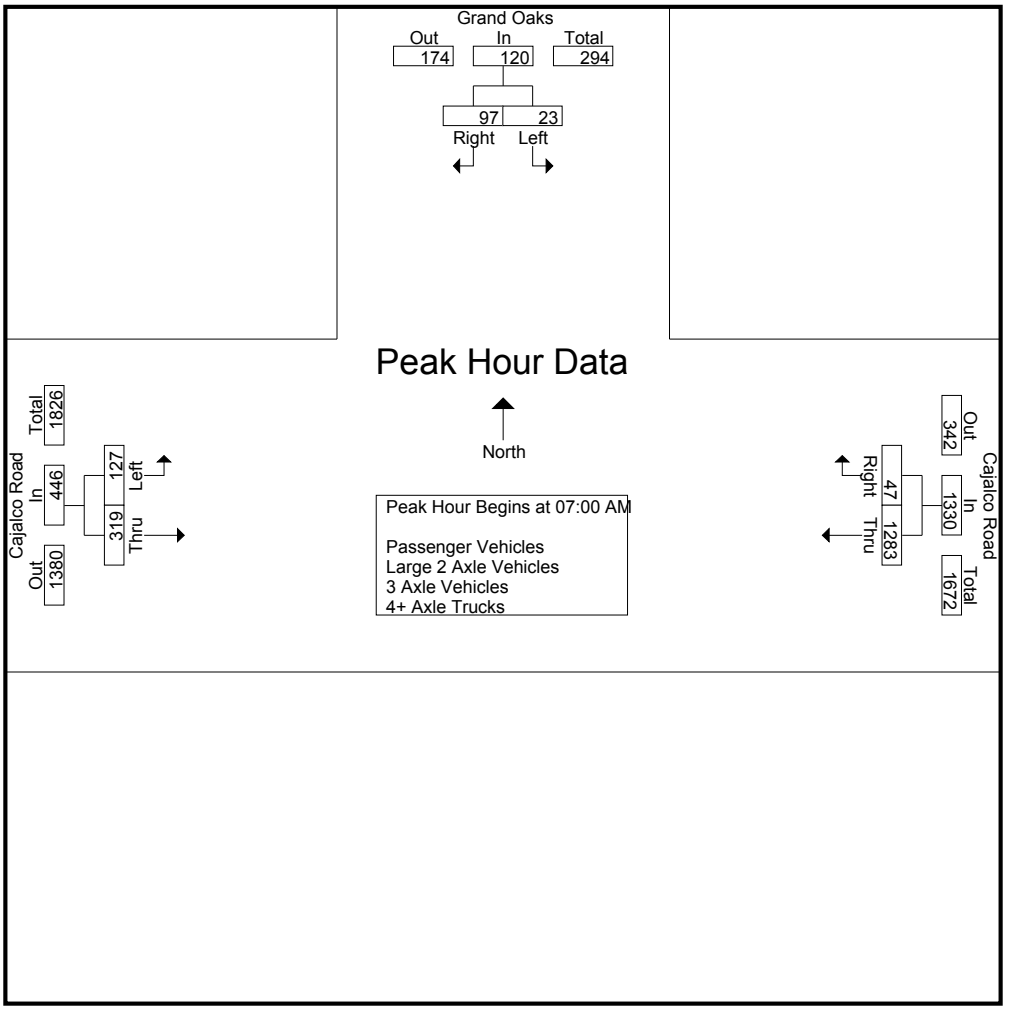

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:30 AM		
+0 mins.	**6**	27	33	293	11	304	32	81	113
+15 mins.	6	**28**	**34**	**375**	9	**384**	31	**99**	130
+30 mins.	6	23	29	358	**15**	373	32	64	96
+45 mins.	6	21	27	257	12	269	**60**	76	**136**
Total Volume	24	99	123	1283	47	1330	155	320	475
% App. Total	19.5	80.5		96.5	3.5		32.6	67.4	
PHF	1.000	.884	.904	.855	.783	.866	.646	.808	.873

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Groups Printed- Passenger Vehicles

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	2	11	13	130	2	132	20	48	68	213
06:45 AM	2	9	11	173	21	194	39	49	88	293
Total	4	20	24	303	23	326	59	97	156	506
07:00 AM	5	18	23	278	11	289	27	63	90	402
07:15 AM	6	26	32	361	9	370	32	58	90	492
07:30 AM	6	25	31	351	15	366	28	70	98	495
07:45 AM	6	21	27	251	11	262	30	69	99	388
Total	23	90	113	1241	46	1287	117	260	377	1777
08:00 AM	6	18	24	155	13	168	31	52	83	275
08:15 AM	4	24	28	145	18	163	59	58	117	308
Grand Total	37	152	189	1844	100	1944	266	467	733	2866
Apprch %	19.6	80.4		94.9	5.1		36.3	63.7		
Total %	1.3	5.3	6.6	64.3	3.5	67.8	9.3	16.3	25.6	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	5	18	23	278	11	289	27	63	90	402
07:15 AM	**6**	**26**	**32**	**361**	9	**370**	**32**	58	90	492
07:30 AM	6	25	31	351	**15**	366	28	**70**	98	**495**
07:45 AM	6	21	27	251	11	262	30	69	**99**	388
Total Volume	23	90	113	1241	46	1287	117	260	377	1777
% App. Total	20.4	79.6		96.4	3.6		31	69		
PHF	.958	.865	.883	.859	.767	.870	.914	.929	.952	.897

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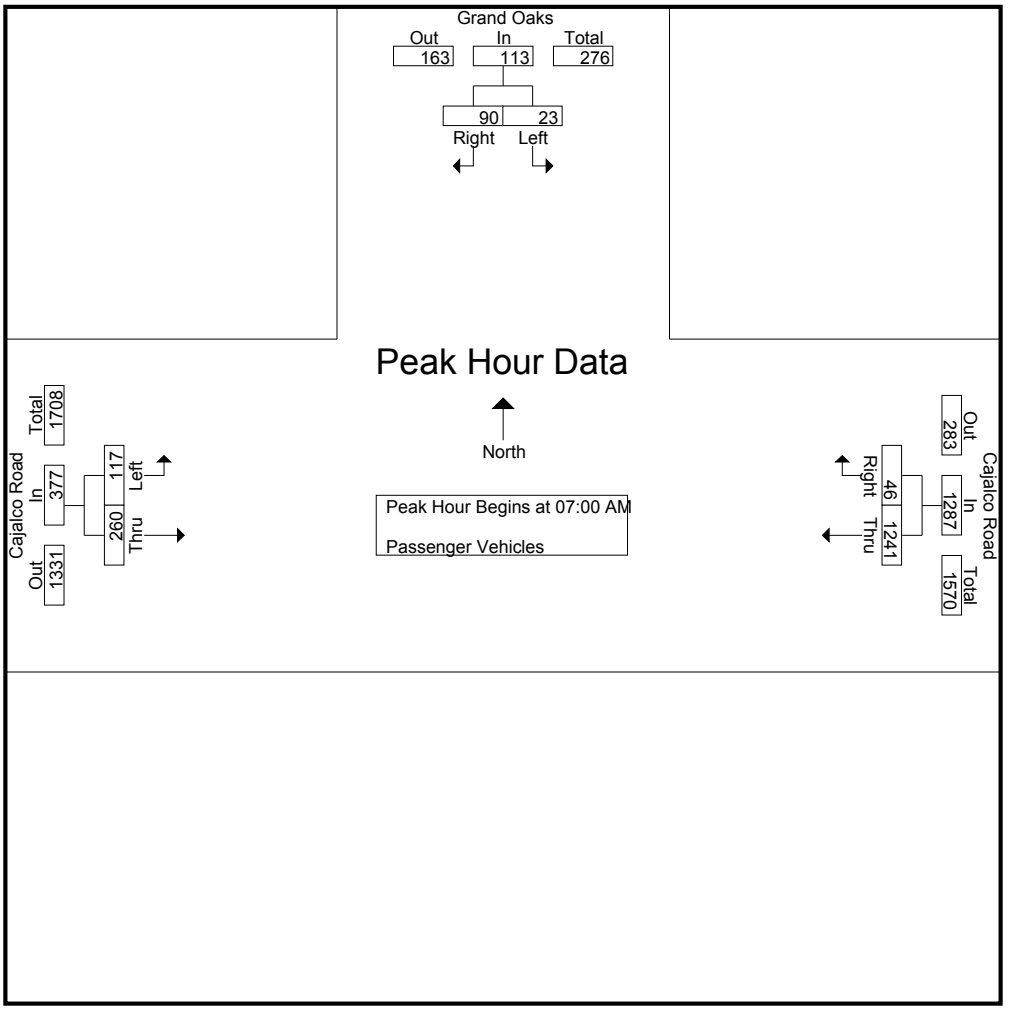

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	5	18	23	278	11	289	27	63	90
+15 mins.	**6**	**26**	**32**	**361**	9	**370**	**32**	58	90
+30 mins.	6	25	31	351	**15**	366	28	**70**	98
+45 mins.	6	21	27	251	11	262	30	69	**99**
Total Volume	23	90	113	1241	46	1287	117	260	377
% App. Total	20.4	79.6		96.4	3.6		31	69	
PHF	.958	.865	.883	.859	.767	.870	.914	.929	.952

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Groups Printed- Large 2 Axle Vehicles

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	0	1	1	5	0	5	1	5	6	12
06:45 AM	0	1	1	3	0	3	1	6	7	11
Total	0	2	2	8	0	8	2	11	13	23
07:00 AM	0	0	0	2	0	2	2	2	4	6
07:15 AM	0	1	1	4	0	4	1	2	3	8
07:30 AM	0	2	2	1	0	1	1	2	3	6
07:45 AM	0	1	1	2	1	3	0	7	7	11
Total	0	4	4	9	1	10	4	13	17	31
08:00 AM	0	2	2	4	0	4	0	1	1	7
08:15 AM	0	0	0	9	0	9	1	2	3	12
Grand Total	0	8	8	30	1	31	7	27	34	73
Apprch %	0	100		96.8	3.2		20.6	79.4		
Total %	0	11	11	41.1	1.4	42.5	9.6	37	46.6	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	2	0	2	**2**	2	4	6
07:15 AM	0	1	1	**4**	0	**4**	1	2	3	8
07:30 AM	0	**2**	**2**	1	0	1	1	2	3	6
07:45 AM	0	1	1	2	**1**	3	0	**7**	**7**	**11**
Total Volume	0	4	4	9	1	10	4	13	17	31
% App. Total	0	100		90	10		23.5	76.5		
PHF	.000	.500	.500	.563	.250	.625	.500	.464	.607	.705

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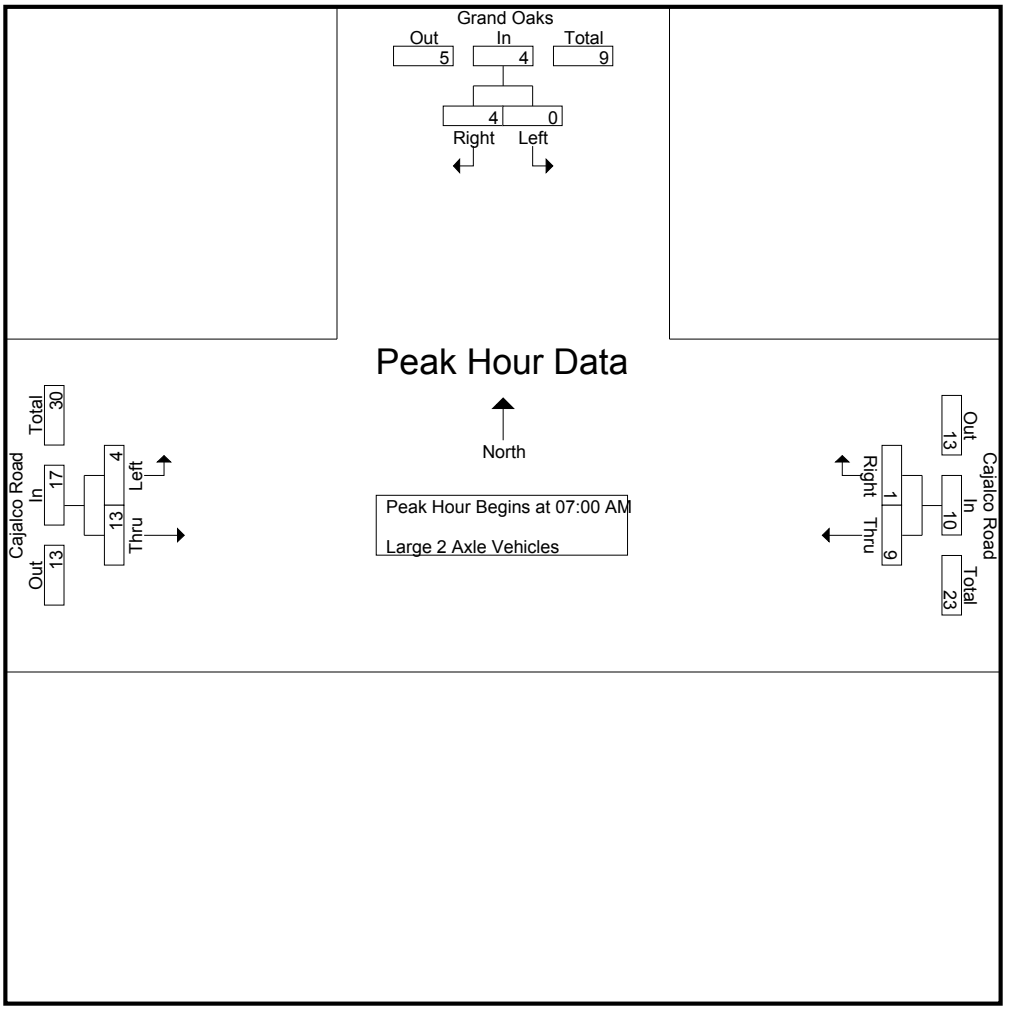

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	2	0	2	**2**	2	4
+15 mins.	0	1	1	**4**	0	**4**	1	2	3
+30 mins.	0	**2**	**2**	1	0	1	1	2	3
+45 mins.	0	1	1	2	**1**	3	0	**7**	**7**
Total Volume	0	4	4	9	1	10	4	13	17
% App. Total	0	100		90	10		23.5	76.5	
PHF	.000	.500	.500	.563	.250	.625	.500	.464	.607

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Groups Printed- 3 Axle Vehicles

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	0	0	0	2	0	2	0	1	1	3
06:45 AM	0	0	0	2	0	2	0	1	1	3
Total	0	0	0	4	0	4	0	2	2	6
07:00 AM	0	0	0	2	0	2	0	0	0	2
07:15 AM	0	0	0	1	0	1	0	1	1	2
07:30 AM	0	0	0	2	0	2	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	5	0	5	0	2	2	7
08:00 AM	0	0	0	0	0	0	0	1	1	1
08:15 AM	0	0	0	1	0	1	0	0	0	1
Grand Total	0	0	0	10	0	10	0	5	5	15
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	66.7	0	66.7	0	33.3	33.3	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	**2**	0	**2**	0	0	0	**2**
07:15 AM	0	0	0	1	0	1	0	**1**	**1**	2
07:30 AM	0	0	0	2	0	2	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	5	0	5	0	2	2	7
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.625	.000	.625	.000	.500	.500	.875

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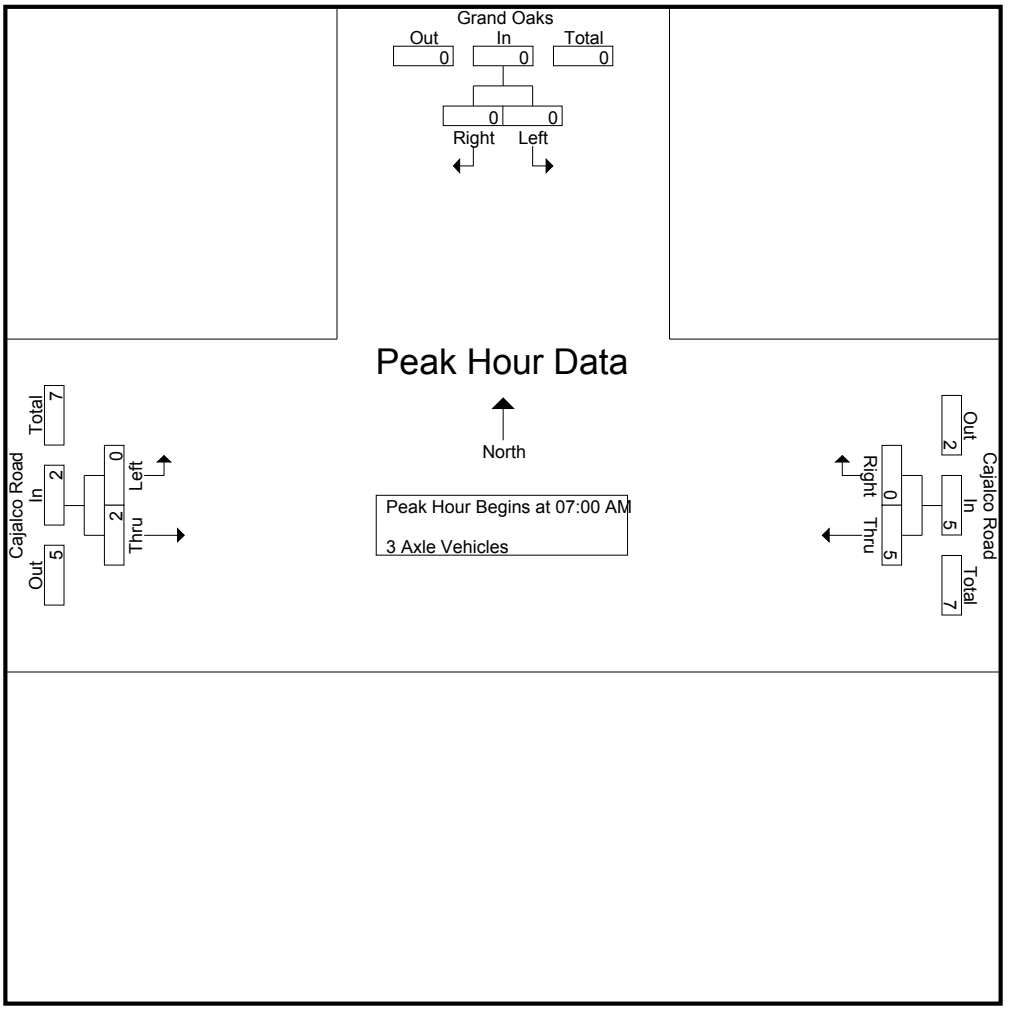

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	**2**	0	**2**	0	0	0
+15 mins.	0	0	0	1	0	1	0	**1**	**1**
+30 mins.	0	0	0	2	0	2	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	5	0	5	0	2	2
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.625	.000	.625	.000	.500	.500

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Groups Printed- 4+ Axle Trucks

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	0	0	0	11	1	12	1	8	9	21
06:45 AM	0	0	0	4	0	4	1	8	9	13
Total	0	0	0	15	1	16	2	16	18	34
07:00 AM	0	1	1	11	0	11	0	3	3	15
07:15 AM	0	0	0	9	0	9	2	10	12	21
07:30 AM	0	1	1	4	0	4	3	9	12	17
07:45 AM	0	1	1	4	0	4	1	22	23	28
Total	0	3	3	28	0	28	6	44	50	81
08:00 AM	0	1	1	15	0	15	1	10	11	27
08:15 AM	0	2	2	16	0	16	0	16	16	34
Grand Total	0	6	6	74	1	75	9	86	95	176
Apprch %	0	100		98.7	1.3		9.5	90.5		
Total %	0	3.4	3.4	42	0.6	42.6	5.1	48.9	54	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	**11**	0	**11**	0	3	3	15
07:15 AM	0	0	0	9	0	9	2	10	12	21
07:30 AM	0	1	1	4	0	4	**3**	9	12	17
07:45 AM	0	1	1	4	0	4	1	**22**	**23**	**28**
Total Volume	0	3	3	28	0	28	6	44	50	81
% App. Total	0	100		100	0		12	88		
PHF	.000	.750	.750	.636	.000	.636	.500	.500	.543	.723

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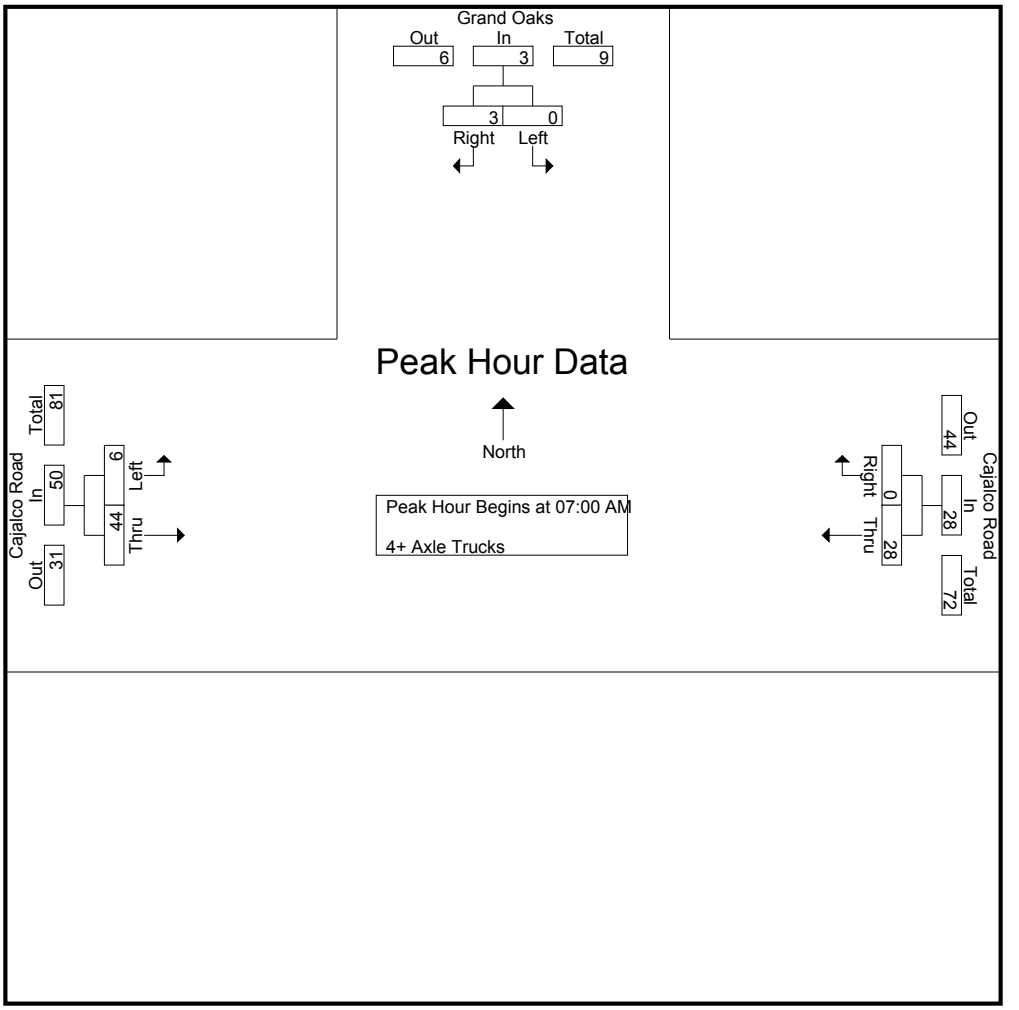

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	**1**	**11**	0	**11**	0	3	3
+15 mins.	0	0	0	9	0	9	2	10	12
+30 mins.	0	1	1	4	0	4	**3**	9	12
+45 mins.	0	1	1	4	0	4	1	**22**	**23**
Total Volume	0	3	3	28	0	28	6	44	50
% App. Total	0	100		100	0		12	88	
PHF	.000	.750	.750	.636	.000	.636	.500	.500	.543

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	28	105	133	128	27	155	138	104	242	530
04:15 PM	27	135	162	113	29	142	114	105	219	523
04:30 PM	27	133	160	86	24	110	118	100	218	488
04:45 PM	31	126	157	116	38	154	117	106	223	534
Total	113	499	612	443	118	561	487	415	902	2075
05:00 PM	26	115	141	108	23	131	154	115	269	541
05:15 PM	26	110	136	114	36	150	119	111	230	516
05:30 PM	39	97	136	114	22	136	139	106	245	517
05:45 PM	23	114	137	92	21	113	133	111	244	494
Total	114	436	550	428	102	530	545	443	988	2068
Grand Total	227	935	1162	871	220	1091	1032	858	1890	4143
Apprch %	19.5	80.5		79.8	20.2		54.6	45.4		
Total %	5.5	22.6	28	21	5.3	26.3	24.9	20.7	45.6	
Passenger Vehicles	225	930	1155	841	218	1059	1028	829	1857	4071
% Passenger Vehicles	99.1	99.5	99.4	96.6	99.1	97.1	99.6	96.6	98.3	98.3
Large 2 Axle Vehicles	2	5	7	20	2	22	4	9	13	42
% Large 2 Axle Vehicles	0.9	0.5	0.6	2.3	0.9	2	0.4	1	0.7	1
3 Axle Vehicles	0	0	0	1	0	1	0	0	0	1
% 3 Axle Vehicles	0	0	0	0.1	0	0.1	0	0	0	0
4+ Axle Trucks	0	0	0	9	0	9	0	20	20	29
% 4+ Axle Trucks	0	0	0	1	0	0.8	0	2.3	1.1	0.7

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	31	**126**	**157**	**116**	**38**	**154**	117	106	223	534
05:00 PM	26	115	141	108	23	131	**154**	**115**	**269**	**541**
05:15 PM	26	110	136	114	36	150	119	111	230	516
05:30 PM	**39**	97	136	114	22	136	139	106	245	517
Total Volume	122	448	570	452	119	571	529	438	967	2108
% App. Total	21.4	78.6		79.2	20.8		54.7	45.3		
PHF	.782	.889	.908	.974	.783	.927	.859	.952	.899	.974

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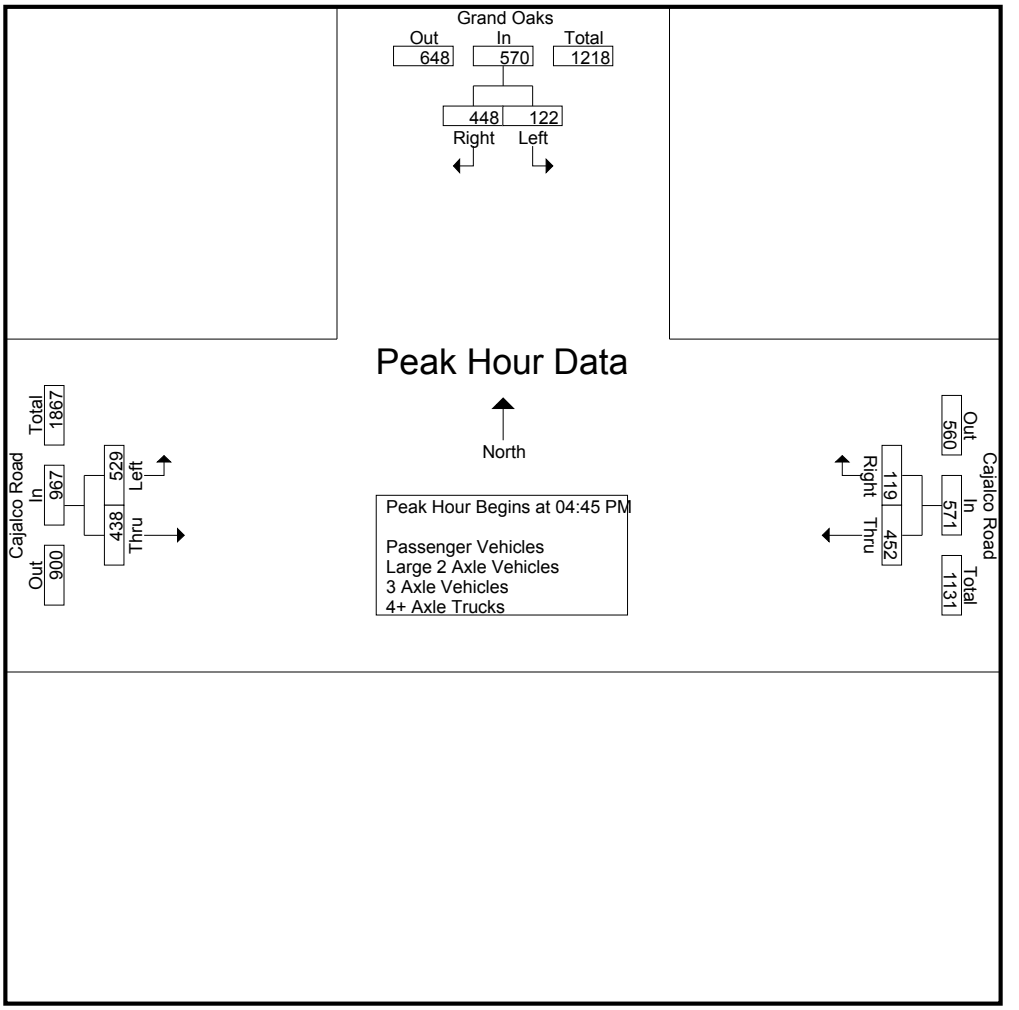

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:45 PM			05:00 PM		
+0 mins.	27	**135**	**162**	**116**	**38**	**154**	**154**	**115**	**269**
+15 mins.	27	133	160	108	23	131	119	111	230
+30 mins.	**31**	126	157	114	36	150	139	106	245
+45 mins.	26	115	141	114	22	136	133	111	244
Total Volume	111	509	620	452	119	571	545	443	988
% App. Total	17.9	82.1		79.2	20.8		55.2	44.8	
PHF	.895	.943	.957	.974	.783	.927	.885	.963	.918

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City of Corona
N/S: Grand Oaks
E/W: Cajalco Road
Weather: Clear

File Name : CORGOCAPM
Site Code : 05614031
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Groups Printed- Passenger Vehicles

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	28	104	132	118	27	145	137	100	237	514
04:15 PM	27	134	161	106	29	135	112	102	214	510
04:30 PM	26	132	158	85	22	107	118	94	212	477
04:45 PM	31	125	156	112	38	150	117	104	221	527
Total	112	495	607	421	116	537	484	400	884	2028
05:00 PM	26	114	140	105	23	128	154	111	265	533
05:15 PM	25	110	135	114	36	150	119	104	223	508
05:30 PM	39	97	136	113	22	135	139	105	244	515
05:45 PM	23	114	137	88	21	109	132	109	241	487
Total	113	435	548	420	102	522	544	429	973	2043
Grand Total	225	930	1155	841	218	1059	1028	829	1857	4071
Apprch %	19.5	80.5		79.4	20.6		55.4	44.6		
Total %	5.5	22.8	28.4	20.7	5.4	26	25.3	20.4	45.6	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	31	**125**	**156**	112	**38**	**150**	117	104	221	527
05:00 PM	26	114	140	105	23	128	**154**	**111**	**265**	**533**
05:15 PM	25	110	135	**114**	36	150	119	104	223	508
05:30 PM	**39**	97	136	113	22	135	139	105	244	515
Total Volume	121	446	567	444	119	563	529	424	953	2083
% App. Total	21.3	78.7		78.9	21.1		55.5	44.5		
PHF	.776	.892	.909	.974	.783	.938	.859	.955	.899	.977

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File Name : CORGOCAPM
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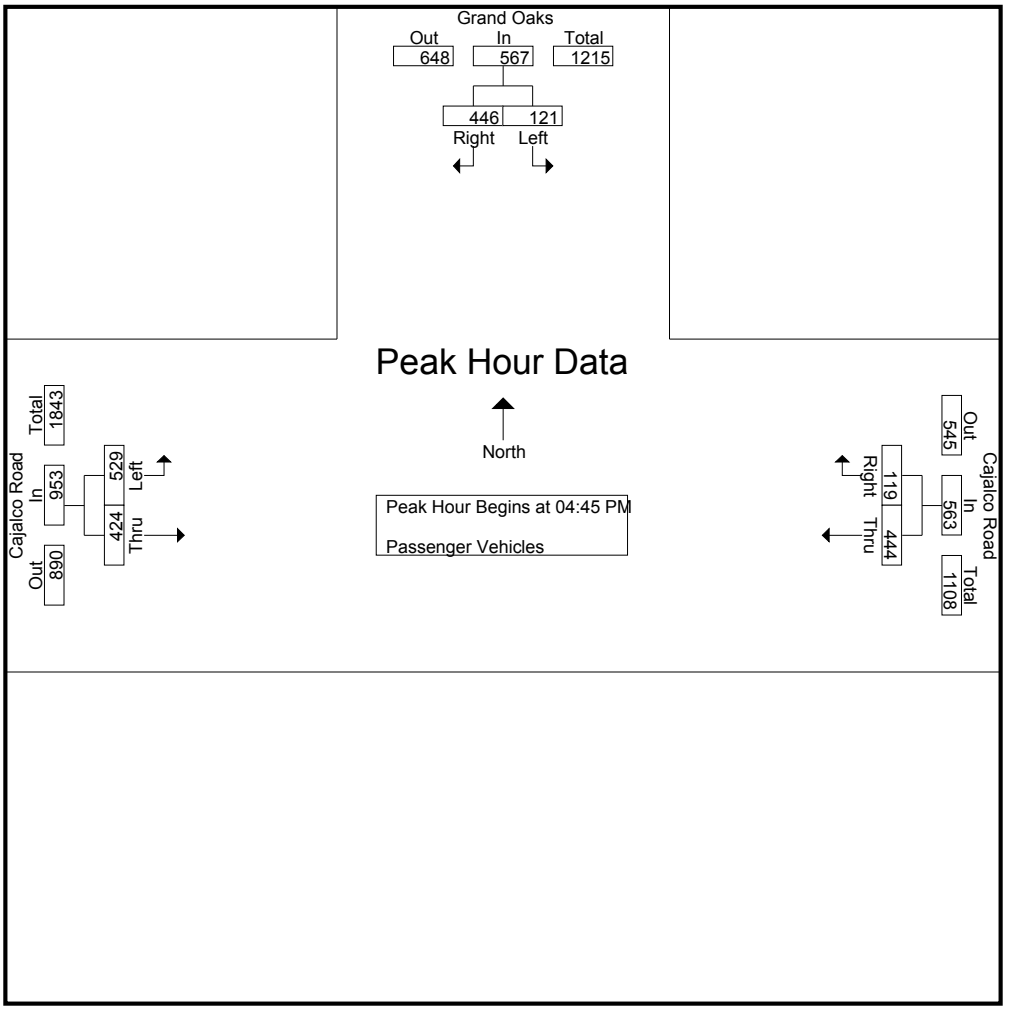

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	31	**125**	**156**	112	**38**	**150**	117	104	221
+15 mins.	26	114	140	105	23	128	**154**	**111**	**265**
+30 mins.	25	110	135	**114**	36	150	119	104	223
+45 mins.	**39**	97	136	113	22	135	139	105	244
Total Volume	121	446	567	444	119	563	529	424	953
% App. Total	21.3	78.7		78.9	21.1		55.5	44.5	
PHF	.776	.892	.909	.974	.783	.938	.859	.955	.899

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Groups Printed- Large 2 Axle Vehicles

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	1	1	8	0	8	1	0	1	10
04:15 PM	0	1	1	5	0	5	2	1	3	9
04:30 PM	1	1	2	0	2	2	0	3	3	7
04:45 PM	0	1	1	2	0	2	0	2	2	5
Total	1	4	5	15	2	17	3	6	9	31
05:00 PM	0	1	1	2	0	2	0	0	0	3
05:15 PM	1	0	1	0	0	0	0	3	3	4
05:30 PM	0	0	0	1	0	1	0	0	0	1
05:45 PM	0	0	0	2	0	2	1	0	1	3
Total	1	1	2	5	0	5	1	3	4	11
Grand Total	2	5	7	20	2	22	4	9	13	42
Apprch %	28.6	71.4		90.9	9.1		30.8	69.2		
Total %	4.8	11.9	16.7	47.6	4.8	52.4	9.5	21.4	31	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**1**	**1**	**2**	0	**2**	0	2	2	**5**
05:00 PM	0	1	1	2	0	2	0	0	0	3
05:15 PM	**1**	0	1	0	0	0	0	**3**	**3**	4
05:30 PM	0	0	0	1	0	1	0	0	0	1
Total Volume	1	2	3	5	0	5	0	5	5	13
% App. Total	33.3	66.7		100	0		0	100		
PHF	.250	.500	.750	.625	.000	.625	.000	.417	.417	.650

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File Name : CORGOCAPM
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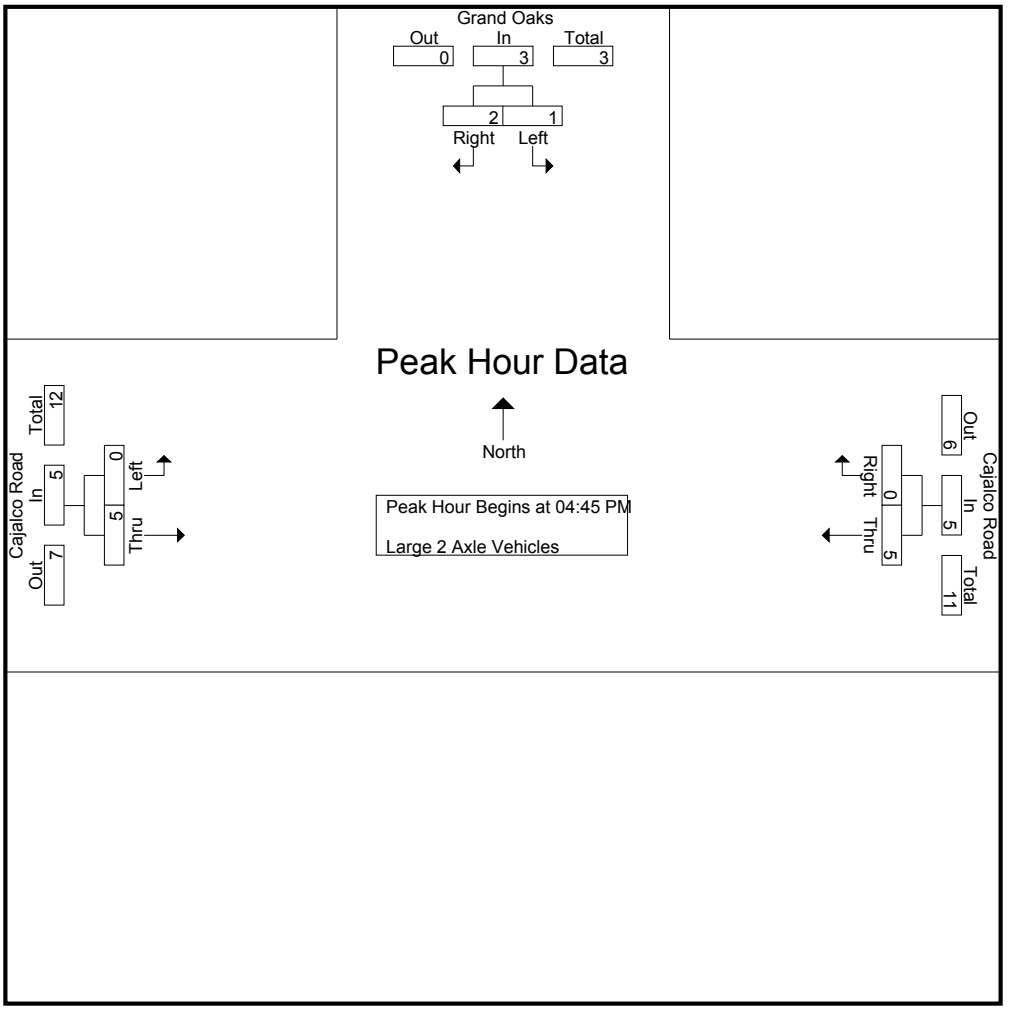

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**1**	**1**	**2**	0	**2**	0	2	2
+15 mins.	0	1	1	2	0	2	0	0	0
+30 mins.	**1**	0	1	0	0	0	0	**3**	**3**
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	1	2	3	5	0	5	0	5	5
% App. Total	33.3	66.7		100	0		0	100	
PHF	.250	.500	.750	.625	.000	.625	.000	.417	.417

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Groups Printed- 3 Axle Vehicles

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	1	0	0	0	1
Apprch %	0	0		100	0		0	0		
Total %	0	0	0	100	0	100	0	0	0	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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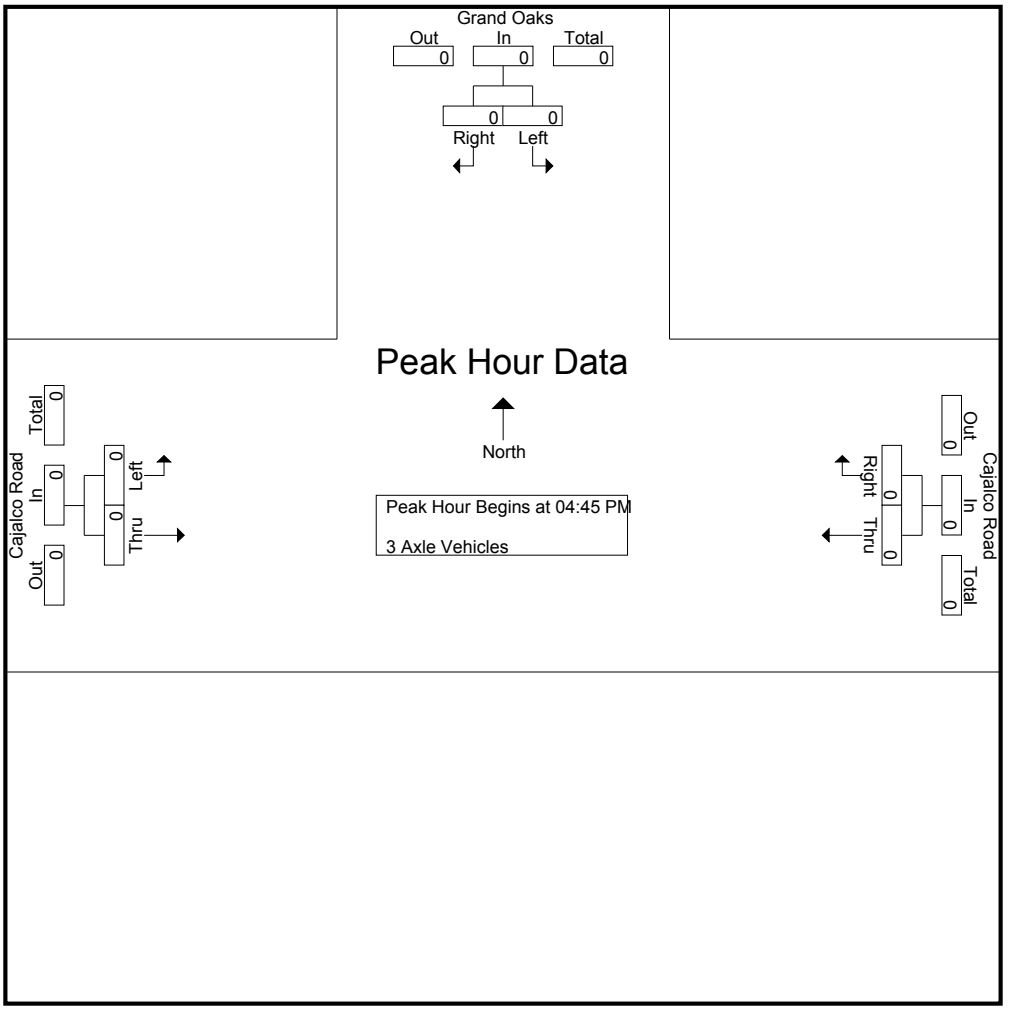

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	2	0	2	0	4	4	6
04:15 PM	0	0	0	1	0	1	0	2	2	3
04:30 PM	0	0	0	1	0	1	0	3	3	4
04:45 PM	0	0	0	2	0	2	0	0	0	2
Total	0	0	0	6	0	6	0	9	9	15
05:00 PM	0	0	0	1	0	1	0	4	4	5
05:15 PM	0	0	0	0	0	0	0	4	4	4
05:30 PM	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	2	0	2	0	2	2	4
Total	0	0	0	3	0	3	0	11	11	14
Grand Total	0	0	0	9	0	9	0	20	20	29
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	31	0	31	0	69	69	

	Grand Oaks Southbound			Cajalco Road Westbound			Cajalco Road Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	**2**	0	**2**	0	0	0	2
05:00 PM	0	0	0	1	0	1	0	**4**	**4**	**5**
05:15 PM	0	0	0	0	0	0	0	4	4	4
05:30 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	3	0	3	0	9	9	12
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.375	.000	.375	.000	.563	.563	.600

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File Name : CORGOCAPM
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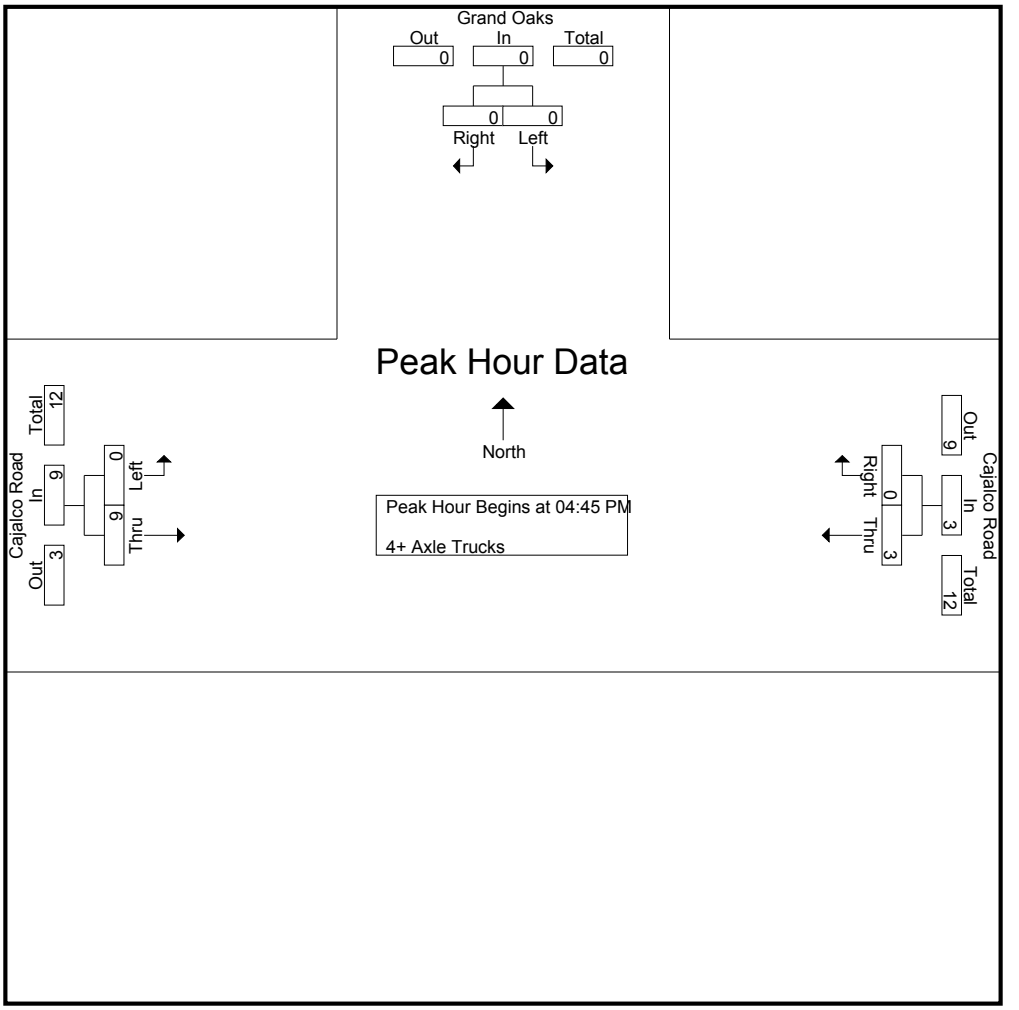

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	**2**	0	**2**	0	0	0
+15 mins.	0	0	0	1	0	1	0	**4**	**4**
+30 mins.	0	0	0	0	0	0	0	4	4
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	3	0	3	0	9	9
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.375	.000	.375	.000	.563	.563

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City of Corona
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Weather: Sunny

File Name : CORTECAAM
Site Code : 00000027
Start Date : 2/4/2014
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Groups Printed- Passenger Vehicles - Large 2 Axle Trucks - Large 3 Axle Trucks - Large 4+ Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	8	3	0	11	13	90	33	136	61	97	39	197	3	42	22	67	411
06:45 AM	7	1	2	10	28	93	45	166	101	130	59	290	1	39	24	64	530
Total	15	4	2	21	41	183	78	302	162	227	98	487	4	81	46	131	941
07:00 AM	17	7	2	26	15	98	31	144	191	156	62	409	2	39	29	70	649
07:15 AM	7	16	9	32	13	130	36	179	239	171	78	488	9	35	33	77	776
07:30 AM	12	26	20	58	6	93	33	132	230	134	76	440	4	36	46	86	716
07:45 AM	17	13	9	39	23	85	24	132	169	120	75	364	2	51	45	98	633
Total	53	62	40	155	57	406	124	587	829	581	291	1701	17	161	153	331	2774
08:00 AM	6	17	6	29	12	87	24	123	89	103	50	242	3	38	33	74	468
08:15 AM	7	14	10	31	17	104	36	157	77	98	36	211	5	48	28	81	480
Grand Total	81	97	58	236	127	780	262	1169	1157	1009	475	2641	29	328	260	617	4663
Apprch %	34.3	41.1	24.6		10.9	66.7	22.4		43.8	38.2	18		4.7	53.2	42.1		
Total %	1.7	2.1	1.2	5.1	2.7	16.7	5.6	25.1	24.8	21.6	10.2	56.6	0.6	7	5.6	13.2	
Passenger Vehicles	75	94	51	220	123	701	249	1073	1139	991	467	2597	27	238	234	499	4389
% Passenger Vehicles	92.6	96.9	87.9	93.2	96.9	89.9	95	91.8	98.4	98.2	98.3	98.3	93.1	72.6	90	80.9	94.1
Large 2 Axle Trucks	5	2	7	14	2	14	5	21	8	18	4	30	0	15	11	26	91
% Large 2 Axle Trucks	6.2	2.1	12.1	5.9	1.6	1.8	1.9	1.8	0.7	1.8	0.8	1.1	0	4.6	4.2	4.2	2
Large 3 Axle Trucks	0	1	0	1	0	5	0	5	0	0	0	0	0	4	0	4	10
% Large 3 Axle Trucks	0	1	0	0.4	0	0.6	0	0.4	0	0	0	0	0	1.2	0	0.6	0.2
Large 4+ Axle Trucks	1	0	0	1	2	60	8	70	10	0	4	14	2	71	15	88	173
% Large 4+ Axle Trucks	1.2	0	0	0.4	1.6	7.7	3.1	6	0.9	0	0.8	0.5	6.9	21.6	5.8	14.3	3.7

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**17**	7	2	26	15	98	31	144	191	156	62	409	2	39	29	70	649
07:15 AM	7	16	9	32	13	**130**	**36**	**179**	**239**	**171**	**78**	**488**	**9**	35	33	77	**776**
07:30 AM	12	**26**	**20**	**58**	6	93	33	132	230	134	76	440	4	36	**46**	86	716
07:45 AM	17	13	9	39	**23**	85	24	132	169	120	75	364	2	**51**	45	**98**	633
Total Volume	53	62	40	155	57	406	124	587	829	581	291	1701	17	161	153	331	2774
% App. Total	34.2	40	25.8		9.7	69.2	21.1		48.7	34.2	17.1		5.1	48.6	46.2		
PHF	.779	.596	.500	.668	.620	.781	.861	.820	.867	.849	.933	.871	.472	.789	.832	.844	.894

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File Name : CORTECAAM
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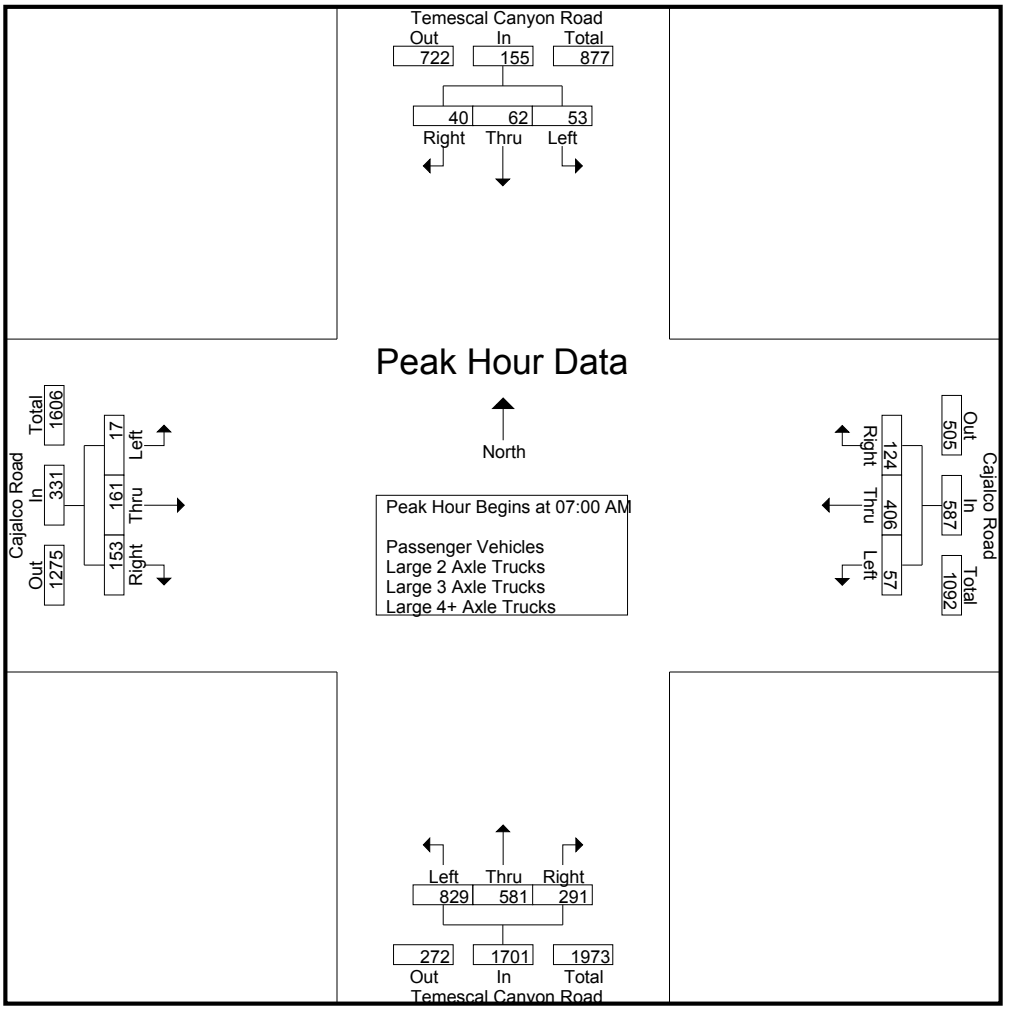

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				06:30 AM				07:00 AM				07:30 AM			
+0 mins.	7	16	9	32	13	90	33	136	191	156	62	409	4	36	**46**	86
+15 mins.	12	**26**	**20**	**58**	**28**	93	**45**	166	**239**	**171**	**78**	**488**	2	**51**	45	**98**
+30 mins.	**17**	13	9	39	15	98	31	144	230	134	76	440	3	38	33	74
+45 mins.	6	17	6	29	13	**130**	36	**179**	169	120	75	364	**5**	48	28	81
Total Volume	42	72	44	158	69	411	145	625	829	581	291	1701	14	173	152	339
% App. Total	26.6	45.6	27.8		11	65.8	23.2		48.7	34.2	17.1		4.1	51	44.8	
PHF	.618	.692	.550	.681	.616	.790	.806	.873	.867	.849	.933	.871	.700	.848	.826	.865

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City of Corona
N/S: Temescal Canyon Road
E/W: Cajalco Road
Weather: Sunny

File Name : CORTECAAM
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Groups Printed- Passenger Vehicles

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	8	3	0	11	12	79	33	124	57	95	38	190	2	30	18	50	375
06:45 AM	4	0	1	5	28	87	45	160	99	126	58	283	1	29	21	51	499
Total	12	3	1	16	40	166	78	284	156	221	96	473	3	59	39	101	874
07:00 AM	16	7	1	24	14	89	29	132	190	154	62	406	2	34	28	64	626
07:15 AM	7	16	9	32	12	119	33	164	238	166	76	480	9	27	30	66	742
07:30 AM	11	26	20	57	6	90	31	127	229	134	76	439	3	28	44	75	698
07:45 AM	16	13	8	37	23	80	24	127	167	119	74	360	2	32	38	72	596
Total	50	62	38	150	55	378	117	550	824	573	288	1685	16	121	140	277	2662
08:00 AM	6	17	5	28	12	71	23	106	86	102	48	236	3	26	30	59	429
08:15 AM	7	12	7	26	16	86	31	133	73	95	35	203	5	32	25	62	424
Grand Total	75	94	51	220	123	701	249	1073	1139	991	467	2597	27	238	234	499	4389
Apprch %	34.1	42.7	23.2		11.5	65.3	23.2		43.9	38.2	18		5.4	47.7	46.9		
Total %	1.7	2.1	1.2	5	2.8	16	5.7	24.4	26	22.6	10.6	59.2	0.6	5.4	5.3	11.4	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**16**	7	1	24	14	89	29	132	190	154	62	406	2	**34**	28	64	626
07:15 AM	7	16	9	32	12	**119**	**33**	**164**	**238**	**166**	**76**	**480**	**9**	27	30	66	**742**
07:30 AM	11	**26**	**20**	**57**	6	90	31	127	229	134	76	439	3	28	**44**	**75**	698
07:45 AM	16	13	8	37	**23**	80	24	127	167	119	74	360	2	32	38	72	596
Total Volume	50	62	38	150	55	378	117	550	824	573	288	1685	16	121	140	277	2662
% App. Total	33.3	41.3	25.3		10	68.7	21.3		48.9	34	17.1		5.8	43.7	50.5		
PHF	.781	.596	.475	.658	.598	.794	.886	.838	.866	.863	.947	.878	.444	.890	.795	.923	.897

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File Name : CORTECAAM
Site Code : 00000027
Start Date : 2/4/2014
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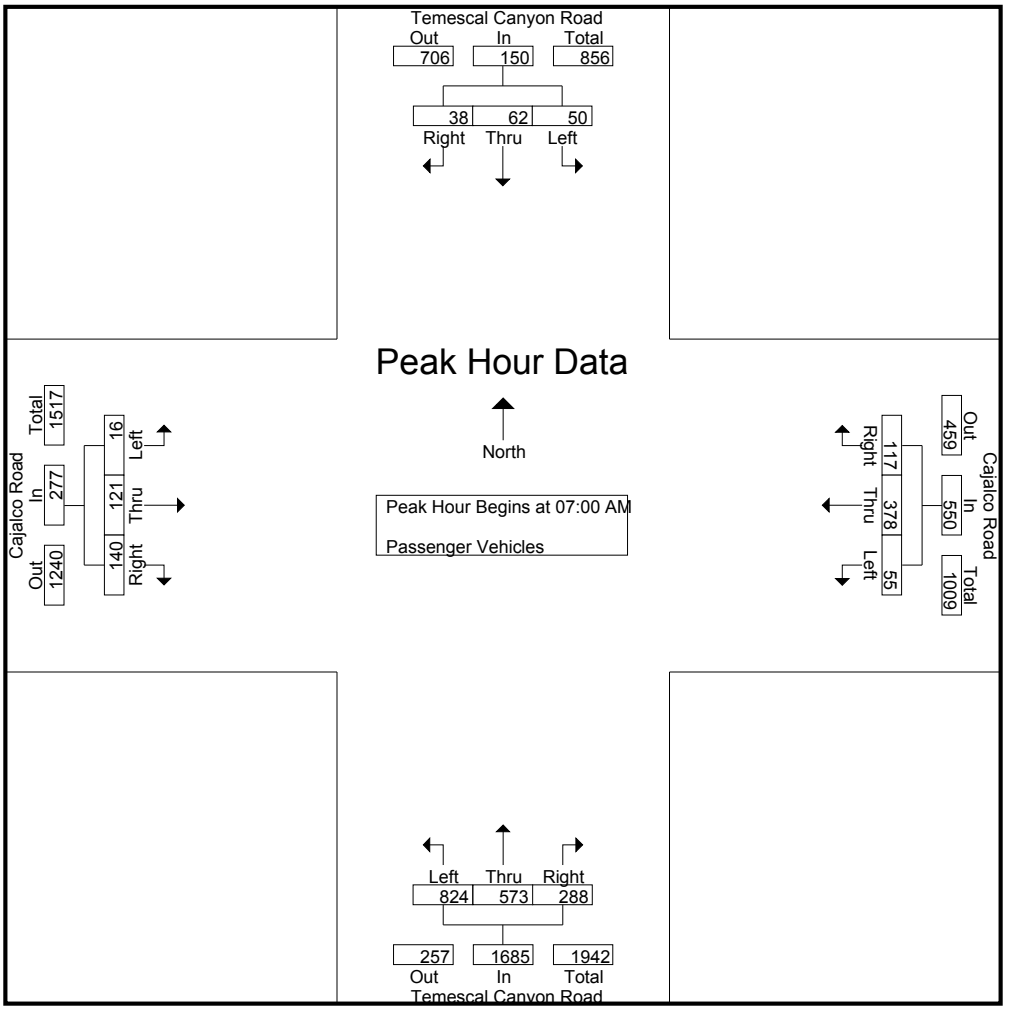

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**16**	7	1	24	14	89	29	132	190	154	62	406	2	**34**	28	64
+15 mins.	7	16	9	32	12	**119**	**33**	**164**	**238**	**166**	**76**	**480**	**9**	27	30	66
+30 mins.	11	**26**	**20**	**57**	6	90	31	127	229	134	76	439	3	28	**44**	**75**
+45 mins.	16	13	8	37	**23**	80	24	127	167	119	74	360	2	32	38	72
Total Volume	50	62	38	150	55	378	117	550	824	573	288	1685	16	121	140	277
% App. Total	33.3	41.3	25.3		10	68.7	21.3		48.9	34	17.1		5.8	43.7	50.5	
PHF	.781	.596	.475	.658	.598	.794	.886	.838	.866	.863	.947	.878	.444	.890	.795	.923

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Groups Printed- Large 2 Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	1	1	0	2	2	2	0	4	0	4	1	5	11
06:45 AM	2	1	1	4	0	0	0	0	2	4	0	6	0	3	1	4	14
Total	2	1	1	4	1	1	0	2	4	6	0	10	0	7	2	9	25
07:00 AM	1	0	1	2	1	1	2	4	0	2	0	2	0	3	0	3	11
07:15 AM	0	0	0	0	0	3	1	4	0	5	1	6	0	1	0	1	11
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1	2	3
07:45 AM	1	0	1	2	0	2	0	2	2	1	0	3	0	3	4	7	14
Total	3	0	2	5	1	6	3	10	2	8	1	11	0	8	5	13	39
08:00 AM	0	0	1	1	0	3	1	4	0	1	2	3	0	0	1	1	9
08:15 AM	0	1	3	4	0	4	1	5	2	3	1	6	0	0	3	3	18
Grand Total	5	2	7	14	2	14	5	21	8	18	4	30	0	15	11	26	91
Apprch %	35.7	14.3	50		9.5	66.7	23.8		26.7	60	13.3		0	57.7	42.3		
Total %	5.5	2.2	7.7	15.4	2.2	15.4	5.5	23.1	8.8	19.8	4.4	33	0	16.5	12.1	28.6	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	0	**1**	**2**	**1**	1	**2**	**4**	0	2	0	2	0	**3**	0	3	11
07:15 AM	0	0	0	0	0	**3**	1	4	0	**5**	**1**	**6**	0	1	0	1	11
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1	2	3
07:45 AM	1	0	1	2	0	2	0	2	**2**	1	0	3	0	3	**4**	**7**	**14**
Total Volume	3	0	2	5	1	6	3	10	2	8	1	11	0	8	5	13	39
% App. Total	60	0	40		10	60	30		18.2	72.7	9.1		0	61.5	38.5		
PHF	.750	.000	.500	.625	.250	.500	.375	.625	.250	.400	.250	.458	.000	.667	.313	.464	.696

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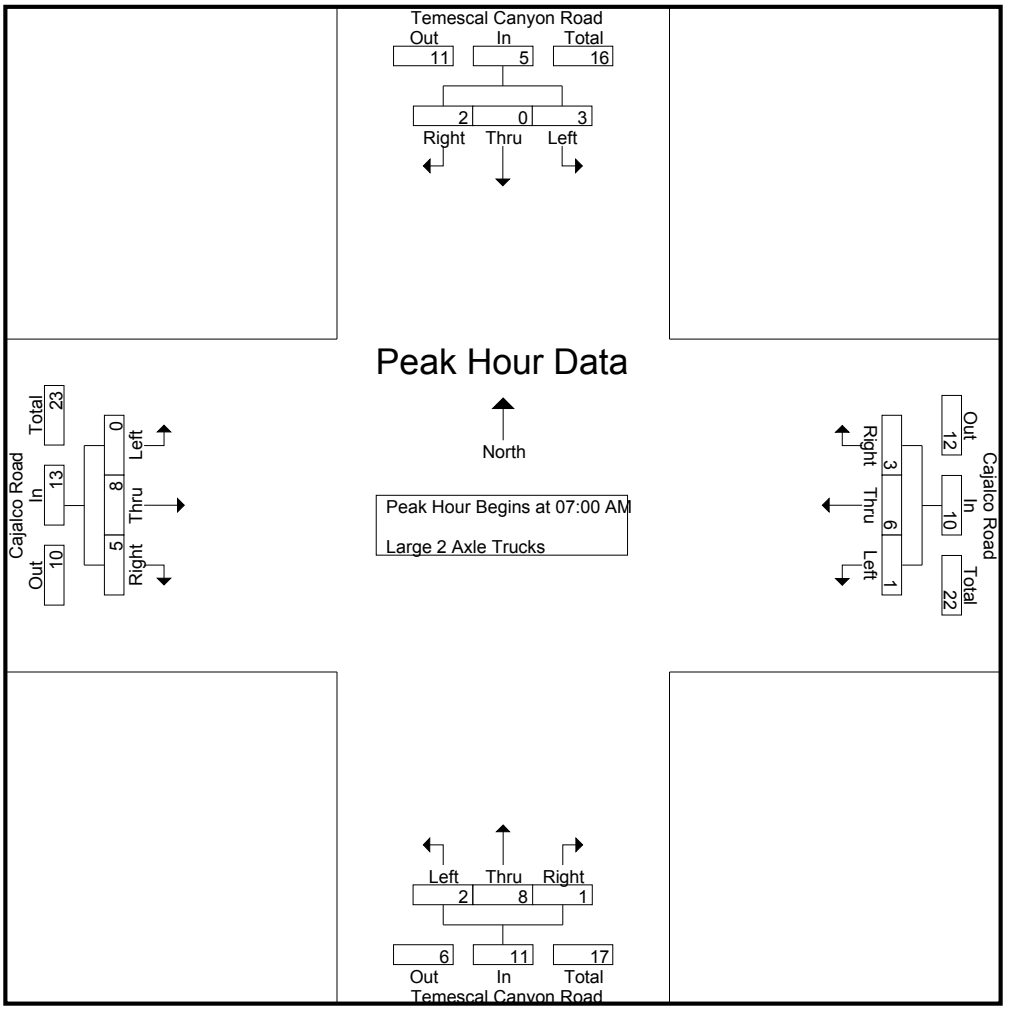

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**1**	0	**1**	**2**	**1**	1	**2**	**4**	0	2	0	2	0	**3**	0	3
+15 mins.	0	0	0	0	0	**3**	1	4	0	**5**	**1**	**6**	0	1	0	1
+30 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1	2
+45 mins.	1	0	1	2	0	2	0	2	**2**	1	0	3	0	3	**4**	**7**
Total Volume	3	0	2	5	1	6	3	10	2	8	1	11	0	8	5	13
% App. Total	60	0	40		10	60	30		18.2	72.7	9.1		0	61.5	38.5	
PHF	.750	.000	.500	.625	.250	.500	.375	.625	.250	.400	.250	.458	.000	.667	.313	.464

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File Name : CORTECAAM
Site Code : 00000027
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Groups Printed- Large 3 Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
06:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	5	0	5	0	0	0	0	0	4	0	4	10
Apprch %	0	100	0		0	100	0		0	0	0		0	100	0		
Total %	0	10	0	10	0	50	0	50	0	0	0	0	0	40	0	40	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	**2**
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	2
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.250	.000	.250	.625

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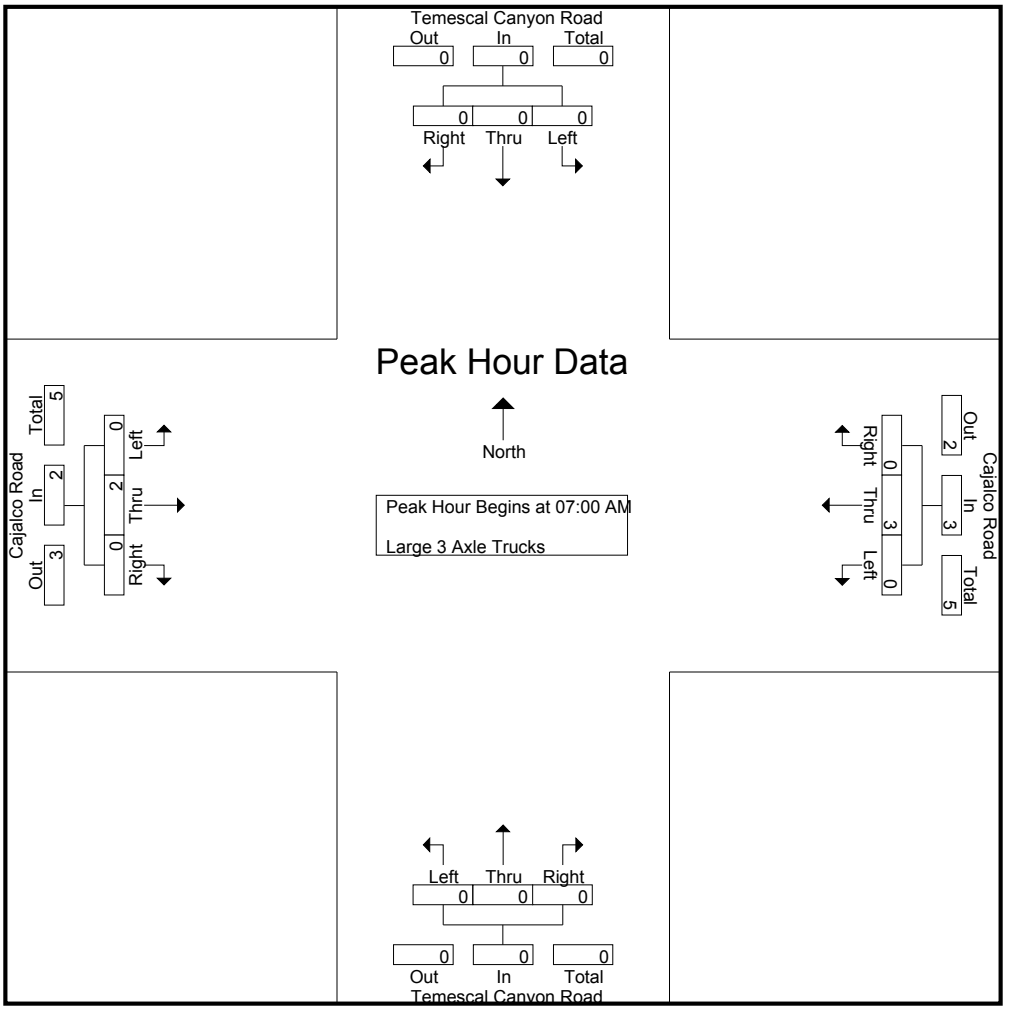

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.250	.000	.250

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File Name : CORTECAAM
Site Code : 00000027
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Groups Printed- Large 4+ Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	0	0	0	9	0	9	2	0	1	3	1	7	3	11	23
06:45 AM	1	0	0	1	0	5	0	5	0	0	1	1	0	6	2	8	15
Total	1	0	0	1	0	14	0	14	2	0	2	4	1	13	5	19	38
07:00 AM	0	0	0	0	0	6	0	6	1	0	0	1	0	2	1	3	10
07:15 AM	0	0	0	0	1	7	2	10	1	0	1	2	0	7	3	10	22
07:30 AM	0	0	0	0	0	3	2	5	1	0	0	1	1	7	1	9	15
07:45 AM	0	0	0	0	0	3	0	3	0	0	1	1	0	14	3	17	21
Total	0	0	0	0	1	19	4	24	3	0	2	5	1	30	8	39	68
08:00 AM	0	0	0	0	0	13	0	13	3	0	0	3	0	12	2	14	30
08:15 AM	0	0	0	0	1	14	4	19	2	0	0	2	0	16	0	16	37
Grand Total	1	0	0	1	2	60	8	70	10	0	4	14	2	71	15	88	173
Apprch %	100	0	0		2.9	85.7	11.4		71.4	0	28.6		2.3	80.7	17		
Total %	0.6	0	0	0.6	1.2	34.7	4.6	40.5	5.8	0	2.3	8.1	1.2	41	8.7	50.9	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	6	0	6	**1**	0	0	1	0	2	1	3	10
07:15 AM	0	0	0	0	**1**	**7**	**2**	**10**	1	0	**1**	**2**	0	7	**3**	10	**22**
07:30 AM	0	0	0	0	0	3	2	5	1	0	0	1	**1**	7	1	9	15
07:45 AM	0	0	0	0	0	3	0	3	0	0	1	1	0	**14**	3	**17**	21
Total Volume	0	0	0	0	1	19	4	24	3	0	2	5	1	30	8	39	68
% App. Total	0	0	0		4.2	79.2	16.7		60	0	40		2.6	76.9	20.5		
PHF	.000	.000	.000	.000	.250	.679	.500	.600	.750	.000	.500	.625	.250	.536	.667	.574	.773

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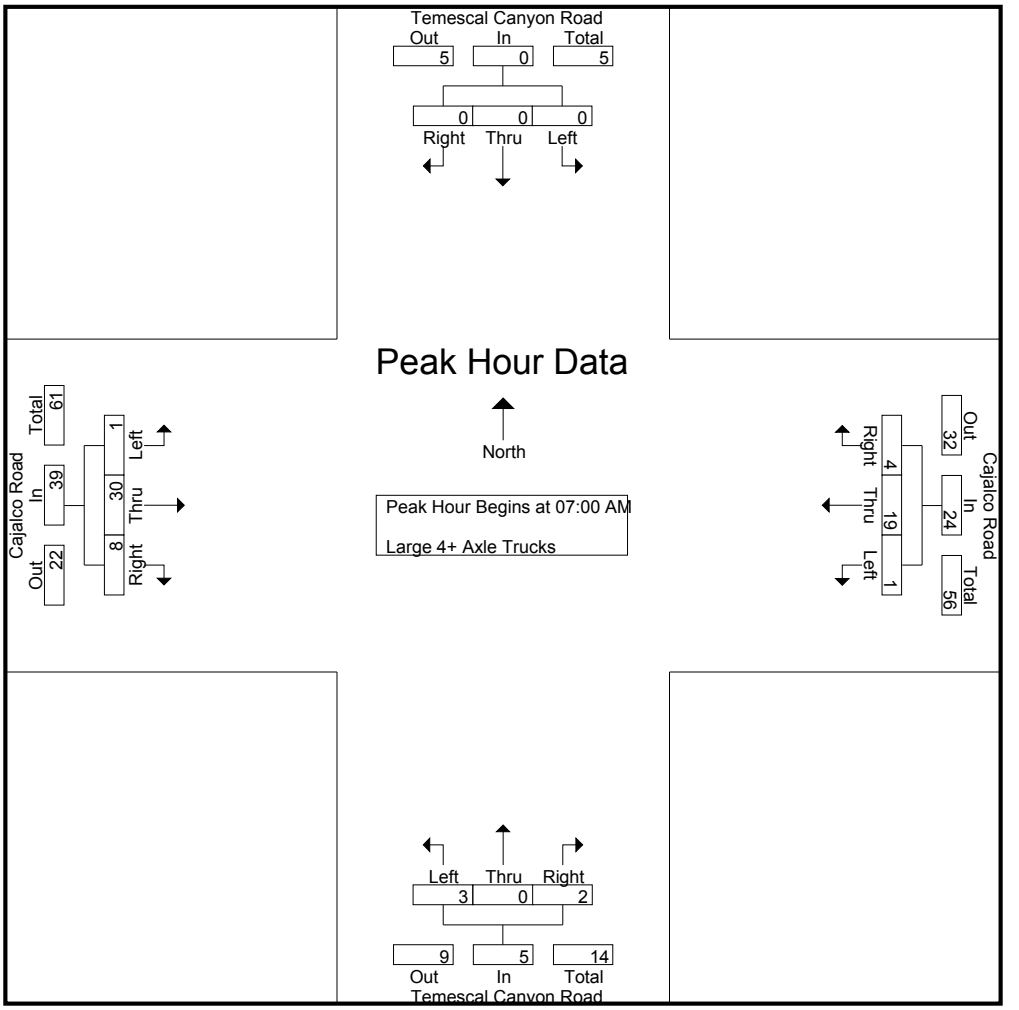

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	6	0	6	**1**	0	0	1	0	2	1	3
+15 mins.	0	0	0	0	**1**	**7**	**2**	**10**	1	0	**1**	**2**	0	7	**3**	10
+30 mins.	0	0	0	0	0	3	2	5	1	0	0	1	**1**	7	1	9
+45 mins.	0	0	0	0	0	3	0	3	0	0	1	1	0	**14**	3	**17**
Total Volume	0	0	0	0	1	19	4	24	3	0	2	5	1	30	8	39
% App. Total	0	0	0		4.2	79.2	16.7		60	0	40		2.6	76.9	20.5	
PHF	.000	.000	.000	.000	.250	.679	.500	.600	.750	.000	.500	.625	.250	.536	.667	.574

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File Name : CORTECAPM
Site Code : 00000027
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Groups Printed- Passenger Vehicles - Large 2 Axle Trucks - Large 3 Axle Trucks - Large 4+ Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	30	63	10	103	27	59	14	100	77	51	30	158	8	58	69	135	496
04:15 PM	49	59	9	117	24	71	11	106	50	53	32	135	7	59	61	127	485
04:30 PM	45	74	10	129	24	54	18	96	51	32	19	102	3	67	64	134	461
04:45 PM	39	66	14	119	39	72	16	127	64	24	20	108	5	57	76	138	492
Total	163	262	43	468	114	256	59	429	242	160	101	503	23	241	270	534	1934
05:00 PM	52	77	9	138	41	65	15	121	52	38	28	118	7	68	66	141	518
05:15 PM	60	78	4	142	36	84	25	145	60	43	20	123	6	55	75	136	546
05:30 PM	53	87	10	150	51	76	18	145	49	26	19	94	3	66	78	147	536
05:45 PM	28	89	8	125	41	62	18	121	54	27	8	89	3	53	77	133	468
Total	193	331	31	555	169	287	76	532	215	134	75	424	19	242	296	557	2068
Grand Total	356	593	74	1023	283	543	135	961	457	294	176	927	42	483	566	1091	4002
Apprch %	34.8	58	7.2		29.4	56.5	14		49.3	31.7	19		3.8	44.3	51.9		
Total %	8.9	14.8	1.8	25.6	7.1	13.6	3.4	24	11.4	7.3	4.4	23.2	1	12.1	14.1	27.3	
Passenger Vehicles	354	587	73	1014	279	530	133	942	450	289	174	913	40	472	552	1064	3933
% Passenger Vehicles	99.4	99	98.6	99.1	98.6	97.6	98.5	98	98.5	98.3	98.9	98.5	95.2	97.7	97.5	97.5	98.3
Large 2 Axle Trucks	1	6	0	7	0	10	2	12	3	4	1	8	1	3	3	7	34
% Large 2 Axle Trucks	0.3	1	0	0.7	0	1.8	1.5	1.2	0.7	1.4	0.6	0.9	2.4	0.6	0.5	0.6	0.8
Large 3 Axle Trucks	1	0	0	1	1	1	0	2	1	0	0	1	0	0	0	0	4
% Large 3 Axle Trucks	0.3	0	0	0.1	0.4	0.2	0	0.2	0.2	0	0	0.1	0	0	0	0	0.1
Large 4+ Axle Trucks	0	0	1	1	3	2	0	5	3	1	1	5	1	8	11	20	31
% Large 4+ Axle Trucks	0	0	1.4	0.1	1.1	0.4	0	0.5	0.7	0.3	0.6	0.5	2.4	1.7	1.9	1.8	0.8

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	39	66	**14**	119	39	72	16	127	**64**	24	20	108	5	57	76	138	492
05:00 PM	52	77	9	138	41	65	15	121	52	38	**28**	118	**7**	**68**	66	141	518
05:15 PM	**60**	78	4	142	36	**84**	**25**	**145**	60	**43**	20	**123**	6	55	75	136	**546**
05:30 PM	53	**87**	10	**150**	**51**	76	18	145	49	26	19	94	3	66	**78**	**147**	536
Total Volume	204	308	37	549	167	297	74	538	225	131	87	443	21	246	295	562	2092
% App. Total	37.2	56.1	6.7		31	55.2	13.8		50.8	29.6	19.6		3.7	43.8	52.5		
PHF	.850	.885	.661	.915	.819	.884	.740	.928	.879	.762	.777	.900	.750	.904	.946	.956	.958

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City of Corona
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E/W: Cajalco Road
Weather: Sunny

File Name : CORTECAPM
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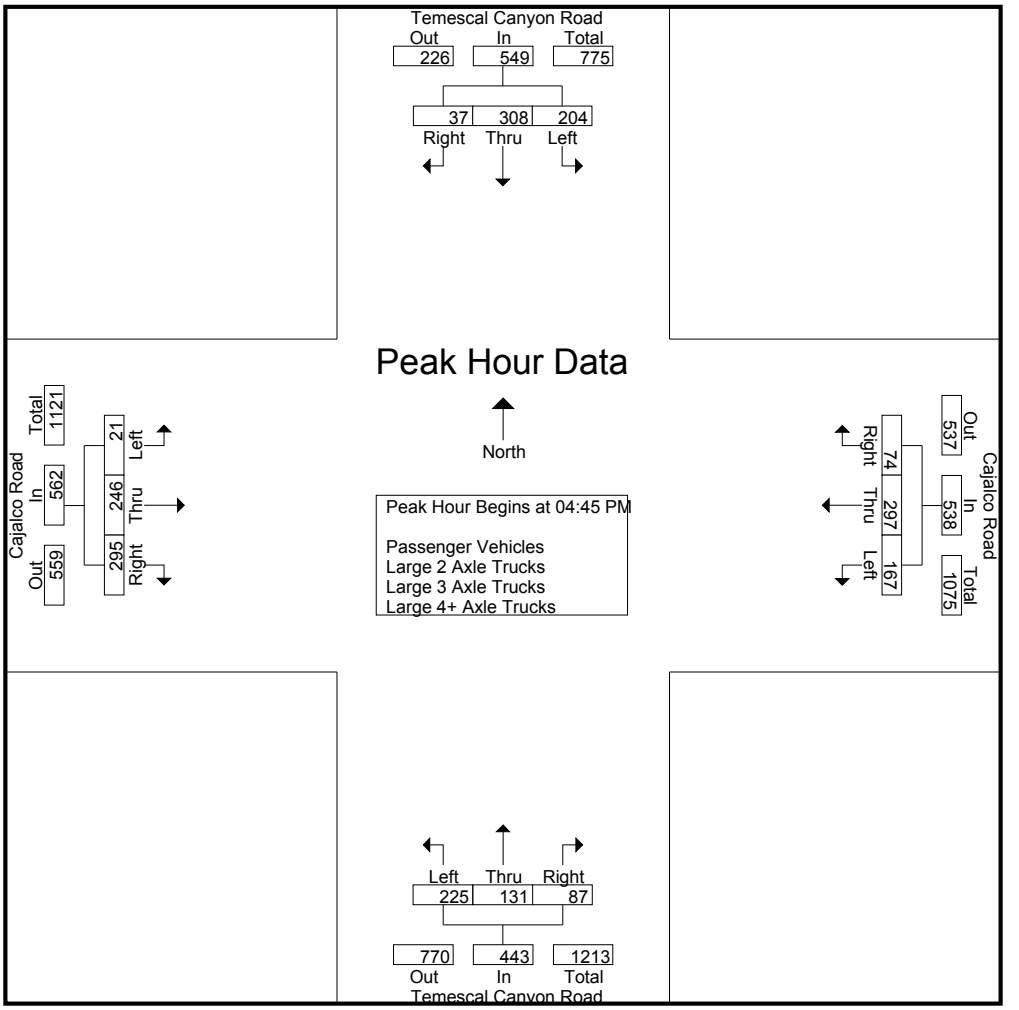

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:45 PM				04:00 PM				04:45 PM			
+0 mins.	52	77	9	138	39	72	16	127	**77**	51	30	**158**	5	57	76	138
+15 mins.	**60**	78	4	142	41	65	15	121	50	**53**	**32**	135	**7**	**68**	66	141
+30 mins.	53	87	**10**	**150**	36	**84**	**25**	**145**	51	32	19	102	6	55	75	136
+45 mins.	28	**89**	8	125	**51**	76	18	145	64	24	20	108	3	66	**78**	**147**
Total Volume	193	331	31	555	167	297	74	538	242	160	101	503	21	246	295	562
% App. Total	34.8	59.6	5.6		31	55.2	13.8		48.1	31.8	20.1		3.7	43.8	52.5	
PHF	.804	.930	.775	.925	.819	.884	.740	.928	.786	.755	.789	.796	.750	.904	.946	.956

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Groups Printed- Passenger Vehicles

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	30	62	10	102	27	55	13	95	76	50	30	156	8	56	67	131	484
04:15 PM	48	59	9	116	22	68	10	100	49	51	30	130	7	59	58	124	470
04:30 PM	45	71	10	126	23	54	18	95	48	31	19	98	3	63	62	128	447
04:45 PM	39	66	14	119	39	69	16	124	64	24	20	108	5	57	75	137	488
Total	162	258	43	463	111	246	57	414	237	156	99	492	23	235	262	520	1889
05:00 PM	52	76	9	137	41	63	15	119	52	37	28	117	7	66	64	137	510
05:15 PM	59	78	4	141	35	84	25	144	60	43	20	123	4	53	73	130	538
05:30 PM	53	87	9	149	51	76	18	145	48	26	19	93	3	66	77	146	533
05:45 PM	28	88	8	124	41	61	18	120	53	27	8	88	3	52	76	131	463
Total	192	329	30	551	168	284	76	528	213	133	75	421	17	237	290	544	2044
Grand Total	354	587	73	1014	279	530	133	942	450	289	174	913	40	472	552	1064	3933
Apprch %	34.9	57.9	7.2		29.6	56.3	14.1		49.3	31.7	19.1		3.8	44.4	51.9		
Total %	9	14.9	1.9	25.8	7.1	13.5	3.4	24	11.4	7.3	4.4	23.2	1	12	14	27.1	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	39	66	**14**	119	39	69	16	124	**64**	24	20	108	5	57	75	137	488
05:00 PM	52	76	9	137	41	63	15	119	52	37	**28**	117	**7**	**66**	64	137	510
05:15 PM	**59**	78	4	141	35	**84**	**25**	144	60	**43**	20	**123**	4	53	73	130	**538**
05:30 PM	53	**87**	9	**149**	**51**	76	18	**145**	48	26	19	93	3	66	**77**	**146**	533
Total Volume	203	307	36	546	166	292	74	532	224	130	87	441	19	242	289	550	2069
% App. Total	37.2	56.2	6.6		31.2	54.9	13.9		50.8	29.5	19.7		3.5	44	52.5		
PHF	.860	.882	.643	.916	.814	.869	.740	.917	.875	.756	.777	.896	.679	.917	.938	.942	.961

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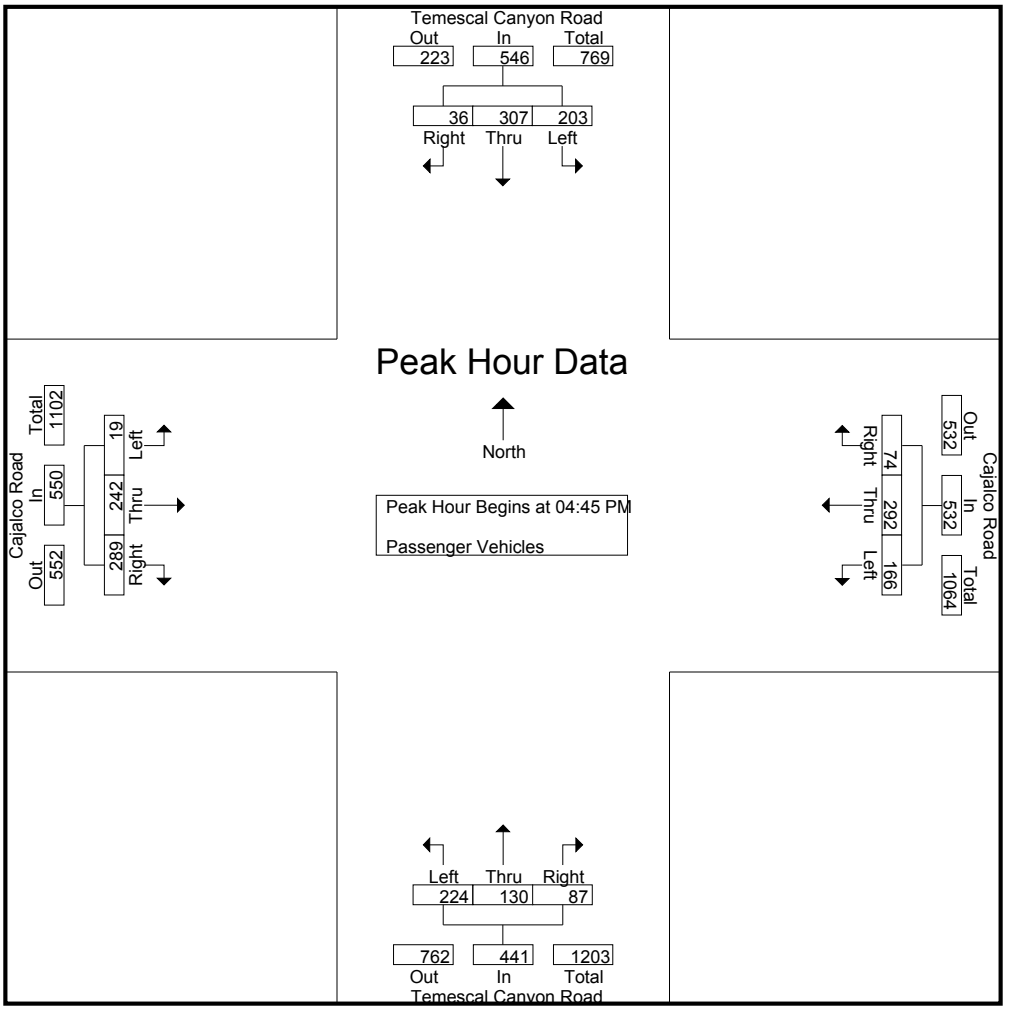

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	39	66	**14**	119	39	69	16	124	**64**	24	20	108	5	57	75	137
+15 mins.	52	76	9	137	41	63	15	119	52	37	**28**	117	**7**	**66**	64	137
+30 mins.	**59**	78	4	141	35	**84**	**25**	144	60	**43**	20	**123**	4	53	73	130
+45 mins.	53	**87**	9	**149**	**51**	76	18	**145**	48	26	19	93	3	66	**77**	**146**
Total Volume	203	307	36	546	166	292	74	532	224	130	87	441	19	242	289	550
% App. Total	37.2	56.2	6.6		31.2	54.9	13.9		50.8	29.5	19.7		3.5	44	52.5	
PHF	.860	.882	.643	.916	.814	.869	.740	.917	.875	.756	.777	.896	.679	.917	.938	.942

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Groups Printed- Large 2 Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	0	1	0	4	1	5	0	1	0	1	0	0	0	0	7
04:15 PM	1	0	0	1	0	3	1	4	0	2	1	3	0	0	1	1	9
04:30 PM	0	3	0	3	0	0	0	0	2	0	0	2	0	2	1	3	8
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
Total	1	4	0	5	0	8	2	10	2	3	1	6	0	2	3	5	26
05:00 PM	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
05:45 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
Total	0	2	0	2	0	2	0	2	1	1	0	2	1	1	0	2	8
Grand Total	1	6	0	7	0	10	2	12	3	4	1	8	1	3	3	7	34
Apprch %	14.3	85.7	0		0	83.3	16.7		37.5	50	12.5		14.3	42.9	42.9		
Total %	2.9	17.6	0	20.6	0	29.4	5.9	35.3	8.8	11.8	2.9	23.5	2.9	8.8	8.8	20.6	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	**1**	1	2
05:00 PM	0	**1**	0	**1**	0	1	0	1	0	**1**	0	**1**	0	0	0	0	**3**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	**2**	2
05:30 PM	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	1
Total Volume	0	1	0	1	0	2	0	2	1	1	0	2	1	1	1	3	8
% App. Total	0	100	0		0	100	0		50	50	0		33.3	33.3	33.3		
PHF	.000	.250	.000	.250	.000	.500	.000	.500	.250	.250	.000	.500	.250	.250	.250	.375	.667

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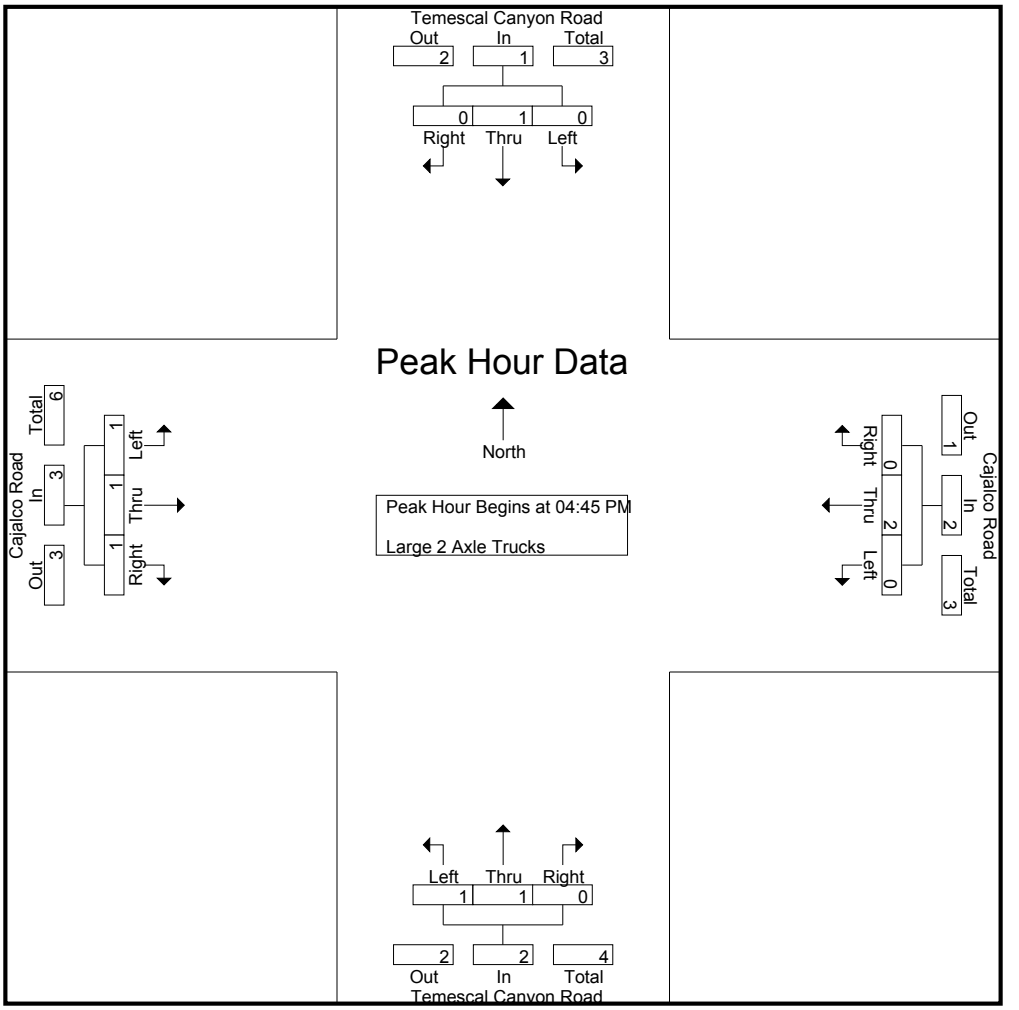

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	**1**	1
+15 mins.	0	**1**	0	**1**	0	1	0	1	0	**1**	0	**1**	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	**2**
+45 mins.	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0
Total Volume	0	1	0	1	0	2	0	2	1	1	0	2	1	1	1	3
% App. Total	0	100	0		0	100	0		50	50	0		33.3	33.3	33.3	
PHF	.000	.250	.000	.250	.000	.500	.000	.500	.250	.250	.000	.500	.250	.250	.250	.375

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File Name : CORTECAPM
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Groups Printed- Large 3 Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	1	0	2	0	0	0	0	0	0	0	0	3
Grand Total	1	0	0	1	1	1	0	2	1	0	0	1	0	0	0	0	4
Apprch %	100	0	0		50	50	0		100	0	0		0	0	0		
Total %	25	0	0	25	25	25	0	50	25	0	0	25	0	0	0	0	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
05:15 PM	**1**	0	0	**1**	**1**	0	0	1	0	0	0	0	0	0	0	0	**2**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	1	1	0	2	0	0	0	0	0	0	0	0	3
% App. Total	100	0	0		50	50	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.250	.250	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.375

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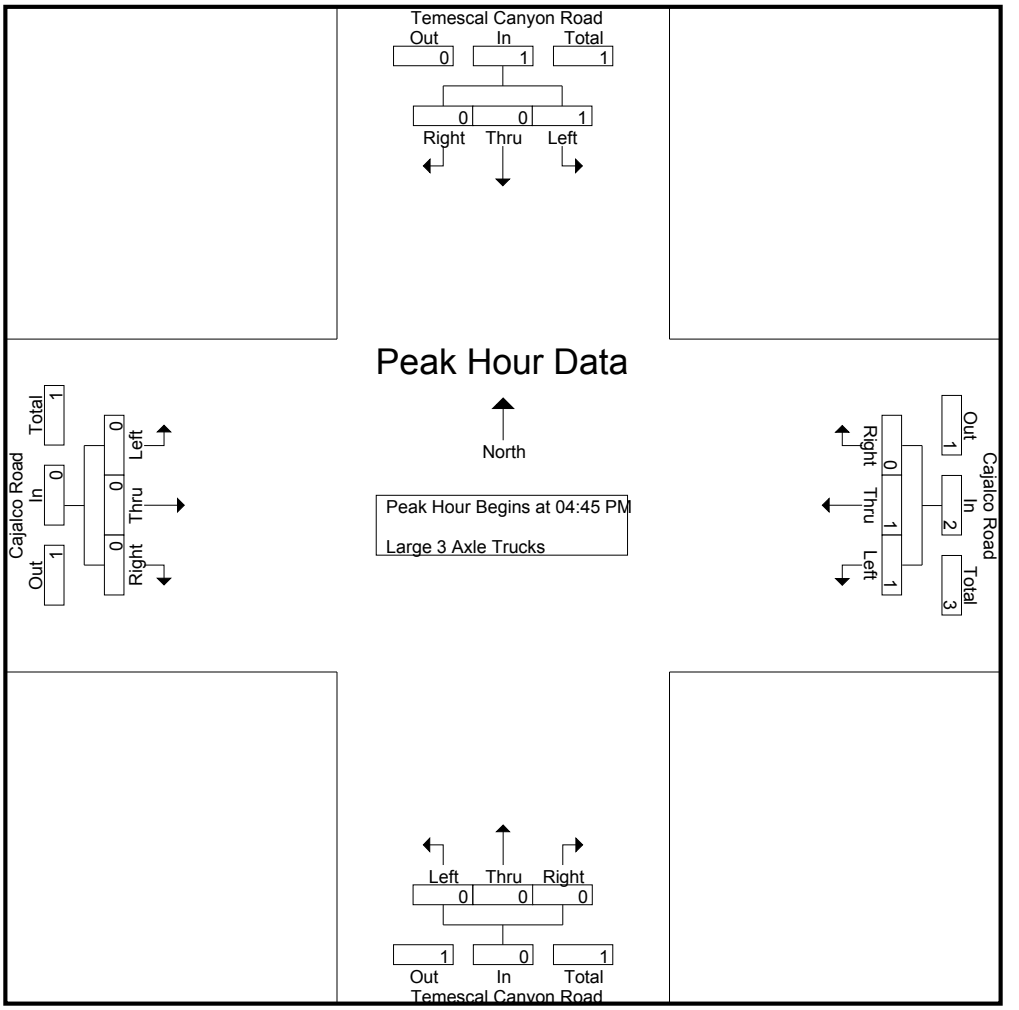

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	**1**	0	0	**1**	**1**	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	1	1	0	2	0	0	0	0	0	0	0	0
% App. Total	100	0	0		50	50	0		0	0	0		0	0	0	
PHF	.250	.000	.000	.250	.250	.250	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Large 4+ Axle Trucks

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2	4	5
04:15 PM	0	0	0	0	2	0	0	2	0	0	1	1	0	0	2	2	5
04:30 PM	0	0	0	0	1	0	0	1	1	1	0	2	0	2	1	3	6
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	3	2	0	5	2	1	1	4	0	4	5	9	18
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	4
05:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	2	3
Total	0	0	1	1	0	0	0	0	1	0	0	1	1	4	6	11	13
Grand Total	0	0	1	1	3	2	0	5	3	1	1	5	1	8	11	20	31
Apprch %	0	0	100		60	40	0		60	20	20		5	40	55		
Total %	0	0	3.2	3.2	9.7	6.5	0	16.1	9.7	3.2	3.2	16.1	3.2	25.8	35.5	64.5	

	Temescal Canyon Road Southbound				Cajalco Road Westbound				Temescal Canyon Road Northbound				Cajalco Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**4**	**4**
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	2	4	4
05:30 PM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	1	1	2
Total Volume	0	0	1	1	0	2	0	2	0	0	0	0	1	3	5	9	12
% App. Total	0	0	100		0	100	0		0	0	0		11.1	33.3	55.6		
PHF	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.250	.375	.625	.563	.750

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Weather: Sunny

File Name : CORTECAPM
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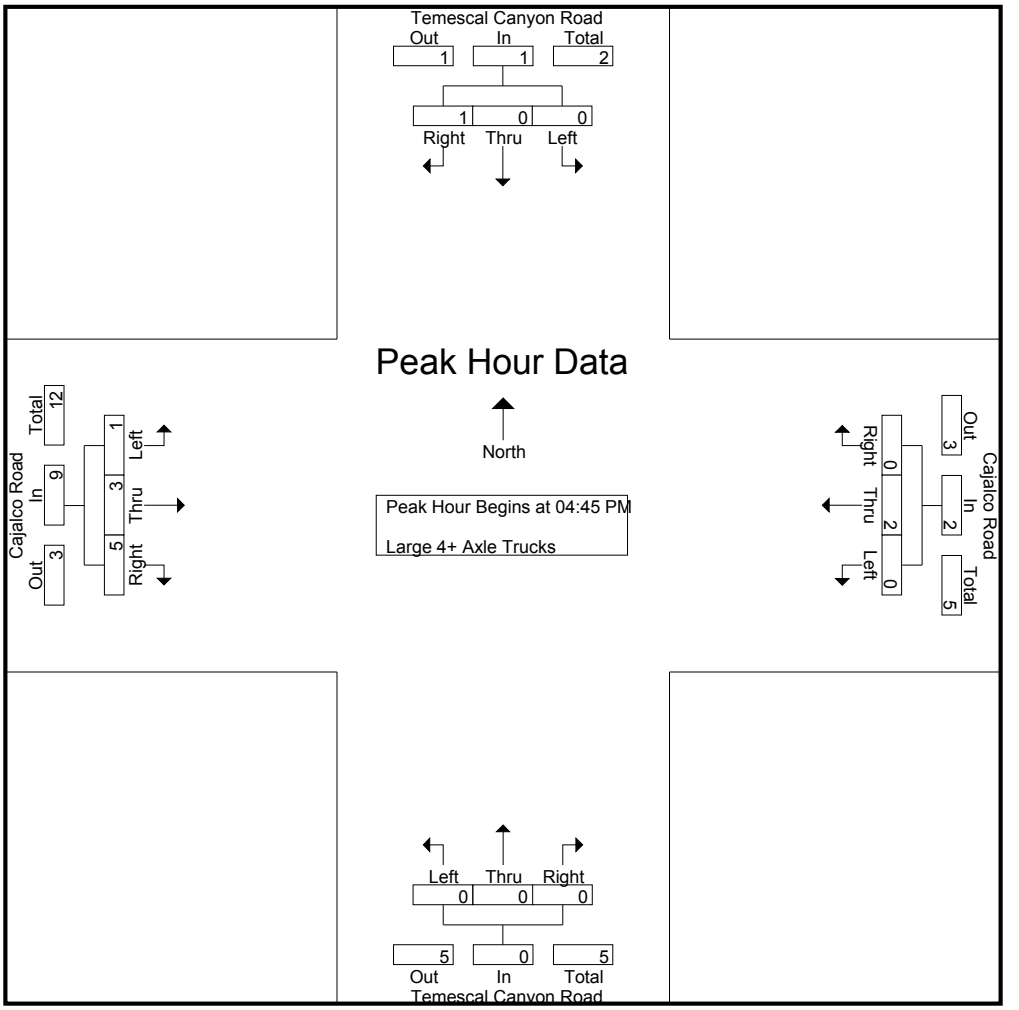

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**	**4**
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	2	4
+45 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	1	1
Total Volume	0	0	1	1	0	2	0	2	0	0	0	0	1	3	5	9
% App. Total	0	0	100		0	100	0		0	0	0		11.1	33.3	55.6	
PHF	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.250	.375	.625	.563

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PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Corona
N/S: Masters Drive
E/W: Christopher Lane
Weather: Clear

File Name : CORMACHAM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 1

Groups Printed- Total Volume

	Masters Drive Southbound				Christopher Lane Westbound				Masters Drive Northbound				Christopher Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	14	0	14	1	0	0	1	1	54	4	59	5	1	1	7	81
06:45 AM	0	11	0	11	2	1	0	3	1	59	3	63	2	0	2	4	81
Total	0	25	0	25	3	1	0	4	2	113	7	122	7	1	3	11	162
07:00 AM	1	19	0	20	2	1	5	8	3	121	7	131	1	1	2	4	163
07:15 AM	0	51	4	55	2	1	0	3	11	166	26	203	2	2	1	5	266
07:30 AM	6	104	2	112	2	4	11	17	15	109	10	134	3	1	13	17	280
07:45 AM	4	66	3	73	3	0	3	6	2	72	2	76	5	3	4	12	167
Total	11	240	9	260	9	6	19	34	31	468	45	544	11	7	20	38	876
08:00 AM	0	24	1	25	2	1	3	6	4	77	3	84	2	1	5	8	123
08:15 AM	0	31	0	31	3	0	1	4	1	63	3	67	3	1	3	7	109
Grand Total	11	320	10	341	17	8	23	48	38	721	58	817	23	10	31	64	1270
Apprch %	3.2	93.8	2.9		35.4	16.7	47.9		4.7	88.2	7.1		35.9	15.6	48.4		
Total %	0.9	25.2	0.8	26.9	1.3	0.6	1.8	3.8	3	56.8	4.6	64.3	1.8	0.8	2.4	5	

	Masters Drive Southbound				Christopher Lane Westbound				Masters Drive Northbound				Christopher Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	19	0	20	2	1	5	8	3	121	7	131	1	1	2	4	163
07:15 AM	0	51	4	55	2	1	0	3	11	166	26	203	2	2	1	5	266
07:30 AM	6	104	2	112	2	4	11	17	15	109	10	134	3	1	13	17	280
07:45 AM	4	66	3	73	3	0	3	6	2	72	2	76	5	3	4	12	167
Total Volume	11	240	9	260	9	6	19	34	31	468	45	544	11	7	20	38	876
% App. Total	4.2	92.3	3.5		26.5	17.6	55.9		5.7	86	8.3		28.9	18.4	52.6		
PHF	.458	.577	.563	.580	.750	.375	.432	.500	.517	.705	.433	.670	.550	.583	.385	.559	.782

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City of Corona
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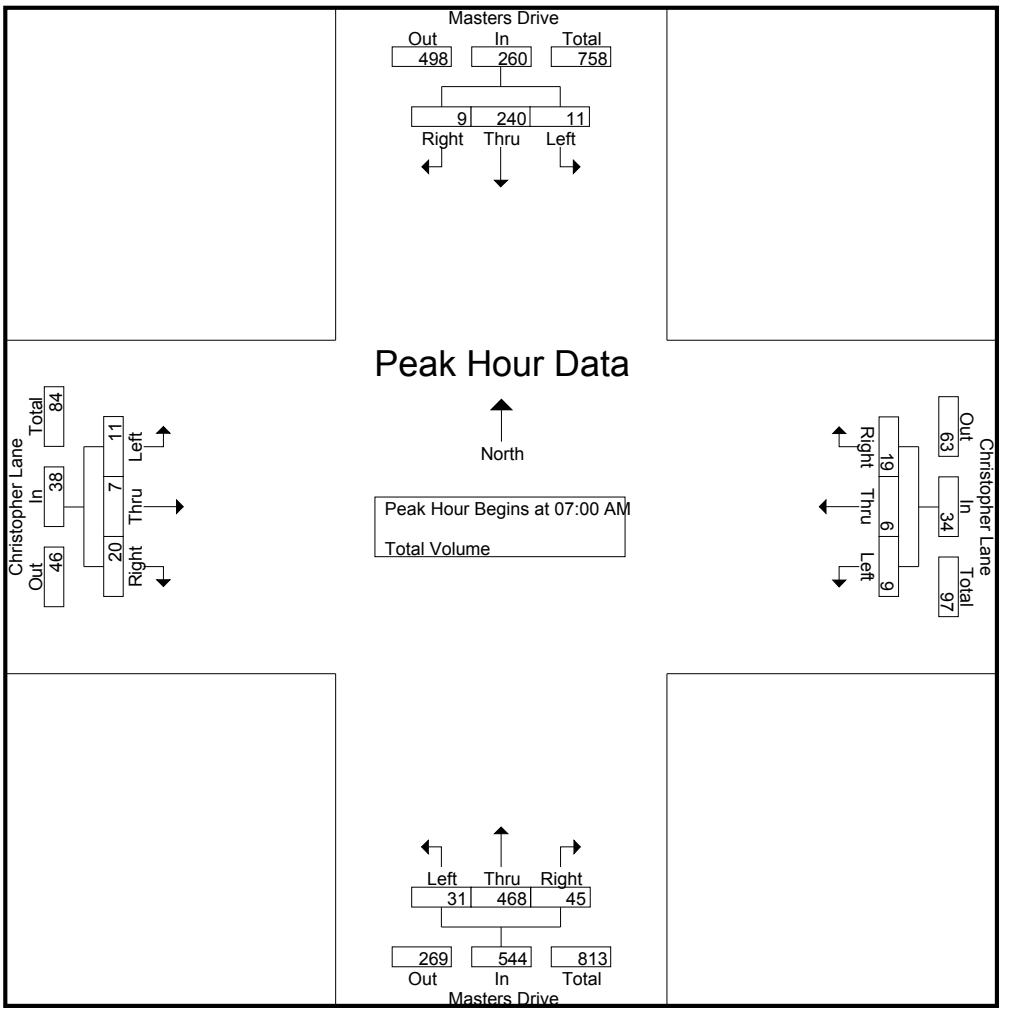

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:30 AM			
+0 mins.	0	51	4	55	2	1	5	8	3	121	7	131	3	1	13	17
+15 mins.	6	104	2	112	2	1	0	3	11	166	26	203	5	3	4	12
+30 mins.	4	66	3	73	2	4	11	17	15	109	10	134	2	1	5	8
+45 mins.	0	24	1	25	3	0	3	6	2	72	2	76	3	1	3	7
Total Volume	10	245	10	265	9	6	19	34	31	468	45	544	13	6	25	44
% App. Total	3.8	92.5	3.8		26.5	17.6	55.9		5.7	86	8.3		29.5	13.6	56.8	
PHF	.417	.589	.625	.592	.750	.375	.432	.500	.517	.705	.433	.670	.650	.500	.481	.647

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City of Corona
N/S: Masters Drive
E/W: Christopher Lane
Weather: Clear

File Name : CORMACHPM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 1

Groups Printed- Total Volume

	Masters Drive Southbound				Christopher Lane Westbound				Masters Drive Northbound				Christopher Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	113	2	117	3	0	3	6	1	52	2	55	3	0	5	8	186
04:15 PM	3	97	2	102	8	2	3	13	1	56	4	61	5	0	4	9	185
04:30 PM	1	118	7	126	4	0	1	5	2	49	3	54	3	1	8	12	197
04:45 PM	1	143	2	146	1	0	3	4	2	44	3	49	2	1	3	6	205
Total	7	471	13	491	16	2	10	28	6	201	12	219	13	2	20	35	773
05:00 PM	1	128	1	130	4	1	0	5	2	38	4	44	1	0	10	11	190
05:15 PM	1	141	4	146	5	2	2	9	0	59	1	60	3	0	20	23	238
05:30 PM	3	150	4	157	5	0	3	8	2	57	4	63	5	0	12	17	245
05:45 PM	2	148	4	154	4	1	1	6	0	52	0	52	2	2	9	13	225
Total	7	567	13	587	18	4	6	28	4	206	9	219	11	2	51	64	898
Grand Total	14	1038	26	1078	34	6	16	56	10	407	21	438	24	4	71	99	1671
Apprch %	1.3	96.3	2.4		60.7	10.7	28.6		2.3	92.9	4.8		24.2	4	71.7		
Total %	0.8	62.1	1.6	64.5	2	0.4	1	3.4	0.6	24.4	1.3	26.2	1.4	0.2	4.2	5.9	

	Masters Drive Southbound				Christopher Lane Westbound				Masters Drive Northbound				Christopher Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	128	1	130	4	1	0	5	2	38	4	44	1	0	10	11	190
05:15 PM	1	141	4	146	5	2	2	9	0	59	1	60	3	0	20	23	238
05:30 PM	3	150	4	157	5	0	3	8	2	57	4	63	5	0	12	17	245
05:45 PM	2	148	4	154	4	1	1	6	0	52	0	52	2	2	9	13	225
Total Volume	7	567	13	587	18	4	6	28	4	206	9	219	11	2	51	64	898
% App. Total	1.2	96.6	2.2		64.3	14.3	21.4		1.8	94.1	4.1		17.2	3.1	79.7		
PHF	.583	.945	.813	.935	.900	.500	.500	.778	.500	.873	.563	.869	.550	.250	.638	.696	.916

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City of Corona
N/S: Masters Drive
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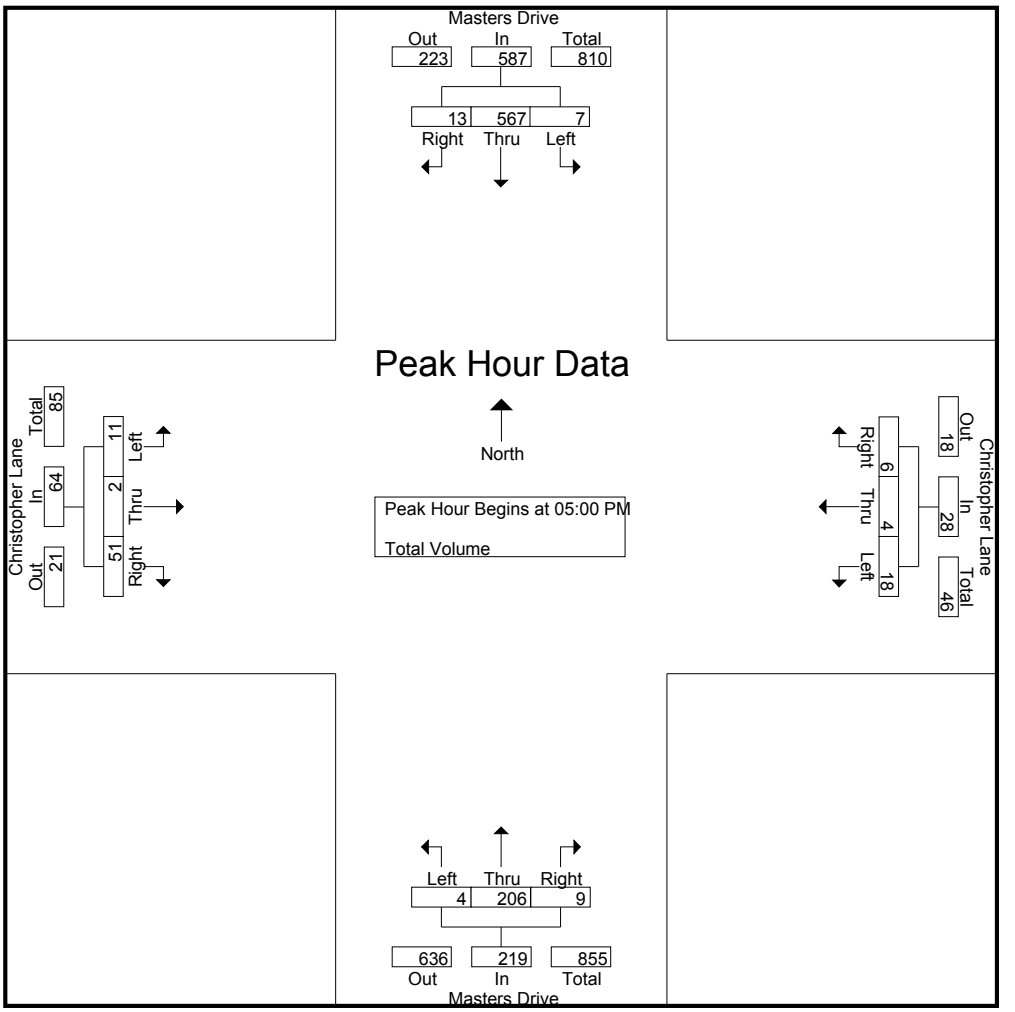

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	1	128	1	130	3	0	3	6	1	52	2	55	1	0	10	11
+15 mins.	1	141	4	146	8	2	3	13	1	56	4	61	3	0	20	23
+30 mins.	3	150	4	157	4	0	1	5	2	49	3	54	5	0	12	17
+45 mins.	2	148	4	154	1	0	3	4	2	44	3	49	2	2	9	13
Total Volume	7	567	13	587	16	2	10	28	6	201	12	219	11	2	51	64
% App. Total	1.2	96.6	2.2		57.1	7.1	35.7		2.7	91.8	5.5		17.2	3.1	79.7	
PHF	.583	.945	.813	.935	.500	.250	.833	.538	.750	.897	.750	.898	.550	.250	.638	.696

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City of Corona
N/S: Via Castilla
E/W: Masters Drive
Weather: Clear

File Name : CORVCMAAM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 1

Groups Printed- Total Volume

	Via Castilla Street Southbound			Masters Drive Westbound			Masters Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	0	0	0	41	0	41	0	9	9	50
06:45 AM	0	0	0	49	1	50	1	14	15	65
Total	0	0	0	90	1	91	1	23	24	115
07:00 AM	2	12	14	100	0	100	0	22	22	136
07:15 AM	3	7	10	150	1	151	2	46	48	209
07:30 AM	3	3	6	95	1	96	3	84	87	189
07:45 AM	5	2	7	58	0	58	2	52	54	119
Total	13	24	37	403	2	405	7	204	211	653
08:00 AM	0	1	1	67	0	67	2	28	30	98
08:15 AM	2	0	2	58	0	58	0	30	30	90
Grand Total	15	25	40	618	3	621	10	285	295	956
Apprch %	37.5	62.5		99.5	0.5		3.4	96.6		
Total %	1.6	2.6	4.2	64.6	0.3	65	1	29.8	30.9	

	Via Castilla Street Southbound			Masters Drive Westbound			Masters Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	12	14	100	0	100	0	22	22	136
07:15 AM	3	7	10	150	1	151	2	46	48	209
07:30 AM	3	3	6	95	1	96	3	84	87	189
07:45 AM	5	2	7	58	0	58	2	52	54	119
Total Volume	13	24	37	403	2	405	7	204	211	653
% App. Total	35.1	64.9		99.5	0.5		3.3	96.7		
PHF	.650	.500	.661	.672	.500	.671	.583	.607	.606	.781

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City of Corona
N/S: Via Castilla
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Weather: Clear

File Name : CORVCMAAM
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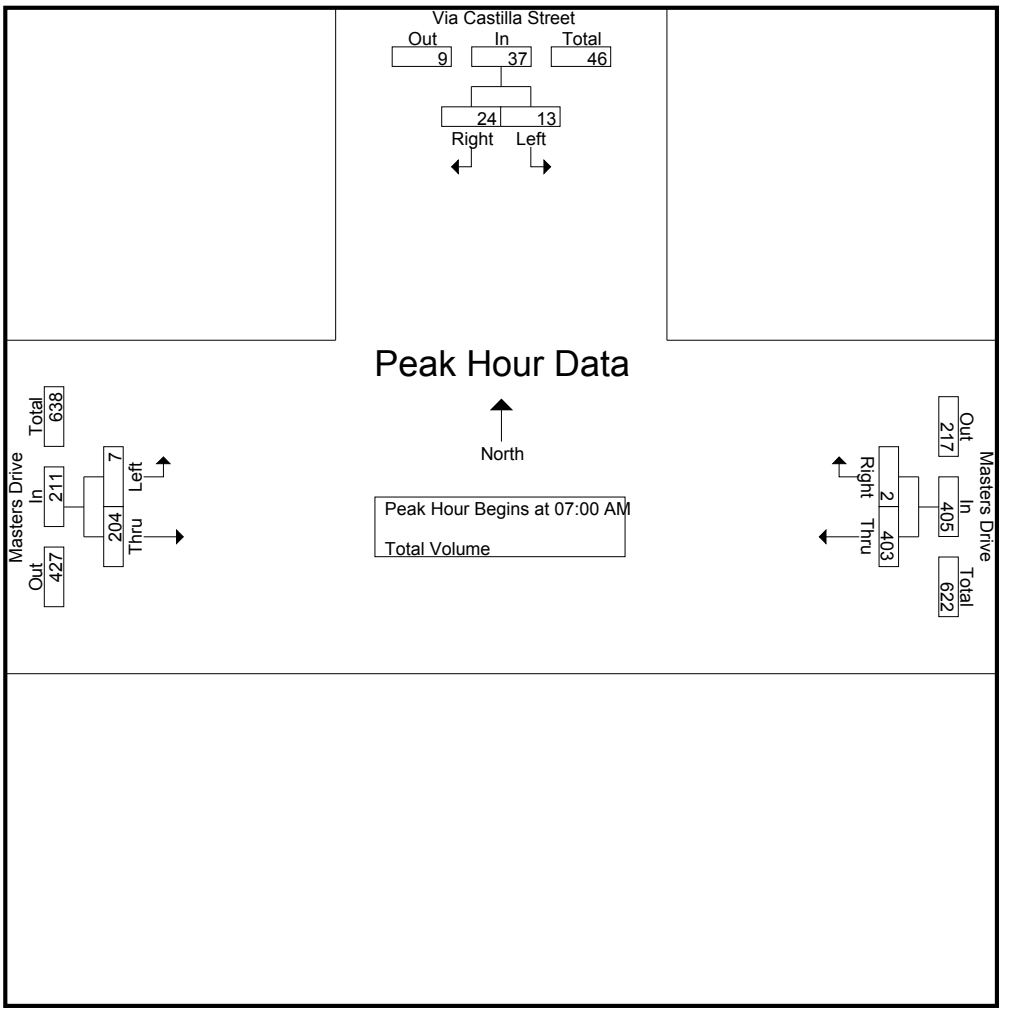

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	2	12	14	100	0	100	2	46	48
+15 mins.	3	7	10	150	1	151	3	84	87
+30 mins.	3	3	6	95	1	96	2	52	54
+45 mins.	5	2	7	58	0	58	2	28	30
Total Volume	13	24	37	403	2	405	9	210	219
% App. Total	35.1	64.9		99.5	0.5		4.1	95.9	
PHF	.650	.500	.661	.672	.500	.671	.750	.625	.629

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City of Corona
N/S: Via Castilla
E/W: Masters Drive
Weather: Clear

File Name : CORVCMAPM
Site Code : 05115261
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Groups Printed- Total Volume

	Via Castilla Street Southbound			Masters Drive Westbound			Masters Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	4	0	4	47	4	51	5	104	109	164
04:15 PM	3	0	3	50	5	55	1	94	95	153
04:30 PM	0	2	2	41	3	44	3	104	107	153
04:45 PM	2	0	2	40	3	43	1	135	136	181
Total	9	2	11	178	15	193	10	437	447	651
05:00 PM	1	2	3	30	2	32	1	129	130	165
05:15 PM	4	0	4	52	4	56	0	144	144	204
05:30 PM	4	3	7	49	5	54	2	145	147	208
05:45 PM	3	0	3	42	1	43	1	144	145	191
Total	12	5	17	173	12	185	4	562	566	768
Grand Total	21	7	28	351	27	378	14	999	1013	1419
Apprch %	75	25		92.9	7.1		1.4	98.6		
Total %	1.5	0.5	2	24.7	1.9	26.6	1	70.4	71.4	

	Via Castilla Street Southbound			Masters Drive Westbound			Masters Drive Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	1	2	3	30	2	32	1	129	130	165
05:15 PM	4	0	4	52	4	56	0	144	144	204
05:30 PM	4	3	7	49	5	54	2	145	147	208
05:45 PM	3	0	3	42	1	43	1	144	145	191
Total Volume	12	5	17	173	12	185	4	562	566	768
% App. Total	70.6	29.4		93.5	6.5		0.7	99.3		
PHF	.750	.417	.607	.832	.600	.826	.500	.969	.963	.923

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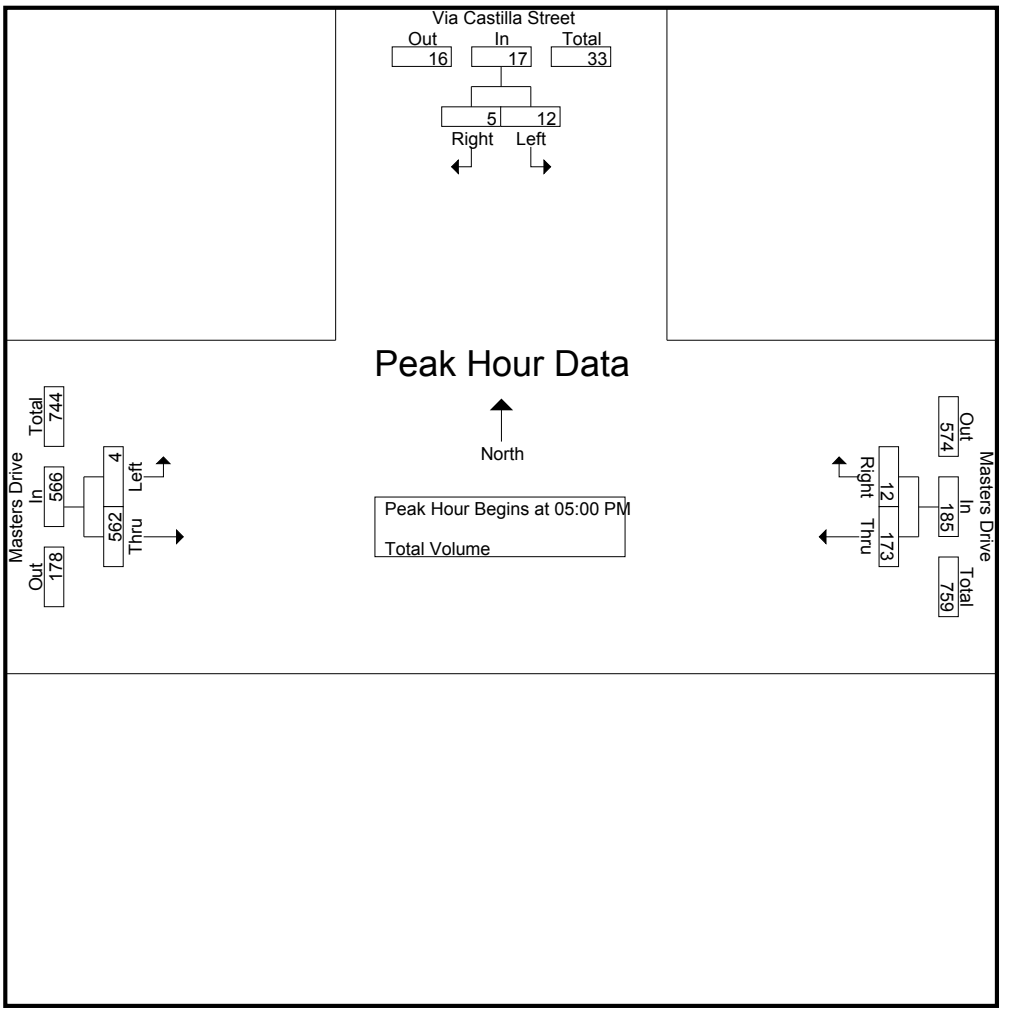

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			05:00 PM		
+0 mins.	1	2	3	47	4	51	1	129	130
+15 mins.	4	0	4	50	5	55	0	144	144
+30 mins.	4	3	7	41	3	44	2	145	147
+45 mins.	3	0	3	40	3	43	1	144	145
Total Volume	12	5	17	178	15	193	4	562	566
% App. Total	70.6	29.4		92.2	7.8		0.7	99.3	
PHF	.750	.417	.607	.890	.750	.877	.500	.969	.963

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City of Corona
N/S: Morales Way
E/W:Masters Drive
Weather: Clear

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Groups Printed- Total Volume

	Morales Way Southbound				Masters Drive Westbound				Morales Way Northbound				Masters Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	1	0	0	1	2	18	0	20	21	0	7	28	0	7	3	10	59
06:45 AM	0	0	0	0	2	27	0	29	25	0	4	29	0	17	0	17	75
Total	1	0	0	1	4	45	0	49	46	0	11	57	0	24	3	27	134
07:00 AM	2	0	0	2	2	57	0	59	40	1	20	61	0	20	4	24	146
07:15 AM	1	1	3	5	5	66	2	73	63	0	26	89	0	34	18	52	219
07:30 AM	0	0	1	1	15	52	1	68	29	0	21	50	3	41	28	72	191
07:45 AM	2	0	1	3	13	29	1	43	15	0	8	23	0	42	13	55	124
Total	5	1	5	11	35	204	4	243	147	1	75	223	3	137	63	203	680
08:00 AM	0	3	0	3	0	36	2	38	33	1	14	48	0	18	14	32	121
08:15 AM	0	0	1	1	26	24	1	51	32	0	17	49	0	18	14	32	133
Grand Total	6	4	6	16	65	309	7	381	258	2	117	377	3	197	94	294	1068
Apprch %	37.5	25	37.5		17.1	81.1	1.8		68.4	0.5	31		1	67	32		
Total %	0.6	0.4	0.6	1.5	6.1	28.9	0.7	35.7	24.2	0.2	11	35.3	0.3	18.4	8.8	27.5	

	Morales Way Southbound				Masters Drive Westbound				Morales Way Northbound				Masters Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	0	0	2	2	57	0	59	40	1	20	61	0	20	4	24	146
07:15 AM	1	1	3	5	5	66	2	73	63	0	26	89	0	34	18	52	219
07:30 AM	0	0	1	1	15	52	1	68	29	0	21	50	3	41	28	72	191
07:45 AM	2	0	1	3	13	29	1	43	15	0	8	23	0	42	13	55	124
Total Volume	5	1	5	11	35	204	4	243	147	1	75	223	3	137	63	203	680
% App. Total	45.5	9.1	45.5		14.4	84	1.6		65.9	0.4	33.6		1.5	67.5	31		
PHF	.625	.250	.417	.550	.583	.773	.500	.832	.583	.250	.721	.626	.250	.815	.563	.705	.776

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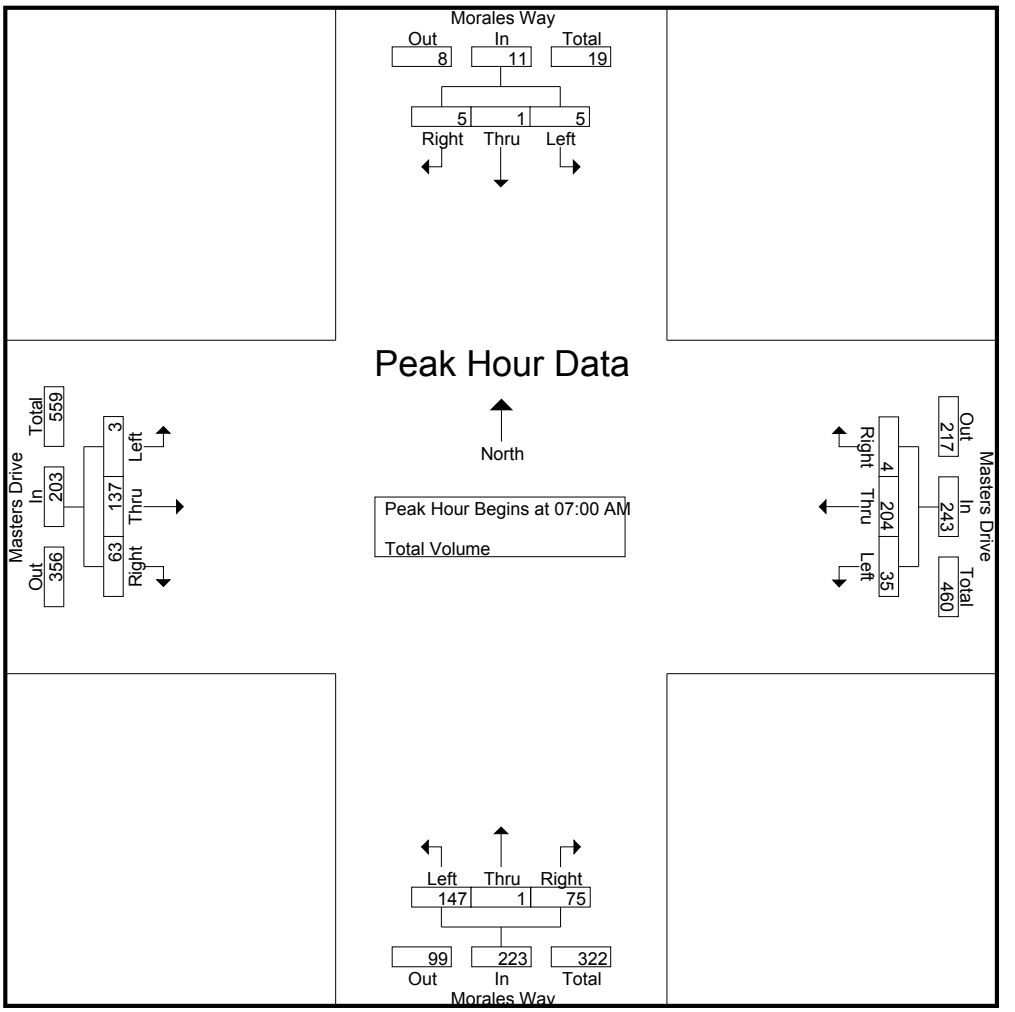

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				06:45 AM				07:15 AM			
+0 mins.	1	1	3	5	2	57	0	59	25	0	4	29	0	34	18	52
+15 mins.	0	0	1	1	5	66	2	73	40	1	20	61	3	41	28	72
+30 mins.	2	0	1	3	15	52	1	68	63	0	26	89	0	42	13	55
+45 mins.	0	3	0	3	13	29	1	43	29	0	21	50	0	18	14	32
Total Volume	3	4	5	12	35	204	4	243	157	1	71	229	3	135	73	211
% App. Total	25	33.3	41.7		14.4	84	1.6		68.6	0.4	31		1.4	64	34.6	
PHF	.375	.333	.417	.600	.583	.773	.500	.832	.623	.250	.683	.643	.250	.804	.652	.733

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Page No : 1

Groups Printed- Total Volume

	Morales Way Southbound				Masters Drive Westbound				Morales Way Northbound				Masters Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	2	2	13	27	0	40	18	1	7	26	0	81	25	106	174
04:15 PM	1	1	0	2	13	43	0	56	17	2	15	34	2	81	21	104	196
04:30 PM	1	0	0	1	12	25	0	37	18	0	9	27	0	69	26	95	160
04:45 PM	0	0	0	0	11	28	0	39	17	0	10	27	0	106	31	137	203
Total	2	1	2	5	49	123	0	172	70	3	41	114	2	337	103	442	733
05:00 PM	2	0	0	2	10	25	0	35	8	0	10	18	0	93	30	123	178
05:15 PM	1	0	1	2	8	39	1	48	13	2	5	20	2	103	30	135	205
05:30 PM	0	0	0	0	8	34	1	43	21	0	12	33	0	119	32	151	227
05:45 PM	0	1	0	1	7	31	1	39	13	1	9	23	1	111	33	145	208
Total	3	1	1	5	33	129	3	165	55	3	36	94	3	426	125	554	818
Grand Total	5	2	3	10	82	252	3	337	125	6	77	208	5	763	228	996	1551
Apprch %	50	20	30		24.3	74.8	0.9		60.1	2.9	37		0.5	76.6	22.9		
Total %	0.3	0.1	0.2	0.6	5.3	16.2	0.2	21.7	8.1	0.4	5	13.4	0.3	49.2	14.7	64.2	

	Morales Way Southbound				Masters Drive Westbound				Morales Way Northbound				Masters Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	0	0	2	10	25	0	35	8	0	10	18	0	93	30	123	178
05:15 PM	1	0	1	2	8	39	1	48	13	2	5	20	2	103	30	135	205
05:30 PM	0	0	0	0	8	34	1	43	21	0	12	33	0	119	32	151	227
05:45 PM	0	1	0	1	7	31	1	39	13	1	9	23	1	111	33	145	208
Total Volume	3	1	1	5	33	129	3	165	55	3	36	94	3	426	125	554	818
% App. Total	60	20	20		20	78.2	1.8		58.5	3.2	38.3		0.5	76.9	22.6		
PHF	.375	.250	.250	.625	.825	.827	.750	.859	.655	.375	.750	.712	.375	.895	.947	.917	.901

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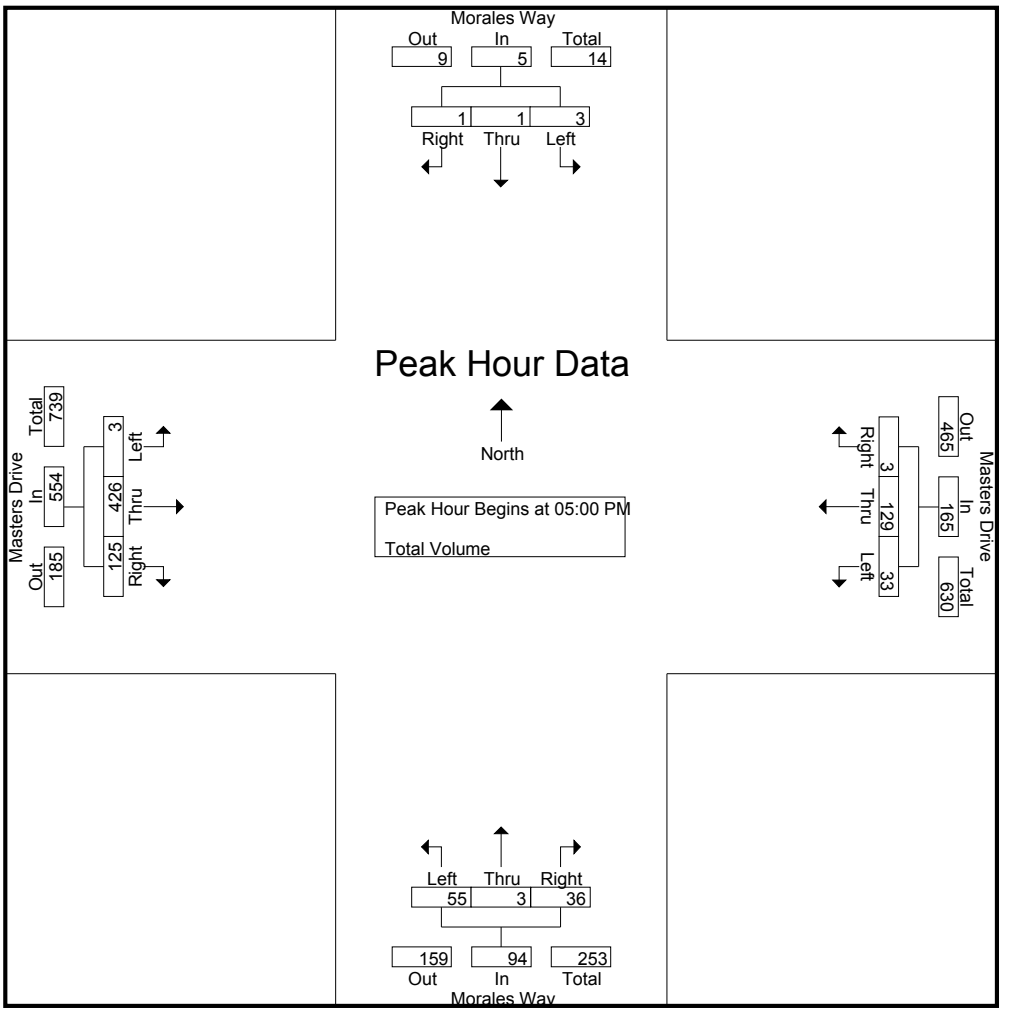
(951) 268-6268

City of Corona
N/S: Morales Way
E/W:Masters Drive
Weather: Clear

File Name : CORMOMAPM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	0	0	2	2	13	27	0	40	18	1	7	26	0	93	30	123
+15 mins.	1	1	0	2	13	43	0	56	17	2	15	34	2	103	30	135
+30 mins.	1	0	0	1	12	25	0	37	18	0	9	27	0	119	32	151
+45 mins.	0	0	0	0	11	28	0	39	17	0	10	27	1	111	33	145
Total Volume	2	1	2	5	49	123	0	172	70	3	41	114	3	426	125	554
% App. Total	40	20	40		28.5	71.5	0		61.4	2.6	36		0.5	76.9	22.6	
PHF	.500	.250	.250	.625	.942	.715	.000	.768	.972	.375	.683	.838	.375	.895	.947	.917

Counts Unlimited, Inc.
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City of Corona
N/S: Bennett Avenue
E/W: Eagle Glen Parkway
Weather: Clear

File Name : CORBEEGPM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 1

Groups Printed- Total Volume

	Bennett Avenue Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
06:30 AM	1	0	1	11	0	11	0	33	33	45
06:45 AM	1	0	1	13	2	15	2	37	39	55
Total	2	0	2	24	2	26	2	70	72	100
07:00 AM	2	2	4	46	6	52	2	50	52	108
07:15 AM	1	4	5	40	4	44	1	36	37	86
07:30 AM	0	5	5	47	2	49	2	50	52	106
07:45 AM	2	16	18	96	2	98	7	92	99	215
Total	5	27	32	229	14	243	12	228	240	515
08:00 AM	1	14	15	106	0	106	15	109	124	245
08:15 AM	2	3	5	31	0	31	7	98	105	141
Grand Total	10	44	54	390	16	406	36	505	541	1001
Apprch %	18.5	81.5		96.1	3.9		6.7	93.3		
Total %	1	4.4	5.4	39	1.6	40.6	3.6	50.4	54	

	Bennett Avenue Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	5	5	47	2	49	2	50	52	106
07:45 AM	2	16	18	96	2	98	7	92	99	215
08:00 AM	1	14	15	106	0	106	15	109	124	245
08:15 AM	2	3	5	31	0	31	7	98	105	141
Total Volume	5	38	43	280	4	284	31	349	380	707
% App. Total	11.6	88.4		98.6	1.4		8.2	91.8		
PHF	.625	.594	.597	.660	.500	.670	.517	.800	.766	.721

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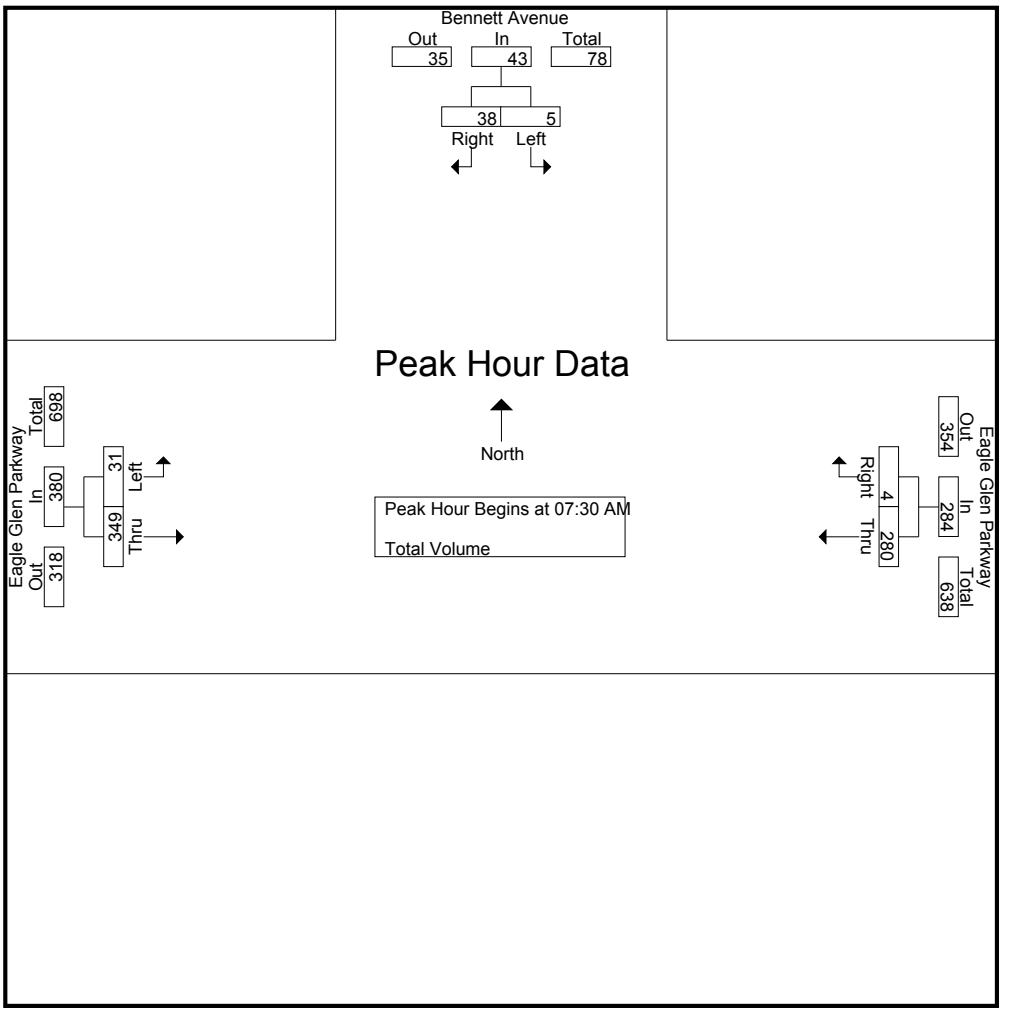
City of Corona
N/S: Bennett Avenue
E/W: Eagle Glen Parkway
Weather: Clear

File Name : CORBEEGPM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 2



Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:30 AM		
+0 mins.	1	4	5	40	4	44	2	50	52
+15 mins.	0	5	5	47	2	49	7	92	99
+30 mins.	2	16	18	96	2	98	15	109	124
+45 mins.	1	14	15	106	0	106	7	98	105
Total Volume	4	39	43	289	8	297	31	349	380
% App. Total	9.3	90.7		97.3	2.7		8.2	91.8	
PHF	.500	.609	.597	.682	.500	.700	.517	.800	.766

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City of Corona
N/S: Bennett Avenue
E/W: Eagle Glen Parkway
Weather: Clear

File Name : CORBEEGPM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 1

Groups Printed- Total Volume

	Bennett Avenue Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	5	2	7	44	3	47	2	43	45	99
04:15 PM	6	7	13	31	2	33	4	44	48	94
04:30 PM	0	0	0	45	3	48	5	48	53	101
04:45 PM	4	2	6	43	9	52	0	35	35	93
Total	15	11	26	163	17	180	11	170	181	387
05:00 PM	13	4	17	37	23	60	5	37	42	119
05:15 PM	11	2	13	40	16	56	4	28	32	101
05:30 PM	4	4	8	47	8	55	2	33	35	98
05:45 PM	7	3	10	50	16	66	2	34	36	112
Total	35	13	48	174	63	237	13	132	145	430
Grand Total	50	24	74	337	80	417	24	302	326	817
Apprch %	67.6	32.4		80.8	19.2		7.4	92.6		
Total %	6.1	2.9	9.1	41.2	9.8	51	2.9	37	39.9	

	Bennett Avenue Southbound			Eagle Glen Parkway Westbound			Eagle Glen Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	13	4	17	37	23	60	5	37	42	119
05:15 PM	11	2	13	40	16	56	4	28	32	101
05:30 PM	4	4	8	47	8	55	2	33	35	98
05:45 PM	7	3	10	50	16	66	2	34	36	112
Total Volume	35	13	48	174	63	237	13	132	145	430
% App. Total	72.9	27.1		73.4	26.6		9	91		
PHF	.673	.813	.706	.870	.685	.898	.650	.892	.863	.903

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City of Corona
N/S: Bennett Avenue
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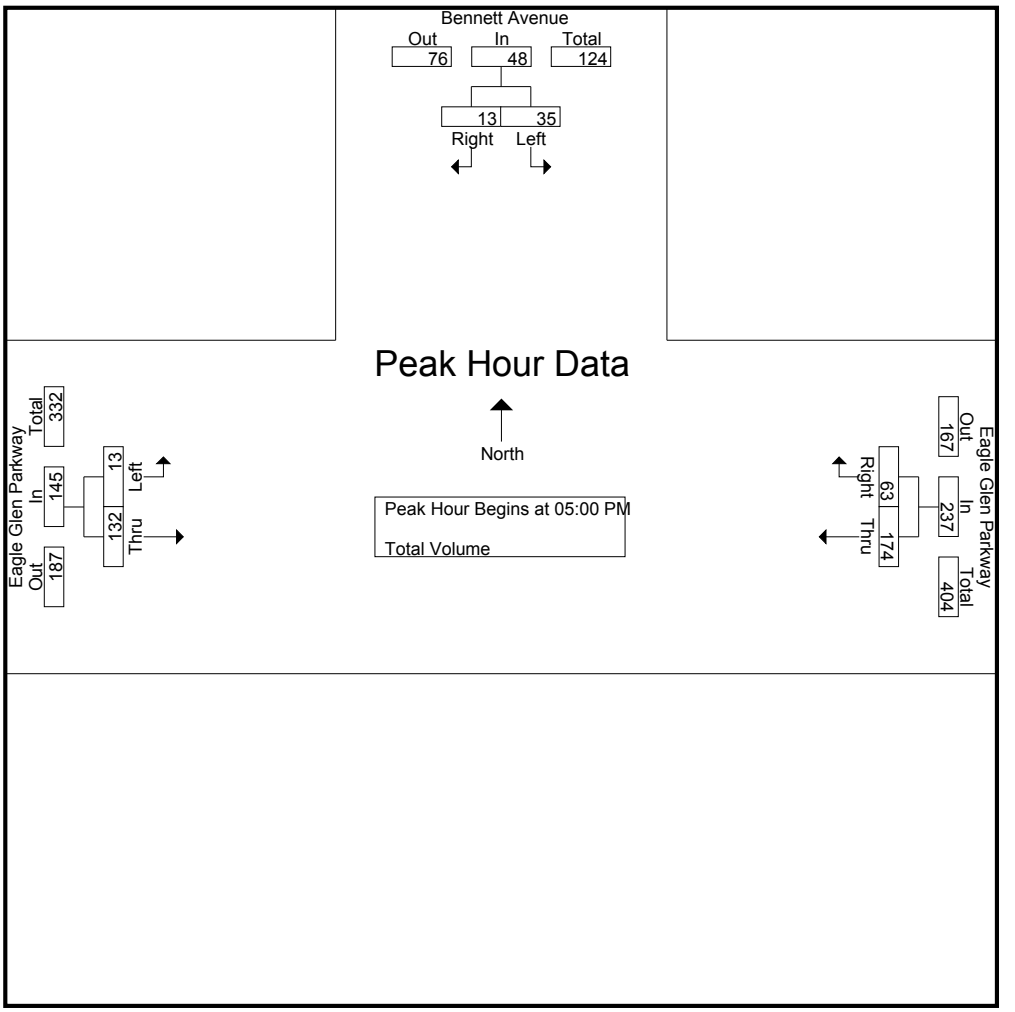
Weather: Clear

File Name : CORBEEGPM
Site Code : 05115261
Start Date : 5/12/2015
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			04:00 PM		
+0 mins.	13	4	17	37	23	60	2	43	45
+15 mins.	11	2	13	40	16	56	4	44	48
+30 mins.	4	4	8	47	8	55	5	48	53
+45 mins.	7	3	10	50	16	66	0	35	35
Total Volume	35	13	48	174	63	237	11	170	181
% App. Total	72.9	27.1		73.4	26.6		6.1	93.9	
PHF	.673	.813	.706	.870	.685	.898	.550	.885	.854

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City of Corona
Eagle Glen Parkway
B/ Riviera Drive - Masters Drive
24 Hour Directional Volume Count

COR005
Site Code: 056-11082
Date Start: 27-Apr-11
Date End: 27-Apr-11

Start Time	27-Apr-11 Wed	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	50			4	51				
12:15		0	56			5	61				
12:30		1	47			5	58				
12:45		1	49	4	202	5	55	19	225	23	427
01:00		2	53			1	49				
01:15		1	43			1	**74**				
01:30		2	54			2	**99**				
01:45		1	**51**	6	201	2	**144**	6	366	12	567
02:00		0	**138**			0	**112**				
02:15		0	**109**			2	53				
02:30		0	**66**			4	44				
02:45		1	51	1	364	4	48	10	257	11	621
03:00		1	58			1	59				
03:15		2	48			1	69				
03:30		3	49			3	52				
03:45		1	45	7	200	1	47	6	227	13	427
04:00		8	49			0	67				
04:15		6	45			1	73				
04:30		16	31			2	66				
04:45		14	34	44	159	4	70	7	276	51	435
05:00		10	38			0	85				
05:15		15	53			6	89				
05:30		22	56			7	93				
05:45		18	48	65	195	11	117	24	384	89	579
06:00		24	52			10	87				
06:15		39	50			18	84				
06:30		41	44			18	83				
06:45		61	63	165	209	28	78	74	332	239	541
07:00		64	71			29	75				
07:15		101	58			42	81				
07:30		84	55			56	76				
07:45		49	60	298	244	**51**	63	178	295	476	539
08:00		**56**	43			**64**	65				
08:15		**85**	37			**116**	78				
08:30		**143**	47			**114**	58				
08:45		**138**	52	422	179	36	46	330	247	752	426
09:00		52	91			39	51				
09:15		43	50			32	39				
09:30		50	34			21	49				
09:45		53	22	198	197	33	36	125	175	323	372
10:00		53	23			29	21				
10:15		42	17			38	19				
10:30		26	2			37	22				
10:45		46	4	167	46	41	17	145	79	312	125
11:00		61	12			56	19				
11:15		49	3			61	14				
11:30		82	2			47	3				
11:45		47	3	239	20	51	3	215	39	454	59
Total		1616	2216	1616	2216	1139	2902	1139	2902	2755	5118
Combined Total		3832		3832		4041		4041		7873	
AM Peak		08:00				07:45					
Vol.		422				345					
P.H.F.		0.738				0.744					
PM Peak			01:45				01:15				
Vol.			364				429				
P.H.F.			0.659				0.745				
Percentage		42.2%	57.8%			28.2%	71.8%				
ADT/AADT		ADT 7,873		AADT 7,873							

8,400

(+6.12% Growth to reflect 2014 conditions)

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City of Corona
Eagle Glen Parkway
B/Masters Drive - Bedford Canyon Road
24 Hour Directional Volume Count

COR007
Site Code: 05612130
Date Start: 26-Apr-12
Date End: 26-Apr-12

Start Time	26-Apr-12 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	79			17	67				
12:15		3	82			8	86				
12:30		2	86			10	73				
12:45		1	66	10	313	13	87	48	313	58	626
01:00		4	70			4	76				
01:15		0	81			5	53				
01:30		1	83			4	84				
01:45		2	68	7	302	5	80	18	293	25	595
02:00		0	89			2	88				
02:15		1	111			5	107				
02:30		0	87			3	**128**				
02:45		5	83	6	370	6	**147**	16	470	22	840
03:00		1	**139**			1	**112**				
03:15		6	**189**			3	**125**				
03:30		3	**123**			2	104				
03:45		12	**86**	22	537	4	91	10	432	32	969
04:00		14	111			6	106				
04:15		19	102			4	96				
04:30		26	107			8	106				
04:45		16	109	75	429	10	117	28	425	103	854
05:00		31	114			6	116				
05:15		23	113			9	98				
05:30		29	129			13	108				
05:45		35	127	118	483	14	116	42	438	160	921
06:00		46	108			12	118				
06:15		51	93			27	135				
06:30		64	111			38	113				
06:45		78	119	239	431	41	88	118	454	357	885
07:00		99	98			46	111				
07:15		127	83			60	95				
07:30		129	103			73	130				
07:45		96	88	451	372	**84**	124	263	460	714	832
08:00		82	82			**78**	114				
08:15		**118**	85			**107**	114				
08:30		**167**	52			**135**	110				
08:45		**176**	40	543	259	69	92	389	430	932	689
09:00		**99**	40			61	66				
09:15		81	37			41	85				
09:30		73	35			49	58				
09:45		79	19	332	131	41	56	192	265	524	396
10:00		70	15			39	52				
10:15		75	20			55	42				
10:30		60	13			42	29				
10:45		61	21	266	69	46	31	182	154	448	223
11:00		86	7			74	41				
11:15		85	9			73	15				
11:30		73	7			63	18				
11:45		89	7	333	30	81	21	291	95	624	125
Total		2402	3726	2402	3726	1597	4229	1597	4229	3999	7955
Combined Total		6128		6128		5826		5826		11954	
AM Peak		08:15				07:45					
Vol.		560				404					
P.H.F.		0.795				0.748					
PM Peak			03:00				02:30				
Vol.			537				512				
P.H.F.			0.710				0.871				
Percentage		39.2%	60.8%			27.4%	72.6%				
ADT/AADT		ADT 11,954		AADT 11,954							

12,400

(+4.04% Growth to reflect 2014 conditions)

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City of Corona
Eagle Glen Parkway
B/Bedford Canyon Road - Interstate 15 SB
24 Hour Directional Volume Count

COR006
Site Code: 05612130
Date Start: 26-Apr-12
Date End: 26-Apr-12

Start Time	26-Apr-12 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	139			18	131				
12:15		5	138			9	129				
12:30		4	134			13	142				
12:45		3	139	20	550	13	151	53	553	73	1103
01:00		3	126			8	131				
01:15		3	133			9	115				
01:30		4	133			9	122				
01:45		7	124	17	516	7	124	33	492	50	1008
02:00		3	146			3	141				
02:15		3	154			10	158				
02:30		0	143			7	**182**				
02:45		9	143	15	586	9	**188**	29	669	44	1255
03:00		3	167			2	**180**				
03:15		9	**246**			6	**186**				
03:30		3	**188**			4	148				
03:45		17	**160**	32	761	8	126	20	640	52	1401
04:00		15	**172**			5	165				
04:15		21	162			10	138				
04:30		32	154			10	141				
04:45		20	179	88	667	22	159	47	603	135	1270
05:00		35	176			15	160				
05:15		24	176			18	129				
05:30		42	205			20	157				
05:45		35	203	136	760	17	162	70	608	206	1368
06:00		55	182			21	157				
06:15		63	161			33	154				
06:30		70	155			49	150				
06:45		83	165	271	663	62	143	165	604	436	1267
07:00		112	159			69	136				
07:15		127	143			120	124				
07:30		127	134			125	167				
07:45		114	144	480	580	**157**	148	471	575	951	1155
08:00		115	115			**117**	153				
08:15		**122**	120			**151**	147				
08:30		**165**	96			**165**	127				
08:45		**212**	72	614	403	139	105	572	532	1186	935
09:00		**134**	63			111	95				
09:15		113	72			85	98				
09:30		115	54			80	76				
09:45		110	49	472	238	97	73	373	342	845	580
10:00		102	36			79	67				
10:15		136	27			96	54				
10:30		110	38			99	36				
10:45		96	28	444	129	82	41	356	198	800	327
11:00		126	25			107	51				
11:15		124	17			105	15				
11:30		130	7			113	27				
11:45		139	15	519	64	113	28	438	121	957	185
Total		3108	5917	3108	5917	2627	5937	2627	5937	5735	11854
Combined Total		9025		9025		8564		8564		17589	
AM Peak		08:15				07:45					
Vol.		633				590					
P.H.F.		0.746				0.894					
PM Peak			03:15				02:30				
Vol.			766				736				
P.H.F.			0.778				0.979				
Percentage		34.4%	65.6%			30.7%	69.3%				
ADT/AADT		ADT 17,589		AADT 17,589							

18,300

(+4.04% Growth to reflect 2014 conditions))

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Corona
Cajalco Road
B/ Interstate 15 - Grand Oaks
24 Hour Directional Volume Count

COR001
Site Code: 056-11082
Date Start: 27-Apr-11
Date End: 27-Apr-11

Start Time	27-Apr-11 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		16	284			49	207				
12:15		12	229			37	208				
12:30		18	241			31	226				
12:45		4	260	50	1014	33	223	150	864	200	1878
01:00		10	235			23	235				
01:15		6	228			18	**257**				
01:30		12	229			13	**261**				
01:45		4	230	32	922	17	**294**	71	1047	103	1969
02:00		6	248			21	**270**				
02:15		8	276			8	221				
02:30		7	233			5	241				
02:45		10	202	31	959	11	216	45	948	76	1907
03:00		9	214			9	238				
03:15		12	188			10	222				
03:30		18	236			15	212				
03:45		25	247	64	885	10	196	44	868	108	1753
04:00		20	236			15	240				
04:15		15	250			28	212				
04:30		30	242			50	227				
04:45		58	250	123	978	49	241	142	920	265	1898
05:00		38	244			60	213				
05:15		43	251			59	211				
05:30		35	**274**			90	234				
05:45		53	**290**	169	1059	79	209	288	867	457	1926
06:00		74	**255**			92	204				
06:15		64	**279**			85	199				
06:30		70	251			110	191				
06:45		93	217	301	1002	113	200	400	794	701	1796
07:00		78	249			150	177				
07:15		84	196			**203**	196				
07:30		86	219			**206**	208				
07:45		116	193	364	857	**248**	187	807	768	1171	1625
08:00		97	184			**193**	208				
08:15		139	157			180	201				
08:30		135	142			144	206				
08:45		168	100	539	583	141	200	658	815	1197	1398
09:00		170	86			145	189				
09:15		159	92			143	176				
09:30		143	68			113	152				
09:45		198	69	670	315	107	135	508	652	1178	967
10:00		170	53			123	109				
10:15		173	49			145	69				
10:30		191	31			160	46				
10:45		205	30	739	163	151	51	579	275	1318	438
11:00		**230**	20			191	63				
11:15		**259**	26			184	45				
11:30		**230**	12			220	32				
11:45		**255**	16	974	74	194	31	789	171	1763	245
Total		4056	8811	4056	8811	4481	8989	4481	8989	8537	17800
Combined Total		12867		12867		13470		13470		26337	
AM Peak		11:00				07:15					
Vol.		974				850					
P.H.F.		0.940				0.857					
PM Peak			05:30				01:15				
Vol.			1098				1082				
P.H.F.			0.947				0.920				
Percentage		31.5%	68.5%			33.3%	66.7%				
ADT/AADT		ADT 26,337		AADT 26,337							

27,900

(+6.12% Growth to reflect 2014 conditions))

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Corona
Masters Drive
B/ Nelson Street - Eagle Glen Parkway
24 Hour Directional Volume Count

COR034
Site Code: 056-12296
Date Start: 04-Oct-12
Date End: 04-Oct-12

Start Time	04-Oct-12 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	28			2	43				
12:15		6	30			2	42				
12:30		4	23			4	35				
12:45		5	34	18	115	1	40	9	160	27	275
01:00		5	42			1	28				
01:15		5	28			1	21				
01:30		1	47			2	29				
01:45		2	45	13	162	0	33	4	111	17	273
02:00		1	45			1	34				
02:15		0	39			1	44				
02:30		0	39			1	29				
02:45		2	40	3	163	3	33	6	140	9	303
03:00		0	35			1	56				
03:15		1	51			0	69				
03:30		2	39			2	70				
03:45		0	42	3	167	3	46	6	241	9	408
04:00		0	38			3	54				
04:15		0	31			4	60				
04:30		3	28			6	61				
04:45		1	36	4	133	3	69	16	244	20	377
05:00		4	46			9	**62**				
05:15		8	38			12	**70**				
05:30		10	37			15	**81**				
05:45		6	33	28	154	12	**76**	48	289	76	443
06:00		11	52			17	59				
06:15		9	36			24	70				
06:30		12	32			17	62				
06:45		19	**50**	51	170	37	41	95	232	146	402
07:00		**33**	**38**			40	44				
07:15		**46**	**47**			**61**	36				
07:30		**53**	**51**			**54**	29				
07:45		**43**	40	175	176	**40**	25	195	134	370	310
08:00		26	37			**49**	32				
08:15		25	36			34	22				
08:30		29	31			41	24				
08:45		32	41	112	145	44	18	168	96	280	241
09:00		26	30			37	17				
09:15		22	40			44	10				
09:30		11	23			33	8				
09:45		23	24	82	117	31	6	145	41	227	158
10:00		12	20			31	6				
10:15		16	13			29	4				
10:30		23	12			30	3				
10:45		22	13	73	58	39	9	129	22	202	80
11:00		19	12			34	3				
11:15		31	5			42	1				
11:30		32	4			50	5				
11:45		37	18	119	39	46	5	172	14	291	53
Total		681	1599	681	1599	993	1724	993	1724	1674	3323
Combined Total		2280		2280		2717		2717		4997	
AM Peak		07:00				07:15					
Vol.		175				204					
P.H.F.		0.825				0.836					
PM Peak			06:45				05:00				
Vol.			186				289				
P.H.F.			0.894				0.892				
Percentage		29.9%	70.1%			36.5%	63.5%				
ADT/AADT		ADT 4,997		AADT 4,997							

5,200

(+4.04% Growth to reflect 2014 conditions))

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
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City of Corona
Bedford Canyon Road
B/ Georgetown Drive - Eagle Glen Parkway
24 Hour Directional Volume Count

COR004
Site Code: 056-11253
Date Start: 01-Nov-11
Date End: 01-Nov-11

Start Time	01-Nov-11 Tue	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	15			8	69				
12:15		1	20			4	91				
12:30		2	16			5	72				
12:45		0	22	8	73	3	92	20	324	28	397
01:00		4	29			5	85				
01:15		1	29			6	83				
01:30		1	21			6	96				
01:45		1	27	7	106	1	69	18	333	25	439
02:00		0	18			2	78				
02:15		1	21			2	91				
02:30		1	25			1	85				
02:45		1	**33**	3	97	1	103	6	357	9	454
03:00		2	**43**			1	115				
03:15		0	**50**			7	106				
03:30		0	**26**			3	94				
03:45		0	21	2	140	3	100	14	415	16	555
04:00		2	29			4	104				
04:15		2	31			3	96				
04:30		0	19			2	115				
04:45		4	24	8	103	6	93	15	408	23	511
05:00		5	28			8	101				
05:15		7	19			9	114				
05:30		0	35			4	**122**				
05:45		5	21	17	103	15	**108**	36	445	53	548
06:00		9	23			15	**97**				
06:15		7	19			22	**120**				
06:30		11	26			16	91				
06:45		25	21	52	89	28	105	81	413	133	502
07:00		**38**	19			27	76				
07:15		**66**	16			40	55				
07:30		**45**	16			40	62				
07:45		**38**	20	187	71	50	56	157	249	344	320
08:00		30	3			46	51				
08:15		37	15			47	46				
08:30		38	12			59	43				
08:45		43	10	148	40	51	34	203	174	351	214
09:00		17	12			45	46				
09:15		15	11			54	40				
09:30		16	8			45	21				
09:45		12	5	60	36	53	26	197	133	257	169
10:00		17	4			**56**	30				
10:15		14	6			**61**	25				
10:30		14	5			**71**	9				
10:45		29	6	74	21	**72**	17	260	81	334	102
11:00		24	3			52	8				
11:15		18	2			55	10				
11:30		12	0			63	7				
11:45		35	1	89	6	87	8	257	33	346	39
Total		655	885	655	885	1264	3365	1264	3365	1919	4250
Combined Total		1540		1540		4629		4629		6169	
AM Peak		07:00				10:00					
Vol.		187				260					
P.H.F.		0.708				0.903					
PM Peak			02:45				05:30				
Vol.			152				447				
P.H.F.			0.760				0.916				
Percentage		42.5%	57.5%			27.3%	72.7%				
ADT/AADT		ADT 6,169		AADT 6,169							

6,500

(+6.12% Growth to reflect 2014 conditions))

2015 3-Day Daily Counts

Roadway Segment	5/12/2015	5/13/2015	5/14/2015	Average
Masters Dr., b/w California & Christoper	7,927	7,898	8,028	7,951
Masters Dr., b/w Christoper & Via Castilla	7,485	7,379	7,641	7,502
Masters Dr., b/w Via Castilla & Morales Wy.	6,702	6,634	6,913	6,750
Masters Dr., b/w Morales Wy. & Bennett Av.	5,768	5,687	5,922	5,792
Masters Dr., b/w Bennett Av. & Eagle Glen Pkwy.	5,457	5,377	5,712	5,515
Eagle Glen Pkwy., b/w Bennett Av. & Masters Dr.	7,480	7,200	6,418	7,033
Eagle Glen Pkwy., b/w Masters Dr. & Bedford Cyn. Rd.	12,708	12,486	11,998	12,397
Eagle Glen Pkwy., b/w Bedford Cyn. Rd. & I-15 SB Ramps	18,903	18,731	18,553	18,729

Counts Unlimited, Inc.
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City of Corona
Masters Drive
B/ California Avenue - Christopher Lane
7 Day Directional Volume Count

COR001
Site Code: 056-15257

Start Time	12-May-15 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	43			5	51				
12:15		1	33			4	27				
12:30		3	34			2	46				
12:45		4	45	9	155	2	53	13	177	22	332
01:00		1	30			2	36				
01:15		1	32			0	42				
01:30		2	63			2	49				
01:45		1	57	5	182	3	35	7	162	12	344
02:00		4	71			2	68				
02:15		1	48			1	78				
02:30		1	55			0	65				
02:45		3	**71**	9	245	2	90	5	301	14	546
03:00		0	**66**			1	158				
03:15		1	**96**			0	179				
03:30		1	**56**			0	114				
03:45		4	55	6	273	0	123	1	574	7	847
04:00		3	64			0	123				
04:15		6	54			2	105				
04:30		7	58			3	110				
04:45		20	47	36	223	2	146	7	484	43	707
05:00		26	39			0	139				
05:15		28	60			4	124				
05:30		32	46			0	**162**				
05:45		32	73	118	218	1	**159**	5	584	123	802
06:00		41	46			5	**145**				
06:15		33	48			2	**145**				
06:30		47	56			12	114				
06:45		58	45	179	195	13	141	32	545	211	740
07:00		**96**	44			12	98				
07:15		**159**	45			**39**	70				
07:30		**141**	41			**88**	68				
07:45		**100**	38	496	168	**105**	55	244	291	740	459
08:00		70	39			**35**	49				
08:15		71	29			25	47				
08:30		72	32			42	49				
08:45		79	34	292	134	29	37	131	182	423	316
09:00		50	32			30	30				
09:15		41	25			25	52				
09:30		49	20			22	35				
09:45		37	21	177	98	21	35	98	152	275	250
10:00		39	13			30	34				
10:15		38	16			36	15				
10:30		34	10			28	11				
10:45		29	8	140	47	49	6	143	66	283	113
11:00		31	8			42	8				
11:15		41	5			25	3				
11:30		27	4			49	5				
11:45		21	2	120	19	41	6	157	22	277	41
Total		1587	1957	1587	1957	843	3540	843	3540	2430	5497
Combined Total		3544		3544		4383		4383		7927	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	496	-	-	-	267	-	-	-	-	-
P.H.F.		0.780				0.636					
PM Peak	-	-	02:45	-	-	-	05:30	-	-	-	-
Vol.	-	-	289	-	-	-	611	-	-	-	-
P.H.F.			0.753				0.943				
Percentage		44.8%	55.2%			19.2%	80.8%				

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City of Corona
Masters Drive
B/ California Avenue - Christopher Lane
7 Day Directional Volume Count

COR001
Site Code: 056-15257

Start Time	13-May-15 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	33			2	40				
12:15		3	39			6	44				
12:30		4	39			2	56				
12:45		6	60	15	171	1	54	11	194	26	365
01:00		0	70			2	68				
01:15		1	52			1	74				
01:30		4	47			2	71				
01:45		1	39	6	208	3	56	8	269	14	477
02:00		0	41			2	50				
02:15		1	**55**			1	68				
02:30		0	**48**			1	50				
02:45		1	**72**	2	216	0	79	4	247	6	463
03:00		1	**79**			1	149				
03:15		1	50			2	149				
03:30		3	45			0	102				
03:45		1	52	6	226	0	91	3	491	9	717
04:00		3	50			0	102				
04:15		6	48			1	129				
04:30		11	56			3	116				
04:45		17	35	37	189	2	149	6	496	43	685
05:00		24	48			2	**168**				
05:15		31	41			1	**143**				
05:30		32	53			1	**168**				
05:45		28	66	115	208	3	**151**	7	630	122	838
06:00		34	60			2	144				
06:15		27	62			4	121				
06:30		42	52			12	106				
06:45		58	54	161	228	14	103	32	474	193	702
07:00		79	42			24	69				
07:15		107	41			32	75				
07:30		121	26			**52**	55				
07:45		93	44	400	153	**84**	51	192	250	592	403
08:00		**79**	34			**38**	46				
08:15		**85**	42			**38**	47				
08:30		**129**	39			52	51				
08:45		**154**	36	447	151	59	32	187	176	634	327
09:00		68	25			55	63				
09:15		37	31			40	40				
09:30		36	18			26	36				
09:45		41	11	182	85	34	18	155	157	337	242
10:00		43	13			26	14				
10:15		36	13			40	7				
10:30		42	7			32	15				
10:45		22	4	143	37	32	6	130	42	273	79
11:00		34	6			33	16				
11:15		35	6			31	12				
11:30		40	4			36	4				
11:45		37	4	146	20	47	6	147	38	293	58
Total		1660	1892	1660	1892	882	3464	882	3464	2542	5356
Combined Total		3552		3552		4346		4346		7898	
AM Peak	-	08:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	447	-	-	-	212	-	-	-	-	-
P.H.F.		0.726				0.631					
PM Peak	-	-	02:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	254	-	-	-	630	-	-	-	-
P.H.F.			0.804				0.938				
Percentage		46.7%	53.3%			20.3%	79.7%				

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City of Corona
Masters Drive
B/ California Avenue - Christopher Lane
7 Day Directional Volume Count

COR001
Site Code: 056-15257

Start Time	14-May-15 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	27			4	50				
12:15		2	47			2	35				
12:30		3	36			2	41				
12:45		3	41	11	151	1	51	9	177	20	328
01:00		0	31			3	46				
01:15		1	47			2	59				
01:30		2	46			1	40				
01:45		1	57	4	181	1	48	7	193	11	374
02:00		4	68			0	78				
02:15		2	37			1	75				
02:30		1	**57**			3	64				
02:45		1	**72**	8	234	0	81	4	298	12	532
03:00		2	**62**			0	155				
03:15		1	**84**			0	168				
03:30		1	41			0	179				
03:45		4	52	8	239	2	121	2	623	10	862
04:00		5	41			1	122				
04:15		6	54			3	131				
04:30		8	47			2	165				
04:45		22	57	41	199	0	170	6	588	47	787
05:00		25	50			0	**182**				
05:15		24	36			2	**187**				
05:30		32	47			1	**180**				
05:45		39	41	120	174	1	**183**	4	732	124	906
06:00		31	36			4	158				
06:15		34	33			4	117				
06:30		51	32			8	132				
06:45		52	37	168	138	10	89	26	496	194	634
07:00		**89**	39			22	99				
07:15		**166**	46			**40**	77				
07:30		**141**	34			**78**	75				
07:45		**93**	39	489	158	**99**	70	239	321	728	479
08:00		77	26			**46**	54				
08:15		75	28			39	40				
08:30		76	22			48	31				
08:45		86	29	314	105	48	34	181	159	495	264
09:00		62	26			24	37				
09:15		37	16			31	27				
09:30		47	15			24	29				
09:45		37	13	183	70	36	19	115	112	298	182
10:00		33	14			38	17				
10:15		33	11			36	17				
10:30		29	14			39	12				
10:45		27	14	122	53	37	18	150	64	272	117
11:00		42	4			47	8				
11:15		39	3			39	6				
11:30		46	4			28	2				
11:45		34	1	161	12	44	5	158	21	319	33
Total		1629	1714	1629	1714	901	3784	901	3784	2530	5498
Combined Total		3343		3343		4685		4685		8028	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	489	-	-	-	263	-	-	-	-	-
P.H.F.		0.736				0.664					
PM Peak	-	-	02:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	275	-	-	-	732	-	-	-	-
P.H.F.			0.818				0.979				
Percentage		48.7%	51.3%			19.2%	80.8%				

Counts Unlimited, Inc.

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City of Corona
Masters Drive
B/ Christopher Lane - Via Castilla Street
7 Day Directional Volume Count

COR002
Site Code: 056-15257

Start Time	12-May-15 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	39			5	38				
12:15		2	31			3	31				
12:30		2	30			0	46				
12:45		4	43	9	143	1	47	9	162	18	305
01:00		0	33			1	33				
01:15		1	34			1	41				
01:30		1	60			1	42				
01:45		1	44	3	171	1	32	4	148	7	319
02:00		4	61			2	44				
02:15		1	46			0	86				
02:30		1	45			0	64				
02:45		4	**61**	10	213	2	82	4	276	14	489
03:00		0	**55**			0	131				
03:15		1	**96**			1	182				
03:30		2	**51**			0	137				
03:45		2	51	5	253	0	118	1	568	6	821
04:00		1	48			0	116				
04:15		4	50			1	123				
04:30		5	50			2	100				
04:45		17	38	27	186	1	130	4	469	31	655
05:00		22	38			2	144				
05:15		21	44			4	135				
05:30		32	48			0	**167**				
05:45		31	62	106	192	0	**159**	6	605	112	797
06:00		38	45			6	**137**				
06:15		32	41			3	**145**				
06:30		45	57			10	121				
06:45		46	43	161	186	15	133	34	536	195	722
07:00		**79**	40			17	103				
07:15		**164**	51			**32**	75				
07:30		**160**	35			**69**	60				
07:45		**89**	40	492	166	**102**	50	220	288	712	454
08:00		67	31			**37**	41				
08:15		76	26			28	42				
08:30		65	30			46	46				
08:45		72	33	280	120	26	35	137	164	417	284
09:00		46	31			27	23				
09:15		41	20			21	42				
09:30		38	25			20	32				
09:45		37	15	162	91	20	30	88	127	250	218
10:00		30	14			27	29				
10:15		31	16			30	17				
10:30		30	8			29	10				
10:45		27	8	118	46	45	7	131	63	249	109
11:00		28	8			56	3				
11:15		37	5			24	3				
11:30		22	4			40	5				
11:45		19	2	106	19	43	2	163	13	269	32
Total		1479	1786	1479	1786	801	3419	801	3419	2280	5205
Combined Total		3265		3265		4220		4220		7485	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	492	-	-	-	240	-	-	-	-	-
P.H.F.		0.750				0.588					
PM Peak	-	-	02:45	-	-	-	05:30	-	-	-	-
Vol.	-	-	263	-	-	-	608	-	-	-	-
P.H.F.			0.685				0.910				
Percentage		45.3%	54.7%			19.0%	81.0%				

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City of Corona
Masters Drive
B/ Christopher Lane - Via Castilla Street
7 Day Directional Volume Count

COR002
Site Code: 056-15257

Start Time	13-May-15 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	28			4	36				
12:15		4	40			3	41				
12:30		4	33			2	38				
12:45		4	48	13	149	2	51	11	166	24	315
01:00		0	60			2	45				
01:15		1	41			1	77				
01:30		0	43			1	67				
01:45		0	32	1	176	2	50	6	239	7	415
02:00		1	43			2	59				
02:15		0	**56**			1	57				
02:30		0	**43**			0	45				
02:45		1	**62**	2	204	0	63	3	224	5	428
03:00		1	**75**			0	135				
03:15		1	48			1	164				
03:30		2	47			0	112				
03:45		1	46	5	216	0	91	1	502	6	718
04:00		1	40			0	89				
04:15		5	44			1	123				
04:30		7	54			3	109				
04:45		14	29	27	167	0	128	4	449	31	616
05:00		22	50			2	**183**				
05:15		24	36			1	**149**				
05:30		28	52			1	**173**				
05:45		26	60	100	198	2	**160**	6	665	106	863
06:00		34	62			2	152				
06:15		24	55			2	119				
06:30		36	56			12	99				
06:45		49	47	143	220	14	95	30	465	173	685
07:00		66	41			20	82				
07:15		111	37			30	66				
07:30		95	30			39	53				
07:45		90	32	362	140	66	53	155	254	517	394
08:00		61	38			37	38				
08:15		**80**	41			**28**	42				
08:30		**124**	36			**60**	52				
08:45		**144**	37	409	152	**53**	30	178	162	587	314
09:00		**67**	22			**58**	50				
09:15		34	31			20	38				
09:30		31	19			20	36				
09:45		41	16	173	88	32	14	130	138	303	226
10:00		44	13			32	14				
10:15		31	11			30	7				
10:30		36	8			29	14				
10:45		19	4	130	36	31	8	122	43	252	79
11:00		28	2			39	12				
11:15		25	6			29	9				
11:30		33	3			40	5				
11:45		37	3	123	14	38	6	146	32	269	46
Total		1488	1760	1488	1760	792	3339	792	3339	2280	5099
Combined Total		3248		3248		4131		4131		7379	
AM Peak	-	08:15	-	-	-	08:15	-	-	-	-	-
Vol.	-	415	-	-	-	199	-	-	-	-	-
P.H.F.		0.720				0.829					
PM Peak	-	-	02:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	236	-	-	-	665	-	-	-	-
P.H.F.			0.787				0.908				
Percentage		45.8%	54.2%			19.2%	80.8%				

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City of Corona
Masters Drive
B/ Christopher Lane - Via Castilla Street
7 Day Directional Volume Count

COR002
Site Code: 056-15257

Start Time	14-May-15 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	27			3	39				
12:15		2	40			2	39				
12:30		2	28			1	33				
12:45		2	39	9	134	0	47	6	158	15	292
01:00		0	31			1	48				
01:15		0	42			1	50				
01:30		3	44			2	45				
01:45		0	52	3	169	0	45	4	188	7	357
02:00		3	60			0	51				
02:15		1	37			1	78				
02:30		1	**44**			2	64				
02:45		2	**67**	7	208	0	74	3	267	10	475
03:00		2	**61**			0	137				
03:15		0	**79**			0	182				
03:30		1	39			0	189				
03:45		3	48	6	227	1	141	1	649	7	876
04:00		4	44			1	98				
04:15		4	48			2	140				
04:30		5	45			2	165				
04:45		17	44	30	181	0	167	5	570	35	751
05:00		21	44			0	**184**				
05:15		20	32			2	**197**				
05:30		26	43			2	**196**				
05:45		31	31	98	150	0	**200**	4	777	102	927
06:00		34	36			5	174				
06:15		28	33			2	133				
06:30		44	26			7	117				
06:45		47	32	153	127	9	120	23	544	176	671
07:00		**77**	38			18	86				
07:15		**179**	36			32	74				
07:30		**150**	24			**65**	68				
07:45		**97**	33	503	131	**82**	68	197	296	700	427
08:00		57	23			**47**	51				
08:15		78	24			**33**	40				
08:30		72	23			50	24				
08:45		87	21	294	91	39	23	169	138	463	229
09:00		57	29			29	33				
09:15		29	13			28	27				
09:30		40	17			21	28				
09:45		41	17	167	76	31	15	109	103	276	179
10:00		30	13			39	14				
10:15		32	10			33	14				
10:30		25	11			31	15				
10:45		24	15	111	49	33	17	136	60	247	109
11:00		34	4			36	7				
11:15		29	1			43	4				
11:30		42	3			26	2				
11:45		29	3	134	11	44	3	149	16	283	27
Total		1515	1554	1515	1554	806	3766	806	3766	2321	5320
Combined Total		3069		3069		4572		4572		7641	
AM Peak	-	07:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	503	-	-	-	227	-	-	-	-	-
P.H.F.		0.703				0.692					
PM Peak	-	-	02:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	251	-	-	-	777	-	-	-	-
P.H.F.			0.794				0.971				
Percentage		49.4%	50.6%			17.6%	82.4%				

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City of Corona
Masters Drive
B/ Via Castilla Street - Morales Way
7 Day Directional Volume Count

COR003
Site Code: 056-15257

Start Time	12-May-15 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	37			3	37				
12:15		4	23			2	34				
12:30		3	39			1	34				
12:45		4	36	11	135	1	41	7	146	18	281
01:00		0	23			2	26				
01:15		1	42			0	44				
01:30		2	53			0	38				
01:45		3	45	6	163	1	35	3	143	9	306
02:00		1	41			0	61				
02:15		0	31			0	61				
02:30		3	**52**			0	55				
02:45		1	**56**	5	180	2	77	2	254	7	434
03:00		1	**65**			1	147				
03:15		0	**66**			0	161				
03:30		2	43			0	100				
03:45		1	44	4	218	1	110	2	518	6	736
04:00		1	49			1	114				
04:15		0	53			2	105				
04:30		7	48			2	83				
04:45		12	40	20	190	3	142	8	444	28	634
05:00		16	31			1	115				
05:15		21	56			3	**134**				
05:30		19	49			2	**153**				
05:45		35	46	91	182	4	**142**	10	544	101	726
06:00		27	39			7	**133**				
06:15		23	41			5	125				
06:30		41	52			11	99				
06:45		44	27	135	159	17	115	40	472	175	631
07:00		**90**	51			20	80				
07:15		**137**	34			**48**	68				
07:30		**83**	39			**71**	45				
07:45		**54**	29	364	153	**63**	45	202	238	566	391
08:00		58	31			**32**	29				
08:15		56	32			31	34				
08:30		79	34			42	38				
08:45		54	40	247	137	25	26	130	127	377	264
09:00		34	25			30	25				
09:15		35	27			22	25				
09:30		31	19			20	24				
09:45		27	14	127	85	27	32	99	106	226	191
10:00		22	16			27	20				
10:15		28	13			27	10				
10:30		20	9			32	7				
10:45		27	6	97	44	56	2	142	39	239	83
11:00		24	7			42	4				
11:15		27	3			30	1				
11:30		17	2			38	3				
11:45		36	2	104	14	36	1	146	9	250	23
Total		1211	1660	1211	1660	791	3040	791	3040	2002	4700
Combined Total		2871		2871		3831		3831		6702	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	364	-	-	-	214	-	-	-	-	-
P.H.F.		0.664				0.754					
PM Peak	-	-	02:30	-	-	-	05:15	-	-	-	-
Vol.	-	-	239	-	-	-	562	-	-	-	-
P.H.F.			0.905				0.918				
Percentage		42.2%	57.8%			20.6%	79.4%				

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City of Corona
Masters Drive
B/ Via Castilla Street - Morales Way
7 Day Directional Volume Count

COR003
Site Code: 056-15257

Start Time	13-May-15 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	33			1	38				
12:15		5	28			2	32				
12:30		2	41			1	36				
12:45		2	40	13	142	1	48	5	154	18	296
01:00		1	38			1	46				
01:15		0	33			0	54				
01:30		0	40			1	57				
01:45		1	32	2	143	3	57	5	214	7	357
02:00		1	40			1	50				
02:15		0	**56**			0	49				
02:30		0	**54**			0	44				
02:45		0	**63**	1	213	0	70	1	213	2	426
03:00		2	**59**			0	127				
03:15		0	38			2	129				
03:30		1	47			0	93				
03:45		0	40	3	184	0	86	2	435	5	619
04:00		1	39			1	92				
04:15		1	37			1	107				
04:30		7	41			2	93				
04:45		12	43	21	160	3	**136**	7	428	28	588
05:00		12	35			2	**163**				
05:15		24	46			3	**161**				
05:30		18	51			3	**155**				
05:45		21	61	75	193	4	136	12	615	87	808
06:00		32	59			5	129				
06:15		21	55			6	105				
06:30		30	44			17	80				
06:45		48	44	131	202	10	81	38	395	169	597
07:00		60	46			27	67				
07:15		77	38			32	57				
07:30		70	33			44	47				
07:45		53	35	260	152	43	41	146	212	406	364
08:00		**62**	46			27	35				
08:15		**78**	33			**38**	47				
08:30		**123**	24			**64**	37				
08:45		**100**	41	363	144	**57**	29	186	148	549	292
09:00		49	23			**38**	34				
09:15		22	34			26	30				
09:30		34	14			19	24				
09:45		30	16	135	87	33	11	116	99	251	186
10:00		30	18			28	10				
10:15		35	8			31	6				
10:30		19	4			24	11				
10:45		22	2	106	32	34	4	117	31	223	63
11:00		31	6			29	10				
11:15		18	3			41	6				
11:30		26	3			33	4				
11:45		39	5	114	17	36	3	139	23	253	40
Total		1224	1669	1224	1669	774	2967	774	2967	1998	4636
Combined Total		2893		2893		3741		3741		6634	
AM Peak	-	08:00	-	-	-	08:15	-	-	-	-	-
Vol.	-	363	-	-	-	197	-	-	-	-	-
P.H.F.		0.738				0.770					
PM Peak	-	-	02:15	-	-	-	04:45	-	-	-	-
Vol.	-	-	232	-	-	-	615	-	-	-	-
P.H.F.			0.921				0.943				
Percentage		42.3%	57.7%			20.7%	79.3%				

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City of Corona
Masters Drive
B/ Via Castilla Street - Morales Way
7 Day Directional Volume Count

COR003
Site Code: 056-15257

Start Time	14-May-15 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	31			4	46				
12:15		2	40			1	39				
12:30		3	30			1	35				
12:45		2	23	11	124	1	51	7	171	18	295
01:00		0	35			0	38				
01:15		3	34			1	47				
01:30		2	45			0	37				
01:45		0	54	5	168	1	36	2	158	7	326
02:00		3	31			0	66				
02:15		2	33			0	61				
02:30		1	**54**			1	58				
02:45		0	**54**	6	172	1	62	2	247	8	419
03:00		3	**67**			0	145				
03:15		1	**70**			0	167				
03:30		0	38			0	170				
03:45		3	43	7	218	1	104	1	586	8	804
04:00		3	39			1	115				
04:15		2	52			2	120				
04:30		6	37			2	161				
04:45		9	47	20	175	2	158	7	554	27	729
05:00		19	32			2	**181**				
05:15		22	39			5	**188**				
05:30		17	41			3	**193**				
05:45		32	29	90	141	4	**189**	14	751	104	892
06:00		26	26			6	146				
06:15		25	25			9	120				
06:30		35	25			8	119				
06:45		41	24	127	100	11	70	34	455	161	555
07:00		**88**	31			23	77				
07:15		**141**	39			40	62				
07:30		**88**	18			**66**	59				
07:45		**51**	33	368	121	**59**	55	188	253	556	374
08:00		52	34			**31**	44				
08:15		63	28			**46**	24				
08:30		79	25			53	19				
08:45		60	29	254	116	33	23	163	110	417	226
09:00		41	22			24	33				
09:15		29	12			22	15				
09:30		40	15			25	20				
09:45		24	26	134	75	36	9	107	77	241	152
10:00		31	13			30	11				
10:15		30	11			32	13				
10:30		19	17			31	13				
10:45		19	8	99	49	33	10	126	47	225	96
11:00		29	2			33	5				
11:15		32	3			34	5				
11:30		24	4			28	1				
11:45		27	3	112	12	40	3	135	14	247	26
Total		1233	1471	1233	1471	786	3423	786	3423	2019	4894
Combined Total		2704		2704		4209		4209		6913	
AM Peak	-	07:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	368	-	-	-	202	-	-	-	-	-
P.H.F.		0.652				0.765					
PM Peak	-	-	02:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	245	-	-	-	751	-	-	-	-
P.H.F.			0.875				0.973				
Percentage		45.6%	54.4%			18.7%	81.3%				

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City of Corona
Masters Drive
B/ Morales Street - Bennett Avenue
7 Day Directional Volume Count

COR004
Site Code: 056-15257

Start Time	12-May-15 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	35			3	34				
12:15		5	26			1	28				
12:30		1	34			0	38				
12:45		4	42	13	137	1	34	5	134	18	271
01:00		3	29			2	30				
01:15		1	45			0	33				
01:30		1	42			0	45				
01:45		5	52	10	168	0	36	2	144	12	312
02:00		1	39			0	55				
02:15		1	32			0	55				
02:30		3	47			0	40				
02:45		1	43	6	161	0	50	0	200	6	361
03:00		0	47			0	104				
03:15		0	30			2	125				
03:30		1	35			1	78				
03:45		0	33	1	145	4	101	7	408	8	553
04:00		0	40			3	92				
04:15		0	48			4	95				
04:30		3	34			6	72				
04:45		2	35	5	157	10	112	23	371	28	528
05:00		9	34			9	**114**				
05:15		4	49			12	**103**				
05:30		9	37			12	**126**				
05:45		15	34	37	154	8	**116**	41	459	78	613
06:00		9	47			12	103				
06:15		11	41			15	87				
06:30		20	47			17	75				
06:45		26	22	66	157	21	86	65	351	131	508
07:00		**55**	**53**			**39**	58				
07:15		**64**	**46**			**69**	44				
07:30		**66**	**44**			**56**	32				
07:45		**48**	**43**	233	186	**55**	32	219	166	452	352
08:00		32	38			37	29				
08:15		40	30			29	18				
08:30		48	36			47	21				
08:45		33	45	153	149	56	17	169	85	322	234
09:00		20	28			29	17				
09:15		21	30			28	12				
09:30		24	26			31	17				
09:45		18	25	83	109	31	14	119	60	202	169
10:00		20	22			26	12				
10:15		19	11			37	6				
10:30		15	8			38	3				
10:45		19	9	73	50	54	4	155	25	228	75
11:00		26	10			38	3				
11:15		35	6			47	4				
11:30		16	6			41	2				
11:45		33	6	110	28	33	1	159	10	269	38
Total		790	1601	790	1601	964	2413	964	2413	1754	4014
Combined Total		2391		2391		3377		3377		5768	
AM Peak	-	07:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	233	-	-	-	219	-	-	-	-	-
P.H.F.		0.883				0.793					
PM Peak	-	-	07:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	186	-	-	-	459	-	-	-	-
P.H.F.			0.877				0.911				
Percentage		33.0%	67.0%			28.5%	71.5%				

Counts Unlimited, Inc.

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City of Corona
Masters Drive
B/ Morales Street - Bennett Avenue
7 Day Directional Volume Count

COR004
Site Code: 056-15257

Start Time	13-May-15 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	42			3	36				
12:15		5	21			1	27				
12:30		1	27			1	28				
12:45		2	45	16	135	1	39	6	130	22	265
01:00		2	30			1	47				
01:15		0	32			0	49				
01:30		2	59			0	46				
01:45		3	41	7	162	3	40	4	182	11	344
02:00		2	36			1	64				
02:15		1	37			1	56				
02:30		0	46			0	39				
02:45		1	47	4	166	0	53	2	212	6	378
03:00		2	41			1	70				
03:15		0	43			2	92				
03:30		0	29			1	75				
03:45		0	38	2	151	1	79	5	316	7	467
04:00		1	37			4	73				
04:15		0	37			5	95				
04:30		1	31			5	85				
04:45		2	48	4	153	7	**107**	21	360	25	513
05:00		2	38			10	**126**				
05:15		10	**42**			9	**136**				
05:30		7	**53**			12	**127**				
05:45		6	**62**	25	195	13	101	44	490	69	685
06:00		7	**54**			14	88				
06:15		13	40			19	81				
06:30		15	50			17	59				
06:45		30	42	65	186	27	63	77	291	142	477
07:00		**47**	38			36	45				
07:15		**53**	35			62	47				
07:30		**52**	36			47	33				
07:45		**40**	38	192	147	43	31	188	156	380	303
08:00		35	52			31	31				
08:15		39	48			**51**	29				
08:30		58	35			**46**	23				
08:45		32	42	164	177	**72**	18	200	101	364	278
09:00		34	31			**33**	22				
09:15		13	34			30	17				
09:30		23	21			29	18				
09:45		26	25	96	111	31	10	123	67	219	178
10:00		16	22			32	7				
10:15		23	9			34	5				
10:30		19	8			33	7				
10:45		23	5	81	44	31	3	130	22	211	66
11:00		24	7			28	6				
11:15		26	0			36	4				
11:30		22	7			40	3				
11:45		36	4	108	18	32	2	136	15	244	33
Total		764	1645	764	1645	936	2342	936	2342	1700	3987
Combined Total		2409		2409		3278		3278		5687	
AM Peak	-	07:00	-	-	-	08:15	-	-	-	-	-
Vol.	-	192	-	-	-	202	-	-	-	-	-
P.H.F.		0.906				0.701					
PM Peak	-	-	05:15	-	-	-	04:45	-	-	-	-
Vol.	-	-	211	-	-	-	496	-	-	-	-
P.H.F.			0.851				0.912				
Percentage		31.7%	68.3%			28.6%	71.4%				

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City of Corona
Masters Drive
B/ Morales Street - Bennett Avenue
7 Day Directional Volume Count

COR004
Site Code: 056-15257

Start Time	14-May-15 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	33			4	49				
12:15		2	44			0	33				
12:30		2	26			0	30				
12:45		2	28	9	131	3	37	7	149	16	280
01:00		0	32			0	30				
01:15		4	28			0	42				
01:30		2	45			0	49				
01:45		7	50	13	155	0	42	0	163	13	318
02:00		2	23			1	46				
02:15		1	34			1	63				
02:30		1	**46**			1	44				
02:45		3	**51**	7	154	1	49	4	202	11	356
03:00		2	**41**			1	97				
03:15		2	**43**			1	138				
03:30		0	31			1	152				
03:45		1	41	5	156	3	83	6	470	11	626
04:00		3	39			1	93				
04:15		2	42			6	88				
04:30		2	34			5	135				
04:45		1	33	8	148	6	129	18	445	26	593
05:00		7	33			7	**152**				
05:15		10	37			14	**148**				
05:30		8	32			12	**157**				
05:45		12	32	37	134	7	**152**	40	609	77	743
06:00		11	24			12	107				
06:15		14	29			14	97				
06:30		14	26			15	83				
06:45		25	34	64	113	19	58	60	345	124	458
07:00		**46**	40			34	51				
07:15		**63**	40			**53**	47				
07:30		**62**	30			**67**	43				
07:45		**36**	41	207	151	**52**	35	206	176	413	327
08:00		32	28			**35**	32				
08:15		46	27			39	26				
08:30		59	43			41	15				
08:45		37	25	174	123	43	19	158	92	332	215
09:00		17	25			35	22				
09:15		18	23			27	12				
09:30		23	17			29	16				
09:45		17	26	75	91	25	7	116	57	191	148
10:00		24	13			27	14				
10:15		28	20			36	10				
10:30		20	24			37	17				
10:45		25	7	97	64	43	10	143	51	240	115
11:00		26	2			41	4				
11:15		25	4			30	2				
11:30		28	5			36	1				
11:45		31	9	110	20	42	3	149	10	259	30
Total		806	1440	806	1440	907	2769	907	2769	1713	4209
Combined Total		2246		2246		3676		3676		5922	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	207	-	-	-	207	-	-	-	-	-
P.H.F.		0.821				0.772					
PM Peak	-	-	02:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	181	-	-	-	609	-	-	-	-
P.H.F.			0.887				0.970				
Percentage		35.9%	64.1%			24.7%	75.3%				

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City of Corona
Masters Drive
B/ Bennett Avenue - Eagle Glen Parkway
7 Day Directional Volume Count

COR005
Site Code: 056-15257

Start Time	12-May-15 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	34			4	38				
12:15		2	32			2	24				
12:30		3	34			1	44				
12:45		2	42	9	142	1	40	8	146	17	288
01:00		3	38			1	34				
01:15		1	**39**			1	34				
01:30		3	**43**			0	49				
01:45		2	**48**	9	168	0	42	2	159	11	327
02:00		1	**42**			0	34				
02:15		0	22			2	49				
02:30		4	38			2	52				
02:45		2	38	7	140	0	43	4	178	11	318
03:00		2	36			1	66				
03:15		0	40			3	102				
03:30		0	39			1	91				
03:45		0	36	2	151	4	89	9	348	11	499
04:00		0	46			3	94				
04:15		0	51			4	81				
04:30		2	28			9	90				
04:45		2	38	4	163	10	79	26	344	30	507
05:00		5	42			12	**104**				
05:15		3	41			16	**92**				
05:30		7	45			16	**121**				
05:45		10	34	25	162	16	**104**	60	421	85	583
06:00		7	43			12	96				
06:15		7	35			22	81				
06:30		10	43			23	66				
06:45		19	30	43	151	26	61	83	304	126	455
07:00		**36**	36			**39**	53				
07:15		**35**	43			**53**	34				
07:30		**52**	51			**53**	31				
07:45		**42**	35	165	165	**47**	28	192	146	357	311
08:00		25	39			38	27				
08:15		37	29			33	20				
08:30		41	38			33	17				
08:45		38	29	141	135	53	19	157	83	298	218
09:00		18	27			31	14				
09:15		25	29			31	17				
09:30		21	32			35	12				
09:45		16	30	80	118	37	11	134	54	214	172
10:00		13	21			33	9				
10:15		22	17			38	9				
10:30		14	7			32	2				
10:45		19	12	68	57	56	4	159	24	227	81
11:00		21	14			39	4				
11:15		32	6			35	5				
11:30		23	9			42	3				
11:45		35	8	111	37	33	2	149	14	260	51
Total		664	1589	664	1589	983	2221	983	2221	1647	3810
Combined Total		2253		2253		3204		3204		5457	
AM Peak	-	07:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	165	-	-	-	192	-	-	-	-	-
P.H.F.		0.793				0.906					
PM Peak	-	-	01:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	172	-	-	-	421	-	-	-	-
P.H.F.			0.896				0.870				
Percentage		29.5%	70.5%			30.7%	69.3%				

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City of Corona
Masters Drive
B/ Bennett Avenue - Eagle Glen Parkway
7 Day Directional Volume Count

COR005
Site Code: 056-15257

Start	13-May-15	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	39			0	52				
12:15		7	25			3	32				
12:30		1	27			1	28				
12:45		4	42	20	133	1	37	5	149	25	282
01:00		3	30			0	29				
01:15		0	29			0	53				
01:30		2	39			0	45				
01:45		4	42	9	140	1	37	1	164	10	304
02:00		2	35			1	45				
02:15		2	37			0	56				
02:30		0	40			1	41				
02:45		1	50	5	162	0	45	2	187	7	349
03:00		2	38			0	55				
03:15		0	31			3	80				
03:30		0	32			1	61				
03:45		1	34	3	135	2	74	6	270	9	405
04:00		1	39			5	70				
04:15		0	42			4	86				
04:30		2	38			7	79				
04:45		2	39	5	158	7	80	23	315	28	473
05:00		1	43			9	**114**				
05:15		4	**44**			15	**120**				
05:30		4	**50**			18	**117**				
05:45		7	**53**	16	190	17	**86**	59	437	75	627
06:00		6	**55**			15	81				
06:15		7	39			20	78				
06:30		10	41			29	67				
06:45		26	37	49	172	26	51	90	277	139	449
07:00		**30**	43			26	47				
07:15		**35**	40			**59**	41				
07:30		**44**	34			**51**	37				
07:45		**40**	39	149	156	**47**	33	183	158	332	314
08:00		23	47			**32**	32				
08:15		27	48			40	29				
08:30		36	38			44	25				
08:45		30	40	116	173	55	19	171	105	287	278
09:00		34	38			34	23				
09:15		19	32			30	18				
09:30		20	22			37	15				
09:45		17	28	90	120	34	9	135	65	225	185
10:00		16	22			34	11				
10:15		23	14			29	4				
10:30		24	8			33	8				
10:45		21	7	84	51	28	5	124	28	208	79
11:00		21	9			36	5				
11:15		26	2			35	3				
11:30		28	6			43	4				
11:45		32	5	107	22	29	3	143	15	250	37
Total		653	1612	653	1612	942	2170	942	2170	1595	3782
Combined Total		2265		2265		3112		3112		5377	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	149	-	-	-	189	-	-	-	-	-
P.H.F.		0.847				0.801					
PM Peak	-	-	05:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	202	-	-	-	437	-	-	-	-
P.H.F.			0.918				0.910				
Percentage		28.8%	71.2%			30.3%	69.7%				

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City of Corona
Masters Drive
B/ Bennett Avenue - Eagle Glen Parkway
7 Day Directional Volume Count

COR005
Site Code: 056-15257

Start Time	14-May-15 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	37			4	43				
12:15		5	43			0	33				
12:30		1	31			1	33				
12:45		3	26	14	137	1	32	6	141	20	278
01:00		1	32			2	39				
01:15		4	34			0	41				
01:30		3	43			0	40				
01:45		4	43	12	152	0	46	2	166	14	318
02:00		2	25			1	49				
02:15		1	33			1	51				
02:30		1	32			0	43				
02:45		2	39	6	129	2	49	4	192	10	321
03:00		3	32			0	58				
03:15		3	35			2	105				
03:30		0	**39**			0	142				
03:45		1	**35**	7	141	4	100	6	405	13	546
04:00		2	**40**			3	83				
04:15		3	**41**			5	89				
04:30		2	38			8	116				
04:45		1	28	8	147	9	118	25	406	33	553
05:00		3	34			9	**139**				
05:15		8	32			17	**134**				
05:30		6	39			12	**134**				
05:45		8	41	25	146	9	**150**	47	557	72	703
06:00		9	24			11	113				
06:15		10	36			23	97				
06:30		8	33			24	69				
06:45		21	35	48	128	19	63	77	342	125	470
07:00		30	34			28	50				
07:15		**52**	39			**49**	45				
07:30		**41**	28			**52**	40				
07:45		**33**	39	156	140	**54**	39	183	174	339	314
08:00		**36**	31			**41**	33				
08:15		35	30			39	25				
08:30		46	43			46	24				
08:45		36	34	153	138	35	22	161	104	314	242
09:00		13	27			38	12				
09:15		17	25			38	18				
09:30		27	20			31	20				
09:45		14	30	71	102	23	11	130	61	201	163
10:00		16	18			35	17				
10:15		27	21			37	12				
10:30		23	26			38	14				
10:45		20	15	86	80	38	10	148	53	234	133
11:00		23	2			43	10				
11:15		26	3			30	3				
11:30		25	4			36	0				
11:45		32	8	106	17	48	3	157	16	263	33
Total		692	1457	692	1457	946	2617	946	2617	1638	4074
Combined Total		2149		2149		3563		3563		5712	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	162	-	-	-	196	-	-	-	-	-
P.H.F.		0.779				0.907					
PM Peak	-	-	03:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	155	-	-	-	557	-	-	-	-
P.H.F.			0.901				0.928				
Percentage		32.2%	67.8%			26.6%	73.4%				

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City of Corona
Eagle Glen Parkway
B/ Bennett Avenue - Masters Drive
7 Day Directional Volume Count

COR006
Site Code: 056-15257

Start Time	12-May-15 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	50			8	39				
12:15		8	45			8	39				
12:30		2	41			8	65				
12:45		0	69	12	205	7	37	31	180	43	385
01:00		1	50			4	50				
01:15		1	59			5	45				
01:30		2	164			1	34				
01:45		2	71	6	344	1	47	11	176	17	520
02:00		1	57			3	42				
02:15		1	54			0	41				
02:30		0	33			2	**81**				
02:45		3	54	5	198	1	**103**	6	267	11	465
03:00		0	53			1	**114**				
03:15		4	**172**			0	**83**				
03:30		4	**90**			1	51				
03:45		3	**58**	11	373	1	50	3	298	14	671
04:00		6	**61**			5	45				
04:15		13	51			5	52				
04:30		11	60			3	44				
04:45		11	58	41	230	2	63	15	204	56	434
05:00		17	45			1	61				
05:15		22	57			4	73				
05:30		14	45			9	65				
05:45		15	41	68	188	6	64	20	263	88	451
06:00		26	48			8	78				
06:15		37	53			11	68				
06:30		25	39			11	76				
06:45		45	37	133	177	12	60	42	282	175	459
07:00		53	50			20	74				
07:15		91	78			20	73				
07:30		81	35			39	72				
07:45		63	65	288	228	57	56	136	275	424	503
08:00		41	31			54	44				
08:15		**57**	29			54	50				
08:30		**108**	21			101	63				
08:45		**115**	27	321	108	105	60	314	217	635	325
09:00		**112**	35			34	51				
09:15		46	36			39	37				
09:30		54	25			37	48				
09:45		51	9	263	105	38	37	148	173	411	278
10:00		56	19			40	23				
10:15		45	15			32	38				
10:30		38	5			44	25				
10:45		40	10	179	49	**63**	26	179	112	358	161
11:00		43	18			**119**	21				
11:15		59	10			**79**	20				
11:30		51	5			**63**	11				
11:45		35	8	188	41	47	7	308	59	496	100
Total		1515	2246	1515	2246	1213	2506	1213	2506	2728	4752
Combined Total		3761		3761		3719		3719		7480	
AM Peak	-	08:15	-	-	-	10:45	-	-	-	-	-
Vol.	-	392	-	-	-	324	-	-	-	-	-
P.H.F.		0.852				0.681					
PM Peak	-	-	03:15	-	-	-	02:30	-	-	-	-
Vol.	-	-	381	-	-	-	381	-	-	-	-
P.H.F.			0.554				0.836				
Percentage		40.3%	59.7%			32.6%	67.4%				

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City of Corona
Eagle Glen Parkway
B/ Bennett Avenue - Masters Drive
7 Day Directional Volume Count

COR006
Site Code: 056-15257

Start Time	13-May-15 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	39			10	39				
12:15		6	36			6	41				
12:30		8	45			8	54				
12:45		3	40	22	160	7	53	31	187	53	347
01:00		1	46			5	57				
01:15		4	48			2	**70**				
01:30		0	38			1	**119**				
01:45		5	51	10	183	8	**109**	16	355	26	538
02:00		1	**44**			5	**67**				
02:15		2	**154**			5	39				
02:30		1	**80**			3	47				
02:45		0	**53**	4	331	6	54	19	207	23	538
03:00		3	39			0	60				
03:15		1	65			1	50				
03:30		2	53			0	50				
03:45		5	54	11	211	1	59	2	219	13	430
04:00		6	55			3	61				
04:15		14	48			4	52				
04:30		10	36			4	49				
04:45		20	50	50	189	2	58	13	220	63	409
05:00		22	54			2	69				
05:15		11	48			5	72				
05:30		16	54			5	67				
05:45		12	54	61	210	3	78	15	286	76	496
06:00		21	51			11	67				
06:15		36	51			5	69				
06:30		32	52			15	73				
06:45		41	62	130	216	15	60	46	269	176	485
07:00		66	50			14	61				
07:15		56	56			24	72				
07:30		76	36			39	63				
07:45		60	65	258	207	45	57	122	253	380	460
08:00		60	41			45	46				
08:15		54	37			**71**	45				
08:30		**106**	28			**104**	60				
08:45		**147**	30	367	136	**104**	39	324	190	691	326
09:00		**124**	26			**55**	65				
09:15		**69**	31			48	49				
09:30		38	18			31	43				
09:45		45	15	276	90	34	32	168	189	444	279
10:00		53	8			46	32				
10:15		41	10			29	27				
10:30		58	8			36	16				
10:45		64	21	216	47	47	15	158	90	374	137
11:00		39	5			33	16				
11:15		55	10			58	11				
11:30		51	3			37	9				
11:45		60	4	205	22	38	7	166	43	371	65
Total		1610	2002	1610	2002	1080	2508	1080	2508	2690	4510
Combined Total		3612		3612		3588		3588		7200	
AM Peak	-	08:30	-	-	-	08:15	-	-	-	-	-
Vol.	-	446	-	-	-	334	-	-	-	-	-
P.H.F.		0.759				0.803					
PM Peak	-	-	02:00	-	-	-	01:15	-	-	-	-
Vol.	-	-	331	-	-	-	365	-	-	-	-
P.H.F.			0.537				0.767				
Percentage		44.6%	55.4%			30.1%	69.9%				

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City of Corona
Eagle Glen Parkway
B/ Bennett Avenue - Masters Drive
7 Day Directional Volume Count

COR006
Site Code: 056-15257

Start Time	14-May-15 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	50			3	38				
12:15		0	63			4	54				
12:30		1	38			8	54				
12:45		0	65	10	216	4	40	19	186	29	402
01:00		1	45			2	32				
01:15		1	63			2	39				
01:30		0	59			3	47				
01:45		0	70	2	237	3	34	10	152	12	389
02:00		1	54			5	34				
02:15		3	43			1	**78**				
02:30		0	45			3	**92**				
02:45		1	**46**	5	188	0	**108**	9	312	14	500
03:00		3	**42**			1	**67**				
03:15		2	**158**			1	62				
03:30		2	**69**			2	57				
03:45		4	38	11	307	7	39	11	225	22	532
04:00		6	42			4	44				
04:15		12	41			5	37				
04:30		10	34			2	43				
04:45		21	32	49	149	4	37	15	161	64	310
05:00		15	37			3	48				
05:15		24	40			2	49				
05:30		16	42			6	37				
05:45		16	41	71	160	10	57	21	191	92	351
06:00		20	34			5	48				
06:15		24	36			11	55				
06:30		32	38			15	51				
06:45		38	39	114	147	25	42	56	196	170	343
07:00		46	28			18	62				
07:15		109	29			30	59				
07:30		90	29			49	52				
07:45		61	24	306	110	**55**	43	152	216	458	326
08:00		48	23			**54**	38				
08:15		50	18			**92**	42				
08:30		**117**	18			**109**	51				
08:45		**127**	16	342	75	51	40	306	171	648	246
09:00		**85**	19			33	40				
09:15		**54**	11			38	39				
09:30		30	19			36	36				
09:45		45	21	214	70	50	21	157	136	371	206
10:00		49	16			42	18				
10:15		35	11			40	21				
10:30		42	9			32	32				
10:45		56	16	182	52	28	17	142	88	324	140
11:00		51	6			50	16				
11:15		47	7			33	13				
11:30		63	5			42	12				
11:45		65	5	226	23	42	12	167	53	393	76
Total		1532	1734	1532	1734	1065	2087	1065	2087	2597	3821
Combined Total		3266		3266		3152		3152		6418	
AM Peak	-	08:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	383	-	-	-	310	-	-	-	-	-
P.H.F.		0.754				0.711					
PM Peak	-	-	02:45	-	-	-	02:15	-	-	-	-
Vol.	-	-	315	-	-	-	345	-	-	-	-
P.H.F.			0.498				0.799				
Percentage		46.9%	53.1%			33.8%	66.2%				

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City of Corona
Eagle Glen Parkway
B/ Masters Drive - Bedford Canyon Road
7 Day Directional Volume Count

COR007
Site Code: 056-15257

Start Time	12-May-15 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	72			12	78				
12:15		4	75			9	94				
12:30		0	115			10	75				
12:45		3	83	15	345	5	85	36	332	51	677
01:00		2	92			9	84				
01:15		3	192			3	69				
01:30		1	113			3	75				
01:45		1	80	7	477	4	94	19	322	26	799
02:00		1	102			2	76				
02:15		6	87			3	**124**				
02:30		2	97			4	**132**				
02:45		2	86	11	372	3	**148**	12	480	23	852
03:00		8	**246**			1	**97**				
03:15		5	**185**			1	83				
03:30		4	**144**			2	91				
03:45		12	**149**	29	724	5	86	9	357	38	1081
04:00		16	137			6	98				
04:15		19	146			2	80				
04:30		24	140			5	103				
04:45		31	145	90	568	7	100	20	381	110	949
05:00		35	151			8	100				
05:15		33	145			12	126				
05:30		35	147			8	97				
05:45		38	147	141	590	23	114	51	437	192	1027
06:00		61	133			13	109				
06:15		56	107			18	101				
06:30		69	98			35	102				
06:45		83	105	269	443	45	93	111	405	380	848
07:00		140	117			49	124				
07:15		128	68			82	119				
07:30		122	91			106	93				
07:45		89	53	479	329	**79**	86	316	422	795	751
08:00		**94**	53			**90**	88				
08:15		**131**	35			**135**	103				
08:30		**165**	41			**108**	89				
08:45		**134**	58	524	187	63	76	396	356	920	543
09:00		84	50			58	72				
09:15		79	34			61	71				
09:30		96	21			54	72				
09:45		91	32	350	137	54	55	227	270	577	407
10:00		81	18			56	54				
10:15		72	7			67	32				
10:30		88	19			100	36				
10:45		83	17	324	61	113	33	336	155	660	216
11:00		88	14			98	29				
11:15		87	8			91	20				
11:30		78	14			70	14				
11:45		86	6	339	42	64	19	323	82	662	124
Total		2578	4275	2578	4275	1856	3999	1856	3999	4434	8274
Combined Total		6853		6853		5855		5855		12708	
AM Peak	-	08:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	524	-	-	-	412	-	-	-	-	-
P.H.F.		0.794				0.763					
PM Peak	-	-	03:00	-	-	-	02:15	-	-	-	-
Vol.	-	-	724	-	-	-	501	-	-	-	-
P.H.F.			0.736				0.846				
Percentage		37.6%	62.4%			31.7%	68.3%				

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City of Corona
Eagle Glen Parkway
B/ Masters Drive - Bedford Canyon Road
7 Day Directional Volume Count

COR007
Site Code: 056-15257

Start	13-May-15	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	83			12	85				
12:15		8	79			11	63				
12:30		4	66			8	90				
12:45		1	66	20	294	9	98	40	336	60	630
01:00		4	115			3	**77**				
01:15		1	75			2	**142**				
01:30		5	87			12	**151**				
01:45		2	88	12	365	9	**142**	26	512	38	877
02:00		2	223			7	60				
02:15		2	96			5	93				
02:30		0	84			6	92				
02:45		3	97	7	500	2	95	20	340	27	840
03:00		2	124			1	77				
03:15		4	121			1	77				
03:30		8	123			2	91				
03:45		12	132	26	500	5	91	9	336	35	836
04:00		19	113			5	112				
04:15		21	117			3	92				
04:30		28	132			6	69				
04:45		31	**147**	99	509	5	120	19	393	118	902
05:00		22	**159**			3	102				
05:15		31	**170**			9	109				
05:30		34	**155**			10	124				
05:45		43	133	130	617	18	132	40	467	170	1084
06:00		54	127			6	116				
06:15		64	122			25	101				
06:30		66	117			34	110				
06:45		103	100	287	466	43	100	108	427	395	893
07:00		109	97			60	105				
07:15		143	75			75	107				
07:30		98	106			90	97				
07:45		93	64	443	342	77	105	302	414	745	756
08:00		**96**	75			**103**	96				
08:15		**150**	57			**124**	105				
08:30		**191**	54			**95**	89				
08:45		**148**	36	585	222	**83**	88	405	378	990	600
09:00		89	49			70	94				
09:15		76	38			46	87				
09:30		82	30			53	60				
09:45		79	17	326	134	53	60	222	301	548	435
10:00		72	17			64	49				
10:15		106	18			64	35				
10:30		93	21			60	19				
10:45		83	14	354	70	50	22	238	125	592	195
11:00		82	11			69	19				
11:15		93	5			80	16				
11:30		105	12			66	15				
11:45		65	9	345	37	66	7	281	57	626	94
Total		2634	4056	2634	4056	1710	4086	1710	4086	4344	8142
Combined Total		6690		6690		5796		5796		12486	
AM Peak	-	08:00	-	-	-	08:00	-	-	-	-	-
Vol.	-	585	-	-	-	405	-	-	-	-	-
P.H.F.		0.766				0.817					
PM Peak	-	-	04:45	-	-	-	01:00	-	-	-	-
Vol.	-	-	631	-	-	-	512	-	-	-	-
P.H.F.			0.928				0.848				
Percentage		39.4%	60.6%			29.5%	70.5%				

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City of Corona
Eagle Glen Parkway
B/ Masters Drive - Bedford Canyon Road
7 Day Directional Volume Count

COR007
Site Code: 056-15257

Start Time	14-May-15 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	94			10	84				
12:15		3	77			10	88				
12:30		2	94			7	80				
12:45		3	88	12	353	8	67	35	319	47	672
01:00		1	94			4	65				
01:15		0	108			8	95				
01:30		0	117			3	78				
01:45		2	94	3	413	8	69	23	307	26	720
02:00		2	104			4	71				
02:15		1	88			3	**125**				
02:30		2	85			2	**127**				
02:45		4	86	9	363	4	**123**	13	446	22	809
03:00		4	225			6	**83**				
03:15		3	172			1	99				
03:30		7	168			4	72				
03:45		12	121	26	686	8	76	19	330	45	1016
04:00		14	126			10	87				
04:15		19	123			5	80				
04:30		33	150			6	63				
04:45		27	165	93	564	6	74	27	304	120	868
05:00		36	**165**			6	72				
05:15		32	**178**			9	87				
05:30		32	**182**			15	85				
05:45		31	**169**	131	694	15	83	45	327	176	1021
06:00		46	136			15	85				
06:15		61	115			26	92				
06:30		66	107			31	86				
06:45		81	75	254	433	48	81	120	344	374	777
07:00		139	72			53	101				
07:15		143	71			80	90				
07:30		118	65			96	76				
07:45		88	46	488	254	**72**	71	301	338	789	592
08:00		**103**	52			**102**	86				
08:15		**150**	43			**136**	90				
08:30		**179**	44			**107**	95				
08:45		**98**	32	530	171	68	58	413	329	943	500
09:00		101	32			51	62				
09:15		60	36			54	59				
09:30		70	35			66	57				
09:45		89	31	320	134	63	40	234	218	554	352
10:00		63	23			62	41				
10:15		89	18			53	53				
10:30		94	29			55	39				
10:45		93	16	339	86	64	23	234	156	573	242
11:00		80	11			63	21				
11:15		94	7			60	14				
11:30		115	6			75	19				
11:45		93	6	382	30	71	25	269	79	651	109
Total		2587	4181	2587	4181	1733	3497	1733	3497	4320	7678
Combined Total		6768		6768		5230		5230		11998	
AM Peak	-	08:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	530	-	-	-	417	-	-	-	-	-
P.H.F.		0.740				0.767					
PM Peak	-	-	05:00	-	-	-	02:15	-	-	-	-
Vol.	-	-	694	-	-	-	458	-	-	-	-
P.H.F.			0.953				0.902				
Percentage		38.2%	61.8%			33.1%	66.9%				

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City of Corona
Eagle Glen Parkway
B/ Bedford Canyon Road - I-15 Southbound Ramps
7 Day Directional Volume Count

COR008
Site Code: 056-15257

Start Time	12-May-15 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		12	130			15	148				
12:15		9	159			15	153				
12:30		7	158			12	144				
12:45		6	141	34	588	7	153	49	598	83	1186
01:00		7	159			14	132				
01:15		4	228			7	116				
01:30		6	183			5	135				
01:45		1	129	18	699	9	161	35	544	53	1243
02:00		3	163			2	136				
02:15		7	138			9	**165**				
02:30		8	151			7	**185**				
02:45		0	136	18	588	8	**190**	26	676	44	1264
03:00		10	**262**			4	**143**				
03:15		6	**272**			3	132				
03:30		5	**210**			5	136				
03:45		17	**234**	38	978	8	119	20	530	58	1508
04:00		15	225			9	132				
04:15		22	219			11	127				
04:30		31	203			15	166				
04:45		32	240	100	887	22	115	57	540	157	1427
05:00		39	230			22	164				
05:15		37	219			12	164				
05:30		37	250			24	136				
05:45		47	238	160	937	36	146	94	610	254	1547
06:00		61	208			37	147				
06:15		71	199			44	128				
06:30		82	159			53	135				
06:45		94	165	308	731	81	132	215	542	523	1273
07:00		138	181			129	145				
07:15		135	105			146	150				
07:30		128	144			**191**	132				
07:45		127	97	528	527	**142**	121	608	548	1136	1075
08:00		**115**	104			**136**	119				
08:15		**140**	74			**165**	140				
08:30		**159**	87			171	114				
08:45		**156**	74	570	339	129	98	601	471	1171	810
09:00		113	72			101	89				
09:15		118	64			99	107				
09:30		121	47			97	84				
09:45		147	44	499	227	109	72	406	352	905	579
10:00		128	45			100	58				
10:15		129	19			109	47				
10:30		139	31			141	53				
10:45		116	33	512	128	170	38	520	196	1032	324
11:00		140	27			151	44				
11:15		146	17			143	26				
11:30		134	12			103	18				
11:45		142	10	562	66	121	17	518	105	1080	171
Total		3347	6695	3347	6695	3149	5712	3149	5712	6496	12407
Combined Total		10042		10042		8861		8861		18903	
AM Peak	-	08:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	570	-	-	-	634	-	-	-	-	-
P.H.F.		0.896				0.830					
PM Peak	-	-	03:00	-	-	-	02:15	-	-	-	-
Vol.	-	-	978	-	-	-	683	-	-	-	-
P.H.F.			0.899				0.899				
Percentage		33.3%	66.7%			35.5%	64.5%				

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City of Corona
Eagle Glen Parkway
B/ Bedford Canyon Road - I-15 Southbound Ramps
7 Day Directional Volume Count

COR008
Site Code: 056-15257

Start Time	13-May-15 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		14	130			17	157				
12:15		13	137			15	134				
12:30		5	133			17	159				
12:45		9	123	41	523	12	145	61	595	102	1118
01:00		9	158			9	**136**				
01:15		3	153			3	**186**				
01:30		6	154			11	**193**				
01:45		7	144	25	609	11	**170**	34	685	59	1294
02:00		8	218			15	119				
02:15		2	179			4	116				
02:30		2	140			11	178				
02:45		5	132	17	669	3	147	33	560	50	1229
03:00		5	173			6	126				
03:15		5	215			3	131				
03:30		13	196			5	149				
03:45		12	189	35	773	8	151	22	557	57	1330
04:00		24	183			7	132				
04:15		17	197			7	155				
04:30		36	210			16	138				
04:45		34	**217**	111	807	17	147	47	572	158	1379
05:00		32	**258**			14	131				
05:15		34	**236**			15	149				
05:30		32	**242**			22	149				
05:45		41	185	139	921	29	167	80	596	219	1517
06:00		64	201			27	141				
06:15		79	211			45	130				
06:30		79	165			67	150				
06:45		120	167	342	744	77	147	216	568	558	1312
07:00		115	149			120	143				
07:15		138	121			121	132				
07:30		132	134			145	149				
07:45		117	120	502	524	138	140	524	564	1026	1088
08:00		103	117			**169**	126				
08:15		**156**	100			**159**	128				
08:30		**171**	78			**200**	133				
08:45		**191**	79	621	374	**163**	117	691	504	1312	878
09:00		**128**	72			120	107				
09:15		121	80			94	102				
09:30		126	58			90	88				
09:45		118	40	493	250	121	86	425	383	918	633
10:00		127	25			93	64				
10:15		137	35			98	46				
10:30		141	44			82	37				
10:45		118	28	523	132	103	38	376	185	899	317
11:00		139	33			100	33				
11:15		142	21			169	29				
11:30		143	14			118	23				
11:45		140	21	564	89	133	20	520	105	1084	194
Total		3413	6415	3413	6415	3029	5874	3029	5874	6442	12289
Combined Total		9828		9828		8903		8903		18731	
AM Peak	-	08:15	-	-	-	08:00	-	-	-	-	-
Vol.	-	646	-	-	-	691	-	-	-	-	-
P.H.F.		0.846				0.864					
PM Peak	-	-	04:45	-	-	-	01:00	-	-	-	-
Vol.	-	-	953	-	-	-	685	-	-	-	-
P.H.F.			0.923				0.887				
Percentage		34.7%	65.3%			34.0%	66.0%				

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City of Corona
Eagle Glen Parkway
B/ Bedford Canyon Road - I-15 Southbound Ramps
7 Day Directional Volume Count

COR008
Site Code: 056-15257

Start Time	14-May-15 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	170			14	138				
12:15		8	135			17	133				
12:30		6	148			15	149				
12:45		5	149	29	602	10	118	56	538	85	1140
01:00		4	171			12	117				
01:15		6	157			13	124				
01:30		4	174			9	151				
01:45		6	164	20	666	11	122	45	514	65	1180
02:00		5	139			11	118				
02:15		6	162			3	**154**				
02:30		4	150			2	**189**				
02:45		5	148	20	599	6	**150**	22	611	42	1210
03:00		5	223			9	**136**				
03:15		7	260			7	142				
03:30		7	256			6	143				
03:45		12	220	31	959	10	120	32	541	63	1500
04:00		22	189			12	129				
04:15		21	184			9	137				
04:30		35	232			22	112				
04:45		31	243	109	848	24	118	67	496	176	1344
05:00		39	**246**			10	104				
05:15		40	**244**			19	126				
05:30		44	**252**			25	110				
05:45		43	**257**	166	999	35	120	89	460	255	1459
06:00		50	230			33	136				
06:15		65	225			53	131				
06:30		90	184			49	130				
06:45		93	134	298	773	87	102	222	499	520	1272
07:00		142	134			113	144				
07:15		126	124			152	119				
07:30		122	116			**195**	123				
07:45		129	97	519	471	**139**	103	599	489	1118	960
08:00		116	99			**137**	118				
08:15		**164**	89			**172**	101				
08:30		**176**	74			168	125				
08:45		**150**	69	606	331	129	100	606	444	1212	775
09:00		**136**	67			91	94				
09:15		96	77			114	84				
09:30		130	57			133	82				
09:45		132	52	494	253	110	74	448	334	942	587
10:00		111	52			110	67				
10:15		123	45			120	45				
10:30		161	40			115	67				
10:45		138	25	533	162	101	41	446	220	979	382
11:00		151	25			121	31				
11:15		157	16			123	16				
11:30		156	13			128	19				
11:45		149	9	613	63	134	39	506	105	1119	168
Total		3438	6726	3438	6726	3138	5251	3138	5251	6576	11977
Combined Total		10164		10164		8389		8389		18553	
AM Peak	-	08:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	626	-	-	-	643	-	-	-	-	-
P.H.F.		0.889				0.824					
PM Peak	-	-	05:00	-	-	-	02:15	-	-	-	-
Vol.	-	-	999	-	-	-	629	-	-	-	-
P.H.F.			0.972				0.832				
Percentage		33.8%	66.2%			37.4%	62.6%				

ARANTINE HILLS VOLUME DEVELOPMENT

2015/06/30

1. Masters Dr. / California Dr.

	AM PEAK HOUR													PM PEAK HOUR											
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	AM TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	PM TOTAL
Existing (2014)	73	222	222	174	112	3	4	142	58	106	78	145	1,339	55	61	121	28	101	1	3	81	288	198	88	25	1,050
Modified Project Phase 1 (2017)	2	2	5	0	1	0	0	0	1	2	0	0	13	1	1	3	0	2	0	0	0	2	6	0	0	15
Modified Project Buildout (2035) - 1806 DU	8	11	15	0	4	0	0	0	4	5	0	0	47	8	8	11	0	13	0	0	0	12	17	0	0	69
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	8	11	15	0	4	0	0	0	4	5	0	0	47	8	8	11	0	13	0	0	0	12	17	0	0	69
2017 Without Project (Interpolate; 6% Minimum Growth)	78	236	236	185	119	3	4	151	62	112	83	154	1,423	59	69	128	31	107	1	3	86	306	210	94	27	1,121
2017 Without Project Total Growth	*7%*	*6%*	*6%*	*6%*	*6%*	*0%*	*0%*	*6%*	*7%*	*6%*	*6%*	*6%*		*7%*	*13%*	*6%*	*11%*	*6%*	*0%*	*0%*	*6%*	*6%*	*6%*	*7%*	*8%*	
2017 With Modified Project	80	238	241	185	120	3	4	151	63	114	83	154	1,436	60	70	131	31	109	1	3	86	308	216	94	27	1,136
2035 Without Project	116	244	244	191	128	6	6	190	71	117	104	165	1,582	94	141	133	31	111	2	4	89	317	218	135	28	1,303
2035 Without Project Total Growth	*59%*	*10%*	*10%*	*10%*	*14%*	*100%*	*50%*	*34%*	*22%*	*10%*	*33%*	*14%*		*71%*	*231%*	*10%*	*11%*	*10%*	*100%*	*33%*	*10%*	*10%*	*10%*	*53%*	*12%*	
2035 With 1806DU Modified Project	124	255	259	191	132	6	6	190	75	122	104	165	1,629	102	149	144	31	124	2	4	89	329	235	135	28	1,372
McMillan Trust Property Development (w/o St. "A")	2	3	10	0	1	0	0	0	1	3	0	0	20	1	2	7	0	4	0	0	0	2	11	0	0	27
McMillan Trust Property Development (w/ St. "A")	2	3	7	0	1	0	0	0	1	2	0	0	16	1	2	4	0	3	0	0	0	2	7	0	0	19
2035 w/o Project + McMillan	118	247	254	191	129	6	6	190	72	120	104	165	1,602	95	143	140	31	115	2	4	89	319	229	135	28	1,330
2035 w/ 1806DU Modified Project + McMillan	126	258	266	191	133	6	6	190	76	124	104	165	1,645	103	151	148	31	127	2	4	89	331	242	135	28	1,391

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014 and 2015)	8,000	3,500	6,200	9,100		8,000	3,500	6,200	9,100	
Existing Pk-to-daily	*10%*	*19%*	*6%*	*10%*		*10%*	*6%*	*8%*	*6%*	
Modified Project Phase 1 (2017)	100	30	30	100		100	30	30	100	
Modified Project Buildout (2035) - 1806DU	700	200	200	300		700	200	200	300	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	700	200	200	300		700	200	200	300	
2017 Without Project (Interpolate; 6% Minimum Growth)	8,500	3,900	6,600	9,700		8,500	3,900	6,600	9,700	
2017 Without Project Total Growth	*6%*	*11%*	*6%*	*7%*		*6%*	*11%*	*6%*	*7%*	
2017 With Modified Project	8,600	3,930	6,630	9,800		8,600	3,930	6,630	9,800	
2035 Without Project	8,800	8,000	8,300	10,800		8,800	8,000	8,300	10,800	
2035 Without Project Total Growth	*10%*	*229%*	*34%*	*19%*		*10%*	*229%*	*34%*	*19%*	
2035 With 1806DU Modified Project	9,500	8,200	8,500	11,100		9,500	8,200	8,500	11,100	
McMillan Trust Property Development (w/o St. "A")	300	100	28	200		300	100	28	200	
McMillan Trust Property Development (w/ St. "A")	200	100	26	100		200	100	26	100	
2035 w/o Project + McMillan	9,100	8,100	8,328	11,000		9,100	8,100	8,328	11,000	
2035 w/ 1806DU Modified Project + McMillan	9,700	8,300	8,526	11,200		9,700	8,300	8,526	11,200	

ARANTINE HILLS VOLUME DEVELOPMENT

2015/06/30

2. Masters Dr. / Bennett Av.

	AM PEAK HOUR									PHF:			AM	PM PEAK HOUR									PHF:			PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	6	111	12	21	133	10	40	8	29	10	2	29	411	25	153	11	18	323	32	14	6	29	9	12	21	653
Modified Project Phase 1 (2017)	0	9	0	0	3	0	0	0	0	0	0	0	12	0	6	0	0	10	0	0	0	0	0	0	0	16
Modified Project Buildout (2035) - 1806 DU	0	37	1	0	17	0	0	0	0	1	0	0	56	0	39	4	0	54	0	0	0	0	4	0	0	101
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	37	1	0	17	0	0	0	0	1	0	0	56	0	37	3	0	54	0	0	0	0	4	0	0	98
2017 Without Project (Interpolate; 6% Minimum Growth)	6	118	13	23	141	11	43	8	31	11	2	31	438	28	162	16	19	343	34	15	6	31	10	13	28	705
2017 Without Project Total Growth	*0%*	*6%*	*8%*	*10%*	*6%*	*10%*	*8%*	*0%*	*7%*	*10%*	*0%*	*7%*		*12%*	*6%*	*45%*	*6%*	*6%*	*6%*	*7%*	*0%*	*7%*	*11%*	*8%*	*33%*	
2017 With Modified Project	6	127	13	23	144	11	43	8	31	11	2	31	450	28	168	16	19	353	34	15	6	31	10	13	28	721
2035 Without Project	7	172	14	28	158	12	44	9	32	17	3	32	528	49	168	146	20	355	36	18	7	37	11	14	152	1,013
2035 Without Project Total Growth	*17%*	*55%*	*17%*	*33%*	*19%*	*20%*	*10%*	*13%*	*10%*	*70%*	*50%*	*10%*		*96%*	*10%*	*1327%*	*11%*	*10%*	*13%*	*29%*	*17%*	*28%*	*22%*	*17%*	*724%*	
2035 With 1806DU Modified Project	7	209	15	28	175	12	44	9	32	18	3	32	584	49	207	150	20	409	36	18	7	37	15	14	152	1,114
McMillan Trust Property Development (w/o St. "A")	0	15	0	0	5	0	0	0	0	0	0	0	20	0	10	0	0	17	0	0	0	0	0	0	0	27
McMillan Trust Property Development (w/ St. "A")	0	12	0	0	4	0	0	0	0	0	0	0	16	0	7	0	0	12	0	0	0	0	0	0	0	19
2035 w/o Project + McMillan	7	187	14	28	163	12	44	9	32	17	3	32	548	49	178	146	20	372	36	18	7	37	11	14	152	1,040
2035 w/ 1806DU Modified Project + McMillan	7	221	15	28	179	12	44	9	32	18	3	32	600	49	212	149	20	421	36	18	7	37	15	14	152	1,130

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014 and 2015)	5,500	5,800	1,500	900		5,500	5,800	1,500	900	
Existing Pk-to-daily	*5%*	*6%*	*6%*	*9%*		*10%*	*10%*	*8%*	*9%*	
Modified Project Phase 1 (2017)	100	100	0	0		100	100	0	0	
Modified Project Buildout (2035) - 1806DU	1,100	1,000	0	100		1,100	1,000	0	100	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	1,100	1,000	0	100		1,100	1,000	0	100	
2017 Without Project (Interpolate; 6% Minimum Growth)	5,800	6,200	1,600	1,000		5,800	6,200	1,600	1,000	
2017 Without Project Total Growth	*5%*	*7%*	*7%*	*11%*		*5%*	*7%*	*7%*	*11%*	
2017 With Modified Project	5,900	6,300	1,600	1,000		5,900	6,300	1,600	1,000	
2035 Without Project	6,100	6,400	1,800	1,400		6,100	6,400	1,800	1,400	
2035 Without Project Total Growth	*11%*	*10%*	*20%*	*56%*		*11%*	*10%*	*20%*	*56%*	
2035 With 1806DU Modified Project	7,200	7,400	1,800	1,500		7,200	7,400	1,800	1,500	
McMillan Trust Property Development (w/o St. "A")	300	300	0	0		300	300	0	0	
McMillan Trust Property Development (w/ St. "A")	200	200	0	0		200	200	0	0	
2035 w/o Project + McMillan	6,400	6,700	1,800	1,400		6,400	6,700	1,800	1,400	
2035 w/ 1806DU Modified Project + McMillan	7,400	7,600	1,800	1,500		7,400	7,600	1,800	1,500	

ARANTINE HILLS VOLUME DEVELOPMENT

3. Masters Dr. / Eagle Glen Pkwy.

	AM PEAK HOUR										PHF:		AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	0	0	0	127	0	9	17	302	0	0	242	115	812	0	0	0	283	0	18	15	190	0	0	250	176	932
Modified Project Phase 1 (2017)	0	0	0	0	0	3	9	43	0	0	14	0	69	0	0	0	0	0	10	6	28	0	0	48	0	92
Modified Project Buildout (2035) - 1806 DU	0	0	0	10	0	9	28	296	0	0	96	10	449	0	0	0	30	0	28	17	195	0	0	312	25	607
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	9	0	9	28	296	0	0	96	9	447	0	0	0	30	0	28	17	195	0	0	311	23	604
2017 Without Project (Interpolate; 6% Minimum Growth)	0	0	0	135	0	10	18	322	0	0	262	122	869	0	0	0	300	0	19	18	209	0	0	275	192	1,013
2017 Without Project Total Growth	-	-	-	*6%*	-	*11%*	*6%*	*7%*	-	-	*8%*	*6%*		-	-	-	*6%*	-	*6%*	*20%*	*10%*	-	-	*10%*	*9%*	
2017 With Modified Project	0	0	0	135	0	13	27	365	0	0	276	122	938	0	0	0	300	0	29	24	237	0	0	323	192	1,105
2035 Without Project	0	0	0	152	0	19	19	470	0	0	427	127	1,214	0	0	0	311	0	29	56	374	0	0	466	328	1,564
2035 Without Project Total Growth	-	-	-	*20%*	-	*211%*	*12%*	*56%*	-	-	*76%*	*10%*		-	-	-	*10%*	-	*61%*	*373%*	*97%*	-	-	*86%*	*86%*	
2035 With 1806DU Modified Project	0	0	0	162	0	28	47	766	0	0	523	137	1,663	0	0	0	341	0	57	73	569	0	0	778	353	2,171
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	5	15	153	0	0	52	0	225	0	0	0	0	0	17	10	101	0	0	172	0	300
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	4	12	137	0	0	46	0	199	0	0	0	0	0	12	7	88	0	0	144	0	251
2035 w/o Project + McMillan	0	0	0	152	0	24	34	623	0	0	479	127	1,439	0	0	0	311	0	46	66	475	0	0	638	328	1,864
2035 w/ 1806DU Modified Project + McMillan	0	0	0	161	0	32	59	903	0	0	569	136	1,860	0	0	0	341	0	69	80	657	0	0	921	351	2,419

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2015)	0	5,500	7,000	12,400		0	5,500	7,000	12,400	
Existing Pk-to-daily	-	*5%*	*8%*	*6%*		-	*9%*	*7%*	*7%*	
Modified Project Phase 1 (2017)	0	100	900	700		0	100	900	700	
Modified Project Buildout (2035) - 1806DU	0	1,100	5,600	5,800		0	1,100	5,600	5,800	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)		1,100	5,600	5,800		0	1,100	5,600	5,800	
2017 Without Project (Interpolate; 6% Minimum Growth)	0	5,800	7,400	13,200		0	5,800	7,400	13,200	
2017 Without Project Total Growth	-	*5%*	*6%*	*6%*		-	*5%*	*6%*	*6%*	
2017 With Modified Project	0	5,900	8,300	13,900		0	5,900	8,300	13,900	
2035 Without Project	0	6,100	7,700	17,300		0	6,100	7,700	17,300	
2035 Without Project Total Growth	-	*11%*	*10%*	*40%*		-	*11%*	*10%*	*40%*	
2035 With 1806DU Modified Project	0	7,200	13,300	23,100		0	7,200	13,300	23,100	
McMillan Trust Property Development (w/o St. "A")	0	300	2,900	2,600		0	300	2,900	2,600	
McMillan Trust Property Development (w/ St. "A")	0	200	2,400	2,200		0	200	2,400	2,200	
2035 w/o Project + McMillan	0	6,400	10,600	19,900		0	6,400	10,600	19,900	
2035 w/ 1806DU Modified Project + McMillan	0	7,400	15,700	25,300		0	7,400	15,700	25,300	

ARANTINE HILLS VOLUME DEVELOPMENT

4. Bedford Cyn. Rd. / El Cerrito Rd.

	AM PEAK HOUR											PHF:	AM	PM PEAK HOUR									PHF:	PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	308	0	201	0	0	0	0	764	74	75	679	0	2,101	163	0	101	0	0	0	0	1,017	203	146	468	0	2,098
Modified Project Phase 1 (2017)	19	0	5	0	0	0	0	0	6	2	0	0	32	12	0	3	0	0	0	0	0	21	6	0	0	42
Modified Project Buildout (2035) - 1806 DU	47	0	27	0	0	0	0	0	20	11	0	0	105	43	0	23	0	0	0	0	0	62	34	0	0	162
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	47	0	27	0	0	0	0	0	19	11	0	0	104	42	0	22	0	0	0	0	0	62	34	0	0	160
2017 Without Project (Interpolate; 6% Minimum Growth)	327	0	213	0	0	0	0	826	88	91	735	0	2,280	173	0	108	0	0	0	0	1,106	218	155	513	0	2,273
2017 Without Project Total Growth	*6%*	*-*	*6%*	*-*	*-*	*-*	*-*	*8%*	*19%*	*21%*	*8%*	*-*		*6%*	*-*	*7%*	*-*	*-*	*-*	*-*	*9%*	*7%*	*6%*	*10%*	*-*	
2017 With Modified Project	346	0	218	0	0	0	0	826	94	93	735	0	2,312	185	0	111	0	0	0	0	1,106	239	161	513	0	2,315
2035 Without Project	339	0	286	0	0	0	0	1,181	251	289	1,179	0	3,525	179	0	166	0	0	0	0	1,676	332	195	823	0	3,371
2035 Without Project Total Growth	*10%*	*-*	*42%*	*-*	*-*	*-*	*-*	*55%*	*339%*	*385%*	*74%*	*-*		*10%*	*-*	*64%*	*-*	*-*	*-*	*-*	*65%*	*64%*	*34%*	*76%*	*-*	
2035 With 1806DU Modified Project	386	0	313	0	0	0	0	1,181	271	300	1,179	0	3,630	222	0	189	0	0	0	0	1,676	394	229	823	0	3,533
McMillan Trust Property Development (w/o St. "A")	0	0	5	0	0	0	0	0	0	2	0	0	7	0	0	3	0	0	0	0	0	0	6	0	0	9
McMillan Trust Property Development (w/ St. "A")	3	0	5	0	0	0	0	0	1	2	0	0	11	2	0	3	0	0	0	0	0	3	5	0	0	13
2035 w/o Project + McMillan	339	0	291	0	0	0	0	1,181	251	291	1,179	0	3,532	179	0	169	0	0	0	0	1,676	332	201	823	0	3,380
2035 w/ 1806DU Modified Project + McMillan	389	0	318	0	0	0	0	1,181	271	302	1,179	0	3,640	223	0	191	0	0	0	0	1,676	397	234	823	0	3,544

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014)	7,400	0	22,200	18,500		7,400	0	22,200	18,500	
Existing Pk-to-daily	*9%*	*-*	*8%*	*9%*		*8%*	*-*	*8%*	*9%*	
Modified Project Phase 1 (2017)	400	0	300	100		400	0	300	100	
Modified Project Buildout (2035) - 1806DU	1,800	0	1,100	600		1,800	0	1,100	600	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	1,700	0	1,100	600		1,700	0	1,100	600	
2017 Without Project (Interpolate; 6% Minimum Growth)	8,100	0	23,600	20,300		8,100	0	23,600	20,300	
2017 Without Project Total Growth	*9%*	*-*	*6%*	*10%*		*9%*	*-*	*6%*	*10%*	
2017 With Modified Project	8,500	0	23,900	20,400		8,500	0	23,900	20,400	
2035 Without Project	14,500	0	29,000	35,100		14,500	0	29,000	35,100	
2035 Without Project Total Growth	*96%*	*-*	*31%*	*90%*		*96%*	*-*	*31%*	*90%*	
2035 With 1806DU Modified Project	16,300	0	30,100	35,700		16,300	0	30,100	35,700	
McMillan Trust Property Development (w/o St. "A")	100	0	0	100		100	0	0	100	
McMillan Trust Property Development (w/ St. "A")	100	0	100	100		100	0	100	100	
2035 w/o Project + McMillan	14,600	0	29,000	35,200		14,600	0	29,000	35,200	
2035 w/ 1806DU Modified Project + McMillan	16,300	0	30,200	35,800		16,300	0	30,200	35,800	

ARANTINE HILLS VOLUME DEVELOPMENT

5. Bedford Cyn. Rd. / Georgetown Dr.

	AM PEAK HOUR									PHF:			AM	PM PEAK HOUR									PHF:			PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	16	144	5	4	55	27	81	3	30	2	1	1	369	31	134	7	7	236	91	42	1	22	1	1	2	575
Modified Project Phase 1 (2017)	0	24	0	0	8	0	0	0	0	0	0	0	32	0	16	0	0	27	0	0	0	0	0	0	0	43
Modified Project Buildout (2035) - 1806 DU	1	74	0	0	30	0	0	0	1	0	0	0	106	4	66	0	0	96	0	0	0	4	0	0	0	170
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	1	74	0	0	30	0	0	0	1	0	0	0	106	3	64	0	0	96	0	0	0	4	0	0	0	167
2017 Without Project (Interpolate; 6% Minimum Growth)	17	157	6	5	75	30	86	3	32	2	1	1	415	33	142	7	7	260	97	45	1	24	1	1	2	620
2017 Without Project Total Growth	*6%*	*9%*	*20%*	*25%*	*36%*	*11%*	*6%*	*0%*	*7%*	*0%*	*0%*	*0%*		*6%*	*6%*	*0%*	*0%*	*10%*	*7%*	*7%*	*0%*	*9%*	*0%*	*0%*	*0%*	
2017 With Modified Project	17	181	6	5	83	30	86	3	32	2	1	1	447	33	158	7	7	287	97	45	1	24	1	1	2	663
2035 Without Project	18	258	10	35	473	53	89	5	41	2	2	2	988	38	169	11	8	468	101	56	1	25	2	2	6	887
2035 Without Project Total Growth	*13%*	*79%*	*100%*	*875%*	*860%*	*96%*	*10%*	*67%*	*37%*	*0%*	*100%*	*100%*		*23%*	*26%*	*57%*	*14%*	*98%*	*11%*	*33%*	*0%*	*14%*	*100%*	*100%*	*300%*	
2035 With 1806DU Modified Project	19	332	10	35	503	53	89	5	42	2	2	2	1,094	42	235	11	8	564	101	56	1	29	2	2	6	1,057
McMillan Trust Property Development (w/o St. "A")	0	5	0	0	2	0	0	0	0	0	0	0	7	0	3	0	0	6	0	0	0	0	0	0	0	9
McMillan Trust Property Development (w/ St. "A")	0	8	0	0	3	0	0	0	0	0	0	0	11	0	5	0	0	9	0	0	0	0	0	0	0	14
2035 w/o Project + McMillan	18	263	10	35	475	53	89	5	41	2	2	2	995	38	172	11	8	474	101	56	1	25	2	2	6	896
2035 w/ 1806DU Modified Project + McMillan	19	340	10	35	506	53	89	5	42	2	2	2	1,105	41	238	11	8	573	101	56	1	29	2	2	6	1,068

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014)	6,200	6,100	2,300	200		6,200	6,100	2,300	200	
Existing Pk-to-daily	*4%*	*5%*	*7%*	*8%*		*7%*	*8%*	*8%*	*10%*	
Modified Project Phase 1 (2017)	400	400	0	0		400	400	0	0	
Modified Project Buildout (2035) - 1806DU	1,900	1,800	100	0		1,900	1,800	100	0	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	1,800	1,700	100	0		1,800	1,700	100	0	
2017 Without Project (Interpolate; 6% Minimum Growth)	7,000	6,900	2,500	300		7,000	6,900	2,500	300	
2017 Without Project Total Growth	*13%*	*13%*	*9%*	*50%*		*13%*	*13%*	*9%*	*50%*	
2017 With Modified Project	7,400	7,300	2,500	300		7,400	7,300	2,500	300	
2035 Without Project	14,200	14,500	2,800	600		14,200	14,500	2,800	600	
2035 Without Project Total Growth	*229%*	*238%*	*22%*	*300%*		*229%*	*238%*	*22%*	*300%*	
2035 With 1806DU Modified Project	16,100	16,300	2,900	600		16,100	16,300	2,900	600	
McMillan Trust Property Development (w/o St. "A")	100	100	0	0		100	100	0	0	
McMillan Trust Property Development (w/ St. "A")	100	100	0	0		100	100	0	0	
2035 w/o Project + McMillan	14,300	14,600	2,800	600		14,300	14,600	2,800	600	
2035 w/ 1806DU Modified Project + McMillan	16,100	16,300	2,900	600		16,100	16,300	2,900	600	

ARANTINE HILLS VOLUME DEVELOPMENT

6. Bedford Cyn. Rd. / Eagle Glen Pkwy.

	AM PEAK HOUR												AM	PM PEAK HOUR											PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	0	0	0	146	0	131	74	355	0	0	226	201	1,133	0	0	0	369	0	102	50	423	0	0	324	77	1,345
Modified Project Phase 1 (2017)	0	21	100	0	7	1	3	40	0	33	13	0	218	0	14	66	0	23	4	2	26	0	112	44	0	291
Modified Project Buildout (2035) - 1806 DU	13	66	485	0	29	3	9	282	15	189	89	0	1,180	40	64	398	0	92	9	5	173	47	594	288	0	1,710
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	13	65	484	0	29	3	9	282	15	187	89	0	1,176	37	62	388	0	91	9	5	173	46	591	288	0	1,690
2017 Without Project (Interpolate; 6% Minimum Growth)	0	0	0	157	0	139	79	378	0	0	245	213	1,211	0	0	0	392	0	108	60	449	0	0	359	84	1,452
2017 Without Project Total Growth	-	-	-	*8%*	-	*6%*	*7%*	*6%*	-	-	*8%*	*6%*		-	-	-	*6%*	-	*6%*	*20%*	*6%*	-	-	*11%*	*9%*	
2017 With Modified Project	0	21	100	157	7	140	82	418	0	33	258	213	1,429	0	14	66	392	23	112	62	475	0	112	403	84	1,743
2035 Without Project	0	0	0	161	0	151	114	508	0	0	403	221	1,558	0	0	0	421	0	135	101	584	0	0	659	145	2,045
2035 Without Project Total Growth	-	-	-	*10%*	-	*15%*	*54%*	*43%*	-	-	*78%*	*10%*		-	-	-	*14%*	-	*32%*	*202%*	*38%*	-	-	*203%*	*88%*	
2035 With 1806DU Modified Project	13	66	485	161	29	154	123	790	15	189	492	221	2,738	40	64	398	421	92	144	106	757	47	594	947	145	3,755
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	2	5	148	0	0	50	0	205	0	0	0	0	0	6	3	98	0	0	166	0	273
McMillan Trust Property Development (w/ St. "A")	0	8	8	0	3	0	0	137	0	3	46	0	205	0	5	5	0	9	0	0	88	0	9	144	0	260
2035 w/o Project + McMillan	0	0	0	161	0	153	119	656	0	0	453	221	1,763	0	0	0	421	0	141	104	682	0	0	825	145	2,318
2035 w/ 1806DU Modified Project + McMillan	13	73	492	161	32	154	123	927	15	190	538	221	2,939	37	67	393	421	100	144	106	845	46	600	1,091	145	3,995

Link Volumes	South Leg			North Leg			West Leg			East Leg				South Leg			North Leg			West Leg			East Leg		
	IN	OUT	Total	IN	OUT	Total	IN	OUT	Total	IN	OUT	Total		IN	OUT	Total	IN	OUT	Total	IN	OUT	Total	IN	OUT	Total
Existing (2014)	0	0	0	277	275	552	429	357	786	427	501	928		0	0	0	471	127	598	473	426	899	401	792	1,193
2035 Without Project	0	0	0	312	335	647	622	554	1,176	624	669	1,293		0	0	0	556	246	802	685	794	1,479	804	1,005	1,809
2035 With 1806DU Modified Project	564	233	797	344	410	754	928	659	1,587	902	1,436	2,338		502	733	1,235	657	315	972	910	1,131	2,041	1,686	1,576	3,262

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg
Existing (2014 and 2015)	0	6,200	12,400	18,700		0	6,200	12,400	18,700
Existing Pk-to-daily	-	*9%*	*6%*	*5%*		-	*10%*	*7%*	*6%*
Modified Project Phase 1 (2017)	2,100	400	700	2,400		2,100	400	700	2,400
Modified Project Buildout (2035) - 1806DU	13,400	1,900	5,800	15,200		13,400	1,900	5,800	15,200
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	13,200	1,800	5,800	15,100		13,200	1,800	5,800	15,100
2017 Without Project (Interpolate; 6% Minimum Growth)	0	7,000	13,200	19,800		0	7,000	13,200	19,800
2017 Without Project Total Growth	-	*13%*	*6%*	*6%*		-	*13%*	*6%*	*6%*
2017 With Modified Project	2,100	7,400	13,900	22,200		2,100	7,400	13,900	22,200
2035 Without Project	0	14,200	17,300	20,600		0	14,200	17,300	20,600
2035 Without Project Total Growth	-	*229%*	*40%*	*10%*		-	*229%*	*40%*	*10%*
2035 With 1806DU Modified Project	13,400	16,100	23,100	35,800		13,400	16,100	23,100	35,800
McMillan Trust Property Development (w/o St. "A")	0	100	2,600	2,500		0	100	2,600	2,500
McMillan Trust Property Development (w/ St. "A")	300	100	2,200	2,400		300	100	2,200	2,400
2035 w/o Project + McMillan	0	14,300	19,900	23,100		0	14,300	19,900	23,100
2035 w/ 1806DU Modified Project + McMillan	13,500	16,100	25,300	38,100		13,500	16,100	25,300	38,100

ARANTINE HILLS VOLUME DEVELOPMENT

7. I-15 SB Ramps / El Cerrito Rd.

	AM PEAK HOUR									PHF:			AM	PM PEAK HOUR								PHF:			PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	0	0	0	105	4	223	0	703	262	137	531	0	1,965	0	0	0	141	35	192	0	437	681	77	422	0	1,985
Modified Project Phase 1 (2017)	0	0	0	0	0	0	0	5	0	0	2	0	7	0	0	0	0	0	0	0	3	0	0	6	0	9
Modified Project Buildout (2035) - 1806 DU	0	0	0	0	0	0	0	27	0	0	11	0	38	0	0	0	0	0	0	0	23	0	0	34	0	57
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	0	0	0	0	27	0	0	11	0	38	0	0	0	0	0	0	0	22	0	0	34	0	56
2017 Without Project (Interpolate; 6% Minimum Growth)	0	0	0	111	4	258	0	746	293	147	568	0	2,127	0	0	0	150	37	220	0	491	723	83	448	0	2,152
2017 Without Project Total Growth	-	-	-	*6%*	*0%*	*16%*	-	*6%*	*12%*	*7%*	*7%*	-		-	-	-	*6%*	*6%*	*15%*	-	*12%*	*6%*	*8%*	*6%*	-	
2017 With Modified Project	0	0	0	111	4	258	0	751	293	147	570	0	2,134	0	0	0	150	37	220	0	494	723	83	454	0	2,161
2035 Without Project	0	0	0	150	5	615	0	891	576	151	853	0	3,241	0	0	0	155	39	492	0	989	853	130	526	0	3,184
2035 Without Project Total Growth	-	-	-	*43%*	*25%*	*276%*	-	*27%*	*220%*	*10%*	*61%*	-		-	-	-	*10%*	*11%*	*256%*	-	*226%*	*25%*	*69%*	*25%*	-	
2035 With 1806DU Modified Project	0	0	0	150	5	615	0	918	576	151	864	0	3,279	0	0	0	155	39	492	0	1,012	853	130	560	0	3,241
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	0	0	5	0	0	2	0	7	0	0	0	0	0	0	0	3	0	0	6	0	9
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	0	0	5	0	0	2	0	7	0	0	0	0	0	0	0	3	0	0	5	0	8
2035 w/o Project + McMillan	0	0	0	150	5	615	0	896	576	151	855	0	3,248	0	0	0	155	39	492	0	992	853	130	532	0	3,193
2035 w/ 1806DU Modified Project + McMillan	0	0	0	150	5	615	0	923	576	151	866	0	3,286	0	0	0	155	39	492	0	1,014	853	130	565	0	3,248

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014)	9,500	4,400	18,500	12,900		9,500	4,400	18,500	12,900	
Existing Pk-to-daily	*4%*	*8%*	*9%*	*11%*		*8%*	*8%*	*9%*	*8%*	
Modified Project Phase 1 (2017)	0	0	100	100		0	0	100	100	
Modified Project Buildout (2035) - 1806DU	0	0	600	600		0	0	600	600	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	600	600		0	0	600	600	
2017 Without Project (Interpolate; 6% Minimum Growth)	10,100	4,800	20,300	14,300		10,100	4,800	20,300	14,300	
2017 Without Project Total Growth	*6%*	*9%*	*10%*	*11%*		*6%*	*9%*	*10%*	*11%*	
2017 With Modified Project	10,100	4,800	20,400	14,400		10,100	4,800	20,400	14,400	
2035 Without Project	14,000	8,000	35,100	27,100		14,000	8,000	35,100	27,100	
2035 Without Project Total Growth	*47%*	*82%*	*90%*	*210%*		*47%*	*82%*	*90%*	*210%*	
2035 With 1806DU Modified Project	14,000	8,000	35,700	27,700		14,000	8,000	35,700	27,700	
McMillan Trust Property Development (w/o St. "A")	0	0	100	100		0	0	100	100	
McMillan Trust Property Development (w/ St. "A")	0	0	100	100		0	0	100	100	
2035 w/o Project + McMillan	14,000	8,000	35,200	27,200		14,000	8,000	35,200	27,200	
2035 w/ 1806DU Modified Project + McMillan	14,000	8,000	35,800	27,800		14,000	8,000	35,800	27,800	

ARANTINE HILLS VOLUME DEVELOPMENT

8. I-15 SB Ramps / Cajalco Rd.

	AM PEAK HOUR											PHF:	AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	0	0	0	297	0	173	99	402	0	0	366	73	1,410	0	0	0	519	0	260	319	473	0	0	361	255	2,187
Modified Project Phase 1 (2017)	0	0	0	0	0	29	31	108	0	0	18	0	186	0	0	0	0	0	97	20	71	0	0	60	0	248
Modified Project Buildout (2035) - 1806 DU	0	0	0	0	0	166	178	589	0	0	112	0	1,045	0	0	0	0	0	529	145	425	0	0	354	0	1,453
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	0	0	166	177	588	0	0	111	0	1,042	0	0	0	0	0	527	142	419	0	0	352	0	1,440
2017 Without Project (Interpolate; 6% Minimum Growth)	0	0	0	315	0	184	108	427	0	0	388	84	1,506	0	0	0	553	0	276	338	503	0	0	387	272	2,329
2017 Without Project Total Growth	-	-	-	*6%*	-	*6%*	*9%*	*6%*	-	-	*6%*	*15%*		-	-	-	*7%*	-	*6%*	*6%*	*6%*	-	-	*7%*	*7%*	
2017 With Modified Project	0	0	0	315	0	213	139	535	0	0	406	84	1,692	0	0	0	553	0	373	358	574	0	0	447	272	2,577
2035 Without Project	0	0	0	381	0	221	183	486	0	0	403	190	1,864	0	0	0	638	0	293	351	654	0	0	511	281	2,728
2035 Without Project Total Growth	-	-	-	*28%*	-	*28%*	*85%*	*21%*	-	-	*10%*	*260%*		-	-	-	*23%*	-	*13%*	*10%*	*38%*	-	-	*42%*	*10%*	
2035 With 1806DU Modified Project	0	0	0	381	0	387	361	1,075	0	0	515	190	2,909	0	0	0	638	0	822	496	1,079	0	0	865	281	4,181
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	31	34	114	0	0	19	0	198	0	0	0	0	0	104	22	75	0	0	62	0	263
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	30	33	112	0	0	18	0	193	0	0	0	0	0	96	21	72	0	0	57	0	246
2035 w/o Project + McMillan	0	0	0	381	0	252	217	600	0	0	422	190	2,062	0	0	0	638	0	397	373	729	0	0	573	281	2,991
2035 w/ 1806DU Modified Project + McMillan	0	0	0	381	0	417	393	1,186	0	0	532	190	3,099	0	0	0	638	0	916	514	1,145	0	0	920	281	4,414

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014 and 2015)	0	16,200	18,700	19,000		0	16,200	18,700	19,000	
Existing Pk-to-daily	-	*4%*	*6%*	*6%*		-	*8%*	*8%*	*8%*	
Modified Project Phase 1 (2017)	0	1,000	2,400	1,400		0	1,000	2,400	1,400	
Modified Project Buildout (2035) - 1806DU	0	6,400	15,200	8,800		0	6,400	15,200	8,800	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	6,400	15,100	8,700		0	6,400	15,100	8,700	
2017 Without Project (Interpolate; 6% Minimum Growth)	0	17,200	19,800	20,200		0	17,200	19,800	20,200	
2017 Without Project Total Growth	-	*6%*	*6%*	*6%*		-	*6%*	*6%*	*6%*	
2017 With Modified Project	0	18,200	22,200	21,600		0	18,200	22,200	21,600	
2035 Without Project	0	17,800	20,600	24,900		0	17,800	20,600	24,900	
2035 Without Project Total Growth	-	*10%*	*10%*	*31%*		-	*10%*	*10%*	*31%*	
2035 With 1806DU Modified Project	0	24,200	35,800	33,700		0	24,200	35,800	33,700	
McMillan Trust Property Development (w/o St. "A")	0	1,100	2,500	1,400		0	1,100	2,500	1,400	
McMillan Trust Property Development (w/ St. "A")	0	1,000	2,400	1,400		0	1,000	2,400	1,400	
2035 w/o Project + McMillan	0	18,900	23,100	26,300		0	18,900	23,100	26,300	
2035 w/ 1806DU Modified Project + McMillan	0	25,200	38,100	35,000		0	25,200	38,100	35,000	

ARANTINE HILLS VOLUME DEVELOPMENT

9. I-15 NB Ramps / El Cerrito Rd.

	AM PEAK HOUR										PHF:		AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	259	1	174	0	0	0	418	390	0	0	409	296	1,947	279	7	52	0	0	0	230	348	0	0	220	55	1,191
Modified Project Phase 1 (2017)	0	0	0	0	0	0	0	5	0	0	2	0	7	0	0	0	0	0	0	0	3	0	0	6	0	9
Modified Project Buildout (2035) - 1806 DU	0	0	0	0	0	0	0	27	0	0	11	0	38	0	0	0	0	0	0	0	23	0	0	34	0	57
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	0	0	0	0	27	0	0	11	0	38	0	0	0	0	0	0	0	22	0	0	34	0	56
2017 Without Project (Interpolate; 6% Minimum Growth)	281	1	185	0	0	0	443	414	0	0	434	314	2,072	296	7	58	0	0	0	256	385	0	0	235	59	1,296
2017 Without Project Total Growth	*8%*	*0%*	*6%*	-	-	-	*6%*	*6%*	-	-	*6%*	*6%*		*6%*	*0%*	*12%*	-	-	-	*11%*	*11%*	-	-	*7%*	*7%*	
2017 With Modified Project	281	1	185	0	0	0	443	419	0	0	436	314	2,079	296	7	58	0	0	0	256	388	0	0	241	59	1,305
2035 Without Project	457	1	206	0	0	0	612	429	0	0	547	326	2,578	414	8	110	0	0	0	493	651	0	0	242	85	2,003
2035 Without Project Total Growth	*76%*	*0%*	*18%*	-	-	-	*46%*	*10%*	-	-	*34%*	*10%*		*48%*	*14%*	*212%*	-	-	-	*214%*	*87%*	-	-	*10%*	*55%*	
2035 With 1806DU Modified Project	457	1	206	0	0	0	612	456	0	0	558	326	2,616	414	8	110	0	0	0	493	674	0	0	276	85	2,060
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	0	0	5	0	0	2	0	7	0	0	0	0	0	0	0	3	0	0	6	0	9
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	0	0	5	0	0	2	0	7	0	0	0	0	0	0	0	3	0	0	5	0	8
2035 w/o Project + McMillan	457	1	206	0	0	0	612	434	0	0	549	326	2,585	414	8	110	0	0	0	493	654	0	0	248	85	2,012
2035 w/ 1806DU Modified Project + McMillan	457	1	206	0	0	0	612	461	0	0	560	326	2,623	414	8	110	0	0	0	493	676	0	0	281	85	2,067

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014)	4,100	3,500	12,900	8,500		4,100	3,500	12,900	8,500	
Existing Pk-to-daily	*11%*	*20%*	*11%*	*15%*		*8%*	*8%*	*8%*	*8%*	
Modified Project Phase 1 (2017)	0	0	100	100		0	0	100	100	
Modified Project Buildout (2035) - 1806DU	0	0	600	600		0	0	600	600	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	600	600		0	0	600	600	
2017 Without Project (Interpolate; 6% Minimum Growth)	4,600	4,100	14,300	9,400		4,600	4,100	14,300	9,400	
2017 Without Project Total Growth	*12%*	*17%*	*11%*	*11%*		*12%*	*17%*	*11%*	*11%*	
2017 With Modified Project	4,600	4,100	14,400	9,500		4,600	4,100	14,400	9,500	
2035 Without Project	9,000	10,000	27,100	17,200		9,000	10,000	27,100	17,200	
2035 Without Project Total Growth	*220%*	*286%*	*210%*	*202%*		*220%*	*286%*	*210%*	*202%*	
2035 With 1806DU Modified Project	9,000	10,000	27,700	17,800		9,000	10,000	27,700	17,800	
McMillan Trust Property Development (w/o St. "A")	0	0	100	100		0	0	100	100	
McMillan Trust Property Development (w/ St. "A")	0	0	100	100		0	0	100	100	
2035 w/o Project + McMillan	9,000	10,000	27,200	17,300		9,000	10,000	27,200	17,300	
2035 w/ 1806DU Modified Project + McMillan	9,000	10,000	27,800	17,900		9,000	10,000	27,800	17,900	

ARANTINE HILLS VOLUME DEVELOPMENT

10. I-15 NB Ramps / Cajalco Rd.

	AM PEAK HOUR										PHF:		AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	85	4	44	0	0	0	297	402	0	0	354	1,029	2,215	128	1	181	0	0	0	185	807	0	0	488	461	2,251
Modified Project Phase 1 (2017)	10	0	0	0	0	0	86	22	0	0	7	0	125	35	0	0	0	0	0	57	15	0	0	25	0	132
Modified Project Buildout (2035) - 1806 DU	69	0	0	0	0	0	0	114	475	0	43	0	701	218	0	0	0	0	0	0	89	337	0	136	0	780
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	68	0	0	0	0	0	0	114	474	0	42	0	698	217	0	0	0	0	0	0	87	332	0	135	0	771
2017 Without Project (Interpolate; 6% Minimum Growth)	96	0	55	0	0	0	315	427	0	0	376	1,092	2,361	141	0	203	0	0	0	200	856	0	0	518	489	2,407
2017 Without Project Total Growth	*13%*	*-*	*25%*	*-*	*-*	*-*	*6%*	*6%*	*-*	*-*	*6%*	*6%*		*10%*	*-*	*12%*	*-*	*-*	*-*	*8%*	*6%*	*-*	*-*	*6%*	*6%*	
2017 With Modified Project	106	0	55	0	0	0	401	449	0	0	383	1,092	2,486	176	0	203	0	0	0	257	871	0	0	543	489	2,539
2035 Without Project	204	0	132	0	0	0	0	505	362	0	389	1,132	2,724	246	0	346	0	0	0	0	1,035	257	0	546	507	2,937
2035 Without Project Total Growth	*240%*	*0%*	*300%*	*-*	*-*	*-*	*0%*	*26%*	*22%*	*-*	*10%*	*10%*		*92%*	*0%*	*91%*	*-*	*-*	*-*	*0%*	*28%*	*39%*	*-*	*12%*	*10%*	
2035 With 1806DU Modified Project	273	0	132	0	0	0	0	619	837	0	432	1,132	3,425	464	0	346	0	0	0	0	1,124	594	0	682	507	3,717
McMillan Trust Property Development (w/o St. "A")	11	0	0	0	0	0	0	22	92	0	7	0	132	38	0	0	0	0	0	0	14	61	0	25	0	138
McMillan Trust Property Development (w/ St. "A")	11	0	0	0	0	0	0	21	91	0	7	0	130	35	0	0	0	0	0	0	14	58	0	23	0	130
2035 w/o Project + McMillan	215	0	132	0	0	0	0	527	454	0	396	1,132	2,856	284	0	346	0	0	0	0	1,049	318	0	571	507	3,075
2035 w/ 1806DU Modified Project + McMillan	283	0	132	0	0	0	0	640	927	0	438	1,132	3,552	498	0	346	0	0	0	0	1,136	647	0	704	507	3,838

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014)	3,700	7,800	19,000	27,900		3,700	7,800	19,000	27,900	
Existing Pk-to-daily	*4%*	*17%*	*6%*	*7%*		*8%*	*8%*	*8%*	*7%*	
Modified Project Phase 1 (2017)	300	700	1,400	400		300	700	1,400	400	
Modified Project Buildout (2035) - 1806DU	6,400	0	8,800	2,400		6,400	0	8,800	2,400	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	6,400	0	8,700	2,400		6,400	0	8,700	2,400	
2017 Without Project (Interpolate; 6% Minimum Growth)	4,000	8,300	20,200	29,600		4,000	8,300	20,200	29,600	
2017 Without Project Total Growth	*8%*	*6%*	*6%*	*6%*		*8%*	*6%*	*6%*	*6%*	
2017 With Modified Project	4,300	9,000	21,600	30,000		4,300	9,000	21,600	30,000	
2035 Without Project	5,900	10,900	24,900	30,700		5,900	10,900	24,900	30,700	
2035 Without Project Total Growth	*59%*	*40%*	*31%*	*10%*		*59%*	*40%*	*31%*	*10%*	
2035 With 1806DU Modified Project	12,300	10,900	33,700	33,100		12,300	10,900	33,700	33,100	
McMillan Trust Property Development (w/o St. "A")	1,100	0	1,400	400		1,100	0	1,400	400	
McMillan Trust Property Development (w/ St. "A")	1,000	0	1,400	300		1,000	0	1,400	300	
2035 w/o Project + McMillan	7,000	10,900	26,300	31,100		7,000	10,900	26,300	31,100	
2035 w/ 1806DU Modified Project + McMillan	13,300	10,900	35,000	33,400		13,300	10,900	35,000	33,400	

ARANTINE HILLS VOLUME DEVELOPMENT

2015/06/30

11. Grand Oaks / Cajalco Rd.

Note: Grand Oaks serves existing shopping center

	AM PEAK HOUR											PHF:	AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	0	0	0	23	0	97	127	319	0	0	1,283	47	1,896	0	0	0	122	0	448	548	440	0	0	452	119	2,129
Modified Project Phase 1 (2017)	0	0	0	0	0	2	5	17	0	0	6	0	30	0	0	0	0	0	6	3	11	0	0	19	0	39
Modified Project Buildout (2035) - 1806DU	0	0	0	0	0	8	25	89	0	0	35	0	157	0	0	0	0	0	25	15	73	0	0	110	0	223
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	0	0	8	25	89	0	0	34	0	156	0	0	0	0	0	25	15	72	0	0	110	0	222
2017 Without Project (Interpolate; 6% Minimum Growth)	0	0	0	27	0	103	141	341	0	0	1,361	53	2,026	0	0	0	143	0	475	581	478	0	0	481	126	2,284
2017 Without Project Total Growth	-	-	-	*17%*	-	*6%*	*11%*	*7%*	-	-	*6%*	*13%*		-	-	-	*17%*	-	*6%*	*6%*	*9%*	-	-	*6%*	*6%*	
2017 With Modified Project	0	0	0	27	0	105	146	358	0	0	1,367	53	2,056	0	0	0	143	0	481	584	489	0	0	500	126	2,323
2035 Without Project	0	0	0	68	0	129	188	449	0	0	1,434	111	2,379	0	0	0	363	0	577	672	709	0	0	497	155	2,973
2035 Without Project Total Growth	-	-	-	*296%*	-	*33%*	*48%*	*41%*	-	-	*12%*	*236%*		-	-	-	*298%*	-	*29%*	*23%*	*61%*	-	-	*10%*	*30%*	
2035 With 1806DU Modified Project	0	0	0	68	0	137	213	538	0	0	1,469	111	2,536	0	0	0	363	0	602	687	782	0	0	607	155	3,196
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	2	5	17	0	0	6	0	30	0	0	0	0	0	6	3	11	0	0	19	0	39
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	2	5	17	0	0	6	0	30	0	0	0	0	0	5	3	11	0	0	17	0	36
2035 w/o Project+ McMillan	0	0	0	68	0	131	193	466	0	0	1,440	111	2,409	0	0	0	363	0	583	675	720	0	0	516	155	3,012
2035 w/ 1806DU Modified Project + McMillan	0	0	0	68	0	139	218	555	0	0	1,474	111	2,565	0	0	0	363	0	607	690	792	0	0	624	155	3,231

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014)	0	14,800	27,900	15,000		0	14,800	27,900	15,000	
Existing Pk-to-daily	-	*2%*	*7%*	*11%*		-	*8%*	*7%*	*8%*	
Modified Project Phase 1 (2017)	0	100	400	300		0	100	400	300	
Modified Project Buildout (2035) - 1806DU	0	400	2,400	2,000		0	400	2,400	2,000	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	400	2,400	1,900		0	400	2,400	1,900	
2017 Without Project (Interpolate; 6% Minimum Growth)	0	15,700	29,600	15,900		0	15,700	29,600	15,900	
2017 Without Project Total Growth	-	*6%*	*6%*	*6%*		-	*6%*	*6%*	*6%*	
2017 With Modified Project	0	15,800	30,000	16,200		0	15,800	30,000	16,200	
2035 Without Project	0	18,800	30,700	19,000		0	18,800	30,700	19,000	
2035 Without Project Total Growth	-	*27%*	*10%*	*27%*		-	*27%*	*10%*	*27%*	
2035 With 1806DU Modified Project	0	19,200	33,100	21,000		0	19,200	33,100	21,000	
McMillan Trust Property Development (w/o St. "A")	0	100	400	300		0	100	400	300	
McMillan Trust Property Development (w/ St. "A")	0	100	300	300		0	100	300	300	
2035 w/o Project + McMillan	0	18,900	31,100	19,300		0	18,900	31,100	19,300	
2035 w/ 1806DU Modified Project + McMillan	0	19,300	33,400	21,200		0	19,300	33,400	21,200	

ARANTINE HILLS VOLUME DEVELOPMENT

12. Temescal Cyn. Rd. / Cajalco Rd.

	AM PEAK HOUR												AM	PM PEAK HOUR											PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	829	581	291	53	62	40	17	172	153	57	461	124	2,840	225	131	87	204	308	37	21	246	295	167	309	74	2,104
Modified Project Phase 1 (2017)	2	0	0	0	0	1	2	10	5	0	3	0	23	6	0	0	0	0	2	1	7	3	0	12	0	31
Modified Project Buildout (2035) - 1806 DU	10	0	0	0	0	5	10	53	26	0	20	0	124	32	0	0	0	0	15	11	42	21	0	64	0	185
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	10	0	0	0	0	5	10	53	26	0	20	0	124	32	0	0	0	0	15	10	41	20	0	63	0	181
2017 Without Project (Interpolate; 6% Minimum Growth)	880	616	309	65	70	43	18	188	162	61	491	156	3,059	239	166	92	238	332	40	27	281	313	177	328	96	2,329
2017 Without Project Total Growth	*6%*	*6%*	*6%*	*23%*	*13%*	*8%*	*6%*	*9%*	*6%*	*7%*	*7%*	*26%*		*6%*	*27%*	*6%*	*17%*	*8%*	*8%*	*29%*	*14%*	*6%*	*6%*	*6%*	*30%*	
2017 With Modified Project	882	616	309	65	70	44	20	198	167	61	494	156	3,082	245	166	92	238	332	42	28	288	316	177	340	96	2,360
2035 Without Project	912	858	320	233	138	70	27	322	168	63	563	621	4,295	248	675	96	599	520	57	115	632	325	184	347	461	4,259
2035 Without Project Total Growth	*10%*	*48%*	*10%*	*440%*	*223%*	*75%*	*59%*	*87%*	*10%*	*11%*	*22%*	*501%*		*10%*	*515%*	*10%*	*294%*	*69%*	*54%*	*548%*	*257%*	*10%*	*10%*	*12%*	*623%*	
2035 With 1806DU Modified Project	922	858	320	233	138	75	37	375	194	63	583	621	4,419	280	675	96	599	520	72	126	674	346	184	411	461	4,444
McMillan Trust Property Development (w/o St. "A")	2	0	0	0	0	1	2	10	5	0	3	0	23	6	0	0	0	0	2	1	7	3	0	11	0	30
McMillan Trust Property Development (w/ St. "A")	2	0	0	0	0	1	2	10	5	0	3	0	23	5	0	0	0	0	2	1	6	3	0	10	0	27
2035 w/o Project + McMillan	914	858	320	233	138	71	29	332	173	63	566	621	4,318	254	675	96	599	520	59	116	639	328	184	358	461	4,289
2035 w/ 1806DU Modified Project + McMillan	924	858	320	233	138	76	39	385	199	63	586	621	4,442	285	675	96	599	520	74	126	679	348	184	420	461	4,467

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2014)	14,600	10,400	15,000	13,000		14,600	10,400	15,000	13,000	
Existing Pk-to-daily	*14%*	*8%*	*11%*	*9%*		*8%*	*7%*	*8%*	*8%*	
Modified Project Phase 1 (2017)	100	30	300	200		100	30	300	200	
Modified Project Buildout (2035) - 1806DU	600	300	2,000	1,100		600	300	2,000	1,100	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	600	300	1,900	1,100		600	300	1,900	1,100	
2017 Without Project (Interpolate; 6% Minimum Growth)	15,500	11,900	15,900	14,700		15,500	11,900	15,900	14,700	
2017 Without Project Total Growth	*6%*	*14%*	*6%*	*13%*		*6%*	*14%*	*6%*	*13%*	
2017 With Modified Project	15,600	11,930	16,200	14,900		15,600	11,930	16,200	14,900	
2035 Without Project	21,000	26,500	19,000	30,000		21,000	26,500	19,000	30,000	
2035 Without Project Total Growth	*44%*	*255%*	*27%*	*231%*		*44%*	*255%*	*27%*	*231%*	
2035 With 1806DU Modified Project	21,600	26,800	21,000	31,100		21,600	26,800	21,000	31,100	
McMillan Trust Property Development (w/o St. "A")	100	28	300	200		100	28	300	200	
McMillan Trust Property Development (w/ St. "A")	100	26	300	200		100	26	300	200	
2035 w/o Project + McMillan	21,100	26,528	19,300	30,200		21,100	26,528	19,300	30,200	
2035 w/ 1806DU Modified Project + McMillan	21,700	26,826	21,200	31,300		21,700	26,826	21,200	31,300	

[1] Source: Arantine Hills Specific Plan Traffic Impact Analysis Report (August 11, 2011)

ARANTINE HILLS VOLUME DEVELOPMENT

13. St. "C" / Eagle Glen Pkwy.

	AM PEAK HOUR										PHF:		AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2014)	0	0	0	0	0	0	0	319	0	0	251	0	570	0	0	0	0	0	0	0	205	0	0	268	0	473
Modified Project Phase 1 (2017)	0	0	52	0	0	0	0	0	0	17	0	0	69	0	0	34	0	0	0	0	0	0	58	0	0	92
Modified Project Buildout (2035) - 1806DU	0	0	319	0	0	0	0	6	0	101	4	0	430	0	0	195	0	0	0	0	17	0	326	15	0	553
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	319	0	0	0	0	5	0	101	3	0	428	0	0	195	0	0	0	0	17	0	326	14	0	552
2017 Without Project (Flow Conserved)	0	0	0	0	0	0	0	340	0	0	272	0	612	0	0	0	0	0	0	0	227	0	0	294	0	521
2017 Without Project Total Growth	-	-	-	-	-	-	-	*7%*	-	-	*8%*	-		-	-	-	-	-	-	-	*11%*	-	-	*10%*	-	
2017 With Modified Project	0	0	52	0	0	0	0	340	0	17	272	0	681	0	0	34	0	0	0	0	227	0	58	294	0	613
2035 Without Project	0	0	0	0	0	0	0	489	0	0	446	0	935	0	0	0	0	0	0	0	430	0	0	495	0	925
2035 Without Project Total Growth	-	-	-	-	-	-	-	*53%*	-	-	*78%*	-		-	-	-	-	-	-	-	*210%*	-	-	*85%*	-	
2035 With 1806DU Modified Project	0	0	319	0	0	0	0	495	0	101	450	0	1,365	0	0	195	0	0	0	0	447	0	326	510	0	1,478
McMillan Trust Property Development (w/o St. "A")	0	0	168	0	0	0	0	0	0	57	0	0	225	0	0	111	0	0	0	0	0	0	189	0	0	300
McMillan Trust Property Development (w/ St. "A")	0	0	149	0	0	0	0	0	0	49	0	0	198	0	0	95	0	0	0	0	0	0	157	0	0	252
2035 w/o Project+ McMillan	0	0	168	0	0	0	0	489	0	57	446	0	1,160	0	0	111	0	0	0	0	430	0	189	495	0	1,225
2035 w/ 1806DU Modified Project + McMillan	0	0	468	0	0	0	0	494	0	150	449	0	1,561	0	0	290	0	0	0	0	447	0	483	509	0	1,729

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2015)	0	0	7,000	7,000		0	0	7,000	7,000	
Existing Pk-to-daily	-	-	*8%*	*8%*		-	-	*7%*	*7%*	
Modified Project Phase 1 (2017)	900	0	0	900		900	0	0	900	
Modified Project Buildout (2035) - 1806DU	5,200	0	400	5,600		5,200	0	400	5,600	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	5,200	0	400	5,600		5,200	0	400	5,600	
2017 Without Project (Flow Conserved)	0	0	7,400	7,400		0	0	7,400	7,400	
2017 Without Project Total Growth	-	-	*6%*	*6%*		-	-	*6%*	*6%*	
2017 With Modified Project	900	0	7,400	8,300		900	0	7,400	8,300	
2035 Without Project	0	0	7,700	7,700		0	0	7,700	7,700	
2035 Without Project Total Growth	-	-	*10%*	*10%*		-	-	*10%*	*10%*	
2035 With 1806DU Modified Project	5,200	0	8,100	13,300		5,200	0	8,100	13,300	
McMillan Trust Property Development (w/o St. "A")	2,900	0	0	2,900		2,900	0	0	2,900	
McMillan Trust Property Development (w/ St. "A")	2,400	0	0	2,400		2,400	0	0	2,400	
2035 w/o Project+ McMillan	2,900	0	7,700	10,600		2,900	0	7,700	10,600	
2035 w/ 1806DU Modified Project + McMillan	7,600	0	8,100	15,700		7,600	0	8,100	15,700	

ARANTINE HILLS VOLUME DEVELOPMENT

14. St. "C" / St. "B"

	AM PEAK HOUR											PHF:	AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Modified Project Phase 1 (2017)	0	0	0	17	0	0	0	0	0	0	0	52	69	0	0	0	58	0	0	0	0	0	0	0	34	92
Modified Project Buildout (2035) - 1806DU	0	0	0	42	0	59	182	23	0	0	8	137	451	0	0	0	132	0	194	114	20	0	0	39	81	580
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	42	0	59	182	26	0	0	10	137	456	0	0	0	132	0	194	114	25	0	0	54	81	600
ADT	South Leg			North Leg			West Leg			East Leg				South Leg			North Leg			West Leg			East Leg			
Modified Project Phase 1 (2017)	0			900			0			900				0			900			0			900			
Modified Project Buildout (2035) - 1806DU	0			5,200			3,500			2,800				0			5,200			3,500			2,800			
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0			5,200			3,700			2,900				0			5,200			3,700			2,900			
McMillan Trust Property Development (w/o St. "A")	0			2,900			2,900			0				0			2,900			2,900			0			
McMillan Trust Property Development (w/ St. "A")	0			2,400			2,700			300				0			2,400			2,700			300			
2035 w/o Project+ McMillan	0			2,900			2,900			0				0			2,900			2,900			0			
2035 w/ 1806DU Modified Project + McMillan	0			7,600			6,400			3,200				0			7,600			6,400			3,200			

15. St. "C" - St. "D" / St. "B"

	AM PEAK HOUR											PHF:	AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Modified Project Phase 1 (2017)	0	0	0	0	0	40	120	0	0	0	0	0	160	0	0	0	0	0	135	79	0	0	0	0	0	214
Modified Project Buildout (2035) - 1806DU	0	95	0	0	32	112	356	0	0	0	0	0	595	0	62	0	0	105	400	231	0	0	0	0	0	798
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	95	0	0	32	114	359	0	0	0	0	0	600	0	62	0	0	105	415	236	0	0	0	0	0	818
ADT	South Leg			North Leg			West Leg			East Leg				South Leg			North Leg			West Leg			East Leg			
Modified Project Phase 1 (2017)	0			2,100			2,100			0				0			2,100			2,100			0			
Modified Project Buildout (2035) - 1806DU	1,600			7,900			6,400			0				1,600			7,900			6,400			0			
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	1,600			8,100			6,500			0				1,600			8,100			6,500			0			
McMillan Trust Property Development (w/o St. "A")	0			0			0			0				0			0			0			0			
McMillan Trust Property Development (w/ St. "A")	0			300			300			0				0			300			300			0			
2035 w/o Project+ McMillan	0			0			0			0				0			0			0			0			
2035 w/ 1806DU Modified Project + McMillan	1,600			8,400			6,800			0				1,600			8,400			6,800			0			

ARANTINE HILLS VOLUME DEVELOPMENT

16. St. "A" / TAZ Main Dwy.

	AM PEAK HOUR									PHF:			AM	PM PEAK HOUR								PHF:			PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Modified Project Phase 1 (2017)	0	120	0	0	40	0	0	0	0	0	0	0	160	0	79	0	0	135	0	0	0	0	0	0	0	214
Modified Project Buildout (2035) - 1806DU	0	530	9	52	181	0	0	0	0	5	0	26	803	0	354	20	160	573	0	0	0	0	53	0	112	1,272
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	529	11	49	180	0	0	0	0	7	0	25	801	0	351	23	157	572	0	0	0	0	63	0	103	1,269
ADT	South Leg			North Leg			West Leg			East Leg				South Leg			North Leg			West Leg			East Leg			
Modified Project Phase 1 (2017)	2,100			2,100			0			0				2,100			2,100			0			0			
Modified Project Buildout (2035) - 1806DU	10,200			12,900			0			3,900				10,200			12,900			0			3,900			
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	10,200			12,800			0			3,900				10,200			12,800			0			3,900			
McMillan Trust Property Development (w/o St. "A")	0			0			0			0				0			0			0			0			
McMillan Trust Property Development (w/ St. "A")	300			300			0			0				300			300			0			0			
2035 w/o Project+ McMillan	0			0			0			0				0			0			0			0			
2035 w/ 1806DU Modified Project + McMillan	10,500			13,100			0			3,900				10,500			13,100			0			3,900			

17. St. "A" / TAZ S. Dwy.

	AM PEAK HOUR									PHF:			AM	PM PEAK HOUR								PHF:			PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Modified Project Phase 1 (2017)	0	120	0	0	40	0	0	0	0	0	0	0	160	0	79	0	0	135	0	0	0	0	0	0	0	214
Modified Project Buildout (2035) - 1806DU	0	447	4	45	141	0	0	0	0	2	0	92	731	0	284	9	143	483	0	0	0	0	22	0	90	1,031
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	449	5	45	142	0	0	0	0	3	0	91	735	0	288	11	141	493	0	0	0	0	27	0	87	1,047
ADT	South Leg			North Leg			West Leg			East Leg				South Leg			North Leg			West Leg			East Leg			
Modified Project Phase 1 (2017)	2,100			2,100			0			0				2,100			2,100			0			0			
Modified Project Buildout (2035) - 1806DU	7,900			10,200			0			2,700				7,900			10,200			0			2,700			
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	8,100			10,200			0			2,700				8,100			10,200			0			2,700			
McMillan Trust Property Development (w/o St. "A")	0			0			0			0				0			0			0			0			
McMillan Trust Property Development (w/ St. "A")	300			300			0			0				300			300			0			0			
2035 w/o Project+ McMillan	0			0			0			0				0			0			0			0			
2035 w/ 1806DU Modified Project + McMillan	8,400			10,500			0			2,700				8,400			10,500			0			2,700			

ARANTINE HILLS VOLUME DEVELOPMENT

18. Masters Dr. / Christopher Ln.

	AM PEAK HOUR												AM TOTAL	PM PEAK HOUR												PM TOTAL
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
Existing (2015)	31	487	45	11	256	9	11	7	20	9	6	19	911	4	220	9	7	567	13	11	2	51	18	4	6	912
Modified Project Phase 1 (2017)	0	9	0	0	3	0	0	0	0	0	0	0	12	0	6	0	0	10	0	0	0	0	0	0	0	16
Modified Project Buildout (2035) - 1806DU	0	34	0	0	13	0	0	0	1	1	0	0	49	2	27	2	0	42	0	0	0	2	2	0	0	77
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	34	0	0	13	0	0	0	1	1	0	0	49	2	27	2	0	41	0	0	0	2	2	0	0	76
2017 Without Project (Interpolate; 6% Minimum Growth)	31	520	45	11	273	9	11	7	20	9	6	19	961	4	238	9	7	603	13	11	2	51	18	4	6	966
2017 Without Project Total Growth	*0%*	*7%*	*0%*	*0%*	*7%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*		*0%*	*8%*	*0%*	*0%*	*6%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
2017 With Modified Project	31	529	45	11	276	9	11	7	20	9	6	19	973	4	244	9	7	613	13	11	2	51	18	4	6	982
2035 Without Project	31	574	45	11	296	9	11	7	20	9	6	19	1,038	4	326	9	7	626	13	36	2	51	18	4	6	1,102
2035 Without Project Total Growth	*0%*	*18%*	*0%*	*0%*	*16%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*		*0%*	*48%*	*0%*	*0%*	*10%*	*0%*	*327%*	*0%*	*0%*	*0%*	*0%*	*0%*	
2035 With 1806DU Modified Project	31	608	45	11	309	9	11	7	21	10	6	19	1,087	6	353	11	7	668	13	36	2	53	20	4	6	1,179
McMillan Trust Property Development (w/o St. "A")	0	15	0	0	5	0	0	0	0	0	0	0	20	0	10	0	0	17	0	0	0	0	0	0	0	27
McMillan Trust Property Development (w/ St. "A")	0	12	0	0	4	0	0	0	0	0	0	0	16	0	7	0	0	12	0	0	0	0	0	0	0	19
2035 w/o Project+ McMillan	31	589	45	11	301	9	11	7	20	9	6	19	1,058	4	336	9	7	643	13	36	2	51	18	4	6	1,129
2035 w/ 1806DU Modified Project + McMillan	31	620	45	11	313	9	11	7	21	10	6	19	1,103	6	360	11	7	679	13	36	2	53	20	4	6	1,197

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2015)	7,500	8,000	1,000	600		7,500	8,000	1,000	600	
Existing Pk-to-daily	*11%*	*10%*	*8%*	*16%*		*12%*	*10%*	*9%*	*8%*	
Modified Project Phase 1 (2017)	100	100	0	0		100	100	0	0	
Modified Project Buildout (2035) - 1806DU	800	700	100	100		800	700	100	100	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	800	700	48	48		800	700	48	48	
2017 Without Project (Interpolate; 6% Minimum Growth)	8,000	8,500	1,100	600		8,000	8,500	1,100	600	
2017 Without Project Total Growth	*7%*	*6%*	*10%*	*0%*		*7%*	*6%*	*10%*	*0%*	
2017 With Modified Project	8,100	8,600	1,100	600		8,100	8,600	1,100	600	
2035 Without Project	8,300	8,800	1,000	600		8,300	8,800	1,000	600	
2035 Without Project Total Growth	*11%*	*10%*	*0%*	*0%*		*11%*	*10%*	*0%*	*0%*	
2035 With 1806DU Modified Project	9,100	9,500	1,100	700		9,100	9,500	1,100	700	
McMillan Trust Property Development (w/o St. "A")	300	300	0	0		300	300	0	0	
McMillan Trust Property Development (w/ St. "A")	200	200	0	0		200	200	0	0	
2035 w/o Project+ McMillan	8,600	9,100	1,000	600		8,600	9,100	1,000	600	
2035 w/ 1806DU Modified Project + McMillan	9,300	9,700	1,048	648		9,300	9,700	1,048	648	

ARANTINE HILLS VOLUME DEVELOPMENT

19. Via Castilla St. / Masters Dr.

	AM PEAK HOUR										PHF:		AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2015)	0	0	0	13	0	24	7	204	0	0	403	2	653	0	0	0	12	0	5	4	562	0	0	173	12	768
Modified Project Phase 1 (2017)	0	0	0	0	0	0	0	3	0	0	9	0	12	0	0	0	0	0	0	0	10	0	0	6	0	16
Modified Project Buildout (2035) - 1806DU	0	0	0	1	0	0	0	15	0	0	35	0	51	0	0	0	2	0	0	0	48	0	0	33	2	85
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	1	0	0	0	15	0	0	35	0	51	0	0	0	2	0	0	0	48	0	0	32	2	84
2017 Without Project (Interpolate; 6% Minimum Growth)	0	0	0	13	0	24	7	219	0	0	424	2	689	0	0	0	12	0	5	4	593	0	0	191	12	817
2017 Without Project Total Growth	-	-	-	*0%*	-	*0%*	*0%*	*7%*	-	-	*5%*	*0%*		-	-	-	*0%*	-	*0%*	*0%*	*6%*	-	-	*10%*	*0%*	
2017 With Modified Project	0	0	0	13	0	24	7	222	0	0	433	2	701	0	0	0	12	0	5	4	603	0	0	197	12	833
2035 Without Project	0	0	0	13	0	24	7	236	0	0	468	2	750	0	0	0	12	0	5	4	640	0	0	279	12	952
2035 Without Project Total Growth	-	-	-	*0%*	-	*0%*	*0%*	*16%*	-	-	*16%*	*0%*		-	-	-	*0%*	-	*0%*	*0%*	*14%*	-	-	*61%*	*0%*	
2035 With 1806DU Modified Project	0	0	0	14	0	24	7	251	0	0	503	2	801	0	0	0	14	0	5	4	688	0	0	312	14	1,037
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	0	0	5	0	0	15	0	20	0	0	0	0	0	0	0	17	0	0	10	0	27
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	0	0	4	0	0	12	0	16	0	0	0	0	0	0	0	12	0	0	7	0	19
2035 w/o Project+ McMillan	0	0	0	13	0	24	7	241	0	0	483	2	770	0	0	0	12	0	5	4	657	0	0	289	12	979
2035 w/ 1806DU Modified Project + McMillan	0	0	0	14	0	24	7	255	0	0	515	2	817	0	0	0	14	0	5	4	700	0	0	318	14	1,055

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2015)	0	400	7,500	6,800		0	400	7,500	6,800	
Existing Pk-to-daily	-	*12%*	*9%*	*9%*		-	*8%*	*10%*	*11%*	
Modified Project Phase 1 (2017)	0	0	100	100		0	0	100	100	
Modified Project Buildout (2035) - 1806DU	0	100	900	900		0	100	900	900	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	48	900	900		0	48	900	900	
2017 Without Project (Interpolate; 6% Minimum Growth)	0	400	8,000	7,200		0	400	8,000	7,200	
2017 Without Project Total Growth	-	*0%*	*7%*	*6%*		-	*0%*	*7%*	*6%*	
2017 With Modified Project	0	400	8,100	7,300		0	400	8,100	7,300	
2035 Without Project	0	400	8,300	7,500		0	400	8,300	7,500	
2035 Without Project Total Growth	-	*0%*	*11%*	*10%*		-	*0%*	*11%*	*10%*	
2035 With 1806DU Modified Project	0	500	9,200	8,400		0	500	9,200	8,400	
McMillan Trust Property Development (w/o St. "A")	0	0	300	300		0	0	300	300	
McMillan Trust Property Development (w/ St. "A")	0	0	200	200		0	0	200	200	
2035 w/o Project+ McMillan	0	400	8,600	7,800		0	400	8,600	7,800	
2035 w/ 1806DU Modified Project + McMillan	0	448	9,400	8,600		0	448	9,400	8,600	

ARANTINE HILLS VOLUME DEVELOPMENT

20. Morales Wy. / Masters Dr.

	AM PEAK HOUR											PHF:	AM	PM PEAK HOUR									PHF:	PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2015)	147	1	75	5	1	5	3	137	63	35	204	4	680	55	3	36	3	1	1	3	426	125	33	129	3	818
Modified Project Phase 1 (2017)	0	0	0	0	0	0	0	3	0	0	9	0	12	0	0	0	0	0	0	0	10	0	0	6	0	16
Modified Project Buildout (2035) - 1806DU	0	0	1	0	0	0	0	16	0	1	36	0	54	0	0	4	0	0	0	0	50	0	4	35	0	93
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	1	0	0	0	0	16	0	1	36	0	54	0	0	4	0	0	0	0	50	0	3	34	0	91
2017 Without Project (Interpolate; 6% Minimum Growth)	147	1	75	5	1	5	3	149	63	35	217	4	705	55	3	36	3	1	1	3	452	125	33	147	3	862
2017 Without Project Total Growth	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*9%*	*0%*	*0%*	*6%*	*0%*		*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*6%*	*0%*	*0%*	*14%*	*0%*	
2017 With Modified Project	147	1	75	5	1	5	3	152	63	35	226	4	717	55	3	36	3	1	1	3	462	125	33	153	3	878
2035 Without Project	147	1	75	5	1	5	3	169	63	35	269	4	777	55	3	36	3	1	1	3	486	125	33	235	3	984
2035 Without Project Total Growth	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*23%*	*0%*	*0%*	*32%*	*0%*		*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*14%*	*0%*	*0%*	*82%*	*0%*	
2035 With 1806DU Modified Project	147	1	76	5	1	5	3	185	63	36	305	4	831	55	3	40	3	1	1	3	536	125	37	270	3	1,077
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	0	0	5	0	0	15	0	20	0	0	0	0	0	0	0	17	0	0	10	0	27
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	0	0	4	0	0	12	0	16	0	0	0	0	0	0	0	12	0	0	7	0	19
2035 w/o Project+ McMillan	147	1	75	5	1	5	3	174	63	35	284	4	797	55	3	36	3	1	1	3	503	125	33	245	3	1,011
2035 w/ 1806DU Modified Project + McMillan	147	1	76	5	1	5	3	189	63	36	317	4	847	55	3	40	3	1	1	3	548	125	36	276	3	1,094

ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2015)	3,000	200	6,800	5,800		3,000	200	6,800	5,800	
Existing Pk-to-daily	*11%*	*10%*	*8%*	*8%*		*8%*	*7%*	*11%*	*11%*	
Modified Project Phase 1 (2017)	0	0	100	100		0	0	100	100	
Modified Project Buildout (2035) - 1806DU	100	0	900	1,000		100	0	900	1,000	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	100	0	900	1,000		100	0	900	1,000	
2017 Without Project (Interpolate; 6% Minimum Growth)	3,200	200	7,200	6,200		3,200	200	7,200	6,200	
2017 Without Project Total Growth	*7%*	*0%*	*6%*	*7%*		*7%*	*0%*	*6%*	*7%*	
2017 With Modified Project	3,200	200	7,300	6,300		3,200	200	7,300	6,300	
2035 Without Project	3,000	200	7,500	6,400		3,000	200	7,500	6,400	
2035 Without Project Total Growth	*0%*	*0%*	*10%*	*10%*		*0%*	*0%*	*10%*	*10%*	
2035 With 1806DU Modified Project	3,100	200	8,400	7,400		3,100	200	8,400	7,400	
McMillan Trust Property Development (w/o St. "A")	0	0	300	300		0	0	300	300	
McMillan Trust Property Development (w/ St. "A")	0	0	200	200		0	0	200	200	
2035 w/o Project+ McMillan	3,000	200	7,800	6,700		3,000	200	7,800	6,700	
2035 w/ 1806DU Modified Project + McMillan	3,100	200	8,600	7,600		3,100	200	8,600	7,600	

ARANTINE HILLS VOLUME DEVELOPMENT

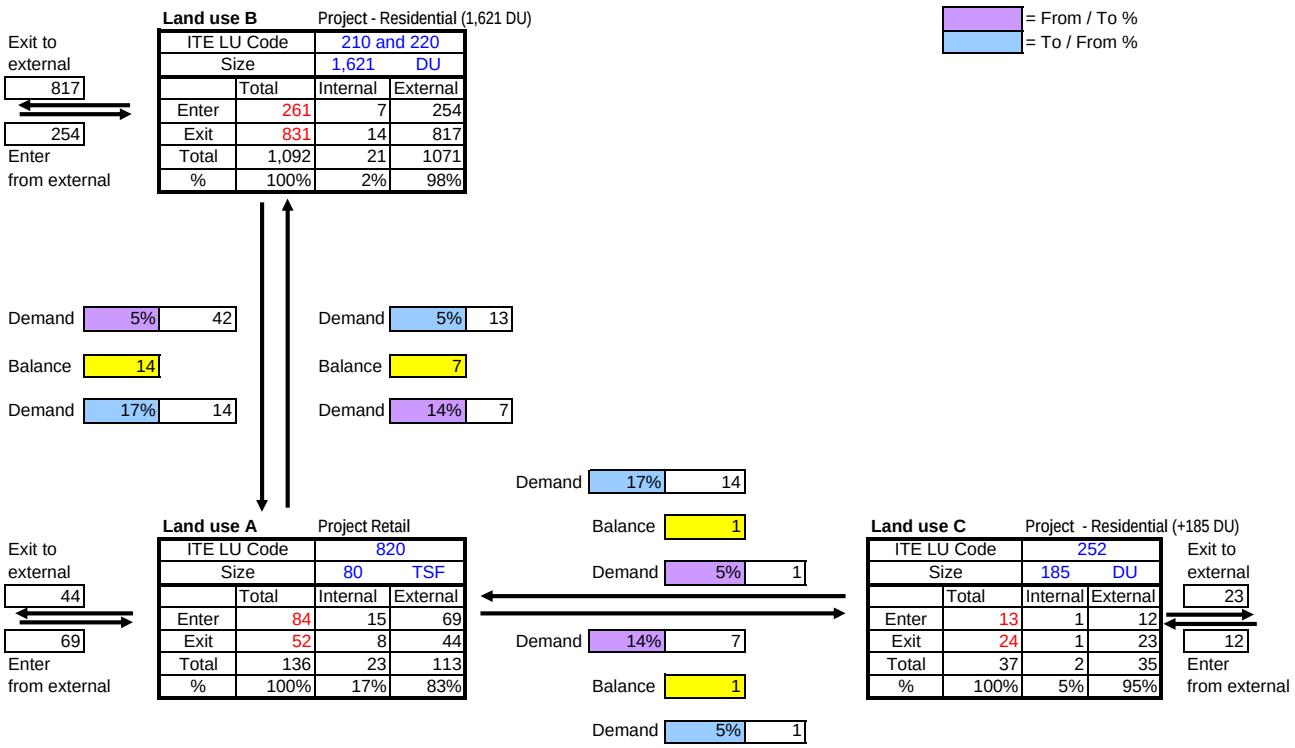
21. Bennett Av. / Eagle Glen Pkwy.

	AM PEAK HOUR										PHF:		AM	PM PEAK HOUR									PHF:		PM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
Existing (2015)	0	0	0	5	0	38	31	349	0	0	280	4	707	0	0	0	35	0	13	13	132	0	0	174	63	430
Modified Project Phase 1 (2017)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Modified Project Buildout (2035) - 1806DU	0	0	0	1	0	0	0	4	0	0	3	1	9	0	0	0	4	0	0	0	13	0	0	11	4	32
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	0	0	1	0	0	0	4	0	0	3	1	9	0	0	0	4	0	0	0	13	0	0	10	3	30
2017 Without Project (Interpolate; 6% Minimum Growth)	0	0	0	5	0	38	31	368	0	0	301	4	747	0	0	0	35	0	13	13	155	0	0	198	63	477
2017 Without Project Total Growth	-	-	-	*0%*	-	*0%*	*0%*	*5%*	-	-	*8%*	*0%*		-	-	-	*0%*	-	*0%*	*0%*	*17%*	-	-	*14%*	*0%*	
2017 With Modified Project	0	0	0	5	0	38	31	368	0	0	301	4	747	0	0	0	35	0	13	13	155	0	0	198	63	477
2035 Without Project	0	0	0	5	0	38	31	517	0	0	410	4	1,005	0	0	0	35	0	13	13	357	0	0	399	63	880
2035 Without Project Total Growth	-	-	-	*0%*	-	*0%*	*0%*	*48%*	-	-	*46%*	*0%*		-	-	-	*0%*	-	*0%*	*0%*	*270%*	-	-	*229%*	*0%*	
2035 With 1806DU Modified Project	0	0	0	6	0	38	31	521	0	0	413	5	1,014	0	0	0	39	0	13	13	370	0	0	410	67	912
McMillan Trust Property Development (w/o St. "A")	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
McMillan Trust Property Development (w/ St. "A")	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2035 w/o Project+ McMillan	0	0	0	5	0	38	31	517	0	0	410	4	1,005	0	0	0	35	0	13	13	357	0	0	399	63	880
2035 w/ 1806DU Modified Project + McMillan	0	0	0	6	0	38	31	521	0	0	413	5	1,014	0	0	0	39	0	13	13	370	0	0	409	66	910

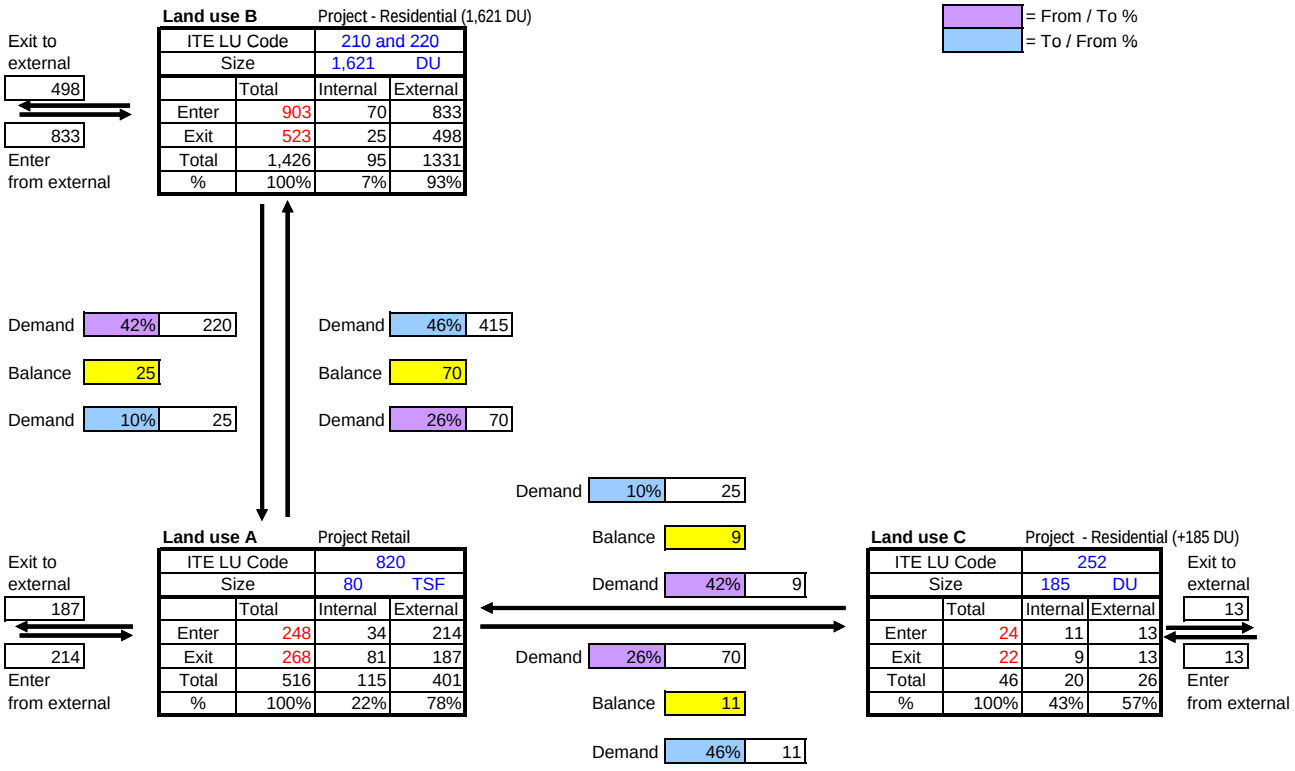
ADT	South Leg	North Leg	West Leg	East Leg		South Leg	North Leg	West Leg	East Leg	
Existing (2015)	0	1,500	4,000	7,000		0	1,500	4,000	7,000	
Existing Pk-to-daily	-	*5%*	*17%*	*9%*		-	*8%*	*8%*	*6%*	
Modified Project Phase 1 (2017)	0	0	0	0		0	0	0	0	
Modified Project Buildout (2035) - 1806DU	0	100	300	400		0	100	300	400	
Modified Project Buildout (2035) - 1806 DU (with McMillan Interaction; reduced retail external trips)	0	100	300	400		0	100	300	400	
2017 Without Project (Interpolate; 6% Minimum Growth)	0	1,600	4,200	7,400		0	1,600	4,200	7,400	
2017 Without Project Total Growth	-	*7%*	*5%*	*6%*		-	*7%*	*5%*	*6%*	
2017 With Modified Project	0	1,600	4,200	7,400		0	1,600	4,200	7,400	
2035 Without Project	0	1,800	4,400	7,700		0	1,800	4,400	7,700	
2035 Without Project Total Growth	-	*20%*	*10%*	*10%*		-	*20%*	*10%*	*10%*	
2035 With 1806DU Modified Project	0	1,900	4,700	8,100		0	1,900	4,700	8,100	
McMillan Trust Property Development (w/o St. "A")	0	0	0	0		0	0	0	0	
McMillan Trust Property Development (w/ St. "A")	0	0	0	0		0	0	0	0	
2035 w/o Project+ McMillan	0	1,800	4,400	7,700		0	1,800	4,400	7,700	
2035 w/ 1806DU Modified Project + McMillan	0	1,900	4,700	8,100		0	1,900	4,700	8,100	

JN:09260 ARANTINE HILLS - PROJECT INTERNAL CAPTURE CALCULATIONS

AM Peak Hour



PM Peak Hour



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APPENDIX 2.2:

FREEWAY AND RAMP TRAFFIC VOLUME DATA

Peak Hour Volume Source:
Caltrans Performance Measurement System (PeMS) website

I-15 Southbound, North of El Cerrito

(Post Mile: Between 92.78 & 91.78)

DAILY				Data Quality	
Time	5/4/2014	5/5/2014	5/6/2014	# Lane Points	% Observed
Total	71,243	68,956	77,217	2,592	92.6

Daily Peak	77,217	5/6/2014

PEAK HOUR				Data Quality	
Time	Minimum	Mean	Maximum	# Lane Points	% Observed
6:00	2303	2614	2850	108	78.0
7:00	3334	3371	3425	108	97.0
8:00	3538	3647.33	3859	108	100.0
9:00	2592	3158.67	3464	108	81.0
16:00	5088	5111.33	5146	108	100.0
17:00	4081	4679	5111	108	78.0
18:00	4198	4541.67	5223	108	67.0

AM Peak	3,859	8:00
PM Peak	5,223	18:00

I-15 Northbound, South of Cajalco

(Post Mile: Between 90.29 & 91.29)

DAILY				Data Quality	
Time	5/4/2014	5/5/2014	5/6/2014	# Lane Points	% Observed
Total	72,440	72,413	74,816	2,592	100.0

Daily Peak	74,816	5/6/2014

PEAK HOUR				Data Quality	
Time	Minimum	Mean	Maximum	# Lane Points	% Observed
6:00	5214	5324.33	5461	108	100.0
7:00	4452	4558	4613	108	100.0
8:00	4587	4648.33	4722	108	100.0
9:00	4666	4773.67	4843	108	100.0
16:00	3688	4046.33	4241	108	100.0
17:00	3845	3928.67	4077	108	100.0
18:00	3256	3306.67	3360	108	100.0

AM Peak	5,461	6:00
PM Peak	4,241	16:00

2012

Annual Average Daily Truck Traffic on the California State Highway System

Compiled by
Traffic Data Branch

State of California
The Transportation Agency
Department of Transportation

Prepared in cooperation with the
U.S. Department of Transportation
Federal Highway Administration

RTE	DIST	CNTY	POST MILE	LEG	DESCRIPTION	VEHICLE AADT TOTAL	TRUCK AADT TOTAL	TRUCK % TOT VEH	TRUCK AADT TOTAL By Axle 2	3	4	5+	% TRUCK AADT By Axle 2	3	4	5+	EAL 2-WAY (1000)	YEAR VER/ EST
015	11	SD	R46.491	A	JCT. RTE. 76	115000	9361	8.14	3041	714	317	5289	32.49	7.63	3.39	56.5	2043	00E
015	08	RIV	R0	A	SAN DIEGO/RIVERSIDE COUNTY LINE	132000	8910	6.75	3327	634	270	4679	37.34	7.12	3.03	52.51	1829	04V
015	08	RIV	3.436	B	SOUTH JCT. RTE. 79	133000	8978	6.75	3352	639	272	4714	37.34	7.12	3.03	52.51	1842	04E
015	08	RIV	3.436	A	SOUTH JCT. RTE. 79	151000	10646	7.05	3975	758	323	5590	37.34	7.12	3.03	52.51	2185	04E
015	08	RIV	6.623	B	NORTH JCT RTE. 79	161000	10578	6.57	3950	753	321	5555	37.34	7.12	3.03	52.51	2171	04E
015	08	RIV	8.737	B	JCT. RTE. 215 NORTH	180000	9990	5.55	3730	711	303	5246	37.34	7.12	3.03	52.51	2050	04E
015	08	RIV	8.737	A	JCT. RTE. 215 NORTH	106000	9540	9	4300	766	388	4086	45.07	8.03	4.07	42.83	1688	06E
015	08	RIV	15.071	B	BAXTER ROAD	121000	10527	8.7	4737	853	421	4516	45	8.1	4	42.9	1864	06E
015	08	RIV	20.948	B	MAIN STREET	119000	10948	9.2	4927	887	438	4697	45	8.1	4	42.9	1939	06E
015	08	RIV	22.277	B	JCT. RTE. 74	116000	9535	8.22	4805	642	306	3783	50.39	6.73	3.21	39.67	1577	08V
015	08	RIV	22.277	A	JCT. RTE. 74	110000	11550	10.5	5198	936	470	4947	45	8.1	4.07	42.83	2044	06E
015	08	RIV	41.501	B	JCT. RTE. 91	182000	10210	5.61	3555	1279	825	4551	34.82	12.53	8.08	44.57	1933	00E
015	08	RIV	44.66	O	FOURTH ST, NORCO	149000	17075	11.46	5934	2180	1332	7629	34.75	12.77	7.8	44.68	3236	00E
015	08	RIV	51.474	A	JCT. RTE. 60	215000	17630	8.2	6126	2251	1375	7877	34.75	12.77	7.8	44.68	3341	00E
015	08	SBD	2.389	A	JCT. RTE. 10	198000	20493	10.35	6183	1246	508	12556	30.17	6.08	2.48	61.27	4738	06E
015	08	SBD	5.306	B	JCT. RTE. 66	187000	18794	10.05	5670	1143	466	11515	30.17	6.08	2.48	61.27	4345	06E
015	08	SBD	5.306	A	JCT. RTE. 66	164000	17089	10.42	5156	1039	424	10470	30.17	6.08	2.48	61.27	3951	06V
015	08	SBD	16.374	B	JCT. RTE. 215	122000	13969	11.45	4388	847	323	8412	31.41	6.06	2.31	60.22	3181	08V
015	08	SBD	R13.779	A	JCT. RTE. 215	152000	20961	13.79	6079	1174	503	13205	29	5.6	2.4	63	4950	04E
015	08	SBD	31.813	B	JCT. RTE. 395 NORTH	124000	16777	13.53	3891	1134	409	11343	23.19	6.76	2.44	67.61	4214	00E
015	08	SBD	31.813	A	JCT. RTE. 395 NORTH	101000	15786	15.63	3662	1073	379	10671	23.2	6.8	2.4	67.6	3964	00E
015	08	SBD	40.509	B	JCT. RTE. 18 SOUTH	87000	15721	18.07	3635	1064	376	10645	23.12	6.77	2.39	67.71	3953	00E

Freeway Mainline and Ramp
Peak Hour Volumes

Freeway Volumes - AM Peak Hour

I-15 Southbound

	Existing (2014) Raw	Project P1 Total	Project 1806 DU Total	2017NP Total	2017WP Total	2035NP Total	2035WP 1806DU Total	McMillan Total	2035NP+McMillan Total	Project 1806 DU w/ Retail - McMillan Interaction (less external trips) Total	2035WP1806DU+McMillan Total
N of El Cerrito Road	3,859	29	166	4,095	4,124	7,610	7,776	31	7,641	166	7,807
SB Off Ramp at El Cerrito Road	332	0	0	373	373	770	770	0	770	0	770
Between	3,527	29	166	3,722	3,751	6,840	7,006	31	6,871	166	7,037
SB On Ramp at El Cerrito Road	403	0	0	444	444	732	732	0	732	0	732
Between	3,930	29	166	4,166	4,195	7,572	7,738	31	7,603	166	7,769
SB Off Ramp at Cajalco Road	470	29	166	499	528	602	768	31	633	166	799
Between	3,460	0	0	3,667	3,667	6,970	6,970	0	6,970	0	6,970
SB On Ramp at Cajalco Road	172	31	178	192	223	373	551	34	407	177	584
S of Cajalco Road	3,632	31	178	3,859	3,890	7,343	7,521	34	7,377	177	7,554

I-15 Northbound

	Existing (2013) Raw	Project P1 Total	Project 1806 DU Total	2017NP Total	2017WP Total	2035NP Total	2035WP 1806DU Total	McMillan Total	2035NP+McMillan Total	Project 1806 DU w/ Retail - McMillan Interaction (less external trips) Total	2035WP1806DU+McMillan Total
N of El Cerrito Road	6,939	86	475	7,342	7,428	10,790	11,265	92	10,882	474	11,356
NB On Ramp at El Cerrito Road	715	0	0	758	758	939	939	0	939	0	939
Between	6,224	86	475	6,584	6,670	9,851	10,326	92	9,943	474	10,417
NB Off Ramp at El Cerrito Road	434	0	0	467	467	664	664	0	664	0	664
Between	6,658	86	475	7,051	7,137	10,515	10,990	92	10,607	474	11,081
NB On Ramp at Cajalco Road	1,330	86	0	1,407	1,493	1,132	1,132	0	1,132	0	1,132
Between	5,328	0	475	5,644	5,644	9,383	9,858	92	9,475	474	9,949
NB Loop On-Ramp at Cajalco Road	0	0	475	0	0	362	837	92	454	474	928
Between	5,328	0	0	5,644	5,644	9,021	9,021	0	9,021	0	9,021
NB Slip Off- Ramp at Cajalco Road	133	10	69	151	161	336	405	11	347	68	415
South of Cajalco Road	5,461	10	69	5,795	5,805	9,357	9,426	11	9,368	68	9,436

PeMS Data for Week of March 4-6, 2014 (consistent with Interchange count data).
Flow Conserved Volumes
Freeway Mainline Truck %: Based on 2012 Annual Average Daily Truck Traffic (Source: Caltrans)
I-15 = 5.61 % >>> HCS Input = 6% (rounded value)
2035 Without Project Processed Model Volumes (2011 TIA).
Source: Arantine Hills Specific Plan Traffic Impact Analysis Report (August 11, 2011)
2017NP = Interpolate; Minimum Growth 6%

Freeway Volumes - PM Peak Hour

I-15 Southbound

	Existing (2014) Raw	Project P1 Total	Project 1806 DU Total	2017NP Total	2017WP Total	2035NP Total	2035WP 1806DU Total	McMillan WP Total	2035NP+McMillan Total	Project 1806 DU w/ Retail - McMillan Interaction (less external trips) Total	2035WP1806DU+McMillan Total
N of El Cerrito Road	5,223	97	529	5,543	5,640	8,824	9,353	104	8,928	527	9,455
SB Off Ramp at El Cerrito Road	368	0	0	407	407	686	686	0	686	0	686
Between	4,855	97	529	5,136	5,233	8,138	8,667	104	8,242	527	8,769
SB On Ramp at El Cerrito Road	793	0	0	843	843	1,022	1,022	0	1,022	0	1,022
Between	5,648	97	529	5,979	6,076	9,160	9,689	104	9,264	527	9,791
SB Off Ramp at Cajalco Road	779	97	529	829	926	931	1,460	104	1,035	527	1,562
Between	4,869	0	0	5,150	5,150	8,229	8,229	0	8,229	0	8,229
SB On Ramp at Cajalco Road	574	20	145	610	630	632	777	22	654	142	796
S of Cajalco Road	5,443	20	145	5,760	5,780	8,861	9,006	22	8,883	142	9,025

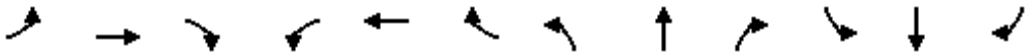
I-15 Northbound

	Existing (2013) Raw	Project P1 Total	Project 1806 DU Total	2017NP Total	2017WP Total	2035NP Total	2035WP 1806DU Total	McMillan Total	2035NP+McMillan Total	Project 1806 DU w/ Retail - McMillan Interaction (less external trips) Total	2035WP1806DU+McMillan Total
N of El Cerrito Road	4,532	57	337	4,807	4,864	10,818	11,155	61	10,879	332	11,211
NB On Ramp at El Cerrito Road	292	0	0	322	322	586	586	0	586	0	586
Between	4,240	57	337	4,485	4,542	10,232	10,569	61	10,293	332	10,625
NB Off Ramp at El Cerrito Road	338	0	0	361	361	532	532	0	532	0	532
Between	4,578	57	337	4,846	4,903	10,764	11,101	61	10,825	332	11,157
NB On Ramp at Cajalco Road	647	57	0	689	746	507	507	0	507	0	507
Between	3,931	0	337	4,157	4,157	10,257	10,594	61	10,318	332	10,650
NB Loop On-Ramp at Cajalco Road	0	0	337	0	0	257	594	61	318	332	650
Between	3,931	0	0	4,157	4,157	10,000	10,000	0	10,000	0	10,000
NB Slip Off- Ramp at Cajalco Road	310	35	218	344	379	592	810	38	630	217	847
South of Cajalco Road	4,241	35	218	4,501	4,536	10,592	10,810	38	10,630	217	10,847

PeMS Data for Week of March 4-6, 2014 (consistent with Interchange count data).
Flow Conserved Volumes
Freeway Mainline Truck %: Based on 2012 Annual Average Daily Truck Traffic (Source: Caltrans)
I-15 = 5.61 % >>> HCS Input = 6% (rounded value)
2035 Without Project Processed Model Volumes (2011 TIA).
Source: Arantine Hills Specific Plan Traffic Impact Analysis Report (August 11, 2011)
2017NP = Interpolate; Minimum Growth 6%

APPENDIX 2.3:

EXISTING (2014 AND 2015) INTERSECTION OPERATIONS ANALYSIS WORKSHEETS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	142	58	106	78	145	73	222	222	174	112	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	36
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	142	58	0	106	78	145	0	73	222	222
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	163	67	0	122	90	167	0	84	255	255
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	23.2	15.7	63.1
HCM LOS	C	C	F

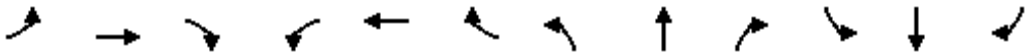
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	50%	0%	71%	0%	100%	0%	0%	97%
Vol Right, %	0%	50%	0%	29%	0%	0%	100%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	444	4	200	106	78	145	174	115
LT Vol	73	0	4	0	106	0	0	174	0
Through Vol	0	222	0	142	0	78	0	0	112
RT Vol	0	222	0	58	0	0	145	0	3
Lane Flow Rate	84	510	5	230	122	90	167	200	132
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.207	1	0.012	0.576	0.318	0.222	0.38	0.52	0.325
Departure Headway (Hd)	8.893	8.022	9.718	9.02	9.405	8.906	8.208	9.363	8.846
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	403	454	368	400	383	403	438	386	406
Service Time	6.668	5.796	7.472	6.774	7.155	6.657	5.959	7.118	6.601
HCM Lane V/C Ratio	0.208	1.123	0.014	0.575	0.319	0.223	0.381	0.518	0.325
HCM Control Delay	14	71.2	12.6	23.4	16.5	14.2	15.9	21.9	15.8
HCM Lane LOS	B	F	B	C	C	B	C	C	C
HCM 95th-tile Q	0.8	12.9	0	3.5	1.3	0.8	1.7	2.9	1.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	174	112	3
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	200	129	3
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	19.5
HCM LOS	C

Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	8	29	10	2	29	6	111	12	21	133	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			615	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	40	8	29	0	10	2	29	0	6	111	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	42	8	31	0	11	2	31	0	6	117	13
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.2	7.7	8.7
HCM LOS	A	A	A

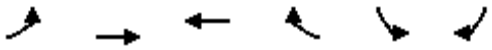
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	24%	100%	0%
Vol Thru, %	0%	90%	10%	5%	0%	93%
Vol Right, %	0%	10%	38%	71%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	123	77	41	21	143
LT Vol	6	0	40	10	21	0
Through Vol	0	111	8	2	0	133
RT Vol	0	12	29	29	0	10
Lane Flow Rate	6	129	81	43	22	151
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.01	0.176	0.104	0.053	0.033	0.205
Departure Headway (Hd)	5.478	4.907	4.615	4.411	5.442	4.891
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	655	733	778	812	659	735
Service Time	3.2	2.629	2.636	2.435	3.164	2.613
HCM Lane V/C Ratio	0.009	0.176	0.104	0.053	0.033	0.205
HCM Control Delay	8.3	8.7	8.2	7.7	8.4	8.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	0.6	0.3	0.2	0.1	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	21	133	10
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	140	11
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	17	302	242	115	127	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	17	302	0	242	115	0	127	9
Peak Hour Factor	0.95	0.73	0.73	0.95	0.73	0.73	0.95	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	414	0	332	158	0	174	12
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	11	13	14.1
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	41%	0%	0%
Vol Right, %	0%	0%	0%	0%	59%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	151	151	161	196	127	9
LT Vol	17	0	0	0	0	127	0
Through Vol	0	151	151	161	81	0	0
RT Vol	0	0	0	0	115	0	9
Lane Flow Rate	23	207	207	221	268	174	12
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.045	0.37	0.269	0.384	0.435	0.363	0.022
Departure Headway (Hd)	6.937	6.431	4.674	6.259	5.843	7.502	6.291
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	515	558	763	572	614	478	566
Service Time	4.697	4.19	2.432	4.016	3.599	5.27	4.059
HCM Lane V/C Ratio	0.045	0.371	0.271	0.386	0.436	0.364	0.021
HCM Control Delay	10	13	9.2	12.9	13.1	14.5	9.2
HCM Lane LOS	A	B	A	B	B	B	A
HCM 95th-tile Q	0.1	1.7	1.1	1.8	2.2	1.6	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	764	74	75	679	308	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Right Turn on Red		Yes				Yes
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	56.0		18.0	74.0	46.0	46.0
Total Split (%)	46.7%		15.0%	61.7%	38.3%	38.3%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

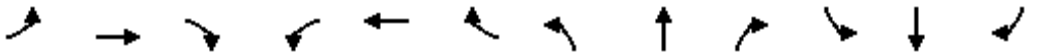
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	764	74	75	679	308	201
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	955	92	94	849	385	251
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1580	152	117	2065	621	554
Arrive On Green	0.48	0.48	0.13	1.00	0.35	0.35
Sat Flow, veh/h	3356	314	1774	3632	1774	1583
Grp Volume(v), veh/h	518	529	94	849	385	251
Grp Sat Flow(s),veh/h/ln	1770	1807	1774	1770	1774	1583
Q Serve(g_s), s	25.6	25.6	6.2	0.0	21.6	14.7
Cycle Q Clear(g_c), s	25.6	25.6	6.2	0.0	21.6	14.7
Prop In Lane		0.17	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	857	875	117	2065	621	554
V/C Ratio(X)	0.60	0.60	0.81	0.41	0.62	0.45
Avail Cap(c_a), veh/h	857	875	207	2065	621	554
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	22.6	22.6	51.4	0.0	32.4	30.1
Incr Delay (d2), s/veh	3.2	3.1	11.6	0.6	4.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	13.3	13.5	3.4	0.2	11.4	6.8
LnGrp Delay(d),s/veh	25.7	25.7	62.9	0.6	37.0	32.8
LnGrp LOS	C	C	E	A	D	C
Approach Vol, veh/h	1047			943	636	
Approach Delay, s/veh	25.7			6.8	35.3	
Approach LOS	C			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.9	62.1				74.0		46.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.0	52.0				70.0		42.0
Max Q Clear Time (g_c+I1), s	8.2	27.6				2.0		23.6
Green Ext Time (p_c), s	0.1	13.6				20.2		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	3	30	2	1	1	16	144	5	4	55	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	81	3	30	0	2	1	1	0	16	144	5
Peak Hour Factor	0.95	0.83	0.83	0.83	0.95	0.83	0.83	0.83	0.95	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	98	4	36	0	2	1	1	0	19	173	6
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9	8.5	9.3
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	96%	0%	50%	7%	0%
Vol Thru, %	0%	97%	4%	0%	25%	93%	0%
Vol Right, %	0%	3%	0%	100%	25%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	149	84	30	4	59	27
LT Vol	16	0	81	0	2	4	0
Through Vol	0	144	3	0	1	55	0
RT Vol	0	5	0	30	1	0	27
Lane Flow Rate	19	180	101	36	5	71	33
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.03	0.249	0.162	0.046	0.007	0.102	0.04
Departure Headway (Hd)	5.522	4.997	5.763	4.576	5.421	5.146	4.408
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	649	720	623	782	659	697	813
Service Time	3.245	2.719	3.493	2.306	3.461	2.871	2.133
HCM Lane V/C Ratio	0.029	0.25	0.162	0.046	0.008	0.102	0.041
HCM Control Delay	8.4	9.4	9.6	7.5	8.5	8.5	7.3
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	1	0.6	0.1	0	0.3	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	55	27
Peak Hour Factor	0.95	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	66	33
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.1
HCM LOS	A

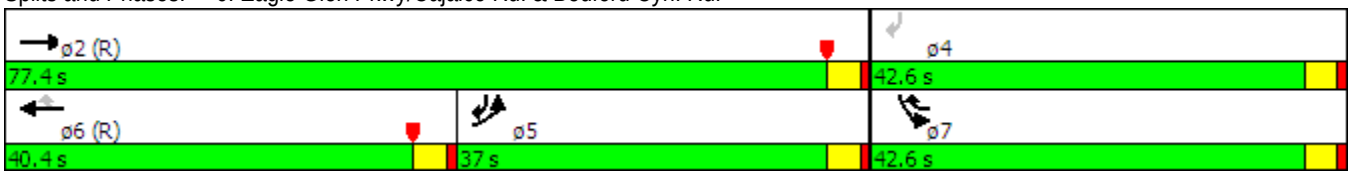
Lane

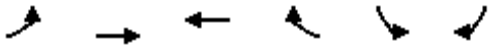
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø4
Lane Configurations							
Volume (vph)	74	355	226	201	146	131	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	180			200	450	0	
Storage Lanes	1			2	0	1	
Taper Length (ft)	100				180		
Right Turn on Red				Yes		Yes	
Link Speed (mph)		45	45		45		
Link Distance (ft)		930	785		651		
Travel Time (s)		14.1	11.9		9.9		
Confl. Peds. (#/hr)				5		5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Shared Lane Traffic (%)							
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	5	2	6	7	7	5	4
Permitted Phases				6		4	
Detector Phase	5	2	6	7	7	5	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	30.7	30.7	8.5	8.5	26.0	36.7
Total Split (s)	37.0	77.4	40.4	42.6	42.6	37.0	42.6
Total Split (%)	30.8%	64.5%	33.7%	35.5%	35.5%	30.8%	36%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag		Lead			Lag	
Lead-Lag Optimize?	Yes		Yes			Yes	
Recall Mode	None	C-Max	C-Max	Max	Max	None	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	74	355	226	201	146	131
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	87	418	266	236	172	154
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	488	1139	1074	986	571	945
Arrive On Green	0.28	0.61	0.61	0.61	0.32	0.32
Sat Flow, veh/h	1774	1863	3632	1570	1774	1583
Grp Volume(v), veh/h	87	418	266	236	172	154
Grp Sat Flow(s),veh/h/ln	1774	1863	1770	1570	1774	1583
Q Serve(g_s), s	4.5	13.5	4.2	0.0	8.7	0.0
Cycle Q Clear(g_c), s	4.5	13.5	4.2	0.0	8.7	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	488	1139	1074	986	571	945
V/C Ratio(X)	0.18	0.37	0.25	0.24	0.30	0.16
Avail Cap(c_a), veh/h	488	1139	1074	986	571	945
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.89	0.89	1.00	1.00
Uniform Delay (d), s/veh	33.2	11.7	17.3	3.5	30.6	10.8
Incr Delay (d2), s/veh	0.2	0.9	0.5	0.5	1.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.2	7.1	2.1	8.0	4.5	5.2
LnGrp Delay(d),s/veh	33.3	12.6	17.8	4.0	31.9	11.2
LnGrp LOS	C	B	B	A	C	B
Approach Vol, veh/h		505	502		326	
Approach Delay, s/veh		16.2	11.3		22.1	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.4		42.6	37.0	40.4		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		73.4		38.6	33.0	36.4		
Max Q Clear Time (g_c+I1), s		15.5		10.7	6.5	6.2		
Green Ext Time (p_c), s		2.0		1.3	1.9	2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	703	262	137	531	0	0	0	0	105	4	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		65.0		26.0	91.0					29.0	29.0	29.0
Total Split (%)		54.2%		21.7%	75.8%					24.2%	24.2%	24.2%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 26 (22%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	703	262	137	531	0	0	0	0	105	4	223
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	890	332	173	672	0				133	5	282
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79				0.79	0.79	0.79
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1458	542	204	2566	0				357	13	330
Arrive On Green	0.00	1.00	1.00	0.08	0.49	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	2621	939	1774	3632	0				1713	64	1583
Grp Volume(v), veh/h	0	622	600	173	672	0				138	0	282
Grp Sat Flow(s),veh/h/ln	0	1770	1697	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	0.0	0.0	11.6	13.4	0.0				8.0	0.0	20.6
Cycle Q Clear(g_c), s	0.0	0.0	0.0	11.6	13.4	0.0				8.0	0.0	20.6
Prop In Lane	0.00		0.55	1.00		0.00				0.96		1.00
Lane Grp Cap(c), veh/h	0	1021	979	204	2566	0				370	0	330
V/C Ratio(X)	0.00	0.61	0.61	0.85	0.26	0.00				0.37	0.00	0.85
Avail Cap(c_a), veh/h	0	1021	979	325	2566	0				370	0	330
HCM Platoon Ratio	1.00	2.00	2.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.77	0.77	0.48	0.48	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	54.4	11.9	0.0				40.8	0.0	45.8
Incr Delay (d2), s/veh	0.0	2.1	2.2	5.9	0.1	0.0				2.9	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.6	0.6	6.0	6.6	0.0				4.2	0.0	11.2
LnGrp Delay(d),s/veh	0.0	2.1	2.2	60.2	12.1	0.0				43.6	0.0	69.4
LnGrp LOS		A	A	E	B					D		E
Approach Vol, veh/h		1222			845						420	
Approach Delay, s/veh		2.1			21.9						60.9	
Approach LOS		A			C						E	

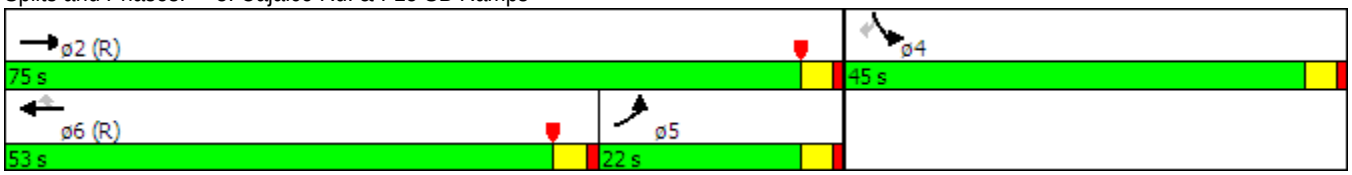
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	17.8	73.2		29.0		91.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	22.0	61.0		25.0		87.0		
Max Q Clear Time (g_c+I1), s	13.6	2.0		22.6		15.4		
Green Ext Time (p_c), s	0.3	19.6		0.4		20.4		

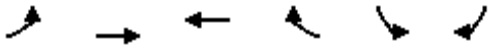
Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	99	402	366	73	297	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	22.0	75.0	53.0	53.0	45.0	45.0
Total Split (%)	18.3%	62.5%	44.2%	44.2%	37.5%	37.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	99	402	366	73	297	173
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	110	447	407	81	330	192
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	266	1102	761	647	606	541
Arrive On Green	0.30	1.00	0.13	0.13	0.34	0.34
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	110	447	407	81	330	192
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	5.9	0.0	24.4	5.4	18.1	10.9
Cycle Q Clear(g_c), s	5.9	0.0	24.4	5.4	18.1	10.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	266	1102	761	647	606	541
V/C Ratio(X)	0.41	0.41	0.54	0.13	0.54	0.35
Avail Cap(c_a), veh/h	266	1102	761	647	606	541
HCM Platoon Ratio	2.00	2.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	37.8	0.0	41.3	33.1	31.9	29.6
Incr Delay (d2), s/veh	1.0	1.1	2.6	0.4	3.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.9	0.3	13.2	2.4	9.4	10.8
LnGrp Delay(d),s/veh	38.8	1.1	43.9	33.4	35.4	31.4
LnGrp LOS	D	A	D	C	D	C
Approach Vol, veh/h		557	488		522	
Approach Delay, s/veh		8.5	42.1		34.0	
Approach LOS		A	D		C	

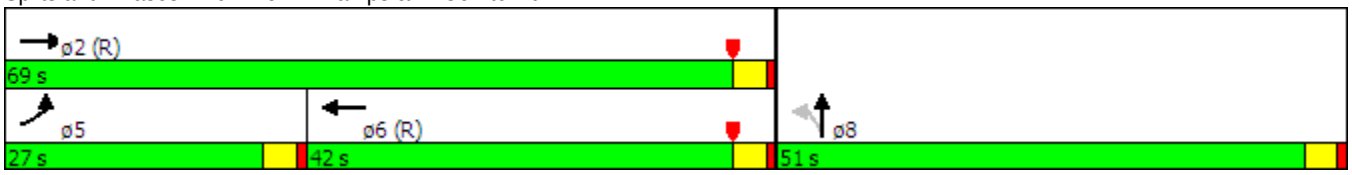
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		75.0		45.0	22.0	53.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		71.0		41.0	18.0	49.0		
Max Q Clear Time (g_c+I1), s		2.0		20.1	7.9	26.4		
Green Ext Time (p_c), s		2.2		2.0	1.6	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	27.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	418	390	0	0	409	296	259	1	174	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	27.0	69.0			42.0		51.0	51.0				
Total Split (%)	22.5%	57.5%			35.0%		42.5%	42.5%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 99 (83%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	418	390	0	0	409	296	259	1	174	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	565	527	0	0	553	400	350	1	235			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	617	1009	0	0	646	467	396	1	266			
Arrive On Green	0.30	0.90	0.00	0.00	0.33	0.33	0.39	0.39	0.39			
Sat Flow, veh/h	3442	1863	0	0	2056	1419	1011	3	679			
Grp Volume(v), veh/h	565	527	0	0	499	454	586	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1612	1692	0	0			
Q Serve(g_s), s	19.0	6.1	0.0	0.0	31.6	31.6	38.7	0.0	0.0			
Cycle Q Clear(g_c), s	19.0	6.1	0.0	0.0	31.6	31.6	38.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.88	0.60		0.40			
Lane Grp Cap(c), veh/h	617	1009	0	0	583	531	663	0	0			
V/C Ratio(X)	0.92	0.52	0.00	0.00	0.86	0.86	0.88	0.00	0.00			
Avail Cap(c_a), veh/h	660	1009	0	0	583	531	663	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.72	0.72	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.2	2.9	0.0	0.0	37.6	37.6	34.0	0.0	0.0			
Incr Delay (d2), s/veh	13.2	1.4	0.0	0.0	14.9	16.1	15.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	10.2	3.3	0.0	0.0	17.8	16.4	21.0	0.0	0.0			
LnGrp Delay(d),s/veh	54.4	4.3	0.0	0.0	52.5	53.7	49.8	0.0	0.0			
LnGrp LOS	D	A			D	D	D					
Approach Vol, veh/h		1092			953			586				
Approach Delay, s/veh		30.2			53.1			49.8				
Approach LOS		C			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.0			25.5	43.5		51.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		65.0			23.0	38.0		47.0
Max Q Clear Time (g_c+I1), s		8.1			21.0	33.6		40.7
Green Ext Time (p_c), s		12.5			0.5	3.1		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.9
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	297	402	0	0	354	1029	85	4	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	27.0	108.2			81.2	81.2	11.8	11.8	11.8			
Total Split (%)	22.5%	90.2%			67.7%	67.7%	9.8%	9.8%	9.8%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	297	402	0	0	354	1029	85	4	44	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	323	437	0	0	385	1118	92	4	48			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	340	1617	0	0	1198	1019	111	5	101			
Arrive On Green	0.38	1.00	0.00	0.00	0.64	0.64	0.07	0.07	0.07			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1704	74	1547			
Grp Volume(v), veh/h	323	437	0	0	385	1118	96	0	48			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1778	0	1547			
Q Serve(g_s), s	21.2	0.0	0.0	0.0	11.2	77.2	6.4	0.0	3.6			
Cycle Q Clear(g_c), s	21.2	0.0	0.0	0.0	11.2	77.2	6.4	0.0	3.6			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	340	1617	0	0	1198	1019	116	0	101			
V/C Ratio(X)	0.95	0.27	0.00	0.00	0.32	1.10	0.83	0.00	0.48			
Avail Cap(c_a), veh/h	340	1617	0	0	1198	1019	116	0	101			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.88	0.88	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.4	0.0	0.0	0.0	9.6	21.4	55.4	0.0	54.1			
Incr Delay (d2), s/veh	33.1	0.4	0.0	0.0	0.7	58.8	47.2	0.0	15.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	13.4	0.2	0.0	0.0	5.9	50.0	4.7	0.0	2.0			
LnGrp Delay(d),s/veh	69.5	0.4	0.0	0.0	10.3	80.2	102.7	0.0	69.5			
LnGrp LOS	E	A			B	F	F		E			
Approach Vol, veh/h		760			1503			144				
Approach Delay, s/veh		29.8			62.3			91.6				
Approach LOS		C			E			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		108.2			27.0	81.2		11.8
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		104.2			23.0	77.2		7.8
Max Q Clear Time (g_c+I1), s		2.0			23.2	79.2		8.4
Green Ext Time (p_c), s		13.3			0.0	0.0		0.0

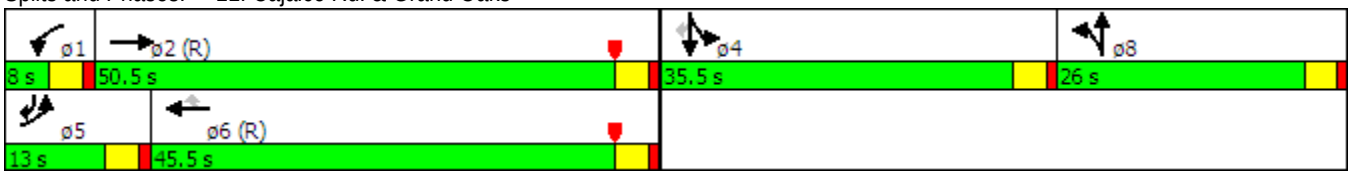
Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	127	319	0	0	1283	47	0	0	0	23	0	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			1043			544			904	
Travel Time (s)		10.6			15.8			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	13.0	50.5		8.0	45.5	45.5	26.0	26.0		35.5	35.5	13.0
Total Split (%)	10.8%	42.1%		6.7%	37.9%	37.9%	21.7%	21.7%		29.6%	29.6%	10.8%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 8 (7%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	127	319	0	0	1283	47	0	0	0	23	0	97
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	140	351	0	0	1410	52	0	0	0	25	0	107
Adj No. of Lanes	2	2	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	2374	0	1	2953	917	0	2	0	466	0	886
Arrive On Green	0.06	0.67	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	3632	0	1774	5085	1579	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	140	351	0	0	1410	52	0	0	0	25	0	107
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1695	1579	0	1863	0	1774	0	1385
Q Serve(g_s), s	4.8	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	3.3
Cycle Q Clear(g_c), s	4.8	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	3.3
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	2374	0	1	2953	917	0	2	0	466	0	886
V/C Ratio(X)	0.71	0.15	0.00	0.00	0.48	0.06	0.00	0.00	0.00	0.05	0.00	0.12
Avail Cap(c_a), veh/h	258	2374	0	59	2953	917	0	342	0	466	0	886
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.69	0.69	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.1	0.0	28.9
Incr Delay (d2), s/veh	6.2	0.1	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.4	2.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.6	0.0	1.3
LnGrp Delay(d),s/veh	61.8	7.3	0.0	0.0	0.4	0.1	0.0	0.0	0.0	33.3	0.0	29.2
LnGrp LOS	E	A			A	A				C		C
Approach Vol, veh/h		491			1462			0			132	
Approach Delay, s/veh		22.9			0.4			0.0			30.0	
Approach LOS		C			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	84.5		35.5	10.8	73.7		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	9.0	41.5		22.0
Max Q Clear Time (g_c+I1), s	0.0	6.3		5.3	6.8	2.0		0.0
Green Ext Time (p_c), s	0.0	11.5		0.6	0.1	11.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	172	153	57	461	124	829	581	291	53	62	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1043			935			1167			432	
Travel Time (s)		15.8			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	10.0	30.0	30.0	13.0	33.0		50.0	39.5	39.5	37.5	27.0	
Total Split (%)	8.3%	25.0%	25.0%	10.8%	27.5%		41.7%	32.9%	32.9%	31.3%	22.5%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

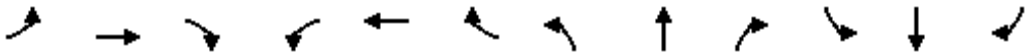
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	172	153	57	461	124	829	581	291	53	62	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	19	193	172	64	518	139	931	653	327	60	70	45
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	601	509	82	1419	371	1053	1603	746	79	409	242
Arrive On Green	0.03	0.65	0.65	0.05	0.35	0.35	0.31	0.45	0.45	0.04	0.19	0.19
Sat Flow, veh/h	1774	1863	1576	1774	4014	1049	3442	3539	1647	1774	2136	1262
Grp Volume(v), veh/h	19	193	172	64	435	222	931	653	327	60	57	58
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1672	1721	1770	1647	1774	1770	1628
Q Serve(g_s), s	1.3	5.6	5.9	4.3	11.4	11.9	30.9	14.9	16.3	4.0	3.2	3.6
Cycle Q Clear(g_c), s	1.3	5.6	5.9	4.3	11.4	11.9	30.9	14.9	16.3	4.0	3.2	3.6
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	28	601	509	82	1199	591	1053	1603	746	79	339	312
V/C Ratio(X)	0.68	0.32	0.34	0.78	0.36	0.37	0.88	0.41	0.44	0.76	0.17	0.19
Avail Cap(c_a), veh/h	89	601	509	133	1199	591	1319	1603	746	495	339	312
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	15.4	15.5	56.6	28.8	28.9	39.6	22.0	22.4	56.7	40.5	40.7
Incr Delay (d2), s/veh	25.6	1.4	1.8	14.5	0.9	1.8	6.3	0.8	1.9	13.9	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	3.0	2.8	2.4	5.5	5.8	15.5	7.4	7.8	2.3	1.7	1.7
LnGrp Delay(d),s/veh	83.5	16.8	17.2	71.1	29.6	30.7	45.9	22.8	24.3	70.6	41.6	42.0
LnGrp LOS	F	B	B	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		384			721			1911			175	
Approach Delay, s/veh		20.3			33.6			34.3			51.6	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	42.7	40.7	27.0	5.9	46.4	9.3	58.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	26.0	46.0	23.0	6.0	29.0	33.5	35.5
Max Q Clear Time (g_c+I1), s	6.3	7.9	32.9	5.6	3.3	13.9	6.0	18.3
Green Ext Time (p_c), s	0.0	4.1	3.8	4.6	0.0	3.9	0.2	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	487	45	11	256	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	32.4
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	20	0	9	6	19	0	31	487	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	26	0	12	8	24	0	40	624	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10	9.9	44.5
HCM LOS	A	A	E

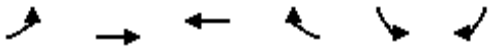
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	26%	100%	0%
Vol Thru, %	0%	92%	18%	18%	0%	97%
Vol Right, %	0%	8%	53%	56%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	532	38	34	11	265
LT Vol	31	0	11	9	11	0
Through Vol	0	487	7	6	0	256
RT Vol	0	45	20	19	0	9
Lane Flow Rate	40	682	49	44	14	340
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.062	0.959	0.086	0.077	0.023	0.511
Departure Headway (Hd)	5.626	5.063	6.35	6.343	5.944	5.415
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	632	709	567	568	596	659
Service Time	3.407	2.844	4.354	4.347	3.743	3.213
HCM Lane V/C Ratio	0.063	0.962	0.086	0.077	0.023	0.516
HCM Control Delay	8.8	46.6	10	9.9	8.9	13.8
HCM Lane LOS	A	E	A	A	A	B
HCM 95th-tile Q	0.2	14.2	0.3	0.2	0.1	2.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	256	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	328	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	13.6
HCM LOS	B

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	204	403	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

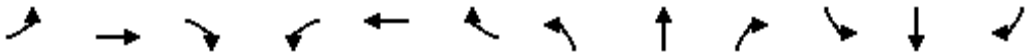
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	204	0	403	2	0	13	24
Peak Hour Factor	0.95	0.78	0.78	0.95	0.78	0.78	0.95	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	262	0	517	3	0	17	31
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	10.5	15.2	8.8
HCM LOS	B	C	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	35%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	65%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	204	405	37
LT Vol	7	0	0	13
Through Vol	0	204	403	0
RT Vol	0	0	2	24
Lane Flow Rate	9	262	519	47
Geometry Grp	7	7	5	2
Degree of Util (X)	0.014	0.365	0.644	0.071
Departure Headway (Hd)	5.528	5.025	4.467	5.369
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	648	717	810	665
Service Time	3.258	2.755	2.491	3.422
HCM Lane V/C Ratio	0.014	0.365	0.641	0.071
HCM Control Delay	8.3	10.6	15.2	8.8
HCM Lane LOS	A	B	C	A
HCM 95th-tile Q	0	1.7	4.8	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	137	63	35	204	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	137	63	0	35	204	4	0	147	1	75
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	176	81	0	45	262	5	0	188	1	96
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	12	12.2	12.5
HCM LOS	B	B	B

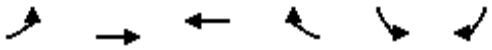
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	69%	0%	98%	9%
Vol Right, %	34%	0%	32%	0%	2%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	3	200	35	208	11
LT Vol	147	3	0	35	0	5
Through Vol	1	0	137	0	204	1
RT Vol	75	0	63	0	4	5
Lane Flow Rate	286	4	256	45	267	14
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.43	0.007	0.399	0.078	0.425	0.023
Departure Headway (Hd)	5.417	6.337	5.607	6.258	5.738	5.863
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	666	565	644	573	629	609
Service Time	3.449	4.067	3.336	3.986	3.466	3.912
HCM Lane V/C Ratio	0.429	0.007	0.398	0.079	0.424	0.023
HCM Control Delay	12.5	9.1	12	9.5	12.7	9.1
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	2.2	0	1.9	0.3	2.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	6	1	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.1
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	349	280	4	5	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				60	
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

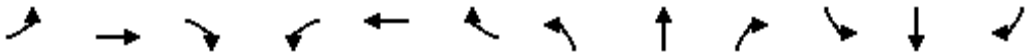
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	349	280	4	5	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	485	389	6	7	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	394	0	-	0	963	197
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	571	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1161	-	-	-	268	812
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	564	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1161	-	-	-	258	812
Mov Cap-2 Maneuver	-	-	-	-	258	-
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	543	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1161	-	-	-	258	812
HCM Lane V/C Ratio	0.037	-	-	-	0.027	0.065
HCM Control Delay (s)	8.2	-	-	-	19.3	9.7
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	81	288	198	88	25	55	61	121	28	101	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883				0.850		0.900			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1645	0	1770	1863	1583	1770	1676	0	1770	1861	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1645	0	1770	1863	1583	1770	1676	0	1770	1861	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	22.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	81	288	0	198	88	25	0	55	61	121
Peak Hour Factor	0.95	0.85	0.85	0.85	0.95	0.85	0.85	0.85	0.95	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	95	339	0	233	104	29	0	65	72	142
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	35.5	17.1	15.6
HCM LOS	E	C	C

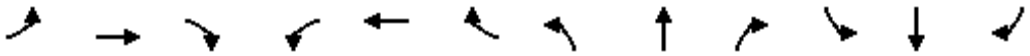
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	34%	0%	22%	0%	100%	0%	0%	99%
Vol Right, %	0%	66%	0%	78%	0%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	182	3	369	198	88	25	28	102
LT Vol	55	0	3	0	198	0	0	28	0
Through Vol	0	61	0	81	0	88	0	0	101
RT Vol	0	121	0	288	0	0	25	0	1
Lane Flow Rate	65	214	4	434	233	104	29	33	120
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.153	0.449	0.008	0.834	0.529	0.22	0.057	0.082	0.28
Departure Headway (Hd)	8.531	7.545	7.986	6.915	8.175	7.663	6.945	8.926	8.405
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	419	475	447	521	440	466	513	400	425
Service Time	6.318	5.331	5.762	4.691	5.96	5.448	4.73	6.723	6.202
HCM Lane V/C Ratio	0.155	0.451	0.009	0.833	0.53	0.223	0.057	0.083	0.282
HCM Control Delay	12.9	16.4	10.8	35.7	19.9	12.6	10.2	12.5	14.5
HCM Lane LOS	B	C	B	E	C	B	B	B	B
HCM 95th-tile Q	0.5	2.3	0	8.4	3	0.8	0.2	0.3	1.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	28	101	1
Peak Hour Factor	0.95	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	119	1
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.1
HCM LOS	B

Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	6	29	9	12	21	25	153	11	18	323	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.932			0.990			0.986	
Flt Protected		0.986			0.990		0.950			0.950		
Satd. Flow (prot)	0	1690	0	0	1719	0	1770	1844	0	1770	1837	0
Flt Permitted		0.986			0.990		0.950			0.950		
Satd. Flow (perm)	0	1690	0	0	1719	0	1770	1844	0	1770	1837	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	14	6	29	0	9	12	21	0	25	153	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	6	31	0	9	13	22	0	26	161	12
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.6	8.6	9.3
HCM LOS	A	A	A

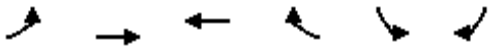
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	21%	100%	0%
Vol Thru, %	0%	93%	12%	29%	0%	91%
Vol Right, %	0%	7%	59%	50%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	164	49	42	18	355
LT Vol	25	0	14	9	18	0
Through Vol	0	153	6	12	0	323
RT Vol	0	11	29	21	0	32
Lane Flow Rate	26	173	52	44	19	374
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.041	0.242	0.073	0.063	0.029	0.507
Departure Headway (Hd)	5.606	5.055	5.098	5.151	5.45	4.885
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	638	710	700	693	657	736
Service Time	3.346	2.796	3.149	3.203	3.185	2.619
HCM Lane V/C Ratio	0.041	0.244	0.074	0.063	0.029	0.508
HCM Control Delay	8.6	9.4	8.6	8.6	8.3	12.6
HCM Lane LOS	A	A	A	A	A	B
HCM 95th-tile Q	0.1	0.9	0.2	0.2	0.1	2.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	18	323	32
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	19	340	34
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.4
HCM LOS	B

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	15	190	250	176	283	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.938			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3320	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3320	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	15	190	0	250	176	0	283	18
Peak Hour Factor	0.95	0.97	0.97	0.95	0.97	0.97	0.95	0.97	0.97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	196	0	258	181	0	292	19
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	9.8	12.4	17.5
HCM LOS	A	B	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	32%	0%	0%
Vol Right, %	0%	0%	0%	0%	68%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	95	95	167	259	283	18
LT Vol	15	0	0	0	0	283	0
Through Vol	0	95	95	167	83	0	0
RT Vol	0	0	0	0	176	0	18
Lane Flow Rate	15	98	98	172	267	292	19
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.031	0.184	0.136	0.299	0.429	0.559	0.029
Departure Headway (Hd)	7.26	6.751	4.986	6.266	5.783	6.894	5.689
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	492	530	715	572	620	522	628
Service Time	5.023	4.514	2.749	4.023	3.54	4.645	3.439
HCM Lane V/C Ratio	0.03	0.185	0.137	0.301	0.431	0.559	0.03
HCM Control Delay	10.3	11	8.5	11.7	12.9	18.1	8.6
HCM Lane LOS	B	B	A	B	B	C	A
HCM 95th-tile Q	0.1	0.7	0.5	1.2	2.1	3.4	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1017	203	146	468	163	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.975					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3451	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3451	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	30					105
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	68.0		24.0	92.0	28.0	28.0
Total Split (%)	56.7%		20.0%	76.7%	23.3%	23.3%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

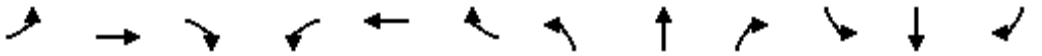
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55 (46%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1017	203	146	468	163	101
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1059	211	152	488	170	105
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1765	351	178	2595	355	317
Arrive On Green	0.60	0.60	0.20	1.00	0.20	0.20
Sat Flow, veh/h	3037	585	1774	3632	1774	1583
Grp Volume(v), veh/h	635	635	152	488	170	105
Grp Sat Flow(s),veh/h/ln	1770	1760	1774	1770	1774	1583
Q Serve(g_s), s	26.9	27.1	9.9	0.0	10.2	6.8
Cycle Q Clear(g_c), s	26.9	27.1	9.9	0.0	10.2	6.8
Prop In Lane		0.33	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1061	1055	178	2595	355	317
V/C Ratio(X)	0.60	0.60	0.85	0.19	0.48	0.33
Avail Cap(c_a), veh/h	1061	1055	296	2595	355	317
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	15.0	15.1	47.1	0.0	42.5	41.1
Incr Delay (d2), s/veh	2.5	2.5	11.6	0.2	4.6	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	13.8	13.8	5.4	0.1	5.5	3.2
LnGrp Delay(d),s/veh	17.5	17.6	58.7	0.2	47.0	43.9
LnGrp LOS	B	B	E	A	D	D
Approach Vol, veh/h	1270			640	275	
Approach Delay, s/veh	17.5			14.1	45.9	
Approach LOS	B			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.1	75.9				92.0		28.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	20.0	64.0				88.0		24.0
Max Q Clear Time (g_c+I1), s	11.9	29.1				2.0		12.2
Green Ext Time (p_c), s	0.2	15.3				18.9		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	1	22	1	1	2	31	134	7	7	236	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.932			0.992				0.850
Flt Protected		0.953			0.988		0.950				0.998	
Satd. Flow (prot)	0	1775	1583	0	1715	0	1770	1848	0	0	1859	1583
Flt Permitted		0.953			0.988		0.950				0.998	
Satd. Flow (perm)	0	1775	1583	0	1715	0	1770	1848	0	0	1859	1583
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	42	1	22	0	1	1	2	0	31	134	7
Peak Hour Factor	0.95	0.93	0.93	0.93	0.95	0.93	0.93	0.93	0.95	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	45	1	24	0	1	1	2	0	33	144	8
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.1	8.7	9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	25%	3%	0%
Vol Thru, %	0%	95%	2%	0%	25%	97%	0%
Vol Right, %	0%	5%	0%	100%	50%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	141	43	22	4	243	91
LT Vol	31	0	42	0	1	7	0
Through Vol	0	134	1	0	1	236	0
RT Vol	0	7	0	22	2	0	91
Lane Flow Rate	33	152	46	24	4	261	98
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.051	0.211	0.08	0.033	0.007	0.357	0.114
Departure Headway (Hd)	5.549	5.012	6.266	5.069	5.622	4.925	4.208
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	646	717	571	705	635	732	853
Service Time	3.275	2.738	4.005	2.808	3.666	2.645	1.928
HCM Lane V/C Ratio	0.051	0.212	0.081	0.034	0.006	0.357	0.115
HCM Control Delay	8.6	9.1	9.6	8	8.7	10.4	7.5
HCM Lane LOS	A	A	A	A	A	B	A
HCM 95th-tile Q	0.2	0.8	0.3	0.1	0	1.6	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	236	91
Peak Hour Factor	0.95	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	254	98
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.6
HCM LOS	A

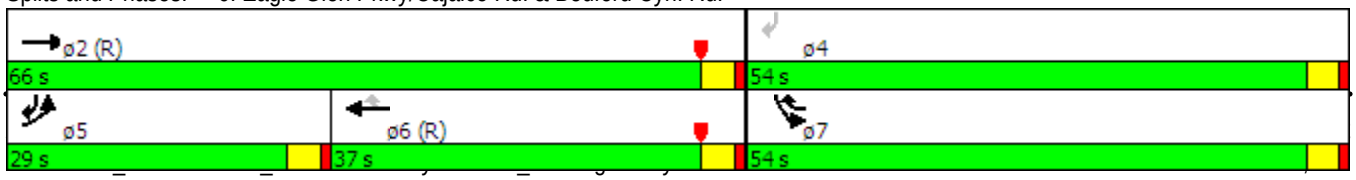
Lane

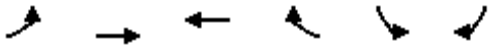
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø4
Lane Configurations							
Volume (vph)	50	423	324	77	369	102	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	180			200	450	0	
Storage Lanes	1			2	0	1	
Taper Length (ft)	100				180		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00	
Ped Bike Factor				0.98		0.98	
Frt				0.850		0.850	
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1863	3539	1583	1770	1583	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	1863	3539	1550	1770	1550	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)				81		107	
Link Speed (mph)		45	45		45		
Link Distance (ft)		930	785		651		
Travel Time (s)		14.1	11.9		9.9		
Confl. Peds. (#/hr)				5		5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Shared Lane Traffic (%)							
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	5	2	6	7	7	5	4
Permitted Phases				6		4	
Detector Phase	5	2	6	7	7	5	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	30.7	30.7	8.5	8.5	26.0	36.7
Total Split (s)	29.0	66.0	37.0	54.0	54.0	29.0	54.0
Total Split (%)	24.2%	55.0%	30.8%	45.0%	45.0%	24.2%	45%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag			Lead	
Lead-Lag Optimize?	Yes		Yes			Yes	
Recall Mode	None	C-Max	C-Max	Max	Max	None	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	50	423	324	77	369	102
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	53	445	341	81	388	107
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	69	962	1572	1359	739	722
Arrive On Green	0.04	0.52	0.15	0.15	0.42	0.42
Sat Flow, veh/h	1774	1863	3632	1574	1774	1583
Grp Volume(v), veh/h	53	445	341	81	388	107
Grp Sat Flow(s),veh/h/ln	1774	1863	1770	1574	1774	1583
Q Serve(g_s), s	3.6	18.2	10.2	1.3	19.6	4.7
Cycle Q Clear(g_c), s	3.6	18.2	10.2	1.3	19.6	4.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	69	962	1572	1359	739	722
V/C Ratio(X)	0.76	0.46	0.22	0.06	0.52	0.15
Avail Cap(c_a), veh/h	370	962	1572	1359	739	722
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	57.1	18.4	32.8	1.9	26.1	19.1
Incr Delay (d2), s/veh	15.8	1.6	0.3	0.1	2.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.0	9.7	5.1	3.3	10.1	5.6
LnGrp Delay(d),s/veh	72.9	20.0	33.1	2.0	28.8	19.5
LnGrp LOS	E	C	C	A	C	B
Approach Vol, veh/h		498	422		495	
Approach Delay, s/veh		25.6	27.1		26.8	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		66.0		54.0	8.7	57.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		62.0		50.0	25.0	33.0		
Max Q Clear Time (g_c+I1), s		20.2		21.6	5.6	12.2		
Green Ext Time (p_c), s		3.8		2.0	0.1	3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	437	681	77	422	0	0	0	0	141	35	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.909										0.850
Flt Protected				0.950							0.962	
Satd. Flow (prot)	0	3217	0	1770	3539	0	0	0	0	0	1792	1583
Flt Permitted				0.950							0.962	
Satd. Flow (perm)	0	3217	0	1770	3539	0	0	0	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		501										202
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		68.0		20.0	88.0					32.0	32.0	32.0
Total Split (%)		56.7%		16.7%	73.3%					26.7%	26.7%	26.7%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 50 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	437	681	77	422	0	0	0	0	141	35	192
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	460	717	81	444	0				148	37	202
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1078	964	102	2477	0				334	84	369
Arrive On Green	0.00	0.41	0.41	0.12	1.00	0.00				0.23	0.23	0.23
Sat Flow, veh/h	0	1863	1583	1774	3632	0				1433	358	1583
Grp Volume(v), veh/h	0	460	717	81	444	0				185	0	202
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	22.4	46.2	5.3	0.0	0.0				10.6	0.0	13.5
Cycle Q Clear(g_c), s	0.0	22.4	46.2	5.3	0.0	0.0				10.6	0.0	13.5
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1078	964	102	2477	0				418	0	369
V/C Ratio(X)	0.00	0.43	0.74	0.79	0.18	0.00				0.44	0.00	0.55
Avail Cap(c_a), veh/h	0	1078	964	237	2477	0				418	0	369
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.76	0.76	0.98	0.98	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.5	27.6	52.4	0.0	0.0				39.3	0.0	40.4
Incr Delay (d2), s/veh	0.0	0.9	4.0	12.5	0.2	0.0				3.4	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	11.3	21.2	3.0	0.1	0.0				5.6	0.0	6.5
LnGrp Delay(d),s/veh	0.0	21.4	31.5	64.8	0.2	0.0				42.7	0.0	46.1
LnGrp LOS		C	C	E	A					D		D
Approach Vol, veh/h		1177			525						387	
Approach Delay, s/veh		27.6			10.1						44.5	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.9	77.1		32.0		88.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	16.0	64.0		28.0		84.0		
Max Q Clear Time (g_c+I1), s	7.3	48.2		15.5		2.0		
Green Ext Time (p_c), s	0.1	9.2		1.3		16.6		

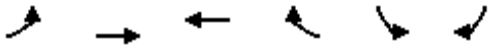
Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	319	473	361	255	519	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	*1.00	1.00
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1542
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				263		268
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	33.0	70.0	37.0	37.0	50.0	50.0
Total Split (%)	27.5%	58.3%	30.8%	30.8%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 93 (78%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

* User Entered Value

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	319	473	361	255	519	260
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	329	488	372	263	535	268
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	364	1025	580	493	680	607
Arrive On Green	0.07	0.18	0.10	0.10	0.38	0.38
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	329	488	372	263	535	268
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	22.1	28.2	23.0	18.9	32.0	15.1
Cycle Q Clear(g_c), s	22.1	28.2	23.0	18.9	32.0	15.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	364	1025	580	493	680	607
V/C Ratio(X)	0.90	0.48	0.64	0.53	0.79	0.44
Avail Cap(c_a), veh/h	429	1025	580	493	680	607
HCM Platoon Ratio	0.33	0.33	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	54.7	33.6	47.4	45.6	32.7	27.5
Incr Delay (d2), s/veh	17.9	1.4	4.7	3.5	8.9	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	12.7	15.0	12.6	8.8	17.3	14.8
LnGrp Delay(d),s/veh	72.6	35.0	52.1	49.1	41.6	29.8
LnGrp LOS	E	C	D	D	D	C
Approach Vol, veh/h		817	635		803	
Approach Delay, s/veh		50.1	50.8		37.7	
Approach LOS		D	D		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		70.0		50.0	28.7	41.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		66.0		46.0	29.0	33.0		
Max Q Clear Time (g_c+I1), s		30.2		34.0	24.1	25.0		
Green Ext Time (p_c), s		5.0		2.8	0.6	3.0		

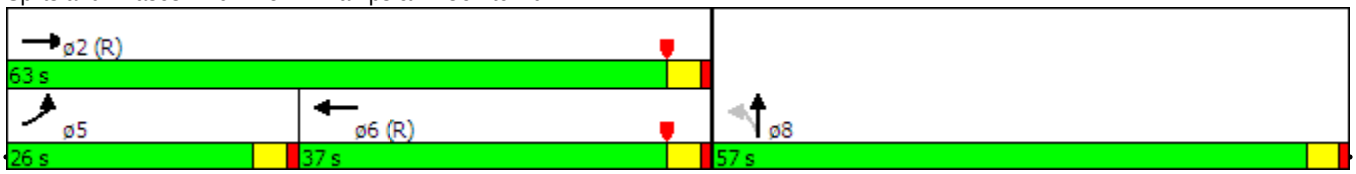
Intersection Summary	
HCM 2010 Ctrl Delay	45.9
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	230	348	0	0	220	55	279	7	52	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.970			0.979				
Flt Protected	0.950							0.960				
Satd. Flow (prot)	3433	1863	0	0	3433	0	0	1751	0	0	0	0
Flt Permitted	0.950							0.960				
Satd. Flow (perm)	3433	1863	0	0	3433	0	0	1751	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25			10				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	26.0	63.0			37.0		57.0	57.0				
Total Split (%)	21.7%	52.5%			30.8%		47.5%	47.5%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 45 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	348	0	0	220	55	279	7	52	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	242	366	0	0	232	58	294	7	55			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	309	916	0	0	1039	255	636	15	119			
Arrive On Green	0.12	0.65	0.00	0.00	0.37	0.37	0.44	0.44	0.44			
Sat Flow, veh/h	3442	1863	0	0	2913	691	1440	34	269			
Grp Volume(v), veh/h	242	366	0	0	144	146	356	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1741	1743	0	0			
Q Serve(g_s), s	8.2	11.0	0.0	0.0	6.7	6.9	17.2	0.0	0.0			
Cycle Q Clear(g_c), s	8.2	11.0	0.0	0.0	6.7	6.9	17.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.40	0.83		0.15			
Lane Grp Cap(c), veh/h	309	916	0	0	652	641	770	0	0			
V/C Ratio(X)	0.78	0.40	0.00	0.00	0.22	0.23	0.46	0.00	0.00			
Avail Cap(c_a), veh/h	631	916	0	0	652	641	770	0	0			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.81	0.81	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	51.7	12.5	0.0	0.0	26.0	26.1	23.5	0.0	0.0			
Incr Delay (d2), s/veh	3.5	1.1	0.0	0.0	0.8	0.8	2.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	4.1	5.8	0.0	0.0	3.4	3.5	8.6	0.0	0.0			
LnGrp Delay(d),s/veh	55.2	13.5	0.0	0.0	26.8	26.9	25.5	0.0	0.0			
LnGrp LOS	E	B			C	C	C					
Approach Vol, veh/h		608			290			356				
Approach Delay, s/veh		30.1			26.9			25.5				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		63.0			14.8	48.2		57.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		59.0			22.0	33.0		53.0
Max Q Clear Time (g_c+I1), s		13.0			10.2	8.9		19.2
Green Ext Time (p_c), s		3.9			0.6	3.6		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.1
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	185	807	0	0	488	461	128	1	181	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor									0.98			
Frt						0.850			0.850			
Flt Protected	0.950							0.953				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	1775	1583	0	0	0
Flt Permitted	0.950							0.953				
Satd. Flow (perm)	1770	1863	0	0	1863	1583	0	1775	1551	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						496			195			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	31.0	95.0			64.0	64.0	25.0	25.0	25.0			
Total Split (%)	25.8%	79.2%			53.3%	53.3%	20.8%	20.8%	20.8%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 74 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	185	807	0	0	488	461	128	1	181	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	199	868	0	0	525	496	138	1	195			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	226	1413	0	0	1113	946	308	2	275			
Arrive On Green	0.26	1.00	0.00	0.00	0.60	0.60	0.17	0.17	0.17			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1762	13	1570			
Grp Volume(v), veh/h	199	868	0	0	525	496	139	0	195			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1775	0	1570			
Q Serve(g_s), s	12.9	0.0	0.0	0.0	19.0	22.0	8.4	0.0	14.0			
Cycle Q Clear(g_c), s	12.9	0.0	0.0	0.0	19.0	22.0	8.4	0.0	14.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	226	1413	0	0	1113	946	311	0	275			
V/C Ratio(X)	0.88	0.61	0.00	0.00	0.47	0.52	0.45	0.00	0.71			
Avail Cap(c_a), veh/h	399	1413	0	0	1113	946	311	0	275			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.72	0.72	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.8	0.0	0.0	0.0	13.5	14.2	44.3	0.0	46.6			
Incr Delay (d2), s/veh	7.9	1.5	0.0	0.0	1.4	2.1	4.6	0.0	14.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	6.8	0.6	0.0	0.0	10.2	10.2	4.5	0.0	7.2			
LnGrp Delay(d),s/veh	51.8	1.5	0.0	0.0	15.0	16.2	48.9	0.0	61.1			
LnGrp LOS	D	A			B	B	D		E			
Approach Vol, veh/h		1067			1021			334				
Approach Delay, s/veh		10.8			15.6			56.0				
Approach LOS		B			B			E				

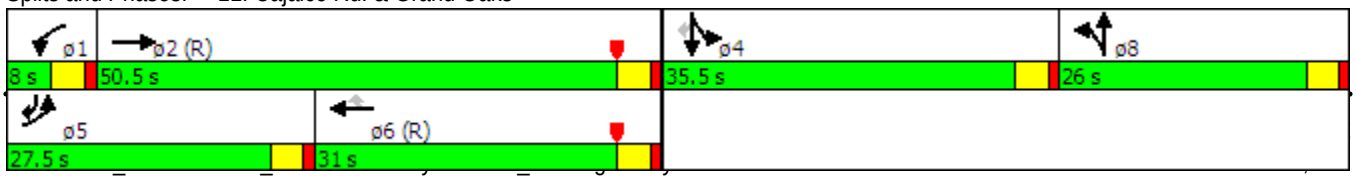
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		95.0			19.3	75.7		25.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		91.0			27.0	60.0		21.0
Max Q Clear Time (g_c+I1), s		2.0			14.9	24.0		16.0
Green Ext Time (p_c), s		11.4			0.4	10.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	548	440	0	0	452	119	0	0	0	122	0	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	3539	0	1863	5085	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	3539	0	1863	5085	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123						462
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			1043			544			904	
Travel Time (s)		10.6			15.8			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	27.5	50.5		8.0	31.0	31.0	26.0	26.0		35.5	35.5	27.5
Total Split (%)	22.9%	42.1%		6.7%	25.8%	25.8%	21.7%	21.7%		29.6%	29.6%	22.9%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 56 (47%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	548	440	0	0	452	119	0	0	0	122	0	448
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	565	454	0	0	466	123	0	0	0	126	0	462
Adj No. of Lanes	2	2	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	628	2374	0	1	2314	718	0	2	0	466	0	1236
Arrive On Green	0.18	0.67	0.00	0.00	0.91	0.91	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	3632	0	1774	5085	1578	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	565	454	0	0	466	123	0	0	0	126	0	462
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1695	1578	0	1863	0	1774	0	1385
Q Serve(g_s), s	19.3	5.8	0.0	0.0	1.2	1.0	0.0	0.0	0.0	6.8	0.0	13.3
Cycle Q Clear(g_c), s	19.3	5.8	0.0	0.0	1.2	1.0	0.0	0.0	0.0	6.8	0.0	13.3
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	628	2374	0	1	2314	718	0	2	0	466	0	1236
V/C Ratio(X)	0.90	0.19	0.00	0.00	0.20	0.17	0.00	0.00	0.00	0.27	0.00	0.37
Avail Cap(c_a), veh/h	674	2374	0	59	2314	718	0	342	0	466	0	1236
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.95	0.95	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.0	7.5	0.0	0.0	3.0	3.0	0.0	0.0	0.0	35.1	0.0	22.2
Incr Delay (d2), s/veh	14.5	0.2	0.0	0.0	0.2	0.5	0.0	0.0	0.0	1.4	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	10.4	2.9	0.0	0.0	0.6	0.5	0.0	0.0	0.0	3.5	0.0	5.3
LnGrp Delay(d),s/veh	62.5	7.6	0.0	0.0	3.2	3.5	0.0	0.0	0.0	36.6	0.0	23.0
LnGrp LOS	E	A			A	A				D		C
Approach Vol, veh/h		1019			589			0			588	
Approach Delay, s/veh		38.1			3.2			0.0			25.9	
Approach LOS		D			A						C	

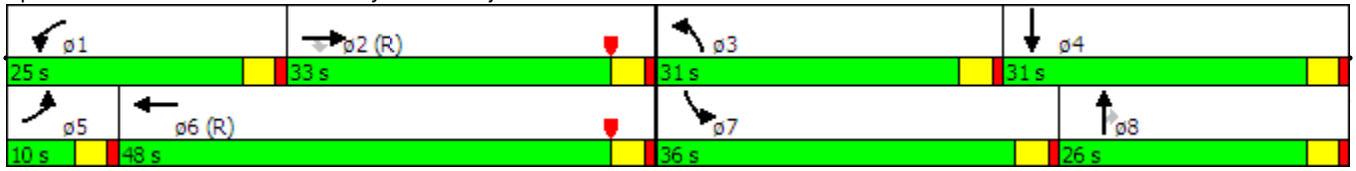
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	84.5		35.5	25.9	58.6		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	23.5	27.0		22.0
Max Q Clear Time (g_c+I1), s	0.0	7.8		15.3	21.3	3.2		0.0
Green Ext Time (p_c), s	0.0	5.1		2.7	0.6	4.8		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		25.5
HCM 2010 LOS		C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	246	295	167	309	74	225	131	87	204	308	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		1.00						1.00	
Frt			0.850		0.971				0.850		0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4918	0	3433	3539	1794	1770	3475	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4918	0	3433	3539	1794	1770	3475	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			307		53				155		10	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1043			935			1167			432	
Travel Time (s)		15.8			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	10.0	33.0	33.0	25.0	48.0		31.0	26.0	26.0	36.0	31.0	
Total Split (%)	8.3%	27.5%	27.5%	20.8%	40.0%		25.8%	21.7%	21.7%	30.0%	25.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 75 (63%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

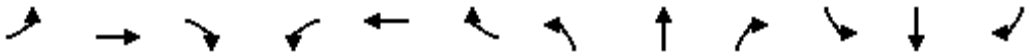
Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	246	295	167	309	74	225	131	87	204	308	37
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	22	256	307	174	322	77	234	136	91	212	321	39
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	800	678	204	2179	500	310	649	302	246	738	89
Arrive On Green	0.03	0.72	0.72	0.12	0.53	0.53	0.09	0.18	0.18	0.14	0.23	0.23
Sat Flow, veh/h	1774	1863	1578	1774	4133	949	3442	3539	1647	1774	3179	383
Grp Volume(v), veh/h	22	256	307	174	262	137	234	136	91	212	177	183
Grp Sat Flow(s),veh/h/ln	1774	1863	1578	1774	1695	1692	1721	1770	1647	1774	1770	1792
Q Serve(g_s), s	1.5	6.1	9.8	11.5	4.7	5.0	8.0	3.9	5.7	14.0	10.3	10.4
Cycle Q Clear(g_c), s	1.5	6.1	9.8	11.5	4.7	5.0	8.0	3.9	5.7	14.0	10.3	10.4
Prop In Lane	1.00		1.00	1.00		0.56	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	31	800	678	204	1788	892	310	649	302	246	411	416
V/C Ratio(X)	0.72	0.32	0.45	0.85	0.15	0.15	0.76	0.21	0.30	0.86	0.43	0.44
Avail Cap(c_a), veh/h	89	800	678	310	1788	892	774	649	302	473	411	416
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	10.5	11.1	52.1	14.5	14.6	53.3	41.6	42.4	50.5	39.3	39.4
Incr Delay (d2), s/veh	26.1	1.0	2.2	13.1	0.2	0.4	3.7	0.7	2.6	8.6	3.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	3.3	4.6	6.4	2.3	2.4	4.0	2.0	2.8	7.5	5.4	5.6
LnGrp Delay(d),s/veh	84.1	11.6	13.2	65.2	14.7	15.0	57.1	42.3	44.9	59.2	42.6	42.7
LnGrp LOS	F	B	B	E	B	B	E	D	D	E	D	D
Approach Vol, veh/h		585			573			461			572	
Approach Delay, s/veh		15.2			30.1			50.3			48.8	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	55.5	14.8	31.8	6.1	67.3	20.6	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	29.0	27.0	27.0	6.0	44.0	32.0	22.0
Max Q Clear Time (g_c+I1), s	13.5	11.8	10.0	12.4	3.5	7.0	16.0	7.7
Green Ext Time (p_c), s	0.3	3.7	0.8	2.0	0.0	4.3	0.6	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	51	18	4	6	4	220	9	7	567	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.892			0.970			0.994			0.997	
Flt Protected		0.991			0.969		0.950			0.950		
Satd. Flow (prot)	0	1647	0	0	1751	0	1770	1852	0	1770	1857	0
Flt Permitted		0.991			0.969		0.950			0.950		
Satd. Flow (perm)	0	1647	0	0	1751	0	1770	1852	0	1770	1857	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	24.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	2	51	0	18	4	6	0	4	220	9
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	2	55	0	20	4	7	0	4	239	10
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.5	9.7	11.2
HCM LOS	A	A	B

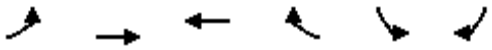
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	17%	64%	100%	0%
Vol Thru, %	0%	96%	3%	14%	0%	98%
Vol Right, %	0%	4%	80%	21%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	229	64	28	7	580
LT Vol	4	0	11	18	7	0
Through Vol	0	220	2	4	0	567
RT Vol	0	9	51	6	0	13
Lane Flow Rate	4	249	70	30	8	630
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.007	0.368	0.11	0.053	0.012	0.879
Departure Headway (Hd)	5.861	5.329	5.669	6.318	5.54	5.022
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	606	670	625	570	643	719
Service Time	3.639	3.107	3.769	4.318	3.3	2.782
HCM Lane V/C Ratio	0.007	0.372	0.112	0.053	0.012	0.876
HCM Control Delay	8.7	11.2	9.5	9.7	8.4	33
HCM Lane LOS	A	B	A	A	A	D
HCM 95th-tile Q	0	1.7	0.4	0.2	0	10.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	567	13
Peak Hour Factor	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	616	14
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	32.7
HCM LOS	D

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	562	173	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.991		0.962	
Flt Protected	0.950				0.965	
Satd. Flow (prot)	1770	1863	1846	0	1729	0
Flt Permitted	0.950				0.965	
Satd. Flow (perm)	1770	1863	1846	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

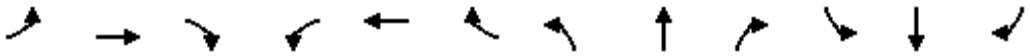
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	562	0	173	12	0	12	5
Peak Hour Factor	0.95	0.92	0.92	0.95	0.92	0.92	0.95	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	611	0	188	13	0	13	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	22.8	9.4	9
HCM LOS	C	A	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	71%
Vol Thru, %	0%	100%	94%	0%
Vol Right, %	0%	0%	6%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	562	185	17
LT Vol	4	0	0	12
Through Vol	0	562	173	0
RT Vol	0	0	12	5
Lane Flow Rate	4	611	201	18
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.791	0.263	0.03
Departure Headway (Hd)	5.165	4.664	4.708	5.783
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	687	770	766	621
Service Time	2.942	2.441	2.715	3.802
HCM Lane V/C Ratio	0.006	0.794	0.262	0.029
HCM Control Delay	8	22.9	9.4	9
HCM Lane LOS	A	C	A	A
HCM 95th-tile Q	0	8.1	1.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	426	125	33	129	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.997			0.948			0.973	
Flt Protected	0.950			0.950				0.972			0.971	
Satd. Flow (prot)	1770	1799	0	1770	1857	0	0	1716	0	0	1760	0
Flt Permitted	0.950			0.950				0.972			0.971	
Satd. Flow (perm)	1770	1799	0	1770	1857	0	0	1716	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	20.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	426	125	0	33	129	3	0	55	3	36
Peak Hour Factor	0.95	0.90	0.90	0.90	0.95	0.90	0.90	0.90	0.95	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	473	139	0	37	143	3	0	61	3	40
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	26.3	9.5	9.9
HCM LOS	D	A	A

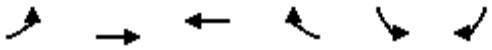
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	59%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	77%	0%	98%	20%
Vol Right, %	38%	0%	23%	0%	2%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	3	551	33	132	5
LT Vol	55	3	0	33	0	3
Through Vol	3	0	426	0	129	1
RT Vol	36	0	125	0	3	1
Lane Flow Rate	104	3	612	37	147	6
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.166	0.005	0.826	0.06	0.218	0.009
Departure Headway (Hd)	5.708	5.52	4.858	5.864	5.343	6.144
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	624	646	741	608	667	586
Service Time	3.786	3.27	2.608	3.632	3.111	4.144
HCM Lane V/C Ratio	0.167	0.005	0.826	0.061	0.22	0.01
HCM Control Delay	9.9	8.3	26.4	9	9.6	9.2
HCM Lane LOS	A	A	D	A	A	A
HCM 95th-tile Q	0.6	0	9.1	0.2	0.8	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.2
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	132	174	63	35	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.960			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3398	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3398	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	132	174	63	35	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	147	193	70	39	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	263	0	-	0	404	132
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1298	-	-	-	588	894
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1298	-	-	-	582	894
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	845	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1298	-	-	-	582	894
HCM Lane V/C Ratio	0.011	-	-	-	0.067	0.016
HCM Control Delay (s)	7.8	-	-	-	11.6	9.1
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0

APPENDIX 2.4:

EXISTING (2014 AND 2015) TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

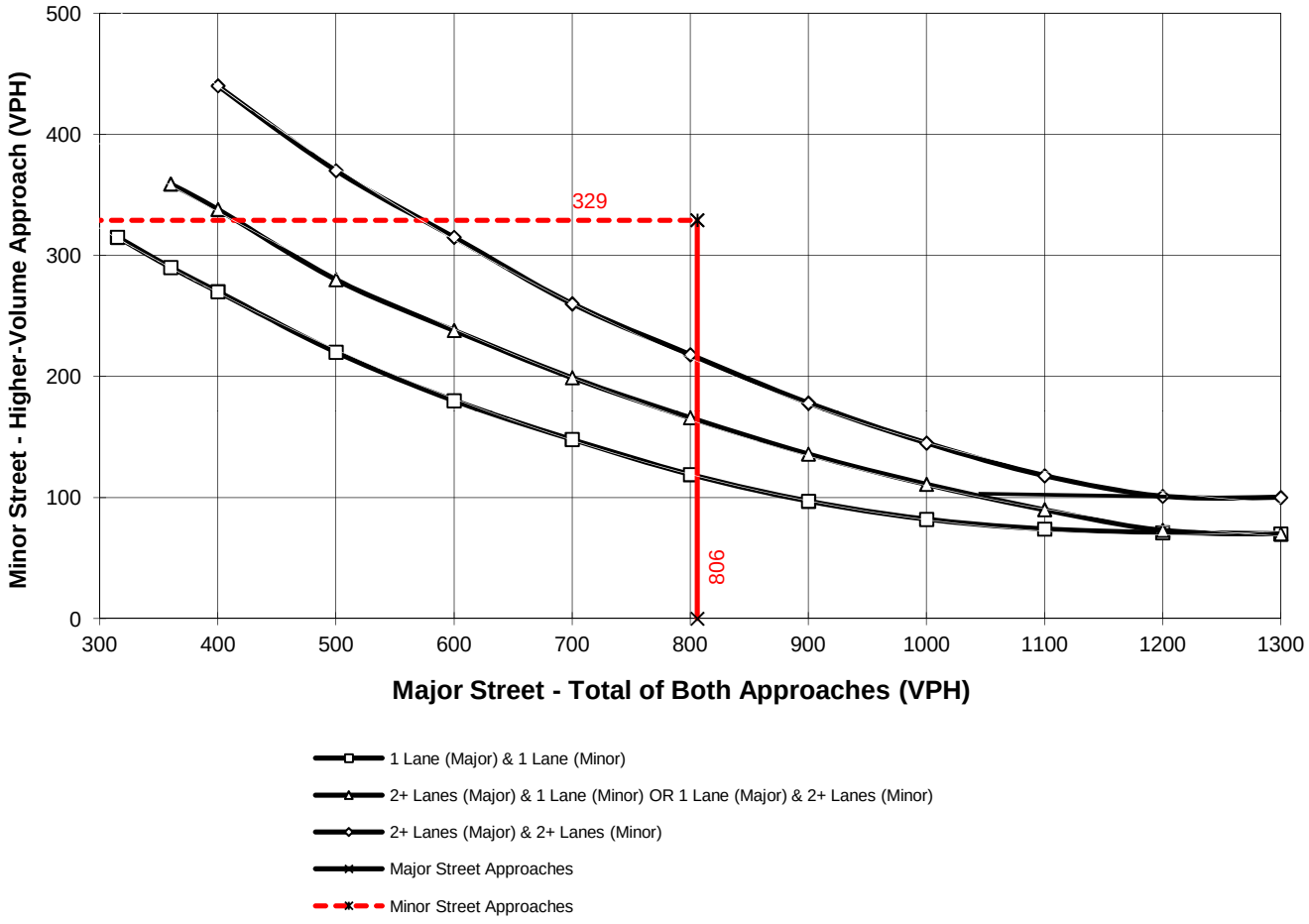
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **806**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **California Dr.** High Volume Approach (VPH) = **329**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

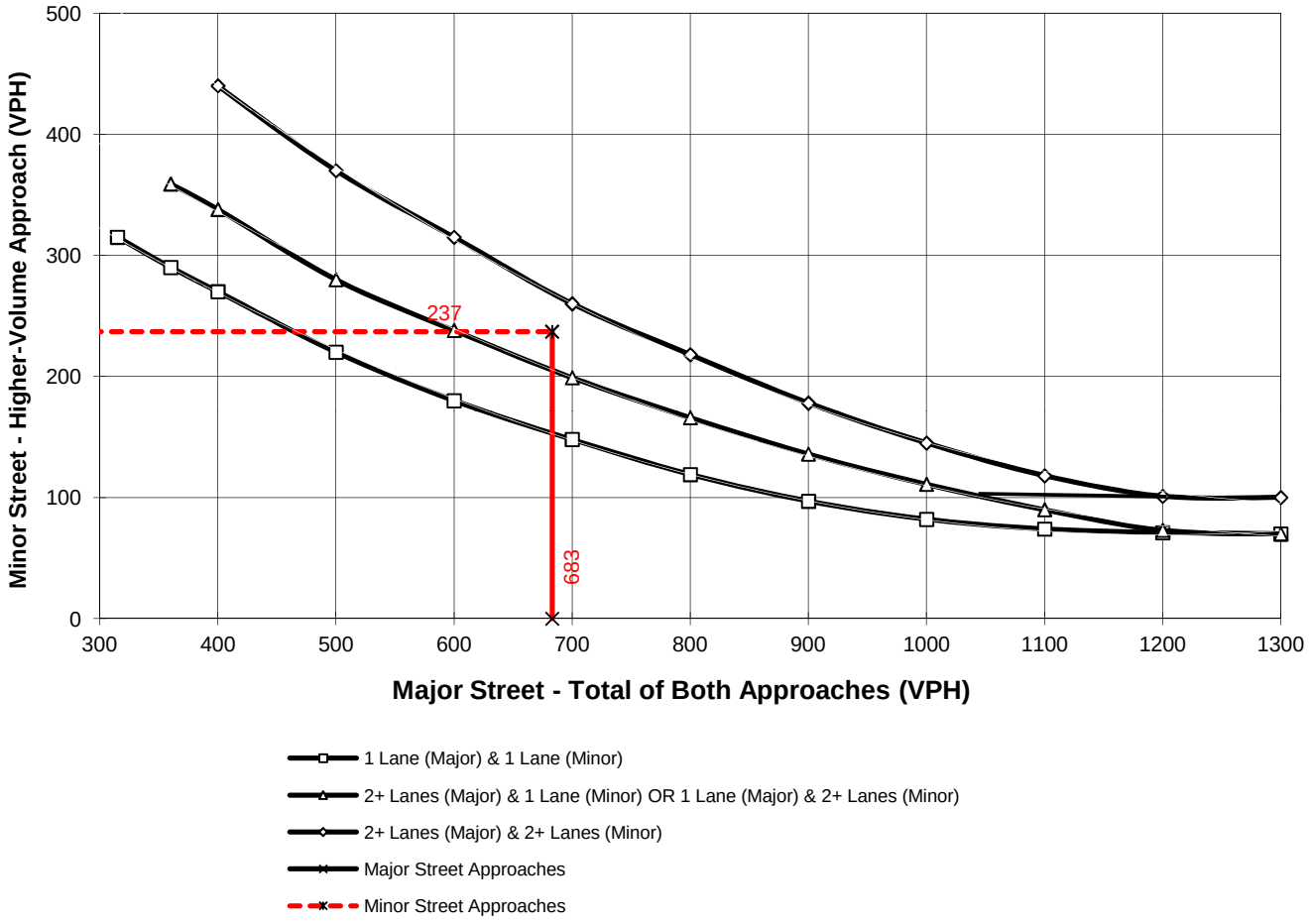
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Dr.**
Total of Both Approaches (VPH) = **683**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Masters Dr.**
High Volume Approach (VPH) = **237**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

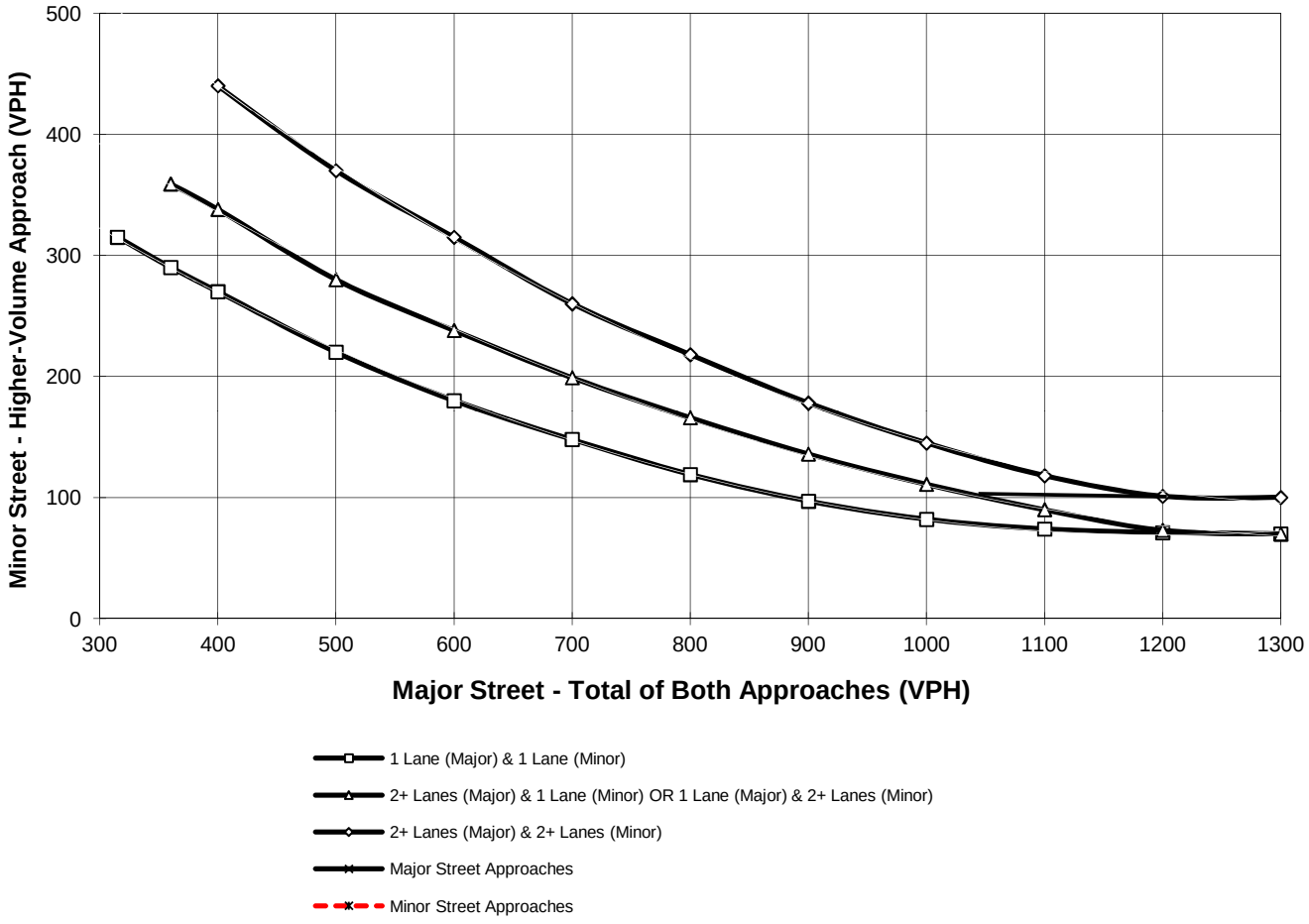
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **293**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **77**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

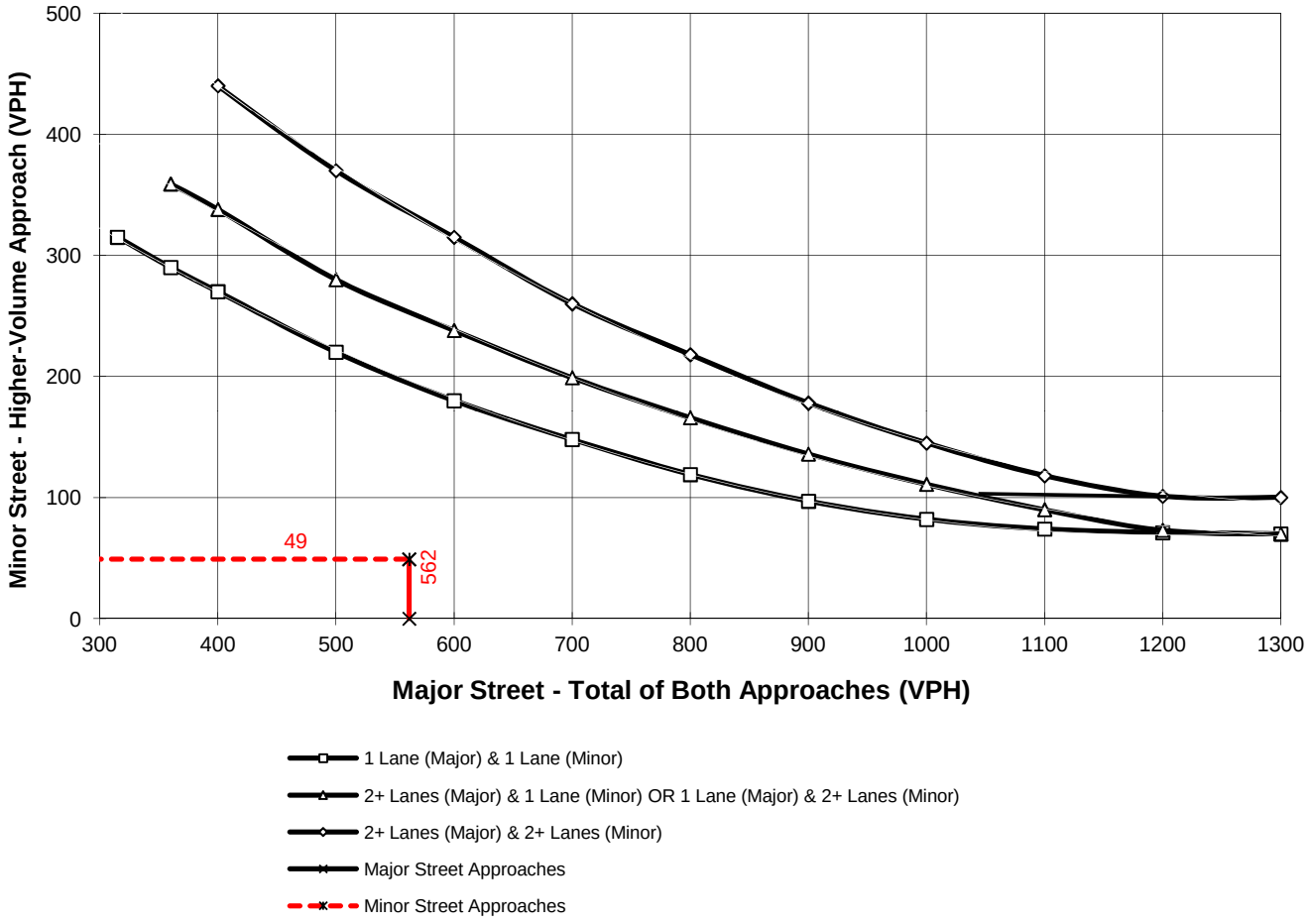
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **562**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.**
High Volume Approach (VPH) = **49**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

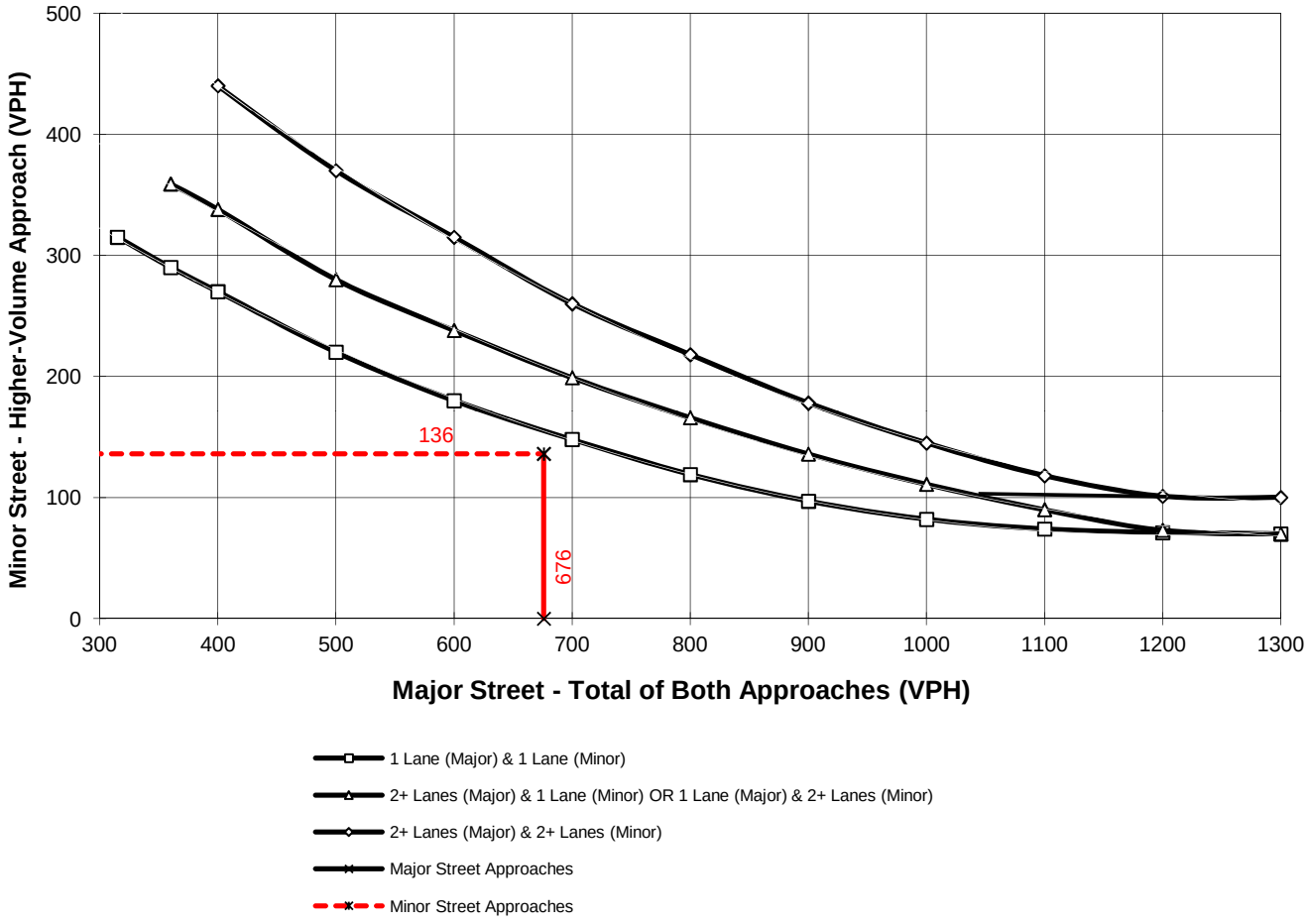
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Eagle Glen Pkwy.** Total of Both Approaches (VPH) = **676**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Masters Dr.** High Volume Approach (VPH) = **136**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

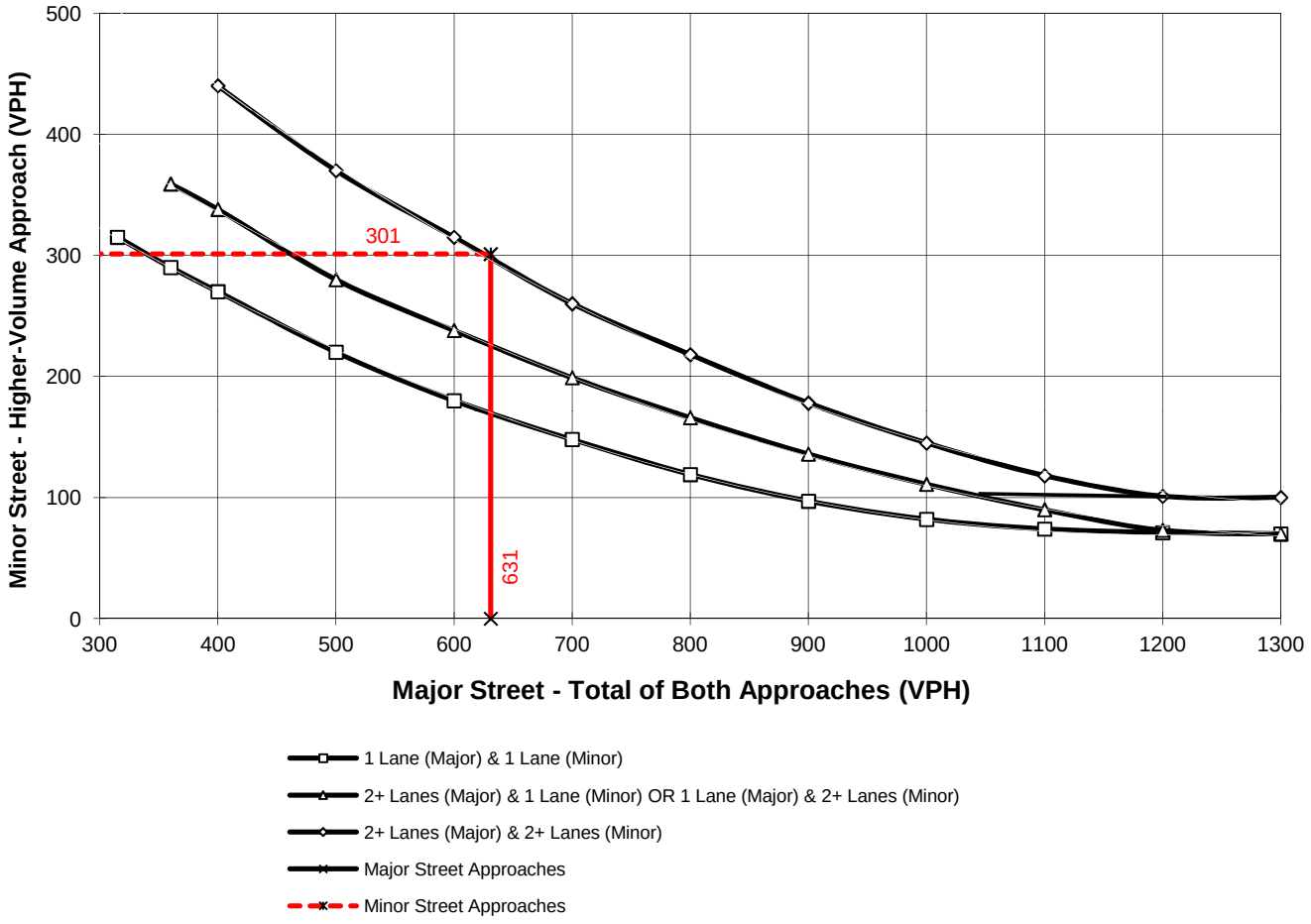
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **Eagle Glen Pkwy.** Total of Both Approaches (VPH) = **631**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Masters Dr.** High Volume Approach (VPH) = **301**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

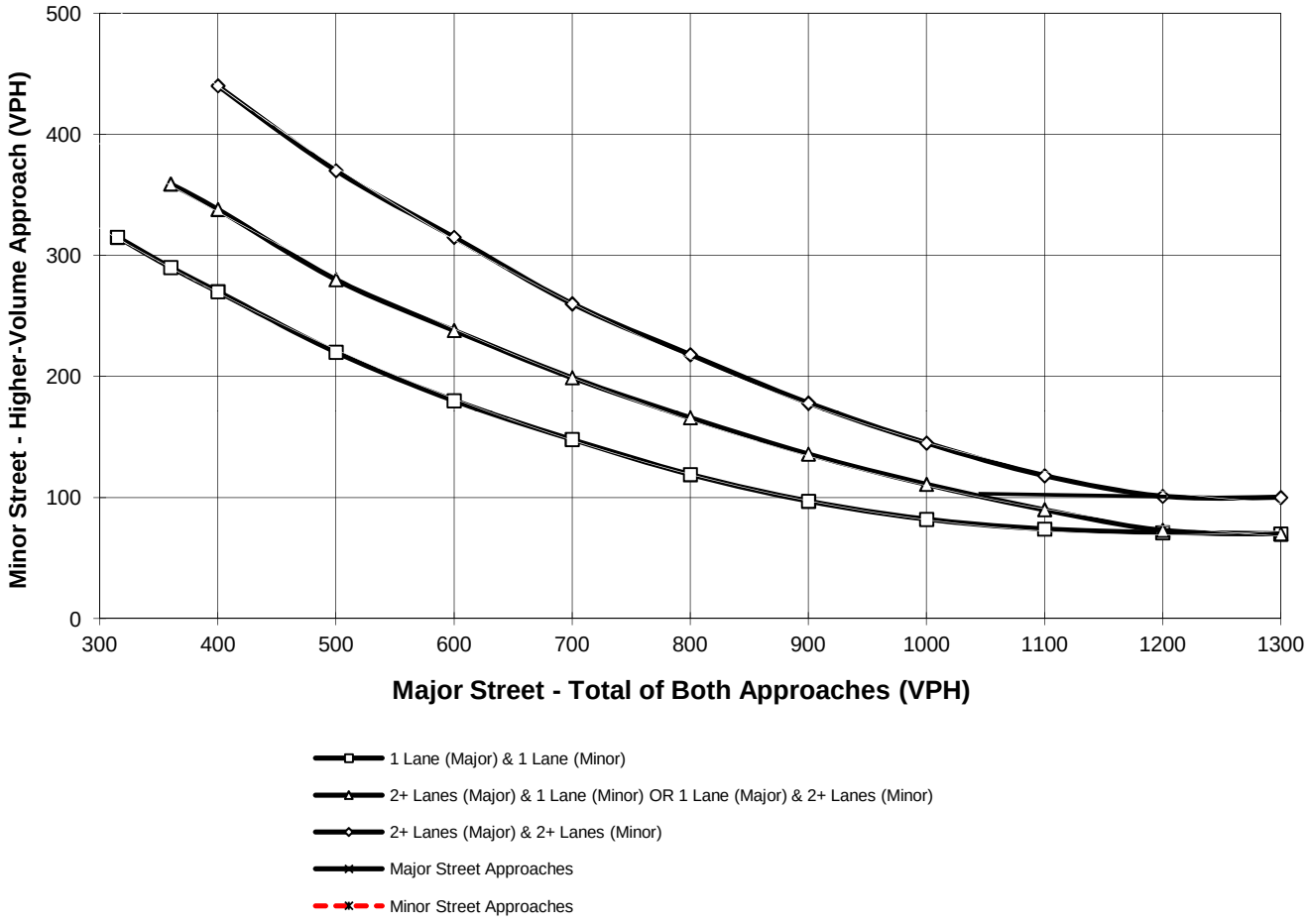
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **251**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **114**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

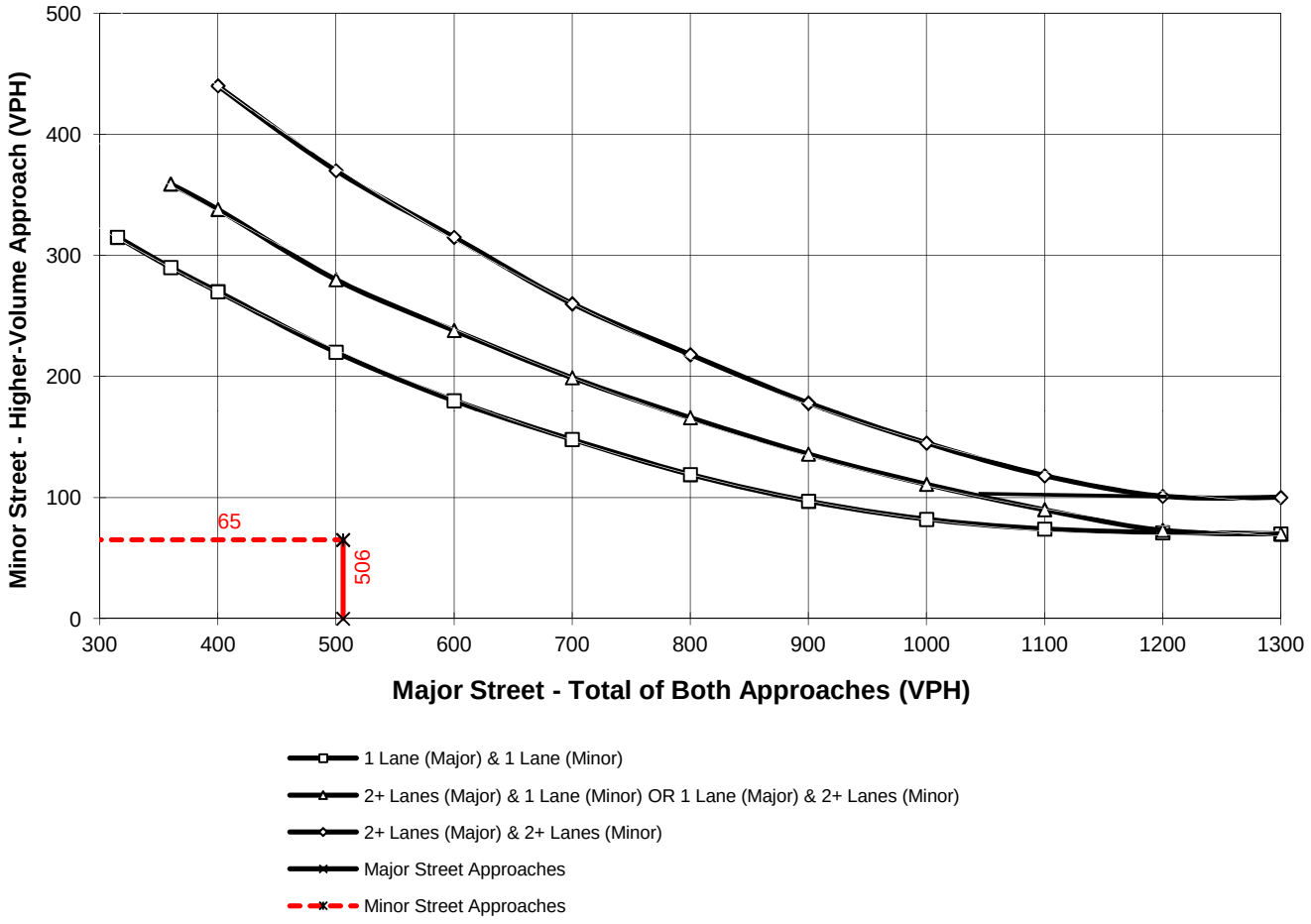
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **506**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **65**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

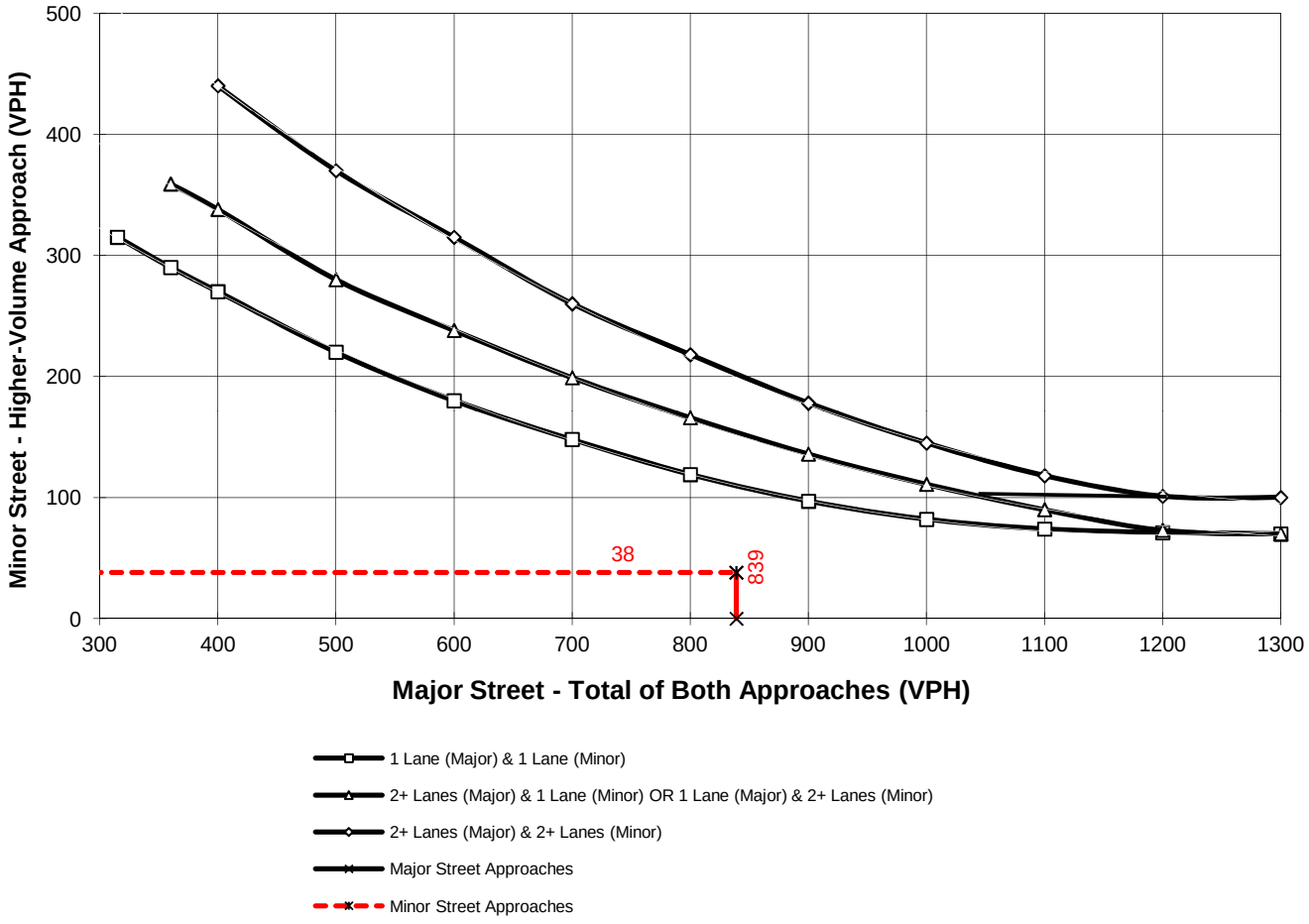
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **839**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.** High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

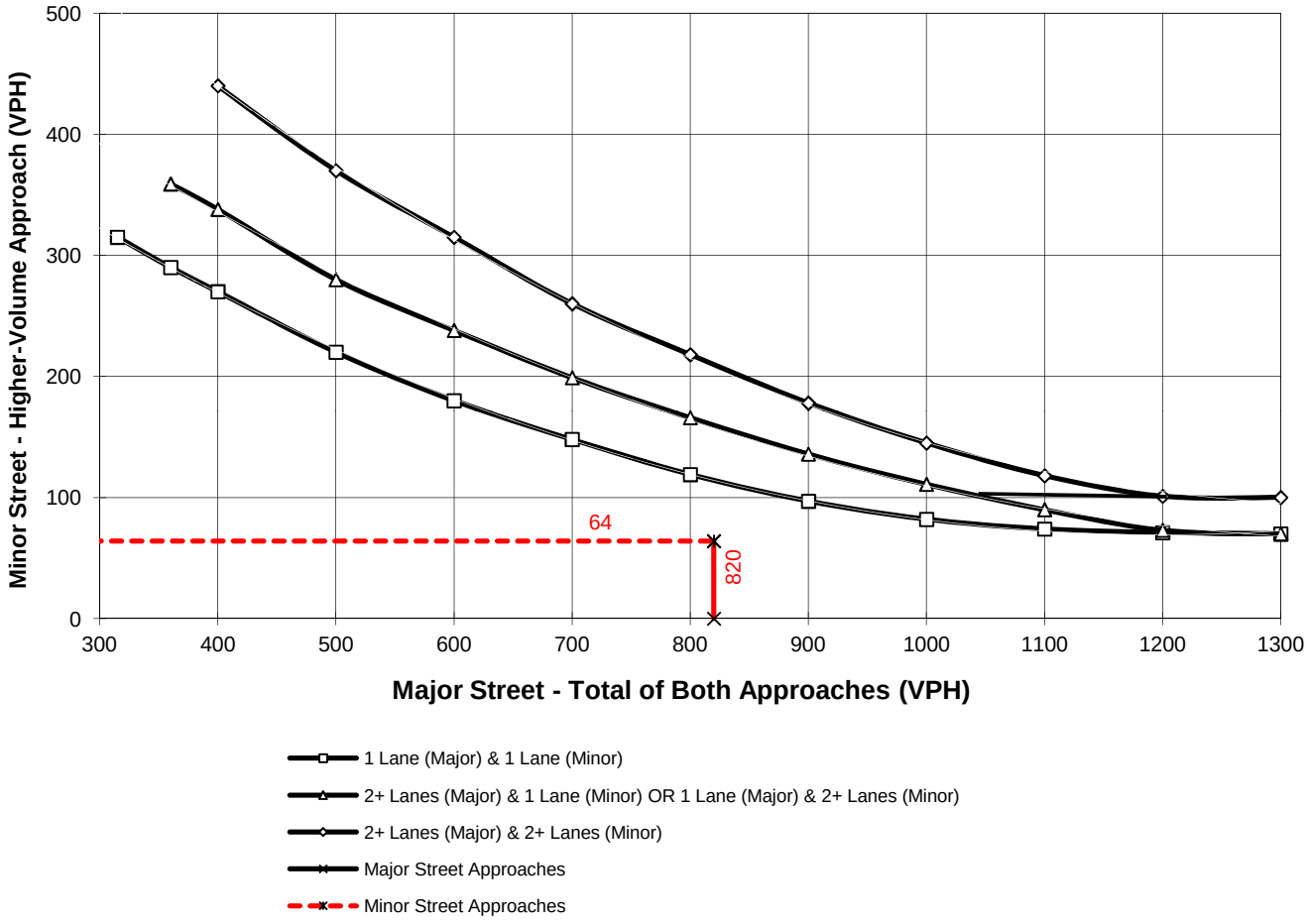
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **820**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.** High Volume Approach (VPH) = **64**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

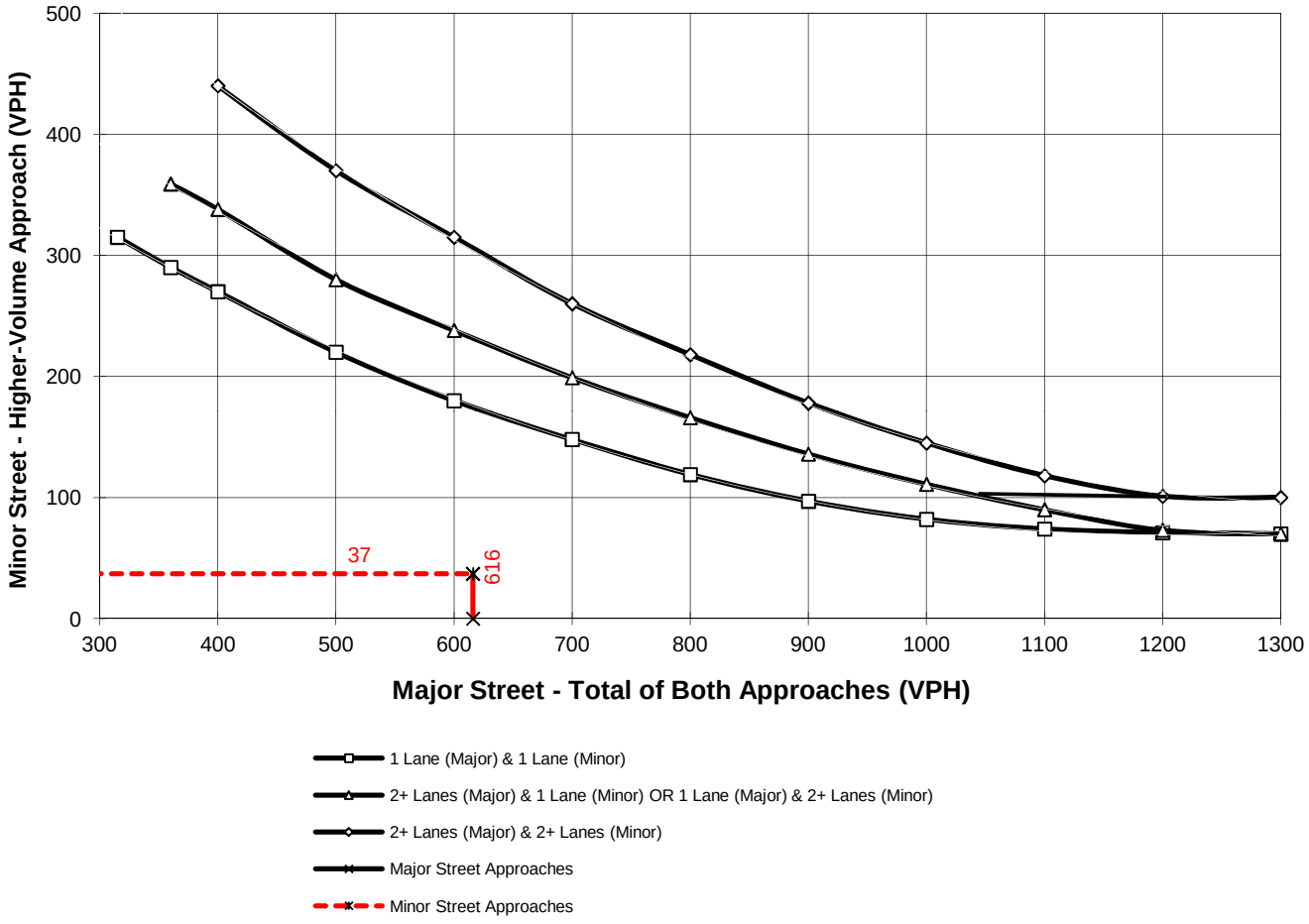
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **616**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.** High Volume Approach (VPH) = **37**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

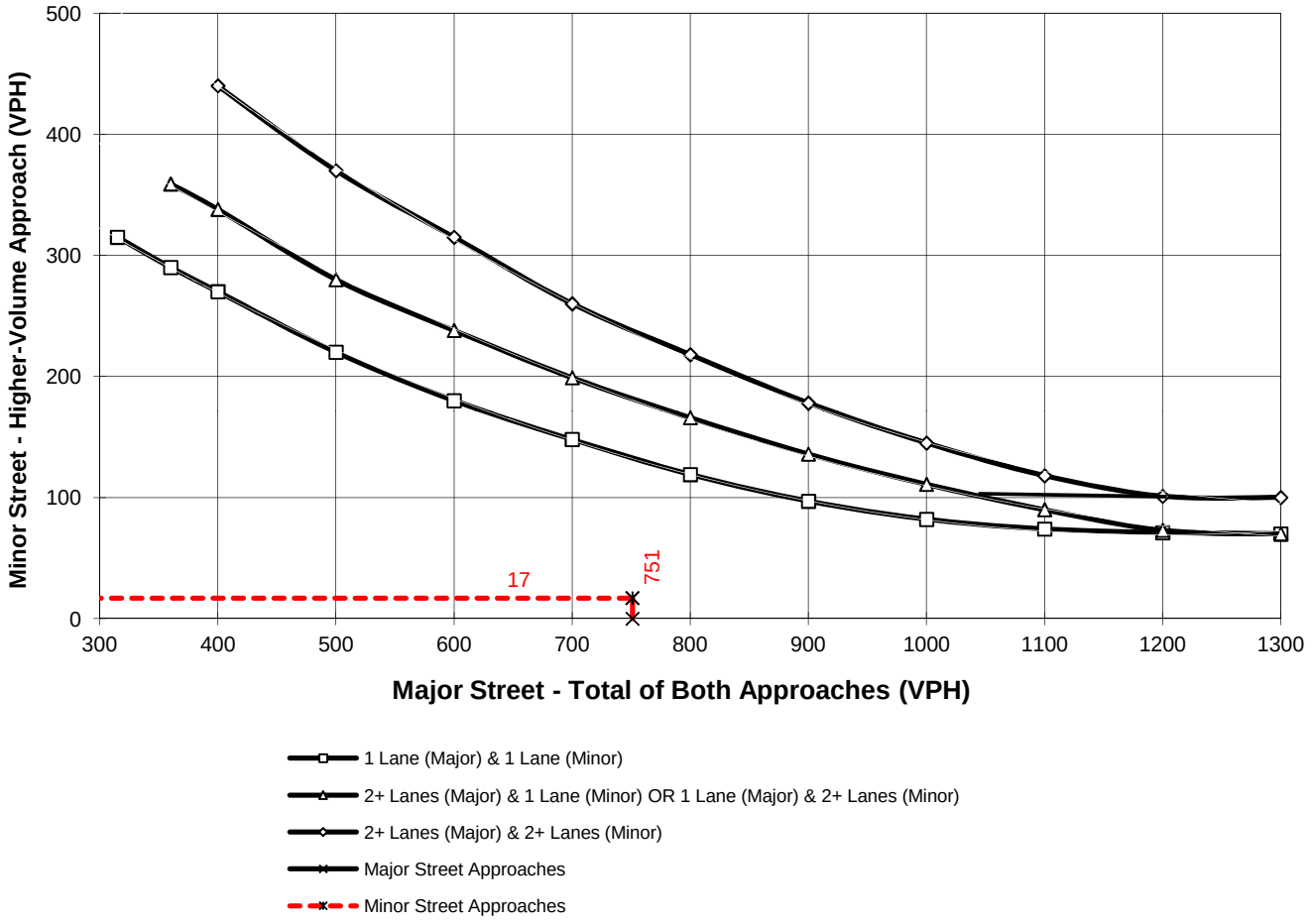
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **751**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.** High Volume Approach (VPH) = **17**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

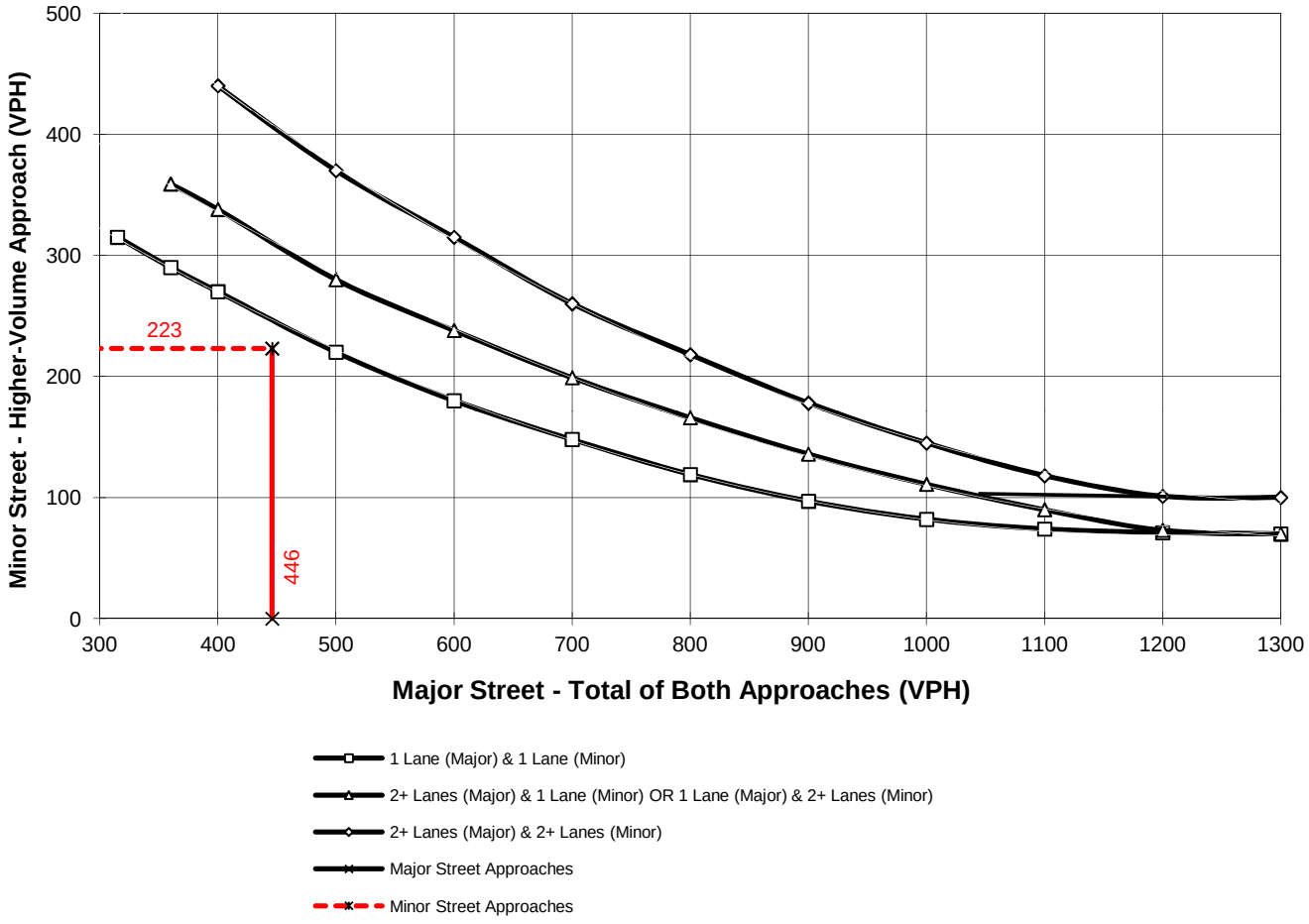
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **446**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.** High Volume Approach (VPH) = **223**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

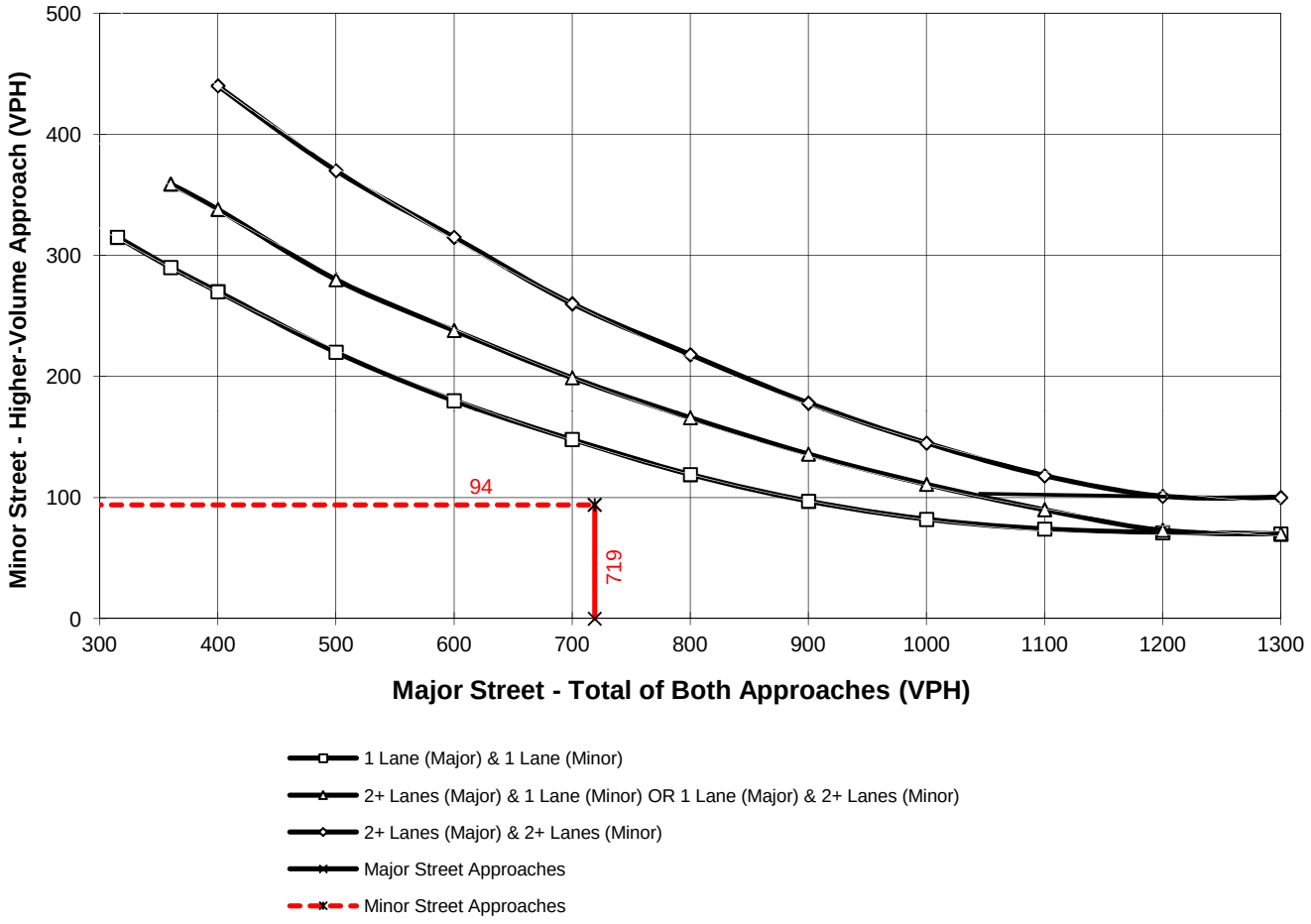
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **719**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.**
High Volume Approach (VPH) = **94**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

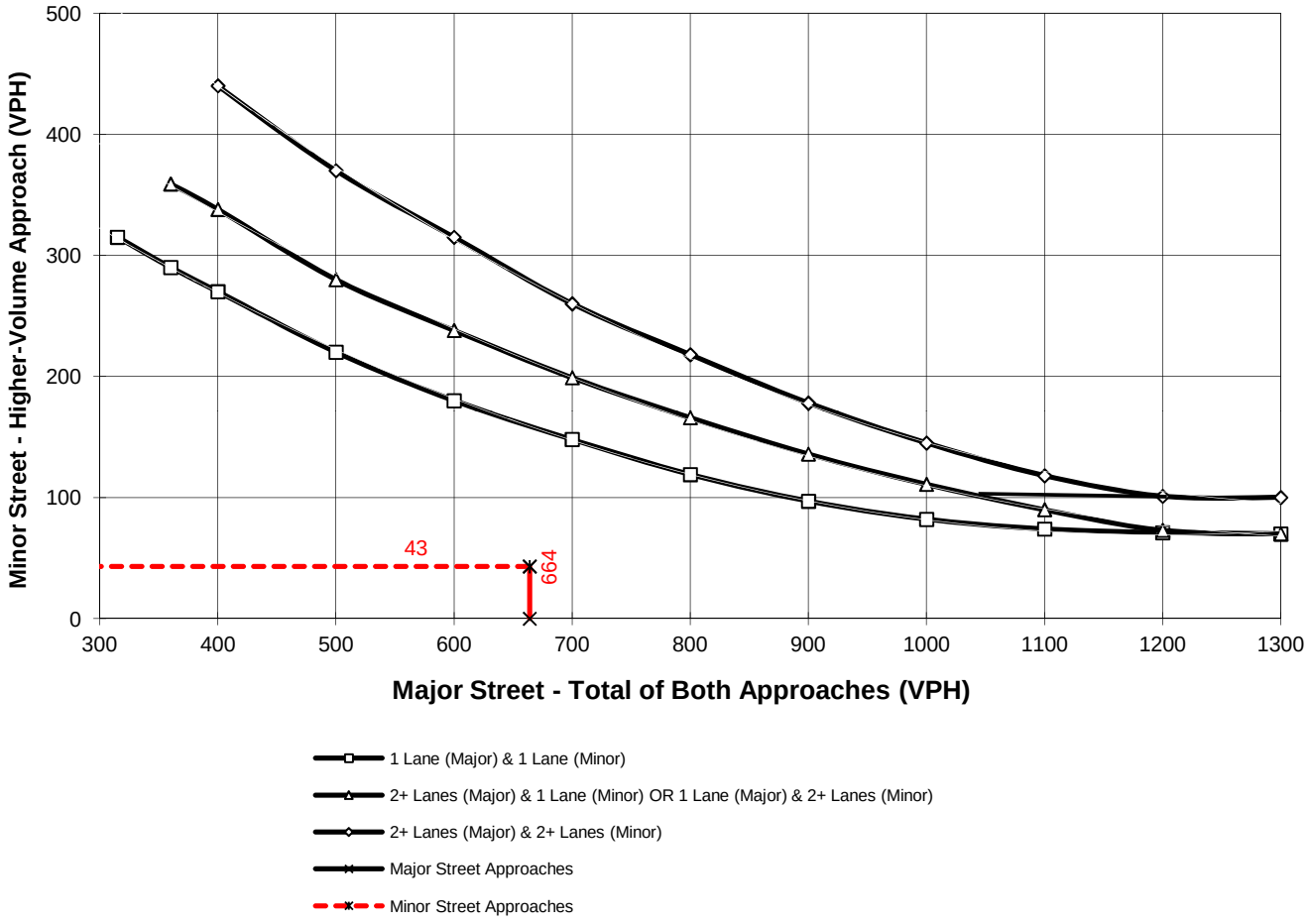
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday AM Peak Hour**

Major Street Name = **Eagle Glen Pkwy.** Total of Both Approaches (VPH) = **664**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **43**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

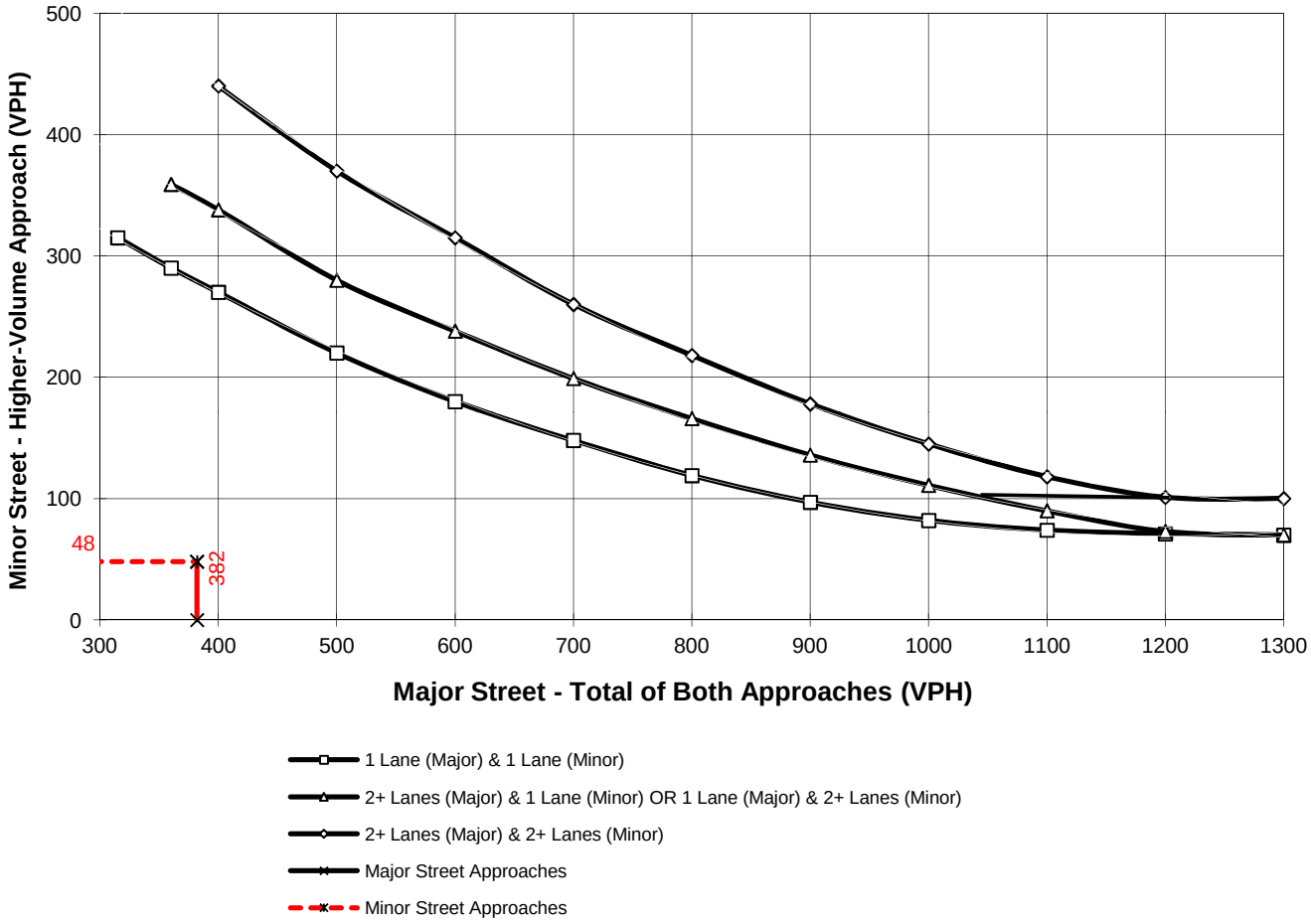
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2014) Conditions - Weekday PM Peak Hour**

Major Street Name = **Eagle Glen Pkwy.** Total of Both Approaches (VPH) = **382**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **48**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 2.5:

EXISTING (2014) FREEWAY RAMP MERGE AND DIVERGE ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerrito Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2500 ft
V_u = veh/h	Deceleration Lane Length L_D: 1500	V_D = 403 veh/h
	Freeway Volume, V_F: 3859	
	Ramp Volume, V_R: 332	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3859	0.92	Level	6	0	0.971	1.00	4320
Ramp	332	0.92	Level	6	0	0.971	1.00	372
UpStream								
DownStream	403	0.92	Level	6	0	0.971	1.00	451

Merge Areas | **Diverge Areas**

Estimation of v_{12}

Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.635 using Equation (Exhibit 13-7)

V_{12} = 2879 pc/h

V_3 or V_{av34} 1441 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

Merge Areas

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Diverge Areas

	Actual	Capacity		LOS F?
V_F	4320	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	3948	Exhibit 13-8	7050	No
V_R	372	Exhibit 13-10	2000	No

Flow Entering Merge Influence Area / Flow Entering Diverge Influence Area

Merge Areas

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Diverge Areas

	Actual	Max Desirable		Violation?
V_{12}	2879	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

Merge Areas

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Diverge Areas

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 15.5 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

Merge Areas

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

D_s = 0.461 (Exhibit 13-12)

S_R = 54.4 mph (Exhibit 13-12)

S_0 = 69.6 mph (Exhibit 13-12)

S = 58.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 470 veh/h
	Freeway Volume, V_F: 3527	
	Ramp Volume, V_R: 403	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3527	0.92	Level	6	0	0.971	1.00	3949
Ramp	403	0.92	Level	6	0	0.971	1.00	451
UpStream								
DownStream	470	0.92	Level	6	0	0.971	1.00	526

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 4015.27 (Equation 13-6 or 13-7)

P_{FM} = 0.609 using Equation (Exhibit 13-6)

V_{12} = 2404 pc/h

V_3 or V_{av34} 1545 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2404 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4400	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2855	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 26.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.375 (Exibit 13-11)

S_R= 56.4 mph (Exhibit 13-11)

S_0= 61.2 mph (Exhibit 13-11)

S = 58.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off; L_{up} = 2300 ft; V_u = 403 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	3930
Ramp Volume, V_R	470
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off; L_{down} = ft; V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3930	0.92	Level	6	0	0.971	1.00	4400
Ramp	470	0.92	Level	6	0	0.971	1.00	526
UpStream	403	0.92	Level	6	0	0.971	1.00	451
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 3410.88 (Equation 13-12 or 13-13)

P_{FD} = 0.664 using Equation (Exhibit 13-7)

V_{12} = 3098 pc/h

V_3 or V_{av34} 1302 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4400	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	3874	Exhibit 13-8	7050	No
V_R	526	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3098	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 29.1 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.475 (Exhibit 13-12)

S_R= 54.1 mph (Exhibit 13-12)

S_0= 70.1 mph (Exhibit 13-12)

S = 58.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 470 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 3460	
	Ramp Volume, V_R: 172	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3460	0.92	Level	6	0	0.971	1.00	3874
Ramp	172	0.92	Level	6	0	0.971	1.00	193
UpStream	470	0.92	Level	6	0	0.971	1.00	526
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 476.14 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 2281 pc/h

V_3 or V_{av34} 1593 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2281 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4067	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2474	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 22.2 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.339 (Exibit 13-11)

S_R= 57.2 mph (Exhibit 13-11)

S_0= 61.1 mph (Exhibit 13-11)

S = 58.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 434 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 6224	
	Ramp Volume, V_R: 715	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6224	0.92	Level	6	0	0.971	1.00	6968
Ramp	715	0.92	Level	6	0	0.971	1.00	800
UpStream	434	0.92	Level	6	0	0.971	1.00	486
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1356.95 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 4141 pc/h

V_3 or V_{av34} 2827 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4268 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7768	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5068	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 40.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 0.899 (Exibit 13-11)

S_R= 44.3 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 47.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	6658
Ramp Volume, V_R	434
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 715 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6658	0.92	Level	6	0	0.971	1.00	7454
Ramp	434	0.92	Level	6	0	0.971	1.00	486
UpStream								
DownStream	715	0.92	Level	6	0	0.971	1.00	800

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.551 using Equation (Exhibit 13-7)
V_{12} = 4327 pc/h
V_3 or V_{av34} 3127 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = 4754 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7454	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	6968	Exhibit 13-8	7050	No
V_R	486	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4327	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 43.3 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.472 (Exhibit 13-12)
S_R= 54.1 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 57.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2000 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 133 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 5328	
	Ramp Volume, V_R: 1330	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5328	0.92	Level	6	0	0.971	1.00	5965
Ramp	1330	0.92	Level	6	0	0.971	1.00	1489
UpStream	133	0.92	Level	6	0	0.971	1.00	149
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1200.96 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 3512 pc/h

V_3 or V_{av34} 2453 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3512 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7454	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5001	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 41.3 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 0.872 (Exibit 13-11)

S_R= 44.9 mph (Exhibit 13-11)

S_0= 57.6 mph (Exhibit 13-11)

S = 48.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2000 ft
V_u = veh/h	Deceleration Lane Length L_D: 200	V_D = 1330 veh/h
	Freeway Volume, V_F: 5461	
	Ramp Volume, V_R: 133	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5461	0.92	Level	6	0	0.971	1.00	6114
Ramp	133	0.92	Level	6	0	0.971	1.00	149
UpStream								
DownStream	1330	0.92	Level	6	0	0.971	1.00	1489

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.600 using Equation (Exhibit 13-7)

V_{12} = 3730 pc/h

V_3 or V_{av34} 2384 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6114	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5965	Exhibit 13-8	7050	No
V_R	149	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3730	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 34.5 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.441 (Exhibit 13-12)

S_R= 54.8 mph (Exhibit 13-12)

S_0= 65.9 mph (Exhibit 13-12)

S = 58.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2500 ft
V_u = veh/h	Deceleration Lane Length L_D: 1500	V_D = 793 veh/h
	Freeway Volume, V_F: 5223	
	Ramp Volume, V_R: 368	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5223	0.92	Level	6	0	0.971	1.00	5847
Ramp	368	0.92	Level	6	0	0.971	1.00	412
UpStream								
DownStream	793	0.92	Level		0	0.948	1.00	909

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.595 using Equation (Exhibit 13-7)

V_{12} = 3645 pc/h

V_3 or V_{av34} 2202 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5847	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5435	Exhibit 13-8	7050	No
V_R	412	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3645	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 22.1 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.465 (Exhibit 13-12)

S_R = 54.3 mph (Exhibit 13-12)

S_0 = 66.6 mph (Exhibit 13-12)

S = 58.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 779 veh/h
	Freeway Volume, V_F: 4855	
	Ramp Volume, V_R: 793	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4855	0.92	Level	6	0	0.971	1.00	5435
Ramp	793	0.92	Level	6	0	0.971	1.00	888
UpStream								
DownStream	779	0.92	Level	6	0	0.971	1.00	872

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 6656.49 (Equation 13-6 or 13-7)

P_{FM} = 0.648 using Equation (Exhibit 13-6)

V_{12} = 3524 pc/h

V_3 or V_{av34} 1911 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3524 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6323	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4412	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 38.2 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.628 (Exibit 13-11)

S_R= 50.5 mph (Exhibit 13-11)

S_0= 59.9 mph (Exhibit 13-11)

S = 53.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off; L_{up} = 2300 ft; V_u = 793 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	5648
Ramp Volume, V_R	779
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off; L_{down} = ft; V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5648	0.92	Level	6	0	0.971	1.00	6323
Ramp	779	0.92	Level	6	0	0.971	1.00	872
UpStream	793	0.92	Level	6	0	0.971	1.00	888
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 5913.81 (Equation 13-12 or 13-13)

P_{FD} = 0.562 using Equation (Exhibit 13-7)

V_{12} = 3934 pc/h

V_3 or V_{av34} 2389 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6323	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5451	Exhibit 13-8	7050	No
V_R	872	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3934	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 36.3 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.506 (Exhibit 13-12)

S_R= 53.4 mph (Exhibit 13-12)

S_0= 65.9 mph (Exhibit 13-12)

S = 57.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 779 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 4869	
	Ramp Volume, V_R: 574	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4869	0.92	Level	6	0	0.971	1.00	5451
Ramp	574	0.92	Level	6	0	0.971	1.00	643
UpStream	779	0.92	Level	6	0	0.971	1.00	872
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 909.92 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 3209 pc/h

V_3 or V_{av34} 2242 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3209 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6094	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3852	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 32.7 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.477 (Exibit 13-11)

S_R= 54.0 mph (Exhibit 13-11)

S_0= 58.7 mph (Exhibit 13-11)

S = 55.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 338 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 4240	
	Ramp Volume, V_R: 292	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4240	0.92	Level	6	0	0.971	1.00	4747
Ramp	292	0.92	Level	6	0	0.971	1.00	327
UpStream	338	0.92	Level	6	0	0.971	1.00	378
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 780.44 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 2821 pc/h

V_3 or V_{av34} 1926 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2821 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5074	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3148	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 26.1 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.370 (Exibit 13-11)

S_R= 56.5 mph (Exhibit 13-11)

S_0= 59.9 mph (Exhibit 13-11)

S = 57.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D: 200	V_D = 292 veh/h
	Freeway Volume, V_F: 4578	
	Ramp Volume, V_R: 338	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4578	0.92	Level	6	0	0.971	1.00	5125
Ramp	338	0.92	Level	6	0	0.971	1.00	378
UpStream								
DownStream	292	0.92	Level	6	0	0.971	1.00	327

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.614 using Equation (Exhibit 13-7)

V_{12} = 3295 pc/h

V_3 or V_{av34} 1830 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5125	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4747	Exhibit 13-8	7050	No
V_R	378	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3295	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 30.8 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.462 (Exhibit 13-12)

S_R = 54.4 mph (Exhibit 13-12)

S_0 = 68.1 mph (Exhibit 13-12)

S = 58.6 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2000 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 310 veh/h	Deceleration Lane Length L_D	V_D = veh/h
	Freeway Volume, V_F: 3931	
	Ramp Volume, V_R: 647	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3931	0.92	Level	6	0	0.971	1.00	4401
Ramp	647	0.92	Level	6	0	0.971	1.00	724
UpStream	310	0.92	Level	6	0	0.971	1.00	347
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 702.55 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 2591 pc/h

V_3 or V_{av34} 1810 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2591 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5125	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3315	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 28.5 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.400 (Exibit 13-11)

S_R= 55.8 mph (Exhibit 13-11)

S_0= 60.3 mph (Exhibit 13-11)

S = 57.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2000 ft
V_u = veh/h	Deceleration Lane Length L_D: 200	V_D = 647 veh/h
	Freeway Volume, V_F: 4241	
	Ramp Volume, V_R: 310	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4241	0.92	Level	6	0	0.971	1.00	4748
Ramp	310	0.92	Level	6	0	0.971	1.00	347
UpStream								
DownStream	647	0.92	Level	6	0	0.971	1.00	724

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.625 using Equation (Exhibit 13-7)

V_{12} = 3099 pc/h

V_3 or V_{av34} 1649 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4748	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4401	Exhibit 13-8	7050	No
V_R	347	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3099	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 29.1 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.459 (Exhibit 13-12)

S_R = 54.4 mph (Exhibit 13-12)

S_0 = 68.8 mph (Exhibit 13-12)

S = 58.7 mph (Exhibit 13-13)

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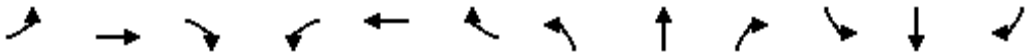
APPENDIX 5.1:

2017 WITHOUT PROJECT INTERSECTION OPERATIONS ANALYSIS WORKSHEETS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	151	62	112	83	154	78	236	236	185	119	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957				0.850		0.925			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1783	0	1770	1863	1583	1770	1723	0	1770	1857	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1783	0	1770	1863	1583	1770	1723	0	1770	1857	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	37.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	151	62	0	112	83	154	0	78	236	236
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	174	71	0	129	95	177	0	90	271	271
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	26.2	16.6	64.5
HCM LOS	D	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	50%	0%	71%	0%	100%	0%	0%	98%
Vol Right, %	0%	50%	0%	29%	0%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	472	4	213	112	83	154	185	122
LT Vol	78	0	4	0	112	0	0	185	0
Through Vol	0	236	0	151	0	83	0	0	119
RT Vol	0	236	0	62	0	0	154	0	3
Lane Flow Rate	90	543	5	245	129	95	177	213	140
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.229	1	0.013	0.629	0.344	0.242	0.414	0.567	0.354
Departure Headway (Hd)	9.213	8.339	9.945	9.246	9.622	9.124	8.426	9.596	9.081
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	389	434	360	392	373	394	427	376	395
Service Time	6.993	6.119	7.701	7.003	7.379	6.88	6.182	7.355	6.839
HCM Lane V/C Ratio	0.231	1.251	0.014	0.625	0.346	0.241	0.415	0.566	0.354
HCM Control Delay	14.7	72.7	12.8	26.5	17.4	14.8	17	24.3	16.8
HCM Lane LOS	B	F	B	D	C	B	C	C	C
HCM 95th-tile Q	0.9	12.7	0	4.1	1.5	0.9	2	3.4	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	185	119	3
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	213	137	3
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	21.3
HCM LOS	C

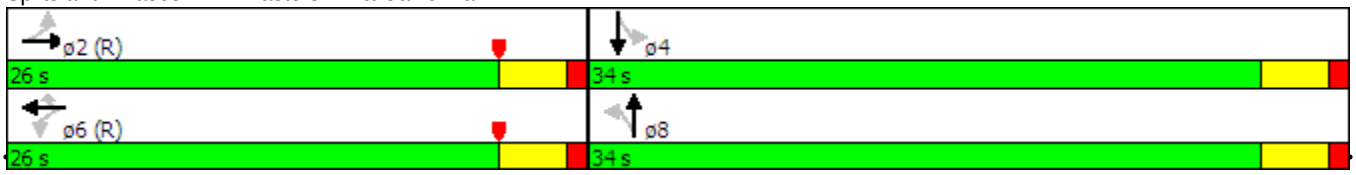
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	151	62	112	83	154	78	236	236	185	119	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957				0.850		0.925			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1783	0	1770	1863	1583	1770	1723	0	1770	1857	0
Flt Permitted	0.695			0.552			0.668			0.324		
Satd. Flow (perm)	1295	1783	0	1028	1863	1583	1244	1723	0	604	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39				177		120			3	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

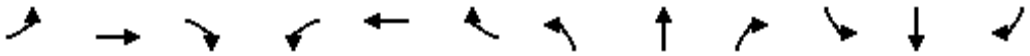
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	151	62	112	83	154	78	236	236	185	119	3
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	5	174	71	129	95	177	90	271	271	213	137	3
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	487	461	188	420	683	581	691	428	428	296	908	20
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.17	0.17	0.17	0.50	0.50	0.50
Sat Flow, veh/h	1103	1259	514	1130	1863	1583	1244	856	856	860	1816	40
Grp Volume(v), veh/h	5	0	245	129	95	177	90	0	542	213	0	140
Grp Sat Flow(s),veh/h/ln	1103	0	1772	1130	1863	1583	1244	0	1712	860	0	1856
Q Serve(g_s), s	0.2	0.0	6.1	5.7	2.0	4.8	3.8	0.0	17.7	12.3	0.0	2.4
Cycle Q Clear(g_c), s	2.2	0.0	6.1	11.8	2.0	4.8	6.2	0.0	17.7	30.0	0.0	2.4
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.50	1.00		0.02
Lane Grp Cap(c), veh/h	487	0	650	420	683	581	691	0	856	296	0	928
V/C Ratio(X)	0.01	0.00	0.38	0.31	0.14	0.30	0.13	0.00	0.63	0.72	0.00	0.15
Avail Cap(c_a), veh/h	487	0	650	420	683	581	691	0	856	296	0	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.00	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	14.0	18.3	12.7	13.5	16.2	0.0	19.9	24.9	0.0	8.1
Incr Delay (d2), s/veh	0.0	0.0	1.7	1.9	0.4	1.4	0.3	0.0	3.1	14.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	3.2	2.0	1.1	2.3	1.4	0.0	9.1	4.6	0.0	1.3
LnGrp Delay(d),s/veh	13.5	0.0	15.6	20.2	13.1	14.9	16.5	0.0	23.0	38.9	0.0	8.5
LnGrp LOS	B		B	C	B	B	B		C	D		A
Approach Vol, veh/h		250			401			632			353	
Approach Delay, s/veh		15.6			16.2			22.1			26.8	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		22.0		30.0		22.0		30.0
Max Q Clear Time (g_c+I1), s		8.1		32.0		13.8		19.7
Green Ext Time (p_c), s		2.5		0.0		1.9		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	8	31	11	2	31	6	118	13	23	141	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.905			0.985			0.989	
Flt Protected		0.975			0.987		0.950			0.950		
Satd. Flow (prot)	0	1722	0	0	1664	0	1770	1835	0	1770	1842	0
Flt Permitted		0.975			0.987		0.950			0.950		
Satd. Flow (perm)	0	1722	0	0	1664	0	1770	1835	0	1770	1842	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	43	8	31	0	11	2	31	0	6	118	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	45	8	33	0	12	2	33	0	6	124	14
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.3	7.8	8.8
HCM LOS	A	A	A

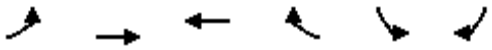
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	25%	100%	0%
Vol Thru, %	0%	90%	10%	5%	0%	93%
Vol Right, %	0%	10%	38%	70%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	131	82	44	23	152
LT Vol	6	0	43	11	23	0
Through Vol	0	118	8	2	0	141
RT Vol	0	13	31	31	0	11
Lane Flow Rate	6	138	86	46	24	160
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.01	0.189	0.112	0.058	0.037	0.219
Departure Headway (Hd)	5.512	4.939	4.668	4.471	5.473	4.92
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	650	727	768	800	655	730
Service Time	3.24	2.667	2.695	2.501	3.2	2.647
HCM Lane V/C Ratio	0.009	0.19	0.112	0.058	0.037	0.219
HCM Control Delay	8.3	8.8	8.3	7.8	8.4	9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	0.7	0.4	0.2	0.1	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	141	11
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	24	148	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.9
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	18	322	262	122	135	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.952			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3369	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3369	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	18	322	0	262	122	0	135	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	339	0	276	128	0	142	11
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	9.6	11	12.2
HCM LOS	A	B	B

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	42%	0%	0%
Vol Right, %	0%	0%	0%	0%	58%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	161	161	175	209	135	10
LT Vol	18	0	0	0	0	135	0
Through Vol	0	161	161	175	87	0	0
RT Vol	0	0	0	0	122	0	10
Lane Flow Rate	19	169	169	184	220	142	11
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.034	0.284	0.202	0.3	0.335	0.277	0.017
Departure Headway (Hd)	6.539	6.034	4.282	5.879	5.467	7.028	5.821
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	548	597	837	612	659	512	615
Service Time	4.27	3.765	2.013	3.608	3.196	4.768	3.56
HCM Lane V/C Ratio	0.035	0.283	0.202	0.301	0.334	0.277	0.018
HCM Control Delay	9.5	11.2	8.1	11.1	10.9	12.5	8.7
HCM Lane LOS	A	B	A	B	B	B	A
HCM 95th-tile Q	0.1	1.2	0.8	1.3	1.5	1.1	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	826	88	91	735	327	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.985					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3486	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3486	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	12					178
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	56.0		19.0	75.0	45.0	45.0
Total Split (%)	46.7%		15.8%	62.5%	37.5%	37.5%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

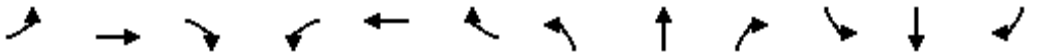
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	826	88	91	735	327	213
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	869	93	96	774	344	224
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1585	170	119	2094	606	541
Arrive On Green	0.49	0.49	0.13	1.00	0.34	0.34
Sat Flow, veh/h	3319	345	1774	3632	1774	1583
Grp Volume(v), veh/h	477	485	96	774	344	224
Grp Sat Flow(s),veh/h/ln	1770	1802	1774	1770	1774	1583
Q Serve(g_s), s	22.5	22.5	6.3	0.0	19.0	13.0
Cycle Q Clear(g_c), s	22.5	22.5	6.3	0.0	19.0	13.0
Prop In Lane		0.19	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	869	885	119	2094	606	541
V/C Ratio(X)	0.55	0.55	0.81	0.37	0.57	0.41
Avail Cap(c_a), veh/h	869	885	222	2094	606	541
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	21.3	21.3	51.2	0.0	32.3	30.3
Incr Delay (d2), s/veh	2.5	2.4	11.5	0.5	3.8	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	11.6	11.8	3.5	0.1	9.9	6.0
LnGrp Delay(d),s/veh	23.7	23.7	62.7	0.5	36.1	32.6
LnGrp LOS	C	C	E	A	D	C
Approach Vol, veh/h	962			870	568	
Approach Delay, s/veh	23.7			7.3	34.7	
Approach LOS	C			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.1	62.9				75.0		45.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	52.0				71.0		41.0
Max Q Clear Time (g_c+I1), s	8.3	24.5				2.0		21.0
Green Ext Time (p_c), s	0.1	13.1				17.1		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	3	32	2	1	1	17	157	6	5	75	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.966			0.995				0.850
Flt Protected		0.954			0.976		0.950				0.997	
Satd. Flow (prot)	0	1777	1583	0	1756	0	1770	1853	0	0	1857	1583
Flt Permitted		0.954			0.976		0.950				0.997	
Satd. Flow (perm)	0	1777	1583	0	1756	0	1770	1853	0	0	1857	1583
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	86	3	32	0	2	1	1	0	17	157	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	91	3	34	0	2	1	1	0	18	165	6
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9	8.5	9.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	97%	0%	50%	6%	0%
Vol Thru, %	0%	96%	3%	0%	25%	94%	0%
Vol Right, %	0%	4%	0%	100%	25%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	163	89	32	4	80	30
LT Vol	17	0	86	0	2	5	0
Through Vol	0	157	3	0	1	75	0
RT Vol	0	6	0	32	1	0	30
Lane Flow Rate	18	172	94	34	4	84	32
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.027	0.237	0.15	0.043	0.006	0.119	0.038
Departure Headway (Hd)	5.504	4.977	5.768	4.58	5.413	5.103	4.368
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	652	722	623	782	661	704	820
Service Time	3.224	2.696	3.492	2.304	3.447	2.825	2.09
HCM Lane V/C Ratio	0.028	0.238	0.151	0.043	0.006	0.119	0.039
HCM Control Delay	8.4	9.2	9.5	7.5	8.5	8.5	7.3
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.5	0.1	0	0.4	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	75	30
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	79	32
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.2
HCM LOS	A

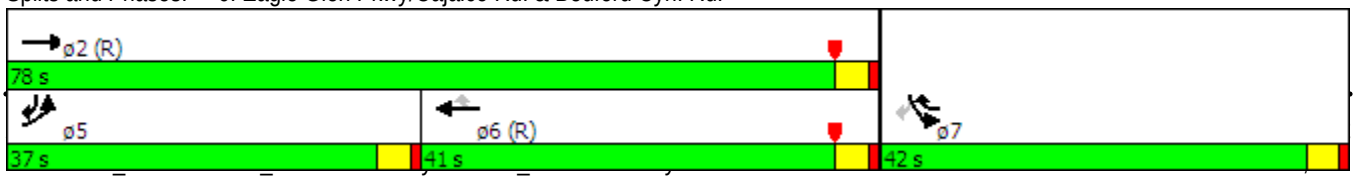
Lane

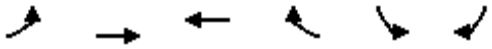
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	79	378	245	213	157	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180			200	450	0
Storage Lanes	1			2	0	1
Taper Length (ft)	100				180	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00
Ped Bike Factor				0.98		0.99
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	3539	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	3539	1550	1770	1560
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				224		146
Link Speed (mph)		45	45		45	
Link Distance (ft)		930	785		651	
Travel Time (s)		14.1	11.9		9.9	
Confl. Peds. (#/hr)				5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	7	7	5
Permitted Phases				6		7
Detector Phase	5	2	6	7	7	5
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	30.7	30.7	8.5	8.5	26.0
Total Split (s)	37.0	78.0	41.0	42.0	42.0	37.0
Total Split (%)	30.8%	65.0%	34.2%	35.0%	35.0%	30.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	C-Max	C-Max	Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	79	378	245	213	157	139
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	83	398	258	224	165	146
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	108	1149	1850	1325	562	597
Arrive On Green	0.06	0.62	0.17	0.17	0.32	0.32
Sat Flow, veh/h	1774	1863	3632	1576	1774	1583
Grp Volume(v), veh/h	83	398	258	224	165	146
Grp Sat Flow(s),veh/h/ln	1774	1863	1770	1576	1774	1583
Q Serve(g_s), s	5.5	12.5	7.4	5.0	8.4	7.6
Cycle Q Clear(g_c), s	5.5	12.5	7.4	5.0	8.4	7.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	108	1149	1850	1325	562	597
V/C Ratio(X)	0.77	0.35	0.14	0.17	0.29	0.24
Avail Cap(c_a), veh/h	488	1149	1850	1325	562	597
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	1.00	1.00
Uniform Delay (d), s/veh	55.5	11.2	26.8	3.4	30.9	25.6
Incr Delay (d2), s/veh	11.0	0.8	0.1	0.3	1.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.0	6.7	3.7	9.5	4.3	8.0
LnGrp Delay(d),s/veh	66.6	12.0	26.9	3.6	32.2	26.6
LnGrp LOS	E	B	C	A	C	C
Approach Vol, veh/h		481	482		311	
Approach Delay, s/veh		21.4	16.1		29.6	
Approach LOS		C	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		78.0		42.0	11.3	66.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		74.0		38.0	33.0	37.0		
Max Q Clear Time (g_c+I1), s		14.5		10.4	7.5	9.4		
Green Ext Time (p_c), s		3.9		1.2	0.2	3.7		

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	746	293	147	568	0	0	0	0	111	4	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958										0.850
Flt Protected				0.950							0.954	
Satd. Flow (prot)	0	3391	0	1770	3539	0	0	0	0	0	1777	1583
Flt Permitted				0.950							0.954	
Satd. Flow (perm)	0	3391	0	1770	3539	0	0	0	0	0	1777	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		69										272
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		64.0		26.0	90.0					30.0	30.0	30.0
Total Split (%)		53.3%		21.7%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	746	293	147	568	0	0	0	0	111	4	258
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	785	308	155	598	0				117	4	272
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1444	566	182	2536	0				372	13	343
Arrive On Green	0.00	1.00	1.00	0.20	1.00	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2579	974	1774	3632	0				1718	59	1583
Grp Volume(v), veh/h	0	559	534	155	598	0				121	0	272
Grp Sat Flow(s),veh/h/ln	0	1770	1691	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	0.0	0.0	10.1	0.0	0.0				6.9	0.0	19.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.1	0.0	0.0				6.9	0.0	19.5
Prop In Lane	0.00		0.58	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	1028	982	182	2536	0				385	0	343
V/C Ratio(X)	0.00	0.54	0.54	0.85	0.24	0.00				0.31	0.00	0.79
Avail Cap(c_a), veh/h	0	1028	982	325	2536	0				385	0	343
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.82	0.71	0.71	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	46.8	0.0	0.0				39.5	0.0	44.5
Incr Delay (d2), s/veh	0.0	1.7	1.8	7.9	0.2	0.0				2.1	0.0	17.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.5	0.5	5.3	0.1	0.0				3.6	0.0	10.2
LnGrp Delay(d),s/veh	0.0	1.7	1.8	54.8	0.2	0.0				41.6	0.0	61.4
LnGrp LOS		A	A	D	A					D		E
Approach Vol, veh/h		1093			753						393	
Approach Delay, s/veh		1.7			11.4						55.3	
Approach LOS		A			B						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	16.3	73.7		30.0		90.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	22.0	60.0		26.0		86.0		
Max Q Clear Time (g_c+I1), s	12.1	2.0		21.5		2.0		
Green Ext Time (p_c), s	0.3	15.9		0.7		16.5		

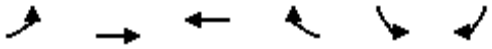
Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	108	427	388	84	315	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	*1.00	1.00
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1540
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				88		194
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	22.0	75.0	53.0	53.0	45.0	45.0
Total Split (%)	18.3%	62.5%	44.2%	44.2%	37.5%	37.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 97 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
* User Entered Value

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	108	427	388	84	315	184
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	114	449	408	88	332	194
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	141	1102	892	758	606	541
Arrive On Green	0.08	0.59	0.96	0.96	0.34	0.34
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	114	449	408	88	332	194
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	7.6	15.6	2.0	0.3	18.2	11.0
Cycle Q Clear(g_c), s	7.6	15.6	2.0	0.3	18.2	11.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	141	1102	892	758	606	541
V/C Ratio(X)	0.81	0.41	0.46	0.12	0.55	0.36
Avail Cap(c_a), veh/h	266	1102	892	758	606	541
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	54.3	13.2	1.4	1.3	32.0	29.6
Incr Delay (d2), s/veh	9.9	1.1	1.6	0.3	3.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.1	8.3	1.1	0.2	9.4	10.9
LnGrp Delay(d),s/veh	64.2	14.2	3.0	1.6	35.5	31.5
LnGrp LOS	E	B	A	A	D	C
Approach Vol, veh/h		563	496		526	
Approach Delay, s/veh		24.4	2.7		34.0	
Approach LOS		C	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		75.0		45.0	13.6	61.4		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		71.0		41.0	18.0	49.0		
Max Q Clear Time (g_c+I1), s		17.6		20.2	9.6	4.0		
Green Ext Time (p_c), s		4.0		2.0	0.2	4.0		

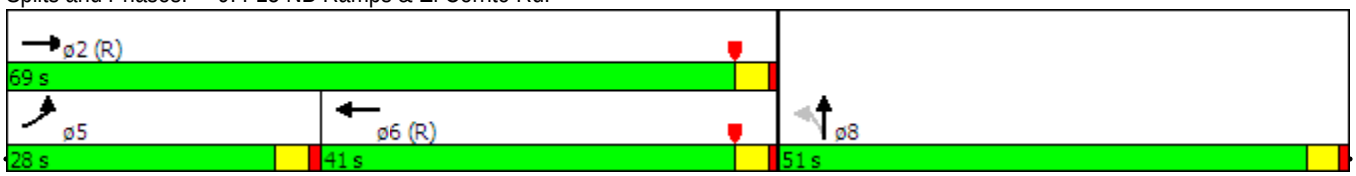
Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	443	414	0	0	434	314	281	1	185	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.937			0.946				
Flt Protected	0.950							0.971				
Satd. Flow (prot)	3433	1863	0	0	3316	0	0	1711	0	0	0	0
Flt Permitted	0.950							0.971				
Satd. Flow (perm)	3433	1863	0	0	3316	0	0	1711	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					158			32				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	28.0	69.0			41.0		51.0	51.0				
Total Split (%)	23.3%	57.5%			34.2%		42.5%	42.5%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	443	414	0	0	434	314	281	1	185	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	466	436	0	0	457	331	296	1	195			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	531	1009	0	0	696	502	399	1	263			
Arrive On Green	0.26	0.90	0.00	0.00	0.35	0.35	0.39	0.39	0.39			
Sat Flow, veh/h	3442	1863	0	0	2058	1417	1019	3	671			
Grp Volume(v), veh/h	466	436	0	0	411	377	492	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1613	1693	0	0			
Q Serve(g_s), s	15.6	4.4	0.0	0.0	23.5	23.6	29.9	0.0	0.0			
Cycle Q Clear(g_c), s	15.6	4.4	0.0	0.0	23.5	23.6	29.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.88	0.60		0.40			
Lane Grp Cap(c), veh/h	531	1009	0	0	626	571	663	0	0			
V/C Ratio(X)	0.88	0.43	0.00	0.00	0.66	0.66	0.74	0.00	0.00			
Avail Cap(c_a), veh/h	688	1009	0	0	626	571	663	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.79	0.79	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.4	2.8	0.0	0.0	32.6	32.7	31.3	0.0	0.0			
Incr Delay (d2), s/veh	8.2	1.1	0.0	0.0	5.3	5.9	7.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	7.9	2.3	0.0	0.0	12.4	11.4	15.3	0.0	0.0			
LnGrp Delay(d),s/veh	51.7	3.9	0.0	0.0	37.9	38.6	38.6	0.0	0.0			
LnGrp LOS	D	A			D	D	D					
Approach Vol, veh/h		902			788			492				
Approach Delay, s/veh		28.6			38.2			38.6				
Approach LOS		C			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.0			22.5	46.5		51.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		65.0			24.0	37.0		47.0
Max Q Clear Time (g_c+I1), s		6.4			17.6	25.6		31.9
Green Ext Time (p_c), s		9.2			0.9	5.4		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	427	0	0	376	1092	96	0	55	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor									0.94			
Frt						0.850			0.850			
Flt Protected	0.950							0.950				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	1770	1583	0	0	0
Flt Permitted	0.950							0.950				
Satd. Flow (perm)	1770	1863	0	0	1863	1583	0	1770	1493	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						314			58			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	27.0	108.0			81.0	81.0	12.0	12.0	12.0			
Total Split (%)	22.5%	90.0%			67.5%	67.5%	10.0%	10.0%	10.0%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 54 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	315	427	0	0	376	1092	96	0	55	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	332	449	0	0	396	1149	101	0	58			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	340	1614	0	0	1195	1016	118	0	102			
Arrive On Green	0.38	1.00	0.00	0.00	0.64	0.64	0.07	0.00	0.07			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1774	0	1524			
Grp Volume(v), veh/h	332	449	0	0	396	1149	101	0	58			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1774	0	1524			
Q Serve(g_s), s	22.1	0.0	0.0	0.0	11.6	77.0	6.8	0.0	4.4			
Cycle Q Clear(g_c), s	22.1	0.0	0.0	0.0	11.6	77.0	6.8	0.0	4.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	340	1614	0	0	1195	1016	118	0	102			
V/C Ratio(X)	0.98	0.28	0.00	0.00	0.33	1.13	0.85	0.00	0.57			
Avail Cap(c_a), veh/h	340	1614	0	0	1195	1016	118	0	102			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.88	0.88	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.7	0.0	0.0	0.0	9.8	21.5	55.4	0.0	54.3			
Incr Delay (d2), s/veh	39.4	0.4	0.0	0.0	0.7	71.5	50.4	0.0	21.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	14.4	0.2	0.0	0.0	6.2	53.5	5.0	0.0	2.5			
LnGrp Delay(d),s/veh	76.2	0.4	0.0	0.0	10.5	93.0	105.8	0.0	75.6			
LnGrp LOS	E	A			B	F	F		E			
Approach Vol, veh/h		781			1545			159				
Approach Delay, s/veh		32.6			71.9			94.8				
Approach LOS		C			E			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		108.0			27.0	81.0		12.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		104.0			23.0	77.0		8.0
Max Q Clear Time (g_c+I1), s		2.0			24.1	79.0		8.8
Green Ext Time (p_c), s		14.3			0.0	0.0		0.0

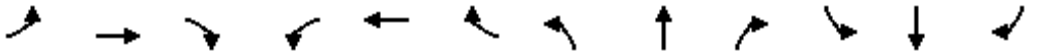
Intersection Summary	
HCM 2010 Ctrl Delay	61.0
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	341	0	0	1361	53	0	0	0	27	0	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	3539	0	1863	3539	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	3539	0	1863	3539	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118						108
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			590			544			904	
Travel Time (s)		10.6			8.9			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		8.0	8.0	8.5
Total Split (s)	14.0	76.0		8.0	70.0	70.0	26.0	26.0		10.0	10.0	14.0
Total Split (%)	11.7%	63.3%		6.7%	58.3%	58.3%	21.7%	21.7%		8.3%	8.3%	11.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	141	341	0	0	1361	53	0	0	0	27	0	103
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	148	359	0	0	1433	56	0	0	0	28	0	108
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	3126	0	1	2797	1249	0	2	0	89	0	298
Arrive On Green	0.06	0.88	0.00	0.00	0.79	0.79	0.00	0.00	0.00	0.05	0.00	0.05
Sat Flow, veh/h	3442	3632	0	1774	3539	1580	0	1863	0	1774	0	2647
Grp Volume(v), veh/h	148	359	0	0	1433	56	0	0	0	28	0	108
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1770	1580	0	1863	0	1774	0	1324
Q Serve(g_s), s	5.1	1.6	0.0	0.0	17.1	0.9	0.0	0.0	0.0	1.8	0.0	4.5
Cycle Q Clear(g_c), s	5.1	1.6	0.0	0.0	17.1	0.9	0.0	0.0	0.0	1.8	0.0	4.5
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	3126	0	1	2797	1249	0	2	0	89	0	298
V/C Ratio(X)	0.72	0.11	0.00	0.00	0.51	0.04	0.00	0.00	0.00	0.32	0.00	0.36
Avail Cap(c_a), veh/h	287	3126	0	59	2797	1249	0	342	0	89	0	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.4	0.9	0.0	0.0	4.4	2.7	0.0	0.0	0.0	55.0	0.0	49.6
Incr Delay (d2), s/veh	5.3	0.1	0.0	0.0	0.7	0.1	0.0	0.0	0.0	9.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.6	0.8	0.0	0.0	8.4	0.4	0.0	0.0	0.0	1.1	0.0	1.8
LnGrp Delay(d),s/veh	60.7	1.0	0.0	0.0	5.1	2.8	0.0	0.0	0.0	64.1	0.0	53.0
LnGrp LOS	E	A			A	A				E		D
Approach Vol, veh/h		507			1489			0			136	
Approach Delay, s/veh		18.4			5.0			0.0			55.3	
Approach LOS		B			A						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	110.0		10.0	11.2	98.8		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	72.0		6.0	10.0	66.0		22.0
Max Q Clear Time (g_c+I1), s	0.0	3.6		6.5	7.1	19.1		0.0
Green Ext Time (p_c), s	0.0	13.2		0.0	0.1	12.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	188	162	61	491	156	880	616	309	65	70	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		0.99						0.99	
Frt			0.850		0.964				0.850		0.943	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4877	0	3433	3539	1794	1770	3312	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4877	0	3433	3539	1794	1770	3312	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			171		64				302		45	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		453			935			1167			432	
Travel Time (s)		6.9			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	10.0	30.0	30.0	14.0	34.0		50.0	40.0	40.0	36.0	26.0	
Total Split (%)	8.3%	25.0%	25.0%	11.7%	28.3%		41.7%	33.3%	33.3%	30.0%	21.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

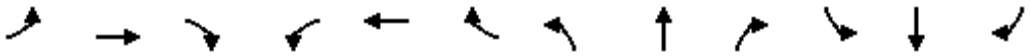
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 10 (8%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	188	162	61	491	156	880	616	309	65	70	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	19	198	171	64	517	164	926	648	325	68	74	45
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	619	524	82	1399	431	1048	1549	721	89	400	224
Arrive On Green	0.02	0.33	0.33	0.05	0.36	0.36	0.30	0.44	0.44	0.05	0.18	0.18
Sat Flow, veh/h	1774	1863	1576	1774	3851	1186	3442	3539	1647	1774	2180	1224
Grp Volume(v), veh/h	19	198	171	64	453	228	926	648	325	68	59	60
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1648	1721	1770	1647	1774	1770	1635
Q Serve(g_s), s	1.3	9.5	9.7	4.3	11.8	12.3	30.7	15.1	16.6	4.5	3.4	3.7
Cycle Q Clear(g_c), s	1.3	9.5	9.7	4.3	11.8	12.3	30.7	15.1	16.6	4.5	3.4	3.7
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		0.75
Lane Grp Cap(c), veh/h	28	619	524	82	1231	598	1048	1549	721	89	324	300
V/C Ratio(X)	0.68	0.32	0.33	0.78	0.37	0.38	0.88	0.42	0.45	0.76	0.18	0.20
Avail Cap(c_a), veh/h	89	619	524	148	1231	598	1319	1549	721	473	324	300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	29.9	30.0	56.6	28.1	28.2	39.7	23.2	23.6	56.3	41.4	41.5
Incr Delay (d2), s/veh	25.8	1.4	1.7	14.4	0.8	1.8	6.2	0.8	2.0	12.6	1.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	5.1	4.5	2.4	5.7	5.9	15.4	7.6	7.9	2.5	1.8	1.8
LnGrp Delay(d),s/veh	84.5	31.3	31.6	71.0	28.9	30.1	45.9	24.1	25.7	68.9	42.6	43.0
LnGrp LOS	F	C	C	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		388			745			1899			187	
Approach Delay, s/veh		34.0			32.9			35.0			52.3	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	43.9	40.5	26.0	5.9	47.6	10.0	56.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	26.0	46.0	22.0	6.0	30.0	32.0	36.0
Max Q Clear Time (g_c+I1), s	6.3	11.7	32.7	5.7	3.3	14.3	6.5	18.6
Green Ext Time (p_c), s	0.0	3.9	3.8	4.5	0.0	4.0	0.2	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	520	45	11	273	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.988			0.995	
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1702	0	1770	1840	0	1770	1853	0
Flt Permitted		0.986			0.987		0.950			0.950		
Satd. Flow (perm)	0	1704	0	0	1702	0	1770	1840	0	1770	1853	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	38.4
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	20	0	9	6	19	0	31	520	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	26	0	12	8	24	0	40	667	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10	9.9	53.6
HCM LOS	A	A	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	26%	100%	0%
Vol Thru, %	0%	92%	18%	18%	0%	97%
Vol Right, %	0%	8%	53%	56%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	565	38	34	11	282
LT Vol	31	0	11	9	11	0
Through Vol	0	520	7	6	0	273
RT Vol	0	45	20	19	0	9
Lane Flow Rate	40	724	49	44	14	362
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.062	1	0.086	0.077	0.023	0.549
Departure Headway (Hd)	5.652	5.092	6.351	6.342	5.989	5.462
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	629	710	565	565	599	662
Service Time	3.432	2.872	4.383	4.376	3.708	3.186
HCM Lane V/C Ratio	0.064	1.02	0.087	0.078	0.023	0.547
HCM Control Delay	8.8	56.1	10	9.9	8.8	14.7
HCM Lane LOS	A	F	A	A	A	B
HCM 95th-tile Q	0.2	16.2	0.3	0.2	0.1	3.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	273	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	350	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	14.5
HCM LOS	B

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	520	45	11	273	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.988			0.995	
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1702	0	1770	1840	0	1770	1853	0
Flt Permitted		0.904			0.909		0.545			0.336		
Satd. Flow (perm)	0	1563	0	0	1568	0	1015	1840	0	626	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			24			10			4	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

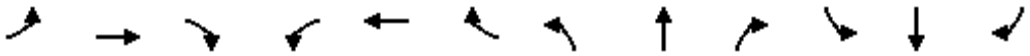
Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 18: Masters Dr. & Christopher Ln.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	7	20	9	6	19	31	520	45	11	273	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	9	26	12	8	24	40	667	58	14	350	12
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	18	47	98	18	48	843	1376	120	623	1458	50
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.81	0.81	0.81	0.55	0.55	0.55
Sat Flow, veh/h	442	343	888	415	352	920	1016	1690	147	726	1791	61
Grp Volume(v), veh/h	49	0	0	44	0	0	40	0	725	14	0	362
Grp Sat Flow(s),veh/h/ln	1673	0	0	1687	0	0	1016	0	1837	726	0	1852
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	7.3	0.6	0.0	6.1
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	0.0	6.8	0.0	7.3	7.9	0.0	6.1
Prop In Lane	0.29		0.53	0.27		0.55	1.00		0.08	1.00		0.03
Lane Grp Cap(c), veh/h	165	0	0	165	0	0	843	0	1495	623	0	1508
V/C Ratio(X)	0.30	0.00	0.00	0.27	0.00	0.00	0.05	0.00	0.48	0.02	0.00	0.24
Avail Cap(c_a), veh/h	654	0	0	655	0	0	843	0	1495	623	0	1508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	27.7	0.0	0.0	27.6	0.0	0.0	2.6	0.0	1.7	6.3	0.0	3.9
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.1	0.0	1.1	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	0.0	0.7	0.0	0.0	0.2	0.0	3.9	0.1	0.0	3.3
LnGrp Delay(d),s/veh	28.7	0.0	0.0	28.5	0.0	0.0	2.7	0.0	2.8	6.4	0.0	4.3
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		49			44			765			376	
Approach Delay, s/veh		28.7			28.5			2.8			4.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		9.3		3.6		9.9		3.4
Green Ext Time (p_c), s		7.8		0.4		7.7		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.2
HCM 2010 LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	520	45	11	273	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.990			0.996	
Flt Protected		0.986			0.987			0.997			0.998	
Satd. Flow (prot)	0	1704	0	0	1702	0	0	1839	0	0	1852	0
Flt Permitted		0.986			0.987			0.997			0.998	
Satd. Flow (perm)	0	1704	0	0	1702	0	0	1839	0	0	1852	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

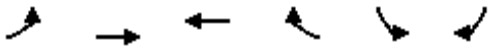
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	12.0
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	49	44	765	376
Demand Flow Rate, veh/h	50	44	780	383
Vehicles Circulating, veh/h	383	735	37	61
Vehicles Exiting, veh/h	61	82	396	718
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.4	7.7	15.0	7.2
Approach LOS	A	A	B	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	50	44	780	383
Cap Entry Lane, veh/h	770	542	1089	1063
Entry HV Adj Factor	0.976	0.996	0.980	0.982
Flow Entry, veh/h	49	44	765	376
Cap Entry, veh/h	752	540	1067	1044
V/C Ratio	0.065	0.081	0.716	0.360
Control Delay, s/veh	5.4	7.7	15.0	7.2
LOS	A	A	B	A
95th %tile Queue, veh	0	0	6	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	219	424	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.913	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1770	1863	1861	0	1670	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1770	1863	1861	0	1670	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

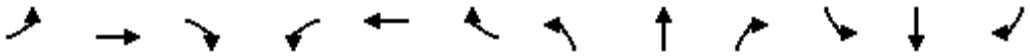
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	219	0	424	2	0	13	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	231	0	446	2	0	14	25
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	9.8	12.6	8.5
HCM LOS	A	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	35%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	65%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	219	426	37
LT Vol	7	0	0	13
Through Vol	0	219	424	0
RT Vol	0	0	2	24
Lane Flow Rate	7	231	448	39
Geometry Grp	7	7	5	2
Degree of Util (X)	0.011	0.316	0.548	0.056
Departure Headway (Hd)	5.445	4.942	4.399	5.144
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	659	728	821	696
Service Time	3.165	2.662	2.416	3.18
HCM Lane V/C Ratio	0.011	0.317	0.546	0.056
HCM Control Delay	8.2	9.9	12.6	8.5
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0	1.4	3.4	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	149	63	35	217	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956			0.997			0.955			0.939	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1770	1781	0	1770	1857	0	0	1722	0	0	1711	0
Flt Permitted	0.950			0.950				0.968			0.978	
Satd. Flow (perm)	1770	1781	0	1770	1857	0	0	1722	0	0	1711	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	149	63	0	35	217	4	0	147	1	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	157	66	0	37	228	4	0	155	1	79
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	10.6	10.8	10.7
HCM LOS	B	B	B

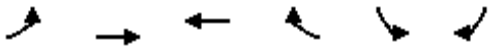
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	70%	0%	98%	9%
Vol Right, %	34%	0%	30%	0%	2%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	3	212	35	221	11
LT Vol	147	3	0	35	0	5
Through Vol	1	0	149	0	217	1
RT Vol	75	0	63	0	4	5
Lane Flow Rate	235	3	223	37	233	12
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.333	0.005	0.326	0.06	0.348	0.018
Departure Headway (Hd)	5.104	5.969	5.254	5.909	5.391	5.47
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	700	595	678	601	661	658
Service Time	3.178	3.756	3.04	3.694	3.176	3.47
HCM Lane V/C Ratio	0.336	0.005	0.329	0.062	0.352	0.018
HCM Control Delay	10.7	8.8	10.6	9.1	11.1	8.6
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.5	0	1.4	0.2	1.6	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	1	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.6
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	368	301	4	5	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.998			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3532	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3532	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

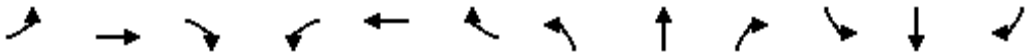
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	368	301	4	5	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	387	317	4	5	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	321	0	-	0	772	161
Stage 1	-	-	-	-	319	-
Stage 2	-	-	-	-	453	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1236	-	-	-	352	856
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	639	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1236	-	-	-	343	856
Mov Cap-2 Maneuver	-	-	-	-	343	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	622	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1236	-	-	-	343	856
HCM Lane V/C Ratio	0.026	-	-	-	0.015	0.047
HCM Control Delay (s)	8	-	-	-	15.7	9.4
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	86	306	210	94	27	59	69	128	31	107	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883				0.850		0.903			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1645	0	1770	1863	1583	1770	1682	0	1770	1861	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1645	0	1770	1863	1583	1770	1682	0	1770	1861	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	86	306	0	210	94	27	0	59	69	128
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	91	322	0	221	99	28	0	62	73	135
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	28.8	15.8	14.7
HCM LOS	D	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	35%	0%	22%	0%	100%	0%	0%	99%
Vol Right, %	0%	65%	0%	78%	0%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	197	3	392	210	94	27	31	108
LT Vol	59	0	3	0	210	0	0	31	0
Through Vol	0	69	0	86	0	94	0	0	107
RT Vol	0	128	0	306	0	0	27	0	1
Lane Flow Rate	62	207	3	413	221	99	28	33	114
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.143	0.422	0.007	0.772	0.489	0.205	0.053	0.079	0.257
Departure Headway (Hd)	8.299	7.326	7.807	6.739	7.97	7.459	6.743	8.671	8.152
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	431	489	458	536	451	480	529	412	439
Service Time	6.07	5.096	5.567	4.498	5.739	5.227	4.511	6.451	5.932
HCM Lane V/C Ratio	0.144	0.423	0.007	0.771	0.49	0.206	0.053	0.08	0.26
HCM Control Delay	12.5	15.4	10.6	28.9	18.2	12.2	9.9	12.2	13.8
HCM Lane LOS	B	C	B	D	C	B	A	B	B
HCM 95th-tile Q	0.5	2.1	0	7	2.6	0.8	0.2	0.3	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	107	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	113	1
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.4
HCM LOS	B

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	86	306	210	94	27	59	69	128	31	107	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883				0.850		0.903			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1645	0	1770	1863	1583	1770	1682	0	1770	1861	0
Flt Permitted	0.693			0.435			0.684			0.600		
Satd. Flow (perm)	1291	1645	0	810	1863	1583	1274	1682	0	1118	1861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		322				28		135			1	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%	56.7%	43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary

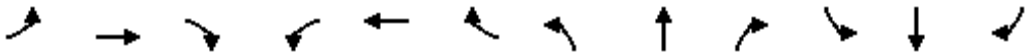
Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 1: Masters Dr. & California Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	86	306	210	94	27	59	69	128	31	107	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	3	91	322	221	99	28	62	73	135	33	113	1
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	714	180	638	441	931	792	534	215	398	443	676	6
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1258	361	1277	969	1863	1583	1273	587	1085	1169	1844	16
Grp Volume(v), veh/h	3	0	413	221	99	28	62	0	208	33	0	114
Grp Sat Flow(s),veh/h/ln	1258	0	1637	969	1863	1583	1273	0	1671	1169	0	1860
Q Serve(g_s), s	0.1	0.0	10.1	11.9	1.7	0.5	2.1	0.0	5.4	1.3	0.0	2.5
Cycle Q Clear(g_c), s	1.8	0.0	10.1	22.0	1.7	0.5	4.6	0.0	5.4	6.7	0.0	2.5
Prop In Lane	1.00		0.78	1.00		1.00	1.00		0.65	1.00		0.01
Lane Grp Cap(c), veh/h	714	0	819	441	931	792	534	0	613	443	0	682
V/C Ratio(X)	0.00	0.00	0.50	0.50	0.11	0.04	0.12	0.00	0.34	0.07	0.00	0.17
Avail Cap(c_a), veh/h	714	0	819	441	931	792	534	0	613	443	0	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.4	0.0	10.0	17.4	7.9	7.6	14.4	0.0	13.7	16.2	0.0	12.8
Incr Delay (d2), s/veh	0.0	0.0	2.2	4.0	0.2	0.1	0.4	0.0	1.5	0.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	5.0	3.6	0.9	0.3	0.8	0.0	2.7	0.4	0.0	1.4
LnGrp Delay(d),s/veh	8.4	0.0	12.2	21.4	8.2	7.7	14.8	0.0	15.2	16.5	0.0	13.3
LnGrp LOS	A		B	C	A	A	B		B	B		B
Approach Vol, veh/h		416			348			270			147	
Approach Delay, s/veh		12.2			16.5			15.1			14.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		12.1		8.7		24.0		7.4
Green Ext Time (p_c), s		4.1		1.8		2.2		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	6	31	10	13	28	28	162	16	19	343	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.927			0.986			0.986	
Flt Protected		0.986			0.990		0.950			0.950		
Satd. Flow (prot)	0	1688	0	0	1709	0	1770	1837	0	1770	1837	0
Flt Permitted		0.986			0.990		0.950			0.950		
Satd. Flow (perm)	0	1688	0	0	1709	0	1770	1837	0	1770	1837	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	15	6	31	0	10	13	28	0	28	162	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	6	33	0	11	14	29	0	29	171	17
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.7	8.7	9.6
HCM LOS	A	A	A

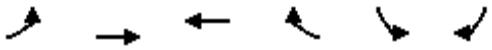
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	20%	100%	0%
Vol Thru, %	0%	91%	12%	25%	0%	91%
Vol Right, %	0%	9%	60%	55%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	178	52	51	19	377
LT Vol	28	0	15	10	19	0
Through Vol	0	162	6	13	0	343
RT Vol	0	16	31	28	0	34
Lane Flow Rate	29	187	55	54	20	397
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.046	0.266	0.079	0.078	0.031	0.545
Departure Headway (Hd)	5.674	5.107	5.215	5.228	5.509	4.943
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	630	701	683	681	649	730
Service Time	3.422	2.855	3.278	3.29	3.25	2.683
HCM Lane V/C Ratio	0.046	0.267	0.081	0.079	0.031	0.544
HCM Control Delay	8.7	9.7	8.7	8.7	8.4	13.5
HCM Lane LOS	A	A	A	A	A	B
HCM 95th-tile Q	0.1	1.1	0.3	0.3	0.1	3.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	19	343	34
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	20	361	36
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	13.3
HCM LOS	B

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	18	209	275	192	300	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.938			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3320	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3320	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	18	209	0	275	192	0	300	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	220	0	289	202	0	316	20
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	10.4	13.9	20.6
HCM LOS	B	B	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	32%	0%	0%
Vol Right, %	0%	0%	0%	0%	68%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	105	105	183	284	300	19
LT Vol	18	0	0	0	0	300	0
Through Vol	0	105	105	183	92	0	0
RT Vol	0	0	0	0	192	0	19
Lane Flow Rate	19	110	110	193	299	316	20
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.04	0.215	0.161	0.348	0.498	0.627	0.033
Departure Headway (Hd)	7.536	7.026	5.257	6.492	6.009	7.146	5.939
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	473	508	675	552	597	502	599
Service Time	5.321	4.811	3.04	4.266	3.783	4.916	3.709
HCM Lane V/C Ratio	0.04	0.217	0.163	0.35	0.501	0.629	0.033
HCM Control Delay	10.6	11.7	9.1	12.7	14.7	21.3	8.9
HCM Lane LOS	B	B	A	B	B	C	A
HCM 95th-tile Q	0.1	0.8	0.6	1.5	2.8	4.3	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1106	218	155	513	173	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.975					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3451	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3451	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	30					114
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	69.0		24.0	93.0	27.0	27.0
Total Split (%)	57.5%		20.0%	77.5%	22.5%	22.5%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

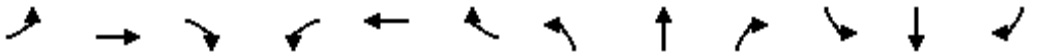
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 25 (21%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1106	218	155	513	173	108
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1164	229	163	540	182	114
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1777	347	189	2625	340	303
Arrive On Green	0.60	0.60	0.21	1.00	0.19	0.19
Sat Flow, veh/h	3046	577	1774	3632	1774	1583
Grp Volume(v), veh/h	695	698	163	540	182	114
Grp Sat Flow(s),veh/h/ln	1770	1761	1774	1770	1774	1583
Q Serve(g_s), s	30.9	31.4	10.6	0.0	11.1	7.5
Cycle Q Clear(g_c), s	30.9	31.4	10.6	0.0	11.1	7.5
Prop In Lane		0.33	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1065	1060	189	2625	340	303
V/C Ratio(X)	0.65	0.66	0.86	0.21	0.54	0.38
Avail Cap(c_a), veh/h	1065	1060	296	2625	340	303
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	15.7	15.8	46.4	0.0	43.7	42.2
Incr Delay (d2), s/veh	3.1	3.2	14.0	0.2	5.9	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	16.0	16.1	5.9	0.1	6.0	3.6
LnGrp Delay(d),s/veh	18.8	19.0	60.3	0.2	49.6	45.8
LnGrp LOS	B	B	E	A	D	D
Approach Vol, veh/h	1393			703	296	
Approach Delay, s/veh	18.9			14.1	48.1	
Approach LOS	B			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.8	76.2				93.0		27.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	20.0	65.0				89.0		23.0
Max Q Clear Time (g_c+I1), s	12.6	33.4				2.0		13.1
Green Ext Time (p_c), s	0.2	16.7				23.3		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1	24	1	1	2	33	142	7	7	260	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.932			0.993				0.850
Flt Protected		0.953			0.988		0.950				0.999	
Satd. Flow (prot)	0	1775	1583	0	1715	0	1770	1850	0	0	1861	1583
Flt Permitted		0.953			0.988		0.950				0.999	
Satd. Flow (perm)	0	1775	1583	0	1715	0	1770	1850	0	0	1861	1583
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	45	1	24	0	1	1	2	0	33	142	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	1	25	0	1	1	2	0	35	149	7
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.2	8.8	9.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	25%	3%	0%
Vol Thru, %	0%	95%	2%	0%	25%	97%	0%
Vol Right, %	0%	5%	0%	100%	50%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	149	46	24	4	267	97
LT Vol	33	0	45	0	1	7	0
Through Vol	0	142	1	0	1	260	0
RT Vol	0	7	0	24	2	0	97
Lane Flow Rate	35	157	48	25	4	281	102
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.054	0.22	0.085	0.036	0.007	0.386	0.12
Departure Headway (Hd)	5.584	5.049	6.334	5.136	5.695	4.942	4.227
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	642	710	565	695	626	728	848
Service Time	3.317	2.781	4.08	2.881	3.749	2.668	1.952
HCM Lane V/C Ratio	0.055	0.221	0.085	0.036	0.006	0.386	0.12
HCM Control Delay	8.6	9.2	9.7	8.1	8.8	10.8	7.5
HCM Lane LOS	A	A	A	A	A	B	A
HCM 95th-tile Q	0.2	0.8	0.3	0.1	0	1.8	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	260	97
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	274	102
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.9
HCM LOS	A

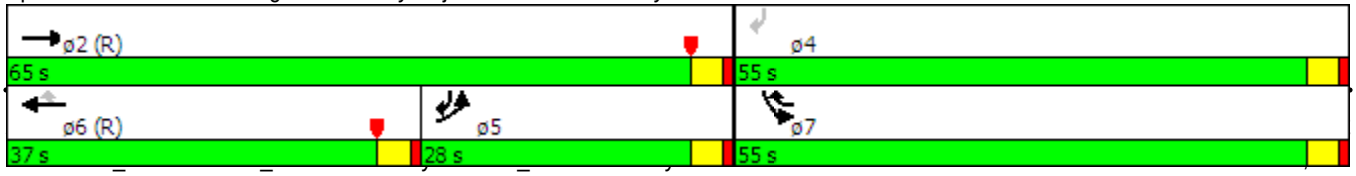
Lane

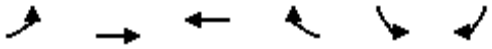
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø4
Lane Configurations							
Volume (vph)	60	449	359	84	392	108	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	180			200	450	0	
Storage Lanes	1			2	0	1	
Taper Length (ft)	100				180		
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00	
Ped Bike Factor				0.98		0.98	
Frt				0.850		0.850	
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1863	3539	1583	1770	1583	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	1863	3539	1550	1770	1550	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)				88		114	
Link Speed (mph)		45	45		45		
Link Distance (ft)		930	785		651		
Travel Time (s)		14.1	11.9		9.9		
Confl. Peds. (#/hr)				5		5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Shared Lane Traffic (%)							
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	5	2	6	7	7	5	4
Permitted Phases				6		4	
Detector Phase	5	2	6	7	7	5	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	30.7	30.7	8.5	8.5	26.0	36.7
Total Split (s)	28.0	65.0	37.0	55.0	55.0	28.0	55.0
Total Split (%)	23.3%	54.2%	30.8%	45.8%	45.8%	23.3%	46%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag		Lead			Lag	
Lead-Lag Optimize?	Yes		Yes			Yes	
Recall Mode	None	C-Max	C-Max	Max	Max	None	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	60	449	359	84	392	108
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	63	473	378	88	413	114
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	355	947	973	1104	754	990
Arrive On Green	0.20	0.51	0.18	0.18	0.43	0.43
Sat Flow, veh/h	1774	1863	3632	1569	1774	1583
Grp Volume(v), veh/h	63	473	378	88	413	114
Grp Sat Flow(s),veh/h/ln	1774	1863	1770	1569	1774	1583
Q Serve(g_s), s	3.5	20.1	11.3	0.0	20.9	0.0
Cycle Q Clear(g_c), s	3.5	20.1	11.3	0.0	20.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	355	947	973	1104	754	990
V/C Ratio(X)	0.18	0.50	0.39	0.08	0.55	0.12
Avail Cap(c_a), veh/h	355	947	973	1104	754	990
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.74	0.74	1.00	1.00
Uniform Delay (d), s/veh	39.8	19.4	40.1	3.9	25.9	9.1
Incr Delay (d2), s/veh	0.2	1.9	0.9	0.1	2.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.8	10.7	5.6	2.9	10.8	3.8
LnGrp Delay(d),s/veh	40.1	21.3	40.9	4.0	28.7	9.3
LnGrp LOS	D	C	D	A	C	A
Approach Vol, veh/h		536	466		527	
Approach Delay, s/veh		23.5	34.0		24.5	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		65.0		55.0	28.0	37.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		61.0		51.0	24.0	33.0		
Max Q Clear Time (g_c+I1), s		22.1		22.9	5.5	13.3		
Green Ext Time (p_c), s		2.1		2.1	1.9	1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	491	723	83	448	0	0	0	0	150	37	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.911										0.850
Flt Protected				0.950							0.961	
Satd. Flow (prot)	0	3224	0	1770	3539	0	0	0	0	0	1790	1583
Flt Permitted				0.950							0.961	
Satd. Flow (perm)	0	3224	0	1770	3539	0	0	0	0	0	1790	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		512										232
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		72.0		18.0	90.0					30.0	30.0	30.0
Total Split (%)		60.0%		15.0%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	491	723	83	448	0	0	0	0	150	37	220
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	517	761	87	472	0				158	39	232
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1101	985	109	2536	0				311	77	343
Arrive On Green	0.00	0.21	0.21	0.12	1.00	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	1863	1583	1774	3632	0				1436	355	1583
Grp Volume(v), veh/h	0	517	761	87	472	0				197	0	232
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	30.8	54.5	5.7	0.0	0.0				11.6	0.0	16.1
Cycle Q Clear(g_c), s	0.0	30.8	54.5	5.7	0.0	0.0				11.6	0.0	16.1
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1101	985	109	2536	0				388	0	343
V/C Ratio(X)	0.00	0.47	0.77	0.80	0.19	0.00				0.51	0.00	0.68
Avail Cap(c_a), veh/h	0	1101	985	207	2536	0				388	0	343
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.70	0.70	0.97	0.97	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.3	39.7	51.9	0.0	0.0				41.4	0.0	43.1
Incr Delay (d2), s/veh	0.0	1.0	4.2	12.1	0.2	0.0				4.7	0.0	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	15.5	25.0	3.2	0.1	0.0				6.3	0.0	8.0
LnGrp Delay(d),s/veh	0.0	31.3	43.8	64.0	0.2	0.0				46.1	0.0	53.4
LnGrp LOS		C	D	E	A					D		D
Approach Vol, veh/h		1278			559						429	
Approach Delay, s/veh		38.8			10.1						50.0	
Approach LOS		D			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.4	78.6		30.0		90.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	68.0		26.0		86.0		
Max Q Clear Time (g_c+I1), s	7.7	56.5		18.1		2.0		
Green Ext Time (p_c), s	0.1	7.9		1.1		19.5		

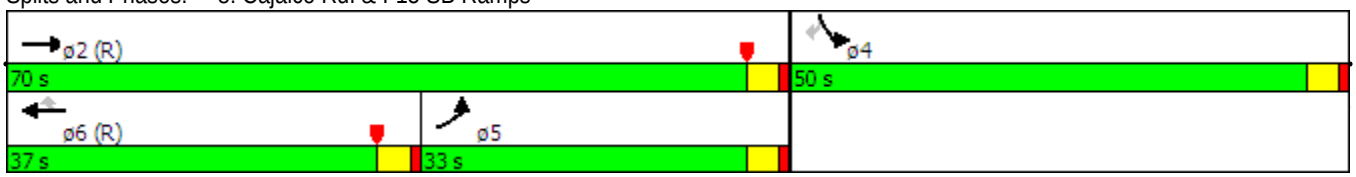
Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

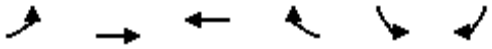
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	338	503	387	272	553	276
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	*1.00	1.00
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1542
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				262		268
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	33.0	70.0	37.0	37.0	50.0	50.0
Total Split (%)	27.5%	58.3%	30.8%	30.8%	41.7%	41.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 97 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
* User Entered Value

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	338	503	387	272	553	276
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	356	529	407	286	582	291
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	429	1025	512	435	680	607
Arrive On Green	0.48	1.00	0.09	0.09	0.38	0.38
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	356	529	407	286	582	291
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	20.8	0.0	25.7	21.0	36.1	16.7
Cycle Q Clear(g_c), s	20.8	0.0	25.7	21.0	36.1	16.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	429	1025	512	435	680	607
V/C Ratio(X)	0.83	0.52	0.79	0.66	0.86	0.48
Avail Cap(c_a), veh/h	429	1025	512	435	680	607
HCM Platoon Ratio	2.00	2.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.84	1.00	1.00
Uniform Delay (d), s/veh	28.9	0.0	51.2	49.1	34.0	28.0
Incr Delay (d2), s/veh	11.1	1.6	10.2	6.4	13.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	11.4	0.4	14.7	10.0	20.1	16.1
LnGrp Delay(d),s/veh	39.9	1.6	61.5	55.4	47.0	30.7
LnGrp LOS	D	A	E	E	D	C
Approach Vol, veh/h		885	693		873	
Approach Delay, s/veh		17.0	59.0		41.6	
Approach LOS		B	E		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		70.0		50.0	33.0	37.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		66.0		46.0	29.0	33.0		
Max Q Clear Time (g_c+I1), s		2.0		38.1	22.8	27.7		
Green Ext Time (p_c), s		3.8		2.5	2.0	1.4		

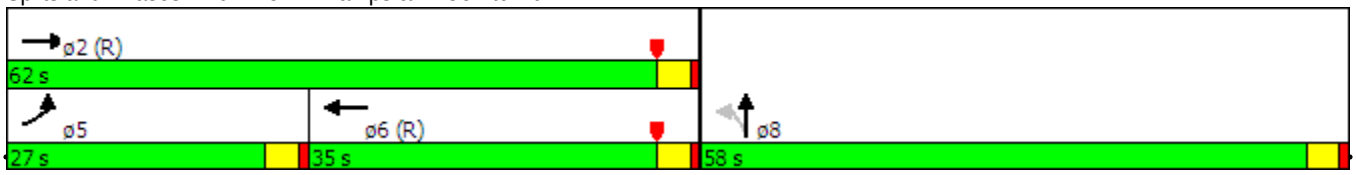
Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	256	385	0	0	235	59	296	7	58	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.970			0.978				
Flt Protected	0.950							0.961				
Satd. Flow (prot)	3433	1863	0	0	3433	0	0	1751	0	0	0	0
Flt Permitted	0.950							0.961				
Satd. Flow (perm)	3433	1863	0	0	3433	0	0	1751	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25			10				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	27.0	62.0			35.0		58.0	58.0				
Total Split (%)	22.5%	51.7%			29.2%		48.3%	48.3%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	256	385	0	0	235	59	296	7	58	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	269	405	0	0	247	62	312	7	61			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	334	900	0	0	994	245	644	14	126			
Arrive On Green	0.19	0.97	0.00	0.00	0.35	0.35	0.45	0.45	0.45			
Sat Flow, veh/h	3442	1863	0	0	2910	693	1430	32	280			
Grp Volume(v), veh/h	269	405	0	0	153	156	380	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1740	1742	0	0			
Q Serve(g_s), s	9.0	1.5	0.0	0.0	7.4	7.6	18.4	0.0	0.0			
Cycle Q Clear(g_c), s	9.0	1.5	0.0	0.0	7.4	7.6	18.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.40	0.82		0.16			
Lane Grp Cap(c), veh/h	334	900	0	0	625	614	784	0	0			
V/C Ratio(X)	0.81	0.45	0.00	0.00	0.25	0.25	0.48	0.00	0.00			
Avail Cap(c_a), veh/h	660	900	0	0	625	614	784	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	47.3	1.1	0.0	0.0	27.5	27.6	23.2	0.0	0.0			
Incr Delay (d2), s/veh	3.6	1.2	0.0	0.0	0.9	1.0	2.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	4.4	0.8	0.0	0.0	3.7	3.8	9.3	0.0	0.0			
LnGrp Delay(d),s/veh	50.8	2.3	0.0	0.0	28.4	28.6	25.4	0.0	0.0			
LnGrp LOS	D	A			C	C	C					
Approach Vol, veh/h		674			309			380				
Approach Delay, s/veh		21.7			28.5			25.4				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		62.0			15.6	46.4		58.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		58.0			23.0	31.0		54.0
Max Q Clear Time (g_c+I1), s		3.5			11.0	9.6		20.4
Green Ext Time (p_c), s		4.4			0.7	3.9		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	856	0	0	518	489	141	0	203	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor									0.97			
Frt						0.850			0.850			
Flt Protected	0.950							0.950				
Satd. Flow (prot)	1770	1863	0	0	1863	1583	0	1770	1583	0	0	0
Flt Permitted	0.950							0.950				
Satd. Flow (perm)	1770	1863	0	0	1863	1583	0	1770	1531	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						515			214			
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	31.0	94.0			63.0	63.0	26.0	26.0	26.0			
Total Split (%)	25.8%	78.3%			52.5%	52.5%	21.7%	21.7%	21.7%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 54 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	200	856	0	0	518	489	141	0	203	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	211	901	0	0	545	515	148	0	214			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	238	1397	0	0	1085	922	325	0	286			
Arrive On Green	0.27	1.00	0.00	0.00	0.58	0.58	0.18	0.00	0.18			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1774	0	1562			
Grp Volume(v), veh/h	211	901	0	0	545	515	148	0	214			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1774	0	1562			
Q Serve(g_s), s	13.7	0.0	0.0	0.0	20.7	24.2	8.9	0.0	15.6			
Cycle Q Clear(g_c), s	13.7	0.0	0.0	0.0	20.7	24.2	8.9	0.0	15.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	238	1397	0	0	1085	922	325	0	286			
V/C Ratio(X)	0.89	0.64	0.00	0.00	0.50	0.56	0.46	0.00	0.75			
Avail Cap(c_a), veh/h	399	1397	0	0	1085	922	325	0	286			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.66	0.66	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.0	0.0	0.0	0.0	14.8	15.5	43.7	0.0	46.4			
Incr Delay (d2), s/veh	8.6	1.5	0.0	0.0	1.7	2.4	4.5	0.0	16.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	7.3	0.6	0.0	0.0	11.1	11.1	4.8	0.0	8.0			
LnGrp Delay(d),s/veh	51.7	1.5	0.0	0.0	16.4	17.9	48.2	0.0	62.6			
LnGrp LOS	D	A			B	B	D		E			
Approach Vol, veh/h		1112			1060			362				
Approach Delay, s/veh		11.0			17.2			56.7				
Approach LOS		B			B			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		94.0			20.1	73.9		26.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		90.0			27.0	59.0		22.0
Max Q Clear Time (g_c+I1), s		2.0			15.7	26.2		17.6
Green Ext Time (p_c), s		12.3			0.4	11.0		0.7

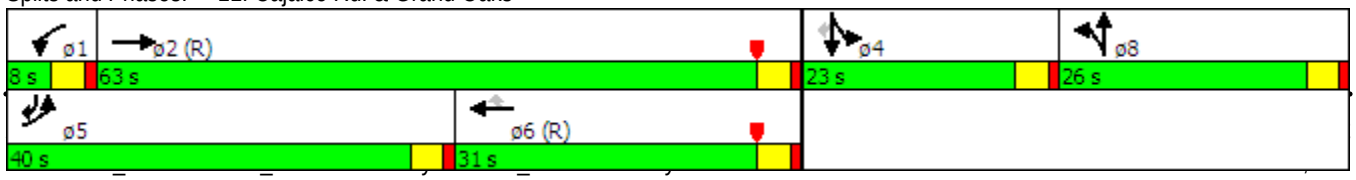
Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

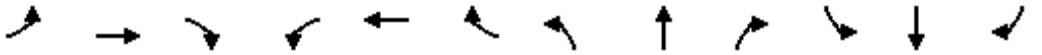
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	581	478	0	0	481	126	0	0	0	143	0	475
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	3539	0	1863	3539	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	3539	0	1863	3539	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						120						500
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			590			544			904	
Travel Time (s)		10.6			8.9			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		8.0	8.0	8.5
Total Split (s)	40.0	63.0		8.0	31.0	31.0	26.0	26.0		23.0	23.0	40.0
Total Split (%)	33.3%	52.5%		6.7%	25.8%	25.8%	21.7%	21.7%		19.2%	19.2%	33.3%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 43 (36%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	581	478	0	0	481	126	0	0	0	143	0	475
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	612	503	0	0	506	133	0	0	0	151	0	500
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	715	2743	0	1	1890	843	0	2	0	281	0	1013
Arrive On Green	0.21	0.77	0.00	0.00	0.53	0.53	0.00	0.00	0.00	0.16	0.00	0.16
Sat Flow, veh/h	3442	3632	0	1774	3539	1579	0	1863	0	1774	0	2743
Grp Volume(v), veh/h	612	503	0	0	506	133	0	0	0	151	0	500
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1770	1579	0	1863	0	1774	0	1371
Q Serve(g_s), s	20.6	4.5	0.0	0.0	9.3	5.1	0.0	0.0	0.0	9.4	0.0	17.0
Cycle Q Clear(g_c), s	20.6	4.5	0.0	0.0	9.3	5.1	0.0	0.0	0.0	9.4	0.0	17.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	715	2743	0	1	1890	843	0	2	0	281	0	1013
V/C Ratio(X)	0.86	0.18	0.00	0.00	0.27	0.16	0.00	0.00	0.00	0.54	0.00	0.49
Avail Cap(c_a), veh/h	1032	2743	0	59	1890	843	0	342	0	281	0	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	3.5	0.0	0.0	15.2	14.2	0.0	0.0	0.0	46.5	0.0	29.5
Incr Delay (d2), s/veh	5.0	0.1	0.0	0.0	0.3	0.4	0.0	0.0	0.0	7.2	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	10.3	2.2	0.0	0.0	4.7	2.3	0.0	0.0	0.0	5.2	0.0	6.6
LnGrp Delay(d),s/veh	50.8	3.7	0.0	0.0	15.6	14.6	0.0	0.0	0.0	53.7	0.0	31.2
LnGrp LOS	D	A			B	B				D		C
Approach Vol, veh/h		1115			639			0			651	
Approach Delay, s/veh		29.6			15.4			0.0			36.4	
Approach LOS		C			B						D	

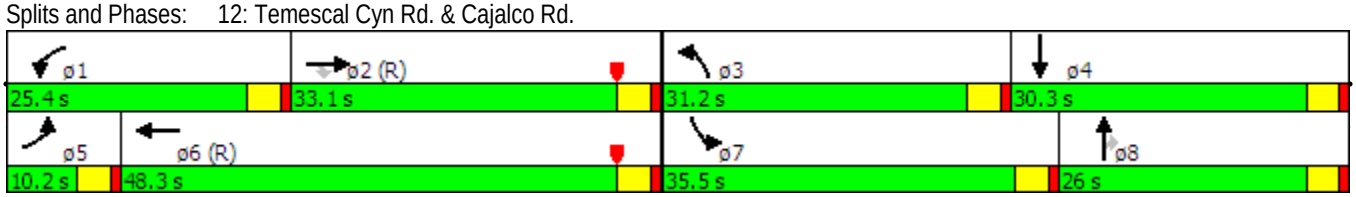
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	97.0		23.0	28.9	68.1		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	59.0		19.0	36.0	27.0		22.0
Max Q Clear Time (g_c+I1), s	0.0	6.5		19.0	22.6	11.3		0.0
Green Ext Time (p_c), s	0.0	5.7		0.0	2.4	4.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	281	313	177	328	96	239	166	92	238	332	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		1.00						1.00	
Frt			0.850		0.966				0.850		0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4889	0	3433	3539	1794	1770	3475	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4889	0	3433	3539	1794	1770	3475	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			329		70				155		10	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		453			935			1167			432	
Travel Time (s)		6.9			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	10.2	33.1	33.1	25.4	48.3		31.2	26.0	26.0	35.5	30.3	
Total Split (%)	8.5%	27.6%	27.6%	21.2%	40.3%		26.0%	21.7%	21.7%	29.6%	25.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 10 (8%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

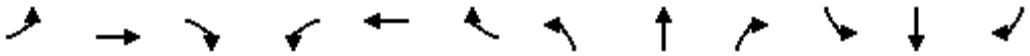
Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	281	313	177	328	96	239	166	92	238	332	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	28	296	329	186	345	101	252	175	97	251	349	42
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	746	632	216	1983	555	329	649	302	285	791	94
Arrive On Green	0.02	0.40	0.40	0.12	0.50	0.50	0.10	0.18	0.18	0.16	0.25	0.25
Sat Flow, veh/h	1774	1863	1577	1774	3949	1105	3442	3539	1647	1774	3182	380
Grp Volume(v), veh/h	28	296	329	186	294	152	252	175	97	251	193	198
Grp Sat Flow(s),veh/h/ln	1774	1863	1577	1774	1695	1664	1721	1770	1647	1774	1770	1793
Q Serve(g_s), s	1.9	13.6	19.0	12.3	5.7	6.0	8.6	5.1	6.1	16.6	11.0	11.2
Cycle Q Clear(g_c), s	1.9	13.6	19.0	12.3	5.7	6.0	8.6	5.1	6.1	16.6	11.0	11.2
Prop In Lane	1.00		1.00	1.00		0.66	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	36	746	632	216	1703	836	329	649	302	285	440	446
V/C Ratio(X)	0.78	0.40	0.52	0.86	0.17	0.18	0.77	0.27	0.32	0.88	0.44	0.44
Avail Cap(c_a), veh/h	92	746	632	316	1703	836	780	649	302	466	440	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	25.6	27.3	51.7	16.3	16.4	52.9	42.1	42.5	49.2	38.0	38.1
Incr Delay (d2), s/veh	29.6	1.6	3.1	14.6	0.2	0.5	3.7	1.0	2.8	10.7	3.2	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	7.3	8.8	6.9	2.7	2.9	4.3	2.6	3.0	9.0	5.8	6.0
LnGrp Delay(d),s/veh	88.1	27.2	30.3	66.3	16.5	16.8	56.7	43.1	45.3	59.9	41.2	41.3
LnGrp LOS	F	C	C	E	B	B	E	D	D	E	D	D
Approach Vol, veh/h		653			632			524			642	
Approach Delay, s/veh		31.4			31.2			50.0			48.5	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	52.1	15.5	33.8	6.4	64.3	23.3	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.4	29.1	27.2	26.3	6.2	44.3	31.5	22.0
Max Q Clear Time (g_c+I1), s	14.3	21.0	10.6	13.2	3.9	8.0	18.6	8.1
Green Ext Time (p_c), s	0.3	3.0	0.9	2.2	0.0	4.9	0.7	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	39.8
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	51	18	4	6	4	238	9	7	603	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.893			0.972			0.995			0.997	
Flt Protected		0.991			0.968		0.950			0.950		
Satd. Flow (prot)	0	1648	0	0	1753	0	1770	1853	0	1770	1857	0
Flt Permitted		0.991			0.968		0.950			0.950		
Satd. Flow (perm)	0	1648	0	0	1753	0	1770	1853	0	1770	1857	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	27.4
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	2	51	0	18	4	6	0	4	238	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	2	54	0	19	4	6	0	4	251	9
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.5	9.7	11.5
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	17%	64%	100%	0%
Vol Thru, %	0%	96%	3%	14%	0%	98%
Vol Right, %	0%	4%	80%	21%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	247	64	28	7	616
LT Vol	4	0	11	18	7	0
Through Vol	0	238	2	4	0	603
RT Vol	0	9	51	6	0	13
Lane Flow Rate	4	260	67	29	7	648
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.007	0.385	0.109	0.052	0.011	0.905
Departure Headway (Hd)	5.867	5.337	5.833	6.384	5.54	5.023
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	605	668	618	564	642	720
Service Time	3.65	3.119	3.835	4.387	3.307	2.789
HCM Lane V/C Ratio	0.007	0.389	0.108	0.051	0.011	0.9
HCM Control Delay	8.7	11.5	9.5	9.7	8.4	36.7
HCM Lane LOS	A	B	A	A	A	E
HCM 95th-tile Q	0	1.8	0.4	0.2	0	11.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	603	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	635	14
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	36.4
HCM LOS	E

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	51	18	4	6	4	238	9	7	603	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.893			0.972			0.995			0.997	
Flt Protected		0.991			0.968		0.950			0.950		
Satd. Flow (prot)	0	1648	0	0	1753	0	1770	1853	0	1770	1857	0
Flt Permitted		0.943			0.805		0.376			0.599		
Satd. Flow (perm)	0	1569	0	0	1458	0	700	1853	0	1116	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			6			4			3	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

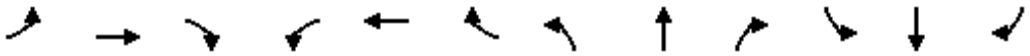
Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 18: Masters Dr. & Christopher Ln.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	2	51	18	4	6	4	238	9	7	603	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	12	2	54	19	4	6	4	251	9	7	635	14
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	7	82	160	27	23	744	1432	51	977	1454	32
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	0.80	0.80	0.80	1.00	1.00	1.00
Sat Flow, veh/h	213	111	1250	917	409	346	779	1787	64	1115	1816	40
Grp Volume(v), veh/h	68	0	0	29	0	0	4	0	260	7	0	649
Grp Sat Flow(s),veh/h/ln	1574	0	0	1672	0	0	779	0	1851	1115	0	1856
Q Serve(g_s), s	1.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.0	0.9	0.0	0.0	0.1	0.0	2.0	2.0	0.0	0.0
Prop In Lane	0.18		0.79	0.66		0.21	1.00		0.03	1.00		0.02
Lane Grp Cap(c), veh/h	174	0	0	209	0	0	744	0	1483	977	0	1486
V/C Ratio(X)	0.39	0.00	0.00	0.14	0.00	0.00	0.01	0.00	0.18	0.01	0.00	0.44
Avail Cap(c_a), veh/h	642	0	0	644	0	0	744	0	1483	977	0	1486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	27.3	0.0	0.0	26.6	0.0	0.0	1.2	0.0	1.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.4
LnGrp Delay(d),s/veh	28.8	0.0	0.0	26.9	0.0	0.0	1.2	0.0	1.6	0.1	0.0	0.9
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		68			29			264			656	
Approach Delay, s/veh		28.8			26.9			1.6			0.8	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.1		7.9		52.1		7.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		4.0		4.5		4.0		2.9
Green Ext Time (p_c), s		6.5		0.4		6.5		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	3.7
HCM 2010 LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	51	18	4	6	4	238	9	7	603	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.893			0.972			0.995			0.997	
Flt Protected		0.991			0.968			0.999			0.999	
Satd. Flow (prot)	0	1648	0	0	1753	0	0	1852	0	0	1855	0
Flt Permitted		0.991			0.968			0.999			0.999	
Satd. Flow (perm)	0	1648	0	0	1753	0	0	1852	0	0	1855	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

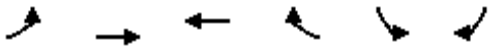
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	68	29	264	656
Demand Flow Rate, veh/h	69	29	269	669
Vehicles Circulating, veh/h	674	272	21	27
Vehicles Exiting, veh/h	22	18	722	274
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.8	4.5	5.6	11.4
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	69	29	269	669
Cap Entry Lane, veh/h	576	861	1106	1100
Entry HV Adj Factor	0.985	0.997	0.981	0.981
Flow Entry, veh/h	68	29	264	656
Cap Entry, veh/h	567	859	1086	1079
V/C Ratio	0.120	0.034	0.243	0.608
Control Delay, s/veh	7.8	4.5	5.6	11.4
LOS	A	A	A	B
95th %tile Queue, veh	0	0	1	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	593	191	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992		0.962	
Flt Protected	0.950				0.965	
Satd. Flow (prot)	1770	1863	1848	0	1729	0
Flt Permitted	0.950				0.965	
Satd. Flow (perm)	1770	1863	1848	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

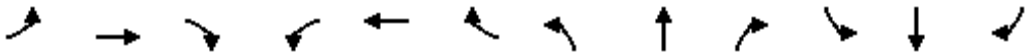
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	20.3
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	593	0	191	12	0	12	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	624	0	201	13	0	13	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	24.2	9.6	9
HCM LOS	C	A	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	71%
Vol Thru, %	0%	100%	94%	0%
Vol Right, %	0%	0%	6%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	593	203	17
LT Vol	4	0	0	12
Through Vol	0	593	191	0
RT Vol	0	0	12	5
Lane Flow Rate	4	624	214	18
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.81	0.28	0.029
Departure Headway (Hd)	5.171	4.67	4.724	5.841
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	686	768	765	615
Service Time	2.95	2.448	2.731	3.859
HCM Lane V/C Ratio	0.006	0.813	0.28	0.029
HCM Control Delay	8	24.3	9.6	9
HCM Lane LOS	A	C	A	A
HCM 95th-tile Q	0	8.6	1.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	452	125	33	147	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.967			0.997			0.948			0.973	
Flt Protected	0.950			0.950				0.972			0.971	
Satd. Flow (prot)	1770	1801	0	1770	1857	0	0	1716	0	0	1760	0
Flt Permitted	0.950			0.950				0.972			0.971	
Satd. Flow (perm)	1770	1801	0	1770	1857	0	0	1716	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	452	125	0	33	147	3	0	55	3	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	476	132	0	35	155	3	0	58	3	38
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	25.6	9.6	9.9
HCM LOS	D	A	A

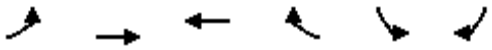
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	59%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	78%	0%	98%	20%
Vol Right, %	38%	0%	22%	0%	2%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	3	577	33	150	5
LT Vol	55	3	0	33	0	3
Through Vol	3	0	452	0	147	1
RT Vol	36	0	125	0	3	1
Lane Flow Rate	99	3	607	35	158	5
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.157	0.005	0.819	0.056	0.233	0.009
Departure Headway (Hd)	5.713	5.51	4.855	5.839	5.321	6.135
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	623	648	741	610	671	587
Service Time	3.79	3.258	2.603	3.604	3.085	4.135
HCM Lane V/C Ratio	0.159	0.005	0.819	0.057	0.235	0.009
HCM Control Delay	9.9	8.3	25.7	9	9.7	9.2
HCM Lane LOS	A	A	D	A	A	A
HCM 95th-tile Q	0.6	0	8.9	0.2	0.9	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.2
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	155	198	63	35	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.964			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3412	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3412	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	155	198	63	35	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	163	208	66	37	14

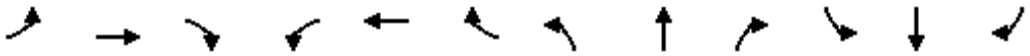
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	275	0	-	0	433	137
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	191	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1285	-	-	-	565	887
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1285	-	-	-	559	887
Mov Cap-2 Maneuver	-	-	-	-	559	-
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1285	-	-	-	559	887
HCM Lane V/C Ratio	0.011	-	-	-	0.066	0.015
HCM Control Delay (s)	7.8	-	-	-	11.9	9.1
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0

APPENDIX 5.2:

2017 WITH MODIFIED PROJECT (PHASE 1)
INTERSECTION OPERATIONS ANALYSIS WORKSHEETS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	151	63	114	83	154	80	238	241	185	120	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	37.8
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	151	63	0	114	83	154	0	80	238	241
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	174	72	0	131	95	177	0	92	274	277
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	26.5	16.7	64.5
HCM LOS	D	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	50%	0%	71%	0%	100%	0%	0%	98%
Vol Right, %	0%	50%	0%	29%	0%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	479	4	214	114	83	154	185	123
LT Vol	80	0	4	0	114	0	0	185	0
Through Vol	0	238	0	151	0	83	0	0	120
RT Vol	0	241	0	63	0	0	154	0	3
Lane Flow Rate	92	551	5	246	131	95	177	213	141
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.236	1	0.013	0.633	0.351	0.242	0.415	0.568	0.358
Departure Headway (Hd)	9.243	8.366	9.972	9.271	9.645	9.146	8.448	9.622	9.107
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	388	435	359	389	373	393	427	374	394
Service Time	7.019	6.142	7.724	7.023	7.398	6.9	6.202	7.379	6.864
HCM Lane V/C Ratio	0.237	1.267	0.014	0.632	0.351	0.242	0.415	0.57	0.358
HCM Control Delay	14.9	72.8	12.9	26.8	17.6	14.8	17.1	24.4	16.9
HCM Lane LOS	B	F	B	D	C	B	C	C	C
HCM 95th-tile Q	0.9	12.6	0	4.2	1.5	0.9	2	3.4	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	185	120	3
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	213	138	3
Number of Lanes	0	1	1	0

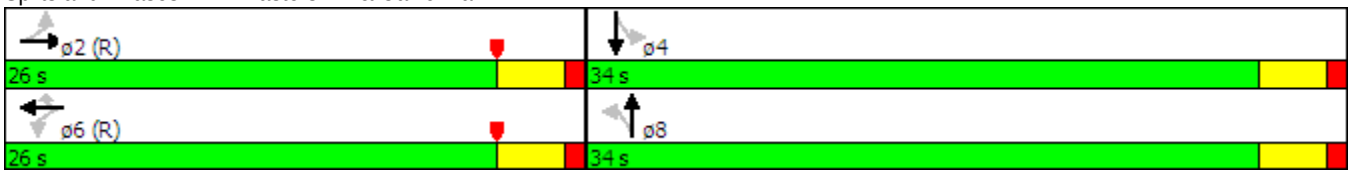
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	21.4
HCM LOS	C

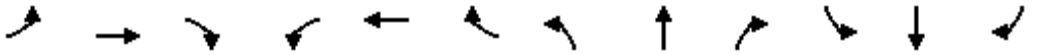
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	151	63	114	83	154	80	238	241	185	120	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Min	Min		Min	Min	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 31 (52%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Masters Dr. & California Av.

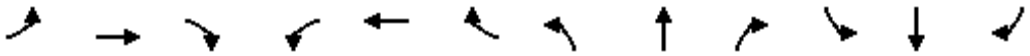




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	151	63	114	83	154	80	238	241	185	120	3
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	5	174	72	131	95	177	92	274	277	213	138	3
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	529	505	209	467	751	639	641	394	398	381	841	18
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.77	0.77	0.77	0.46	0.46	0.46
Sat Flow, veh/h	1103	1253	518	1129	1863	1583	1243	851	860	853	1816	39
Grp Volume(v), veh/h	5	0	246	131	95	177	92	0	551	213	0	141
Grp Sat Flow(s),veh/h/ln	1103	0	1771	1129	1863	1583	1243	0	1711	853	0	1856
Q Serve(g_s), s	0.2	0.0	5.8	5.5	1.9	4.5	1.5	0.0	9.5	13.9	0.0	2.6
Cycle Q Clear(g_c), s	2.1	0.0	5.8	11.2	1.9	4.5	4.2	0.0	9.5	23.3	0.0	2.6
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.50	1.00		0.02
Lane Grp Cap(c), veh/h	529	0	715	467	751	639	641	0	793	381	0	860
V/C Ratio(X)	0.01	0.00	0.34	0.28	0.13	0.28	0.14	0.00	0.70	0.56	0.00	0.16
Avail Cap(c_a), veh/h	529	0	715	467	751	639	686	0	855	412	0	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.86	0.00	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	12.4	16.3	11.3	12.0	4.6	0.0	4.7	19.3	0.0	9.4
Incr Delay (d2), s/veh	0.0	0.0	1.3	1.5	0.3	1.1	0.1	0.0	1.9	1.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	3.1	1.9	1.0	2.2	0.5	0.0	4.5	3.4	0.0	1.4
LnGrp Delay(d),s/veh	11.9	0.0	13.7	17.8	11.6	13.1	4.7	0.0	6.7	20.7	0.0	9.4
LnGrp LOS	B		B	B	B	B	A		A	C		A
Approach Vol, veh/h		251			403			643			354	
Approach Delay, s/veh		13.7			14.3			6.4			16.2	
Approach LOS		B			B			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		28.2		31.8		28.2		31.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		22.0		30.0		22.0		30.0
Max Q Clear Time (g_c+I1), s		7.8		25.3		13.2		11.5
Green Ext Time (p_c), s		2.5		2.5		2.0		6.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	8	31	11	2	31	6	127	13	23	144	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	43	8	31	0	11	2	31	0	6	127	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	45	8	33	0	12	2	33	0	6	134	14
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.3	7.8	8.9
HCM LOS	A	A	A

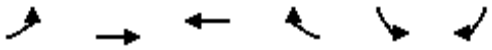
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	25%	100%	0%
Vol Thru, %	0%	91%	10%	5%	0%	93%
Vol Right, %	0%	9%	38%	70%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	140	82	44	23	155
LT Vol	6	0	43	11	23	0
Through Vol	0	127	8	2	0	144
RT Vol	0	13	31	31	0	11
Lane Flow Rate	6	147	86	46	24	163
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.01	0.203	0.113	0.058	0.037	0.223
Departure Headway (Hd)	5.517	4.949	4.7	4.505	5.484	4.931
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	649	725	763	794	654	728
Service Time	3.245	2.677	2.727	2.535	3.211	2.659
HCM Lane V/C Ratio	0.009	0.203	0.113	0.058	0.037	0.224
HCM Control Delay	8.3	8.9	8.3	7.8	8.4	9.1
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	0.8	0.4	0.2	0.1	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	144	11
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	24	152	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	27	365	276	122	135	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	27	365	0	276	122	0	135	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	384	0	291	128	0	142	14
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	10.1	11.5	12.5
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	43%	0%	0%
Vol Right, %	0%	0%	0%	0%	57%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	183	183	184	214	135	13
LT Vol	27	0	0	0	0	135	0
Through Vol	0	183	183	184	92	0	0
RT Vol	0	0	0	0	122	0	13
Lane Flow Rate	28	192	192	194	225	142	14
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.052	0.326	0.232	0.323	0.351	0.285	0.023
Departure Headway (Hd)	6.608	6.103	4.351	6.012	5.609	7.212	6.003
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	542	590	822	598	640	499	595
Service Time	4.348	3.842	2.09	3.751	3.348	4.957	3.748
HCM Lane V/C Ratio	0.052	0.325	0.234	0.324	0.352	0.285	0.024
HCM Control Delay	9.7	11.8	8.4	11.6	11.4	12.8	8.9
HCM Lane LOS	A	B	A	B	B	B	A
HCM 95th-tile Q	0.2	1.4	0.9	1.4	1.6	1.2	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	826	94	93	735	346	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Right Turn on Red		Yes				Yes
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	54.0		19.0	73.0	47.0	47.0
Total Split (%)	45.0%		15.8%	60.8%	39.2%	39.2%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

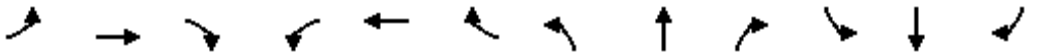
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	826	94	93	735	346	218
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	869	99	98	774	364	229
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1516	173	121	2035	636	567
Arrive On Green	0.47	0.47	0.14	1.00	0.36	0.36
Sat Flow, veh/h	3296	365	1774	3632	1774	1583
Grp Volume(v), veh/h	480	488	98	774	364	229
Grp Sat Flow(s),veh/h/ln	1770	1798	1774	1770	1774	1583
Q Serve(g_s), s	23.5	23.5	6.4	0.0	19.9	13.0
Cycle Q Clear(g_c), s	23.5	23.5	6.4	0.0	19.9	13.0
Prop In Lane		0.20	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	838	851	121	2035	636	567
V/C Ratio(X)	0.57	0.57	0.81	0.38	0.57	0.40
Avail Cap(c_a), veh/h	838	851	222	2035	636	567
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	22.8	22.8	51.0	0.0	31.1	28.9
Incr Delay (d2), s/veh	2.8	2.8	11.4	0.5	3.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	12.1	12.3	3.5	0.1	10.4	6.0
LnGrp Delay(d),s/veh	25.7	25.6	62.5	0.5	34.8	31.0
LnGrp LOS	C	C	E	A	C	C
Approach Vol, veh/h	968			872	593	
Approach Delay, s/veh	25.7			7.5	33.3	
Approach LOS	C			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.2	60.8				73.0		47.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	50.0				69.0		43.0
Max Q Clear Time (g_c+I1), s	8.4	25.5				2.0		21.9
Green Ext Time (p_c), s	0.1	12.4				17.2		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	3	32	2	1	1	17	181	6	5	83	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	86	3	32	0	2	1	1	0	17	181	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	91	3	34	0	2	1	1	0	18	191	6
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.1	8.6	9.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	97%	0%	50%	6%	0%
Vol Thru, %	0%	97%	3%	0%	25%	94%	0%
Vol Right, %	0%	3%	0%	100%	25%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	187	89	32	4	88	30
LT Vol	17	0	86	0	2	5	0
Through Vol	0	181	3	0	1	83	0
RT Vol	0	6	0	32	1	0	30
Lane Flow Rate	18	197	94	34	4	93	32
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.027	0.273	0.152	0.044	0.006	0.132	0.039
Departure Headway (Hd)	5.514	4.989	5.848	4.66	5.499	5.125	4.392
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	650	720	614	768	650	700	815
Service Time	3.239	2.715	3.581	2.392	3.543	2.853	2.12
HCM Lane V/C Ratio	0.028	0.274	0.153	0.044	0.006	0.133	0.039
HCM Control Delay	8.4	9.6	9.6	7.6	8.6	8.6	7.3
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	1.1	0.5	0.1	0	0.5	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	83	30
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	87	32
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.3
HCM LOS	A

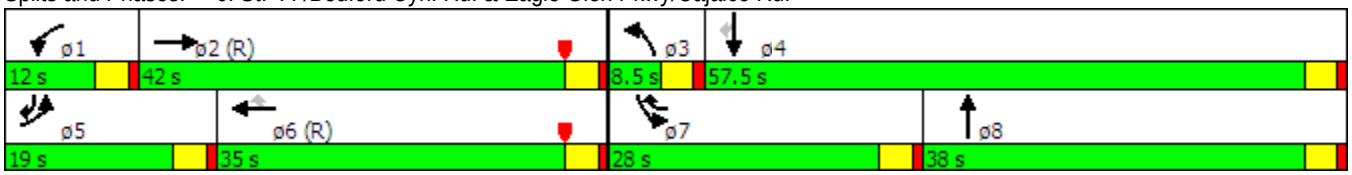
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	418	5	33	258	213	5	21	100	157	7	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	200		200	150		150	450		0
Storage Lanes	1		1	1		2	1		0	1		1
Taper Length (ft)	100			120			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			415			413			651	
Travel Time (s)		14.1			6.3			6.3			9.9	
Confl. Peds. (#/hr)			5			5			5			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	7	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	30.7		8.5	30.7	8.5	8.5	36.7		8.5	36.7	8.5
Total Split (s)	19.0	42.0		12.0	35.0	28.0	8.5	38.0		28.0	57.5	19.0
Total Split (%)	15.8%	35.0%		10.0%	29.2%	23.3%	7.1%	31.7%		23.3%	47.9%	15.8%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max	Max	Max	Max		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	82	418	5	33	258	213	5	21	100	157	7	140
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	86	440	5	35	272	224	5	22	105	165	7	147
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	1284	15	44	1138	824	67	79	379	355	830	801
Arrive On Green	0.06	0.36	0.36	0.03	0.32	0.32	0.04	0.28	0.28	0.20	0.45	0.45
Sat Flow, veh/h	1774	3584	41	1774	3539	1576	1774	280	1338	1774	1863	1578
Grp Volume(v), veh/h	86	217	228	35	272	224	5	0	127	165	7	147
Grp Sat Flow(s),veh/h/ln	1774	1770	1855	1774	1770	1576	1774	0	1618	1774	1863	1578
Q Serve(g_s), s	5.7	10.8	10.8	2.4	6.8	9.5	0.3	0.0	7.3	9.8	0.3	6.1
Cycle Q Clear(g_c), s	5.7	10.8	10.8	2.4	6.8	9.5	0.3	0.0	7.3	9.8	0.3	6.1
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	109	634	665	44	1138	824	67	0	459	355	830	801
V/C Ratio(X)	0.79	0.34	0.34	0.79	0.24	0.27	0.08	0.00	0.28	0.47	0.01	0.18
Avail Cap(c_a), veh/h	222	634	665	118	1138	824	67	0	459	355	830	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	28.2	28.2	58.2	29.9	16.0	55.7	0.0	33.4	42.3	18.5	16.0
Incr Delay (d2), s/veh	11.7	1.5	1.4	25.5	0.5	0.8	2.2	0.0	1.5	4.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.2	5.5	5.8	1.5	3.4	4.3	0.2	0.0	3.5	5.2	0.1	2.7
LnGrp Delay(d),s/veh	67.2	29.6	29.6	83.7	30.4	16.8	57.9	0.0	34.9	46.7	18.5	16.6
LnGrp LOS	E	C	C	F	C	B	E		C	D	B	B
Approach Vol, veh/h		531			531			132			319	
Approach Delay, s/veh		35.7			28.2			35.8			32.2	
Approach LOS		D			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	47.0	8.5	57.5	11.4	42.6	28.0	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	38.0	4.5	53.5	15.0	31.0	24.0	34.0
Max Q Clear Time (g_c+I1), s	4.4	12.8	2.3	8.1	7.7	11.5	11.8	9.3
Green Ext Time (p_c), s	0.0	3.9	0.0	1.2	0.1	3.7	0.4	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	751	293	147	570	0	0	0	0	111	4	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		64.0		26.0	90.0					30.0	30.0	30.0
Total Split (%)		53.3%		21.7%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	751	293	147	570	0	0	0	0	111	4	258
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	791	308	155	600	0				117	4	272
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1448	563	182	2536	0				372	13	343
Arrive On Green	0.00	1.00	1.00	0.20	1.00	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2585	969	1774	3632	0				1718	59	1583
Grp Volume(v), veh/h	0	561	538	155	600	0				121	0	272
Grp Sat Flow(s),veh/h/ln	0	1770	1692	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	0.0	0.0	10.1	0.0	0.0				6.9	0.0	19.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.1	0.0	0.0				6.9	0.0	19.5
Prop In Lane	0.00		0.57	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	1028	983	182	2536	0				385	0	343
V/C Ratio(X)	0.00	0.55	0.55	0.85	0.24	0.00				0.31	0.00	0.79
Avail Cap(c_a), veh/h	0	1028	983	325	2536	0				385	0	343
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.80	0.80	0.71	0.71	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	46.8	0.0	0.0				39.5	0.0	44.5
Incr Delay (d2), s/veh	0.0	1.7	1.8	7.9	0.2	0.0				2.1	0.0	17.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.5	0.5	5.3	0.1	0.0				3.6	0.0	10.2
LnGrp Delay(d),s/veh	0.0	1.7	1.8	54.8	0.2	0.0				41.6	0.0	61.4
LnGrp LOS		A	A	D	A					D		E
Approach Vol, veh/h		1099			755						393	
Approach Delay, s/veh		1.7			11.4						55.3	
Approach LOS		A			B						E	

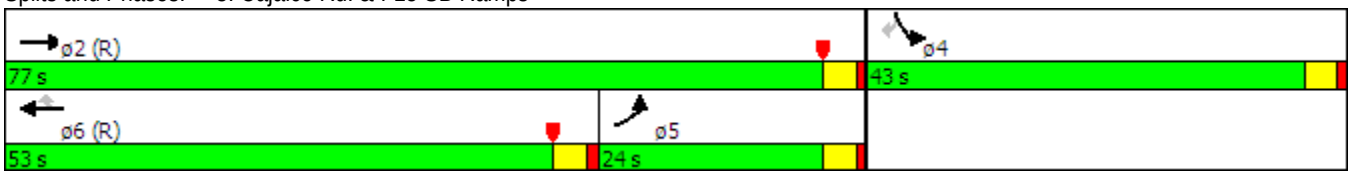
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	16.3	73.7		30.0		90.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	22.0	60.0		26.0		86.0		
Max Q Clear Time (g_c+I1), s	12.1	2.0		21.5		2.0		
Green Ext Time (p_c), s	0.3	16.0		0.7		16.7		

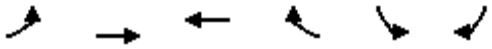
Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	139	535	406	84	315	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	24.0	77.0	53.0	53.0	43.0	43.0
Total Split (%)	20.0%	64.2%	44.2%	44.2%	35.8%	35.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 116 (97%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	139	535	406	84	315	213
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	146	563	427	88	332	224
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	296	1133	761	647	577	515
Arrive On Green	0.33	1.00	0.13	0.13	0.32	0.32
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	146	563	427	88	332	224
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	7.9	0.0	25.7	5.9	18.6	13.3
Cycle Q Clear(g_c), s	7.9	0.0	25.7	5.9	18.6	13.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	296	1133	761	647	577	515
V/C Ratio(X)	0.49	0.50	0.56	0.14	0.58	0.44
Avail Cap(c_a), veh/h	296	1133	761	647	577	515
HCM Platoon Ratio	2.00	2.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	41.9	33.3	33.6	31.8
Incr Delay (d2), s/veh	1.0	1.2	2.8	0.4	4.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.9	0.4	13.9	2.7	9.8	12.8
LnGrp Delay(d),s/veh	37.0	1.2	44.7	33.7	37.8	34.5
LnGrp LOS	D	A	D	C	D	C
Approach Vol, veh/h		709	515		556	
Approach Delay, s/veh		8.6	42.8		36.5	
Approach LOS		A	D		D	

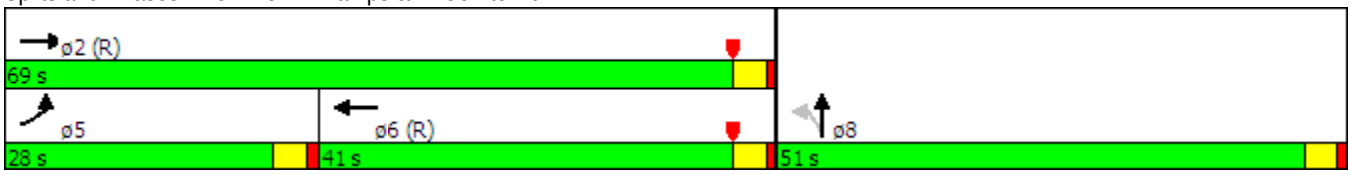
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.0		43.0	24.0	53.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		73.0		39.0	20.0	49.0		
Max Q Clear Time (g_c+I1), s		2.0		20.6	9.9	27.7		
Green Ext Time (p_c), s		3.0		2.1	2.2	1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	443	419	0	0	436	314	281	1	185	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	28.0	69.0			41.0		51.0	51.0				
Total Split (%)	23.3%	57.5%			34.2%		42.5%	42.5%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 109 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	443	419	0	0	436	314	281	1	185	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	466	441	0	0	459	331	296	1	195			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	531	1009	0	0	697	500	399	1	263			
Arrive On Green	0.26	0.90	0.00	0.00	0.35	0.35	0.39	0.39	0.39			
Sat Flow, veh/h	3442	1863	0	0	2062	1414	1019	3	671			
Grp Volume(v), veh/h	466	441	0	0	412	378	492	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1613	1693	0	0			
Q Serve(g_s), s	15.6	4.5	0.0	0.0	23.6	23.7	29.9	0.0	0.0			
Cycle Q Clear(g_c), s	15.6	4.5	0.0	0.0	23.6	23.7	29.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.88	0.60		0.40			
Lane Grp Cap(c), veh/h	531	1009	0	0	626	571	663	0	0			
V/C Ratio(X)	0.88	0.44	0.00	0.00	0.66	0.66	0.74	0.00	0.00			
Avail Cap(c_a), veh/h	688	1009	0	0	626	571	663	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.79	0.79	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.4	2.8	0.0	0.0	32.6	32.7	31.3	0.0	0.0			
Incr Delay (d2), s/veh	8.2	1.1	0.0	0.0	5.3	5.9	7.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	7.9	2.3	0.0	0.0	12.4	11.5	15.3	0.0	0.0			
LnGrp Delay(d),s/veh	51.7	3.9	0.0	0.0	38.0	38.6	38.6	0.0	0.0			
LnGrp LOS	D	A			D	D	D					
Approach Vol, veh/h		907			790			492				
Approach Delay, s/veh		28.5			38.3			38.6				
Approach LOS		C			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.0			22.5	46.5		51.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		65.0			24.0	37.0		47.0
Max Q Clear Time (g_c+I1), s		6.5			17.6	25.7		31.9
Green Ext Time (p_c), s		9.2			0.9	5.4		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	401	449	0	0	383	1092	106	0	55	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	31.0	107.8			76.8	76.8	12.2	12.2	12.2			
Total Split (%)	25.8%	89.8%			64.0%	64.0%	10.2%	10.2%	10.2%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 104 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	401	449	0	0	383	1092	106	0	55	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	422	473	0	0	403	1149	112	0	58			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	399	1611	0	0	1130	961	121	0	104			
Arrive On Green	0.45	1.00	0.00	0.00	0.61	0.61	0.07	0.00	0.07			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1774	0	1525			
Grp Volume(v), veh/h	422	473	0	0	403	1149	112	0	58			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1774	0	1525			
Q Serve(g_s), s	27.0	0.0	0.0	0.0	13.0	72.8	7.5	0.0	4.4			
Cycle Q Clear(g_c), s	27.0	0.0	0.0	0.0	13.0	72.8	7.5	0.0	4.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	399	1611	0	0	1130	961	121	0	104			
V/C Ratio(X)	1.06	0.29	0.00	0.00	0.36	1.20	0.92	0.00	0.56			
Avail Cap(c_a), veh/h	399	1611	0	0	1130	961	121	0	104			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.84	0.84	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.0	0.0	0.0	0.0	11.8	23.6	55.6	0.0	54.1			
Incr Delay (d2), s/veh	57.2	0.4	0.0	0.0	0.9	98.5	63.3	0.0	19.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	19.4	0.2	0.0	0.0	6.9	57.8	5.8	0.0	2.4			
LnGrp Delay(d),s/veh	90.2	0.4	0.0	0.0	12.7	122.1	118.9	0.0	73.9			
LnGrp LOS	F	A			B	F	F		E			
Approach Vol, veh/h		895			1552			170				
Approach Delay, s/veh		42.7			93.7			103.5				
Approach LOS		D			F			F				

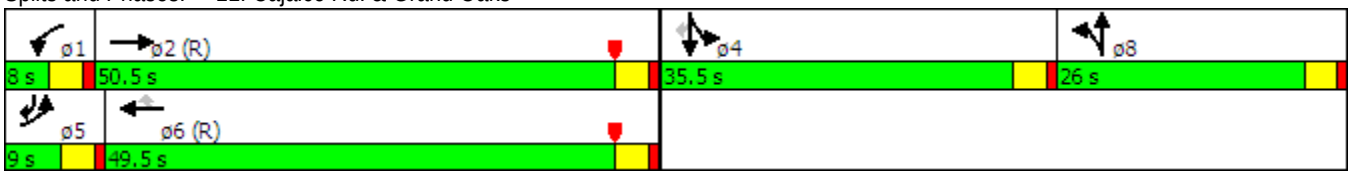
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		107.8			31.0	76.8		12.2
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		103.8			27.0	72.8		8.2
Max Q Clear Time (g_c+I1), s		2.0			29.0	74.8		9.5
Green Ext Time (p_c), s		14.7			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	76.9
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	358	0	0	1367	53	0	0	0	27	0	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			590			544			904	
Travel Time (s)		10.6			8.9			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	9.0	50.5		8.0	49.5	49.5	26.0	26.0		35.5	35.5	9.0
Total Split (%)	7.5%	42.1%		6.7%	41.3%	41.3%	21.7%	21.7%		29.6%	29.6%	7.5%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	146	358	0	0	1367	53	0	0	0	27	0	105
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	154	377	0	0	1439	56	0	0	0	28	0	111
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	2374	0	1	2109	941	0	2	0	466	0	841
Arrive On Green	0.04	0.67	0.00	0.00	0.60	0.60	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	3632	0	1774	3539	1579	0	1863	0	1774	0	2760
Grp Volume(v), veh/h	154	377	0	0	1439	56	0	0	0	28	0	111
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1770	1579	0	1863	0	1774	0	1380
Q Serve(g_s), s	5.0	4.7	0.0	0.0	33.2	1.8	0.0	0.0	0.0	1.4	0.0	3.5
Cycle Q Clear(g_c), s	5.0	4.7	0.0	0.0	33.2	1.8	0.0	0.0	0.0	1.4	0.0	3.5
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	2374	0	1	2109	941	0	2	0	466	0	841
V/C Ratio(X)	1.07	0.16	0.00	0.00	0.68	0.06	0.00	0.00	0.00	0.06	0.00	0.13
Avail Cap(c_a), veh/h	143	2374	0	59	2109	941	0	342	0	466	0	841
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.5	7.3	0.0	0.0	16.5	10.2	0.0	0.0	0.0	33.2	0.0	30.3
Incr Delay (d2), s/veh	96.3	0.1	0.0	0.0	1.8	0.1	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.3	2.4	0.0	0.0	16.7	0.8	0.0	0.0	0.0	0.7	0.0	1.4
LnGrp Delay(d),s/veh	153.8	7.4	0.0	0.0	18.3	10.3	0.0	0.0	0.0	33.4	0.0	30.6
LnGrp LOS	F	A			B	B				C		C
Approach Vol, veh/h		531			1495			0			139	
Approach Delay, s/veh		49.9			18.0			0.0			31.2	
Approach LOS		D			B						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	84.5		35.5	9.0	75.5		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	5.0	45.5		22.0
Max Q Clear Time (g_c+I1), s	0.0	6.7		5.5	7.0	35.2		0.0
Green Ext Time (p_c), s	0.0	12.5		0.6	0.0	6.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	198	167	61	494	156	882	616	309	65	70	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		453			935			1167			432	
Travel Time (s)		6.9			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	10.0	30.0	30.0	14.0	34.0		50.0	40.0	40.0	36.0	26.0	
Total Split (%)	8.3%	25.0%	25.0%	11.7%	28.3%		41.7%	33.3%	33.3%	30.0%	21.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 106 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	198	167	61	494	156	882	616	309	65	70	44
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	21	208	176	64	520	164	928	648	325	68	74	46
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	618	523	82	1394	427	1050	1551	721	89	396	227
Arrive On Green	0.02	0.33	0.33	0.05	0.36	0.36	0.31	0.44	0.44	0.05	0.18	0.18
Sat Flow, veh/h	1774	1863	1576	1774	3857	1182	3442	3539	1647	1774	2162	1239
Grp Volume(v), veh/h	21	208	176	64	455	229	928	648	325	68	59	61
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1648	1721	1770	1647	1774	1770	1632
Q Serve(g_s), s	1.4	10.1	10.1	4.3	11.9	12.3	30.8	15.1	16.6	4.5	3.4	3.8
Cycle Q Clear(g_c), s	1.4	10.1	10.1	4.3	11.9	12.3	30.8	15.1	16.6	4.5	3.4	3.8
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	30	618	523	82	1226	596	1050	1551	721	89	324	299
V/C Ratio(X)	0.71	0.34	0.34	0.78	0.37	0.38	0.88	0.42	0.45	0.76	0.18	0.20
Avail Cap(c_a), veh/h	89	618	523	148	1226	596	1319	1551	721	473	324	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	30.1	30.1	56.6	28.3	28.4	39.7	23.2	23.6	56.3	41.4	41.6
Incr Delay (d2), s/veh	26.1	1.5	1.7	14.4	0.9	1.9	6.2	0.8	2.0	12.6	1.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	5.5	4.6	2.4	5.7	5.9	15.5	7.6	7.9	2.5	1.8	1.8
LnGrp Delay(d),s/veh	84.8	31.6	31.9	71.0	29.1	30.3	45.9	24.0	25.6	68.9	42.6	43.1
LnGrp LOS	F	C	C	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		405			748			1901			188	
Approach Delay, s/veh		34.5			33.0			35.0			52.3	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	43.8	40.6	26.0	6.0	47.4	10.0	56.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	26.0	46.0	22.0	6.0	30.0	32.0	36.0
Max Q Clear Time (g_c+I1), s	6.3	12.1	32.8	5.8	3.4	14.3	6.5	18.6
Green Ext Time (p_c), s	0.0	3.9	3.8	4.5	0.0	4.1	0.2	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	340	5	17	272	5	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	804	
Travel Time (s)	11.8			19.1	12.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

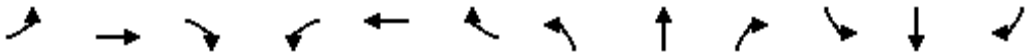
Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	340	5	17	272	5	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	200	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	358	5	18	286	5	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	363	0	683	182
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	322	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1192	-	399	830
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	734	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1192	-	393	830
Mov Cap-2 Maneuver	-	-	-	-	498	-
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	498	830	-	-	1192	-
HCM Lane V/C Ratio	0.011	0.066	-	-	0.015	-
HCM Control Delay (s)	12.3	9.6	-	-	8.1	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	529	45	11	276	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	38.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	20	0	9	6	19	0	31	529	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	26	0	12	8	24	0	40	678	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10	9.9	53.7
HCM LOS	A	A	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	26%	100%	0%
Vol Thru, %	0%	92%	18%	18%	0%	97%
Vol Right, %	0%	8%	53%	56%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	574	38	34	11	285
LT Vol	31	0	11	9	11	0
Through Vol	0	529	7	6	0	276
RT Vol	0	45	20	19	0	9
Lane Flow Rate	40	736	49	44	14	365
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.062	1	0.086	0.077	0.024	0.556
Departure Headway (Hd)	5.658	5.1	6.387	6.381	6.003	5.476
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	628	706	564	564	599	661
Service Time	3.437	2.878	4.392	4.386	3.708	3.187
HCM Lane V/C Ratio	0.064	1.042	0.087	0.078	0.023	0.552
HCM Control Delay	8.8	56.1	10	9.9	8.9	14.8
HCM Lane LOS	A	F	A	A	A	B
HCM 95th-tile Q	0.2	16.1	0.3	0.2	0.1	3.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	276	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	354	12
Number of Lanes	0	1	1	0

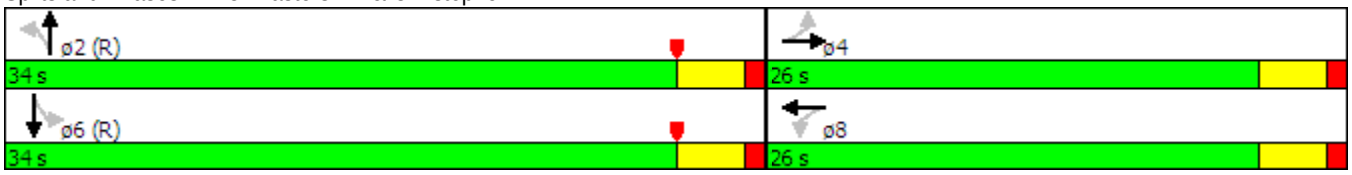
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	14.6
HCM LOS	B

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	529	45	11	276	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

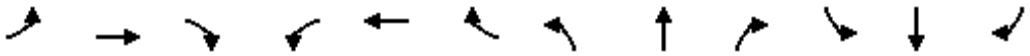
Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	7	20	9	6	19	31	529	45	11	276	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	9	26	12	8	24	40	678	58	14	354	12
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	18	47	98	18	48	944	1378	118	616	1458	49
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.81	0.81	0.81	1.00	1.00	1.00
Sat Flow, veh/h	442	343	888	415	352	920	1012	1692	145	719	1791	61
Grp Volume(v), veh/h	49	0	0	44	0	0	40	0	736	14	0	366
Grp Sat Flow(s),veh/h/ln	1673	0	0	1687	0	0	1012	0	1837	719	0	1852
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.0	7.5	0.2	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	0.0	0.5	0.0	7.5	7.6	0.0	0.0
Prop In Lane	0.29		0.53	0.27		0.55	1.00		0.08	1.00		0.03
Lane Grp Cap(c), veh/h	165	0	0	165	0	0	944	0	1496	616	0	1508
V/C Ratio(X)	0.30	0.00	0.00	0.27	0.00	0.00	0.04	0.00	0.49	0.02	0.00	0.24
Avail Cap(c_a), veh/h	654	0	0	655	0	0	944	0	1496	616	0	1508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	27.7	0.0	0.0	27.6	0.0	0.0	1.1	0.0	1.7	0.6	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.1	0.0	1.2	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	0.0	0.7	0.0	0.0	0.1	0.0	4.2	0.0	0.0	0.2
LnGrp Delay(d),s/veh	28.7	0.0	0.0	28.5	0.0	0.0	1.2	0.0	2.9	0.6	0.0	0.4
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		49			44			776			380	
Approach Delay, s/veh		28.7			28.5			2.8			0.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		9.5		3.6		9.6		3.4
Green Ext Time (p_c), s		7.9		0.4		7.8		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	4.0
HCM 2010 LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	529	45	11	276	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

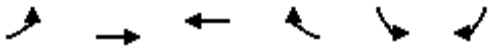
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	49	44	776	380
Demand Flow Rate, veh/h	50	44	792	387
Vehicles Circulating, veh/h	387	747	37	61
Vehicles Exiting, veh/h	61	82	400	730
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	7.8	15.4	7.2
Approach LOS	A	A	C	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	50	44	792	387
Cap Entry Lane, veh/h	767	535	1089	1063
Entry HV Adj Factor	0.976	0.996	0.980	0.982
Flow Entry, veh/h	49	44	776	380
Cap Entry, veh/h	749	533	1067	1044
V/C Ratio	0.065	0.082	0.727	0.364
Control Delay, s/veh	5.5	7.8	15.4	7.2
LOS	A	A	C	A
95th %tile Queue, veh	0	0	7	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	222	433	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

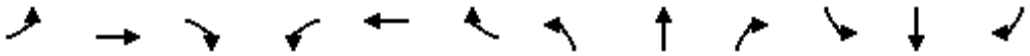
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	222	0	433	2	0	13	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	234	0	456	2	0	14	25
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	9.9	12.9	8.5
HCM LOS	A	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	35%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	65%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	222	435	37
LT Vol	7	0	0	13
Through Vol	0	222	433	0
RT Vol	0	0	2	24
Lane Flow Rate	7	234	458	39
Geometry Grp	7	7	5	2
Degree of Util (X)	0.011	0.321	0.56	0.056
Departure Headway (Hd)	5.451	4.948	4.404	5.17
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	658	729	820	692
Service Time	3.172	2.669	2.42	3.209
HCM Lane V/C Ratio	0.011	0.321	0.559	0.056
HCM Control Delay	8.2	10	12.9	8.5
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0	1.4	3.5	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	152	63	35	226	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	152	63	0	35	226	4	0	147	1	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	160	66	0	37	238	4	0	155	1	79
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	10.7	11	10.8
HCM LOS	B	B	B

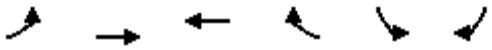
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	71%	0%	98%	9%
Vol Right, %	34%	0%	29%	0%	2%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	3	215	35	230	11
LT Vol	147	3	0	35	0	5
Through Vol	1	0	152	0	226	1
RT Vol	75	0	63	0	4	5
Lane Flow Rate	235	3	226	37	242	12
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.335	0.005	0.331	0.061	0.363	0.018
Departure Headway (Hd)	5.136	5.982	5.27	5.915	5.398	5.511
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	695	593	674	601	661	653
Service Time	3.212	3.773	3.061	3.702	3.185	3.511
HCM Lane V/C Ratio	0.338	0.005	0.335	0.062	0.366	0.018
HCM Control Delay	10.8	8.8	10.7	9.1	11.3	8.6
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.5	0	1.4	0.2	1.7	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	1	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.6
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	368	301	4	5	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

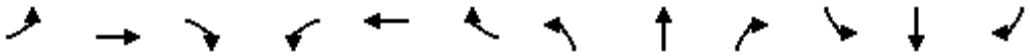
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	368	301	4	5	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	387	317	4	5	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	321	0	-	0	772	161
Stage 1	-	-	-	-	319	-
Stage 2	-	-	-	-	453	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1236	-	-	-	352	856
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	639	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1236	-	-	-	343	856
Mov Cap-2 Maneuver	-	-	-	-	343	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	622	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1236	-	-	-	343	856
HCM Lane V/C Ratio	0.026	-	-	-	0.015	0.047
HCM Control Delay (s)	8	-	-	-	15.7	9.4
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	86	308	216	94	27	60	68	131	31	109	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	86	308	0	216	94	27	0	60	68	131
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	91	324	0	227	99	28	0	63	72	138
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	29.8	16.3	14.9
HCM LOS	D	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	34%	0%	22%	0%	100%	0%	0%	99%
Vol Right, %	0%	66%	0%	78%	0%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	199	3	394	216	94	27	31	110
LT Vol	60	0	3	0	216	0	0	31	0
Through Vol	0	68	0	86	0	94	0	0	109
RT Vol	0	131	0	308	0	0	27	0	1
Lane Flow Rate	63	209	3	415	227	99	28	33	116
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.147	0.429	0.007	0.782	0.506	0.206	0.054	0.079	0.264
Departure Headway (Hd)	8.355	7.375	7.861	6.791	8.016	7.505	6.789	8.734	8.215
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	486	454	531	448	477	525	409	435
Service Time	6.13	5.149	5.627	4.556	5.789	5.277	4.56	6.519	5.999
HCM Lane V/C Ratio	0.147	0.43	0.007	0.782	0.507	0.208	0.053	0.081	0.267
HCM Control Delay	12.6	15.6	10.7	29.9	18.8	12.2	10	12.3	13.9
HCM Lane LOS	B	C	B	D	C	B	A	B	B
HCM 95th-tile Q	0.5	2.1	0	7.2	2.8	0.8	0.2	0.3	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	109	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	115	1
Number of Lanes	0	1	1	0

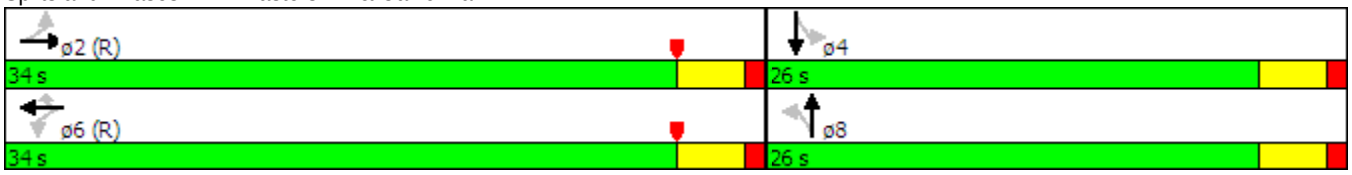
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.5
HCM LOS	B

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	86	308	216	94	27	60	70	131	31	109	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%	56.7%	43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

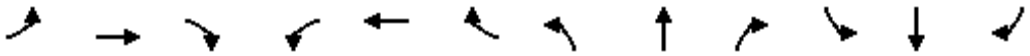
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	86	308	216	94	27	60	70	131	31	109	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	3	91	324	227	99	28	63	74	138	33	115	1
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	714	179	639	439	931	792	533	214	399	440	676	6
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1258	359	1278	967	1863	1583	1271	583	1088	1165	1844	16
Grp Volume(v), veh/h	3	0	415	227	99	28	63	0	212	33	0	116
Grp Sat Flow(s),veh/h/ln	1258	0	1637	967	1863	1583	1271	0	1671	1165	0	1860
Q Serve(g_s), s	0.1	0.0	10.2	12.3	1.7	0.5	2.1	0.0	5.5	1.3	0.0	2.5
Cycle Q Clear(g_c), s	1.8	0.0	10.2	22.5	1.7	0.5	4.6	0.0	5.5	6.8	0.0	2.5
Prop In Lane	1.00		0.78	1.00		1.00	1.00		0.65	1.00		0.01
Lane Grp Cap(c), veh/h	714	0	819	439	931	792	533	0	613	440	0	682
V/C Ratio(X)	0.00	0.00	0.51	0.52	0.11	0.04	0.12	0.00	0.35	0.08	0.00	0.17
Avail Cap(c_a), veh/h	714	0	819	439	931	792	533	0	613	440	0	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.4	0.0	10.0	17.6	7.9	7.6	14.4	0.0	13.8	16.2	0.0	12.8
Incr Delay (d2), s/veh	0.0	0.0	2.2	4.3	0.2	0.1	0.5	0.0	1.5	0.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	5.0	3.8	0.9	0.3	0.8	0.0	2.8	0.4	0.0	1.4
LnGrp Delay(d),s/veh	8.4	0.0	12.3	21.9	8.2	7.7	14.9	0.0	15.3	16.6	0.0	13.4
LnGrp LOS	A		B	C	A	A	B		B	B		B
Approach Vol, veh/h		418			354			275			149	
Approach Delay, s/veh		12.3			16.9			15.2			14.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		12.2		8.8		24.5		7.5
Green Ext Time (p_c), s		4.1		1.8		2.1		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	6	31	10	13	28	28	168	16	19	353	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	15	6	31	0	10	13	28	0	28	168	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	6	33	0	11	14	29	0	29	177	17
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.8	8.8	9.7
HCM LOS	A	A	A

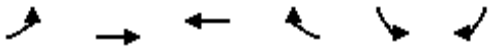
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	20%	100%	0%
Vol Thru, %	0%	91%	12%	25%	0%	91%
Vol Right, %	0%	9%	60%	55%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	184	52	51	19	387
LT Vol	28	0	15	10	19	0
Through Vol	0	168	6	13	0	353
RT Vol	0	16	31	28	0	34
Lane Flow Rate	29	194	55	54	20	407
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.047	0.276	0.08	0.079	0.031	0.56
Departure Headway (Hd)	5.686	5.121	5.255	5.266	5.517	4.952
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	628	699	677	676	648	725
Service Time	3.437	2.872	3.322	3.334	3.261	2.697
HCM Lane V/C Ratio	0.046	0.278	0.081	0.08	0.031	0.561
HCM Control Delay	8.7	9.8	8.8	8.8	8.4	13.9
HCM Lane LOS	A	A	A	A	A	B
HCM 95th-tile Q	0.1	1.1	0.3	0.3	0.1	3.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	19	353	34
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	20	372	36
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	13.6
HCM LOS	B

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	24	237	323	192	300	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	16.3
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	24	237	0	323	192	0	300	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	249	0	340	202	0	316	31
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	11	15.4	21.8
HCM LOS	B	C	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	36%	0%	0%
Vol Right, %	0%	0%	0%	0%	64%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	119	119	215	300	300	29
LT Vol	24	0	0	0	0	300	0
Through Vol	0	119	119	215	108	0	0
RT Vol	0	0	0	0	192	0	29
Lane Flow Rate	25	125	125	227	315	316	31
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.055	0.253	0.192	0.419	0.543	0.649	0.053
Departure Headway (Hd)	7.827	7.316	5.542	6.652	6.194	7.402	6.193
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	460	494	651	537	577	486	573
Service Time	5.527	5.016	3.242	4.45	3.992	5.196	3.986
HCM Lane V/C Ratio	0.054	0.253	0.192	0.423	0.546	0.65	0.054
HCM Control Delay	11	12.5	9.6	14.2	16.2	23	9.3
HCM Lane LOS	B	B	A	B	C	C	A
HCM 95th-tile Q	0.2	1	0.7	2.1	3.2	4.6	0.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1106	239	161	513	185	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Right Turn on Red		Yes				Yes
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	70.0		24.0	94.0	26.0	26.0
Total Split (%)	58.3%		20.0%	78.3%	21.7%	21.7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

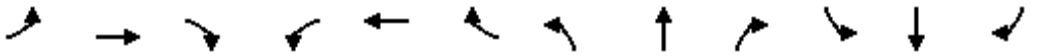
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1106	239	161	513	185	111
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1164	252	169	540	195	117
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1759	378	195	2654	325	290
Arrive On Green	0.61	0.61	0.22	1.00	0.18	0.18
Sat Flow, veh/h	2993	623	1774	3632	1774	1583
Grp Volume(v), veh/h	707	709	169	540	195	117
Grp Sat Flow(s),veh/h/ln	1770	1753	1774	1770	1774	1583
Q Serve(g_s), s	31.4	32.1	11.0	0.0	12.1	7.8
Cycle Q Clear(g_c), s	31.4	32.1	11.0	0.0	12.1	7.8
Prop In Lane		0.36	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1074	1063	195	2654	325	290
V/C Ratio(X)	0.66	0.67	0.87	0.20	0.60	0.40
Avail Cap(c_a), veh/h	1074	1063	296	2654	325	290
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	15.5	15.6	46.0	0.0	45.0	43.2
Incr Delay (d2), s/veh	3.2	3.3	15.2	0.2	7.9	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	16.1	16.3	6.2	0.1	6.6	3.7
LnGrp Delay(d),s/veh	18.6	18.9	61.2	0.2	52.9	47.3
LnGrp LOS	B	B	E	A	D	D
Approach Vol, veh/h	1416			709	312	
Approach Delay, s/veh	18.8			14.7	50.8	
Approach LOS	B			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.2	76.8				94.0		26.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	20.0	66.0				90.0		22.0
Max Q Clear Time (g_c+I1), s	13.0	34.1				2.0		14.1
Green Ext Time (p_c), s	0.2	17.2				24.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	21.7
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1	24	1	1	2	33	158	7	7	287	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	45	1	24	0	1	1	2	0	33	158	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	1	25	0	1	1	2	0	35	166	7
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.3	8.9	9.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	25%	2%	0%
Vol Thru, %	0%	96%	2%	0%	25%	98%	0%
Vol Right, %	0%	4%	0%	100%	50%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	165	46	24	4	294	97
LT Vol	33	0	45	0	1	7	0
Through Vol	0	158	1	0	1	287	0
RT Vol	0	7	0	24	2	0	97
Lane Flow Rate	35	174	48	25	4	309	102
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.054	0.245	0.087	0.037	0.007	0.426	0.12
Departure Headway (Hd)	5.616	5.083	6.436	5.237	5.801	4.961	4.246
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	638	705	556	682	615	727	843
Service Time	3.35	2.818	4.183	2.984	3.858	2.689	1.974
HCM Lane V/C Ratio	0.055	0.247	0.086	0.037	0.007	0.425	0.121
HCM Control Delay	8.7	9.5	9.8	8.2	8.9	11.3	7.6
HCM Lane LOS	A	A	A	A	A	B	A
HCM 95th-tile Q	0.2	1	0.3	0.1	0	2.1	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	287	97
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	302	102
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	10.4
HCM LOS	B

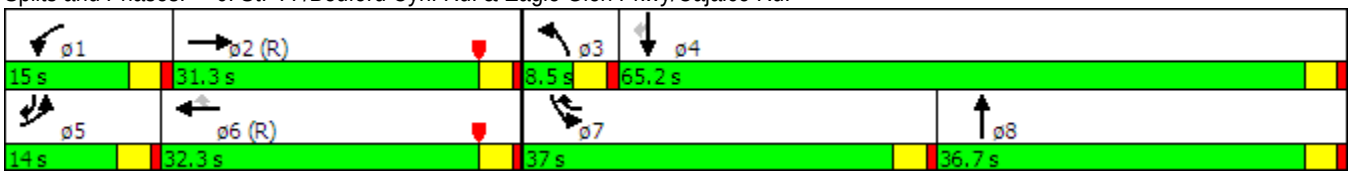
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	475	5	112	403	84	5	14	66	392	23	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	200		200	150		150	450		0
Storage Lanes	1		1	1		2	1		0	1		1
Taper Length (ft)	100			120			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			415			413			651	
Travel Time (s)		14.1			6.3			6.3			9.9	
Confl. Peds. (#/hr)			5			5			5			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	7	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	30.7		8.5	30.7	8.5	8.5	36.7		8.5	36.7	8.5
Total Split (s)	14.0	31.3		15.0	32.3	37.0	8.5	36.7		37.0	65.2	14.0
Total Split (%)	11.7%	26.1%		12.5%	26.9%	30.8%	7.1%	30.6%		30.8%	54.3%	11.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max	Max	Max	Max		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	62	475	5	112	403	84	5	14	66	392	23	112
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	65	500	5	118	424	88	5	15	69	413	24	118
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	856	9	143	963	864	67	79	362	488	950	880
Arrive On Green	0.05	0.24	0.24	0.08	0.27	0.27	0.04	0.27	0.27	0.28	0.51	0.51
Sat Flow, veh/h	1774	3590	36	1774	3539	1575	1774	289	1330	1774	1863	1579
Grp Volume(v), veh/h	65	246	259	118	424	88	5	0	84	413	24	118
Grp Sat Flow(s),veh/h/ln	1774	1770	1856	1774	1770	1575	1774	0	1619	1774	1863	1579
Q Serve(g_s), s	4.3	14.8	14.8	7.9	11.9	3.2	0.3	0.0	4.8	26.4	0.8	4.3
Cycle Q Clear(g_c), s	4.3	14.8	14.8	7.9	11.9	3.2	0.3	0.0	4.8	26.4	0.8	4.3
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.82	1.00		1.00
Lane Grp Cap(c), veh/h	84	422	442	143	963	864	67	0	441	488	950	880
V/C Ratio(X)	0.78	0.58	0.58	0.82	0.44	0.10	0.08	0.00	0.19	0.85	0.03	0.13
Avail Cap(c_a), veh/h	148	422	442	163	963	864	67	0	441	488	950	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	40.4	40.4	54.3	36.1	13.0	55.7	0.0	33.5	41.1	14.6	12.7
Incr Delay (d2), s/veh	14.2	5.8	5.6	25.2	1.5	0.2	2.2	0.0	1.0	16.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.5	7.9	8.3	4.9	6.0	1.5	0.2	0.0	2.3	15.2	0.4	2.0
LnGrp Delay(d),s/veh	70.8	46.3	46.0	79.5	37.6	13.3	57.9	0.0	34.4	57.5	14.6	13.0
LnGrp LOS	E	D	D	E	D	B	E		C	E	B	B
Approach Vol, veh/h		570			630			89			555	
Approach Delay, s/veh		48.9			42.0			35.8			46.2	
Approach LOS		D			D			D			D	

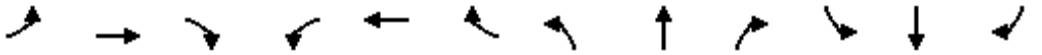
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	32.6	8.5	65.2	9.7	36.6	37.0	36.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	27.3	4.5	61.2	10.0	28.3	33.0	32.7
Max Q Clear Time (g_c+I1), s	9.9	16.8	2.3	6.3	6.3	13.9	28.4	6.8
Green Ext Time (p_c), s	0.0	3.2	0.0	0.9	0.0	3.6	0.7	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	45.1
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	494	723	83	454	0	0	0	0	150	37	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		72.0		18.0	90.0					30.0	30.0	30.0
Total Split (%)		60.0%		15.0%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	494	723	83	454	0	0	0	0	150	37	220
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	520	761	87	478	0				158	39	232
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1101	985	109	2536	0				311	77	343
Arrive On Green	0.00	0.21	0.21	0.12	1.00	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	1863	1583	1774	3632	0				1436	355	1583
Grp Volume(v), veh/h	0	520	761	87	478	0				197	0	232
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	31.0	54.5	5.7	0.0	0.0				11.6	0.0	16.1
Cycle Q Clear(g_c), s	0.0	31.0	54.5	5.7	0.0	0.0				11.6	0.0	16.1
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1101	985	109	2536	0				388	0	343
V/C Ratio(X)	0.00	0.47	0.77	0.80	0.19	0.00				0.51	0.00	0.68
Avail Cap(c_a), veh/h	0	1101	985	207	2536	0				388	0	343
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.69	0.69	0.97	0.97	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.4	39.7	51.9	0.0	0.0				41.4	0.0	43.1
Incr Delay (d2), s/veh	0.0	1.0	4.1	12.1	0.2	0.0				4.7	0.0	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	15.5	25.0	3.2	0.1	0.0				6.3	0.0	8.0
LnGrp Delay(d),s/veh	0.0	31.4	43.8	64.0	0.2	0.0				46.1	0.0	53.4
LnGrp LOS		C	D	E	A					D		D
Approach Vol, veh/h		1281			565						429	
Approach Delay, s/veh		38.7			10.0						50.0	
Approach LOS		D			A						D	

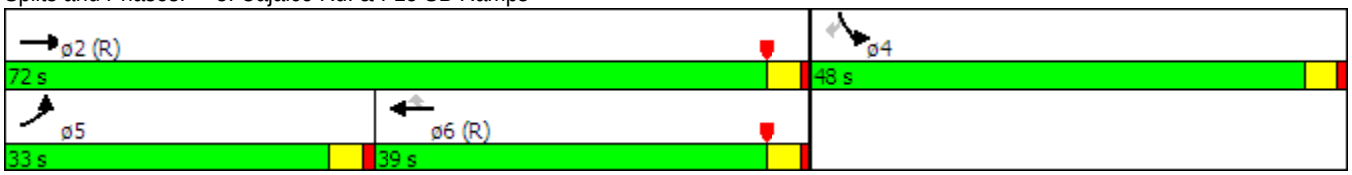
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.4	78.6		30.0		90.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	68.0		26.0		86.0		
Max Q Clear Time (g_c+I1), s	7.7	56.5		18.1		2.0		
Green Ext Time (p_c), s	0.1	7.9		1.1		19.7		

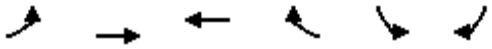
Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	358	574	447	272	553	373
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	33.0	72.0	39.0	39.0	48.0	48.0
Total Split (%)	27.5%	60.0%	32.5%	32.5%	40.0%	40.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 108 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	358	574	447	272	553	373
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	377	604	471	286	582	393
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	404	1056	569	484	650	581
Arrive On Green	0.23	0.57	0.41	0.41	0.37	0.37
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	377	604	471	286	582	393
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	25.0	25.0	27.1	16.9	37.1	25.1
Cycle Q Clear(g_c), s	25.0	25.0	27.1	16.9	37.1	25.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	404	1056	569	484	650	581
V/C Ratio(X)	0.93	0.57	0.83	0.59	0.89	0.68
Avail Cap(c_a), veh/h	429	1056	569	484	650	581
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	0.17	0.17	0.70	0.70	1.00	1.00
Uniform Delay (d), s/veh	45.4	16.7	32.8	29.8	35.8	32.0
Incr Delay (d2), s/veh	6.8	0.4	9.5	3.7	17.2	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	13.0	12.9	15.5	7.9	21.2	22.3
LnGrp Delay(d),s/veh	52.3	17.0	42.3	33.5	53.1	38.2
LnGrp LOS	D	B	D	C	D	D
Approach Vol, veh/h		981	757		975	
Approach Delay, s/veh		30.6	38.9		47.1	
Approach LOS		C	D		D	

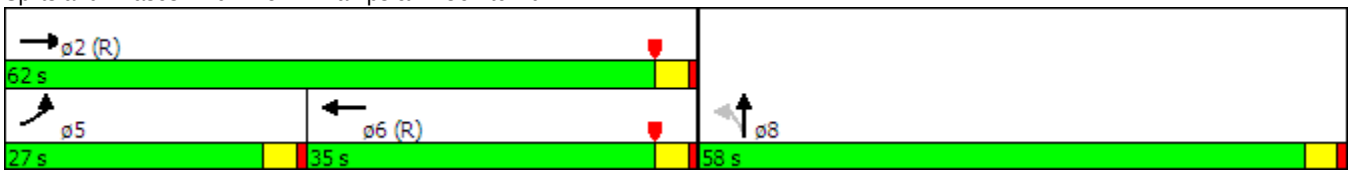
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		72.0		48.0	31.3	40.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		68.0		44.0	29.0	35.0		
Max Q Clear Time (g_c+I1), s		27.0		39.1	27.0	29.1		
Green Ext Time (p_c), s		6.6		2.0	0.3	3.0		

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	256	388	0	0	241	59	296	7	58	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	27.0	62.0			35.0		58.0	58.0				
Total Split (%)	22.5%	51.7%			29.2%		48.3%	48.3%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	256	388	0	0	241	59	296	7	58	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	269	408	0	0	254	62	312	7	61			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	342	900	0	0	994	238	644	14	126			
Arrive On Green	0.07	0.32	0.00	0.00	0.35	0.35	0.45	0.45	0.45			
Sat Flow, veh/h	3442	1863	0	0	2927	679	1430	32	280			
Grp Volume(v), veh/h	269	408	0	0	157	159	380	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1743	1742	0	0			
Q Serve(g_s), s	9.2	20.8	0.0	0.0	7.6	7.8	18.4	0.0	0.0			
Cycle Q Clear(g_c), s	9.2	20.8	0.0	0.0	7.6	7.8	18.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.39	0.82		0.16			
Lane Grp Cap(c), veh/h	342	900	0	0	621	611	784	0	0			
V/C Ratio(X)	0.79	0.45	0.00	0.00	0.25	0.26	0.48	0.00	0.00			
Avail Cap(c_a), veh/h	660	900	0	0	621	611	784	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.76	0.76	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	54.8	28.0	0.0	0.0	27.8	27.8	23.2	0.0	0.0			
Incr Delay (d2), s/veh	3.1	1.3	0.0	0.0	1.0	1.0	2.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	4.6	11.0	0.0	0.0	3.9	3.9	9.3	0.0	0.0			
LnGrp Delay(d),s/veh	57.9	29.3	0.0	0.0	28.7	28.9	25.4	0.0	0.0			
LnGrp LOS	E	C			C	C	C					
Approach Vol, veh/h		677			316			380				
Approach Delay, s/veh		40.6			28.8			25.4				
Approach LOS		D			C			C				

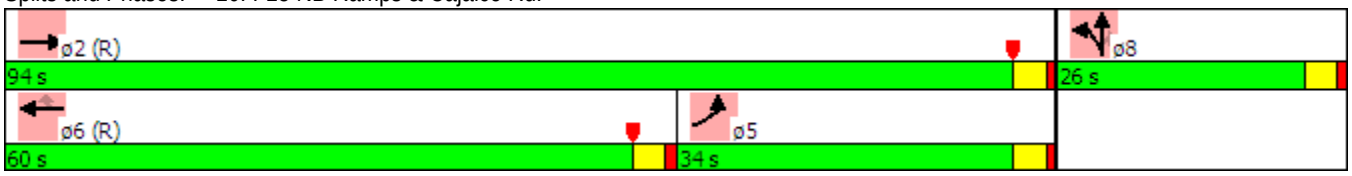
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		62.0			15.9	46.1		58.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		58.0			23.0	31.0		54.0
Max Q Clear Time (g_c+I1), s		22.8			11.2	9.8		20.4
Green Ext Time (p_c), s		4.3			0.7	3.9		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	257	871	0	0	543	489	176	0	203	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	34.0	94.0			60.0	60.0	26.0	26.0	26.0			
Total Split (%)	28.3%	78.3%			50.0%	50.0%	21.7%	21.7%	21.7%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lag				Lead	Lead						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	257	871	0	0	543	489	176	0	203	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	271	917	0	0	572	515	185	0	214			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	444	1397	0	0	869	739	325	0	286			
Arrive On Green	0.50	1.00	0.00	0.00	0.47	0.47	0.18	0.00	0.18			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1774	0	1562			
Grp Volume(v), veh/h	271	917	0	0	572	515	185	0	214			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1774	0	1562			
Q Serve(g_s), s	13.2	0.0	0.0	0.0	28.4	30.9	11.4	0.0	15.6			
Cycle Q Clear(g_c), s	13.2	0.0	0.0	0.0	28.4	30.9	11.4	0.0	15.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	444	1397	0	0	869	739	325	0	286			
V/C Ratio(X)	0.61	0.66	0.00	0.00	0.66	0.70	0.57	0.00	0.75			
Avail Cap(c_a), veh/h	444	1397	0	0	869	739	325	0	286			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.61	0.61	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.8	0.0	0.0	0.0	24.6	25.3	44.7	0.0	46.4			
Incr Delay (d2), s/veh	1.5	1.5	0.0	0.0	3.9	5.4	7.0	0.0	16.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	6.5	0.6	0.0	0.0	15.4	14.6	6.2	0.0	8.0			
LnGrp Delay(d),s/veh	27.3	1.5	0.0	0.0	28.5	30.7	51.7	0.0	62.6			
LnGrp LOS	C	A			C	C	D		E			
Approach Vol, veh/h		1188			1087			399				
Approach Delay, s/veh		7.4			29.5			57.6				
Approach LOS		A			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		94.0			34.0	60.0		26.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		90.0			30.0	56.0		22.0
Max Q Clear Time (g_c+I1), s		2.0			15.2	32.9		17.6
Green Ext Time (p_c), s		6.1			4.8	4.4		0.8

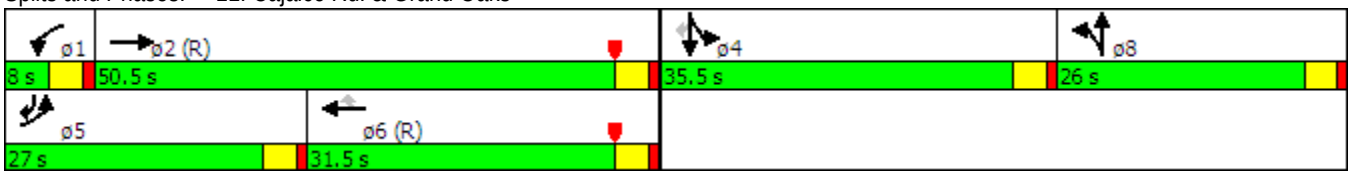
Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	584	489	0	0	500	126	0	0	0	143	0	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			590			544			904	
Travel Time (s)		10.6			8.9			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	27.0	50.5		8.0	31.5	31.5	26.0	26.0		35.5	35.5	27.0
Total Split (%)	22.5%	42.1%		6.7%	26.3%	26.3%	21.7%	21.7%		29.6%	29.6%	22.5%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 74 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	584	489	0	0	500	126	0	0	0	143	0	481
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	615	515	0	0	526	133	0	0	0	151	0	506
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	660	2374	0	1	1578	704	0	2	0	466	0	1259
Arrive On Green	0.19	0.67	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	3632	0	1774	3539	1578	0	1863	0	1774	0	2760
Grp Volume(v), veh/h	615	515	0	0	526	133	0	0	0	151	0	506
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1770	1578	0	1863	0	1774	0	1380
Q Serve(g_s), s	21.1	6.7	0.0	0.0	11.6	6.1	0.0	0.0	0.0	8.2	0.0	14.7
Cycle Q Clear(g_c), s	21.1	6.7	0.0	0.0	11.6	6.1	0.0	0.0	0.0	8.2	0.0	14.7
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	660	2374	0	1	1578	704	0	2	0	466	0	1259
V/C Ratio(X)	0.93	0.22	0.00	0.00	0.33	0.19	0.00	0.00	0.00	0.32	0.00	0.40
Avail Cap(c_a), veh/h	660	2374	0	59	1578	704	0	342	0	466	0	1259
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.7	7.6	0.0	0.0	21.6	20.1	0.0	0.0	0.0	35.7	0.0	21.9
Incr Delay (d2), s/veh	20.2	0.2	0.0	0.0	0.6	0.6	0.0	0.0	0.0	1.8	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	11.8	3.4	0.0	0.0	5.8	2.8	0.0	0.0	0.0	4.3	0.0	5.8
LnGrp Delay(d),s/veh	67.9	7.8	0.0	0.0	22.2	20.7	0.0	0.0	0.0	37.5	0.0	22.8
LnGrp LOS	E	A			C	C				D		C
Approach Vol, veh/h		1130			659			0			657	
Approach Delay, s/veh		40.5			21.9			0.0			26.2	
Approach LOS		D			C						C	

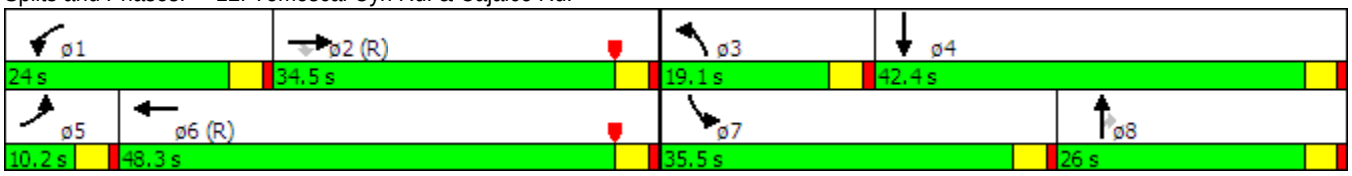
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	84.5		35.5	27.0	57.5		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	23.0	27.5		22.0
Max Q Clear Time (g_c+I1), s	0.0	8.7		16.7	23.1	13.6		0.0
Green Ext Time (p_c), s	0.0	5.8		3.0	0.0	4.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	288	316	177	340	96	245	166	92	238	332	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		453			935			1167			432	
Travel Time (s)		6.9			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	10.2	34.5	34.5	24.0	48.3		19.1	26.0	26.0	35.5	42.4	
Total Split (%)	8.5%	28.8%	28.8%	20.0%	40.3%		15.9%	21.7%	21.7%	29.6%	35.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 92 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	28	288	316	177	340	96	245	166	92	238	332	42
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	29	303	333	186	358	101	258	175	97	251	349	44
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	618	523	216	1722	466	322	894	416	285	1013	127
Arrive On Green	0.02	0.33	0.33	0.12	0.43	0.43	0.09	0.25	0.25	0.16	0.32	0.32
Sat Flow, veh/h	1774	1863	1576	1774	3982	1077	3442	3539	1647	1774	3164	396
Grp Volume(v), veh/h	29	303	333	186	302	157	258	175	97	251	194	199
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1668	1721	1770	1647	1774	1770	1791
Q Serve(g_s), s	2.0	15.6	21.5	12.3	6.7	7.1	8.8	4.7	5.6	16.6	10.0	10.2
Cycle Q Clear(g_c), s	2.0	15.6	21.5	12.3	6.7	7.1	8.8	4.7	5.6	16.6	10.0	10.2
Prop In Lane	1.00		1.00	1.00		0.65	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	37	618	523	216	1466	722	322	894	416	285	566	573
V/C Ratio(X)	0.79	0.49	0.64	0.86	0.21	0.22	0.80	0.20	0.23	0.88	0.34	0.35
Avail Cap(c_a), veh/h	92	618	523	296	1466	722	433	894	416	466	566	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	32.0	34.0	51.7	21.2	21.3	53.3	35.3	35.6	49.2	31.2	31.2
Incr Delay (d2), s/veh	30.4	2.8	5.8	17.1	0.3	0.7	7.6	0.5	1.3	10.7	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.3	8.5	10.2	7.1	3.2	3.4	4.5	2.3	2.7	9.0	5.2	5.3
LnGrp Delay(d),s/veh	88.9	34.8	39.8	68.8	21.5	22.0	61.0	35.7	36.9	59.9	32.8	32.9
LnGrp LOS	F	C	D	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		665			645			530			644	
Approach Delay, s/veh		39.7			35.3			48.2			43.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	43.8	15.2	42.4	6.5	55.9	23.3	34.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	30.5	15.1	38.4	6.2	44.3	31.5	22.0
Max Q Clear Time (g_c+I1), s	14.3	23.5	10.8	12.2	4.0	9.1	18.6	7.6
Green Ext Time (p_c), s	0.3	2.8	0.4	2.6	0.0	5.0	0.7	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	227	0	58	294	0	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	804	
Travel Time (s)	11.8			19.1	12.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

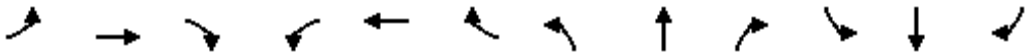
Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	227	0	58	294	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	200	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	239	0	61	309	0	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	239	0	671	119
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	432	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1325	-	405	911
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	654	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1325	-	386	911
Mov Cap-2 Maneuver	-	-	-	-	488	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	911	-	-	1325	-
HCM Lane V/C Ratio	-	0.039	-	-	0.046	-
HCM Control Delay (s)	0	9.1	-	-	7.8	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	51	18	4	6	4	243	9	7	613	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	29.1
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	2	51	0	18	4	6	0	4	243	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	2	54	0	19	4	6	0	4	256	9
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.6	9.8	11.6
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	17%	64%	100%	0%
Vol Thru, %	0%	96%	3%	14%	0%	98%
Vol Right, %	0%	4%	80%	21%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	252	64	28	7	626
LT Vol	4	0	11	18	7	0
Through Vol	0	243	2	4	0	613
RT Vol	0	9	51	6	0	13
Lane Flow Rate	4	265	67	29	7	659
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.007	0.394	0.11	0.053	0.011	0.921
Departure Headway (Hd)	5.878	5.349	5.875	6.427	5.548	5.03
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	666	614	560	641	718
Service Time	3.666	3.135	3.876	4.43	3.317	2.8
HCM Lane V/C Ratio	0.007	0.398	0.109	0.052	0.011	0.918
HCM Control Delay	8.7	11.6	9.6	9.8	8.4	39.3
HCM Lane LOS	A	B	A	A	A	E
HCM 95th-tile Q	0	1.9	0.4	0.2	0	12.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	613	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	645	14
Number of Lanes	0	1	1	0

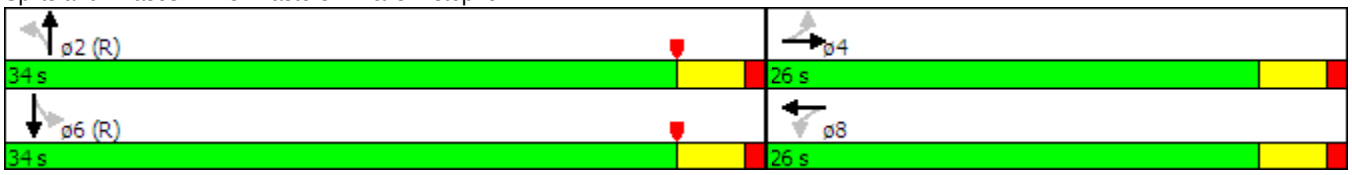
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	39
HCM LOS	E

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	51	18	4	6	4	244	9	7	613	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

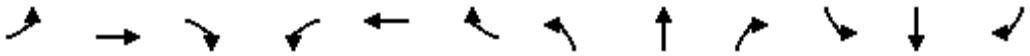
Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	2	51	18	4	6	4	244	9	7	613	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	12	2	54	19	4	6	4	257	9	7	645	14
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	7	82	160	27	23	738	1433	50	971	1455	32
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	0.80	0.80	0.80	1.00	1.00	1.00
Sat Flow, veh/h	213	111	1250	917	409	346	772	1789	63	1109	1816	39
Grp Volume(v), veh/h	68	0	0	29	0	0	4	0	266	7	0	659
Grp Sat Flow(s),veh/h/ln	1574	0	0	1672	0	0	772	0	1852	1109	0	1856
Q Serve(g_s), s	1.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.0	0.9	0.0	0.0	0.1	0.0	2.0	2.0	0.0	0.0
Prop In Lane	0.18		0.79	0.66		0.21	1.00		0.03	1.00		0.02
Lane Grp Cap(c), veh/h	174	0	0	209	0	0	738	0	1483	971	0	1486
V/C Ratio(X)	0.39	0.00	0.00	0.14	0.00	0.00	0.01	0.00	0.18	0.01	0.00	0.44
Avail Cap(c_a), veh/h	642	0	0	644	0	0	738	0	1483	971	0	1486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	27.3	0.0	0.0	26.6	0.0	0.0	1.2	0.0	1.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.4
LnGrp Delay(d),s/veh	28.8	0.0	0.0	26.9	0.0	0.0	1.2	0.0	1.7	0.1	0.0	0.9
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		68			29			270			666	
Approach Delay, s/veh		28.8			26.9			1.6			0.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.1		7.9		52.1		7.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		4.0		4.5		4.0		2.9
Green Ext Time (p_c), s		6.6		0.4		6.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	3.6
HCM 2010 LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	51	18	4	6	4	244	9	7	613	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

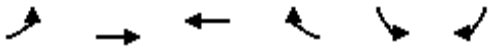
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	68	29	270	666
Demand Flow Rate, veh/h	69	29	275	679
Vehicles Circulating, veh/h	684	278	21	27
Vehicles Exiting, veh/h	22	18	732	280
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.9	4.5	5.7	11.6
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	69	29	275	679
Cap Entry Lane, veh/h	570	856	1106	1100
Entry HV Adj Factor	0.985	0.997	0.981	0.981
Flow Entry, veh/h	68	29	270	666
Cap Entry, veh/h	562	853	1086	1079
V/C Ratio	0.121	0.034	0.249	0.617
Control Delay, s/veh	7.9	4.5	5.7	11.6
LOS	A	A	A	B
95th %tile Queue, veh	0	0	1	4



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	603	197	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	21.2
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	603	0	197	12	0	12	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	635	0	207	13	0	13	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	25.5	9.7	9.1
HCM LOS	D	A	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	71%
Vol Thru, %	0%	100%	94%	0%
Vol Right, %	0%	0%	6%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	603	209	17
LT Vol	4	0	0	12
Through Vol	0	603	197	0
RT Vol	0	0	12	5
Lane Flow Rate	4	635	220	18
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.824	0.289	0.029
Departure Headway (Hd)	5.175	4.674	4.737	5.877
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	685	768	761	611
Service Time	2.955	2.453	2.744	3.896
HCM Lane V/C Ratio	0.006	0.827	0.289	0.029
HCM Control Delay	8	25.6	9.7	9.1
HCM Lane LOS	A	D	A	A
HCM 95th-tile Q	0	9.1	1.2	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	462	125	33	153	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	21.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	462	125	0	33	153	3	0	55	3	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	486	132	0	35	161	3	0	58	3	38
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	27.2	9.7	9.9
HCM LOS	D	A	A

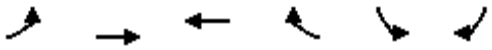
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	59%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	79%	0%	98%	20%
Vol Right, %	38%	0%	21%	0%	2%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	3	587	33	156	5
LT Vol	55	3	0	33	0	3
Through Vol	3	0	462	0	153	1
RT Vol	36	0	125	0	3	1
Lane Flow Rate	99	3	618	35	164	5
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.158	0.005	0.835	0.056	0.243	0.009
Departure Headway (Hd)	5.754	5.52	4.867	5.852	5.333	6.181
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	618	647	741	609	670	583
Service Time	3.831	3.267	2.614	3.617	3.098	4.181
HCM Lane V/C Ratio	0.16	0.005	0.834	0.057	0.245	0.009
HCM Control Delay	9.9	8.3	27.3	9	9.8	9.2
HCM Lane LOS	A	A	D	A	A	A
HCM 95th-tile Q	0.6	0	9.4	0.2	0.9	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.2
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	155	198	63	35	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	155	198	63	35	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	163	208	66	37	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	275	0	-	0	433	137
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	191	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1285	-	-	-	565	887
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1285	-	-	-	559	887
Mov Cap-2 Maneuver	-	-	-	-	559	-
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1285	-	-	-	559	887
HCM Lane V/C Ratio	0.011	-	-	-	0.066	0.015
HCM Control Delay (s)	7.8	-	-	-	11.9	9.1
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0

APPENDIX 5.3:

2017 TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

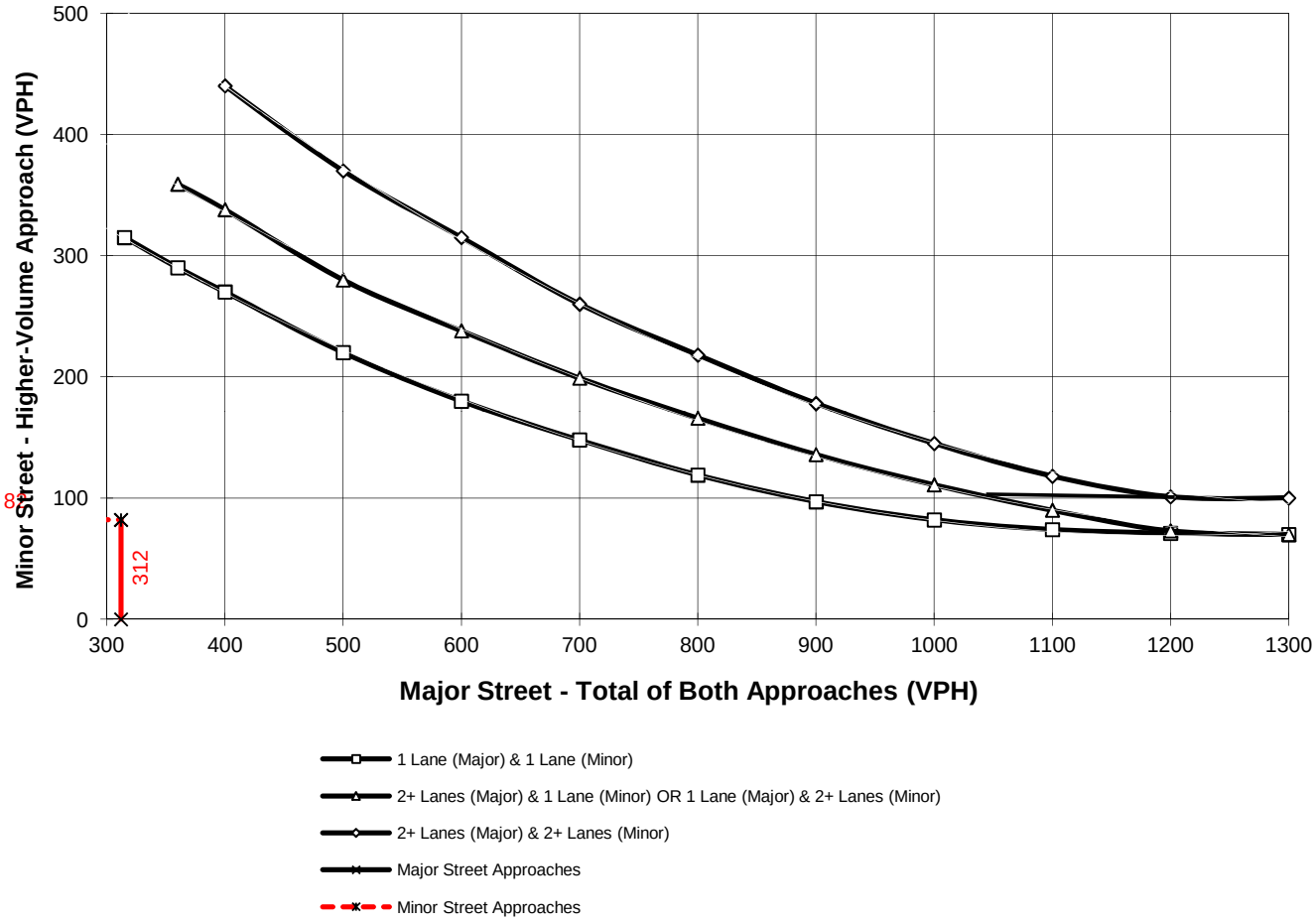
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **312**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **82**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

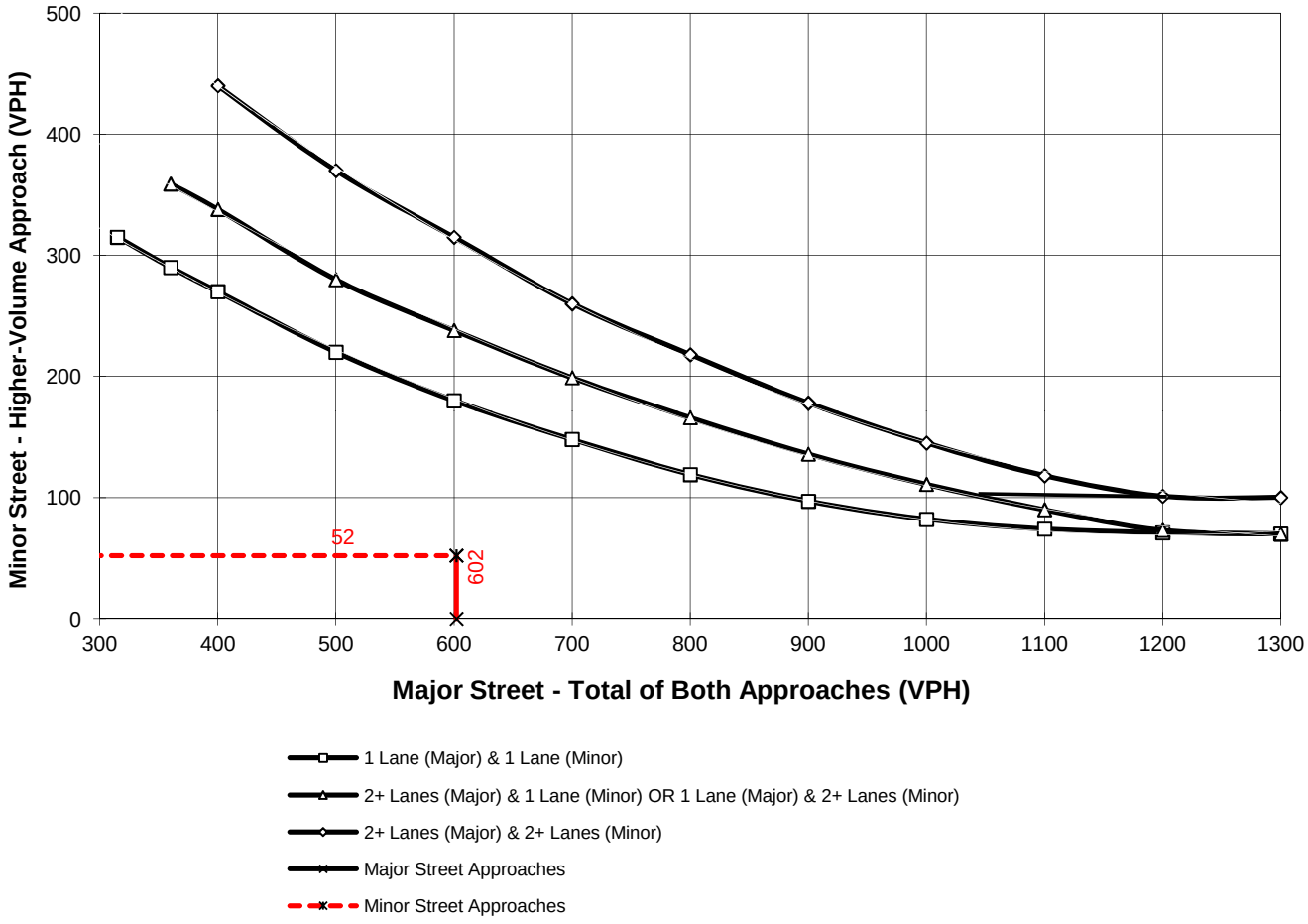
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **602**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.**
High Volume Approach (VPH) = **52**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

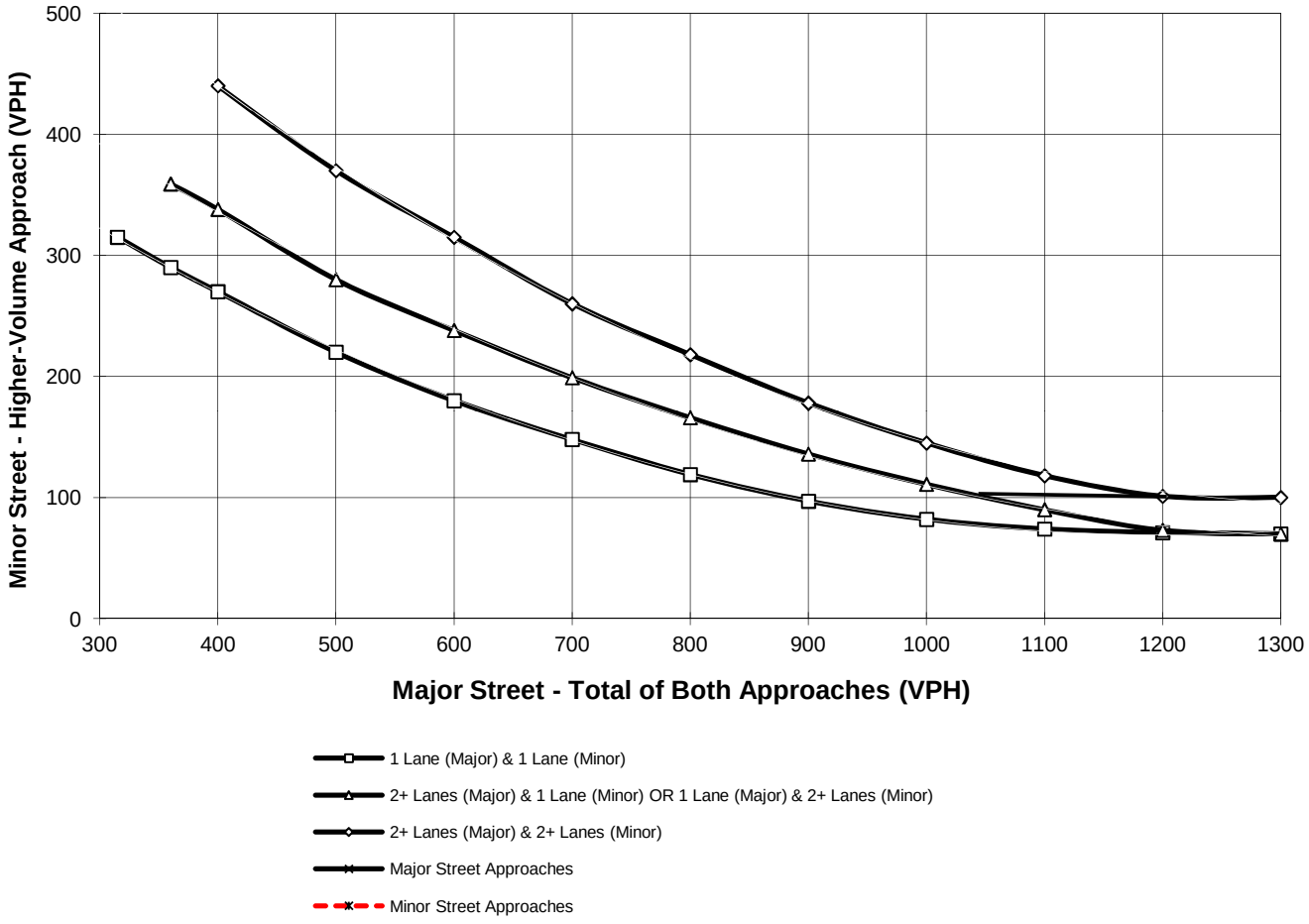
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **290**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **121**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

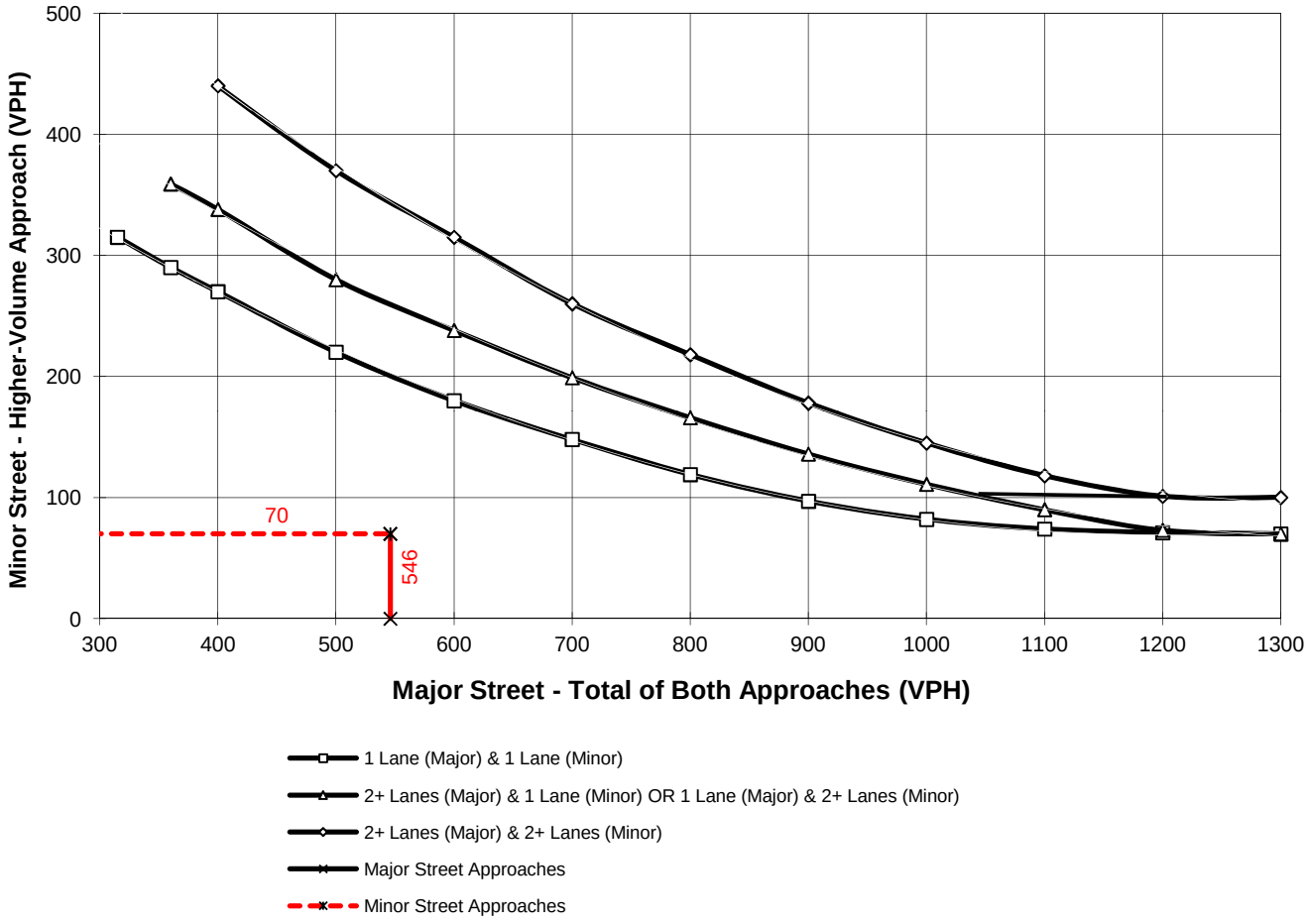
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **546**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **70**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

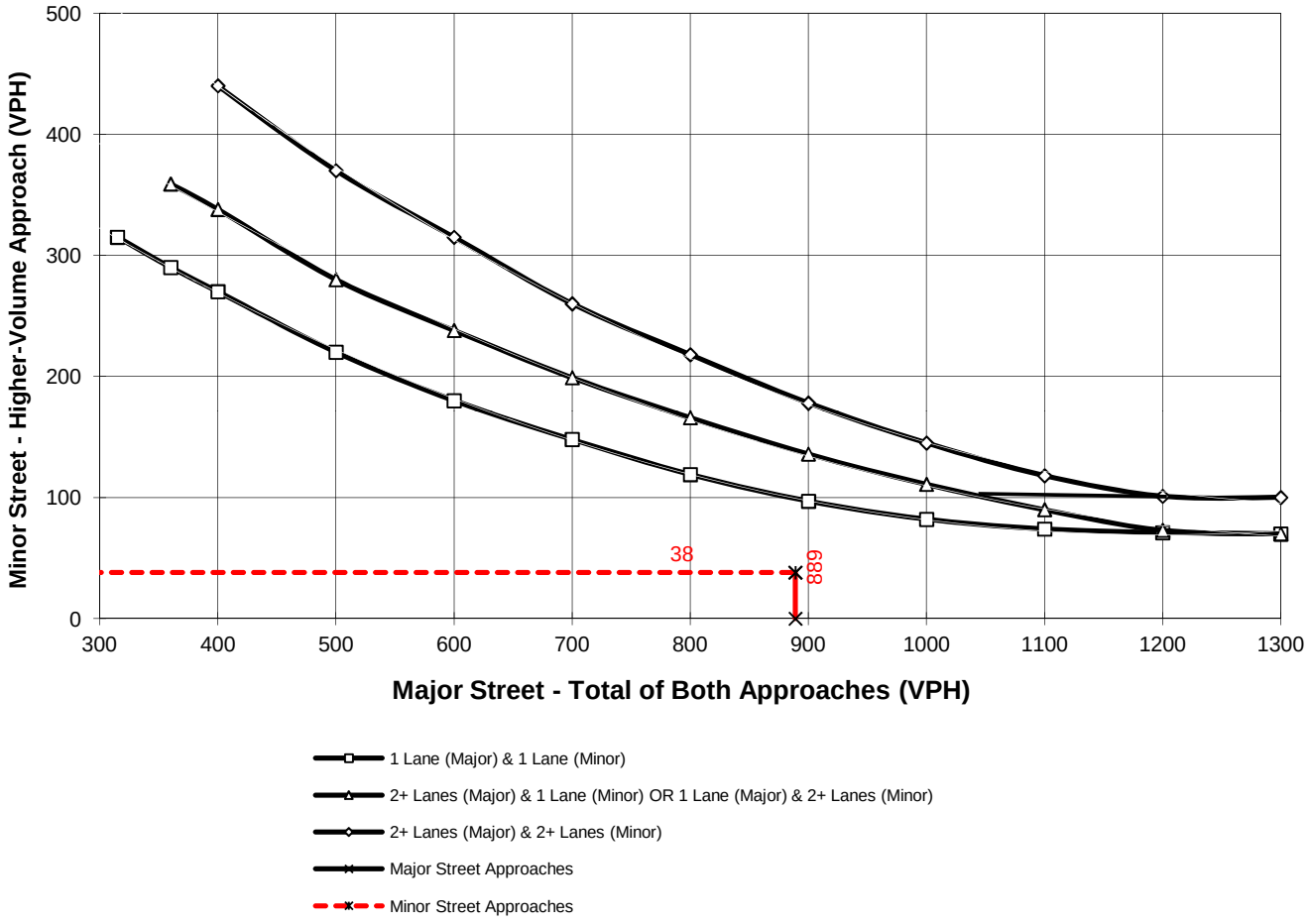
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **889**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.**
High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

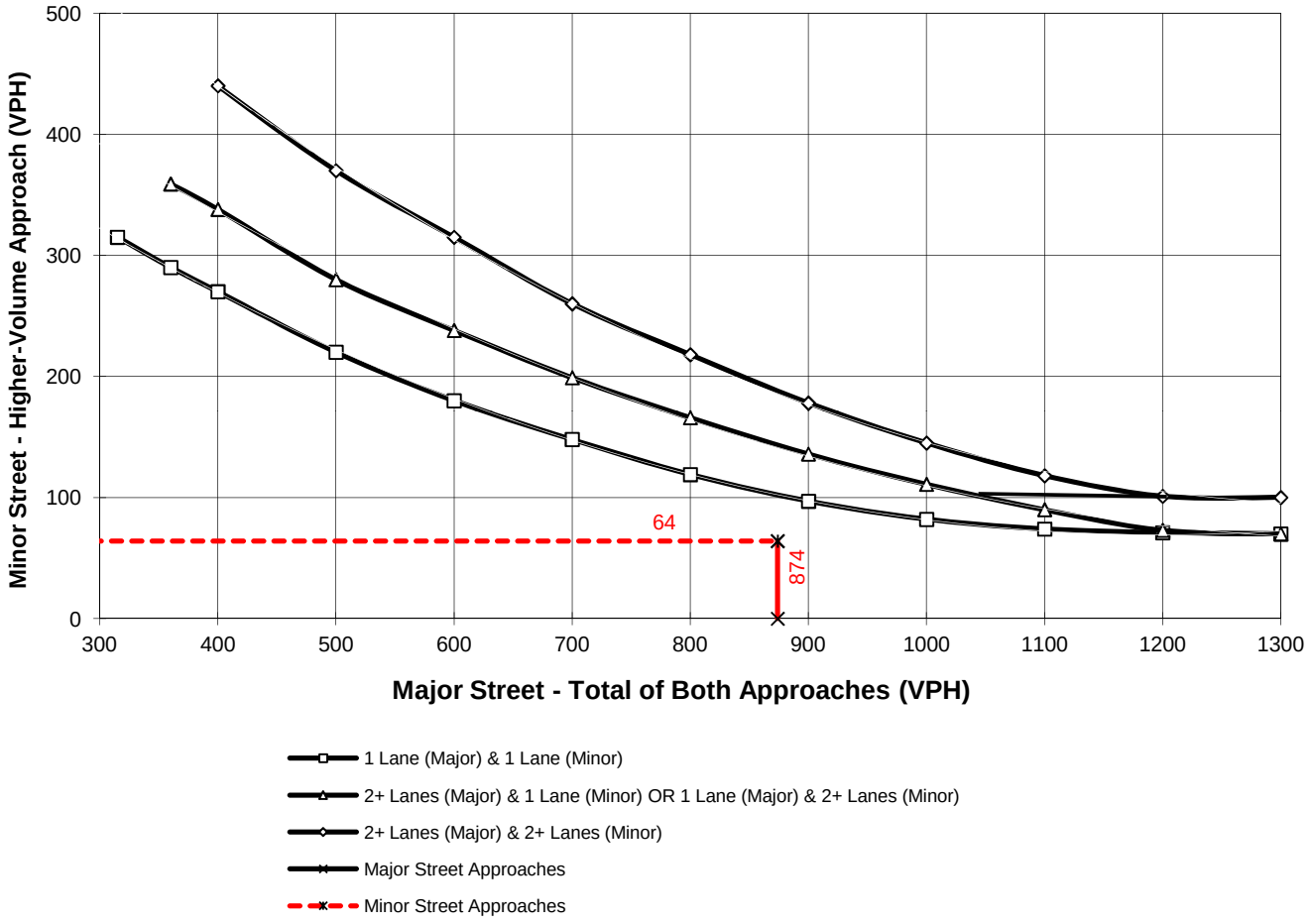
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **874**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.**
High Volume Approach (VPH) = **64**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

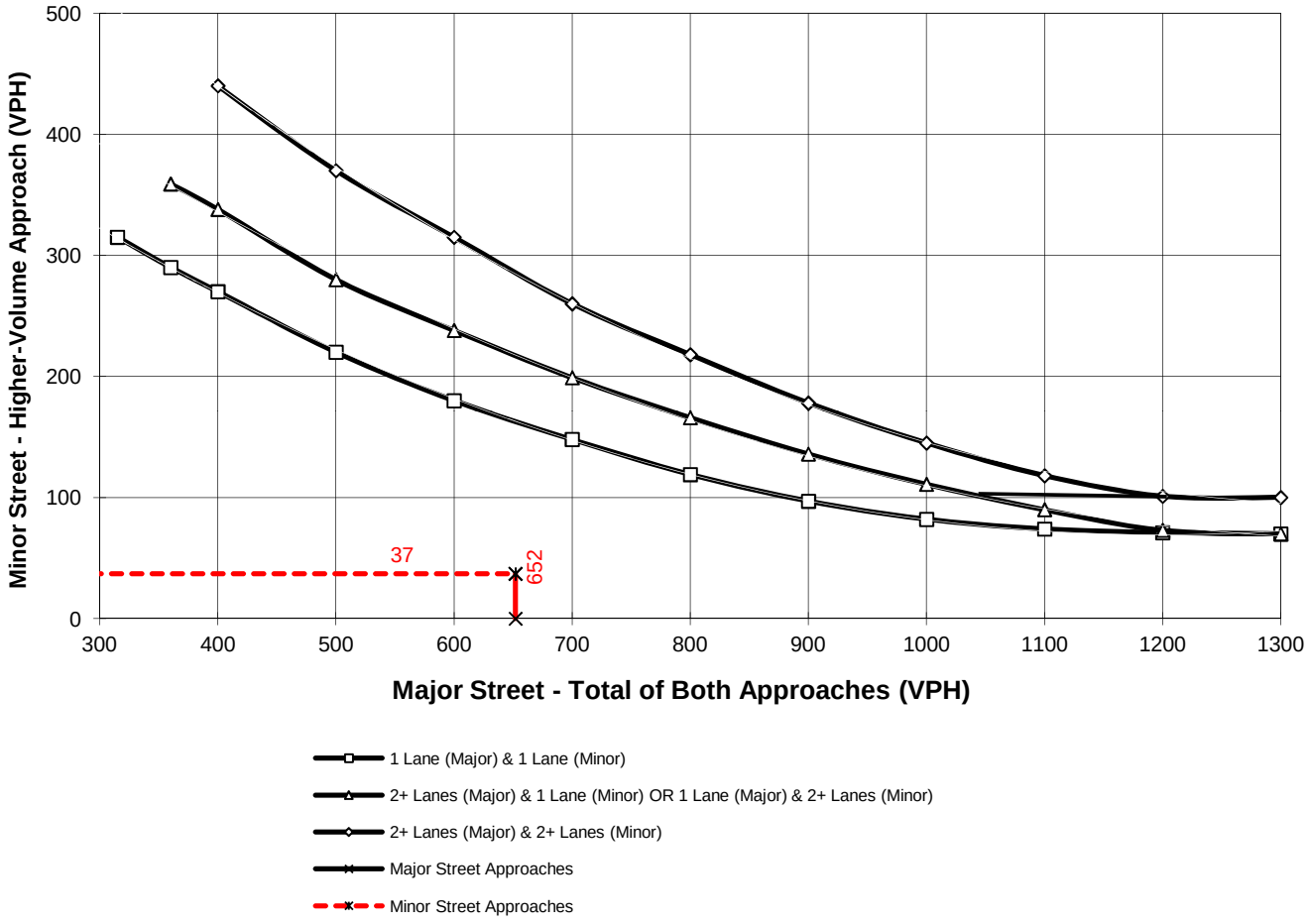
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **652**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **37**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

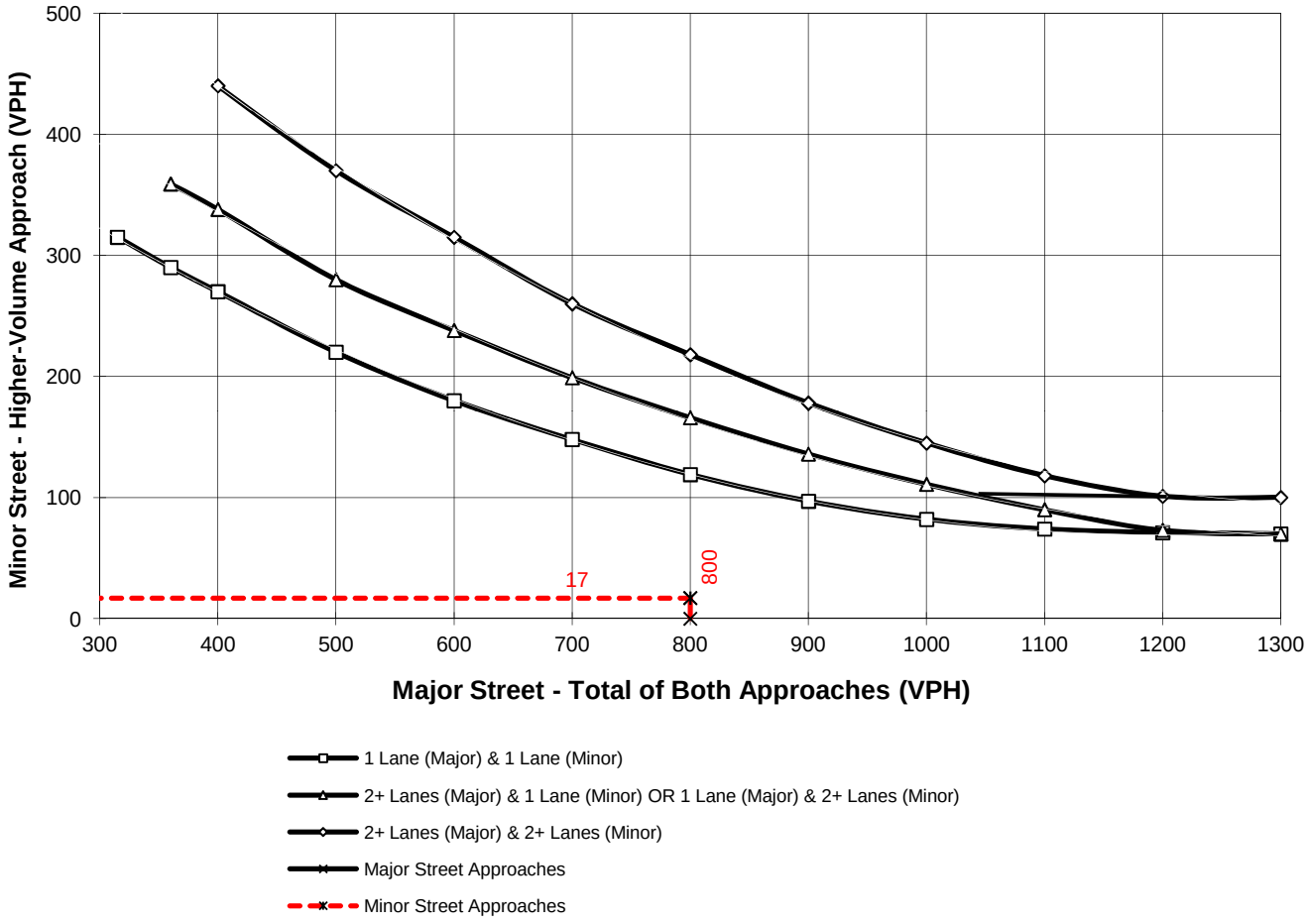
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **800**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **17**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

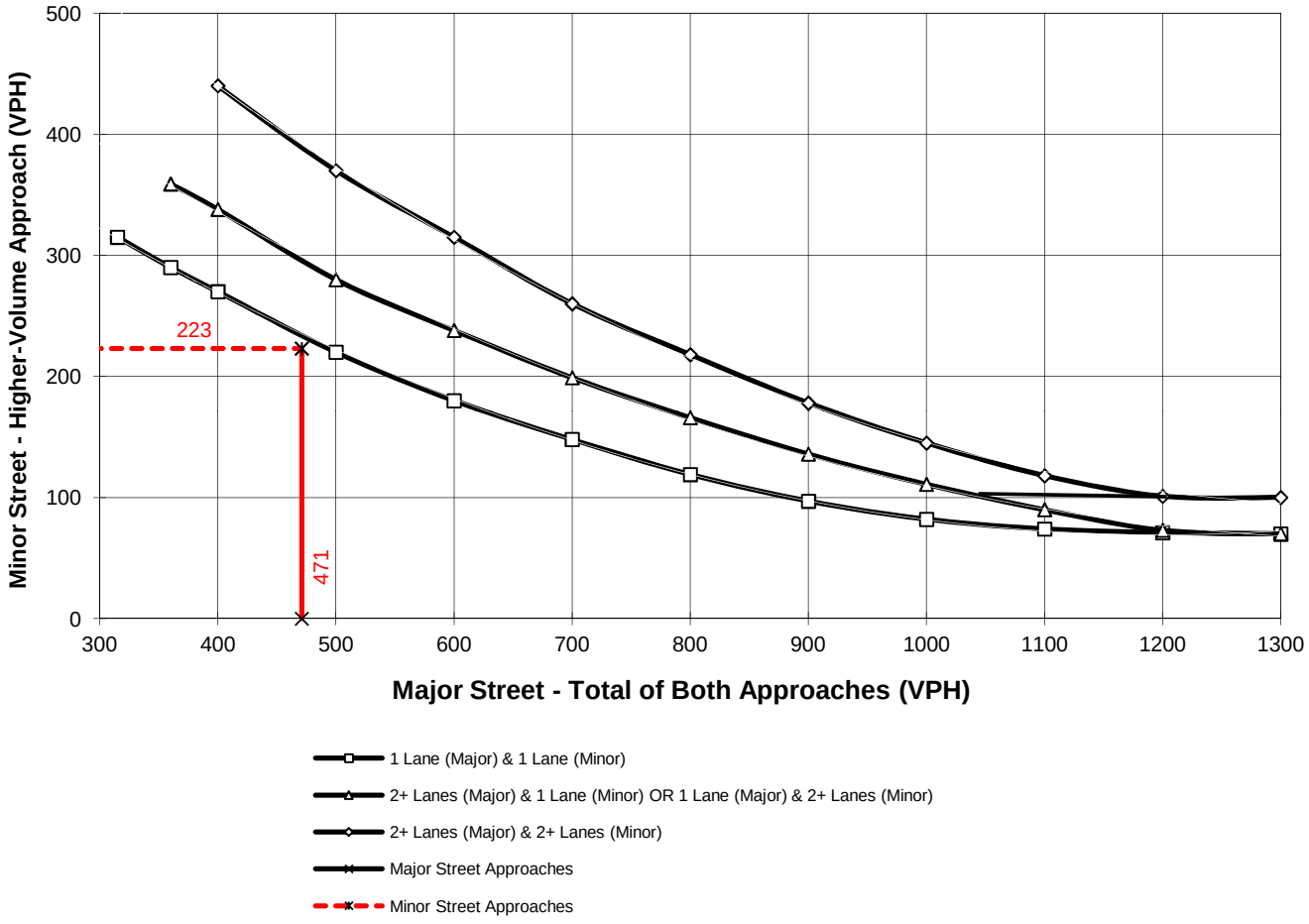
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **471**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.** High Volume Approach (VPH) = **223**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

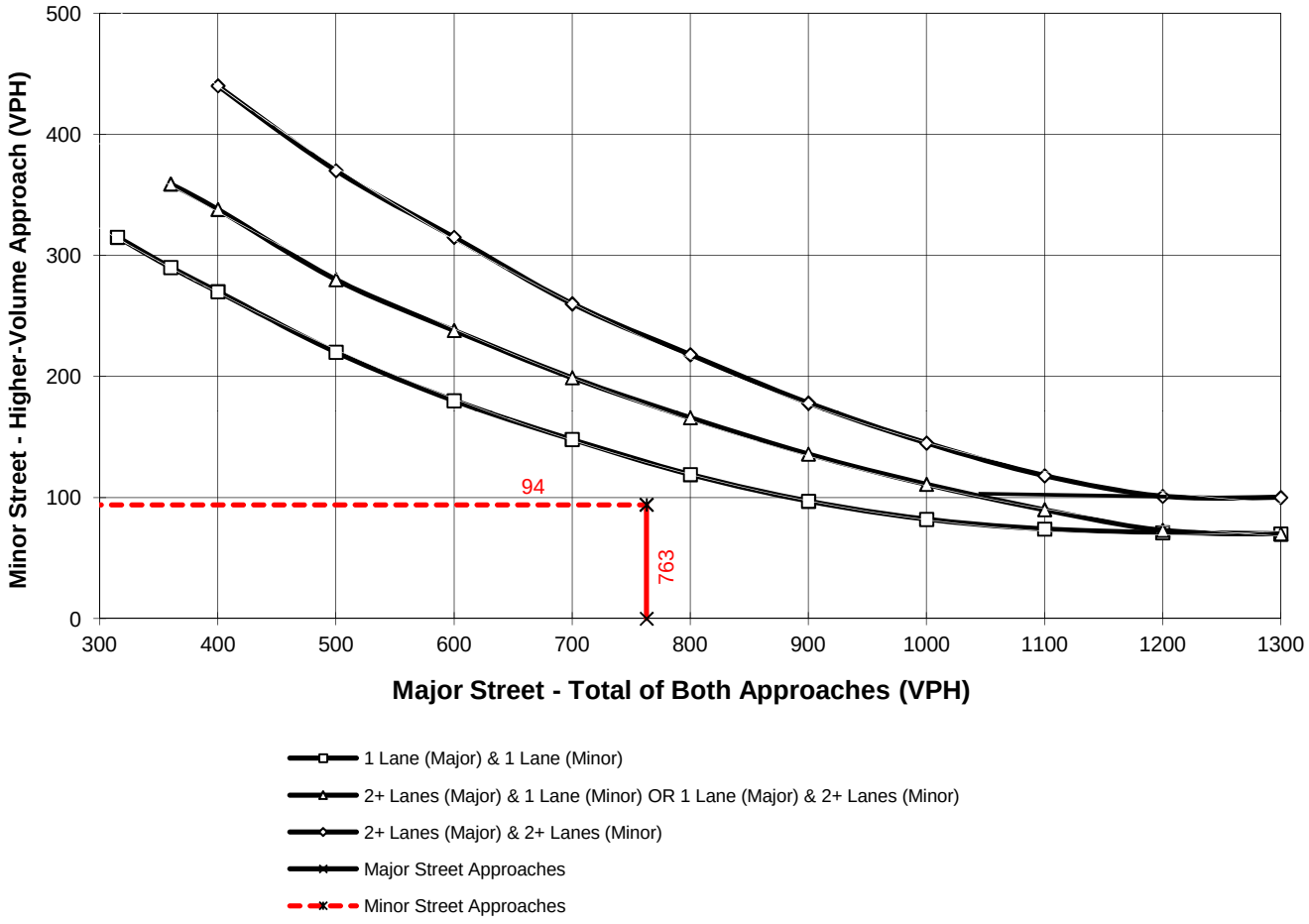
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **763**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.**
High Volume Approach (VPH) = **94**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

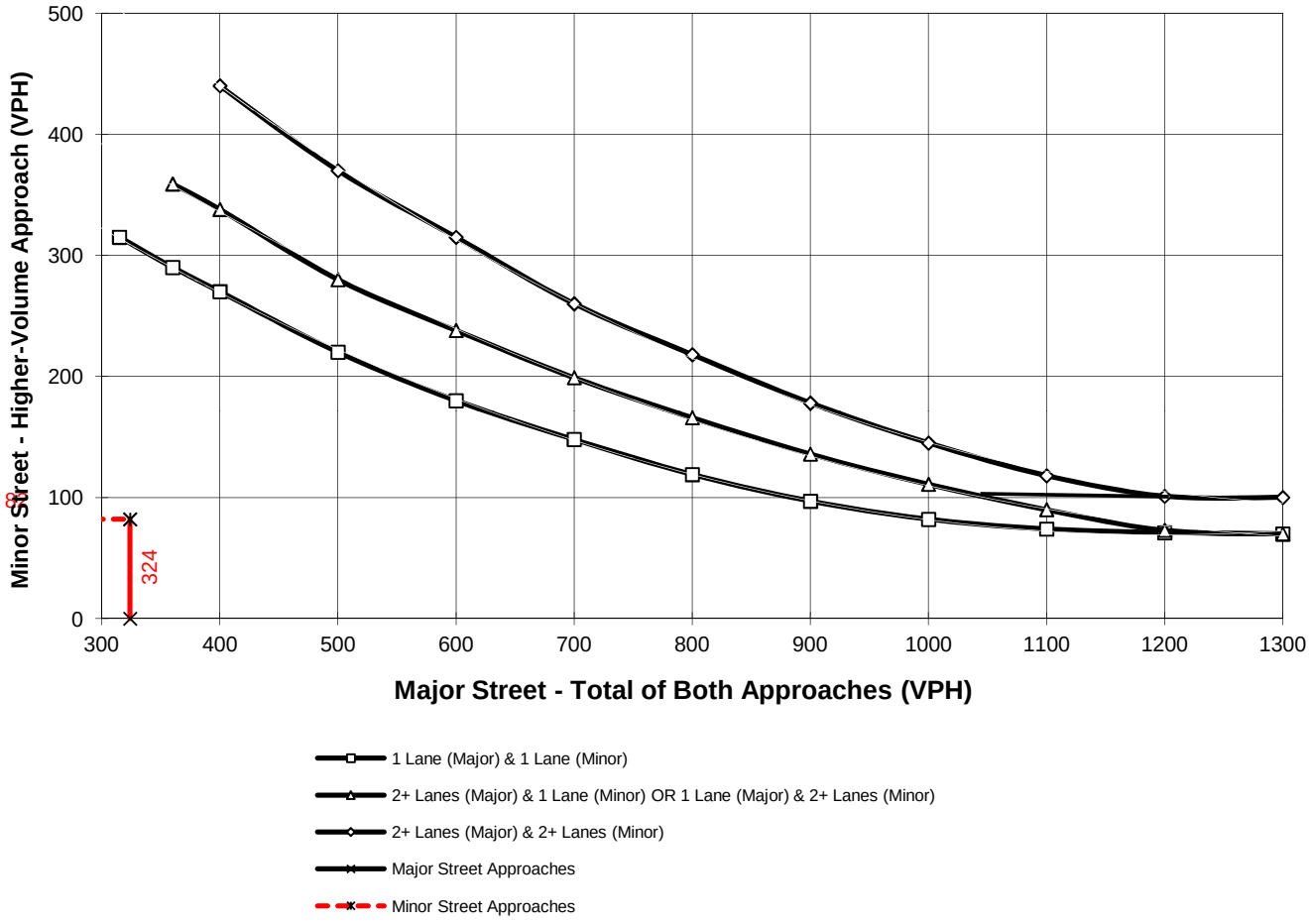
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **324**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **82**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

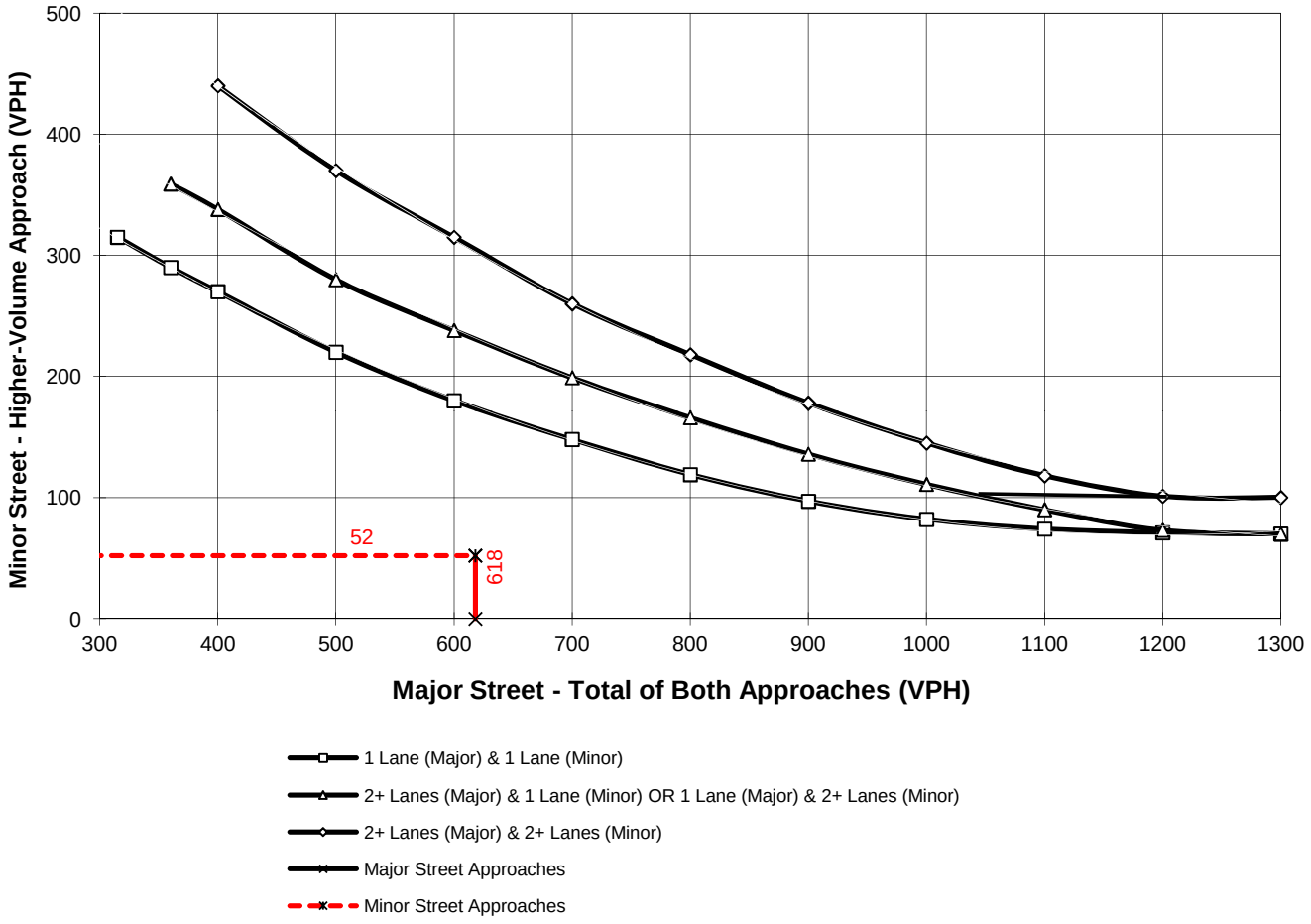
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **618**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.**
High Volume Approach (VPH) = **52**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

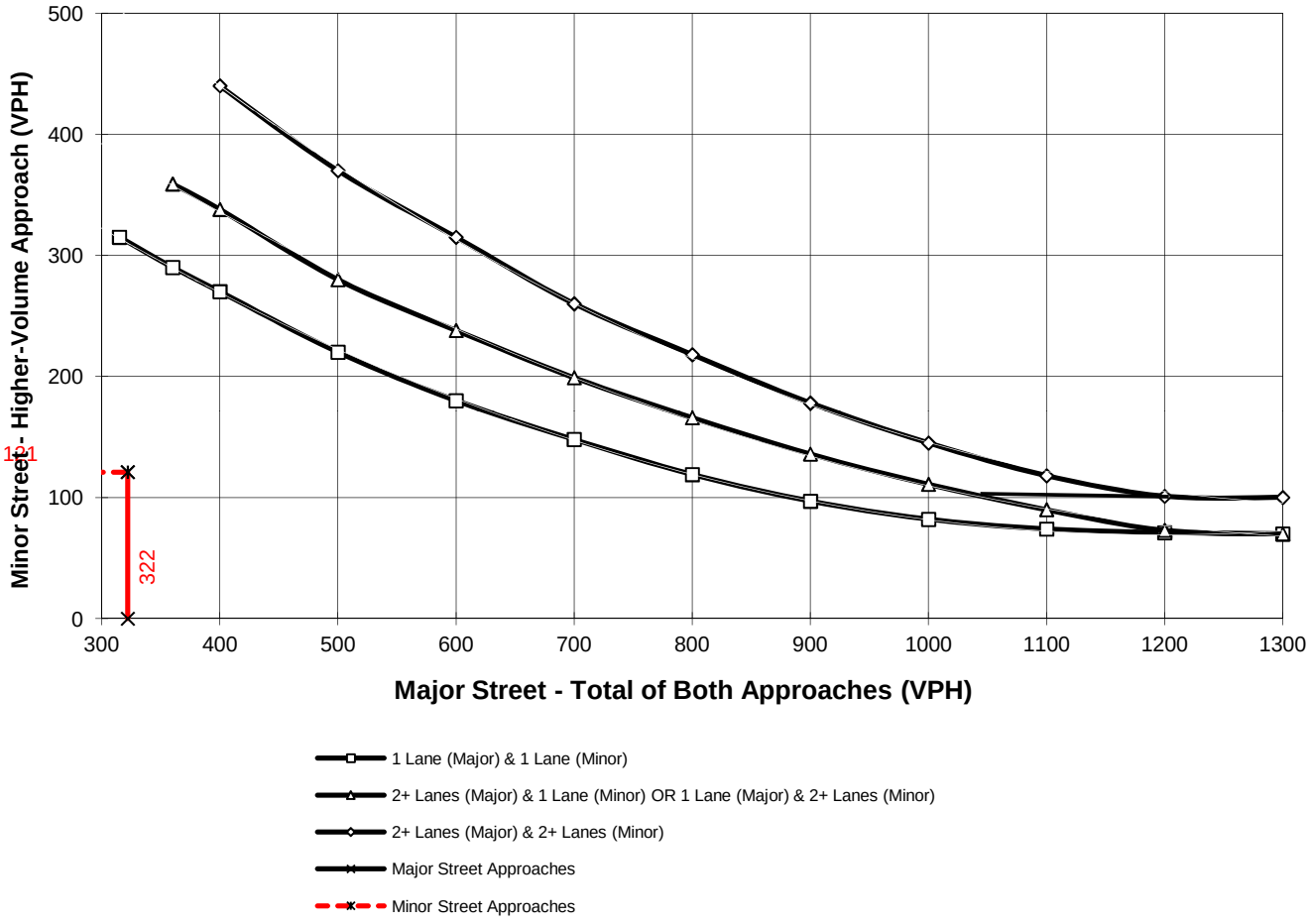
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday AM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **322**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **121**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

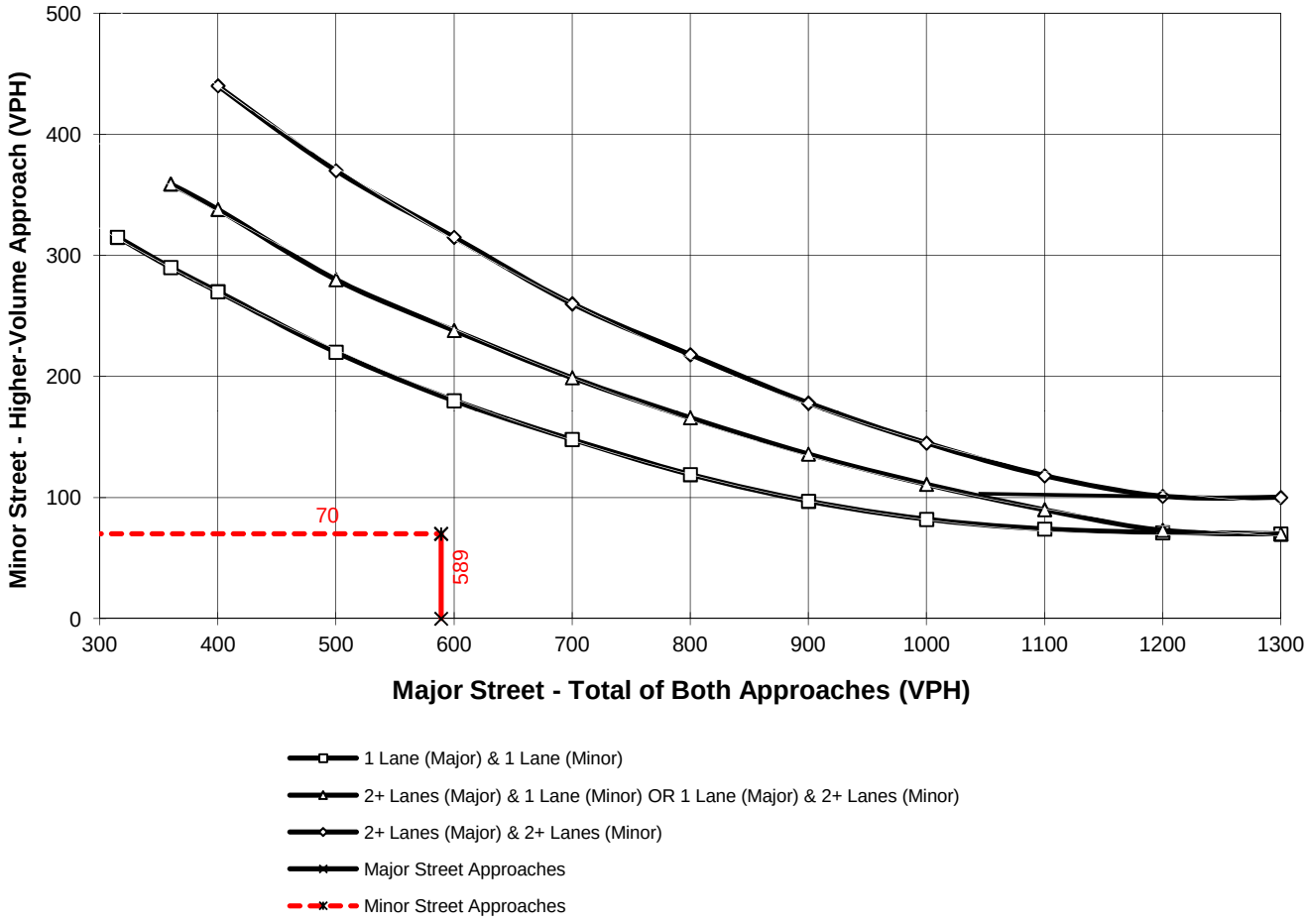
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **589**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **70**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

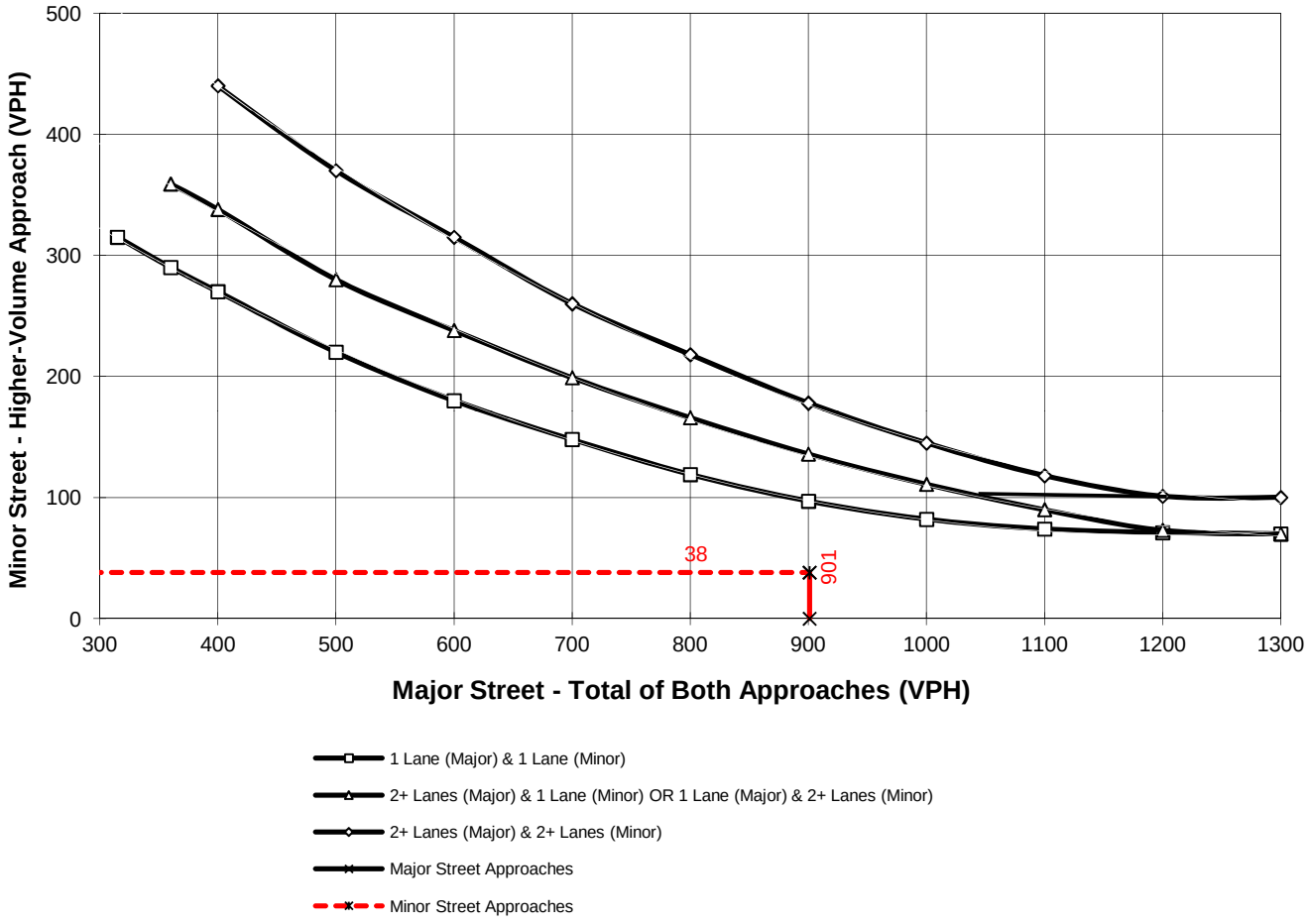
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **901**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.** High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

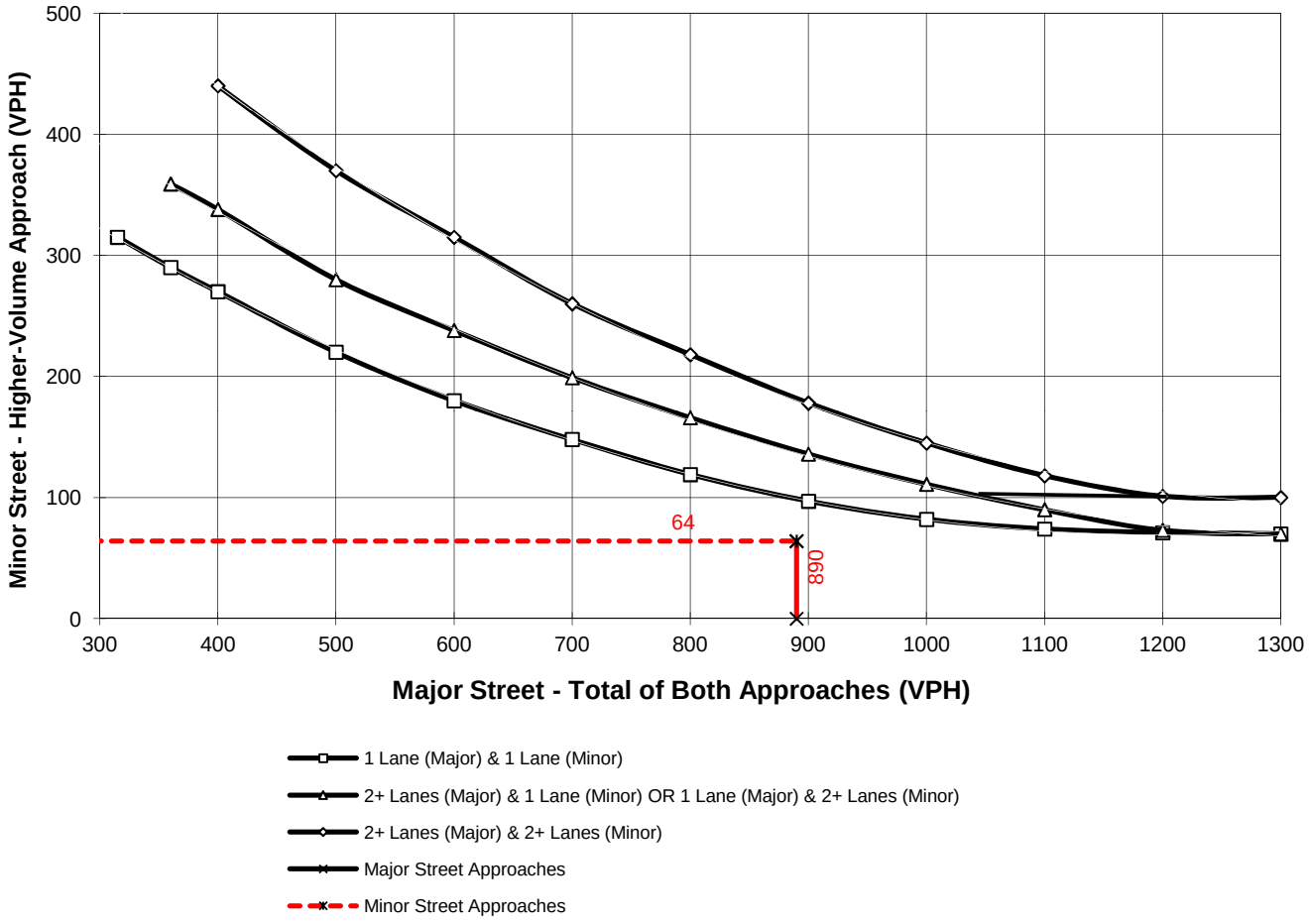
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **890**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.**
High Volume Approach (VPH) = **64**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

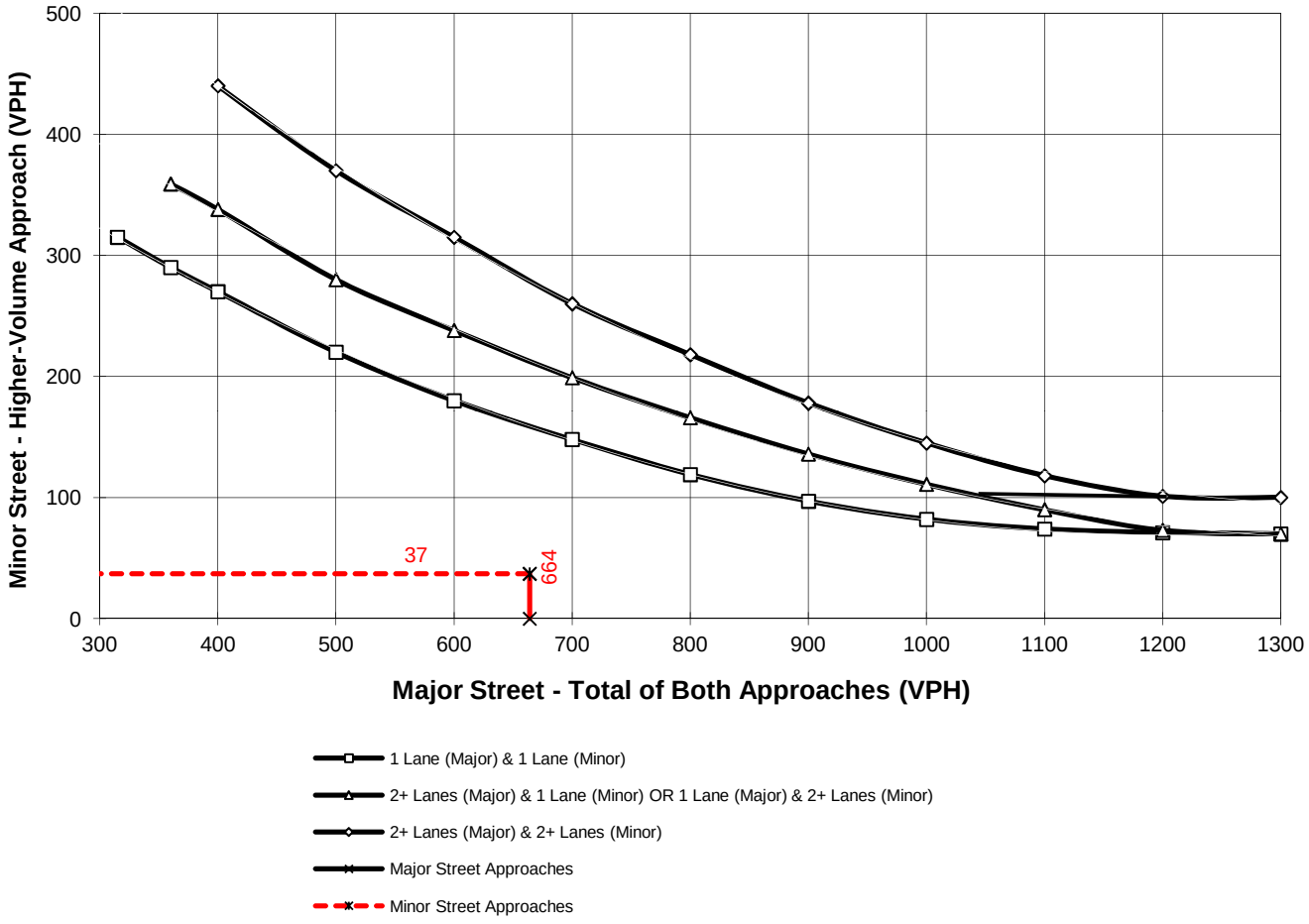
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **664**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **37**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

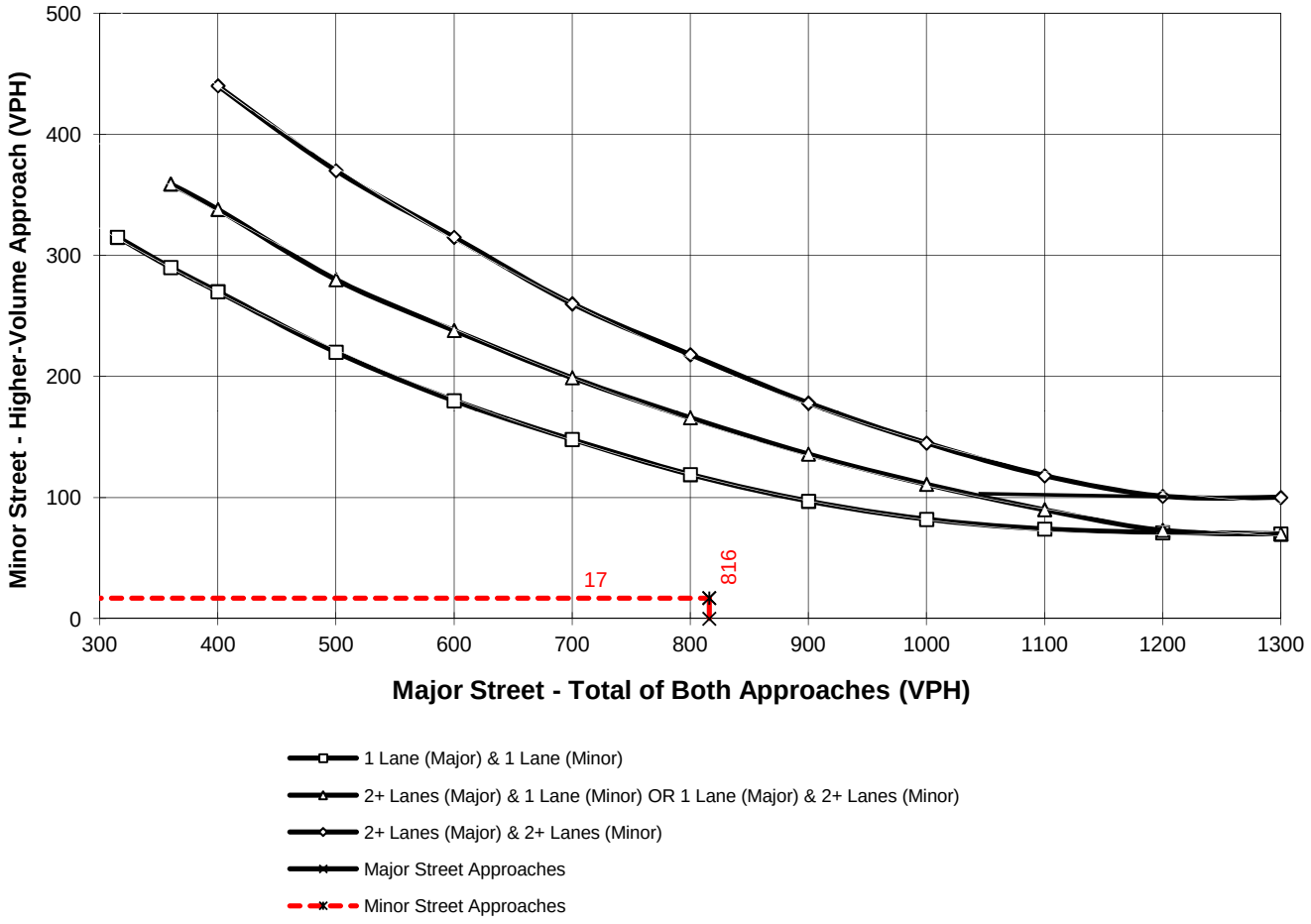
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **816**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **17**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

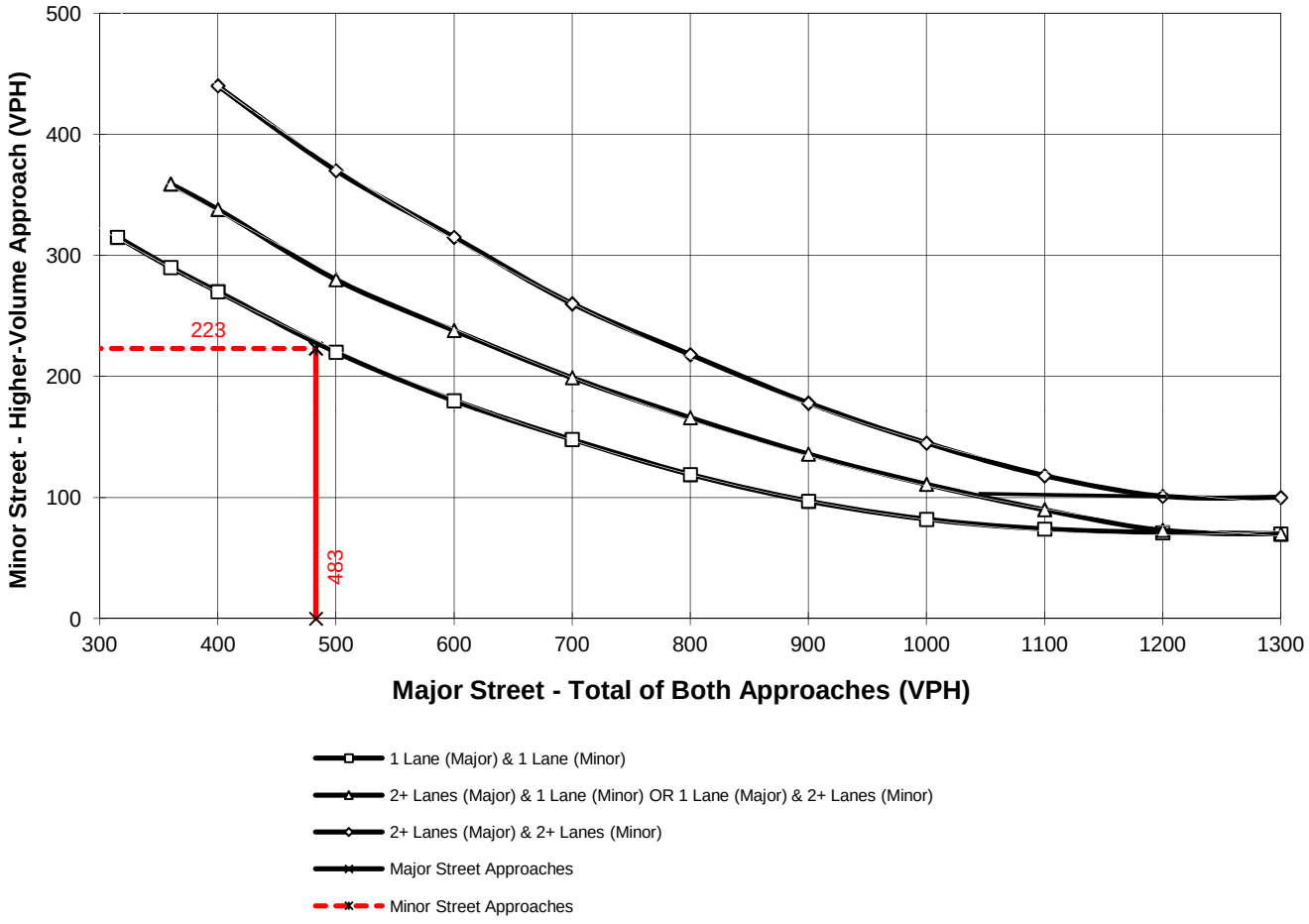
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **483**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.** High Volume Approach (VPH) = **223**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

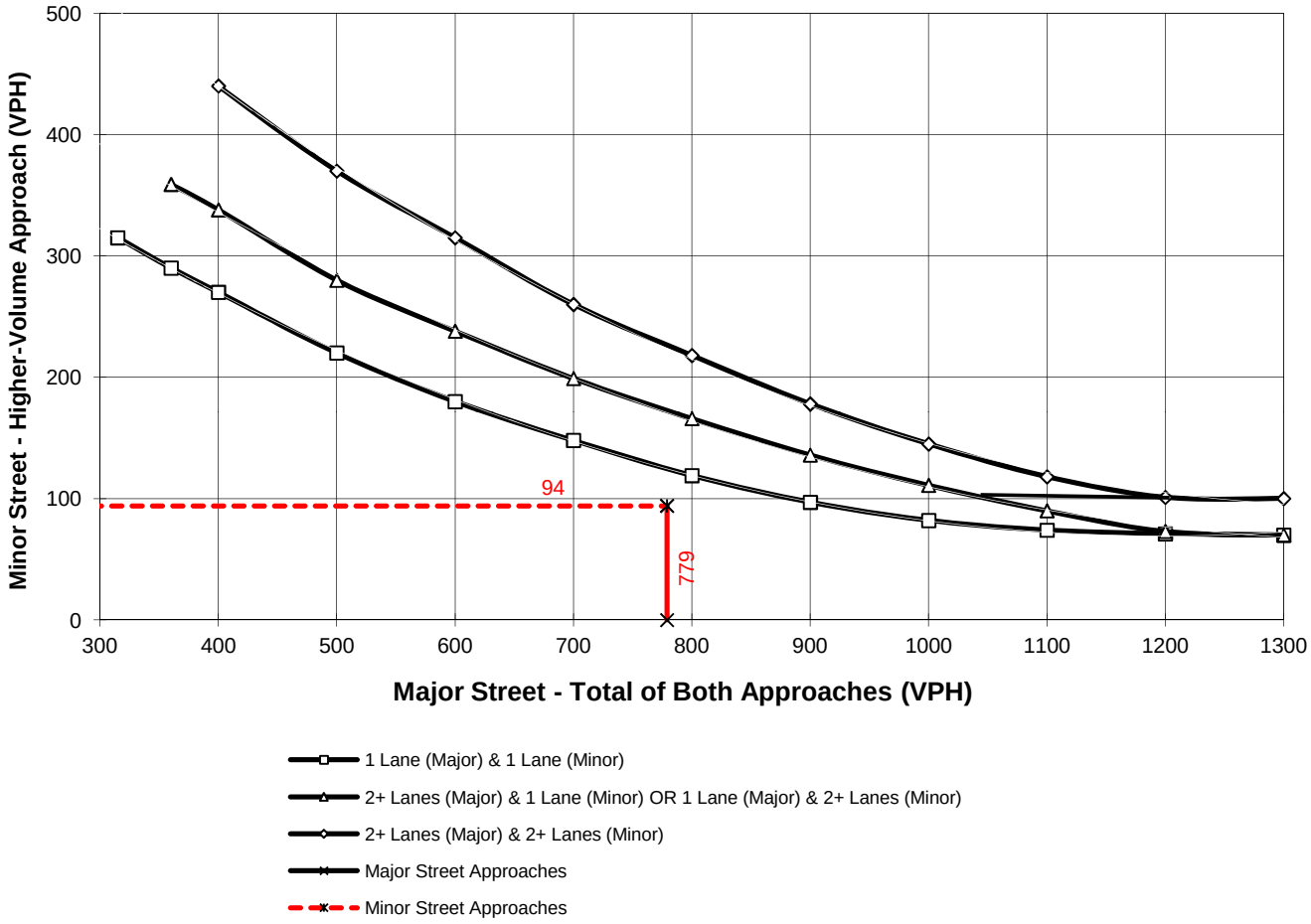
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2017WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **779**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.**
High Volume Approach (VPH) = **94**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

___ DIST	___ CO	___ RTE	___ PM				
				TRAFFIC CONDITIONS			**2017WP**
				CALC	JC	DATE	06/25/15
Jurisdiction:	**City of Corona**			CHK		DATE	
Major Street:	**Eagle Glen Pkwy.**			Critical Approach Speed (Major)			45 mph
Minor Street:	**St. "C"**			Critical Approach Speed (Minor)			35 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **7,850** vpd Minor Street Future ADT = **450** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 + **7,850**	1 **450**	9,600	6,720 *	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	12,000	8,400	1,200	850
2 + **7,850**	1 **450**	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 27% B 53%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 5.4:

2017 WITHOUT PROJECT
FREEWAY RAMP MERGE AND DIVERGE ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerrito Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017NP Conditions

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2500 ft
V_u = veh/h	Deceleration Lane Length L_D: 1500	V_D = 444 veh/h
	Freeway Volume, V_F: 4095	
	Ramp Volume, V_R: 373	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4095	0.92	Level	6	0	0.971	1.00	4585
Ramp	373	0.92	Level	6	0	0.971	1.00	418
UpStream								
DownStream	444	0.92	Level	6	0	0.971	1.00	497

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.626 using Equation (Exhibit 13-7)

V_{12} = 3027 pc/h

V_3 or V_{av34} 1558 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4585	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4167	Exhibit 13-8	7050	No
V_R	418	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3027	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 16.8 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

D_s = 0.466 (Exhibit 13-12)

S_R = 54.3 mph (Exhibit 13-12)

S_0 = 69.1 mph (Exhibit 13-12)

S = 58.6 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	200
Deceleration Lane Length L_D	
Freeway Volume, V_F	3722
Ramp Volume, V_R	444
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{down} = 2300 ft
V_D = 499 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3722	0.92	Level	6	0	0.971	1.00	4167
Ramp	444	0.92	Level	6	0	0.971	1.00	497
UpStream								
DownStream	499	0.92	Level	6	0	0.971	1.00	559

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 4267.18 (Equation 13-6 or 13-7)
P_{FM} = 0.613 using Equation (Exhibit 13-6)
V_{12} = 2553 pc/h
V_3 or V_{av34} 1614 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2553 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4664	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3050	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 27.8 (pc/mi/ln)
LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.389 (Exibit 13-11)
S_R= 56.0 mph (Exhibit 13-11)
S_0= 61.0 mph (Exhibit 13-11)
S = 57.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = using Equation (Exhibit 13-7)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)
S_R= mph (Exhibit 13-12)
S_0= mph (Exhibit 13-12)
S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A:	L_{down} = ft
V_u = 444 veh/h	Deceleration Lane Length L_D: 200	V_D = veh/h
	Freeway Volume, V_F: 4166	
	Ramp Volume, V_R: 499	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4166	0.92	Level	6	0	0.971	1.00	4664
Ramp	499	0.92	Level	6	0	0.971	1.00	559
UpStream	444	0.92	Level	6	0	0.971	1.00	497
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 3660.12 (Equation 13-12 or 13-13)

P_{FD} = 0.618 using Equation (Exhibit 13-7)

V_{12} = 3095 pc/h

V_3 or V_{av34} 1569 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4664	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4105	Exhibit 13-8	7050	No
V_R	559	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3095	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 29.1 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.478 (Exhibit 13-12)

S_R= 54.0 mph (Exhibit 13-12)

S_0= 69.1 mph (Exhibit 13-12)

S = 58.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 499 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 3667	
	Ramp Volume, V_R: 192	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3667	0.92	Level	6	0	0.971	1.00	4105
Ramp	192	0.92	Level	6	0	0.971	1.00	215
UpStream	499	0.92	Level	6	0	0.971	1.00	559
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 530.28 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 2417 pc/h

V_3 or V_{av34} 1688 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4320	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2632	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 23.4 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.347 (Exibit 13-11)

S_R= 57.0 mph (Exhibit 13-11)

S_0= 60.7 mph (Exhibit 13-11)

S = 58.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 467 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 6583	
	Ramp Volume, V_R: 758	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6583	0.92	Level	6	0	0.971	1.00	7370
Ramp	758	0.92	Level	6	0	0.971	1.00	849
UpStream	467	0.92	Level	6	0	0.971	1.00	523
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1453.47 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 4380 pc/h

V_3 or V_{av34} 2990 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4670 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8219	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5519	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 44.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.252 (Exibit 13-11)

S_R= 36.2 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 41.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	7050
Ramp Volume, V_R	467
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 758 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7050	0.92	Level	6	0	0.971	1.00	7893
Ramp	467	0.92	Level	6	0	0.971	1.00	523
UpStream								
DownStream	758	0.92	Level	6	0	0.971	1.00	849

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.539 using Equation (Exhibit 13-7)
V_{12} = 4493 pc/h
V_3 or V_{av34} 3400 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 5193 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7893	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7370	Exhibit 13-8	7050	Yes
V_R	523	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4493	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 47.1 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.475 (Exhibit 13-12)
S_R= 54.1 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 57.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 2000 ft
V_u = 152 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	400
Deceleration Lane Length L_D	
Freeway Volume, V_F	5643
Ramp Volume, V_R	1407
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5643	0.92	Level	6	0	0.971	1.00	6318
Ramp	1407	0.92	Level	6	0	0.971	1.00	1575
UpStream	152	0.92	Level	6	0	0.971	1.00	170
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = 1294.90 (Equation 13-6 or 13-7)
P_{FM} = 0.589 using Equation (Exhibit 13-6)
V_{12} = 3719 pc/h
V_3 or V_{av34} 2599 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 3719 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7893	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5294	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$
D_R = 43.5 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.070 (Exibit 13-11)
S_R= 40.4 mph (Exhibit 13-11)
S_0= 56.7 mph (Exhibit 13-11)
S = 44.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = using Equation (Exhibit 13-7)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)
S_R= mph (Exhibit 13-12)
S_0= mph (Exhibit 13-12)
S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2000 ft
V_u = veh/h	Deceleration Lane Length L_D: 200	V_D = 1407 veh/h
	Freeway Volume, V_F: 5795	
	Ramp Volume, V_R: 152	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5795	0.92	Level	6	0	0.971	1.00	6488
Ramp	152	0.92	Level	6	0	0.971	1.00	170
UpStream								
DownStream	1407	0.92	Level	6	0	0.971	1.00	1575

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.590 using Equation (Exhibit 13-7)

V_{12} = 3897 pc/h

V_3 or V_{av34} 2591 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6488	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	6318	Exhibit 13-8	7050	No
V_R	170	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3897	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 36.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.443 (Exhibit 13-12)

S_R= 54.8 mph (Exhibit 13-12)

S_0= 65.1 mph (Exhibit 13-12)

S = 58.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2500 ft
V_u = veh/h	Deceleration Lane Length L_D: 1500	V_D = 843 veh/h
	Freeway Volume, V_F: 5543	
	Ramp Volume, V_R: 407	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5543	0.92	Level	6	0	0.971	1.00	6206
Ramp	407	0.92	Level	6	0	0.971	1.00	456
UpStream								
DownStream	843	0.92	Level	6	0	0.971	1.00	944

Merge Areas | **Diverge Areas**

Estimation of v_{12}

Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.584 using Equation (Exhibit 13-7)

V_{12} = 3813 pc/h

V_3 or V_{av34} 2393 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

Merge Areas

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Diverge Areas

	Actual	Capacity		LOS F?
V_F	6206	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5750	Exhibit 13-8	7050	No
V_R	456	Exhibit 13-10	2000	No

Flow Entering Merge Influence Area / Flow Entering Diverge Influence Area

Merge Areas

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Diverge Areas

	Actual	Max Desirable		Violation?
V_{12}	3813	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

Merge Areas

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Diverge Areas

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 23.5 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

Merge Areas

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

D_s = 0.469 (Exhibit 13-12)

S_R = 54.2 mph (Exhibit 13-12)

S_0 = 65.9 mph (Exhibit 13-12)

S = 58.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 829 veh/h
	Freeway Volume, V_F: 5136	
	Ramp Volume, V_R: 843	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5136	0.92	Level	6	0	0.971	1.00	5750
Ramp	843	0.92	Level	6	0	0.971	1.00	944
UpStream								
DownStream	829	0.92	Level	6	0	0.971	1.00	928

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 7083.97 (Equation 13-6 or 13-7)

P_{FM} = 0.655 using Equation (Exhibit 13-6)

V_{12} = 3765 pc/h

V_3 or V_{av34} 1985 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3765 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6694	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4709	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 40.5 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.740 (Exibit 13-11)

S_R= 48.0 mph (Exhibit 13-11)

S_0= 59.7 mph (Exhibit 13-11)

S = 50.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2014) Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	3	Downstream Adj Ramp	
☑ Yes	☑ On	Ramp Number of Lanes, N	1	☐ Yes	☐ On
☐ No	☐ Off	Acceleration Lane Length, L_A		☑ No	☐ Off
L_{up} =	2300 ft	Deceleration Lane Length L_D	200	L_{down} =	ft
V_u =	8434 veh/h	Freeway Volume, V_F	5979	V_D =	veh/h
		Ramp Volume, V_R	829		
		Freeway Free-Flow Speed, S_{FF}	65.0		
		Ramp Free-Flow Speed, S_{FR}	35.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5979	0.92	Level	6	0	0.971	1.00	6694
Ramp	829	0.92	Level	6	0	0.971	1.00	928
UpStream	8434	0.92	Level	6	0	0.971	1.00	9442
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 61139.38 (Equation 13-12 or 13-13)

P_{FD} = 0.550 using Equation (Exhibit 13-7)

V_{12} = 4099 pc/h

V_3 or V_{av34} 2595 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6694	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5766	Exhibit 13-8	7050	No
V_R	928	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4099	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 37.7 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.512 (Exhibit 13-12)

S_R= 53.2 mph (Exhibit 13-12)

S_0= 65.1 mph (Exhibit 13-12)

S = 57.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 829 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 5150	
	Ramp Volume, V_R: 609	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5150	0.92	Level	6	0	0.971	1.00	5766
Ramp	609	0.92	Level	6	0	0.971	1.00	682
UpStream	829	0.92	Level	6	0	0.971	1.00	928
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 985.67 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 3394 pc/h

V_3 or V_{av34} 2372 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6448	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4076	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 34.4 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.523 (Exibit 13-11)

S_R= 53.0 mph (Exhibit 13-11)

S_0= 58.0 mph (Exhibit 13-11)

S = 54.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 361 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 4474	
	Ramp Volume, V_R: 322	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4474	0.92	Level	6	0	0.971	1.00	5009
Ramp	322	0.92	Level	6	0	0.971	1.00	360
UpStream	361	0.92	Level	6	0	0.971	1.00	404
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 843.57 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 2977 pc/h

V_3 or V_{av34} 2032 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2977 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5369	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3337	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 27.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.389 (Exibit 13-11)

S_R= 56.1 mph (Exhibit 13-11)

S_0= 59.5 mph (Exhibit 13-11)

S = 57.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D: 200	V_D = 322 veh/h
	Freeway Volume, V_F: 4835	
	Ramp Volume, V_R: 361	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4835	0.92	Level	6	0	0.971	1.00	5413
Ramp	361	0.92	Level	6	0	0.971	1.00	404
UpStream								
DownStream	322	0.92	Level	6	0	0.971	1.00	360

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.606 using Equation (Exhibit 13-7)

V_{12} = 3440 pc/h

V_3 or V_{av34} 1973 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5413	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5009	Exhibit 13-8	7050	No
V_R	404	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3440	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 32.0 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.464 (Exhibit 13-12)

S_R= 54.3 mph (Exhibit 13-12)

S_0= 67.5 mph (Exhibit 13-12)

S = 58.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2000 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 351 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 4150	
	Ramp Volume, V_R: 685	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4150	0.92	Level	6	0	0.971	1.00	4646
Ramp	685	0.92	Level	6	0	0.971	1.00	767
UpStream	351	0.92	Level	6	0	0.971	1.00	393
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 764.18 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 2735 pc/h

V_3 or V_{av34} 1911 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5413	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3502	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 29.9 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.422 (Exibit 13-11)

S_R= 55.3 mph (Exhibit 13-11)

S_0= 59.9 mph (Exhibit 13-11)

S = 56.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2000 ft
V_u = veh/h	Deceleration Lane Length L_D: 200	V_D = 685 veh/h
	Freeway Volume, V_F: 4501	
	Ramp Volume, V_R: 351	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4501	0.92	Level	6	0	0.971	1.00	5039
Ramp	351	0.92	Level	6	0	0.971	1.00	393
UpStream								
DownStream	685	0.92	Level	6	0	0.971	1.00	767

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.616 using Equation (Exhibit 13-7)

V_{12} = 3255 pc/h

V_3 or V_{av34} 1784 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5039	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4646	Exhibit 13-8	7050	No
V_R	393	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3255	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 30.4 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.463 (Exhibit 13-12)

S_R = 54.3 mph (Exhibit 13-12)

S_0 = 68.2 mph (Exhibit 13-12)

S = 58.6 mph (Exhibit 13-13)

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APPENDIX 5.5:

2017 WITH MODIFIED PROJECT (PHASE 1)
FREEWAY RAMP MERGE AND DIVERGE ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerrito Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2500 ft
V_u = veh/h	Deceleration Lane Length L_D: 1500	V_D = 444 veh/h
	Freeway Volume, V_F: 4123	
	Ramp Volume, V_R: 373	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4123	0.92	Level	6	0	0.971	1.00	4616
Ramp	373	0.92	Level	6	0	0.971	1.00	418
UpStream								
DownStream	444	0.92	Level	6	0	0.971	1.00	497

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.625 using Equation (Exhibit 13-7)

V_{12} = 3043 pc/h

V_3 or V_{av34} 1573 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4616	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4198	Exhibit 13-8	7050	No
V_R	418	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3043	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 16.9 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

D_s = 0.466 (Exhibit 13-12)

S_R = 54.3 mph (Exhibit 13-12)

S_0 = 69.1 mph (Exhibit 13-12)

S = 58.6 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 527 veh/h
	Freeway Volume, V_F: 3750	
	Ramp Volume, V_R: 444	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3750	0.92	Level	6	0	0.971	1.00	4198
Ramp	444	0.92	Level	6	0	0.971	1.00	497
UpStream								
DownStream	527	0.92	Level	6	0	0.971	1.00	590

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 4503.82 (Equation 13-6 or 13-7)

P_{FM} = 0.616 using Equation (Exhibit 13-6)

V_{12} = 2586 pc/h

V_3 or V_{av34} 1612 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2586 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4695	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3083	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 28.0 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.392 (Exibit 13-11)

S_R= 56.0 mph (Exhibit 13-11)

S_0= 61.0 mph (Exhibit 13-11)

S = 57.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A:	L_{down} = ft
V_u = 444 veh/h	Deceleration Lane Length L_D: 200	V_D = veh/h
	Freeway Volume, V_F: 4194	
	Ramp Volume, V_R: 527	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4194	0.92	Level	6	0	0.971	1.00	4695
Ramp	527	0.92	Level	6	0	0.971	1.00	590
UpStream	444	0.92	Level	6	0	0.971	1.00	497
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 3704.95 (Equation 13-12 or 13-13)

P_{FD} = 0.615 using Equation (Exhibit 13-7)

V_{12} = 3117 pc/h

V_3 or V_{av34} 1578 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4695	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4105	Exhibit 13-8	7050	No
V_R	590	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3117	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 29.3 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.481 (Exhibit 13-12)

S_R= 53.9 mph (Exhibit 13-12)

S_0= 69.1 mph (Exhibit 13-12)

S = 58.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 527 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 3667	
	Ramp Volume, V_R: 222	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3667	0.92	Level	6	0	0.971	1.00	4105
Ramp	222	0.92	Level	6	0	0.971	1.00	249
UpStream	527	0.92	Level	6	0	0.971	1.00	590
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 537.56 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 2417 pc/h

V_3 or V_{av34} 1688 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2417 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4354	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2666	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 23.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.349 (Exibit 13-11)

S_R= 57.0 mph (Exhibit 13-11)

S_0= 60.7 mph (Exhibit 13-11)

S = 58.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 467 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 6647	
	Ramp Volume, V_R: 758	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6647	0.92	Level	6	0	0.971	1.00	7442
Ramp	758	0.92	Level	6	0	0.971	1.00	849
UpStream	467	0.92	Level	6	0	0.971	1.00	523
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1468.87 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 4423 pc/h

V_3 or V_{av34} 3019 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4742 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8291	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5591	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 44.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.324 (Exibit 13-11)

S_R= 34.5 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 39.5 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	7134
Ramp Volume, V_R	467
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 758 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7134	0.92	Level	6	0	0.971	1.00	7987
Ramp	467	0.92	Level	6	0	0.971	1.00	523
UpStream								
DownStream	758	0.92	Level	6	0	0.971	1.00	849

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.536 using Equation (Exhibit 13-7)
V_{12} = 4526 pc/h
V_3 or V_{av34} 3461 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 5287 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7987	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7464	Exhibit 13-8	7050	Yes
V_R	523	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4526	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 47.9 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.475 (Exhibit 13-12)
S_R= 54.1 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 57.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2000 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 162 veh/h	Deceleration Lane Length L_D	V_D = veh/h
	Freeway Volume, V_F: 5643	
	Ramp Volume, V_R: 1491	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5643	0.92	Level	6	0	0.971	1.00	6318
Ramp	1491	0.92	Level	6	0	0.971	1.00	1669
UpStream	162	0.92	Level	6	0	0.971	1.00	181
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1315.02 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 3719 pc/h

V_3 or V_{av34} 2599 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3719 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7987	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5388	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 44.2 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.146 (Exibit 13-11)

S_R= 38.6 mph (Exhibit 13-11)

S_0= 56.7 mph (Exhibit 13-11)

S = 43.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	5805
Ramp Volume, V_R	162
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 1491 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5805	0.92	Level	6	0	0.971	1.00	6499
Ramp	162	0.92	Level	6	0	0.971	1.00	181
UpStream								
DownStream	1491	0.92	Level	6	0	0.971	1.00	1669

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.589 using Equation (Exhibit 13-7)
V_{12} = 3904 pc/h
V_3 or V_{av34} 2595 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6499	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	6318	Exhibit 13-8	7050	No
V_R	181	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3904	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 36.0 (pc/mi/ln)
LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.444 (Exhibit 13-12)
S_R= 54.8 mph (Exhibit 13-12)
S_0= 65.1 mph (Exhibit 13-12)
S = 58.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2500 ft
V_u = veh/h	Deceleration Lane Length L_D: 1500	V_D = 843 veh/h
	Freeway Volume, V_F: 5637	
	Ramp Volume, V_R: 407	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5637	0.92	Level	6	0	0.971	1.00	6311
Ramp	407	0.92	Level	6	0	0.971	1.00	456
UpStream								
DownStream	843	0.92	Level	6	0	0.971	1.00	944

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.581 using Equation (Exhibit 13-7)

V_{12} = 3859 pc/h

V_3 or V_{av34} 2452 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6311	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5855	Exhibit 13-8	7050	No
V_R	456	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3859	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 23.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.469 (Exhibit 13-12)

S_R = 54.2 mph (Exhibit 13-12)

S_0 = 65.6 mph (Exhibit 13-12)

S = 58.1 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 923 veh/h
	Freeway Volume, V_F: 5230	
	Ramp Volume, V_R: 843	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5230	0.92	Level	6	0	0.971	1.00	5855
Ramp	843	0.92	Level	6	0	0.971	1.00	944
UpStream								
DownStream	923	0.92	Level	6	0	0.971	1.00	1033

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 7885.50 (Equation 13-6 or 13-7)

P_{FM} = 0.667 using Equation (Exhibit 13-6)

V_{12} = 3904 pc/h

V_3 or V_{av34} 1951 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3904 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6799	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4848	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 41.6 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.804 (Exibit 13-11)

S_R= 46.5 mph (Exhibit 13-11)

S_0= 59.8 mph (Exhibit 13-11)

S = 49.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A:	L_{down} = ft
V_u = 843 veh/h	Deceleration Lane Length L_D: 200	V_D = veh/h
	Freeway Volume, V_F: 6073	
	Ramp Volume, V_R: 923	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6073	0.92	Level	6	0	0.971	1.00	6799
Ramp	923	0.92	Level	6	0	0.971	1.00	1033
UpStream	843	0.92	Level	6	0	0.971	1.00	944
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 6341.15 (Equation 13-12 or 13-13)

P_{FD} = 0.543 using Equation (Exhibit 13-7)

V_{12} = 4161 pc/h

V_3 or V_{av34} 2638 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6799	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5766	Exhibit 13-8	7050	No
V_R	1033	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4161	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 38.2 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.521 (Exhibit 13-12)

S_R= 53.0 mph (Exhibit 13-12)

S_0= 64.9 mph (Exhibit 13-12)

S = 57.1 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 923 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 5150	
	Ramp Volume, V_R: 629	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5150	0.92	Level	6	0	0.971	1.00	5766
Ramp	629	0.92	Level	6	0	0.971	1.00	704
UpStream	923	0.92	Level	6	0	0.971	1.00	1033
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 990.38 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 3394 pc/h

V_3 or V_{av34} 2372 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3394 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6470	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4098	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 34.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.528 (Exibit 13-11)

S_R= 52.9 mph (Exhibit 13-11)

S_0= 58.0 mph (Exhibit 13-11)

S = 54.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 361 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 4529	
	Ramp Volume, V_R: 322	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4529	0.92	Level	6	0	0.971	1.00	5071
Ramp	322	0.92	Level	6	0	0.971	1.00	360
UpStream	361	0.92	Level	6	0	0.971	1.00	404
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 856.83 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 3014 pc/h

V_3 or V_{av34} 2057 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3014 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5431	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3374	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 27.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.393 (Exibit 13-11)

S_R= 56.0 mph (Exhibit 13-11)

S_0= 59.4 mph (Exhibit 13-11)

S = 57.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	3	Downstream Adj Ramp	
☐ Yes	☐ On	Ramp Number of Lanes, N	1	☑ Yes	☑ On
☑ No	☐ Off	Acceleration Lane Length, L_A		☐ No	☐ Off
L_{up} =	ft	Deceleration Lane Length L_D	200	L_{down} =	2300 ft
V_u =	veh/h	Freeway Volume, V_F	4890	V_D =	322 veh/h
		Ramp Volume, V_R	361		
		Freeway Free-Flow Speed, S_{FF}	65.0		
		Ramp Free-Flow Speed, S_{FR}	35.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4890	0.92	Level	6	0	0.971	1.00	5475
Ramp	361	0.92	Level	6	0	0.971	1.00	404
UpStream								
DownStream	322	0.92	Level	6	0	0.971	1.00	360

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.605 using Equation (Exhibit 13-7)

V_{12} = 3470 pc/h

V_3 or V_{av34} 2005 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5475	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	5071	Exhibit 13-8	7050	No
V_R	404	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3470	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 32.3 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.464 (Exhibit 13-12)

S_R= 54.3 mph (Exhibit 13-12)

S_0= 67.4 mph (Exhibit 13-12)

S = 58.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☑ Yes ☐ On ☐ No ☑ Off

L_{up} = 2000 ft

V_u = 385 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	400
Deceleration Lane Length L_D	
Freeway Volume, V_F	4150
Ramp Volume, V_R	740
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4150	0.92	Level	6	0	0.971	1.00	4646
Ramp	740	0.92	Level	6	0	0.971	1.00	828
UpStream	385	0.92	Level	6	0	0.971	1.00	431
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 777.24 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 2735 pc/h

V_3 or V_{av34} 1911 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2735 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5474	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3563	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 30.4 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.431 (Exibit 13-11)

S_R= 55.1 mph (Exhibit 13-11)

S_0= 59.9 mph (Exhibit 13-11)

S = 56.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2017WP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	4535
Ramp Volume, V_R	385
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 740 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4535	0.92	Level	6	0	0.971	1.00	5077
Ramp	385	0.92	Level	6	0	0.971	1.00	431
UpStream								
DownStream	740	0.92	Level	6	0	0.971	1.00	828

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.613 using Equation (Exhibit 13-7)
V_{12} = 3280 pc/h
V_3 or V_{av34} 1797 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5077	Exhibit 13-8	7050	No
$V_{FO} = V_F - V_R$	4646	Exhibit 13-8	7050	No
V_R	431	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3280	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 30.7 (pc/mi/ln)
LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.467 (Exhibit 13-12)
S_R= 54.3 mph (Exhibit 13-12)
S_0= 68.2 mph (Exhibit 13-12)
S = 58.5 mph (Exhibit 13-13)

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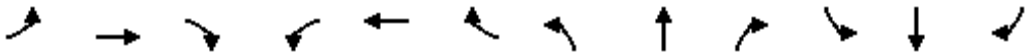
APPENDIX 6.1:

2035 WITHOUT PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT INTERSECTION OPERATIONS ANALYSIS WORKSHEETS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	71	117	104	165	116	244	244	191	128	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959				0.850		0.925			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1786	0	1770	1863	1583	1770	1723	0	1770	1850	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1786	0	1770	1863	1583	1770	1723	0	1770	1850	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	41.9
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	6	190	71	0	117	104	165	0	116	244	244
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	218	82	0	134	120	190	0	133	280	280
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	43	18.9	65.2
HCM LOS	E	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	50%	0%	73%	0%	100%	0%	0%	96%
Vol Right, %	0%	50%	0%	27%	0%	0%	100%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	488	6	261	117	104	165	191	134
LT Vol	116	0	6	0	117	0	0	191	0
Through Vol	0	244	0	190	0	104	0	0	128
RT Vol	0	244	0	71	0	0	165	0	6
Lane Flow Rate	133	561	7	300	134	120	190	220	154
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.374	1	0.02	0.813	0.382	0.323	0.476	0.628	0.418
Departure Headway (Hd)	10.086	9.205	10.439	9.754	10.238	9.739	9.041	10.301	9.771
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	359	398	342	372	351	368	398	349	368
Service Time	7.786	6.905	8.22	7.534	8.022	7.523	6.825	8.089	7.559
HCM Lane V/C Ratio	0.37	1.41	0.02	0.806	0.382	0.326	0.477	0.63	0.418
HCM Control Delay	18.7	76.3	13.4	43.7	19.3	17.1	19.8	29.1	19.5
HCM Lane LOS	C	F	B	E	C	C	C	D	C
HCM 95th-tile Q	1.7	12.1	0.1	7.1	1.7	1.4	2.5	4	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	191	128	6
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	220	147	7
Number of Lanes	0	1	1	0

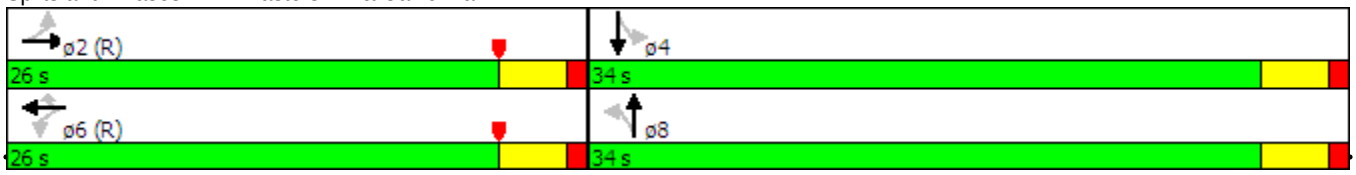
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	25.1
HCM LOS	D

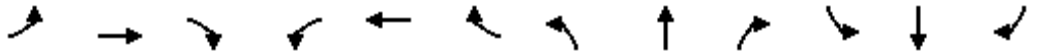
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	71	117	104	165	116	244	244	191	128	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959				0.850		0.925			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1786	0	1770	1863	1583	1770	1723	0	1770	1850	0
Flt Permitted	0.680			0.483			0.659			0.310		
Satd. Flow (perm)	1267	1786	0	900	1863	1583	1228	1723	0	577	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36				190		120			6	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Masters Dr. & California Av.

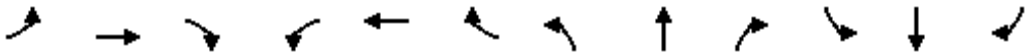




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	190	71	117	104	165	116	244	244	191	128	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	7	218	82	134	120	190	133	280	280	220	147	7
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	473	178	376	683	581	678	428	428	284	882	42
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.17	0.17	0.17	0.50	0.50	0.50
Sat Flow, veh/h	1065	1291	486	1075	1863	1583	1228	856	856	846	1764	84
Grp Volume(v), veh/h	7	0	300	134	120	190	133	0	560	220	0	154
Grp Sat Flow(s),veh/h/ln	1065	0	1777	1075	1863	1583	1228	0	1712	846	0	1848
Q Serve(g_s), s	0.3	0.0	7.7	6.5	2.6	5.2	5.7	0.0	18.4	11.6	0.0	2.7
Cycle Q Clear(g_c), s	2.9	0.0	7.7	14.2	2.6	5.2	8.5	0.0	18.4	30.0	0.0	2.7
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.50	1.00		0.05
Lane Grp Cap(c), veh/h	464	0	652	376	683	581	678	0	856	284	0	924
V/C Ratio(X)	0.02	0.00	0.46	0.36	0.18	0.33	0.20	0.00	0.65	0.77	0.00	0.17
Avail Cap(c_a), veh/h	464	0	652	376	683	581	678	0	856	284	0	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.83	0.00	0.83	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	0.0	14.5	19.9	12.9	13.7	17.3	0.0	20.2	25.7	0.0	8.2
Incr Delay (d2), s/veh	0.1	0.0	2.3	2.6	0.6	1.5	0.5	0.0	3.2	18.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	4.2	2.2	1.4	2.5	2.0	0.0	9.5	5.1	0.0	1.5
LnGrp Delay(d),s/veh	13.9	0.0	16.8	22.5	13.4	15.2	17.8	0.0	23.4	44.1	0.0	8.6
LnGrp LOS	B		B	C	B	B	B		C	D		A
Approach Vol, veh/h		307			444			693			374	
Approach Delay, s/veh		16.7			16.9			22.3			29.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		22.0		30.0		22.0		30.0
Max Q Clear Time (g_c+I1), s		9.7		32.0		16.2		20.4
Green Ext Time (p_c), s		2.9		0.0		1.8		4.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	17	3	32	7	172	14	28	158	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.917			0.989			0.989	
Flt Protected		0.975			0.984		0.950			0.950		
Satd. Flow (prot)	0	1722	0	0	1681	0	1770	1842	0	1770	1842	0
Flt Permitted		0.975			0.984		0.950			0.950		
Satd. Flow (perm)	0	1722	0	0	1681	0	1770	1842	0	1770	1842	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	44	9	32	0	17	3	32	0	7	172	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	9	34	0	18	3	34	0	7	181	15
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.6	8.2	9.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	33%	100%	0%
Vol Thru, %	0%	92%	11%	6%	0%	93%
Vol Right, %	0%	8%	38%	62%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	186	85	52	28	170
LT Vol	7	0	44	17	28	0
Through Vol	0	172	9	3	0	158
RT Vol	0	14	32	32	0	12
Lane Flow Rate	7	196	89	55	29	179
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.011	0.273	0.121	0.072	0.046	0.249
Departure Headway (Hd)	5.581	5.025	4.887	4.758	5.572	5.019
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	641	715	732	751	643	716
Service Time	3.316	2.76	2.925	2.8	3.306	2.753
HCM Lane V/C Ratio	0.011	0.274	0.122	0.073	0.045	0.25
HCM Control Delay	8.4	9.6	8.6	8.2	8.6	9.4
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	1.1	0.4	0.2	0.1	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	28	158	12
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	29	166	13
Number of Lanes	0	1	1	0

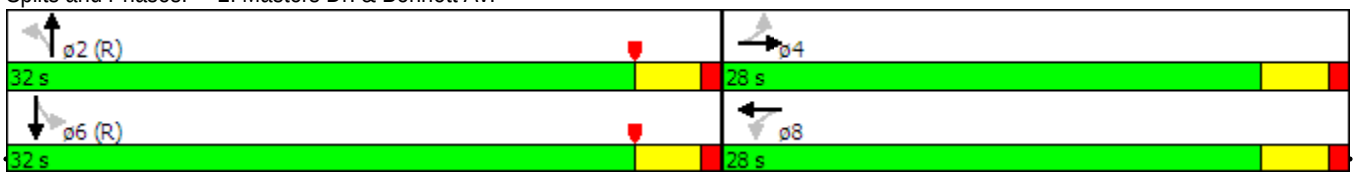
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.3
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	17	3	32	7	172	14	28	158	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.917			0.989			0.989	
Flt Protected		0.975			0.984		0.950			0.950		
Satd. Flow (prot)	0	1722	0	0	1681	0	1770	1842	0	1770	1842	0
Flt Permitted		0.815			0.888		0.644			0.634		
Satd. Flow (perm)	0	1439	0	0	1517	0	1200	1842	0	1181	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			34			9			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	28.0	28.0		28.0	28.0		32.0	32.0		32.0	32.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%		53.3%	53.3%		53.3%	53.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

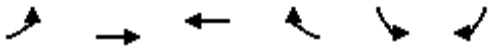
Splits and Phases: 2: Masters Dr. & Bennett Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	9	32	17	3	32	7	172	14	28	158	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	46	9	34	18	3	34	7	181	15	29	166	13
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	22	53	113	22	89	1027	1323	110	1010	1329	104
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	732	252	608	385	248	1025	1200	1697	141	1182	1706	134
Grp Volume(v), veh/h	89	0	0	55	0	0	7	0	196	29	0	179
Grp Sat Flow(s),veh/h/ln	1592	0	0	1658	0	0	1200	0	1838	1182	0	1839
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.6	0.4	0.0	1.4
Cycle Q Clear(g_c), s	3.1	0.0	0.0	1.8	0.0	0.0	1.5	0.0	1.6	2.0	0.0	1.4
Prop In Lane	0.52		0.38	0.33		0.62	1.00		0.08	1.00		0.07
Lane Grp Cap(c), veh/h	230	0	0	224	0	0	1027	0	1433	1010	0	1434
V/C Ratio(X)	0.39	0.00	0.00	0.25	0.00	0.00	0.01	0.00	0.14	0.03	0.00	0.12
Avail Cap(c_a), veh/h	694	0	0	698	0	0	1027	0	1433	1010	0	1434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	0.0	25.8	0.0	0.0	1.8	0.0	1.6	1.9	0.0	1.6
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.8	0.1	0.0	0.8
LnGrp Delay(d),s/veh	27.4	0.0	0.0	26.4	0.0	0.0	1.8	0.0	1.8	1.9	0.0	1.8
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		89			55			203			208	
Approach Delay, s/veh		27.4			26.4			1.8			1.8	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.8		9.2		50.8		9.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		28.0		24.0		28.0		24.0
Max Q Clear Time (g_c+I1), s		3.6		5.1		4.0		3.8
Green Ext Time (p_c), s		2.2		0.7		2.2		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	19	470	427	127	152	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.966			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3419	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3419	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	19	470	0	427	127	0	152	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	495	0	449	134	0	160	20
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	12.5	15.5	14.4
HCM LOS	B	C	B

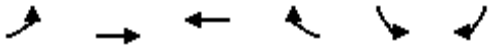
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	53%	0%	0%
Vol Right, %	0%	0%	0%	0%	47%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	235	235	285	269	152	19
LT Vol	19	0	0	0	0	152	0
Through Vol	0	235	235	285	142	0	0
RT Vol	0	0	0	0	127	0	19
Lane Flow Rate	20	247	247	300	284	160	20
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.04	0.457	0.336	0.536	0.48	0.353	0.037
Departure Headway (Hd)	7.159	6.651	4.893	6.435	6.101	7.943	6.727
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	498	539	730	557	587	451	529
Service Time	4.932	4.424	2.664	4.202	3.868	5.731	4.515
HCM Lane V/C Ratio	0.04	0.458	0.338	0.539	0.484	0.355	0.038
HCM Control Delay	10.2	15	10.2	16.5	14.4	15	9.8
HCM Lane LOS	B	B	B	C	B	B	A
HCM 95th-tile Q	0.1	2.4	1.5	3.2	2.6	1.6	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	19	470	427	127	152	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.966			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3419	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3419	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			44			20
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	16.0	76.0	60.0		44.0	44.0
Total Split (%)	13.3%	63.3%	50.0%		36.7%	36.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	19	470	427	127	152	19
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	20	495	449	134	160	20
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	29	2918	2088	618	193	172
Arrive On Green	0.02	0.82	0.77	0.77	0.11	0.11
Sat Flow, veh/h	1774	3632	2787	798	1774	1583
Grp Volume(v), veh/h	20	495	294	289	160	20
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1722	1774	1583
Q Serve(g_s), s	1.3	3.4	5.4	5.5	10.6	1.4
Cycle Q Clear(g_c), s	1.3	3.4	5.4	5.5	10.6	1.4
Prop In Lane	1.00			0.46	1.00	1.00
Lane Grp Cap(c), veh/h	29	2918	1371	1334	193	172
V/C Ratio(X)	0.70	0.17	0.21	0.22	0.83	0.12
Avail Cap(c_a), veh/h	177	2918	1371	1334	591	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	2.1	3.6	3.7	52.4	48.3
Incr Delay (d2), s/veh	25.9	0.1	0.4	0.4	8.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	1.7	2.7	2.7	5.7	1.3
LnGrp Delay(d),s/veh	84.6	2.3	4.0	4.0	61.1	48.6
LnGrp LOS	F	A	A	A	E	D
Approach Vol, veh/h		515	583		180	
Approach Delay, s/veh		5.5	4.0		59.7	
Approach LOS		A	A		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		102.9		17.1	5.9	97.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		72.0		40.0	12.0	56.0		
Max Q Clear Time (g_c+I1), s		5.4		12.6	3.3	7.5		
Green Ext Time (p_c), s		7.7		0.5	0.0	7.6		

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1181	251	289	1179	339	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.974					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3447	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3447	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	28					198
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	60.0		28.0	88.0	32.0	32.0
Total Split (%)	50.0%		23.3%	73.3%	26.7%	26.7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

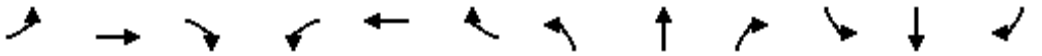
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1181	251	289	1179	339	286
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1243	264	304	1241	357	301
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1407	296	325	2477	414	369
Arrive On Green	0.48	0.48	0.37	1.00	0.23	0.23
Sat Flow, veh/h	3006	612	1774	3632	1774	1583
Grp Volume(v), veh/h	750	757	304	1241	357	301
Grp Sat Flow(s),veh/h/ln	1770	1755	1774	1770	1774	1583
Q Serve(g_s), s	45.6	47.0	19.8	0.0	23.2	21.6
Cycle Q Clear(g_c), s	45.6	47.0	19.8	0.0	23.2	21.6
Prop In Lane		0.35	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	855	848	325	2477	414	369
V/C Ratio(X)	0.88	0.89	0.93	0.50	0.86	0.81
Avail Cap(c_a), veh/h	855	848	355	2477	414	369
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.69	0.69	1.00	1.00
Uniform Delay (d), s/veh	27.8	28.2	37.3	0.0	44.2	43.5
Incr Delay (d2), s/veh	12.3	13.7	23.4	0.5	20.5	17.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	25.2	25.9	11.7	0.2	13.7	11.3
LnGrp Delay(d),s/veh	40.1	41.9	60.7	0.5	64.6	61.2
LnGrp LOS	D	D	E	A	E	E
Approach Vol, veh/h	1507			1545	658	
Approach Delay, s/veh	41.0			12.3	63.1	
Approach LOS	D			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	26.0	62.0				88.0		32.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	24.0	56.0				84.0		28.0
Max Q Clear Time (g_c+I1), s	21.8	49.0				2.0		25.2
Green Ext Time (p_c), s	0.2	6.4				46.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	41	2	2	2	18	258	10	35	473	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.994				0.850
Flt Protected		0.955			0.984		0.950				0.997	
Satd. Flow (prot)	0	1779	1583	0	1750	0	1770	1852	0	0	1857	1583
Flt Permitted		0.955			0.984		0.950				0.997	
Satd. Flow (perm)	0	1779	1583	0	1750	0	1770	1852	0	0	1857	1583
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	18.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	89	5	41	0	2	2	2	0	18	258	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	94	5	43	0	2	2	2	0	19	272	11
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	11	10.2	12.6
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	95%	0%	33%	7%	0%
Vol Thru, %	0%	96%	5%	0%	33%	93%	0%
Vol Right, %	0%	4%	0%	100%	33%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	268	94	41	6	508	53
LT Vol	18	0	89	0	2	35	0
Through Vol	0	258	5	0	2	473	0
RT Vol	0	10	0	41	2	0	53
Lane Flow Rate	19	282	99	43	6	535	56
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.033	0.444	0.2	0.073	0.012	0.794	0.071
Departure Headway (Hd)	6.203	5.671	7.265	6.073	7.049	5.456	4.715
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	579	638	496	593	509	668	764
Service Time	3.917	3.385	4.977	3.784	5.073	3.156	2.415
HCM Lane V/C Ratio	0.033	0.442	0.2	0.073	0.012	0.801	0.073
HCM Control Delay	9.1	12.8	11.8	9.3	10.2	25.8	7.8
HCM Lane LOS	A	B	B	A	B	D	A
HCM 95th-tile Q	0.1	2.3	0.7	0.2	0	7.9	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	35	473	53
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	498	56
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	24.1
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	41	2	2	2	18	258	10	35	473	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.994				0.850
Flt Protected		0.955			0.984		0.950				0.997	
Satd. Flow (prot)	0	1779	1583	0	1750	0	1770	1852	0	0	1857	1583
Flt Permitted		0.733			0.926		0.424				0.969	
Satd. Flow (perm)	0	1365	1583	0	1647	0	790	1852	0	0	1805	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			43		2			5				56
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	5	41	2	2	2	18	258	10	35	473	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	94	5	0	2	2	2	19	272	11	37	498	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	6	139	105	77	51	852	1385	56	115	1364	1233
Arrive On Green	0.09	0.09	0.00	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.00
Sat Flow, veh/h	1364	73	1583	288	872	580	896	1778	72	65	1751	1583
Grp Volume(v), veh/h	99	0	0	6	0	0	19	0	283	535	0	0
Grp Sat Flow(s),veh/h/ln	1437	0	1583	1740	0	0	896	0	1850	1817	0	1583
Q Serve(g_s), s	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	2.4	5.4	0.0	0.0
Prop In Lane	0.95		1.00	0.33		0.33	1.00		0.04	0.07		1.00
Lane Grp Cap(c), veh/h	243	0	139	233	0	0	852	0	1441	1479	0	1233
V/C Ratio(X)	0.41	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.20	0.36	0.00	0.00
Avail Cap(c_a), veh/h	640	0	581	678	0	0	852	0	1441	1479	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	0.0	0.0	25.0	0.0	0.0	1.5	0.0	1.7	2.1	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	0.0	0.0	0.1	0.0	0.0	0.1	0.0	1.3	3.0	0.0	0.0
LnGrp Delay(d),s/veh	27.9	0.0	0.0	25.1	0.0	0.0	1.5	0.0	2.0	2.7	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		99			6			302			535	
Approach Delay, s/veh		27.9			25.1			2.0			2.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.7		9.3		50.7		9.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		4.4		6.0		7.4		2.2
Green Ext Time (p_c), s		5.4		0.4		5.2		0.4

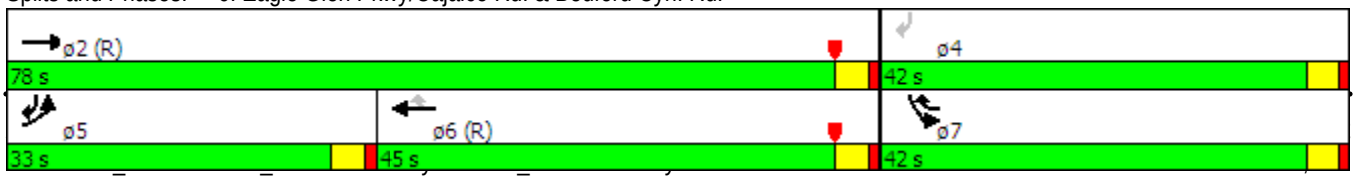
Intersection Summary	
HCM 2010 Ctrl Delay	5.3
HCM 2010 LOS	A

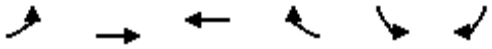
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø4
Lane Configurations							
Volume (vph)	114	508	403	221	161	151	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	180			200	450	0	
Storage Lanes	1			1	0	1	
Taper Length (ft)	100				180		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor				0.98		0.98	
Frt				0.850		0.850	
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	3539	3539	1550	1770	1550	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)				233		159	
Link Speed (mph)		45	45		45		
Link Distance (ft)		930	726		651		
Travel Time (s)		14.1	11.0		9.9		
Confl. Peds. (#/hr)				5		5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Shared Lane Traffic (%)							
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	5	2	6	7	7	5	4
Permitted Phases				6		4	
Detector Phase	5	2	6	7	7	5	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	23.0	8.0	8.0	8.0	23.0
Total Split (s)	33.0	78.0	45.0	42.0	42.0	33.0	42.0
Total Split (%)	27.5%	65.0%	37.5%	35.0%	35.0%	27.5%	35%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag			Lead	
Lead-Lag Optimize?	Yes		Yes			Yes	
Recall Mode	None	C-Max	C-Max	Max	Max	None	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	114	508	403	221	161	151
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	535	424	233	169	159
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	150	2183	1766	1288	562	635
Arrive On Green	0.08	0.62	0.16	0.16	0.32	0.32
Sat Flow, veh/h	1774	3632	3632	1575	1774	1583
Grp Volume(v), veh/h	120	535	424	233	169	159
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1575	1774	1583
Q Serve(g_s), s	8.0	8.2	12.5	5.7	8.6	8.0
Cycle Q Clear(g_c), s	8.0	8.2	12.5	5.7	8.6	8.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	150	2183	1766	1288	562	635
V/C Ratio(X)	0.80	0.25	0.24	0.18	0.30	0.25
Avail Cap(c_a), veh/h	429	2183	1766	1288	562	635
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	54.0	10.4	30.3	4.3	31.0	23.9
Incr Delay (d2), s/veh	9.5	0.3	0.3	0.3	1.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.3	4.1	6.2	10.2	4.4	8.6
LnGrp Delay(d),s/veh	63.5	10.7	30.6	4.6	32.3	24.9
LnGrp LOS	E	B	C	A	C	C
Approach Vol, veh/h		655	657		328	
Approach Delay, s/veh		20.3	21.4		28.7	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		78.0		42.0	14.1	63.9		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		74.0		38.0	29.0	41.0		
Max Q Clear Time (g_c+I1), s		10.2		10.6	10.0	14.5		
Green Ext Time (p_c), s		6.0		1.3	0.3	5.6		

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	891	576	151	853	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.941										0.850
Flt Protected				0.950							0.954	
Satd. Flow (prot)	0	3330	0	1770	3539	0	0	0	0	0	1777	1583
Flt Permitted				0.950							0.954	
Satd. Flow (perm)	0	3330	0	1770	3539	0	0	0	0	0	1777	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		162										144
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		59.0		15.0	74.0					46.0	46.0	46.0
Total Split (%)		49.2%		12.5%	61.7%					38.3%	38.3%	38.3%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	891	576	151	853	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	938	606	159	898	0				158	5	647
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	961	598	163	2065	0				603	19	554
Arrive On Green	0.00	0.31	0.31	0.18	1.00	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	2189	1306	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	786	758	159	898	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1632	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	52.6	55.0	10.7	0.0	0.0				7.9	0.0	42.0
Cycle Q Clear(g_c), s	0.0	52.6	55.0	10.7	0.0	0.0				7.9	0.0	42.0
Prop In Lane	0.00		0.80	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	811	748	163	2065	0				622	0	554
V/C Ratio(X)	0.00	0.97	1.01	0.98	0.43	0.00				0.26	0.00	1.17
Avail Cap(c_a), veh/h	0	811	748	163	2065	0				622	0	554
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.32	0.32	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	40.7	41.6	48.9	0.0	0.0				27.9	0.0	39.0
Incr Delay (d2), s/veh	0.0	13.9	23.9	33.8	0.2	0.0				1.0	0.0	93.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	28.9	29.8	6.7	0.1	0.0				4.0	0.0	32.7
LnGrp Delay(d),s/veh	0.0	54.7	65.5	82.7	0.2	0.0				28.9	0.0	132.6
LnGrp LOS		D	F	F	A					C		F
Approach Vol, veh/h		1544			1057						810	
Approach Delay, s/veh		60.0			12.6						111.7	
Approach LOS		E			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.0	59.0		46.0		74.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	11.0	55.0		42.0		70.0		
Max Q Clear Time (g_c+I1), s	12.7	57.0		44.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		34.1		

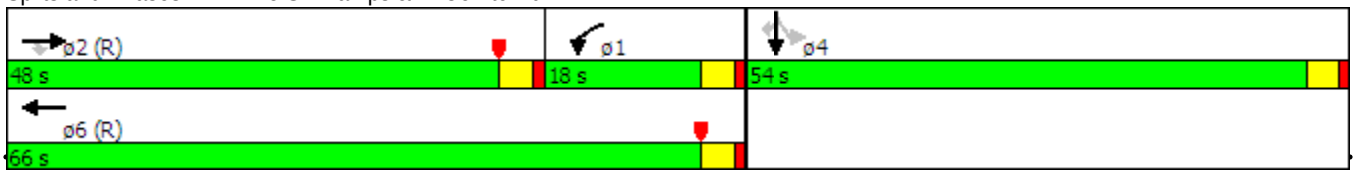
Intersection Summary	
HCM 2010 Ctrl Delay	57.6
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	891	576	151	853	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.954	
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	1777	1583
Flt Permitted				0.950							0.954	
Satd. Flow (perm)	0	3539	1583	1770	3539	0	0	0	0	0	1777	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			291									109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		48.0	48.0	18.0	66.0					54.0	54.0	54.0
Total Split (%)		40.0%	40.0%	15.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lead	Lead	Lag								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 116 (97%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	891	576	151	853	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	938	606	159	898	0				158	5	647
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1298	581	207	1829	0				718	23	660
Arrive On Green	0.00	0.12	0.12	0.23	1.00	0.00				0.42	0.42	0.42
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	938	606	159	898	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	30.6	44.0	10.0	0.0	0.0				7.1	0.0	48.4
Cycle Q Clear(g_c), s	0.0	30.6	44.0	10.0	0.0	0.0				7.1	0.0	48.4
Prop In Lane	0.00		1.00	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	1298	581	207	1829	0				740	0	660
V/C Ratio(X)	0.00	0.72	1.04	0.77	0.49	0.00				0.22	0.00	0.98
Avail Cap(c_a), veh/h	0	1298	581	207	1829	0				740	0	660
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.32	0.32	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	46.9	52.7	44.5	0.0	0.0				22.5	0.0	34.5
Incr Delay (d2), s/veh	0.0	1.4	35.9	5.5	0.3	0.0				0.7	0.0	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	15.3	25.1	5.2	0.1	0.0				3.6	0.0	26.6
LnGrp Delay(d),s/veh	0.0	48.3	88.6	50.0	0.3	0.0				23.2	0.0	65.2
LnGrp LOS		D	F	D	A					C		E
Approach Vol, veh/h		1544			1057						810	
Approach Delay, s/veh		64.1			7.8						56.7	
Approach LOS		E			A						E	

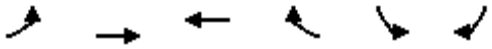
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	18.0	48.0		54.0		66.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	44.0		50.0		62.0		
Max Q Clear Time (g_c+I1), s	12.0	46.0		50.4		2.0		
Green Ext Time (p_c), s	1.2	0.0		0.0		7.5		

Intersection Summary	
HCM 2010 Ctrl Delay	44.9
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	183	486	403	190	381	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	3433	2710
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				200		233
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	26.0	77.0	51.0	51.0	43.0	43.0
Total Split (%)	21.7%	64.2%	42.5%	42.5%	35.8%	35.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

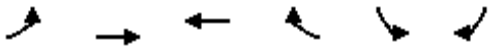
Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	183	486	403	190	381	221
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	193	512	424	200	401	233
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	259	2153	1769	791	1119	906
Arrive On Green	0.15	1.00	0.50	0.50	0.32	0.32
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	193	512	424	200	401	233
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	6.4	0.0	8.2	8.7	10.7	7.4
Cycle Q Clear(g_c), s	6.4	0.0	8.2	8.7	10.7	7.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	259	2153	1769	791	1119	906
V/C Ratio(X)	0.75	0.24	0.24	0.25	0.36	0.26
Avail Cap(c_a), veh/h	631	2153	1769	791	1119	906
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	0.0	17.1	17.2	30.9	29.8
Incr Delay (d2), s/veh	4.2	0.3	0.3	0.8	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.2	0.1	4.1	3.9	5.2	6.6
LnGrp Delay(d),s/veh	54.0	0.3	17.4	17.9	31.8	30.5
LnGrp LOS	D	A	B	B	C	C
Approach Vol, veh/h		705	624		634	
Approach Delay, s/veh		15.0	17.6		31.4	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.0		43.0	13.0	64.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		73.0		39.0	22.0	47.0		
Max Q Clear Time (g_c+I1), s		2.0		12.7	8.4	10.7		
Green Ext Time (p_c), s		5.6		3.0	0.6	5.5		

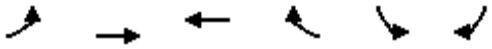
Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	183	486	403	190	381	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	5085	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	5085	3539	1583	3433	2710
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				200		233
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	26.0	77.0	51.0	51.0	43.0	43.0
Total Split (%)	21.7%	64.2%	42.5%	42.5%	35.8%	35.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	183	486	403	190	381	221
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	193	512	424	200	401	233
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	259	3094	1769	791	1119	906
Arrive On Green	0.15	1.00	0.50	0.50	0.32	0.32
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	193	512	424	200	401	233
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	6.4	0.0	8.2	8.7	10.7	7.4
Cycle Q Clear(g_c), s	6.4	0.0	8.2	8.7	10.7	7.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	259	3094	1769	791	1119	906
V/C Ratio(X)	0.75	0.17	0.24	0.25	0.36	0.26
Avail Cap(c_a), veh/h	631	3094	1769	791	1119	906
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	0.0	17.1	17.2	30.9	29.8
Incr Delay (d2), s/veh	4.2	0.1	0.3	0.8	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.2	0.0	4.1	3.9	5.2	6.6
LnGrp Delay(d),s/veh	54.0	0.1	17.4	17.9	31.8	30.5
LnGrp LOS	D	A	B	B	C	C
Approach Vol, veh/h		705	624		634	
Approach Delay, s/veh		14.9	17.6		31.4	
Approach LOS		B	B		C	

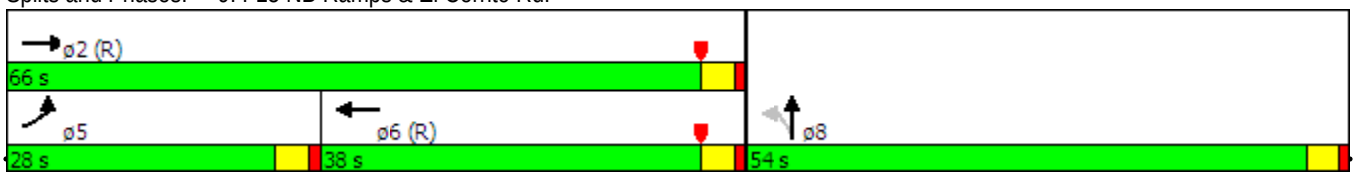
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.0		43.0	13.0	64.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		73.0		39.0	22.0	47.0		
Max Q Clear Time (g_c+I1), s		2.0		12.7	8.4	10.7		
Green Ext Time (p_c), s		5.7		3.0	0.6	5.6		

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	612	429	0	0	547	326	457	1	206	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944			0.958				
Flt Protected	0.950							0.967				
Satd. Flow (prot)	3433	1863	0	0	3341	0	0	1726	0	0	0	0
Flt Permitted	0.950							0.967				
Satd. Flow (perm)	3433	1863	0	0	3341	0	0	1726	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					102			23				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	28.0	66.0			38.0		54.0	54.0				
Total Split (%)	23.3%	55.0%			31.7%		45.0%	45.0%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	612	429	0	0	547	326	457	1	206	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	644	452	0	0	576	343	481	1	217			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	685	962	0	0	608	362	490	1	221			
Arrive On Green	0.33	0.86	0.00	0.00	0.28	0.28	0.42	0.42	0.42			
Sat Flow, veh/h	3442	1863	0	0	2229	1272	1177	2	531			
Grp Volume(v), veh/h	644	452	0	0	477	442	699	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1638	1710	0	0			
Q Serve(g_s), s	21.8	6.7	0.0	0.0	31.7	31.7	48.4	0.0	0.0			
Cycle Q Clear(g_c), s	21.8	6.7	0.0	0.0	31.7	31.7	48.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.78	0.69		0.31			
Lane Grp Cap(c), veh/h	685	962	0	0	503	466	713	0	0			
V/C Ratio(X)	0.94	0.47	0.00	0.00	0.95	0.95	0.98	0.00	0.00			
Avail Cap(c_a), veh/h	688	962	0	0	503	466	713	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.19	0.19	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	39.4	4.4	0.0	0.0	42.1	42.1	34.5	0.0	0.0			
Incr Delay (d2), s/veh	5.9	0.3	0.0	0.0	29.1	30.6	29.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	10.8	3.4	0.0	0.0	19.6	18.3	28.5	0.0	0.0			
LnGrp Delay(d),s/veh	45.3	4.8	0.0	0.0	71.1	72.7	63.9	0.0	0.0			
LnGrp LOS	D	A			E	E	E					
Approach Vol, veh/h		1096			919			699				
Approach Delay, s/veh		28.6			71.9			63.9				
Approach LOS		C			E			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		66.0			27.9	38.1		54.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		62.0			24.0	34.0		50.0
Max Q Clear Time (g_c+I1), s		8.7			23.8	33.7		50.4
Green Ext Time (p_c), s		10.9			0.1	0.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	505	362	0	1521	204	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Lane Util. Factor	0.91	1.00	1.00	0.86	0.97	0.88
Ped Bike Factor						0.98
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	5085	1583	0	6408	3433	2787
Flt Permitted					0.950	
Satd. Flow (perm)	5085	1583	0	6408	3433	2740
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						139
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	79.0	41.0		79.0	41.0	41.0
Total Split (%)	65.8%	34.2%		65.8%	34.2%	34.2%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	505	362	0	1521	204	132
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	532	381	0	1601	215	139
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	3178	1478	0	4005	1061	859
Arrive On Green	0.63	0.63	0.00	0.63	0.31	0.31
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	532	381	0	1601	215	139
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	5.3	2.5	0.0	15.0	5.5	4.4
Cycle Q Clear(g_c), s	5.3	2.5	0.0	15.0	5.5	4.4
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3178	1478	0	4005	1061	859
V/C Ratio(X)	0.17	0.26	0.00	0.40	0.20	0.16
Avail Cap(c_a), veh/h	3178	1478	0	4005	1061	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.4	0.4	0.0	11.2	30.6	30.2
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.5	1.2	0.0	6.6	2.7	1.7
LnGrp Delay(d),s/veh	9.5	0.8	0.0	11.5	31.0	30.6
LnGrp LOS	A	A		B	C	C
Approach Vol, veh/h	913			1601	354	
Approach Delay, s/veh	5.9			11.5	30.9	
Approach LOS	A			B	C	

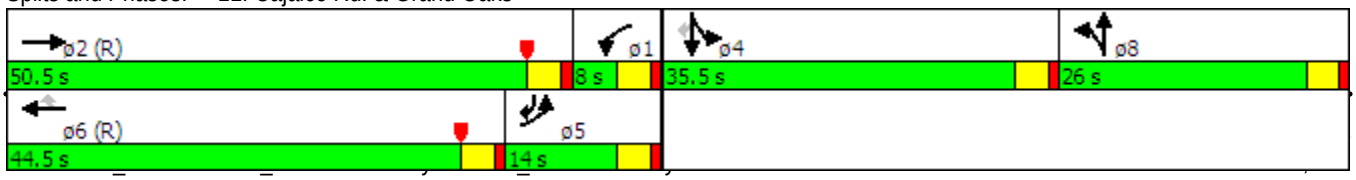
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		79.0				79.0		41.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		75.0				75.0		37.0
Max Q Clear Time (g_c+I1), s		7.3				17.0		7.5
Green Ext Time (p_c), s		22.2				21.4		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	188	449	0	0	1434	111	0	0	0	68	0	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	5085	0	1863	5085	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	5085	0	1863	5085	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118						136
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	14.0	50.5		8.0	44.5	44.5	26.0	26.0		35.5	35.5	14.0
Total Split (%)	11.7%	42.1%		6.7%	37.1%	37.1%	21.7%	21.7%		29.6%	29.6%	11.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	188	449	0	0	1434	111	0	0	0	68	0	129
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	198	473	0	0	1509	117	0	0	0	72	0	136
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1032	1971	0	444	1716	532	0	2	0	466	0	1563
Arrive On Green	0.30	0.39	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1576	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	198	473	0	0	1509	117	0	0	0	72	0	136
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1576	0	1863	0	1774	0	1385
Q Serve(g_s), s	5.1	7.5	0.0	0.0	33.5	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear(g_c), s	5.1	7.5	0.0	0.0	33.5	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1032	1971	0	444	1716	532	0	2	0	466	0	1563
V/C Ratio(X)	0.19	0.24	0.00	0.00	0.88	0.22	0.00	0.00	0.00	0.15	0.00	0.09
Avail Cap(c_a), veh/h	1032	1971	0	444	1716	532	0	342	0	466	0	1563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.2	24.8	0.0	0.0	37.4	28.4	0.0	0.0	0.0	34.0	0.0	12.1
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.0	6.8	1.0	0.0	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.5	3.6	0.0	0.0	16.7	2.9	0.0	0.0	0.0	1.9	0.0	1.0
LnGrp Delay(d),s/veh	31.3	25.1	0.0	0.0	44.2	29.4	0.0	0.0	0.0	34.7	0.0	12.2
LnGrp LOS	C	C			D	C				C		B
Approach Vol, veh/h		671			1626			0			208	
Approach Delay, s/veh		26.9			43.2			0.0			20.0	
Approach LOS		C			D						B	

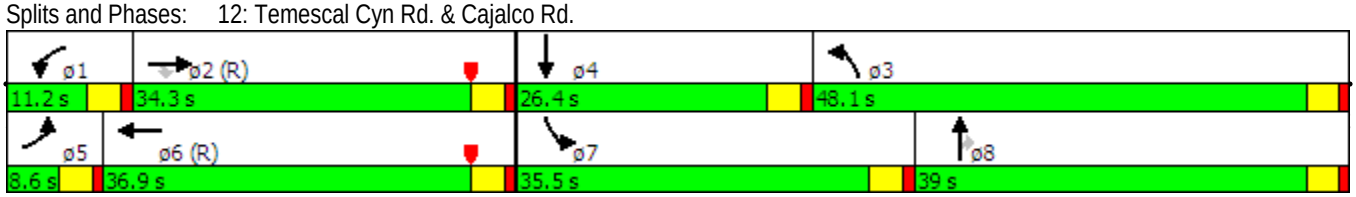
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	40.0	44.5		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	10.0	40.5		22.0
Max Q Clear Time (g_c+I1), s	0.0	9.5		5.7	7.1	35.5		0.0
Green Ext Time (p_c), s	0.0	2.2		1.0	0.2	3.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.9
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	322	168	63	563	621	912	858	320	233	138	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		0.99						0.99	
Frt			0.850		0.921				0.850		0.949	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4631	0	3433	3539	1794	1770	3336	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4631	0	3433	3539	1794	1770	3336	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			177		229				310		67	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	8.6	34.3	34.3	11.2	36.9		48.1	39.0	39.0	35.5	26.4	
Total Split (%)	7.2%	28.6%	28.6%	9.3%	30.8%		40.1%	32.5%	32.5%	29.6%	22.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	322	168	63	563	621	912	858	320	233	138	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	28	339	177	66	593	654	960	903	337	245	145	74
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	602	509	84	1188	553	1064	1198	557	279	431	209
Arrive On Green	0.02	0.32	0.32	0.05	0.35	0.35	0.31	0.34	0.34	0.16	0.19	0.19
Sat Flow, veh/h	1774	1863	1576	1774	3390	1577	3442	3539	1647	1774	2307	1117
Grp Volume(v), veh/h	28	339	177	66	593	654	960	903	337	245	109	110
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1577	1721	1770	1647	1774	1770	1655
Q Serve(g_s), s	1.9	18.1	4.6	4.4	16.5	42.1	32.1	27.2	20.4	16.2	6.4	6.9
Cycle Q Clear(g_c), s	1.9	18.1	4.6	4.4	16.5	42.1	32.1	27.2	20.4	16.2	6.4	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	36	602	509	84	1188	553	1064	1198	557	279	330	309
V/C Ratio(X)	0.78	0.56	0.35	0.78	0.50	1.18	0.90	0.75	0.60	0.88	0.33	0.35
Avail Cap(c_a), veh/h	68	602	509	106	1188	553	1265	1198	557	466	330	309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	33.6	6.1	56.5	30.7	39.0	39.7	35.3	33.0	49.4	42.3	42.5
Incr Delay (d2), s/veh	29.6	3.8	1.9	24.6	1.5	99.9	8.2	4.4	4.8	10.0	2.7	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	10.0	2.2	2.7	8.0	33.6	16.4	14.0	10.0	8.7	3.4	3.4
LnGrp Delay(d),s/veh	88.1	37.4	8.0	81.2	32.2	138.9	47.9	39.7	37.8	59.4	45.0	45.7
LnGrp LOS	F	D	A	F	C	F	D	D	D	E	D	D
Approach Vol, veh/h		544			1313			2200			464	
Approach Delay, s/veh		30.4			87.8			43.0			52.8	
Approach LOS		C			F			D			D	

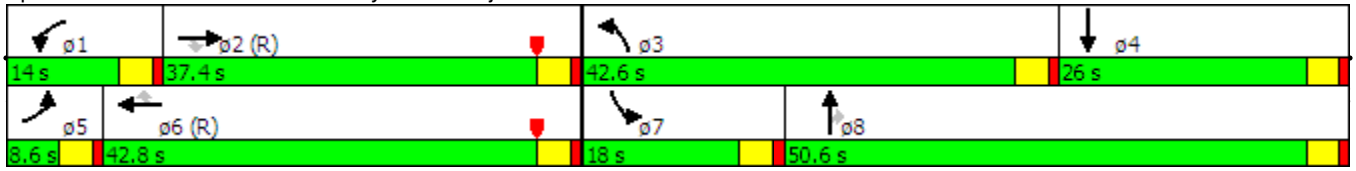
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	42.8	41.1	26.4	6.4	46.1	22.9	44.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.2	30.3	44.1	22.4	4.6	32.9	31.5	35.0
Max Q Clear Time (g_c+I1), s	6.4	20.1	34.1	8.9	3.9	44.1	18.2	29.2
Green Ext Time (p_c), s	0.0	5.8	3.0	0.6	0.0	0.0	0.7	4.4

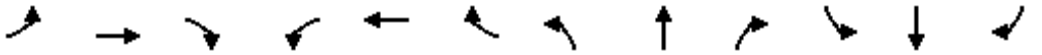
Intersection Summary	
HCM 2010 Ctrl Delay	55.5
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	322	168	63	563	621	912	858	320	233	138	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor			0.98			0.98					0.99	
Frt			0.850			0.850			0.850		0.949	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1794	3433	3539	1794	3433	3336	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1552	1770	5085	1756	3433	3539	1794	3433	3336	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			177			315			272		66	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	8.0	26.0	
Total Split (s)	8.6	37.4	37.4	14.0	42.8	42.8	42.6	50.6	50.6	18.0	26.0	
Total Split (%)	7.2%	31.2%	31.2%	11.7%	35.7%	35.7%	35.5%	42.2%	42.2%	15.0%	21.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 8 (7%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.

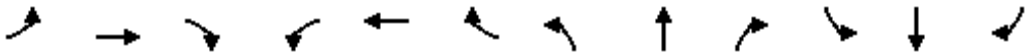




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	322	168	63	563	621	912	858	320	233	138	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	28	339	177	66	593	654	960	903	337	245	145	74
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	1179	525	85	1835	592	1040	1403	653	307	423	205
Arrive On Green	0.02	0.33	0.33	0.05	0.36	0.36	0.30	0.40	0.40	0.09	0.18	0.18
Sat Flow, veh/h	1774	3539	1576	1774	5085	1640	3442	3539	1647	3442	2307	1117
Grp Volume(v), veh/h	28	339	177	66	593	654	960	903	337	245	109	110
Grp Sat Flow(s),veh/h/ln	1774	1770	1576	1774	1695	1640	1721	1770	1647	1721	1770	1655
Q Serve(g_s), s	1.9	8.5	10.1	4.4	10.1	43.3	32.4	24.8	18.6	8.4	6.5	7.0
Cycle Q Clear(g_c), s	1.9	8.5	10.1	4.4	10.1	43.3	32.4	24.8	18.6	8.4	6.5	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	36	1179	525	85	1835	592	1040	1403	653	307	324	303
V/C Ratio(X)	0.78	0.29	0.34	0.78	0.32	1.11	0.92	0.64	0.52	0.80	0.34	0.36
Avail Cap(c_a), veh/h	68	1179	525	148	1835	592	1107	1403	653	402	324	303
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	29.5	30.0	56.5	27.7	38.3	40.5	29.3	27.5	53.6	42.7	42.9
Incr Delay (d2), s/veh	29.6	0.6	1.7	14.1	0.5	69.2	12.1	2.3	2.9	8.3	2.8	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	4.2	4.6	2.5	4.8	30.9	17.1	12.5	9.0	4.3	3.4	3.4
LnGrp Delay(d),s/veh	88.1	30.1	31.8	70.6	28.2	107.6	52.6	31.6	30.4	61.9	45.4	46.2
LnGrp LOS	F	C	C	E	C	F	D	C	C	E	D	D
Approach Vol, veh/h		544			1313			2200			464	
Approach Delay, s/veh		33.6			69.9			40.6			54.3	
Approach LOS		C			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	44.0	40.3	26.0	6.4	47.3	14.7	51.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	33.4	38.6	22.0	4.6	38.8	14.0	46.6
Max Q Clear Time (g_c+I1), s	6.4	12.1	34.4	9.0	3.9	45.3	10.4	26.8
Green Ext Time (p_c), s	0.0	8.9	1.9	5.6	0.0	0.0	0.3	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	49.7
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	574	45	11	296	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.989			0.995	
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1702	0	1770	1842	0	1770	1853	0
Flt Permitted		0.986			0.987		0.950			0.950		
Satd. Flow (perm)	0	1704	0	0	1702	0	1770	1842	0	1770	1853	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	39.3
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	20	0	9	6	19	0	31	574	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	26	0	12	8	24	0	40	736	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10	10	54
HCM LOS	A	A	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	26%	100%	0%
Vol Thru, %	0%	93%	18%	18%	0%	97%
Vol Right, %	0%	7%	53%	56%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	619	38	34	11	305
LT Vol	31	0	11	9	11	0
Through Vol	0	574	7	6	0	296
RT Vol	0	45	20	19	0	9
Lane Flow Rate	40	794	49	44	14	391
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.063	1	0.086	0.077	0.023	0.591
Departure Headway (Hd)	5.691	5.136	6.373	6.365	5.957	5.438
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	626	706	560	561	599	661
Service Time	3.46	2.905	4.437	4.431	3.709	3.189
HCM Lane V/C Ratio	0.064	1.125	0.087	0.078	0.023	0.592
HCM Control Delay	8.8	56.3	10	10	8.9	15.8
HCM Lane LOS	A	F	A	A	A	C
HCM 95th-tile Q	0.2	16.1	0.3	0.2	0.1	3.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	296	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	379	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	15.6
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	574	45	11	296	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.989			0.995	
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1702	0	1770	1842	0	1770	1853	0
Flt Permitted		0.904			0.909		0.529			0.301		
Satd. Flow (perm)	0	1563	0	0	1568	0	985	1842	0	561	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			24			9			4	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

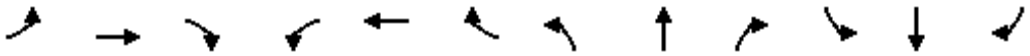
Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 18: Masters Dr. & Christopher Ln.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	7	20	9	6	19	31	574	45	11	296	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	9	26	12	8	24	40	736	58	14	379	12
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	18	47	98	18	48	815	1388	109	578	1462	46
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.81	0.81	0.81	0.55	0.55	0.55
Sat Flow, veh/h	442	343	888	415	352	920	989	1705	134	681	1796	57
Grp Volume(v), veh/h	49	0	0	44	0	0	40	0	794	14	0	391
Grp Sat Flow(s),veh/h/ln	1673	0	0	1687	0	0	989	0	1839	681	0	1853
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	8.5	0.7	0.0	6.7
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	0.0	7.5	0.0	8.5	9.2	0.0	6.7
Prop In Lane	0.29		0.53	0.27		0.55	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	165	0	0	165	0	0	815	0	1497	578	0	1508
V/C Ratio(X)	0.30	0.00	0.00	0.27	0.00	0.00	0.05	0.00	0.53	0.02	0.00	0.26
Avail Cap(c_a), veh/h	654	0	0	655	0	0	815	0	1497	578	0	1508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.97	0.00	0.97
Uniform Delay (d), s/veh	27.7	0.0	0.0	27.6	0.0	0.0	2.8	0.0	1.8	7.0	0.0	4.1
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.1	0.0	1.3	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	0.0	0.7	0.0	0.0	0.2	0.0	4.5	0.1	0.0	3.6
LnGrp Delay(d),s/veh	28.7	0.0	0.0	28.5	0.0	0.0	2.9	0.0	3.2	7.0	0.0	4.5
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		49			44			834			405	
Approach Delay, s/veh		28.7			28.5			3.2			4.6	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		10.5		3.6		11.2		3.4
Green Ext Time (p_c), s		8.4		0.4		8.3		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A



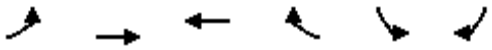
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	574	45	11	296	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.991			0.996	
Flt Protected		0.986			0.987			0.998			0.998	
Satd. Flow (prot)	0	1704	0	0	1702	0	0	1842	0	0	1852	0
Flt Permitted		0.986			0.987			0.998			0.998	
Satd. Flow (perm)	0	1704	0	0	1702	0	0	1842	0	0	1852	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	49	44	834	405
Demand Flow Rate, veh/h	50	44	851	413
Vehicles Circulating, veh/h	413	806	37	61
Vehicles Exiting, veh/h	61	82	426	789
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.6	8.3	18.1	7.6
Approach LOS	A	A	C	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	50	44	851	413
Cap Entry Lane, veh/h	748	505	1089	1063
Entry HV Adj Factor	0.976	0.996	0.980	0.982
Flow Entry, veh/h	49	44	834	405
Cap Entry, veh/h	730	503	1067	1044
V/C Ratio	0.067	0.087	0.782	0.388
Control Delay, s/veh	5.6	8.3	18.1	7.6
LOS	A	A	C	A
95th %tile Queue, veh	0	0	8	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	236	468	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.913	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1770	1863	1861	0	1670	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1770	1863	1861	0	1670	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

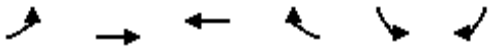
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	236	0	468	2	0	13	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	248	0	493	2	0	14	25
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	10.2	14.1	8.6
HCM LOS	B	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	35%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	65%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	236	470	37
LT Vol	7	0	0	13
Through Vol	0	236	468	0
RT Vol	0	0	2	24
Lane Flow Rate	7	248	495	39
Geometry Grp	7	7	5	2
Degree of Util (X)	0.011	0.343	0.608	0.057
Departure Headway (Hd)	5.48	4.977	4.423	5.282
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	654	723	816	677
Service Time	3.203	2.7	2.441	3.325
HCM Lane V/C Ratio	0.011	0.343	0.607	0.058
HCM Control Delay	8.3	10.3	14.1	8.6
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0	1.5	4.2	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	236	468	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.913	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1770	1863	1861	0	1670	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1770	1863	1861	0	1670	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

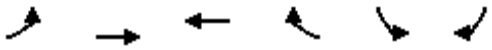
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	7	236	468	2	13	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	248	493	2	14	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	495	0	-	0	757	494
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1069	-	-	-	375	575
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	781	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1069	-	-	-	373	575
Mov Cap-2 Maneuver	-	-	-	-	373	-
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1069	-	-	-	483
HCM Lane V/C Ratio	0.007	-	-	-	0.081
HCM Control Delay (s)	8.4	-	-	-	13.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



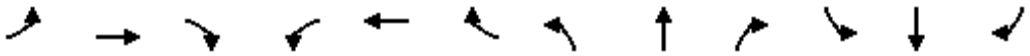
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	236	468	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.913	
Flt Protected		0.999			0.982	
Satd. Flow (prot)	0	1861	1861	0	1670	0
Flt Permitted		0.999			0.982	
Satd. Flow (perm)	0	1861	1861	0	1670	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	255	495	39
Demand Flow Rate, veh/h	260	505	40
Vehicles Circulating, veh/h	14	7	503
Vehicles Exiting, veh/h	528	267	9
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.5	8.2	6.0
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	260	505	40
Cap Entry Lane, veh/h	1114	1122	683
Entry HV Adj Factor	0.981	0.980	0.975
Flow Entry, veh/h	255	495	39
Cap Entry, veh/h	1093	1100	666
V/C Ratio	0.233	0.450	0.059
Control Delay, s/veh	5.5	8.2	6.0
LOS	A	A	A
95th %tile Queue, veh	1	2	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	169	63	35	269	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.998			0.955			0.939	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1770	1786	0	1770	1859	0	0	1722	0	0	1711	0
Flt Permitted	0.950			0.950				0.968			0.978	
Satd. Flow (perm)	1770	1786	0	1770	1859	0	0	1722	0	0	1711	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	169	63	0	35	269	4	0	147	1	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	178	66	0	37	283	4	0	155	1	79
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	11.3	12	11.2
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	73%	0%	99%	9%
Vol Right, %	34%	0%	27%	0%	1%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	3	232	35	273	11
LT Vol	147	3	0	35	0	5
Through Vol	1	0	169	0	269	1
RT Vol	75	0	63	0	4	5
Lane Flow Rate	235	3	244	37	287	12
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.345	0.005	0.37	0.061	0.434	0.018
Departure Headway (Hd)	5.29	6.153	5.455	6.056	5.54	5.717
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	671	585	664	595	655	628
Service Time	3.39	3.853	3.155	3.756	3.24	3.731
HCM Lane V/C Ratio	0.35	0.005	0.367	0.062	0.438	0.019
HCM Control Delay	11.2	8.9	11.3	9.1	12.4	8.8
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.5	0	1.7	0.2	2.2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	1	5
Number of Lanes	0	0	1	0

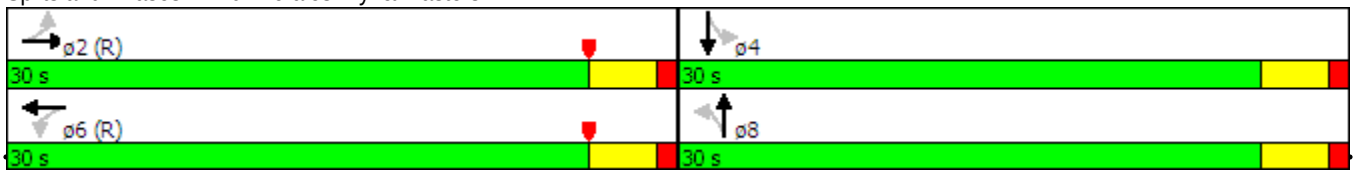
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.8
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	169	63	35	269	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.998			0.955			0.939	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1770	1786	0	1770	1859	0	0	1722	0	0	1711	0
Flt Permitted	0.529			0.576				0.806			0.918	
Satd. Flow (perm)	985	1786	0	1073	1859	0	0	1434	0	0	1606	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			1			54			5	
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

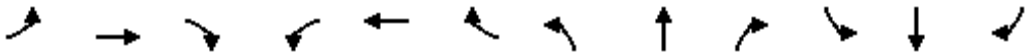
Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	169	63	35	269	4	147	1	75	5	1	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	178	66	37	283	4	155	1	79	5	1	5
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	562	208	508	794	11	501	23	215	360	92	304
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1088	1297	481	1131	1832	26	926	52	495	629	213	701
Grp Volume(v), veh/h	3	0	244	37	0	287	235	0	0	11	0	0
Grp Sat Flow(s),veh/h/ln	1088	0	1778	1131	0	1858	1473	0	0	1543	0	0
Q Serve(g_s), s	0.1	0.0	5.4	1.3	0.0	6.2	5.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.3	0.0	5.4	6.7	0.0	6.2	6.3	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.01	0.66		0.34	0.45		0.45
Lane Grp Cap(c), veh/h	479	0	770	508	0	805	738	0	0	756	0	0
V/C Ratio(X)	0.01	0.00	0.32	0.07	0.00	0.36	0.32	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	479	0	770	508	0	805	738	0	0	756	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.5	0.0	11.2	13.4	0.0	11.4	11.4	0.0	0.0	9.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.1	0.3	0.0	1.2	1.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	2.9	0.5	0.0	3.5	2.8	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	13.5	0.0	12.2	13.7	0.0	12.6	12.5	0.0	0.0	9.7	0.0	0.0
LnGrp LOS	B		B	B		B	B			A		
Approach Vol, veh/h		247			324			235			11	
Approach Delay, s/veh		12.3			12.7			12.5			9.7	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		30.0		30.0		30.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0
Max Q Clear Time (g_c+I1), s		8.3		2.2		8.7		8.3
Green Ext Time (p_c), s		3.0		1.5		3.0		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B



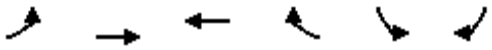
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	169	63	35	269	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.998			0.955			0.939	
Flt Protected		0.999			0.994			0.968			0.978	
Satd. Flow (prot)	0	1794	0	0	1848	0	0	1722	0	0	1711	0
Flt Permitted		0.999			0.994			0.968			0.978	
Satd. Flow (perm)	0	1794	0	0	1848	0	0	1722	0	0	1711	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	6.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	247	324	235	11
Demand Flow Rate, veh/h	252	331	240	11
Vehicles Circulating, veh/h	44	162	190	485
Vehicles Exiting, veh/h	452	268	106	8
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.6	7.5	6.6	5.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	252	331	240	11
Cap Entry Lane, veh/h	1081	961	934	696
Entry HV Adj Factor	0.982	0.980	0.979	0.998
Flow Entry, veh/h	247	324	235	11
Cap Entry, veh/h	1062	942	915	694
V/C Ratio	0.233	0.344	0.257	0.016
Control Delay, s/veh	5.6	7.5	6.6	5.3
LOS	A	A	A	A
95th %tile Queue, veh	1	2	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	517	410	4	5	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.999			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3536	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3536	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

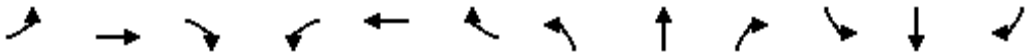
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	517	410	4	5	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	544	432	4	5	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	436	0	-	0	1043	218
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	609	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1120	-	-	-	239	787
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1120	-	-	-	232	787
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1120	-	-	-	232	787
HCM Lane V/C Ratio	0.029	-	-	-	0.023	0.051
HCM Control Delay (s)	8.3	-	-	-	20.9	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	317	218	135	28	94	141	133	31	111	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883				0.850		0.927			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1645	0	1770	1863	1583	1770	1727	0	1770	1857	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1645	0	1770	1863	1583	1770	1727	0	1770	1857	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	29.2
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	89	317	0	218	135	28	0	94	141	133
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	94	334	0	229	142	29	0	99	148	140
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	49.7	19.3	22.1
HCM LOS	E	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	51%	0%	22%	0%	100%	0%	0%	98%
Vol Right, %	0%	49%	0%	78%	0%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	274	4	406	218	135	28	31	113
LT Vol	94	0	4	0	218	0	0	31	0
Through Vol	0	141	0	89	0	135	0	0	111
RT Vol	0	133	0	317	0	0	28	0	2
Lane Flow Rate	99	288	4	427	229	142	29	33	119
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.246	0.649	0.01	0.911	0.567	0.331	0.063	0.089	0.306
Departure Headway (Hd)	8.964	8.102	8.755	7.676	8.899	8.383	7.661	9.788	9.257
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	401	447	409	474	406	429	467	366	388
Service Time	6.719	5.857	6.508	5.428	6.657	6.141	5.418	7.555	7.025
HCM Lane V/C Ratio	0.247	0.644	0.01	0.901	0.564	0.331	0.062	0.09	0.307
HCM Control Delay	14.6	24.7	11.6	50.1	22.8	15.3	10.9	13.5	16.1
HCM Lane LOS	B	C	B	F	C	C	B	B	C
HCM 95th-tile Q	1	4.5	0	10.3	3.4	1.4	0.2	0.3	1.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	111	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	117	2
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	15.5
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	317	218	135	28	94	141	133	31	111	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883				0.850		0.927			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1645	0	1770	1863	1583	1770	1727	0	1770	1857	0
Flt Permitted	0.666			0.421			0.681			0.498		
Satd. Flow (perm)	1241	1645	0	784	1863	1583	1269	1727	0	928	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		334				29		90			2	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%	56.7%	43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary

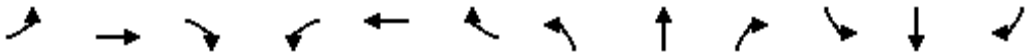
Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: Masters Dr. & California Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	89	317	218	135	28	94	141	133	31	111	2
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	4	94	334	229	142	29	99	148	140	33	117	2
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	675	180	639	429	931	792	530	323	306	349	670	11
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.12	0.12	0.12	0.37	0.37	0.37
Sat Flow, veh/h	1209	360	1278	956	1863	1583	1268	882	834	1087	1826	31
Grp Volume(v), veh/h	4	0	428	229	142	29	99	0	288	33	0	119
Grp Sat Flow(s),veh/h/ln	1209	0	1637	956	1863	1583	1268	0	1716	1087	0	1857
Q Serve(g_s), s	0.1	0.0	10.6	12.8	2.5	0.6	4.3	0.0	9.4	1.5	0.0	2.6
Cycle Q Clear(g_c), s	2.6	0.0	10.6	23.4	2.5	0.6	6.9	0.0	9.4	10.9	0.0	2.6
Prop In Lane	1.00		0.78	1.00		1.00	1.00		0.49	1.00		0.02
Lane Grp Cap(c), veh/h	675	0	819	429	931	792	530	0	629	349	0	681
V/C Ratio(X)	0.01	0.00	0.52	0.53	0.15	0.04	0.19	0.00	0.46	0.09	0.00	0.17
Avail Cap(c_a), veh/h	675	0	819	429	931	792	530	0	629	349	0	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.98	0.00	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	10.2	18.1	8.1	7.6	20.9	0.0	20.8	19.3	0.0	12.9
Incr Delay (d2), s/veh	0.0	0.0	2.4	4.7	0.3	0.1	0.8	0.0	2.3	0.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	5.3	3.9	1.4	0.3	1.6	0.0	4.9	0.5	0.0	1.4
LnGrp Delay(d),s/veh	8.8	0.0	12.5	22.8	8.5	7.7	21.7	0.0	23.2	19.8	0.0	13.4
LnGrp LOS	A		B	C	A	A	C		C	B		B
Approach Vol, veh/h		432			400			387			152	
Approach Delay, s/veh		12.5			16.6			22.8			14.8	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		12.6		12.9		25.4		11.4
Green Ext Time (p_c), s		4.4		2.0		2.0		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	11	14	152	49	168	146	20	355	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.884			0.930			0.986	
Flt Protected		0.986			0.997		0.950			0.950		
Satd. Flow (prot)	0	1688	0	0	1642	0	1770	1732	0	1770	1837	0
Flt Permitted		0.986			0.997		0.950			0.950		
Satd. Flow (perm)	0	1688	0	0	1642	0	1770	1732	0	1770	1837	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			620	
Travel Time (s)		10.5			11.0			18.4			12.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	18	7	37	0	11	14	152	0	49	168	146
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	7	39	0	12	15	160	0	52	177	154
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10	11.1	13.2
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	6%	100%	0%
Vol Thru, %	0%	54%	11%	8%	0%	91%
Vol Right, %	0%	46%	60%	86%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	314	62	177	20	391
LT Vol	49	0	18	11	20	0
Through Vol	0	168	7	14	0	355
RT Vol	0	146	37	152	0	36
Lane Flow Rate	52	331	65	186	21	412
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.091	0.506	0.112	0.293	0.037	0.652
Departure Headway (Hd)	6.352	5.515	6.165	5.659	6.277	5.705
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	651	578	632	570	634
Service Time	4.098	3.26	4.238	3.718	4.02	3.448
HCM Lane V/C Ratio	0.092	0.508	0.112	0.294	0.037	0.65
HCM Control Delay	9.7	13.8	10	11.1	9.3	18.6
HCM Lane LOS	A	B	A	B	A	C
HCM 95th-tile Q	0.3	2.9	0.4	1.2	0.1	4.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	355	36
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	374	38
Number of Lanes	0	1	1	0

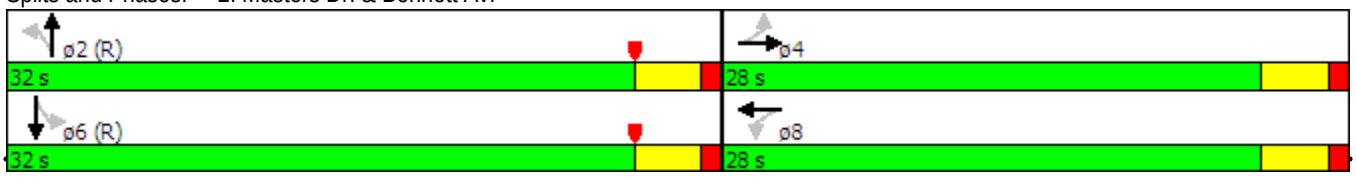
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	18.1
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	11	14	152	49	168	146	20	355	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.884			0.930			0.986	
Flt Protected		0.986			0.997		0.950			0.950		
Satd. Flow (prot)	0	1688	0	0	1642	0	1770	1732	0	1770	1837	0
Flt Permitted		0.875			0.980		0.506			0.561		
Satd. Flow (perm)	0	1498	0	0	1614	0	943	1732	0	1045	1837	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			160			98			11	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	28.0	28.0		28.0	28.0		32.0	32.0		32.0	32.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%		53.3%	53.3%		53.3%	53.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

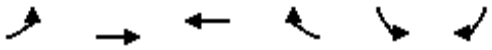
Splits and Phases: 2: Masters Dr. & Bennett Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	7	37	11	14	152	49	168	146	20	355	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	7	39	12	15	160	52	177	154	21	374	38
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	61	161	72	30	222	720	649	564	783	1173	119
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	285	378	995	48	183	1371	970	921	801	1045	1664	169
Grp Volume(v), veh/h	65	0	0	187	0	0	52	0	331	21	0	412
Grp Sat Flow(s),veh/h/ln	1658	0	0	1603	0	0	970	0	1721	1045	0	1833
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	1.3	0.0	4.2	0.4	0.0	5.1
Cycle Q Clear(g_c), s	2.0	0.0	0.0	6.6	0.0	0.0	6.4	0.0	4.2	4.7	0.0	5.1
Prop In Lane	0.29		0.60	0.06		0.86	1.00		0.47	1.00		0.09
Lane Grp Cap(c), veh/h	346	0	0	323	0	0	720	0	1213	783	0	1292
V/C Ratio(X)	0.19	0.00	0.00	0.58	0.00	0.00	0.07	0.00	0.27	0.03	0.00	0.32
Avail Cap(c_a), veh/h	696	0	0	701	0	0	720	0	1213	783	0	1292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	0.0	23.8	0.0	0.0	4.6	0.0	3.2	4.1	0.0	3.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.6	0.0	0.0	0.2	0.0	0.5	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	3.1	0.0	0.0	0.4	0.0	2.1	0.1	0.0	2.8
LnGrp Delay(d),s/veh	22.2	0.0	0.0	25.5	0.0	0.0	4.8	0.0	3.7	4.2	0.0	4.0
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		65			187			383			433	
Approach Delay, s/veh		22.2			25.5			3.9			4.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.3		13.7		46.3		13.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		28.0		24.0		28.0		24.0
Max Q Clear Time (g_c+I1), s		8.4		4.0		7.1		8.6
Green Ext Time (p_c), s		4.9		1.4		5.0		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	56	374	466	328	311	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.938			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3320	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3320	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	37.8
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	56	374	0	466	328	0	311	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	394	0	491	345	0	327	31
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	14.9	50.6	36.9
HCM LOS	B	F	E

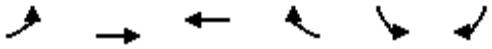
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	32%	0%	0%
Vol Right, %	0%	0%	0%	0%	68%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	187	187	311	483	311	29
LT Vol	56	0	0	0	0	311	0
Through Vol	0	187	187	311	155	0	0
RT Vol	0	0	0	0	328	0	29
Lane Flow Rate	59	197	197	327	509	327	31
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.145	0.455	0.357	0.689	1	0.806	0.065
Departure Headway (Hd)	8.829	8.314	6.526	7.589	7.1	8.859	7.636
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	413	439	557	474	509	412	473
Service Time	6.444	5.943	4.205	5.354	4.864	6.516	5.322
HCM Lane V/C Ratio	0.143	0.449	0.354	0.69	1	0.794	0.066
HCM Control Delay	12.9	17.6	12.8	25.6	66.6	39.3	10.9
HCM Lane LOS	B	C	B	D	F	E	B
HCM 95th-tile Q	0.5	2.3	1.6	5.2	13.7	7.2	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	56	374	466	328	311	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.938			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3320	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3320	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			181			31
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	17.0	71.0	54.0		49.0	49.0
Total Split (%)	14.2%	59.2%	45.0%		40.8%	40.8%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	56	374	466	328	311	29
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	59	394	491	345	327	31
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	76	2578	1298	910	364	325
Arrive On Green	0.04	0.73	0.65	0.65	0.20	0.20
Sat Flow, veh/h	1774	3632	2084	1395	1774	1583
Grp Volume(v), veh/h	59	394	436	400	327	31
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1616	1774	1583
Q Serve(g_s), s	4.0	4.1	13.7	13.7	21.6	1.9
Cycle Q Clear(g_c), s	4.0	4.1	13.7	13.7	21.6	1.9
Prop In Lane	1.00			0.86	1.00	1.00
Lane Grp Cap(c), veh/h	76	2578	1154	1054	364	325
V/C Ratio(X)	0.77	0.15	0.38	0.38	0.90	0.10
Avail Cap(c_a), veh/h	192	2578	1154	1054	665	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.96	0.96
Uniform Delay (d), s/veh	56.8	5.0	9.6	9.7	46.5	38.7
Incr Delay (d2), s/veh	15.2	0.1	0.9	1.0	7.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.3	2.0	7.0	6.4	11.3	1.9
LnGrp Delay(d),s/veh	72.0	5.1	10.6	10.7	54.3	38.8
LnGrp LOS	E	A	B	B	D	D
Approach Vol, veh/h		453	836		358	
Approach Delay, s/veh		13.8	10.6		53.0	
Approach LOS		B	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		91.4		28.6	9.2	82.2		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		67.0		45.0	13.0	50.0		
Max Q Clear Time (g_c+I1), s		6.1		23.6	6.0	15.7		
Green Ext Time (p_c), s		9.5		1.0	0.0	8.9		

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1676	332	195	823	179	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.975					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3451	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3451	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	34					175
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	76.0		18.0	94.0	26.0	26.0
Total Split (%)	63.3%		15.0%	78.3%	21.7%	21.7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

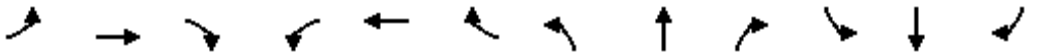
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1676	332	195	823	179	166
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1764	349	205	866	188	175
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1779	341	207	2654	325	290
Arrive On Green	0.60	0.60	0.23	1.00	0.18	0.18
Sat Flow, veh/h	3058	568	1774	3632	1774	1583
Grp Volume(v), veh/h	1029	1084	205	866	188	175
Grp Sat Flow(s),veh/h/ln	1770	1763	1774	1770	1774	1583
Q Serve(g_s), s	66.8	72.0	13.8	0.0	11.6	12.2
Cycle Q Clear(g_c), s	66.8	72.0	13.8	0.0	11.6	12.2
Prop In Lane		0.32	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1062	1058	207	2654	325	290
V/C Ratio(X)	0.97	1.02	0.99	0.33	0.58	0.60
Avail Cap(c_a), veh/h	1062	1058	207	2654	325	290
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	23.0	24.0	45.9	0.0	44.8	45.0
Incr Delay (d2), s/veh	21.2	34.1	55.2	0.3	7.3	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	38.6	44.7	9.9	0.1	6.4	6.1
LnGrp Delay(d),s/veh	44.1	58.1	101.2	0.3	52.1	54.0
LnGrp LOS	D	F	F	A	D	D
Approach Vol, veh/h	2113			1071	363	
Approach Delay, s/veh	51.3			19.6	53.0	
Approach LOS	D			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.0	76.0				94.0		26.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.0	72.0				90.0		22.0
Max Q Clear Time (g_c+I1), s	15.8	74.0				2.0		14.2
Green Ext Time (p_c), s	0.0	0.0				61.1		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	25	2	2	6	38	169	11	8	468	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.919			0.991				0.850
Flt Protected		0.953			0.990		0.950				0.999	
Satd. Flow (prot)	0	1775	1583	0	1695	0	1770	1846	0	0	1861	1583
Flt Permitted		0.953			0.990		0.950				0.999	
Satd. Flow (perm)	0	1775	1583	0	1695	0	1770	1846	0	0	1861	1583
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	56	1	25	0	2	2	6	0	38	169	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	1	26	0	2	2	6	0	40	178	12
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.1	9.5	10
HCM LOS	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	20%	2%	0%
Vol Thru, %	0%	94%	2%	0%	20%	98%	0%
Vol Right, %	0%	6%	0%	100%	60%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	180	57	25	10	476	101
LT Vol	38	0	56	0	2	8	0
Through Vol	0	169	1	0	2	468	0
RT Vol	0	11	0	25	6	0	101
Lane Flow Rate	40	189	60	26	11	501	106
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.065	0.281	0.116	0.042	0.019	0.705	0.129
Departure Headway (Hd)	5.887	5.34	6.931	5.726	6.36	5.064	4.352
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	605	669	514	619	566	711	820
Service Time	3.656	3.109	4.723	3.517	4.36	2.814	2.102
HCM Lane V/C Ratio	0.066	0.283	0.117	0.042	0.019	0.705	0.129
HCM Control Delay	9.1	10.2	10.6	8.8	9.5	19.1	7.8
HCM Lane LOS	A	B	B	A	A	C	A
HCM 95th-tile Q	0.2	1.2	0.4	0.1	0.1	5.9	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	8	468	101
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	493	106
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	17.1
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	25	2	2	6	38	169	11	8	468	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.919			0.991				0.850
Flt Protected		0.953			0.990		0.950				0.999	
Satd. Flow (prot)	0	1775	1583	0	1695	0	1770	1846	0	0	1861	1583
Flt Permitted		0.723			0.948		0.457				0.997	
Satd. Flow (perm)	0	1347	1583	0	1623	0	851	1846	0	0	1857	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			26		6			8				106
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

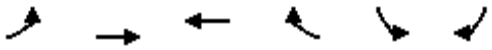
Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	1	25	2	2	6	38	169	11	8	468	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	59	1	0	2	2	6	40	178	12	8	493	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1	85	86	24	56	902	1404	95	66	1506	1288
Arrive On Green	0.05	0.05	0.00	0.05	0.05	0.05	0.81	0.81	0.81	0.81	0.81	0.00
Sat Flow, veh/h	1422	24	1583	254	442	1044	900	1726	116	7	1852	1583
Grp Volume(v), veh/h	60	0	0	10	0	0	40	0	190	501	0	0
Grp Sat Flow(s),veh/h/ln	1446	0	1583	1739	0	0	900	0	1842	1859	0	1583
Q Serve(g_s), s	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	0.3	0.0	0.0	0.3	0.0	1.3	4.1	0.0	0.0
Prop In Lane	0.98		1.00	0.20		0.60	1.00		0.06	0.02		1.00
Lane Grp Cap(c), veh/h	196	0	85	165	0	0	902	0	1498	1573	0	1288
V/C Ratio(X)	0.31	0.00	0.00	0.06	0.00	0.00	0.04	0.00	0.13	0.32	0.00	0.00
Avail Cap(c_a), veh/h	637	0	581	664	0	0	902	0	1498	1573	0	1288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.0	0.0	0.0	27.0	0.0	0.0	1.1	0.0	1.2	1.4	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.2	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.7	2.3	0.0	0.0
LnGrp Delay(d),s/veh	28.9	0.0	0.0	27.2	0.0	0.0	1.2	0.0	1.3	2.0	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		60			10			230			501	
Approach Delay, s/veh		28.9			27.2			1.3			2.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		3.3		4.4		6.1		2.3
Green Ext Time (p_c), s		4.5		0.2		4.4		0.2

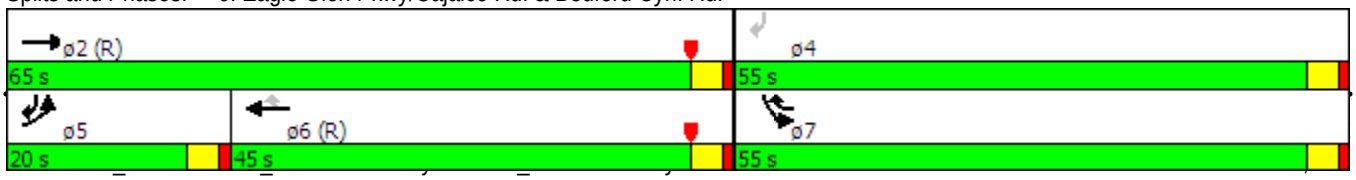
Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A

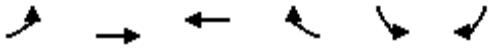


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø4
Lane Configurations							
Volume (vph)	101	584	659	145	421	135	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	180			200	450	0	
Storage Lanes	1			1	0	1	
Taper Length (ft)	100				180		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor				0.98		0.98	
Frt				0.850		0.850	
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	3539	3539	1550	1770	1550	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)				153		70	
Link Speed (mph)		45	45		45		
Link Distance (ft)		930	726		651		
Travel Time (s)		14.1	11.0		9.9		
Confl. Peds. (#/hr)				5		5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Shared Lane Traffic (%)							
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	5	2	6	7	7	5	4
Permitted Phases				6		4	
Detector Phase	5	2	6	7	7	5	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	23.0	8.0	8.0	8.0	23.0
Total Split (s)	20.0	65.0	45.0	55.0	55.0	20.0	55.0
Total Split (%)	16.7%	54.2%	37.5%	45.8%	45.8%	16.7%	46%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag			Lead	
Lead-Lag Optimize?	Yes		Yes			Yes	
Recall Mode	None	C-Max	C-Max	Max	Max	None	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	101	584	659	145	421	135
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	106	615	694	153	443	142
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	132	1799	1418	1303	754	791
Arrive On Green	0.07	0.51	0.40	0.40	0.43	0.43
Sat Flow, veh/h	1774	3632	3632	1573	1774	1583
Grp Volume(v), veh/h	106	615	694	153	443	142
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1573	1774	1583
Q Serve(g_s), s	7.1	12.4	17.5	2.3	23.0	5.9
Cycle Q Clear(g_c), s	7.1	12.4	17.5	2.3	23.0	5.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	132	1799	1418	1303	754	791
V/C Ratio(X)	0.80	0.34	0.49	0.12	0.59	0.18
Avail Cap(c_a), veh/h	237	1799	1418	1303	754	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	54.7	17.6	26.8	2.0	26.4	16.5
Incr Delay (d2), s/veh	10.7	0.5	1.1	0.2	3.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.9	6.2	8.8	6.0	11.9	7.2
LnGrp Delay(d),s/veh	65.3	18.1	28.0	2.2	29.8	17.0
LnGrp LOS	E	B	C	A	C	B
Approach Vol, veh/h		721	847		585	
Approach Delay, s/veh		25.0	23.3		26.7	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		65.0		55.0	12.9	52.1		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		61.0		51.0	16.0	41.0		
Max Q Clear Time (g_c+I1), s		14.4		25.0	9.1	19.5		
Green Ext Time (p_c), s		8.0		2.4	0.1	6.9		

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	989	853	130	526	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.931										0.850
Flt Protected				0.950							0.962	
Satd. Flow (prot)	0	3295	0	1770	3539	0	0	0	0	0	1792	1583
Flt Permitted				0.950							0.962	
Satd. Flow (perm)	0	3295	0	1770	3539	0	0	0	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		317										407
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		75.0		16.0	91.0					29.0	29.0	29.0
Total Split (%)		62.5%		13.3%	75.8%					24.2%	24.2%	24.2%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	989	853	130	526	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1041	898	137	554	0				163	41	518
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1156	873	161	2566	0				298	75	330
Arrive On Green	0.00	0.80	0.80	0.18	1.00	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	2017	1452	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	946	993	137	554	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1606	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	44.5	72.1	9.0	0.0	0.0				12.2	0.0	25.0
Cycle Q Clear(g_c), s	0.0	44.5	72.1	9.0	0.0	0.0				12.2	0.0	25.0
Prop In Lane	0.00		0.90	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1063	965	161	2566	0				373	0	330
V/C Ratio(X)	0.00	0.89	1.03	0.85	0.22	0.00				0.55	0.00	1.57
Avail Cap(c_a), veh/h	0	1063	965	177	2566	0				373	0	330
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.17	0.17	0.94	0.94	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	9.3	12.0	48.3	0.0	0.0				42.4	0.0	47.5
Incr Delay (d2), s/veh	0.0	2.2	20.2	27.5	0.2	0.0				5.7	0.0	270.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	21.3	36.2	5.6	0.1	0.0				6.7	0.0	35.7
LnGrp Delay(d),s/veh	0.0	11.5	32.2	75.8	0.2	0.0				48.1	0.0	318.4
LnGrp LOS		B	F	E	A					D		F
Approach Vol, veh/h		1939			691						722	
Approach Delay, s/veh		22.1			15.2						242.0	
Approach LOS		C			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.9	76.1		29.0		91.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	12.0	71.0		25.0		87.0		
Max Q Clear Time (g_c+I1), s	11.0	74.1		27.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		44.2		

Intersection Summary	
HCM 2010 Ctrl Delay	68.0
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	989	853	130	526	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.962	
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	1792	1583
Flt Permitted				0.950							0.962	
Satd. Flow (perm)	0	3539	1583	1770	3539	0	0	0	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			536									383
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		69.0	69.0	17.0	86.0					34.0	34.0	34.0
Total Split (%)		57.5%	57.5%	14.2%	71.7%					28.3%	28.3%	28.3%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 114 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	989	853	130	526	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1041	898	137	554	0				163	41	518
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1979	885	161	2418	0				358	90	396
Arrive On Green	0.00	0.74	0.74	0.18	1.00	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	1041	898	137	554	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	14.9	67.1	9.0	0.0	0.0				11.6	0.0	30.0
Cycle Q Clear(g_c), s	0.0	14.9	67.1	9.0	0.0	0.0				11.6	0.0	30.0
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1979	885	161	2418	0				448	0	396
V/C Ratio(X)	0.00	0.53	1.01	0.85	0.23	0.00				0.46	0.00	1.31
Avail Cap(c_a), veh/h	0	1979	885	192	2418	0				448	0	396
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.17	0.17	0.94	0.94	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.7	15.4	48.3	0.0	0.0				38.1	0.0	45.0
Incr Delay (d2), s/veh	0.0	0.2	16.1	24.1	0.2	0.0				3.3	0.0	156.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	7.2	32.5	5.4	0.1	0.0				6.1	0.0	30.2
LnGrp Delay(d),s/veh	0.0	8.9	31.5	72.4	0.2	0.0				41.4	0.0	201.0
LnGrp LOS		A	F	E	A					D		F
Approach Vol, veh/h		1939			691						722	
Approach Delay, s/veh		19.4			14.5						155.9	
Approach LOS		B			B						F	

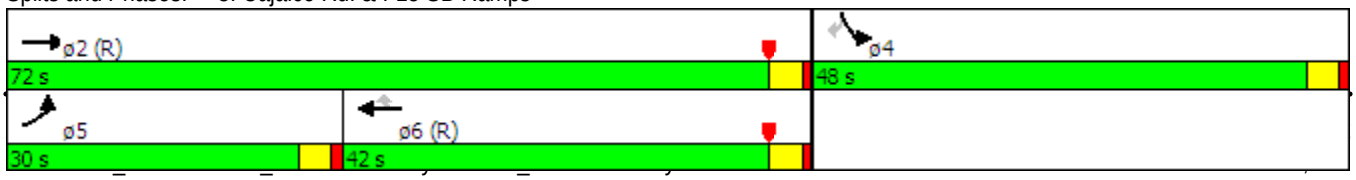
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.9	71.1		34.0		86.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	13.0	65.0		30.0		82.0		
Max Q Clear Time (g_c+I1), s	11.0	69.1		32.0		2.0		
Green Ext Time (p_c), s	0.1	0.0		0.0		29.4		

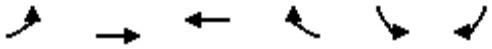
Intersection Summary	
HCM 2010 Ctrl Delay	47.8
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	351	654	511	281	638	293
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	3433	2712
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				296		308
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	30.0	72.0	42.0	42.0	48.0	48.0
Total Split (%)	25.0%	60.0%	35.0%	35.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	351	654	511	281	638	293
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	369	688	538	296	672	308
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	442	2006	1433	641	1262	1022
Arrive On Green	0.26	1.00	0.40	0.40	0.37	0.37
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	369	688	538	296	672	308
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	12.2	0.0	12.8	16.4	18.4	9.4
Cycle Q Clear(g_c), s	12.2	0.0	12.8	16.4	18.4	9.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	442	2006	1433	641	1262	1022
V/C Ratio(X)	0.83	0.34	0.38	0.46	0.53	0.30
Avail Cap(c_a), veh/h	746	2006	1433	641	1262	1022
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	0.0	25.1	26.1	29.9	27.1
Incr Delay (d2), s/veh	3.8	0.4	0.8	2.4	1.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.0	0.1	6.4	7.6	9.1	8.4
LnGrp Delay(d),s/veh	47.2	0.4	25.8	28.5	31.5	27.8
LnGrp LOS	D	A	C	C	C	C
Approach Vol, veh/h		1057	834		980	
Approach Delay, s/veh		16.7	26.8		30.4	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		72.0		48.0	19.4	52.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		68.0		44.0	26.0	38.0		
Max Q Clear Time (g_c+I1), s		2.0		20.4	14.2	18.4		
Green Ext Time (p_c), s		8.6		4.8	1.2	7.0		

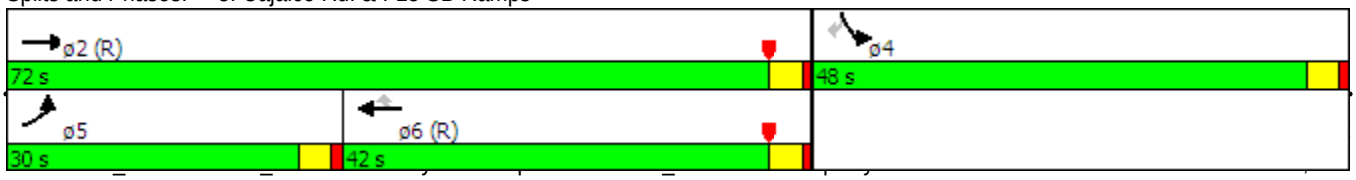
Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

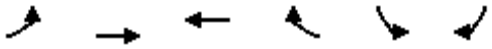
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	351	654	511	281	638	293
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	5085	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	5085	3539	1583	3433	2712
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				296		308
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	30.0	72.0	42.0	42.0	48.0	48.0
Total Split (%)	25.0%	60.0%	35.0%	35.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	351	654	511	281	638	293
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	369	688	538	296	672	308
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	442	2882	1433	641	1262	1022
Arrive On Green	0.26	1.00	0.40	0.40	0.37	0.37
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	369	688	538	296	672	308
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	12.2	0.0	12.8	16.4	18.4	9.4
Cycle Q Clear(g_c), s	12.2	0.0	12.8	16.4	18.4	9.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	442	2882	1433	641	1262	1022
V/C Ratio(X)	0.83	0.24	0.38	0.46	0.53	0.30
Avail Cap(c_a), veh/h	746	2882	1433	641	1262	1022
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	0.0	25.1	26.1	29.9	27.1
Incr Delay (d2), s/veh	3.8	0.2	0.8	2.4	1.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.0	0.0	6.4	7.6	9.1	8.4
LnGrp Delay(d),s/veh	47.2	0.2	25.8	28.5	31.5	27.8
LnGrp LOS	D	A	C	C	C	C
Approach Vol, veh/h		1057	834		980	
Approach Delay, s/veh		16.6	26.8		30.4	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		72.0		48.0	19.4	52.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		68.0		44.0	26.0	38.0		
Max Q Clear Time (g_c+I1), s		2.0		20.4	14.2	18.4		
Green Ext Time (p_c), s		8.7		4.8	1.2	7.1		

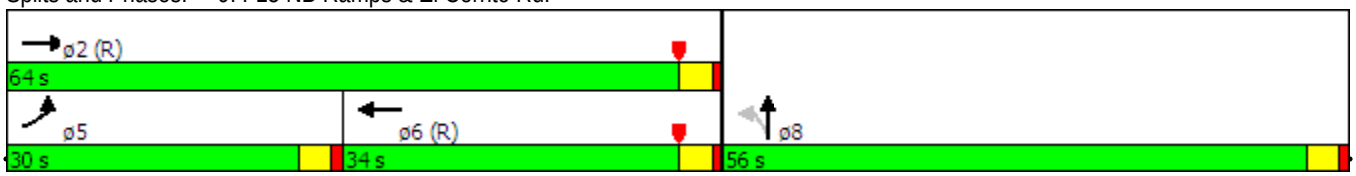
Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	493	651	0	0	242	85	414	8	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.961			0.972				
Flt Protected	0.950							0.963				
Satd. Flow (prot)	3433	1863	0	0	3401	0	0	1744	0	0	0	0
Flt Permitted	0.950							0.963				
Satd. Flow (perm)	3433	1863	0	0	3401	0	0	1744	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					39			14				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	30.0	64.0			34.0		56.0	56.0				
Total Split (%)	25.0%	53.3%			28.3%		46.7%	46.7%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	493	651	0	0	242	85	414	8	110	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	519	685	0	0	255	89	436	8	116			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	590	931	0	0	766	261	584	11	155			
Arrive On Green	0.23	0.67	0.00	0.00	0.30	0.30	0.43	0.43	0.43			
Sat Flow, veh/h	3442	1863	0	0	2686	883	1348	25	359			
Grp Volume(v), veh/h	519	685	0	0	172	172	560	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1707	1732	0	0			
Q Serve(g_s), s	17.5	28.9	0.0	0.0	9.1	9.5	32.5	0.0	0.0			
Cycle Q Clear(g_c), s	17.5	28.9	0.0	0.0	9.1	9.5	32.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.52	0.78		0.21			
Lane Grp Cap(c), veh/h	590	931	0	0	523	504	751	0	0			
V/C Ratio(X)	0.88	0.74	0.00	0.00	0.33	0.34	0.75	0.00	0.00			
Avail Cap(c_a), veh/h	746	931	0	0	523	504	751	0	0			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.25	0.25	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	45.1	14.9	0.0	0.0	33.0	33.1	28.5	0.0	0.0			
Incr Delay (d2), s/veh	2.8	1.4	0.0	0.0	1.7	1.8	6.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	8.5	14.8	0.0	0.0	4.7	4.7	16.9	0.0	0.0			
LnGrp Delay(d),s/veh	48.0	16.2	0.0	0.0	34.7	35.0	35.1	0.0	0.0			
LnGrp LOS	D	B			C	C	D					
Approach Vol, veh/h		1204			344			560				
Approach Delay, s/veh		29.9			34.8			35.1				
Approach LOS		C			C			D				

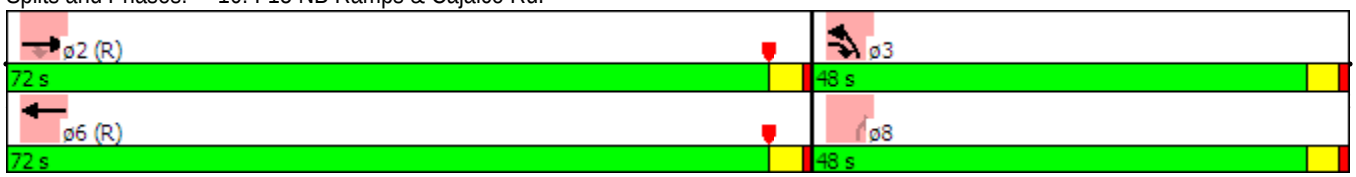
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		64.0			24.6	39.4		56.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		60.0			26.0	30.0		52.0
Max Q Clear Time (g_c+I1), s		30.9			19.5	11.5		34.5
Green Ext Time (p_c), s		6.9			1.1	6.0		3.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1035	257	0	1053	246	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Lane Util. Factor	0.91	1.00	1.00	0.86	0.97	0.88
Ped Bike Factor						0.98
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	5085	1583	0	6408	3433	2787
Flt Permitted					0.950	
Satd. Flow (perm)	5085	1583	0	6408	3433	2742
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						149
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	72.0	48.0		72.0	48.0	48.0
Total Split (%)	60.0%	40.0%		60.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1035	257	0	1053	246	346
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	1089	271	0	1108	259	364
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2882	1478	0	3631	1262	1022
Arrive On Green	0.57	0.57	0.00	0.57	0.37	0.37
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	1089	271	0	1108	259	364
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	14.2	1.7	0.0	10.9	6.2	11.4
Cycle Q Clear(g_c), s	14.2	1.7	0.0	10.9	6.2	11.4
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2882	1478	0	3631	1262	1022
V/C Ratio(X)	0.38	0.18	0.00	0.31	0.21	0.36
Avail Cap(c_a), veh/h	2882	1478	0	3631	1262	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	0.3	0.0	13.6	26.0	27.7
Incr Delay (d2), s/veh	0.4	0.3	0.0	0.2	0.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.7	0.8	0.0	4.8	3.0	4.5
LnGrp Delay(d),s/veh	14.7	0.6	0.0	13.8	26.4	28.7
LnGrp LOS	B	A		B	C	C
Approach Vol, veh/h	1360			1108	623	
Approach Delay, s/veh	11.9			13.8	27.7	
Approach LOS	B			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		72.0				72.0		48.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		68.0				68.0		44.0
Max Q Clear Time (g_c+I1), s		16.2				12.9		13.4
Green Ext Time (p_c), s		19.4				19.8		3.0

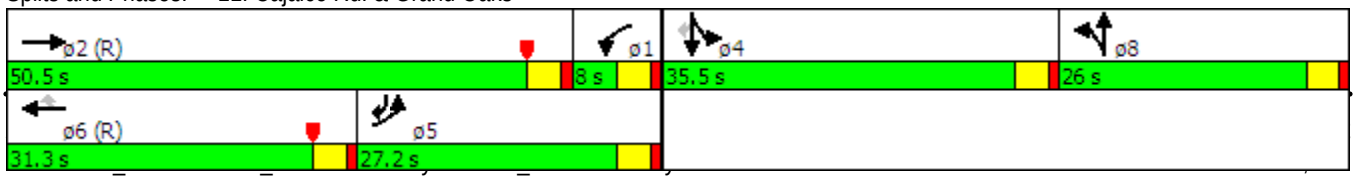
Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	672	709	0	0	497	155	0	0	0	363	0	577
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	5085	0	1863	5085	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	5085	0	1863	5085	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						163						607
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	27.2	50.5		8.0	31.3	31.3	26.0	26.0		35.5	35.5	27.2
Total Split (%)	22.7%	42.1%		6.7%	26.1%	26.1%	21.7%	21.7%		29.6%	29.6%	22.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	672	709	0	0	497	155	0	0	0	363	0	577
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	707	746	0	0	523	163	0	0	0	382	0	607
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1411	1971	0	444	1157	358	0	2	0	466	0	1870
Arrive On Green	0.41	0.39	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1573	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	707	746	0	0	523	163	0	0	0	382	0	607
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1573	0	1863	0	1774	0	1385
Q Serve(g_s), s	18.3	12.6	0.0	0.0	10.6	10.7	0.0	0.0	0.0	24.3	0.0	0.0
Cycle Q Clear(g_c), s	18.3	12.6	0.0	0.0	10.6	10.7	0.0	0.0	0.0	24.3	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1411	1971	0	444	1157	358	0	2	0	466	0	1870
V/C Ratio(X)	0.50	0.38	0.00	0.00	0.45	0.46	0.00	0.00	0.00	0.82	0.00	0.32
Avail Cap(c_a), veh/h	1411	1971	0	444	1157	358	0	342	0	466	0	1870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	26.4	0.0	0.0	39.9	39.9	0.0	0.0	0.0	41.6	0.0	8.2
Incr Delay (d2), s/veh	0.3	0.6	0.0	0.0	1.3	4.1	0.0	0.0	0.0	14.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.7	6.0	0.0	0.0	5.1	5.1	0.0	0.0	0.0	13.8	0.0	4.3
LnGrp Delay(d),s/veh	26.6	26.9	0.0	0.0	41.2	44.1	0.0	0.0	0.0	56.5	0.0	8.7
LnGrp LOS	C	C			D	D				E		A
Approach Vol, veh/h		1453			686			0			989	
Approach Delay, s/veh		26.8			41.9			0.0			27.2	
Approach LOS		C			D						C	

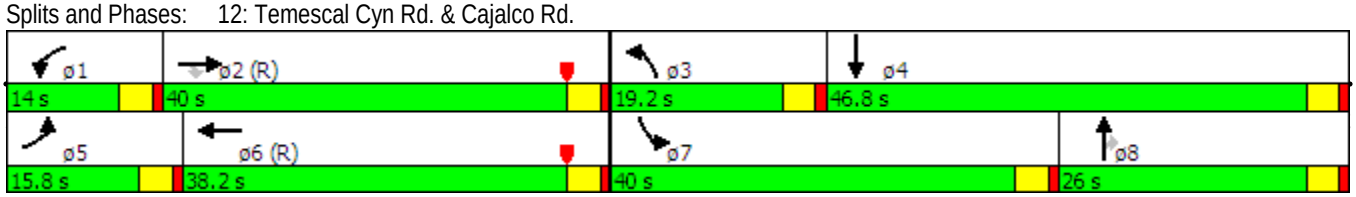
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	53.2	31.3		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	23.2	27.3		22.0
Max Q Clear Time (g_c+I1), s	0.0	14.6		26.3	20.3	12.7		0.0
Green Ext Time (p_c), s	0.0	3.6		2.4	1.0	2.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	632	325	184	347	461	248	675	96	599	520	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		0.99						1.00	
Frt			0.850		0.914				0.850		0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4592	0	3433	3539	1794	1770	3479	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4592	0	3433	3539	1794	1770	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242		279				118		11	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	15.8	40.0	40.0	14.0	38.2		19.2	26.0	26.0	40.0	46.8	
Total Split (%)	13.2%	33.3%	33.3%	11.7%	31.8%		16.0%	21.7%	21.7%	33.3%	39.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	115	632	325	184	347	461	248	675	96	599	520	57
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	121	665	342	194	365	485	261	711	101	631	547	60
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	559	473	148	1019	474	325	649	302	532	1251	137
Arrive On Green	0.08	0.30	0.30	0.08	0.30	0.30	0.09	0.18	0.18	0.30	0.39	0.39
Sat Flow, veh/h	1774	1863	1575	1774	3390	1575	3442	3539	1647	1774	3217	352
Grp Volume(v), veh/h	121	665	342	194	365	485	261	711	101	631	300	307
Grp Sat Flow(s),veh/h/ln	1774	1863	1575	1774	1695	1575	1721	1770	1647	1774	1770	1799
Q Serve(g_s), s	8.1	36.0	23.3	10.0	10.1	36.1	8.9	22.0	6.4	36.0	15.0	15.1
Cycle Q Clear(g_c), s	8.1	36.0	23.3	10.0	10.1	36.1	8.9	22.0	6.4	36.0	15.0	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	147	559	473	148	1019	474	325	649	302	532	688	700
V/C Ratio(X)	0.82	1.19	0.72	1.31	0.36	1.02	0.80	1.10	0.33	1.19	0.44	0.44
Avail Cap(c_a), veh/h	174	559	473	148	1019	474	436	649	302	532	688	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	42.0	37.6	55.0	32.9	42.0	53.2	49.0	42.6	42.0	27.0	27.0
Incr Delay (d2), s/veh	23.1	102.4	9.3	180.4	1.0	47.7	7.7	64.4	3.0	101.3	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.9	34.4	11.4	12.3	4.9	21.9	4.6	16.5	3.2	32.6	7.7	7.9
LnGrp Delay(d),s/veh	77.3	144.4	46.8	235.4	33.9	89.6	61.0	113.4	45.6	143.3	29.0	29.0
LnGrp LOS	E	F	D	F	C	F	E	F	D	F	C	C
Approach Vol, veh/h		1128			1044			1073			1238	
Approach Delay, s/veh		107.6			97.2			94.2			87.3	
Approach LOS		F			F			F			F	

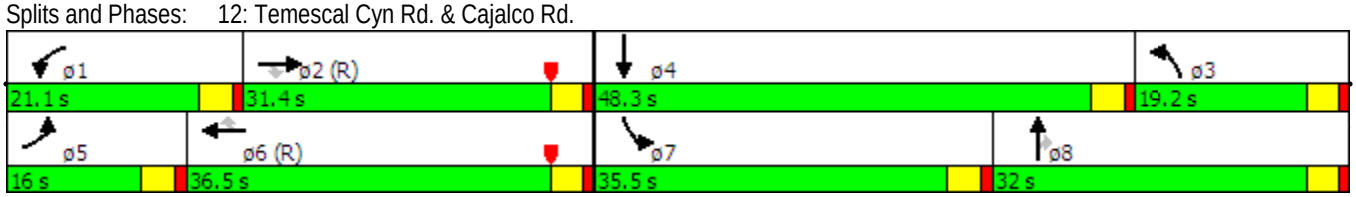
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	40.0	15.3	50.7	13.9	40.1	40.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	36.0	15.2	42.8	11.8	34.2	36.0	22.0
Max Q Clear Time (g_c+I1), s	12.0	38.0	10.9	17.1	10.1	38.1	38.0	24.0
Green Ext Time (p_c), s	0.0	0.0	0.4	6.6	0.1	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.4
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	632	325	184	347	461	248	675	96	599	520	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor			0.98			0.98					1.00	
Frt			0.850			0.850			0.850		0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1794	3433	3539	1794	3433	3479	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1552	1770	5085	1756	3433	3539	1794	3433	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			342			485			118		11	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	35.5	26.0	
Total Split (s)	16.0	31.4	31.4	21.1	36.5	36.5	19.2	32.0	32.0	35.5	48.3	
Total Split (%)	13.3%	26.2%	26.2%	17.6%	30.4%	30.4%	16.0%	26.7%	26.7%	29.6%	40.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

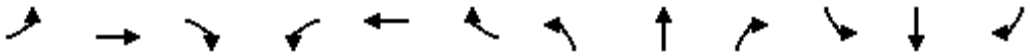
Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	115	632	325	184	347	461	248	675	96	599	520	57
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	121	665	342	194	365	485	261	711	101	631	547	60
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	982	437	222	1626	524	327	899	418	723	1187	130
Arrive On Green	0.08	0.28	0.28	0.13	0.32	0.32	0.09	0.25	0.25	0.21	0.37	0.37
Sat Flow, veh/h	1774	3539	1575	1774	5085	1639	3442	3539	1647	3442	3217	352
Grp Volume(v), veh/h	121	665	342	194	365	485	261	711	101	631	300	307
Grp Sat Flow(s),veh/h/ln	1774	1770	1575	1774	1695	1639	1721	1770	1647	1721	1770	1799
Q Serve(g_s), s	8.1	20.1	18.7	12.9	6.3	34.3	8.9	22.5	5.8	21.3	15.5	15.6
Cycle Q Clear(g_c), s	8.1	20.1	18.7	12.9	6.3	34.3	8.9	22.5	5.8	21.3	15.5	15.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	147	982	437	222	1626	524	327	899	418	723	653	664
V/C Ratio(X)	0.82	0.68	0.78	0.87	0.22	0.93	0.80	0.79	0.24	0.87	0.46	0.46
Avail Cap(c_a), veh/h	177	982	437	253	1626	524	436	899	418	903	653	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	38.6	24.1	51.6	29.9	39.4	53.2	41.8	35.6	45.9	28.8	28.8
Incr Delay (d2), s/veh	22.4	3.7	13.1	24.9	0.3	24.6	7.5	7.0	1.4	7.9	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.9	10.3	9.7	7.8	3.0	19.0	4.6	11.8	2.8	10.9	7.9	8.2
LnGrp Delay(d),s/veh	76.6	42.3	37.2	76.5	30.2	64.0	60.7	48.8	36.9	53.8	31.1	31.1
LnGrp LOS	E	D	D	E	C	E	E	D	D	D	C	C
Approach Vol, veh/h		1128			1044			1073			1238	
Approach Delay, s/veh		44.4			54.5			50.6			42.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	37.3	15.4	48.3	13.9	42.4	29.2	34.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.1	27.4	15.2	44.3	12.0	32.5	31.5	28.0
Max Q Clear Time (g_c+I1), s	14.9	22.1	10.9	17.6	10.1	36.3	23.3	24.5
Green Ext Time (p_c), s	0.1	3.7	0.5	2.3	0.1	0.0	1.9	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	47.8
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	51	18	4	6	4	326	9	7	626	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.972			0.996			0.997	
Flt Protected		0.980			0.968		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1753	0	1770	1855	0	1770	1857	0
Flt Permitted		0.980			0.968		0.950			0.950		
Satd. Flow (perm)	0	1683	0	0	1753	0	1770	1855	0	1770	1857	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	35.5
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	36	2	51	0	18	4	6	0	4	326	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	2	54	0	19	4	6	0	4	343	9
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.6	10.3	14.9
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	40%	64%	100%	0%
Vol Thru, %	0%	97%	2%	14%	0%	98%
Vol Right, %	0%	3%	57%	21%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	335	89	28	7	639
LT Vol	4	0	36	18	7	0
Through Vol	0	326	2	4	0	626
RT Vol	0	9	51	6	0	13
Lane Flow Rate	4	353	94	29	7	673
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.007	0.55	0.165	0.056	0.012	0.976
Departure Headway (Hd)	6.143	5.618	6.355	6.841	5.857	5.339
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	584	645	566	525	615	686
Service Time	3.86	3.334	4.374	4.866	3.557	3.039
HCM Lane V/C Ratio	0.007	0.547	0.166	0.055	0.011	0.981
HCM Control Delay	8.9	15	10.6	10.3	8.6	51.4
HCM Lane LOS	A	B	B	B	A	F
HCM 95th-tile Q	0	3.4	0.6	0.2	0	14.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	626	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	659	14
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	50.9
HCM LOS	F

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	51	18	4	6	4	326	9	7	626	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.972			0.996			0.997	
Flt Protected		0.980			0.968		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1753	0	1770	1855	0	1770	1857	0
Flt Permitted		0.864			0.837		0.353			0.550		
Satd. Flow (perm)	0	1484	0	0	1515	0	658	1855	0	1025	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			6			3			3	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

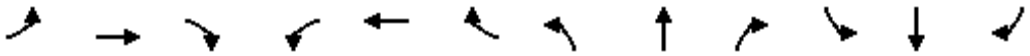
Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 18: Masters Dr. & Christopher Ln.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	2	51	18	4	6	4	326	9	7	626	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	38	2	54	19	4	6	4	343	9	7	659	14
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	12	78	177	40	31	714	1407	37	865	1416	30
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	1.00	1.00	1.00
Sat Flow, veh/h	525	132	886	881	453	348	762	1807	47	1025	1817	39
Grp Volume(v), veh/h	94	0	0	29	0	0	4	0	352	7	0	673
Grp Sat Flow(s),veh/h/ln	1543	0	0	1682	0	0	762	0	1854	1025	0	1856
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	0.0	0.9	0.0	0.0	0.1	0.0	3.1	3.1	0.0	0.0
Prop In Lane	0.40		0.57	0.66		0.21	1.00		0.03	1.00		0.02
Lane Grp Cap(c), veh/h	220	0	0	247	0	0	714	0	1444	865	0	1446
V/C Ratio(X)	0.43	0.00	0.00	0.12	0.00	0.00	0.01	0.00	0.24	0.01	0.00	0.47
Avail Cap(c_a), veh/h	640	0	0	649	0	0	714	0	1444	865	0	1446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.90	0.00	0.90
Uniform Delay (d), s/veh	26.5	0.0	0.0	25.4	0.0	0.0	1.5	0.0	1.8	0.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.4
LnGrp Delay(d),s/veh	27.8	0.0	0.0	25.6	0.0	0.0	1.5	0.0	2.2	0.1	0.0	1.0
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		94			29			356			680	
Approach Delay, s/veh		27.8			25.6			2.2			1.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.7		9.3		50.7		9.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		5.1		5.5		5.1		2.9
Green Ext Time (p_c), s		7.4		0.5		7.4		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	51	18	4	6	4	326	9	7	626	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.972			0.997			0.997	
Flt Protected		0.980			0.968			0.999			0.999	
Satd. Flow (prot)	0	1683	0	0	1753	0	0	1855	0	0	1855	0
Flt Permitted		0.980			0.968			0.999			0.999	
Satd. Flow (perm)	0	1683	0	0	1753	0	0	1855	0	0	1855	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

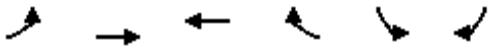
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	10.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	94	29	356	680
Demand Flow Rate, veh/h	96	29	363	693
Vehicles Circulating, veh/h	698	393	48	27
Vehicles Exiting, veh/h	22	18	746	395
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	5.1	6.8	12.0
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	96	29	363	693
Cap Entry Lane, veh/h	562	763	1077	1100
Entry HV Adj Factor	0.979	0.997	0.981	0.981
Flow Entry, veh/h	94	29	356	680
Cap Entry, veh/h	550	761	1057	1079
V/C Ratio	0.171	0.038	0.337	0.630
Control Delay, s/veh	8.7	5.1	6.8	12.0
LOS	A	A	A	B
95th %tile Queue, veh	1	0	1	5



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	640	279	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.962	
Flt Protected	0.950				0.965	
Satd. Flow (prot)	1770	1863	1852	0	1729	0
Flt Permitted	0.950				0.965	
Satd. Flow (perm)	1770	1863	1852	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

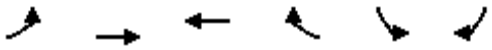
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	25.2
Intersection LOS	D

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	640	0	279	12	0	12	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	674	0	294	13	0	13	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	32	11.1	9.4
HCM LOS	D	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	71%
Vol Thru, %	0%	100%	96%	0%
Vol Right, %	0%	0%	4%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	640	291	17
LT Vol	4	0	0	12
Through Vol	0	640	279	0
RT Vol	0	0	12	5
Lane Flow Rate	4	674	306	18
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.882	0.408	0.03
Departure Headway (Hd)	5.324	4.822	4.797	6.13
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	676	755	754	585
Service Time	3.024	2.522	2.804	4.16
HCM Lane V/C Ratio	0.006	0.893	0.406	0.031
HCM Control Delay	8.1	32.1	11.1	9.4
HCM Lane LOS	A	D	B	A
HCM 95th-tile Q	0	11.1	2	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	640	279	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.962	
Flt Protected	0.950				0.965	
Satd. Flow (prot)	1770	1863	1852	0	1729	0
Flt Permitted	0.950				0.965	
Satd. Flow (perm)	1770	1863	1852	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

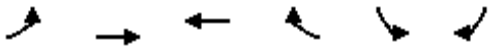
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	640	279	12	12	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	674	294	13	13	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	306	0	-	0	982	300
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	682	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1255	-	-	-	276	740
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1255	-	-	-	275	740
Mov Cap-2 Maneuver	-	-	-	-	275	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	500	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1255	-	-	-	337
HCM Lane V/C Ratio	0.003	-	-	-	0.053
HCM Control Delay (s)	7.9	-	-	-	16.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2



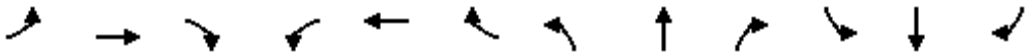
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	640	279	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.962	
Flt Protected					0.965	
Satd. Flow (prot)	0	1863	1852	0	1729	0
Flt Permitted					0.965	
Satd. Flow (perm)	0	1863	1852	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	678	307	18
Demand Flow Rate, veh/h	691	313	18
Vehicles Circulating, veh/h	13	4	300
Vehicles Exiting, veh/h	305	700	17
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	11.6	5.9	4.5
Approach LOS	B	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	691	313	18
Cap Entry Lane, veh/h	1115	1125	837
Entry HV Adj Factor	0.981	0.981	1.000
Flow Entry, veh/h	678	307	18
Cap Entry, veh/h	1094	1104	837
V/C Ratio	0.620	0.278	0.022
Control Delay, s/veh	11.6	5.9	4.5
LOS	B	A	A
95th %tile Queue, veh	4	1	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	486	125	33	235	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.998			0.948			0.973	
Flt Protected	0.950			0.950				0.972			0.971	
Satd. Flow (prot)	1770	1805	0	1770	1859	0	0	1716	0	0	1760	0
Flt Permitted	0.950			0.950				0.972			0.971	
Satd. Flow (perm)	1770	1805	0	1770	1859	0	0	1716	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	25.1
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	486	125	0	33	235	3	0	55	3	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	512	132	0	35	247	3	0	58	3	38
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	33.6	11.1	10.3
HCM LOS	D	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	59%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	80%	0%	99%	20%
Vol Right, %	38%	0%	20%	0%	1%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	3	611	33	238	5
LT Vol	55	3	0	33	0	3
Through Vol	3	0	486	0	235	1
RT Vol	36	0	125	0	3	1
Lane Flow Rate	99	3	643	35	251	5
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.167	0.005	0.886	0.057	0.374	0.009
Departure Headway (Hd)	6.091	5.609	4.962	5.889	5.375	6.483
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	593	634	727	603	664	555
Service Time	4.091	3.377	2.729	3.674	3.16	4.487
HCM Lane V/C Ratio	0.167	0.005	0.884	0.058	0.378	0.009
HCM Control Delay	10.3	8.4	33.7	9	11.4	9.5
HCM Lane LOS	B	A	D	A	B	A
HCM 95th-tile Q	0.6	0	11.1	0.2	1.7	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

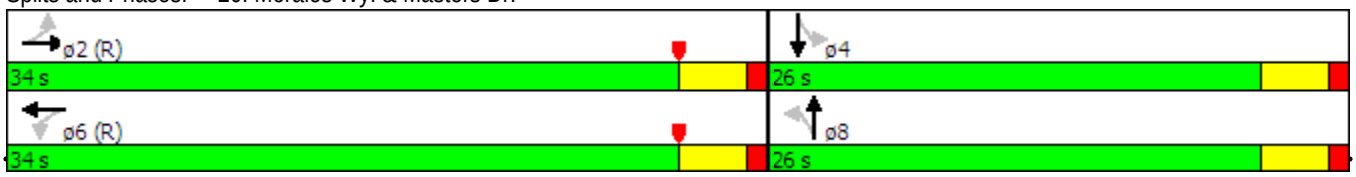
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.5
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	486	125	33	235	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.998			0.948			0.973	
Flt Protected	0.950			0.950				0.972			0.971	
Satd. Flow (prot)	1770	1805	0	1770	1859	0	0	1716	0	0	1760	0
Flt Permitted	0.587			0.242				0.863			0.927	
Satd. Flow (perm)	1093	1805	0	451	1859	0	0	1524	0	0	1680	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			1			38			1	
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0		26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%		43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

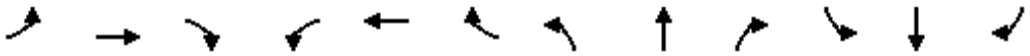
Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	486	125	33	235	3	55	3	36	3	1	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	512	132	35	247	3	58	3	38	3	1	1
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	595	715	184	293	918	11	393	41	211	406	135	111
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1125	1429	368	783	1837	22	813	111	576	845	369	304
Grp Volume(v), veh/h	3	0	644	35	0	250	99	0	0	5	0	0
Grp Sat Flow(s),veh/h/ln	1125	0	1798	783	0	1859	1500	0	0	1518	0	0
Q Serve(g_s), s	0.1	0.0	16.7	2.2	0.0	4.7	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.8	0.0	16.7	18.9	0.0	4.7	2.5	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.01	0.59		0.38	0.60		0.20
Lane Grp Cap(c), veh/h	595	0	899	293	0	929	645	0	0	653	0	0
V/C Ratio(X)	0.01	0.00	0.72	0.12	0.00	0.27	0.15	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	595	0	899	293	0	929	645	0	0	653	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.0	0.0	11.7	19.1	0.0	8.7	12.8	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.9	0.8	0.0	0.7	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	9.4	0.5	0.0	2.5	1.2	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	10.1	0.0	16.6	19.9	0.0	9.4	13.3	0.0	0.0	12.1	0.0	0.0
LnGrp LOS	B		B	B		A	B			B		
Approach Vol, veh/h		647			285			99			5	
Approach Delay, s/veh		16.5			10.7			13.3			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		18.7		2.1		20.9		4.5
Green Ext Time (p_c), s		4.6		0.5		4.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B



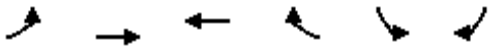
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	486	125	33	235	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.999			0.948			0.973	
Flt Protected					0.994			0.972			0.971	
Satd. Flow (prot)	0	1811	0	0	1850	0	0	1716	0	0	1760	0
Flt Permitted					0.994			0.972			0.971	
Satd. Flow (perm)	0	1811	0	0	1850	0	0	1716	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	647	285	99	5
Demand Flow Rate, veh/h	660	291	101	5
Vehicles Circulating, veh/h	40	65	528	347
Vehicles Exiting, veh/h	312	564	172	9
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.5	6.2	7.3	4.6
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	660	291	101	5
Cap Entry Lane, veh/h	1086	1059	666	799
Entry HV Adj Factor	0.980	0.980	0.980	0.996
Flow Entry, veh/h	647	285	99	5
Cap Entry, veh/h	1064	1037	653	796
V/C Ratio	0.608	0.275	0.152	0.006
Control Delay, s/veh	11.5	6.2	7.3	4.6
LOS	B	A	A	A
95th %tile Queue, veh	4	1	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	357	399	63	35	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.980			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3468	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3468	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	357	399	63	35	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	376	420	66	37	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	486	0	-	0	856	243
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	403	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1073	-	-	-	312	758
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1073	-	-	-	308	758
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1073	-	-	-	308	758
HCM Lane V/C Ratio	0.013	-	-	-	0.12	0.018
HCM Control Delay (s)	8.4	-	-	-	18.3	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0.1

APPENDIX 6.2:

2035 WITH MODIFIED PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	75	122	104	165	124	255	259	191	132	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	43.1
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	6	190	75	0	122	104	165	0	124	255	259
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	218	86	0	140	120	190	0	143	293	298
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	45.8	19.3	65.6
HCM LOS	E	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	50%	0%	72%	0%	100%	0%	0%	96%
Vol Right, %	0%	50%	0%	28%	0%	0%	100%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	514	6	265	122	104	165	191	138
LT Vol	124	0	6	0	122	0	0	191	0
Through Vol	0	255	0	190	0	104	0	0	132
RT Vol	0	259	0	75	0	0	165	0	6
Lane Flow Rate	143	591	7	305	140	120	190	220	159
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.403	1	0.02	0.832	0.402	0.326	0.481	0.634	0.435
Departure Headway (Hd)	10.19	9.306	10.531	9.838	10.331	9.832	9.134	10.402	9.873
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	355	396	339	369	348	365	394	347	363
Service Time	7.89	7.006	8.309	7.616	8.111	7.612	6.914	8.187	7.658
HCM Lane V/C Ratio	0.403	1.492	0.021	0.827	0.402	0.329	0.482	0.634	0.438
HCM Control Delay	19.6	76.7	13.5	46.5	19.9	17.3	20.2	29.7	20.1
HCM Lane LOS	C	F	B	E	C	C	C	D	C
HCM 95th-tile Q	1.9	12	0.1	7.5	1.9	1.4	2.5	4.1	2.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	191	132	6
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	220	152	7
Number of Lanes	0	1	1	0

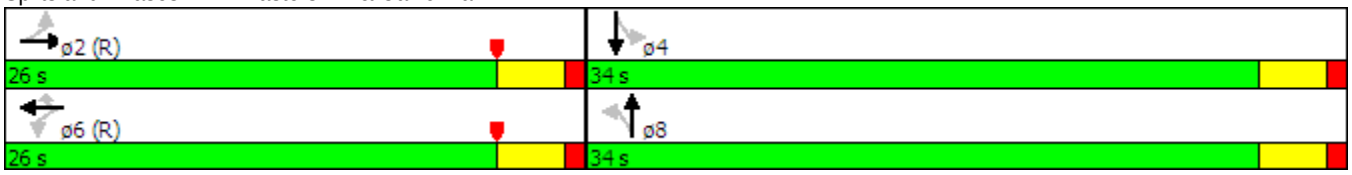
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	25.7
HCM LOS	D

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	75	122	104	165	124	255	259	191	132	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	190	75	122	104	165	124	255	259	191	132	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	7	218	86	140	120	190	143	293	298	220	152	7
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	466	184	372	683	581	674	424	431	263	884	41
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.17	0.17	0.17	0.50	0.50	0.50
Sat Flow, veh/h	1065	1272	502	1071	1863	1583	1222	848	863	822	1767	81
Grp Volume(v), veh/h	7	0	304	140	120	190	143	0	591	220	0	159
Grp Sat Flow(s),veh/h/ln	1065	0	1774	1071	1863	1583	1222	0	1711	822	0	1848
Q Serve(g_s), s	0.3	0.0	7.9	6.9	2.6	5.2	6.2	0.0	19.5	10.5	0.0	2.8
Cycle Q Clear(g_c), s	2.9	0.0	7.9	14.8	2.6	5.2	9.0	0.0	19.5	30.0	0.0	2.8
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.50	1.00		0.04
Lane Grp Cap(c), veh/h	464	0	651	372	683	581	674	0	855	263	0	924
V/C Ratio(X)	0.02	0.00	0.47	0.38	0.18	0.33	0.21	0.00	0.69	0.84	0.00	0.17
Avail Cap(c_a), veh/h	464	0	651	372	683	581	674	0	855	263	0	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.80	0.00	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	0.0	14.5	20.2	12.9	13.7	17.5	0.0	20.7	26.6	0.0	8.2
Incr Delay (d2), s/veh	0.1	0.0	2.4	2.9	0.6	1.5	0.6	0.0	3.7	25.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	4.2	2.3	1.4	2.5	2.2	0.0	10.1	5.5	0.0	1.5
LnGrp Delay(d),s/veh	13.9	0.0	16.9	23.0	13.4	15.2	18.1	0.0	24.4	52.3	0.0	8.6
LnGrp LOS	B		B	C	B	B	B		C	D		A
Approach Vol, veh/h		311			450			734			379	
Approach Delay, s/veh		16.9			17.2			23.1			34.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		22.0		30.0		22.0		30.0
Max Q Clear Time (g_c+I1), s		9.9		32.0		16.8		21.5
Green Ext Time (p_c), s		2.9		0.0		1.7		4.3

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	18	3	32	7	209	15	28	175	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	44	9	32	0	18	3	32	0	7	209	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	9	34	0	19	3	34	0	7	220	16
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.8	8.4	10.2
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	34%	100%	0%
Vol Thru, %	0%	93%	11%	6%	0%	94%
Vol Right, %	0%	7%	38%	60%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	224	85	53	28	187
LT Vol	7	0	44	18	28	0
Through Vol	0	209	9	3	0	175
RT Vol	0	15	32	32	0	12
Lane Flow Rate	7	236	89	56	29	197
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.011	0.331	0.125	0.076	0.046	0.277
Departure Headway (Hd)	5.61	5.059	5.032	4.913	5.619	5.071
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	637	710	710	726	636	707
Service Time	3.353	2.802	3.08	2.967	3.362	2.814
HCM Lane V/C Ratio	0.011	0.332	0.125	0.077	0.046	0.279
HCM Control Delay	8.4	10.3	8.8	8.4	8.6	9.8
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0	1.4	0.4	0.2	0.1	1.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	28	175	12
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	29	184	13
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.6
HCM LOS	A

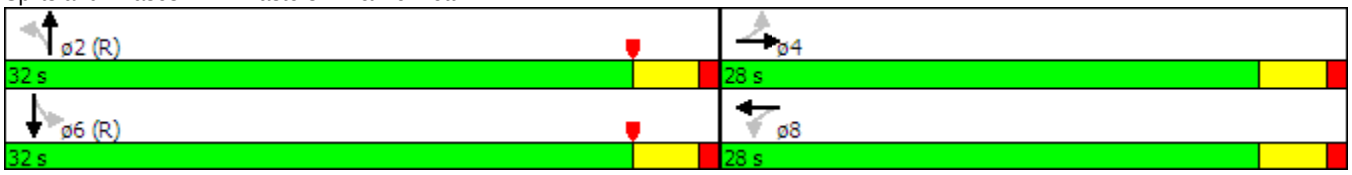
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	18	3	32	7	209	15	28	175	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	28.0	28.0		28.0	28.0		32.0	32.0		32.0	32.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%		53.3%	53.3%		53.3%	53.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

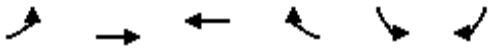
Splits and Phases: 2: Masters Dr. & Bennett Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	9	32	18	3	32	7	209	15	28	175	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	46	9	34	19	3	34	7	220	16	29	184	13
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	22	53	116	22	88	1009	1337	97	971	1340	95
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	732	253	609	404	247	1007	1181	1716	125	1140	1720	122
Grp Volume(v), veh/h	89	0	0	56	0	0	7	0	236	29	0	197
Grp Sat Flow(s),veh/h/ln	1594	0	0	1658	0	0	1181	0	1841	1140	0	1841
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9	0.4	0.0	1.6
Cycle Q Clear(g_c), s	3.1	0.0	0.0	1.8	0.0	0.0	1.7	0.0	1.9	2.3	0.0	1.6
Prop In Lane	0.52		0.38	0.34		0.61	1.00		0.07	1.00		0.07
Lane Grp Cap(c), veh/h	230	0	0	225	0	0	1009	0	1434	971	0	1435
V/C Ratio(X)	0.39	0.00	0.00	0.25	0.00	0.00	0.01	0.00	0.16	0.03	0.00	0.14
Avail Cap(c_a), veh/h	694	0	0	697	0	0	1009	0	1434	971	0	1435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.98	0.00	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	0.0	25.8	0.0	0.0	1.8	0.0	1.7	2.0	0.0	1.6
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.8
LnGrp Delay(d),s/veh	27.4	0.0	0.0	26.4	0.0	0.0	1.9	0.0	1.9	2.0	0.0	1.8
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		89			56			243			226	
Approach Delay, s/veh		27.4			26.4			1.9			1.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.8		9.2		50.8		9.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		28.0		24.0		28.0		24.0
Max Q Clear Time (g_c+I1), s		3.9		5.1		4.3		3.8
Green Ext Time (p_c), s		2.6		0.7		2.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	47	766	523	137	162	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	24.9
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	47	766	0	523	137	0	162	28
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	49	806	0	551	144	0	171	29
Number of Lanes	0	1	2	0	2	0	0	1	1

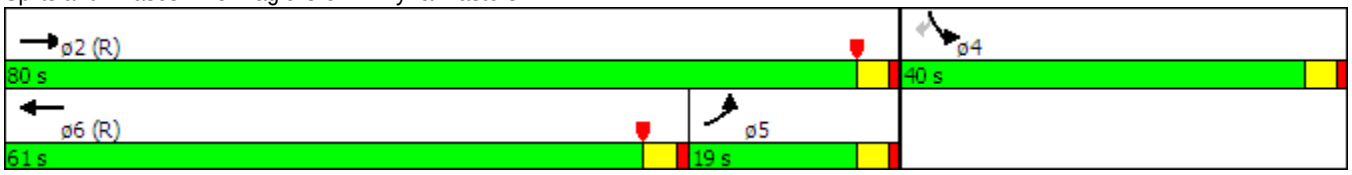
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	25.4	26.3	18
HCM LOS	D	D	C

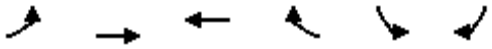
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	56%	0%	0%
Vol Right, %	0%	0%	0%	0%	44%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	383	383	349	311	162	28
LT Vol	47	0	0	0	0	162	0
Through Vol	0	383	383	349	174	0	0
RT Vol	0	0	0	0	137	0	28
Lane Flow Rate	49	403	403	367	328	171	29
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.108	0.819	0.622	0.758	0.648	0.439	0.066
Departure Headway (Hd)	7.827	7.317	5.55	7.436	7.122	9.262	8.033
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	458	496	649	488	508	389	445
Service Time	5.571	5.061	3.293	5.185	4.87	7.023	5.794
HCM Lane V/C Ratio	0.107	0.813	0.621	0.752	0.646	0.44	0.065
HCM Control Delay	11.5	35.5	17	30	22.1	19.1	11.4
HCM Lane LOS	B	E	C	D	C	C	B
HCM 95th-tile Q	0.4	7.9	4.3	6.5	4.6	2.2	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	47	766	523	137	162	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	19.0	80.0	61.0		40.0	40.0
Total Split (%)	15.8%	66.7%	50.8%		33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	47	766	523	137	162	28
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	49	806	551	144	171	29
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	549	2895	1321	344	205	183
Arrive On Green	0.62	1.00	0.47	0.47	0.12	0.12
Sat Flow, veh/h	1774	3632	2874	724	1774	1583
Grp Volume(v), veh/h	49	806	350	345	171	29
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1735	1774	1583
Q Serve(g_s), s	1.3	0.0	15.5	15.6	11.3	2.0
Cycle Q Clear(g_c), s	1.3	0.0	15.5	15.6	11.3	2.0
Prop In Lane	1.00			0.42	1.00	1.00
Lane Grp Cap(c), veh/h	549	2895	841	824	205	183
V/C Ratio(X)	0.09	0.28	0.42	0.42	0.84	0.16
Avail Cap(c_a), veh/h	549	2895	841	824	532	475
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	20.6	20.6	52.0	47.8
Incr Delay (d2), s/veh	0.1	0.2	1.5	1.6	8.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.7	0.1	7.9	7.8	6.0	1.8
LnGrp Delay(d),s/veh	16.1	0.2	22.1	22.2	60.6	48.2
LnGrp LOS	B	A	C	C	E	D
Approach Vol, veh/h		855	695		200	
Approach Delay, s/veh		1.1	22.2		58.8	
Approach LOS		A	C		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		102.2		17.8	41.2	61.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		76.0		36.0	15.0	57.0		
Max Q Clear Time (g_c+I1), s		2.0		13.3	3.3	17.6		
Green Ext Time (p_c), s		6.2		0.5	4.0	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1181	271	300	1179	386	313
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Right Turn on Red		Yes				Yes
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	59.0		27.0	86.0	34.0	34.0
Total Split (%)	49.2%		22.5%	71.7%	28.3%	28.3%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

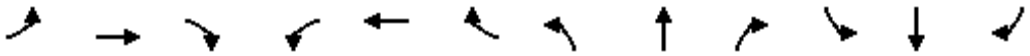
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1181	271	300	1179	386	313
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1243	285	316	1241	406	329
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1322	299	335	2418	444	396
Arrive On Green	0.46	0.46	0.38	1.00	0.25	0.25
Sat Flow, veh/h	2961	650	1774	3632	1774	1583
Grp Volume(v), veh/h	761	767	316	1241	406	329
Grp Sat Flow(s),veh/h/ln	1770	1748	1774	1770	1774	1583
Q Serve(g_s), s	48.8	50.6	20.6	0.0	26.7	23.6
Cycle Q Clear(g_c), s	48.8	50.6	20.6	0.0	26.7	23.6
Prop In Lane		0.37	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	816	806	335	2418	444	396
V/C Ratio(X)	0.93	0.95	0.94	0.51	0.92	0.83
Avail Cap(c_a), veh/h	816	806	340	2418	444	396
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.68	0.68	1.00	1.00
Uniform Delay (d), s/veh	30.6	31.1	36.7	0.0	43.8	42.6
Incr Delay (d2), s/veh	18.9	22.0	26.4	0.5	26.1	18.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	28.0	29.2	12.5	0.2	16.3	12.3
LnGrp Delay(d),s/veh	49.5	53.0	63.1	0.5	69.8	60.7
LnGrp LOS	D	D	E	A	E	E
Approach Vol, veh/h	1528			1557	735	
Approach Delay, s/veh	51.3			13.2	65.7	
Approach LOS	D			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	26.7	59.3				86.0		34.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	23.0	55.0				82.0		30.0
Max Q Clear Time (g_c+I1), s	22.6	52.6				2.0		28.7
Green Ext Time (p_c), s	0.0	2.3				46.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	42	2	2	2	19	332	10	35	503	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	24.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	89	5	42	0	2	2	2	0	19	332	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	94	5	44	0	2	2	2	0	20	349	11
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	11.5	10.5	15.6
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	95%	0%	33%	7%	0%
Vol Thru, %	0%	97%	5%	0%	33%	93%	0%
Vol Right, %	0%	3%	0%	100%	33%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	342	94	42	6	538	53
LT Vol	19	0	89	0	2	35	0
Through Vol	0	332	5	0	2	503	0
RT Vol	0	10	0	42	2	0	53
Lane Flow Rate	20	360	99	44	6	566	56
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.035	0.575	0.207	0.078	0.013	0.874	0.075
Departure Headway (Hd)	6.278	5.751	7.537	6.341	7.385	5.554	4.814
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	571	626	476	565	483	651	745
Service Time	4.01	3.483	5.283	4.086	5.451	3.279	2.539
HCM Lane V/C Ratio	0.035	0.575	0.208	0.078	0.012	0.869	0.075
HCM Control Delay	9.2	16	12.3	9.6	10.5	34.7	7.9
HCM Lane LOS	A	C	B	A	B	D	A
HCM 95th-tile Q	0.1	3.7	0.8	0.3	0	10.3	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	35	503	53
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	529	56
Number of Lanes	0	0	1	1

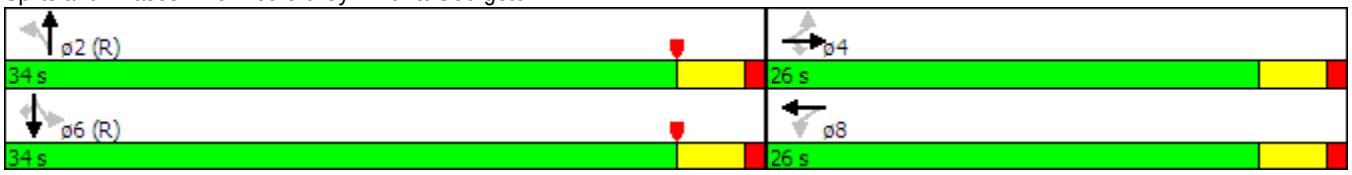
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	32.3
HCM LOS	D

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	42	2	2	2	19	332	10	35	503	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	5	42	2	2	2	19	332	10	35	503	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	94	5	0	2	2	2	20	349	11	37	529	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	6	139	105	77	51	828	1399	44	110	1366	1233
Arrive On Green	0.09	0.09	0.00	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.00
Sat Flow, veh/h	1364	73	1583	288	872	580	871	1796	57	59	1754	1583
Grp Volume(v), veh/h	99	0	0	6	0	0	20	0	360	566	0	0
Grp Sat Flow(s),veh/h/ln	1437	0	1583	1740	0	0	871	0	1853	1813	0	1583
Q Serve(g_s), s	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	3.2	5.8	0.0	0.0
Prop In Lane	0.95		1.00	0.33		0.33	1.00		0.03	0.07		1.00
Lane Grp Cap(c), veh/h	243	0	139	233	0	0	828	0	1443	1476	0	1233
V/C Ratio(X)	0.41	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.25	0.38	0.00	0.00
Avail Cap(c_a), veh/h	640	0	581	678	0	0	828	0	1443	1476	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	0.0	0.0	25.0	0.0	0.0	1.5	0.0	1.8	2.1	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	0.0	0.0	0.1	0.0	0.0	0.1	0.0	1.8	3.1	0.0	0.0
LnGrp Delay(d),s/veh	27.9	0.0	0.0	25.1	0.0	0.0	1.5	0.0	2.2	2.9	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		99			6			380			566	
Approach Delay, s/veh		27.9			25.1			2.2			2.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.7		9.3		50.7		9.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		5.2		6.0		7.8		2.2
Green Ext Time (p_c), s		6.3		0.4		6.1		0.4

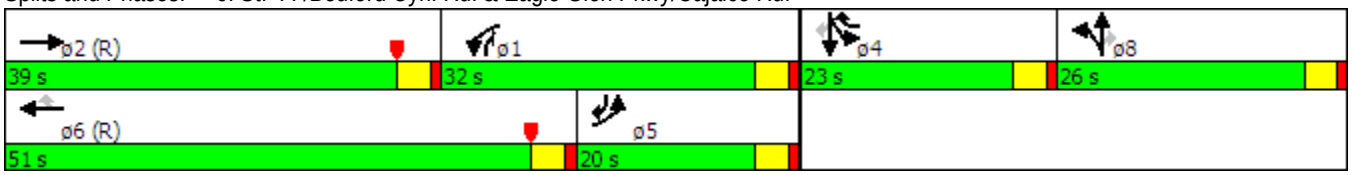
Intersection Summary	
HCM 2010 Ctrl Delay	5.1
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	790	15	189	492	221	13	66	485	161	29	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		100	200		200	150		0	450		0
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	90			120			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			726			413			651	
Travel Time (s)		14.1			11.0			6.3			9.9	
Confl. Peds. (#/hr)						5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										41%		
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	4	8	8	1	4	4	5
Permitted Phases						6			8			4
Detector Phase	5	2		1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.0		8.0	23.0	23.0	26.0	26.0	8.0	23.0	23.0	8.0
Total Split (s)	20.0	39.0		32.0	51.0	23.0	26.0	26.0	32.0	23.0	23.0	20.0
Total Split (%)	16.7%	32.5%		26.7%	42.5%	19.2%	21.7%	21.7%	26.7%	19.2%	19.2%	16.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead				Lag			Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max		None	C-Max	Max	None	None	None	Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	123	790	15	189	492	221	13	66	485	161	29	154
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	129	832	16	199	518	233	14	69	511	191	0	162
Adj No. of Lanes	1	2	0	2	2	1	1	1	1	2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	439	1036	20	1195	1386	868	123	129	660	562	0	640
Arrive On Green	0.25	0.29	0.29	0.11	0.13	0.13	0.07	0.07	0.07	0.16	0.00	0.16
Sat Flow, veh/h	1774	3552	68	3442	3539	1577	1774	1863	1583	3548	0	1568
Grp Volume(v), veh/h	129	414	434	199	518	233	14	69	511	191	0	162
Grp Sat Flow(s),veh/h/ln	1774	1770	1851	1721	1770	1577	1774	1863	1583	1774	0	1568
Q Serve(g_s), s	7.1	26.0	26.0	6.3	16.1	12.0	0.9	4.3	0.0	5.7	0.0	0.0
Cycle Q Clear(g_c), s	7.1	26.0	26.0	6.3	16.1	12.0	0.9	4.3	0.0	5.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	439	516	540	1195	1386	868	123	129	660	562	0	640
V/C Ratio(X)	0.29	0.80	0.80	0.17	0.37	0.27	0.11	0.53	0.77	0.34	0.00	0.25
Avail Cap(c_a), veh/h	439	516	540	1195	1386	868	325	342	840	562	0	640
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	39.3	39.3	37.4	38.8	21.3	52.4	54.0	30.1	44.9	0.0	23.6
Incr Delay (d2), s/veh	0.4	12.5	12.0	0.1	0.7	0.7	0.4	3.4	3.5	1.6	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.5	14.5	15.0	3.0	8.0	7.3	0.4	2.3	15.1	2.9	0.0	3.7
LnGrp Delay(d),s/veh	37.0	51.8	51.3	37.5	39.5	22.0	52.8	57.4	33.6	46.6	0.0	24.6
LnGrp LOS	D	D	D	D	D	C	D	E	C	D		C
Approach Vol, veh/h		977			950			594			353	
Approach Delay, s/veh		49.6			34.8			36.8			36.5	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	45.7	39.0		23.0	33.7	51.0		12.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	28.0	35.0		19.0	16.0	47.0		22.0
Max Q Clear Time (g_c+I1), s	8.3	28.0		7.7	9.1	18.1		6.3
Green Ext Time (p_c), s	1.0	2.1		1.1	0.6	3.4		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	918	576	151	864	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		59.0		15.0	74.0					46.0	46.0	46.0
Total Split (%)		49.2%		12.5%	61.7%					38.3%	38.3%	38.3%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 109 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	918	576	151	864	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	966	606	159	909	0				158	5	647
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	974	587	163	2065	0				603	19	554
Arrive On Green	0.00	0.31	0.31	0.18	1.00	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	2218	1282	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	798	774	159	909	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1637	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	53.7	55.0	10.7	0.0	0.0				7.9	0.0	42.0
Cycle Q Clear(g_c), s	0.0	53.7	55.0	10.7	0.0	0.0				7.9	0.0	42.0
Prop In Lane	0.00		0.78	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	811	750	163	2065	0				622	0	554
V/C Ratio(X)	0.00	0.98	1.03	0.98	0.44	0.00				0.26	0.00	1.17
Avail Cap(c_a), veh/h	0	811	750	163	2065	0				622	0	554
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.33	0.33	0.34	0.34	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	41.1	41.6	48.9	0.0	0.0				27.9	0.0	39.0
Incr Delay (d2), s/veh	0.0	14.7	27.5	35.3	0.2	0.0				1.0	0.0	93.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	29.6	30.6	6.8	0.1	0.0				4.0	0.0	32.7
LnGrp Delay(d),s/veh	0.0	55.8	69.0	84.2	0.2	0.0				28.9	0.0	132.6
LnGrp LOS		E	F	F	A					C		F
Approach Vol, veh/h		1572			1068						810	
Approach Delay, s/veh		62.3			12.7						111.7	
Approach LOS		E			B						F	

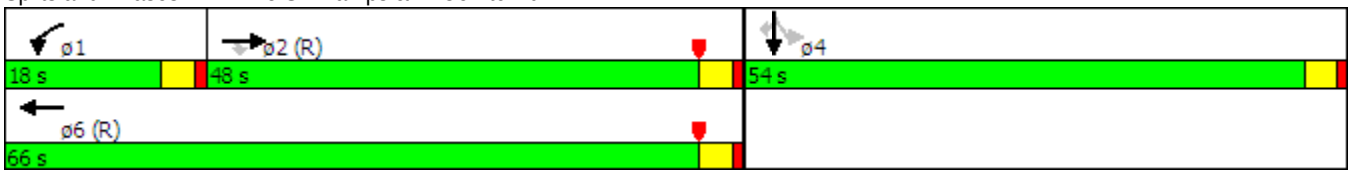
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.0	59.0		46.0		74.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	11.0	55.0		42.0		70.0		
Max Q Clear Time (g_c+I1), s	12.7	57.0		44.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		35.2		

Intersection Summary	
HCM 2010 Ctrl Delay	58.6
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	918	576	151	864	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		48.0	48.0	18.0	66.0					54.0	54.0	54.0
Total Split (%)		40.0%	40.0%	15.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	918	576	151	864	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	966	606	159	909	0				158	5	647
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1342	600	185	1829	0				718	23	660
Arrive On Green	0.00	0.13	0.13	0.14	0.69	0.00				0.42	0.42	0.42
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	966	606	159	909	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	31.5	45.5	10.5	14.6	0.0				7.1	0.0	48.4
Cycle Q Clear(g_c), s	0.0	31.5	45.5	10.5	14.6	0.0				7.1	0.0	48.4
Prop In Lane	0.00		1.00	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	1342	600	185	1829	0				740	0	660
V/C Ratio(X)	0.00	0.72	1.01	0.86	0.50	0.00				0.22	0.00	0.98
Avail Cap(c_a), veh/h	0	1342	600	207	1829	0				740	0	660
HCM Platoon Ratio	1.00	0.33	0.33	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.35	0.35	0.34	0.34	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	46.4	52.5	50.8	11.4	0.0				22.5	0.0	34.5
Incr Delay (d2), s/veh	0.0	1.2	24.1	11.0	0.3	0.0				0.7	0.0	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	15.7	24.0	5.7	7.2	0.0				3.6	0.0	26.6
LnGrp Delay(d),s/veh	0.0	47.6	76.6	61.8	11.7	0.0				23.2	0.0	65.2
LnGrp LOS		D	F	E	B					C		E
Approach Vol, veh/h		1572			1068						810	
Approach Delay, s/veh		58.8			19.2						56.7	
Approach LOS		E			B						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	16.5	49.5		54.0		66.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	44.0		50.0		62.0		
Max Q Clear Time (g_c+I1), s	12.5	47.5		50.4		16.6		
Green Ext Time (p_c), s	0.1	0.0		0.0		24.2		

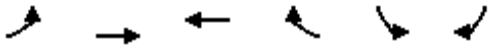
Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	361	1075	515	190	381	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	36.0	83.0	47.0	47.0	37.0	37.0
Total Split (%)	30.0%	69.2%	39.2%	39.2%	30.8%	30.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 93 (78%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	361	1075	515	190	381	387
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	380	1132	542	200	401	407
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	466	2330	1733	775	946	766
Arrive On Green	0.18	0.88	0.49	0.49	0.28	0.28
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	380	1132	542	200	401	407
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	12.7	8.3	11.1	8.9	11.5	14.9
Cycle Q Clear(g_c), s	12.7	8.3	11.1	8.9	11.5	14.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	466	2330	1733	775	946	766
V/C Ratio(X)	0.82	0.49	0.31	0.26	0.42	0.53
Avail Cap(c_a), veh/h	918	2330	1733	775	946	766
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	3.1	18.4	17.9	35.7	36.9
Incr Delay (d2), s/veh	0.8	0.2	0.5	0.8	1.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.1	3.9	5.5	4.1	5.6	11.9
LnGrp Delay(d),s/veh	48.5	3.2	18.9	18.7	37.1	39.6
LnGrp LOS	D	A	B	B	D	D
Approach Vol, veh/h		1512	742		808	
Approach Delay, s/veh		14.6	18.9		38.3	
Approach LOS		B	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		83.0		37.0	20.2	62.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		79.0		33.0	32.0	43.0		
Max Q Clear Time (g_c+I1), s		10.3		16.9	14.7	13.1		
Green Ext Time (p_c), s		12.5		3.5	1.5	10.9		

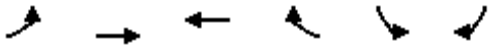
Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	361	1075	515	190	381	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	36.0	83.0	47.0	47.0	37.0	37.0
Total Split (%)	30.0%	69.2%	39.2%	39.2%	30.8%	30.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	361	1075	515	190	381	387
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	380	1132	542	200	401	407
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	458	3348	1741	779	946	766
Arrive On Green	0.27	1.00	0.49	0.49	0.28	0.28
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	380	1132	542	200	401	407
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	12.5	0.0	11.0	8.8	11.5	14.9
Cycle Q Clear(g_c), s	12.5	0.0	11.0	8.8	11.5	14.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	458	3348	1741	779	946	766
V/C Ratio(X)	0.83	0.34	0.31	0.26	0.42	0.53
Avail Cap(c_a), veh/h	918	3348	1741	779	946	766
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	18.3	17.7	35.7	36.9
Incr Delay (d2), s/veh	2.6	0.2	0.5	0.8	1.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.1	0.1	5.5	4.0	5.6	11.9
LnGrp Delay(d),s/veh	45.4	0.2	18.8	18.5	37.1	39.6
LnGrp LOS	D	A	B	B	D	D
Approach Vol, veh/h		1512	742		808	
Approach Delay, s/veh		11.5	18.7		38.3	
Approach LOS		B	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		83.0		37.0	20.0	63.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		79.0		33.0	32.0	43.0		
Max Q Clear Time (g_c+I1), s		2.0		16.9	14.5	13.0		
Green Ext Time (p_c), s		12.4		3.5	1.5	10.8		

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	612	456	0	0	558	326	457	1	206	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	28.0	67.0			39.0		53.0	53.0				
Total Split (%)	23.3%	55.8%			32.5%		44.2%	44.2%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	612	456	0	0	558	326	457	1	206	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	644	480	0	0	587	343	481	1	217			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	685	978	0	0	630	368	481	1	217			
Arrive On Green	0.33	0.88	0.00	0.00	0.29	0.29	0.41	0.41	0.41			
Sat Flow, veh/h	3442	1863	0	0	2246	1258	1177	2	531			
Grp Volume(v), veh/h	644	480	0	0	483	447	699	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1641	1710	0	0			
Q Serve(g_s), s	21.8	6.7	0.0	0.0	31.8	31.8	49.0	0.0	0.0			
Cycle Q Clear(g_c), s	21.8	6.7	0.0	0.0	31.8	31.8	49.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.77	0.69		0.31			
Lane Grp Cap(c), veh/h	685	978	0	0	518	480	698	0	0			
V/C Ratio(X)	0.94	0.49	0.00	0.00	0.93	0.93	1.00	0.00	0.00			
Avail Cap(c_a), veh/h	688	978	0	0	518	480	698	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.15	0.15	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	39.4	3.9	0.0	0.0	41.3	41.3	35.5	0.0	0.0			
Incr Delay (d2), s/veh	4.7	0.3	0.0	0.0	25.7	27.1	34.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	10.7	3.2	0.0	0.0	19.3	18.0	29.7	0.0	0.0			
LnGrp Delay(d),s/veh	44.1	4.2	0.0	0.0	67.0	68.4	69.8	0.0	0.0			
LnGrp LOS	D	A			E	E	F					
Approach Vol, veh/h		1124			930			699				
Approach Delay, s/veh		27.0			67.7			69.8				
Approach LOS		C			E			E				

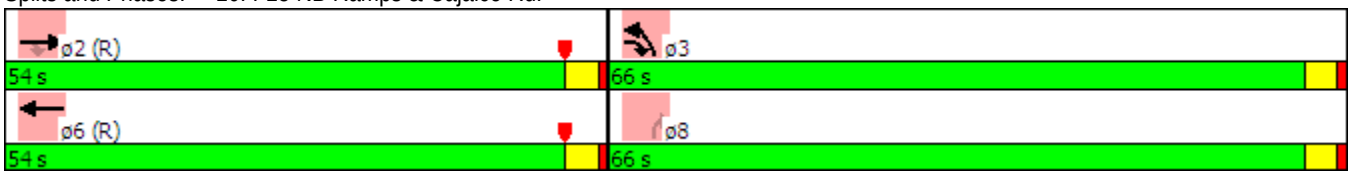
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		67.0			27.9	39.1		53.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		63.0			24.0	35.0		49.0
Max Q Clear Time (g_c+I1), s		8.7			23.8	33.8		51.0
Green Ext Time (p_c), s		11.4			0.1	0.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	619	837	0	1564	273	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Right Turn on Red		Yes				Yes
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	54.0	66.0		54.0	66.0	66.0
Total Split (%)	45.0%	55.0%		45.0%	55.0%	55.0%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	619	837	0	1564	273	132
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	652	881	0	1646	287	139
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2119	1478	0	2670	1778	1440
Arrive On Green	0.42	0.42	0.00	0.42	0.52	0.52
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	652	881	0	1646	287	139
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	10.3	10.0	0.0	24.2	5.3	3.0
Cycle Q Clear(g_c), s	10.3	10.0	0.0	24.2	5.3	3.0
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2119	1478	0	2670	1778	1440
V/C Ratio(X)	0.31	0.60	0.00	0.62	0.16	0.10
Avail Cap(c_a), veh/h	2119	1478	0	2670	1778	1440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.6	0.0	27.5	15.3	14.8
Incr Delay (d2), s/veh	0.4	1.8	0.0	1.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.9	4.6	0.0	10.8	2.6	1.2
LnGrp Delay(d),s/veh	23.8	2.4	0.0	28.6	15.5	14.9
LnGrp LOS	C	A		C	B	B
Approach Vol, veh/h	1533			1646	426	
Approach Delay, s/veh	11.5			28.6	15.3	
Approach LOS	B			C	B	

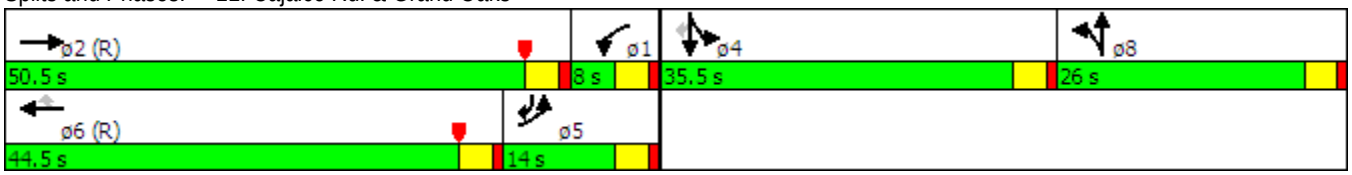
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		54.0				54.0		66.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		50.0				50.0		62.0
Max Q Clear Time (g_c+I1), s		12.3				26.2		7.3
Green Ext Time (p_c), s		25.8				18.4		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	213	538	0	0	1469	111	0	0	0	68	0	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	14.0	50.5		8.0	44.5	44.5	26.0	26.0		35.5	35.5	14.0
Total Split (%)	11.7%	42.1%		6.7%	37.1%	37.1%	21.7%	21.7%		29.6%	29.6%	11.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	213	538	0	0	1469	111	0	0	0	68	0	137
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	224	566	0	0	1546	117	0	0	0	72	0	144
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1032	1971	0	444	1716	532	0	2	0	466	0	1563
Arrive On Green	0.30	0.39	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1576	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	224	566	0	0	1546	117	0	0	0	72	0	144
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1576	0	1863	0	1774	0	1385
Q Serve(g_s), s	5.8	9.2	0.0	0.0	34.7	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear(g_c), s	5.8	9.2	0.0	0.0	34.7	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1032	1971	0	444	1716	532	0	2	0	466	0	1563
V/C Ratio(X)	0.22	0.29	0.00	0.00	0.90	0.22	0.00	0.00	0.00	0.15	0.00	0.09
Avail Cap(c_a), veh/h	1032	1971	0	444	1716	532	0	342	0	466	0	1563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	25.3	0.0	0.0	37.8	28.4	0.0	0.0	0.0	34.0	0.0	12.1
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	8.1	1.0	0.0	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.8	4.4	0.0	0.0	17.5	2.9	0.0	0.0	0.0	1.9	0.0	1.1
LnGrp Delay(d),s/veh	31.6	25.7	0.0	0.0	45.9	29.4	0.0	0.0	0.0	34.7	0.0	12.2
LnGrp LOS	C	C			D	C				C		B
Approach Vol, veh/h		790			1663			0			216	
Approach Delay, s/veh		27.4			44.7			0.0			19.7	
Approach LOS		C			D						B	

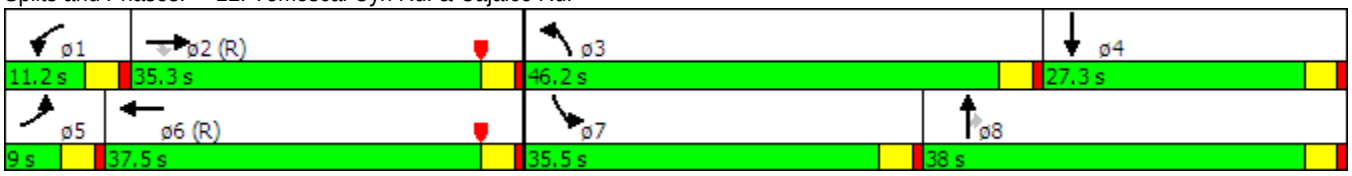
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	40.0	44.5		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	10.0	40.5		22.0
Max Q Clear Time (g_c+I1), s	0.0	11.2		5.7	7.8	36.7		0.0
Green Ext Time (p_c), s	0.0	2.6		1.0	0.2	2.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	375	194	63	583	621	922	858	320	233	138	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	9.0	35.3	35.3	11.2	37.5		46.2	38.0	38.0	35.5	27.3	
Total Split (%)	7.5%	29.4%	29.4%	9.3%	31.3%		38.5%	31.7%	31.7%	29.6%	22.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	375	194	63	583	621	922	858	320	233	138	75
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	39	395	204	66	614	654	971	903	337	245	145	79
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	50	583	493	84	1128	524	1073	1234	574	279	438	226
Arrive On Green	0.03	0.31	0.31	0.05	0.33	0.33	0.31	0.35	0.35	0.16	0.19	0.19
Sat Flow, veh/h	1774	1863	1576	1774	3390	1576	3442	3539	1647	1774	2254	1162
Grp Volume(v), veh/h	39	395	204	66	614	654	971	903	337	245	112	112
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1576	1721	1770	1647	1774	1770	1647
Q Serve(g_s), s	2.6	22.2	12.3	4.4	17.7	39.9	32.5	26.8	20.1	16.2	6.5	7.1
Cycle Q Clear(g_c), s	2.6	22.2	12.3	4.4	17.7	39.9	32.5	26.8	20.1	16.2	6.5	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	50	583	493	84	1128	524	1073	1234	574	279	344	320
V/C Ratio(X)	0.78	0.68	0.41	0.78	0.54	1.25	0.90	0.73	0.59	0.88	0.33	0.35
Avail Cap(c_a), veh/h	74	583	493	106	1128	524	1210	1234	574	466	344	320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	35.9	32.5	56.5	32.6	40.0	39.6	34.2	32.0	49.4	41.6	41.8
Incr Delay (d2), s/veh	26.8	6.2	2.5	24.6	1.9	126.6	9.1	3.9	4.4	10.0	2.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	12.4	5.7	2.7	8.6	35.8	16.7	13.7	9.8	8.7	3.4	3.5
LnGrp Delay(d),s/veh	84.7	42.2	35.1	81.2	34.5	166.7	48.6	38.0	36.4	59.4	44.1	44.8
LnGrp LOS	F	D	D	F	C	F	D	D	D	E	D	D
Approach Vol, veh/h		638			1334			2211			469	
Approach Delay, s/veh		42.5			101.6			42.4			52.3	
Approach LOS		D			F			D			D	

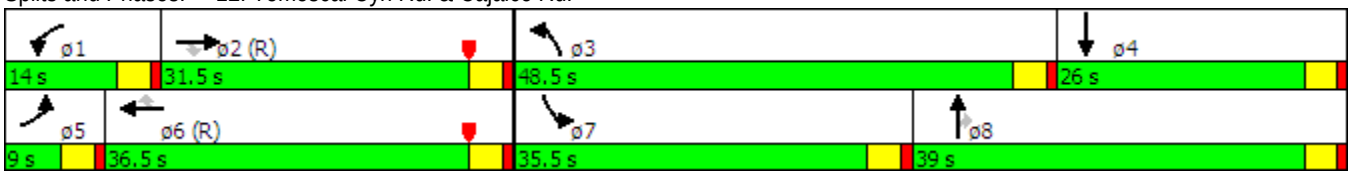
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	41.6	41.4	27.3	7.4	43.9	22.9	45.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.2	31.3	42.2	23.3	5.0	33.5	31.5	34.0
Max Q Clear Time (g_c+I1), s	6.4	24.2	34.5	9.1	4.6	41.9	18.2	28.8
Green Ext Time (p_c), s	0.0	4.6	3.0	5.9	0.0	0.0	0.7	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	60.4
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	375	194	63	583	621	922	858	320	233	138	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	35.5	26.0	
Total Split (s)	9.0	31.5	31.5	14.0	36.5	36.5	48.5	39.0	39.0	35.5	26.0	
Total Split (%)	7.5%	26.3%	26.3%	11.7%	30.4%	30.4%	40.4%	32.5%	32.5%	29.6%	21.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 14 (12%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	375	194	63	583	621	922	858	320	233	138	75
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	39	395	204	66	614	654	971	903	337	245	145	79
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	50	1134	505	85	1730	558	1085	1431	666	324	413	213
Arrive On Green	0.03	0.32	0.32	0.05	0.34	0.34	0.32	0.40	0.40	0.09	0.18	0.18
Sat Flow, veh/h	1774	3539	1576	1774	5085	1639	3442	3539	1647	3442	2254	1162
Grp Volume(v), veh/h	39	395	204	66	614	654	971	903	337	245	112	112
Grp Sat Flow(s),veh/h/ln	1774	1770	1576	1774	1695	1639	1721	1770	1647	1721	1770	1646
Q Serve(g_s), s	2.6	10.2	12.1	4.4	10.9	40.8	32.3	24.5	18.4	8.3	6.6	7.1
Cycle Q Clear(g_c), s	2.6	10.2	12.1	4.4	10.9	40.8	32.3	24.5	18.4	8.3	6.6	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	50	1134	505	85	1730	558	1085	1431	666	324	324	302
V/C Ratio(X)	0.78	0.35	0.40	0.78	0.35	1.17	0.90	0.63	0.51	0.76	0.35	0.37
Avail Cap(c_a), veh/h	74	1134	505	148	1730	558	1276	1431	666	903	324	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	31.2	31.8	56.5	29.7	39.6	39.2	28.6	26.8	53.0	42.7	42.9
Incr Delay (d2), s/veh	26.8	0.8	2.4	14.1	0.6	95.5	7.6	2.1	2.7	3.6	2.9	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	5.1	5.6	2.5	5.2	33.3	16.5	12.3	8.9	4.1	3.5	3.6
LnGrp Delay(d),s/veh	84.7	32.0	34.2	70.6	30.3	135.1	46.8	30.7	29.5	56.6	45.6	46.4
LnGrp LOS	F	C	C	E	C	F	D	C	C	E	D	D
Approach Vol, veh/h		638			1334			2211			469	
Approach Delay, s/veh		36.0			83.7			37.6			51.6	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	42.4	41.8	26.0	7.4	44.8	15.3	52.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	27.5	44.5	22.0	5.0	32.5	31.5	35.0
Max Q Clear Time (g_c+I1), s	6.4	14.1	34.3	9.1	4.6	42.8	10.3	26.5
Green Ext Time (p_c), s	0.0	7.4	3.5	5.5	0.0	0.0	1.0	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	495	10	101	450	10	319
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Right Turn on Red		Yes				Yes
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	813	
Travel Time (s)	11.8			19.1	12.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	47.0		28.0	75.0	45.0	45.0
Total Split (%)	39.2%		23.3%	62.5%	37.5%	37.5%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

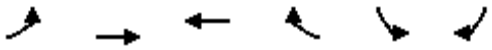
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 58 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 13: St. C & Eagle Glen Pkwy.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	495	10	101	450	10	319
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	521	11	106	474	11	336
Adj No. of Lanes	2	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1714	36	133	1102	606	541
Arrive On Green	0.48	0.48	0.07	0.59	0.34	0.34
Sat Flow, veh/h	3638	75	1774	1863	1774	1583
Grp Volume(v), veh/h	260	272	106	474	11	336
Grp Sat Flow(s),veh/h/ln	1770	1850	1774	1863	1774	1583
Q Serve(g_s), s	10.7	10.7	7.1	16.7	0.5	21.3
Cycle Q Clear(g_c), s	10.7	10.7	7.1	16.7	0.5	21.3
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	856	894	133	1102	606	541
V/C Ratio(X)	0.30	0.30	0.80	0.43	0.02	0.62
Avail Cap(c_a), veh/h	856	894	355	1102	606	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	18.8	18.8	54.6	13.4	26.2	33.0
Incr Delay (d2), s/veh	0.9	0.9	10.1	1.2	0.1	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	5.4	5.7	3.8	8.9	0.3	10.1
LnGrp Delay(d),s/veh	19.7	19.6	64.7	14.6	26.2	38.3
LnGrp LOS	B	B	E	B	C	D
Approach Vol, veh/h	532			580	347	
Approach Delay, s/veh	19.7			23.8	37.9	
Approach LOS	B			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.0	62.0				75.0		45.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	24.0	43.0				71.0		41.0
Max Q Clear Time (g_c+I1), s	9.1	12.7				18.7		23.3
Green Ext Time (p_c), s	0.2	6.3				6.6		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C



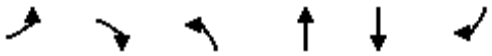
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	182	23	8	137	42	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45	45		45	
Link Distance (ft)		967	1252		583	
Travel Time (s)		14.7	19.0		8.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	5.1
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	216	152	106
Demand Flow Rate, veh/h	220	155	108
Vehicles Circulating, veh/h	45	196	8
Vehicles Exiting, veh/h	71	69	343
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.3	5.6	4.1
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	220	155	108
Cap Entry Lane, veh/h	1080	929	1121
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	216	152	106
Cap Entry, veh/h	1058	910	1100
V/C Ratio	0.204	0.167	0.096
Control Delay, s/veh	5.3	5.6	4.1
LOS	A	A	A
95th %tile Queue, veh	1	1	0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	356	0	0	95	32	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	100		100			
Link Speed (mph)	45			45	45	
Link Distance (ft)	1284			542	309	
Travel Time (s)	19.5			8.2	4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	6.2
Intersection LOS	A

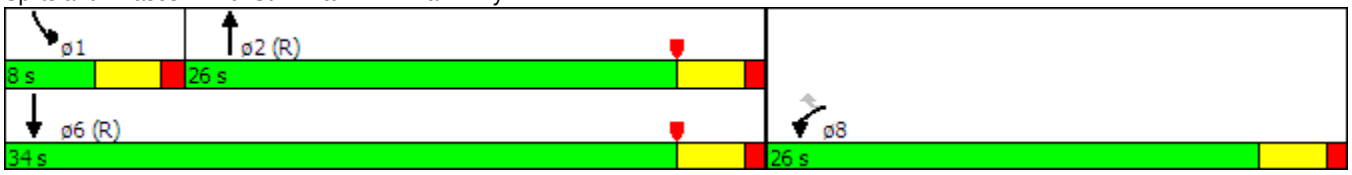
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	375	100	152
Demand Flow Rate, veh/h	382	102	155
Vehicles Circulating, veh/h	35	382	0
Vehicles Exiting, veh/h	120	35	484
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.9	6.1	4.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	382	102	155
Cap Entry Lane, veh/h	1091	771	1130
Entry HV Adj Factor	0.982	0.980	0.983
Flow Entry, veh/h	375	100	152
Cap Entry, veh/h	1071	756	1110
V/C Ratio	0.350	0.132	0.137
Control Delay, s/veh	6.9	6.1	4.4
LOS	A	A	A
95th %tile Queue, veh	2	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	26	530	9	52	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				60	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	45		45			45
Link Distance (ft)	264		567			343
Travel Time (s)	4.0		8.6			5.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	26.0	26.0	26.0		8.0	26.0
Total Split (s)	26.0	26.0	26.0		8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%		13.3%	56.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 16: St. "A" & TAZ 4 Main Dwy.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	26	530	9	52	181
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	5	27	558	9	55	191
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	49	44	2611	42	71	2970
Arrive On Green	0.03	0.03	0.73	0.73	0.04	0.84
Sat Flow, veh/h	1774	1583	3658	57	1774	3632
Grp Volume(v), veh/h	5	27	277	290	55	191
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1853	1774	1770
Q Serve(g_s), s	0.2	1.0	3.0	3.0	1.8	0.6
Cycle Q Clear(g_c), s	0.2	1.0	3.0	3.0	1.8	0.6
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	49	44	1296	1357	71	2970
V/C Ratio(X)	0.10	0.62	0.21	0.21	0.77	0.06
Avail Cap(c_a), veh/h	650	581	1296	1357	118	2970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	28.9	2.5	2.5	28.5	0.8
Incr Delay (d2), s/veh	0.9	13.4	0.4	0.4	16.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.6	1.5	1.6	1.2	0.3
LnGrp Delay(d),s/veh	29.4	42.3	2.9	2.9	44.8	0.9
LnGrp LOS	C	D	A	A	D	A
Approach Vol, veh/h	32		567			246
Approach Delay, s/veh	40.3		2.9			10.7
Approach LOS	D		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.4	47.9				54.3		5.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	22.0				30.0		22.0
Max Q Clear Time (g_c+I1), s	3.8	5.0				2.6		3.0
Green Ext Time (p_c), s	0.0	3.9				4.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	2	92	447	4	45	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				60	
Link Speed (mph)	45		45			45
Link Distance (ft)	302		233			567
Travel Time (s)	4.6		3.5			8.6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

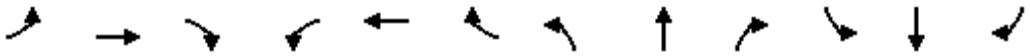
Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	92	447	4	45	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	97	471	4	47	148

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	642	237	0	0	475	0
Stage 1	473	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	407	764	-	-	1083	-
Stage 1	593	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	389	764	-	-	1083	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	593	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	749	1083	-
HCM Lane V/C Ratio	-	-	0.132	0.044	-
HCM Control Delay (s)	-	-	10.5	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	608	45	11	309	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	39.8
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	21	0	10	6	19	0	31	608	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	27	0	13	8	24	0	40	779	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.1	10	54.3
HCM LOS	B	A	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	28%	29%	100%	0%
Vol Thru, %	0%	93%	18%	17%	0%	97%
Vol Right, %	0%	7%	54%	54%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	653	39	35	11	318
LT Vol	31	0	11	10	11	0
Through Vol	0	608	7	6	0	309
RT Vol	0	45	21	19	0	9
Lane Flow Rate	40	837	50	45	14	408
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.063	1	0.089	0.08	0.023	0.618
Departure Headway (Hd)	5.722	5.17	6.405	6.419	5.973	5.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	622	703	558	556	598	660
Service Time	3.492	2.939	4.469	4.486	3.724	3.205
HCM Lane V/C Ratio	0.064	1.191	0.09	0.081	0.023	0.618
HCM Control Delay	8.9	56.5	10.1	10	8.9	16.7
HCM Lane LOS	A	F	B	A	A	C
HCM 95th-tile Q	0.2	16.1	0.3	0.3	0.1	4.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	309	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	396	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	16.4
HCM LOS	C

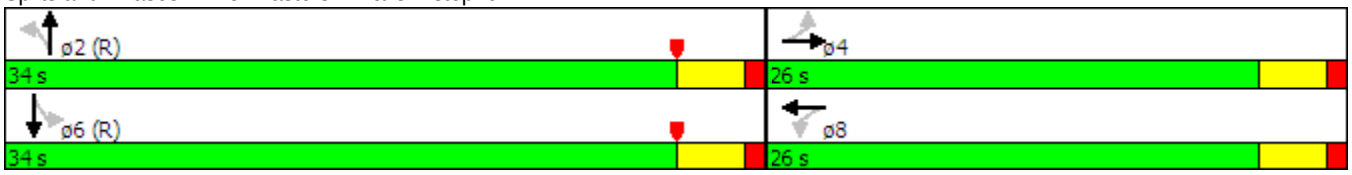
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	608	45	11	309	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

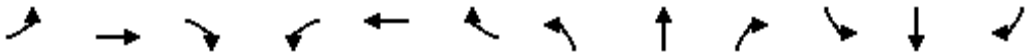
Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	7	21	10	6	19	31	608	45	11	309	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	9	27	13	8	24	40	779	58	14	396	12
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	18	48	101	19	48	797	1393	104	550	1463	44
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.81	0.81	0.81	0.54	0.54	0.54
Sat Flow, veh/h	427	342	903	439	347	899	974	1713	128	654	1799	55
Grp Volume(v), veh/h	50	0	0	45	0	0	40	0	837	14	0	408
Grp Sat Flow(s),veh/h/ln	1672	0	0	1685	0	0	974	0	1840	654	0	1853
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	9.4	0.7	0.0	7.1
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	0.0	7.8	0.0	9.4	10.1	0.0	7.1
Prop In Lane	0.28		0.54	0.29		0.53	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	166	0	0	168	0	0	797	0	1496	550	0	1507
V/C Ratio(X)	0.30	0.00	0.00	0.27	0.00	0.00	0.05	0.00	0.56	0.03	0.00	0.27
Avail Cap(c_a), veh/h	654	0	0	654	0	0	797	0	1496	550	0	1507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.97	0.00	0.97
Uniform Delay (d), s/veh	27.6	0.0	0.0	27.6	0.0	0.0	2.9	0.0	1.9	7.5	0.0	4.2
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.1	0.0	1.5	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	0.0	0.0	0.8	0.0	0.0	0.2	0.0	5.0	0.1	0.0	3.8
LnGrp Delay(d),s/veh	28.6	0.0	0.0	28.4	0.0	0.0	3.0	0.0	3.4	7.6	0.0	4.6
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		50			45			877			422	
Approach Delay, s/veh		28.6			28.4			3.4			4.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		11.4		3.6		12.1		3.4
Green Ext Time (p_c), s		8.8		0.4		8.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.5
HCM 2010 LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	608	45	11	309	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

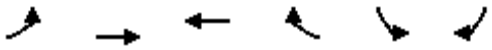
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	16.0
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	50	45	877	422
Demand Flow Rate, veh/h	51	45	895	430
Vehicles Circulating, veh/h	431	850	37	62
Vehicles Exiting, veh/h	61	82	445	833
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.7	8.7	20.8	7.8
Approach LOS	A	A	C	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	51	45	895	430
Cap Entry Lane, veh/h	734	483	1089	1062
Entry HV Adj Factor	0.977	0.997	0.980	0.982
Flow Entry, veh/h	50	45	877	422
Cap Entry, veh/h	717	481	1068	1042
V/C Ratio	0.069	0.093	0.822	0.405
Control Delay, s/veh	5.7	8.7	20.8	7.8
LOS	A	A	C	A
95th %tile Queue, veh	0	0	10	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	251	503	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

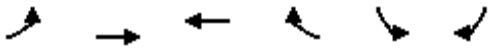
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	251	0	503	2	0	14	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	264	0	529	2	0	15	25
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	10.5	15.6	8.8
HCM LOS	B	C	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	37%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	251	505	38
LT Vol	7	0	0	14
Through Vol	0	251	503	0
RT Vol	0	0	2	24
Lane Flow Rate	7	264	532	40
Geometry Grp	7	7	5	2
Degree of Util (X)	0.011	0.368	0.657	0.06
Departure Headway (Hd)	5.514	5.011	4.449	5.409
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	650	719	813	660
Service Time	3.239	2.735	2.468	3.459
HCM Lane V/C Ratio	0.011	0.367	0.654	0.061
HCM Control Delay	8.3	10.6	15.6	8.8
HCM Lane LOS	A	B	C	A
HCM 95th-tile Q	0	1.7	5	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	251	503	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

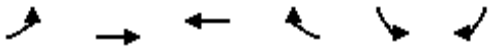
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	7	251	503	2	14	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	264	529	2	15	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	532	0	-	0	810	531
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	279	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1036	-	-	-	349	548
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1036	-	-	-	347	548
Mov Cap-2 Maneuver	-	-	-	-	347	-
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1036	-	-	-	452
HCM Lane V/C Ratio	0.007	-	-	-	0.088
HCM Control Delay (s)	8.5	-	-	-	13.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	251	503	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	271	531	40
Demand Flow Rate, veh/h	276	542	41
Vehicles Circulating, veh/h	15	7	540
Vehicles Exiting, veh/h	565	284	9
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.6	8.7	6.3
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	276	542	41
Cap Entry Lane, veh/h	1113	1122	658
Entry HV Adj Factor	0.981	0.980	0.976
Flow Entry, veh/h	271	531	40
Cap Entry, veh/h	1092	1100	642
V/C Ratio	0.248	0.483	0.062
Control Delay, s/veh	5.6	8.7	6.3
LOS	A	A	A
95th %tile Queue, veh	1	3	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	185	63	36	305	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	185	63	0	36	305	4	0	147	1	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	195	66	0	38	321	4	0	155	1	80
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	12	13.4	11.7
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	75%	0%	99%	9%
Vol Right, %	34%	0%	25%	0%	1%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	224	3	248	36	309	11
LT Vol	147	3	0	36	0	5
Through Vol	1	0	185	0	305	1
RT Vol	76	0	63	0	4	5
Lane Flow Rate	236	3	261	38	325	12
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.362	0.005	0.402	0.064	0.504	0.019
Departure Headway (Hd)	5.523	6.228	5.541	6.097	5.583	5.903
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	651	576	650	589	647	605
Service Time	3.554	3.955	3.268	3.823	3.308	3.948
HCM Lane V/C Ratio	0.363	0.005	0.402	0.065	0.502	0.02
HCM Control Delay	11.7	9	12	9.2	13.9	9.1
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.6	0	1.9	0.2	2.8	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	1	5
Number of Lanes	0	0	1	0

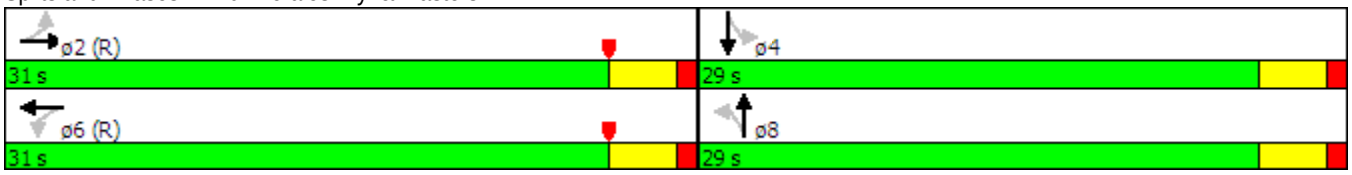
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.1
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	185	63	36	305	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	31.0	31.0		31.0	31.0		29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%		51.7%	51.7%		48.3%	48.3%		48.3%	48.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

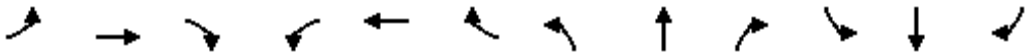
Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	185	63	36	305	4	147	1	76	5	1	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	195	66	38	321	4	155	1	80	5	1	5
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	470	600	203	516	826	10	483	23	208	349	90	293
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1051	1332	451	1114	1836	23	920	55	500	627	216	703
Grp Volume(v), veh/h	3	0	261	38	0	325	236	0	0	11	0	0
Grp Sat Flow(s),veh/h/ln	1051	0	1783	1114	0	1859	1474	0	0	1546	0	0
Q Serve(g_s), s	0.1	0.0	5.7	1.4	0.0	7.0	5.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	5.7	7.0	0.0	7.0	6.5	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.01	0.66		0.34	0.45		0.45
Lane Grp Cap(c), veh/h	470	0	802	516	0	836	714	0	0	731	0	0
V/C Ratio(X)	0.01	0.00	0.33	0.07	0.00	0.39	0.33	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	470	0	802	516	0	836	714	0	0	731	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.4	0.0	10.6	12.9	0.0	11.0	12.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.1	0.3	0.0	1.4	1.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	3.0	0.5	0.0	3.8	2.9	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	13.4	0.0	11.7	13.2	0.0	12.4	13.3	0.0	0.0	10.3	0.0	0.0
LnGrp LOS	B		B	B		B	B			B		
Approach Vol, veh/h		264			363			236			11	
Approach Delay, s/veh		11.7			12.4			13.3			10.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		27.0		25.0		27.0		25.0
Max Q Clear Time (g_c+I1), s		9.1		2.2		9.0		8.5
Green Ext Time (p_c), s		3.4		1.4		3.4		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	185	63	36	305	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

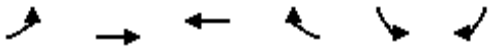
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	264	363	236	11
Demand Flow Rate, veh/h	269	370	241	11
Vehicles Circulating, veh/h	45	162	207	524
Vehicles Exiting, veh/h	490	286	107	8
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.8	8.1	6.7	5.6
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	269	370	241	11
Cap Entry Lane, veh/h	1080	961	919	669
Entry HV Adj Factor	0.982	0.980	0.979	0.998
Flow Entry, veh/h	264	363	236	11
Cap Entry, veh/h	1061	942	900	668
V/C Ratio	0.249	0.385	0.262	0.016
Control Delay, s/veh	5.8	8.1	6.7	5.6
LOS	A	A	A	A
95th %tile Queue, veh	1	2	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	521	413	5	6	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	521	413	5	6	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	548	435	5	6	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	440	0	-	0	1051	220
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	614	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1116	-	-	-	236	785
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1116	-	-	-	229	785
Mov Cap-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	523	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1116	-	-	-	229	785
HCM Lane V/C Ratio	0.029	-	-	-	0.028	0.051
HCM Control Delay (s)	8.3	-	-	-	21.2	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	329	235	135	28	102	149	144	31	124	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	36.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	89	329	0	235	135	28	0	102	149	144
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	94	346	0	247	142	29	0	107	157	152
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	66.5	22.4	26.6
HCM LOS	F	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	51%	0%	21%	0%	100%	0%	0%	98%
Vol Right, %	0%	49%	0%	79%	0%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	293	4	418	235	135	28	31	126
LT Vol	102	0	4	0	235	0	0	31	0
Through Vol	0	149	0	89	0	135	0	0	124
RT Vol	0	144	0	329	0	0	28	0	2
Lane Flow Rate	107	308	4	440	247	142	29	33	133
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.278	0.723	0.011	0.983	0.638	0.346	0.066	0.093	0.357
Departure Headway (Hd)	9.305	8.436	9.131	8.043	9.284	8.766	8.041	10.21	9.679
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	385	429	391	449	388	409	444	350	370
Service Time	7.079	6.209	6.901	5.813	7.064	6.546	5.821	8.003	7.471
HCM Lane V/C Ratio	0.278	0.718	0.01	0.98	0.637	0.347	0.065	0.094	0.359
HCM Control Delay	15.7	30.4	12	67	27.2	16.2	11.4	14.1	17.8
HCM Lane LOS	C	D	B	F	D	C	B	B	C
HCM 95th-tile Q	1.1	5.7	0	12.3	4.2	1.5	0.2	0.3	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	124	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	131	2
Number of Lanes	0	1	1	0

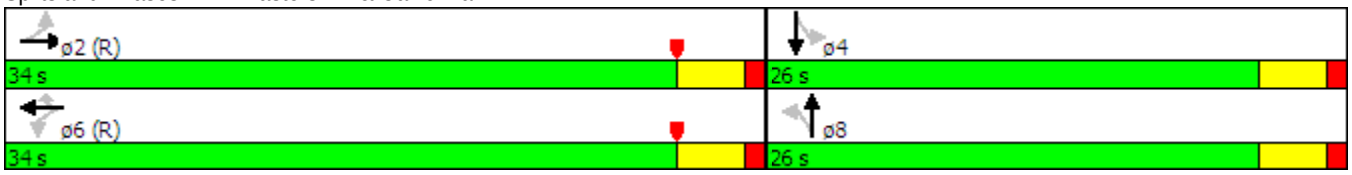
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	17.1
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	329	235	135	28	102	149	144	31	124	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%	56.7%	43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 36 (60%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

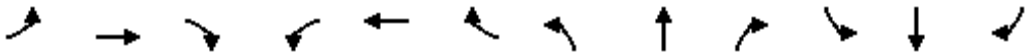
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	89	329	235	135	28	102	149	144	31	124	2
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	4	94	346	247	142	29	107	157	152	33	131	2
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	675	175	643	419	931	792	518	319	309	404	671	10
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.61	0.61	0.61	0.37	0.37	0.37
Sat Flow, veh/h	1209	349	1286	945	1863	1583	1252	871	843	1066	1830	28
Grp Volume(v), veh/h	4	0	440	247	142	29	107	0	309	33	0	133
Grp Sat Flow(s),veh/h/ln	1209	0	1636	945	1863	1583	1252	0	1714	1066	0	1858
Q Serve(g_s), s	0.1	0.0	11.0	14.5	2.5	0.6	2.8	0.0	6.0	1.4	0.0	2.9
Cycle Q Clear(g_c), s	2.6	0.0	11.0	25.6	2.5	0.6	5.7	0.0	6.0	7.4	0.0	2.9
Prop In Lane	1.00		0.79	1.00		1.00	1.00		0.49	1.00		0.02
Lane Grp Cap(c), veh/h	675	0	818	419	931	792	518	0	628	404	0	681
V/C Ratio(X)	0.01	0.00	0.54	0.59	0.15	0.04	0.21	0.00	0.49	0.08	0.00	0.20
Avail Cap(c_a), veh/h	675	0	818	419	931	792	518	0	628	404	0	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.00	0.97	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	10.3	19.0	8.1	7.6	9.3	0.0	8.5	16.6	0.0	13.0
Incr Delay (d2), s/veh	0.0	0.0	2.5	6.0	0.3	0.1	0.9	0.0	2.7	0.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	5.5	4.5	1.4	0.3	1.1	0.0	3.2	0.5	0.0	1.6
LnGrp Delay(d),s/veh	8.8	0.0	12.8	25.0	8.5	7.7	10.2	0.0	11.2	17.0	0.0	13.6
LnGrp LOS	A		B	C	A	A	B		B	B		B
Approach Vol, veh/h		444			418			416			166	
Approach Delay, s/veh		12.8			18.2			10.9			14.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		13.0		9.4		27.6		8.0
Green Ext Time (p_c), s		4.6		2.6		1.2		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	15	14	152	49	207	150	20	409	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			618	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	18	7	37	0	15	14	152	0	49	207	150
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	7	39	0	16	15	160	0	52	218	158
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.5	11.8	15.7
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	8%	100%	0%
Vol Thru, %	0%	58%	11%	8%	0%	92%
Vol Right, %	0%	42%	60%	84%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	357	62	181	20	445
LT Vol	49	0	18	15	20	0
Through Vol	0	207	7	14	0	409
RT Vol	0	150	37	152	0	36
Lane Flow Rate	52	376	65	191	21	468
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.093	0.594	0.12	0.316	0.037	0.76
Departure Headway (Hd)	6.5	5.693	6.62	5.966	6.406	5.841
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	549	631	545	598	557	618
Service Time	4.265	3.458	4.62	4.05	4.168	3.603
HCM Lane V/C Ratio	0.095	0.596	0.119	0.319	0.038	0.757
HCM Control Delay	9.9	16.5	10.5	11.8	9.4	24.9
HCM Lane LOS	A	C	B	B	A	C
HCM 95th-tile Q	0.3	3.9	0.4	1.4	0.1	6.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	409	36
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	431	38
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	24.2
HCM LOS	C

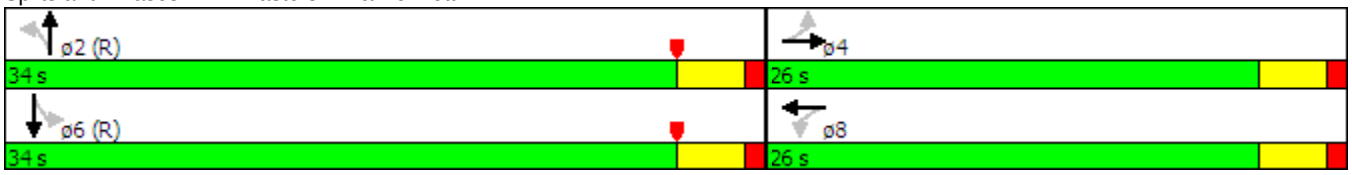
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	15	14	152	49	207	150	20	409	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

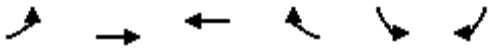
Splits and Phases: 2: Masters Dr. & Bennett Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	7	37	15	14	152	49	207	150	20	409	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	7	39	16	15	160	52	218	158	21	431	38
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	62	163	76	31	219	674	707	512	743	1187	105
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	287	377	997	68	191	1341	920	1005	729	1003	1688	149
Grp Volume(v), veh/h	65	0	0	191	0	0	52	0	376	21	0	469
Grp Sat Flow(s),veh/h/ln	1662	0	0	1600	0	0	920	0	1734	1003	0	1836
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	0.0	1.4	0.0	4.9	0.5	0.0	6.1
Cycle Q Clear(g_c), s	2.0	0.0	0.0	6.8	0.0	0.0	7.5	0.0	4.9	5.4	0.0	6.1
Prop In Lane	0.29		0.60	0.08		0.84	1.00		0.42	1.00		0.08
Lane Grp Cap(c), veh/h	349	0	0	327	0	0	674	0	1219	743	0	1291
V/C Ratio(X)	0.19	0.00	0.00	0.58	0.00	0.00	0.08	0.00	0.31	0.03	0.00	0.36
Avail Cap(c_a), veh/h	648	0	0	648	0	0	674	0	1219	743	0	1291
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.84	0.00	0.84	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	0.0	23.8	0.0	0.0	5.1	0.0	3.4	4.4	0.0	3.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.7	0.0	0.0	0.2	0.0	0.6	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	3.1	0.0	0.0	0.4	0.0	2.5	0.1	0.0	3.3
LnGrp Delay(d),s/veh	22.1	0.0	0.0	25.5	0.0	0.0	5.2	0.0	3.9	4.5	0.0	4.3
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		65			191			428			490	
Approach Delay, s/veh		22.1			25.5			4.1			4.3	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.2		13.8		46.2		13.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		9.5		4.0		8.1		8.8
Green Ext Time (p_c), s		5.8		1.4		5.9		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	73	569	778	353	341	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	56.3
Intersection LOS	F

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	73	569	0	778	353	0	341	57
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	599	0	819	372	0	359	60
Number of Lanes	0	1	2	0	2	0	0	1	1

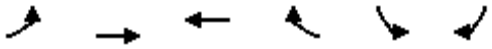
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	24	72.6	62.1
HCM LOS	C	F	F

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	42%	0%	0%
Vol Right, %	0%	0%	0%	0%	58%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	285	285	519	612	341	57
LT Vol	73	0	0	0	0	341	0
Through Vol	0	285	285	519	259	0	0
RT Vol	0	0	0	0	353	0	57
Lane Flow Rate	77	299	299	546	645	359	60
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.197	0.725	0.581	1	1	0.966	0.141
Departure Headway (Hd)	9.218	8.717	6.981	8.633	8.213	9.687	8.489
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	388	413	512	426	451	373	421
Service Time	7.01	6.509	4.772	6.333	5.913	7.467	6.27
HCM Lane V/C Ratio	0.198	0.724	0.584	1.282	1.43	0.962	0.143
HCM Control Delay	14.3	31.5	19.1	73.7	71.7	70.4	12.7
HCM Lane LOS	B	D	C	F	F	F	B
HCM 95th-tile Q	0.7	5.6	3.7	12.5	12.8	10.8	0.5

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	73	569	778	353	341	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	15.0	77.0	62.0		43.0	43.0
Total Split (%)	12.5%	64.2%	51.7%		35.8%	35.8%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 36 (30%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	73	569	778	353	341	57
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	77	599	819	372	359	60
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	98	2514	1474	667	396	353
Arrive On Green	0.06	0.71	0.62	0.62	0.22	0.22
Sat Flow, veh/h	1774	3632	2464	1073	1774	1583
Grp Volume(v), veh/h	77	599	611	580	359	60
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1673	1774	1583
Q Serve(g_s), s	5.1	7.1	23.9	24.1	23.7	3.7
Cycle Q Clear(g_c), s	5.1	7.1	23.9	24.1	23.7	3.7
Prop In Lane	1.00			0.64	1.00	1.00
Lane Grp Cap(c), veh/h	98	2514	1100	1041	396	353
V/C Ratio(X)	0.79	0.24	0.55	0.56	0.91	0.17
Avail Cap(c_a), veh/h	163	2514	1100	1041	577	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	56.0	6.1	13.1	13.1	45.4	37.7
Incr Delay (d2), s/veh	12.4	0.2	2.0	2.2	13.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.9	3.5	12.2	11.6	13.0	3.6
LnGrp Delay(d),s/veh	68.4	6.3	15.1	15.3	58.5	37.9
LnGrp LOS	E	A	B	B	E	D
Approach Vol, veh/h		676	1191		419	
Approach Delay, s/veh		13.4	15.2		55.5	
Approach LOS		B	B		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		89.2		30.8	10.6	78.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		73.0		39.0	11.0	58.0		
Max Q Clear Time (g_c+I1), s		9.1		25.7	7.1	26.1		
Green Ext Time (p_c), s		18.1		1.1	0.0	14.7		

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1676	394	229	823	222	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Right Turn on Red		Yes				Yes
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	25.0	25.0
Total Split (s)	77.0		18.0	95.0	25.0	25.0
Total Split (%)	64.2%		15.0%	79.2%	20.8%	20.8%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

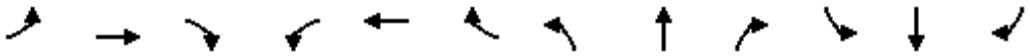
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 110 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1676	394	229	823	222	189
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1764	415	241	866	234	199
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1745	395	207	2684	310	277
Arrive On Green	0.61	0.61	0.23	1.00	0.17	0.17
Sat Flow, veh/h	2962	649	1774	3632	1774	1583
Grp Volume(v), veh/h	1062	1117	241	866	234	199
Grp Sat Flow(s),veh/h/ln	1770	1748	1774	1770	1774	1583
Q Serve(g_s), s	70.5	73.0	14.0	0.0	15.0	14.2
Cycle Q Clear(g_c), s	70.5	73.0	14.0	0.0	15.0	14.2
Prop In Lane		0.37	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1077	1063	207	2684	310	277
V/C Ratio(X)	0.99	1.05	1.16	0.32	0.75	0.72
Avail Cap(c_a), veh/h	1077	1063	207	2684	310	277
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	23.0	23.5	46.0	0.0	47.0	46.7
Incr Delay (d2), s/veh	24.3	41.9	109.6	0.3	15.6	14.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	41.2	47.2	13.1	0.1	8.7	7.4
LnGrp Delay(d),s/veh	47.3	65.4	155.6	0.3	62.6	61.5
LnGrp LOS	D	F	F	A	E	E
Approach Vol, veh/h	2179			1107	433	
Approach Delay, s/veh	56.6			34.1	62.1	
Approach LOS	E			C	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.0	77.0				95.0		25.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.0	73.0				91.0		21.0
Max Q Clear Time (g_c+I1), s	16.0	75.0				2.0		17.0
Green Ext Time (p_c), s	0.0	0.0				64.5		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	50.5
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	29	2	2	6	42	235	11	8	564	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	22.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	56	1	29	0	2	2	6	0	42	235	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	1	31	0	2	2	6	0	44	247	12
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.6	10	11.5
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	20%	1%	0%
Vol Thru, %	0%	96%	2%	0%	20%	99%	0%
Vol Right, %	0%	4%	0%	100%	60%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	246	57	29	10	572	101
LT Vol	42	0	56	0	2	8	0
Through Vol	0	235	1	0	2	564	0
RT Vol	0	11	0	29	6	0	101
Lane Flow Rate	44	259	60	31	11	602	106
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.074	0.394	0.124	0.053	0.02	0.864	0.132
Departure Headway (Hd)	6.019	5.482	7.431	6.22	6.815	5.164	4.453
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	589	650	485	579	528	698	796
Service Time	3.819	3.282	5.133	3.921	4.82	2.939	2.227
HCM Lane V/C Ratio	0.075	0.398	0.124	0.054	0.021	0.862	0.133
HCM Control Delay	9.3	11.9	11.2	9.3	10	31.9	7.9
HCM Lane LOS	A	B	B	A	A	D	A
HCM 95th-tile Q	0.2	1.9	0.4	0.2	0.1	10.2	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	8	564	101
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	594	106
Number of Lanes	0	0	1	1

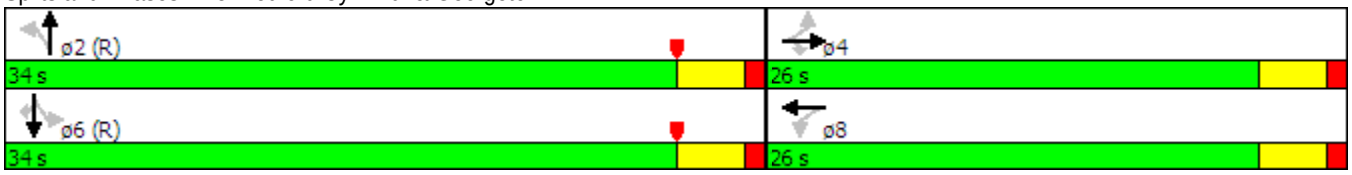
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	28.3
HCM LOS	D

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	29	2	2	6	42	235	11	8	564	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	1	29	2	2	6	42	235	11	8	564	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	59	1	0	2	2	6	44	247	12	8	594	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1	85	86	24	56	826	1433	70	65	1507	1288
Arrive On Green	0.05	0.05	0.00	0.05	0.05	0.05	0.81	0.81	0.81	0.81	0.81	0.00
Sat Flow, veh/h	1422	24	1583	254	442	1044	820	1762	86	6	1853	1583
Grp Volume(v), veh/h	60	0	0	10	0	0	44	0	259	602	0	0
Grp Sat Flow(s),veh/h/ln	1446	0	1583	1739	0	0	820	0	1848	1859	0	1583
Q Serve(g_s), s	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	0.3	0.0	0.0	0.4	0.0	1.8	5.3	0.0	0.0
Prop In Lane	0.98		1.00	0.20		0.60	1.00		0.05	0.01		1.00
Lane Grp Cap(c), veh/h	196	0	85	165	0	0	826	0	1503	1573	0	1288
V/C Ratio(X)	0.31	0.00	0.00	0.06	0.00	0.00	0.05	0.00	0.17	0.38	0.00	0.00
Avail Cap(c_a), veh/h	637	0	581	664	0	0	826	0	1503	1573	0	1288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.0	0.0	0.0	27.0	0.0	0.0	1.1	0.0	1.2	1.5	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.2	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	1.0	3.0	0.0	0.0
LnGrp Delay(d),s/veh	28.9	0.0	0.0	27.2	0.0	0.0	1.2	0.0	1.5	2.3	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		60			10			303			602	
Approach Delay, s/veh		28.9			27.2			1.4			2.3	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		3.8		4.4		7.3		2.3
Green Ext Time (p_c), s		6.0		0.2		5.7		0.2

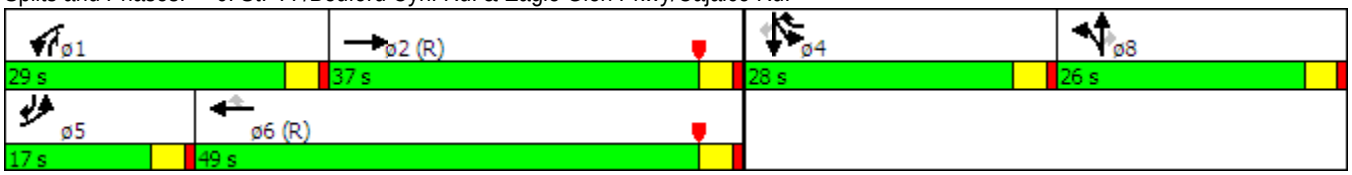
Intersection Summary	
HCM 2010 Ctrl Delay	3.9
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	757	47	594	947	145	40	64	398	421	92	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		100	200		200	150		0	450		0
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	90			120			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			726			413			651	
Travel Time (s)		14.1			11.0			6.3			9.9	
Confl. Peds. (#/hr)						5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										40%		
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	4	8	8	1	4	4	5
Permitted Phases						6			8			4
Detector Phase	5	2		1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.0		8.0	23.0	23.0	26.0	26.0	8.0	23.0	23.0	8.0
Total Split (s)	17.0	37.0		29.0	49.0	28.0	26.0	26.0	29.0	28.0	28.0	17.0
Total Split (%)	14.2%	30.8%		24.2%	40.8%	23.3%	21.7%	21.7%	24.2%	23.3%	23.3%	14.2%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag				Lead			Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max		None	C-Max	Max	None	None	None	Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	106	757	47	594	947	145	40	64	398	421	92	144
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	112	797	49	625	997	153	42	67	419	512	0	152
Adj No. of Lanes	1	2	0	2	2	1	1	1	1	2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	976	60	672	1436	957	325	342	599	710	0	437
Arrive On Green	0.08	0.29	0.29	0.39	0.81	0.81	0.18	0.18	0.18	0.20	0.00	0.20
Sat Flow, veh/h	1774	3387	208	3442	3539	1577	1774	1863	1583	3548	0	1571
Grp Volume(v), veh/h	112	416	430	625	997	153	42	67	419	512	0	152
Grp Sat Flow(s),veh/h/ln	1774	1770	1826	1721	1770	1577	1774	1863	1583	1774	0	1571
Q Serve(g_s), s	7.5	26.3	26.3	20.9	14.6	1.8	2.4	3.7	22.0	16.2	0.0	9.3
Cycle Q Clear(g_c), s	7.5	26.3	26.3	20.9	14.6	1.8	2.4	3.7	22.0	16.2	0.0	9.3
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	510	526	672	1436	957	325	342	599	710	0	437
V/C Ratio(X)	0.81	0.82	0.82	0.93	0.69	0.16	0.13	0.20	0.70	0.72	0.00	0.35
Avail Cap(c_a), veh/h	192	510	526	717	1436	957	325	342	599	710	0	437
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.5	39.8	39.8	35.8	8.1	3.1	41.0	41.5	31.5	44.9	0.0	34.7
Incr Delay (d2), s/veh	16.4	13.5	13.2	14.3	2.1	0.3	0.2	0.3	3.6	6.3	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.3	14.7	15.2	11.1	7.0	1.2	1.2	1.9	12.3	8.6	0.0	4.3
LnGrp Delay(d),s/veh	70.9	53.3	52.9	50.1	10.2	3.3	41.2	41.8	35.1	51.1	0.0	36.8
LnGrp LOS	E	D	D	D	B	A	D	D	D	D		D
Approach Vol, veh/h		958			1775			528			664	
Approach Delay, s/veh		55.2			23.6			36.4			47.9	
Approach LOS		E			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.4	38.6		28.0	13.3	52.7		26.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	25.0	33.0		24.0	13.0	45.0		22.0
Max Q Clear Time (g_c+I1), s	22.9	28.3		18.2	9.5	16.6		24.0
Green Ext Time (p_c), s	0.6	3.4		1.6	0.1	10.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.2
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1012	853	130	560	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		75.0		15.0	90.0					30.0	30.0	30.0
Total Split (%)		62.5%		12.5%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 28 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1012	853	130	560	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1065	898	137	589	0				163	41	518
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1152	851	161	2536	0				310	78	343
Arrive On Green	0.00	0.20	0.20	0.18	1.00	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2036	1436	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	956	1007	137	589	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1609	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	63.5	71.1	9.0	0.0	0.0				12.1	0.0	26.0
Cycle Q Clear(g_c), s	0.0	63.5	71.1	9.0	0.0	0.0				12.1	0.0	26.0
Prop In Lane	0.00		0.89	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1049	954	161	2536	0				388	0	343
V/C Ratio(X)	0.00	0.91	1.06	0.85	0.23	0.00				0.53	0.00	1.51
Avail Cap(c_a), veh/h	0	1049	954	163	2536	0				388	0	343
HCM Platoon Ratio	1.00	0.33	0.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.12	0.12	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	45.2	48.3	48.4	0.0	0.0				41.5	0.0	47.0
Incr Delay (d2), s/veh	0.0	2.1	28.6	31.1	0.2	0.0				5.0	0.0	244.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	31.8	39.3	5.7	0.1	0.0				6.5	0.0	34.6
LnGrp Delay(d),s/veh	0.0	47.3	76.9	79.4	0.2	0.0				46.6	0.0	291.1
LnGrp LOS		D	F	E	A					D		F
Approach Vol, veh/h		1963			726						722	
Approach Delay, s/veh		62.5			15.2						222.0	
Approach LOS		E			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.9	75.1		30.0		90.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	11.0	71.0		26.0		86.0		
Max Q Clear Time (g_c+I1), s	11.0	73.1		28.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		45.9		

Intersection Summary	
HCM 2010 Ctrl Delay	86.2
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1012	853	130	560	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		68.0	68.0	17.0	85.0					35.0	35.0	35.0
Total Split (%)		56.7%	56.7%	14.2%	70.8%					29.2%	29.2%	29.2%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 36 (30%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Description: Imps	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1012	853	130	560	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1065	898	137	589	0				163	41	518
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1949	872	161	2389	0				370	93	409
Arrive On Green	0.00	0.55	0.55	0.18	1.00	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	1065	898	137	589	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	23.2	66.1	9.0	0.0	0.0				11.4	0.0	31.0
Cycle Q Clear(g_c), s	0.0	23.2	66.1	9.0	0.0	0.0				11.4	0.0	31.0
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1949	872	161	2389	0				463	0	409
V/C Ratio(X)	0.00	0.55	1.03	0.85	0.25	0.00				0.44	0.00	1.27
Avail Cap(c_a), veh/h	0	1949	872	192	2389	0				463	0	409
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.3	27.0	48.3	0.0	0.0				37.2	0.0	44.5
Incr Delay (d2), s/veh	0.0	0.1	18.3	23.8	0.2	0.0				3.0	0.0	138.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	11.3	33.0	5.4	0.1	0.0				6.1	0.0	29.2
LnGrp Delay(d),s/veh	0.0	17.4	45.3	72.1	0.2	0.0				40.3	0.0	182.6
LnGrp LOS		B	F	E	A					D		F
Approach Vol, veh/h		1963			726						722	
Approach Delay, s/veh		30.2			13.8						142.4	
Approach LOS		C			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.9	70.1		35.0		85.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	13.0	64.0		31.0		81.0		
Max Q Clear Time (g_c+I1), s	11.0	68.1		33.0		2.0		
Green Ext Time (p_c), s	0.1	0.0		0.0		30.9		

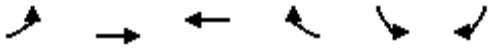
Intersection Summary	
HCM 2010 Ctrl Delay	50.4
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	496	1079	865	281	638	822
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	32.0	82.0	50.0	50.0	38.0	38.0
Total Split (%)	26.7%	68.3%	41.7%	41.7%	31.7%	31.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	496	1079	865	281	638	822
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	522	1136	911	296	672	865
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	594	2300	1572	703	975	790
Arrive On Green	0.35	1.00	0.44	0.44	0.28	0.28
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	522	1136	911	296	672	865
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	17.1	0.0	23.1	15.3	20.9	34.0
Cycle Q Clear(g_c), s	17.1	0.0	23.1	15.3	20.9	34.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	594	2300	1572	703	975	790
V/C Ratio(X)	0.88	0.49	0.58	0.42	0.69	1.10
Avail Cap(c_a), veh/h	803	2300	1572	703	975	790
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	25.0	22.8	38.3	43.0
Incr Delay (d2), s/veh	0.9	0.1	1.6	1.8	4.0	61.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.0	0.0	11.6	7.0	10.4	29.2
LnGrp Delay(d),s/veh	39.0	0.1	26.5	24.7	42.3	104.3
LnGrp LOS	D	A	C	C	D	F
Approach Vol, veh/h		1658	1207		1537	
Approach Delay, s/veh		12.3	26.1		77.2	
Approach LOS		B	C		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		82.0		38.0	24.7	57.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		78.0		34.0	28.0	46.0		
Max Q Clear Time (g_c+I1), s		2.0		36.0	19.1	25.1		
Green Ext Time (p_c), s		19.1		0.0	1.6	12.1		

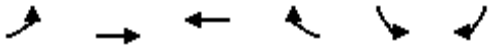
Intersection Summary	
HCM 2010 Ctrl Delay	38.7
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	496	1079	865	281	638	822
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	32.0	81.0	49.0	49.0	39.0	39.0
Total Split (%)	26.7%	67.5%	40.8%	40.8%	32.5%	32.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 36 (30%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	496	1079	865	281	638	822
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	522	1136	911	296	672	865
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	594	3263	1542	690	1004	813
Arrive On Green	0.35	1.00	0.44	0.44	0.29	0.29
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	522	1136	911	296	672	865
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	17.1	0.0	23.5	15.6	20.6	35.0
Cycle Q Clear(g_c), s	17.1	0.0	23.5	15.6	20.6	35.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	594	3263	1542	690	1004	813
V/C Ratio(X)	0.88	0.35	0.59	0.43	0.67	1.06
Avail Cap(c_a), veh/h	803	3263	1542	690	1004	813
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	25.7	23.5	37.4	42.5
Incr Delay (d2), s/veh	5.7	0.2	1.7	1.9	3.5	50.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.4	0.1	11.7	7.2	10.3	28.7
LnGrp Delay(d),s/veh	43.9	0.2	27.4	25.4	41.0	92.6
LnGrp LOS	D	A	C	C	D	F
Approach Vol, veh/h		1658	1207		1537	
Approach Delay, s/veh		13.9	26.9		70.0	
Approach LOS		B	C		E	

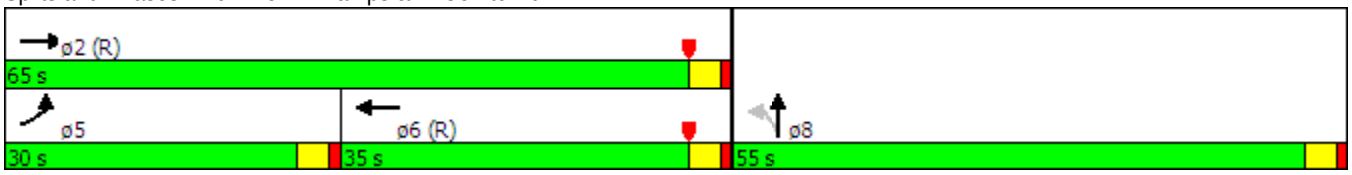
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		81.0		39.0	24.7	56.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		77.0		35.0	28.0	45.0		
Max Q Clear Time (g_c+I1), s		2.0		37.0	19.1	25.5		
Green Ext Time (p_c), s		18.9		0.0	1.6	11.6		

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	493	674	0	0	276	85	414	8	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	30.0	65.0			35.0		55.0	55.0				
Total Split (%)	25.0%	54.2%			29.2%		45.8%	45.8%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	493	674	0	0	276	85	414	8	110	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	519	709	0	0	291	89	436	8	116			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	581	947	0	0	822	247	573	11	152			
Arrive On Green	0.34	1.00	0.00	0.00	0.31	0.31	0.43	0.43	0.43			
Sat Flow, veh/h	3442	1863	0	0	2778	806	1348	25	359			
Grp Volume(v), veh/h	519	709	0	0	190	190	560	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1721	1732	0	0			
Q Serve(g_s), s	17.2	0.0	0.0	0.0	10.0	10.3	33.0	0.0	0.0			
Cycle Q Clear(g_c), s	17.2	0.0	0.0	0.0	10.0	10.3	33.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.47	0.78		0.21			
Lane Grp Cap(c), veh/h	581	947	0	0	542	527	736	0	0			
V/C Ratio(X)	0.89	0.75	0.00	0.00	0.35	0.36	0.76	0.00	0.00			
Avail Cap(c_a), veh/h	746	947	0	0	542	527	736	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.22	0.22	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	38.7	0.0	0.0	0.0	32.4	32.5	29.3	0.0	0.0			
Incr Delay (d2), s/veh	2.8	1.2	0.0	0.0	1.8	1.9	7.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	8.3	0.3	0.0	0.0	5.2	5.2	17.2	0.0	0.0			
LnGrp Delay(d),s/veh	41.5	1.2	0.0	0.0	34.2	34.4	36.6	0.0	0.0			
LnGrp LOS	D	A			C	C	D					
Approach Vol, veh/h		1228			380			560				
Approach Delay, s/veh		18.2			34.3			36.6				
Approach LOS		B			C			D				

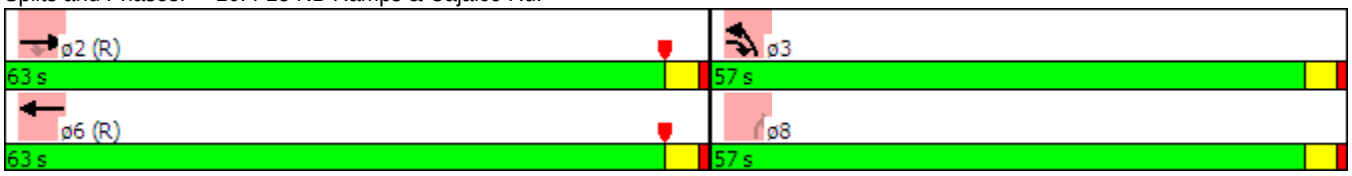
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		65.0			24.3	40.7		55.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		61.0			26.0	31.0		51.0
Max Q Clear Time (g_c+I1), s		2.0			19.2	12.3		35.0
Green Ext Time (p_c), s		8.2			1.1	6.4		3.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1124	594	0	1189	464	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Right Turn on Red		Yes				Yes
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	63.0	57.0		63.0	57.0	57.0
Total Split (%)	52.5%	47.5%		52.5%	47.5%	47.5%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1124	594	0	1189	464	346
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	1183	625	0	1252	488	364
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2500	1478	0	3151	1520	1231
Arrive On Green	0.49	0.49	0.00	0.49	0.44	0.44
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	1183	625	0	1252	488	364
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	18.5	5.2	0.0	14.8	11.1	10.1
Cycle Q Clear(g_c), s	18.5	5.2	0.0	14.8	11.1	10.1
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2500	1478	0	3151	1520	1231
V/C Ratio(X)	0.47	0.42	0.00	0.40	0.32	0.30
Avail Cap(c_a), veh/h	2500	1478	0	3151	1520	1231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.4	0.0	19.3	21.8	21.5
Incr Delay (d2), s/veh	0.6	0.9	0.0	0.4	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.8	2.4	0.0	6.6	5.3	3.9
LnGrp Delay(d),s/veh	20.8	1.3	0.0	19.6	22.4	22.1
LnGrp LOS	C	A		B	C	C
Approach Vol, veh/h	1808			1252	852	
Approach Delay, s/veh	14.1			19.6	22.3	
Approach LOS	B			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		63.0				63.0		57.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		59.0				59.0		53.0
Max Q Clear Time (g_c+I1), s		20.5				16.8		13.1
Green Ext Time (p_c), s		24.0				25.3		4.4

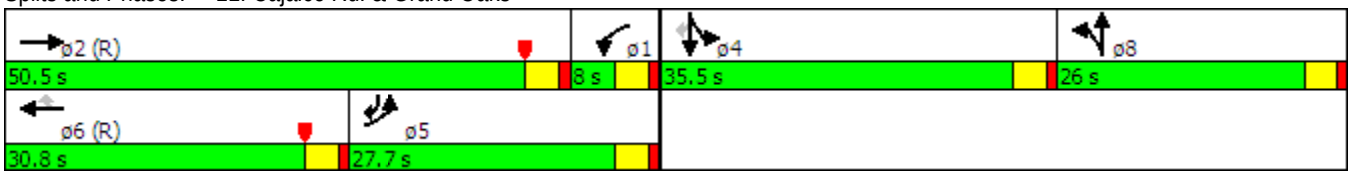
Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

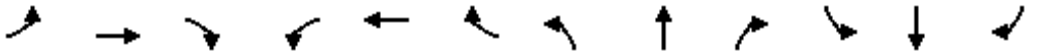
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	687	782	0	0	607	155	0	0	0	363	0	602
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	27.7	50.5		8.0	30.8	30.8	26.0	26.0		35.5	35.5	27.7
Total Split (%)	23.1%	42.1%		6.7%	25.7%	25.7%	21.7%	21.7%		29.6%	29.6%	23.1%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	687	782	0	0	607	155	0	0	0	363	0	602
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	723	823	0	0	639	163	0	0	0	382	0	634
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1425	1971	0	444	1136	351	0	2	0	466	0	1881
Arrive On Green	0.41	0.39	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1573	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	723	823	0	0	639	163	0	0	0	382	0	634
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1573	0	1863	0	1774	0	1385
Q Serve(g_s), s	18.7	14.2	0.0	0.0	13.4	10.8	0.0	0.0	0.0	24.3	0.0	0.0
Cycle Q Clear(g_c), s	18.7	14.2	0.0	0.0	13.4	10.8	0.0	0.0	0.0	24.3	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1425	1971	0	444	1136	351	0	2	0	466	0	1881
V/C Ratio(X)	0.51	0.42	0.00	0.00	0.56	0.46	0.00	0.00	0.00	0.82	0.00	0.34
Avail Cap(c_a), veh/h	1425	1971	0	444	1136	351	0	342	0	466	0	1881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.1	26.9	0.0	0.0	41.4	40.4	0.0	0.0	0.0	41.6	0.0	8.1
Incr Delay (d2), s/veh	0.3	0.7	0.0	0.0	2.0	4.4	0.0	0.0	0.0	14.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.9	6.7	0.0	0.0	6.5	5.1	0.0	0.0	0.0	13.8	0.0	4.4
LnGrp Delay(d),s/veh	26.4	27.5	0.0	0.0	43.4	44.7	0.0	0.0	0.0	56.5	0.0	8.6
LnGrp LOS	C	C			D	D				E		A
Approach Vol, veh/h		1546			802			0			1016	
Approach Delay, s/veh		27.0			43.7			0.0			26.6	
Approach LOS		C			D						C	

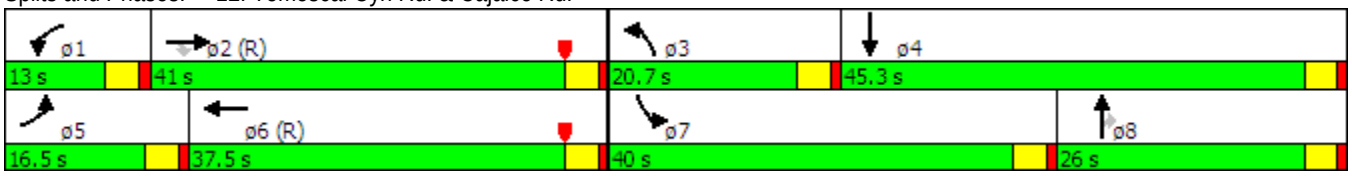
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	53.7	30.8		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	23.7	26.8		22.0
Max Q Clear Time (g_c+I1), s	0.0	16.2		26.3	20.7	15.4		0.0
Green Ext Time (p_c), s	0.0	4.0		2.5	1.1	2.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	674	346	184	411	461	280	675	96	599	520	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	16.5	41.0	41.0	13.0	37.5		20.7	26.0	26.0	40.0	45.3	
Total Split (%)	13.8%	34.2%	34.2%	10.8%	31.3%		17.3%	21.7%	21.7%	33.3%	37.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 51 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	126	674	346	184	411	461	280	675	96	599	520	72
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	133	709	364	194	433	485	295	711	101	631	547	76
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	574	486	133	995	462	361	649	302	532	1182	164
Arrive On Green	0.09	0.31	0.31	0.08	0.29	0.29	0.10	0.18	0.18	0.30	0.38	0.38
Sat Flow, veh/h	1774	1863	1576	1774	3390	1575	3442	3539	1647	1774	3122	432
Grp Volume(v), veh/h	133	709	364	194	433	485	295	711	101	631	309	314
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1575	1721	1770	1647	1774	1770	1784
Q Serve(g_s), s	8.9	37.0	24.9	9.0	12.4	35.2	10.1	22.0	6.4	36.0	15.8	15.9
Cycle Q Clear(g_c), s	8.9	37.0	24.9	9.0	12.4	35.2	10.1	22.0	6.4	36.0	15.8	15.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	159	574	486	133	995	462	361	649	302	532	670	675
V/C Ratio(X)	0.83	1.23	0.75	1.46	0.44	1.05	0.82	1.10	0.33	1.19	0.46	0.46
Avail Cap(c_a), veh/h	185	574	486	133	995	462	479	649	302	532	670	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	41.5	37.3	55.5	34.3	42.4	52.6	49.0	42.6	42.0	28.1	28.1
Incr Delay (d2), s/veh	24.1	120.0	10.2	242.7	1.4	55.3	8.1	64.4	3.0	101.3	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	5.4	38.1	12.2	13.4	6.0	22.4	5.2	16.5	3.2	32.6	8.2	8.3
LnGrp Delay(d),s/veh	77.8	161.5	47.5	298.2	35.7	97.7	60.7	113.4	45.6	143.3	30.4	30.4
LnGrp LOS	E	F	D	F	D	F	E	F	D	F	C	C
Approach Vol, veh/h		1206			1112			1107			1254	
Approach Delay, s/veh		117.9			108.5			93.1			87.2	
Approach LOS		F			F			F			F	

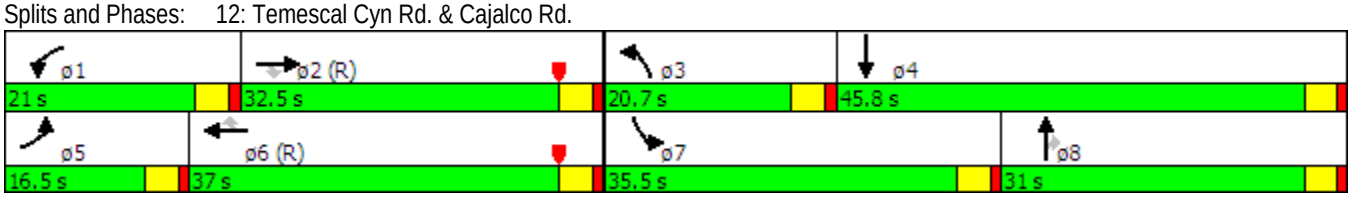
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	41.0	16.6	49.4	14.8	39.2	40.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	37.0	16.7	41.3	12.5	33.5	36.0	22.0
Max Q Clear Time (g_c+I1), s	11.0	39.0	12.1	17.9	10.9	37.2	38.0	24.0
Green Ext Time (p_c), s	0.0	0.0	0.5	6.5	0.1	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	101.6
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	674	346	184	411	461	280	675	96	599	520	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	35.5	26.0	
Total Split (s)	16.5	32.5	32.5	21.0	37.0	37.0	20.7	31.0	31.0	35.5	45.8	
Total Split (%)	13.8%	27.1%	27.1%	17.5%	30.8%	30.8%	17.3%	25.8%	25.8%	29.6%	38.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 50 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Description: Imps	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	126	674	346	184	411	461	280	675	96	599	520	72
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	133	709	364	194	433	485	295	711	101	631	547	76
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	1021	454	222	1646	530	361	861	400	723	1087	151
Arrive On Green	0.09	0.29	0.29	0.12	0.32	0.32	0.10	0.24	0.24	0.21	0.35	0.35
Sat Flow, veh/h	1774	3539	1575	1774	5085	1639	3442	3539	1647	3442	3121	432
Grp Volume(v), veh/h	133	709	364	194	433	485	295	711	101	631	309	314
Grp Sat Flow(s),veh/h/ln	1774	1770	1575	1774	1695	1639	1721	1770	1647	1721	1770	1784
Q Serve(g_s), s	8.9	21.4	25.7	12.9	7.6	34.1	10.1	22.8	5.9	21.3	16.6	16.7
Cycle Q Clear(g_c), s	8.9	21.4	25.7	12.9	7.6	34.1	10.1	22.8	5.9	21.3	16.6	16.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	159	1021	454	222	1646	530	361	861	400	723	616	622
V/C Ratio(X)	0.83	0.69	0.80	0.87	0.26	0.91	0.82	0.83	0.25	0.87	0.50	0.50
Avail Cap(c_a), veh/h	185	1021	454	251	1646	530	479	861	400	903	616	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	38.0	39.5	51.6	30.0	39.0	52.6	43.0	36.6	45.9	30.9	30.9
Incr Delay (d2), s/veh	24.1	3.9	13.8	25.2	0.4	22.8	8.1	8.9	1.5	7.9	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	5.4	11.0	12.9	7.9	3.6	18.7	5.2	12.2	2.9	10.9	8.6	8.7
LnGrp Delay(d),s/veh	77.8	41.9	53.3	76.8	30.4	61.7	60.7	51.9	38.1	53.8	33.8	33.8
LnGrp LOS	E	D	D	E	C	E	E	D	D	D	C	C
Approach Vol, veh/h		1206			1112			1107			1254	
Approach Delay, s/veh		49.3			52.2			53.0			43.9	
Approach LOS		D			D			D			D	

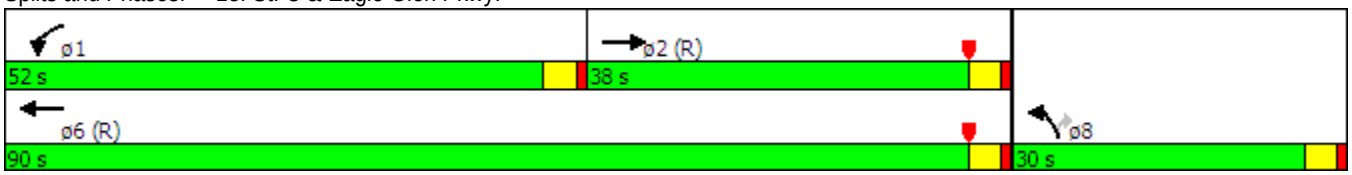
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	38.6	16.6	45.8	14.8	42.8	29.2	33.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	28.5	16.7	41.8	12.5	33.0	31.5	27.0
Max Q Clear Time (g_c+I1), s	14.9	27.7	12.1	18.7	10.9	36.1	23.3	24.8
Green Ext Time (p_c), s	0.1	0.7	0.5	6.5	0.1	0.0	1.9	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	49.4
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	447	10	326	510	10	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Right Turn on Red		Yes				Yes
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	813	
Travel Time (s)	11.8			19.1	12.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	38.0		52.0	90.0	30.0	30.0
Total Split (%)	31.7%		43.3%	75.0%	25.0%	25.0%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 94 (78%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Description: Imps	

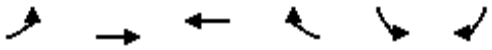
Splits and Phases: 13: St. C & Eagle Glen Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	447	10	326	510	10	195
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	471	11	343	537	11	205
Adj No. of Lanes	2	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1662	39	378	1335	384	343
Arrive On Green	0.47	0.47	0.21	0.72	0.22	0.22
Sat Flow, veh/h	3628	82	1774	1863	1774	1583
Grp Volume(v), veh/h	236	246	343	537	11	205
Grp Sat Flow(s),veh/h/ln	1770	1848	1774	1863	1774	1583
Q Serve(g_s), s	9.8	9.8	22.6	13.8	0.6	14.0
Cycle Q Clear(g_c), s	9.8	9.8	22.6	13.8	0.6	14.0
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	832	869	378	1335	384	343
V/C Ratio(X)	0.28	0.28	0.91	0.40	0.03	0.60
Avail Cap(c_a), veh/h	832	869	710	1335	384	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.80	0.80	1.00	1.00
Uniform Delay (d), s/veh	19.4	19.4	46.0	6.8	37.0	42.3
Incr Delay (d2), s/veh	0.9	0.8	6.9	0.7	0.1	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	5.0	5.2	11.8	7.3	0.3	6.8
LnGrp Delay(d),s/veh	20.3	20.3	52.9	7.5	37.2	49.8
LnGrp LOS	C	C	D	A	D	D
Approach Vol, veh/h	482			880	216	
Approach Delay, s/veh	20.3			25.2	49.1	
Approach LOS	C			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	29.6	60.4				90.0		30.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	48.0	34.0				86.0		26.0
Max Q Clear Time (g_c+I1), s	24.6	11.8				15.8		16.0
Green Ext Time (p_c), s	1.0	6.0				6.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C



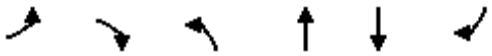
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	114	20	39	81	132	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45	45		45	
Link Distance (ft)		967	1252		583	
Travel Time (s)		14.7	19.0		8.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	5.9
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	141	126	343
Demand Flow Rate, veh/h	143	129	350
Vehicles Circulating, veh/h	142	122	42
Vehicles Exiting, veh/h	250	163	209
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.1	4.9	6.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	143	129	350
Cap Entry Lane, veh/h	980	1000	1083
Entry HV Adj Factor	0.983	0.978	0.980
Flow Entry, veh/h	141	126	343
Cap Entry, veh/h	964	978	1062
V/C Ratio	0.146	0.129	0.323
Control Delay, s/veh	5.1	4.9	6.6
LOS	A	A	A
95th %tile Queue, veh	1	0	1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	231	0	0	62	105	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	100		100			
Link Speed (mph)	45			45	45	
Link Distance (ft)	1284			542	309	
Travel Time (s)	19.5			8.2	4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

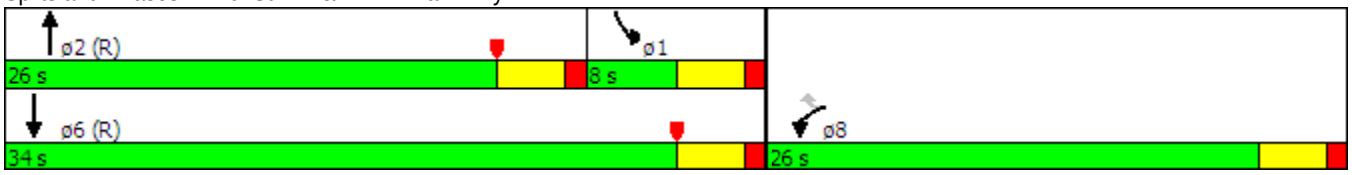
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	243	65	532
Demand Flow Rate, veh/h	248	66	542
Vehicles Circulating, veh/h	113	248	0
Vehicles Exiting, veh/h	429	113	314
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.1	4.9	8.6
Approach LOS	A	A	A

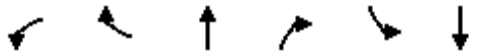
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	248	66	542
Cap Entry Lane, veh/h	1009	882	1130
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	243	65	532
Cap Entry, veh/h	989	864	1109
V/C Ratio	0.246	0.075	0.480
Control Delay, s/veh	6.1	4.9	8.6
LOS	A	A	A
95th %tile Queue, veh	1	0	3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	53	112	354	20	160	573
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				60	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	45		45			45
Link Distance (ft)	264		567			343
Travel Time (s)	4.0		8.6			5.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	26.0	26.0	26.0		8.0	26.0
Total Split (s)	26.0	26.0	26.0		8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%		13.3%	56.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 8 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 16: St. "A" & TAZ 4 Main Dwy.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	53	112	354	20	160	573
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	56	118	373	21	168	603
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	188	168	1249	70	581	2692
Arrive On Green	0.11	0.11	0.37	0.37	0.33	0.76
Sat Flow, veh/h	1774	1583	3501	191	1774	3632
Grp Volume(v), veh/h	56	118	193	201	168	603
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1829	1774	1770
Q Serve(g_s), s	1.7	4.3	4.7	4.7	4.2	2.9
Cycle Q Clear(g_c), s	1.7	4.3	4.7	4.7	4.2	2.9
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	188	168	649	671	581	2692
V/C Ratio(X)	0.30	0.70	0.30	0.30	0.29	0.22
Avail Cap(c_a), veh/h	650	581	649	671	581	2692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	25.9	13.5	13.5	15.0	2.1
Incr Delay (d2), s/veh	0.9	5.3	1.2	1.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	2.1	2.5	2.6	2.1	1.5
LnGrp Delay(d),s/veh	25.6	31.2	14.7	14.7	15.3	2.3
LnGrp LOS	C	C	B	B	B	A
Approach Vol, veh/h	174		394			771
Approach Delay, s/veh	29.4		14.7			5.1
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.6	26.0				49.6		10.4
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	22.0				30.0		22.0
Max Q Clear Time (g_c+I1), s	6.2	6.7				4.9		6.3
Green Ext Time (p_c), s	0.0	1.8				4.3		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	22	90	284	9	143	483
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				60	
Link Speed (mph)	45		45			45
Link Distance (ft)	302		233			567
Travel Time (s)	4.6		3.5			8.6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

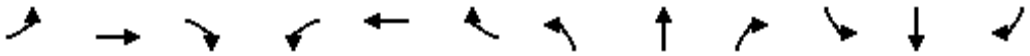
Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	90	284	9	143	483
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	95	299	9	151	508

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	859	154	0	0	308	0
Stage 1	304	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	296	864	-	-	1249	-
Stage 1	722	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	260	864	-	-	1249	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	474	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	593	1249	-
HCM Lane V/C Ratio	-	-	0.199	0.121	-
HCM Control Delay (s)	-	-	12.6	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	53	20	4	6	6	353	11	7	668	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	39.3
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	36	2	53	0	20	4	6	0	6	353	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	2	56	0	21	4	6	0	6	372	12
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.7	10.3	16
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	40%	67%	100%	0%
Vol Thru, %	0%	97%	2%	13%	0%	98%
Vol Right, %	0%	3%	58%	20%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	364	91	30	7	681
LT Vol	6	0	36	20	7	0
Through Vol	0	353	2	4	0	668
RT Vol	0	11	53	6	0	13
Lane Flow Rate	6	383	96	32	7	717
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.011	0.593	0.169	0.06	0.012	1
Departure Headway (Hd)	6.099	5.571	6.37	6.854	5.91	5.392
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	648	565	523	609	681
Service Time	3.827	3.307	4.386	4.892	3.61	3.092
HCM Lane V/C Ratio	0.01	0.591	0.17	0.061	0.011	1.053
HCM Control Delay	8.9	16.1	10.7	10.3	8.7	57.4
HCM Lane LOS	A	C	B	B	A	F
HCM 95th-tile Q	0	3.9	0.6	0.2	0	15.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	668	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	703	14
Number of Lanes	0	1	1	0

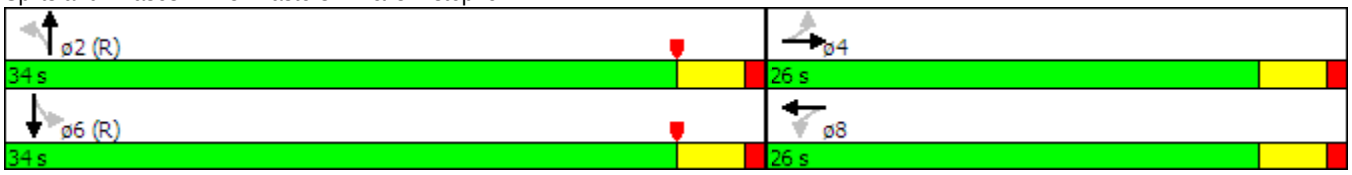
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	56.9
HCM LOS	F

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	53	20	4	6	6	353	11	7	668	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

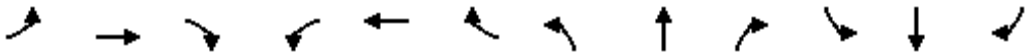
Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	2	53	20	4	6	6	353	11	7	668	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	38	2	56	21	4	6	6	372	12	7	703	14
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	12	81	184	38	29	688	1394	45	835	1414	28
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	1.00	1.00	1.00
Sat Flow, veh/h	509	135	901	931	422	325	731	1795	58	995	1820	36
Grp Volume(v), veh/h	96	0	0	31	0	0	6	0	384	7	0	717
Grp Sat Flow(s),veh/h/ln	1544	0	0	1678	0	0	731	0	1853	995	0	1856
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	0.0	1.0	0.0	0.0	0.1	0.0	3.5	3.5	0.0	0.0
Prop In Lane	0.40		0.58	0.68		0.19	1.00		0.03	1.00		0.02
Lane Grp Cap(c), veh/h	223	0	0	251	0	0	688	0	1439	835	0	1442
V/C Ratio(X)	0.43	0.00	0.00	0.12	0.00	0.00	0.01	0.00	0.27	0.01	0.00	0.50
Avail Cap(c_a), veh/h	640	0	0	648	0	0	688	0	1439	835	0	1442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.87	0.00	0.87
Uniform Delay (d), s/veh	26.4	0.0	0.0	25.3	0.0	0.0	1.5	0.0	1.9	0.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.4
LnGrp Delay(d),s/veh	27.8	0.0	0.0	25.5	0.0	0.0	1.5	0.0	2.3	0.1	0.0	1.1
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		96			31			390			724	
Approach Delay, s/veh		27.8			25.5			2.3			1.1	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.6		9.4		50.6		9.4
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		5.5		5.6		5.5		3.0
Green Ext Time (p_c), s		8.1		0.6		8.1		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A



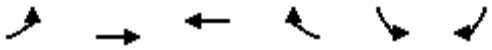
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	53	20	4	6	6	353	11	7	668	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	96	31	390	724
Demand Flow Rate, veh/h	98	31	397	738
Vehicles Circulating, veh/h	745	424	48	31
Vehicles Exiting, veh/h	24	21	795	424
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.3	5.3	7.2	13.3
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	98	31	397	738
Cap Entry Lane, veh/h	536	739	1077	1095
Entry HV Adj Factor	0.979	0.997	0.981	0.981
Flow Entry, veh/h	96	31	390	724
Cap Entry, veh/h	525	738	1057	1075
V/C Ratio	0.183	0.042	0.369	0.674
Control Delay, s/veh	9.3	5.3	7.2	13.3
LOS	A	A	A	B
95th %tile Queue, veh	1	0	2	6



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	688	312	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

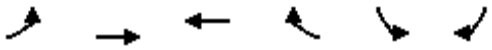
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	36.1
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	688	0	312	14	0	14	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	724	0	328	15	0	15	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	48.1	12.1	9.6
HCM LOS	E	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	74%
Vol Thru, %	0%	100%	96%	0%
Vol Right, %	0%	0%	4%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	688	326	19
LT Vol	4	0	0	14
Through Vol	0	688	312	0
RT Vol	0	0	14	5
Lane Flow Rate	4	724	343	20
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.974	0.464	0.035
Departure Headway (Hd)	5.342	4.84	4.864	6.34
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	671	753	741	562
Service Time	3.067	2.565	2.891	4.412
HCM Lane V/C Ratio	0.006	0.961	0.463	0.036
HCM Control Delay	8.1	48.3	12.1	9.6
HCM Lane LOS	A	E	B	A
HCM 95th-tile Q	0	15.3	2.5	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	688	312	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

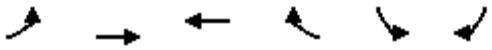
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	688	312	14	14	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	724	328	15	15	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	343	0	-	0	1069	336
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	733	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1216	-	-	-	245	706
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	475	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1216	-	-	-	244	706
Mov Cap-2 Maneuver	-	-	-	-	244	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	473	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1216	-	-	-	295
HCM Lane V/C Ratio	0.003	-	-	-	0.068
HCM Control Delay (s)	8	-	-	-	18.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	688	312	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	728	343	20
Demand Flow Rate, veh/h	742	350	20
Vehicles Circulating, veh/h	15	4	335
Vehicles Exiting, veh/h	340	753	19
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	13.0	6.3	4.7
Approach LOS	B	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	742	350	20
Cap Entry Lane, veh/h	1113	1125	808
Entry HV Adj Factor	0.980	0.981	1.000
Flow Entry, veh/h	728	343	20
Cap Entry, veh/h	1091	1104	808
V/C Ratio	0.667	0.311	0.025
Control Delay, s/veh	13.0	6.3	4.7
LOS	B	A	A
95th %tile Queue, veh	5	1	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	536	125	37	270	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	34.9
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	536	125	0	37	270	3	0	55	3	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	564	132	0	39	284	3	0	58	3	42
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	49.3	12.1	10.7
HCM LOS	E	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	56%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	81%	0%	99%	20%
Vol Right, %	41%	0%	19%	0%	1%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	3	661	37	273	5
LT Vol	55	3	0	37	0	3
Through Vol	3	0	536	0	270	1
RT Vol	40	0	125	0	3	1
Lane Flow Rate	103	3	696	39	287	5
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.181	0.005	0.973	0.065	0.435	0.01
Departure Headway (Hd)	6.3	5.672	5.035	6.073	5.559	6.758
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	573	625	717	594	652	532
Service Time	4.3	3.459	2.822	3.773	3.259	4.766
HCM Lane V/C Ratio	0.18	0.005	0.971	0.066	0.44	0.009
HCM Control Delay	10.7	8.5	49.5	9.2	12.5	9.8
HCM Lane LOS	B	A	E	A	B	A
HCM 95th-tile Q	0.7	0	14.9	0.2	2.2	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

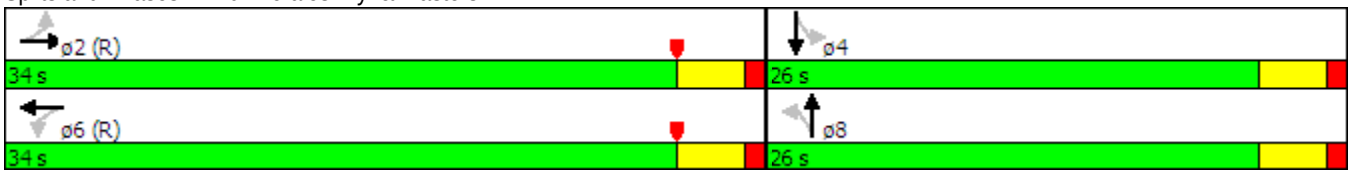
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.8
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	536	125	37	270	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0		26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%		43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

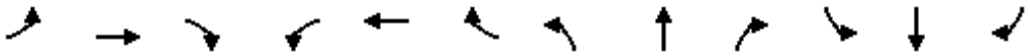
Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	536	125	37	270	3	55	3	40	3	1	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	564	132	39	284	3	58	3	42	3	1	1
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	565	730	171	258	920	10	379	41	225	406	135	111
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1088	1461	342	746	1840	19	778	113	613	844	369	303
Grp Volume(v), veh/h	3	0	696	39	0	287	103	0	0	5	0	0
Grp Sat Flow(s),veh/h/ln	1088	0	1802	746	0	1859	1504	0	0	1516	0	0
Q Serve(g_s), s	0.1	0.0	18.9	2.7	0.0	5.5	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.6	0.0	18.9	21.6	0.0	5.5	2.5	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.01	0.56		0.41	0.60		0.20
Lane Grp Cap(c), veh/h	565	0	901	258	0	930	645	0	0	652	0	0
V/C Ratio(X)	0.01	0.00	0.77	0.15	0.00	0.31	0.16	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	565	0	901	258	0	930	645	0	0	652	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.5	0.0	12.2	21.0	0.0	8.9	12.8	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.4	1.2	0.0	0.9	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	10.9	0.6	0.0	3.0	1.2	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	10.5	0.0	18.6	22.2	0.0	9.7	13.3	0.0	0.0	12.1	0.0	0.0
LnGrp LOS	B		B	C		A	B			B		
Approach Vol, veh/h		699			326			103			5	
Approach Delay, s/veh		18.6			11.2			13.3			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		20.9		2.1		23.6		4.5
Green Ext Time (p_c), s		4.4		0.5		3.4		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B



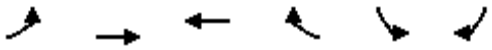
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	536	125	37	270	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	699	326	103	5
Demand Flow Rate, veh/h	713	333	105	5
Vehicles Circulating, veh/h	44	65	581	389
Vehicles Exiting, veh/h	350	621	176	9
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	13.0	6.6	7.8	4.8
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	713	333	105	5
Cap Entry Lane, veh/h	1081	1059	632	766
Entry HV Adj Factor	0.980	0.980	0.980	0.996
Flow Entry, veh/h	699	326	103	5
Cap Entry, veh/h	1060	1038	620	763
V/C Ratio	0.659	0.314	0.166	0.007
Control Delay, s/veh	13.0	6.6	7.8	4.8
LOS	B	A	A	A
95th %tile Queue, veh	5	1	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	370	410	67	39	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	370	410	67	39	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	389	432	71	41	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	502	0	-	0	884	251
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	417	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1059	-	-	-	300	749
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1059	-	-	-	296	749
Mov Cap-2 Maneuver	-	-	-	-	296	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1059	-	-	-	296	749
HCM Lane V/C Ratio	0.013	-	-	-	0.139	0.018
HCM Control Delay (s)	8.4	-	-	-	19.1	9.9
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0.1

APPENDIX 6.3:

2035 CONDITIONS
WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT
TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

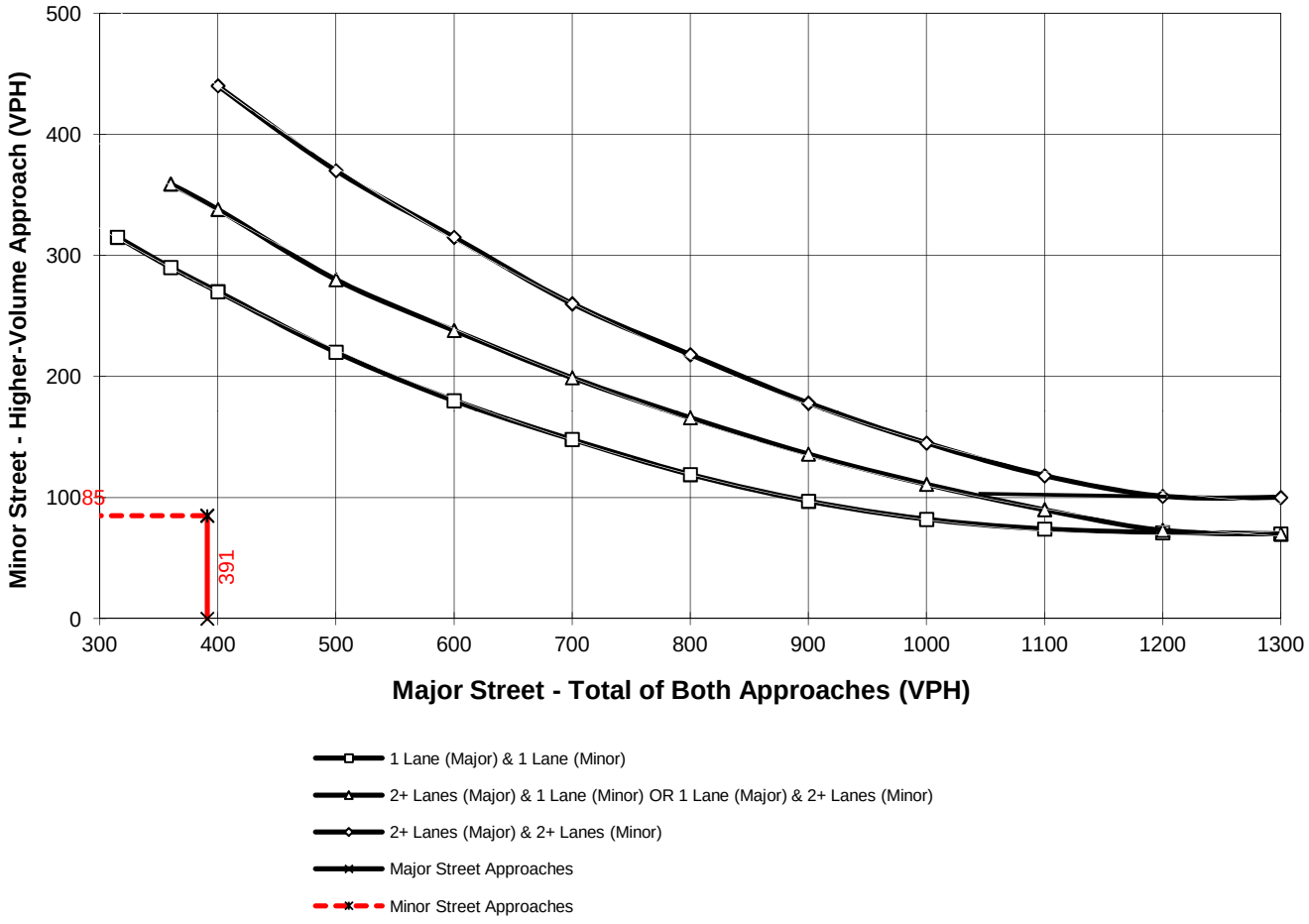
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **391**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.**
High Volume Approach (VPH) = **85**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

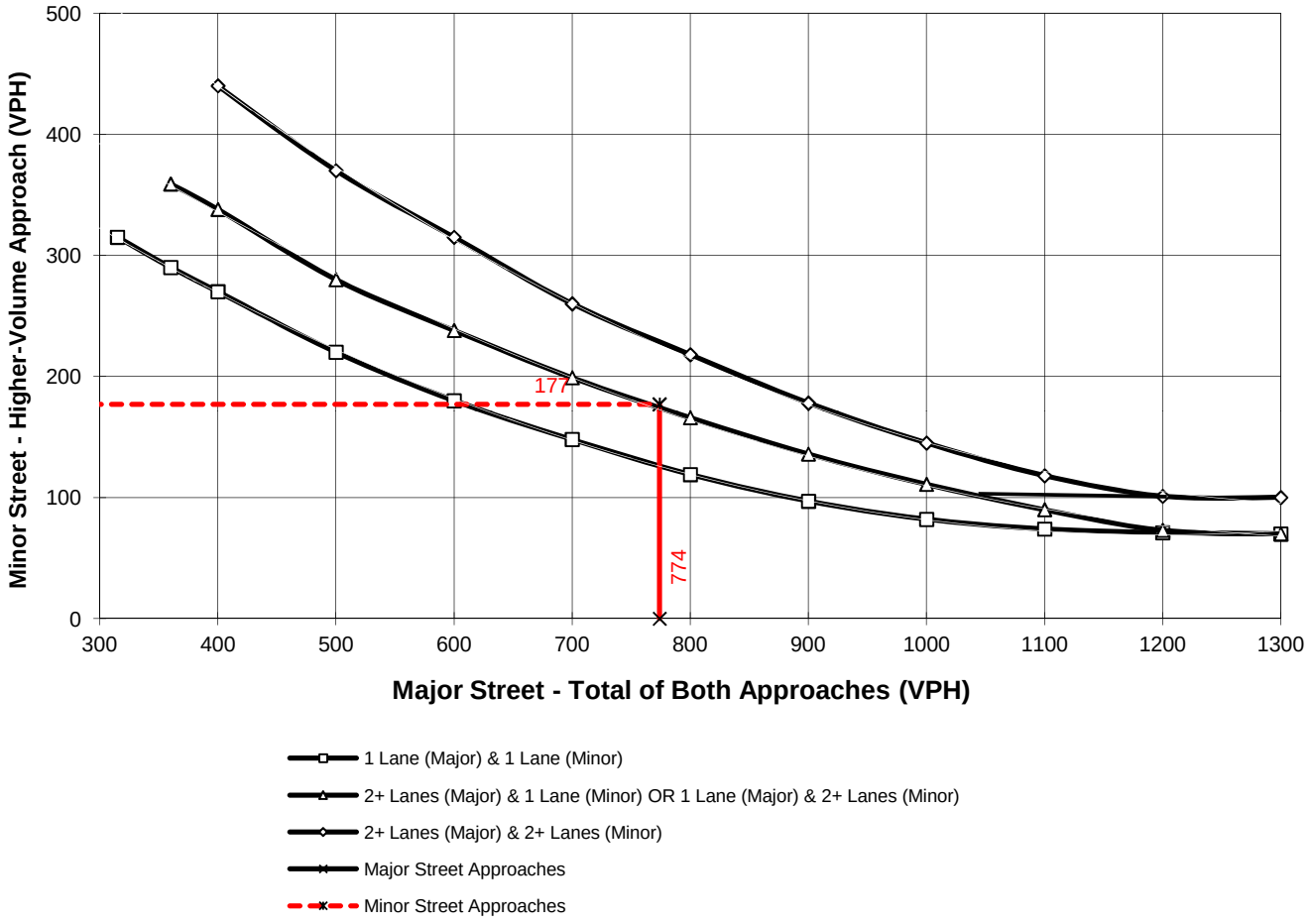
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **774**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **177**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

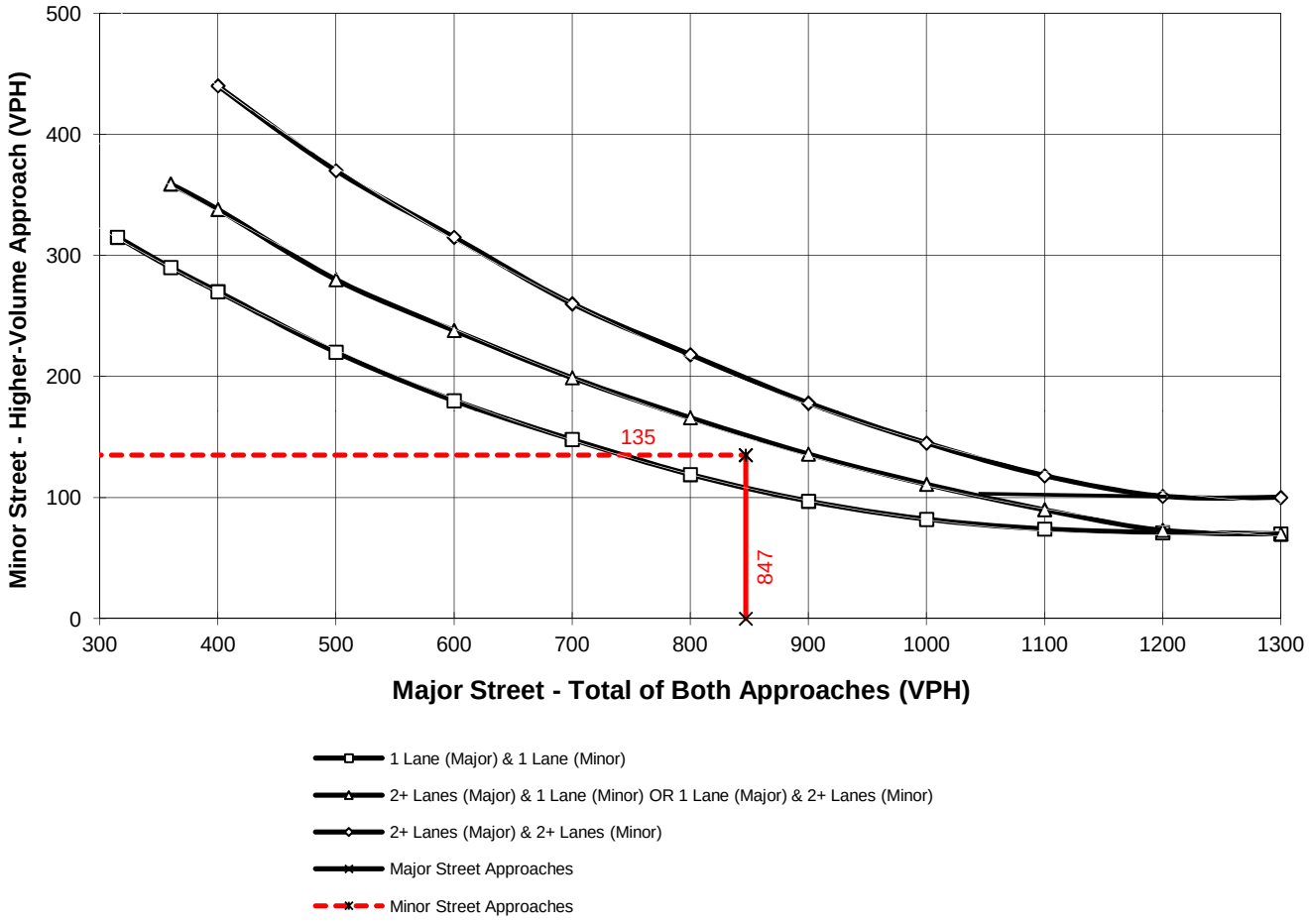
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **847**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **135**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

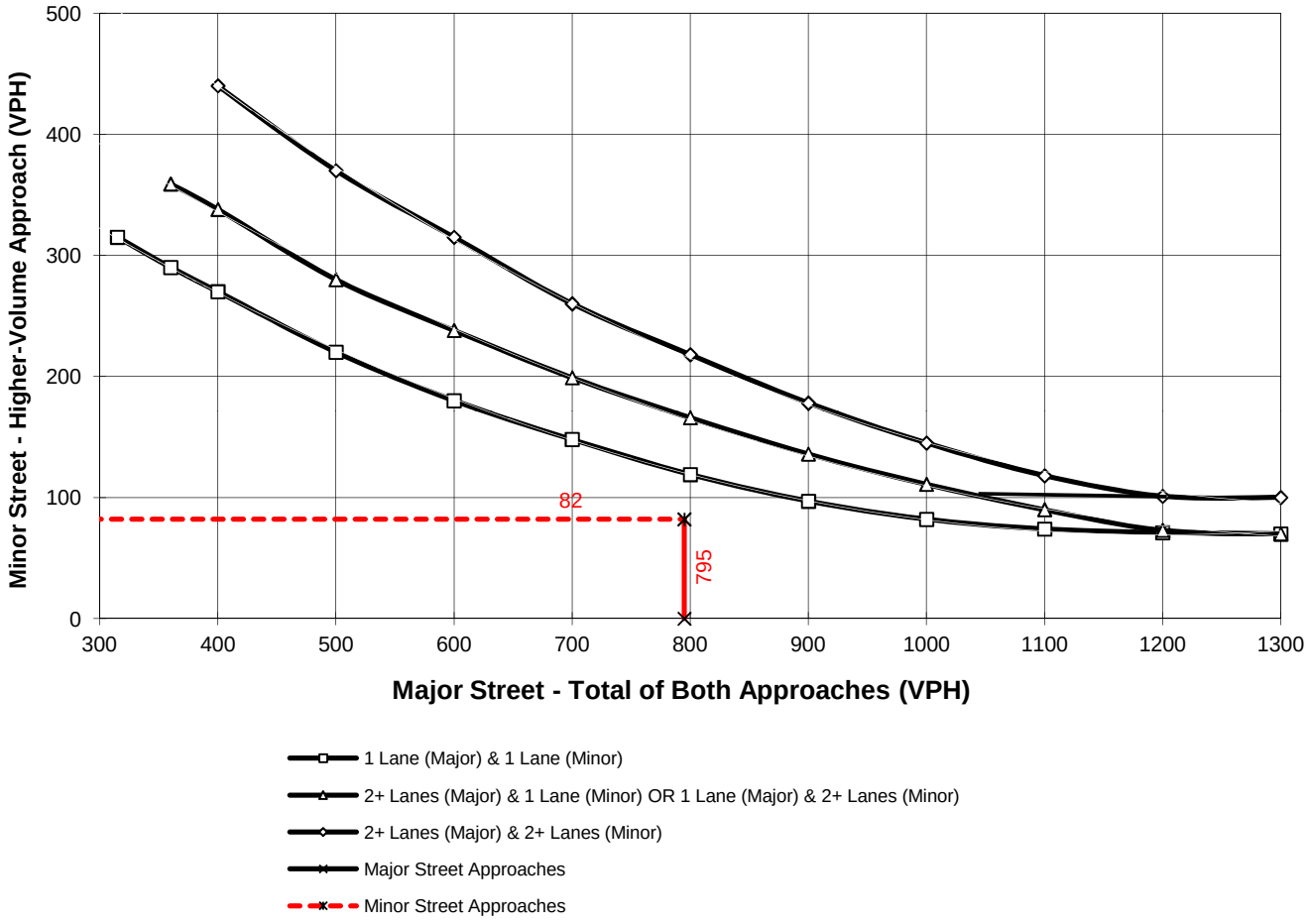
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **795**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **82**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

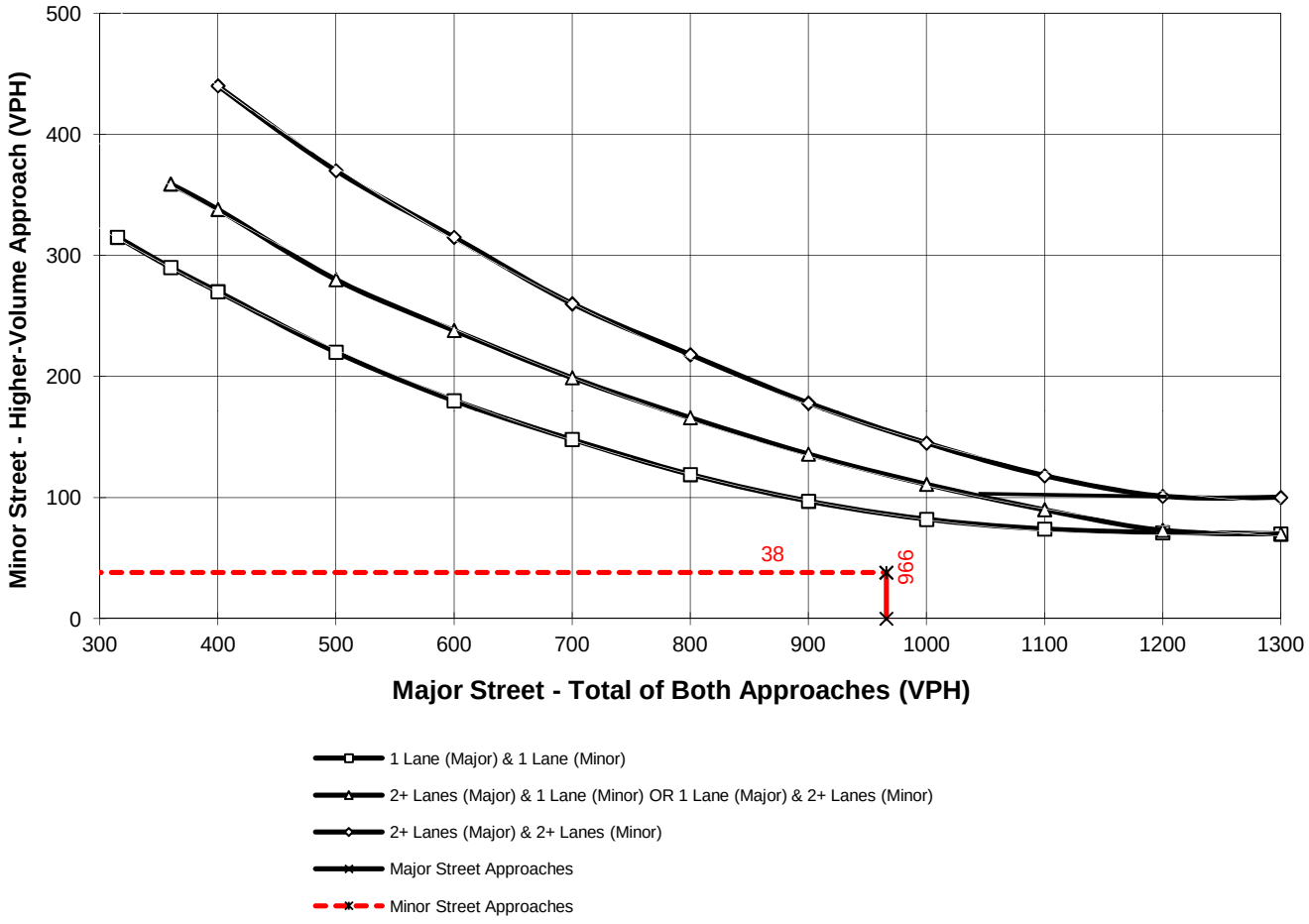
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **966**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.**
High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

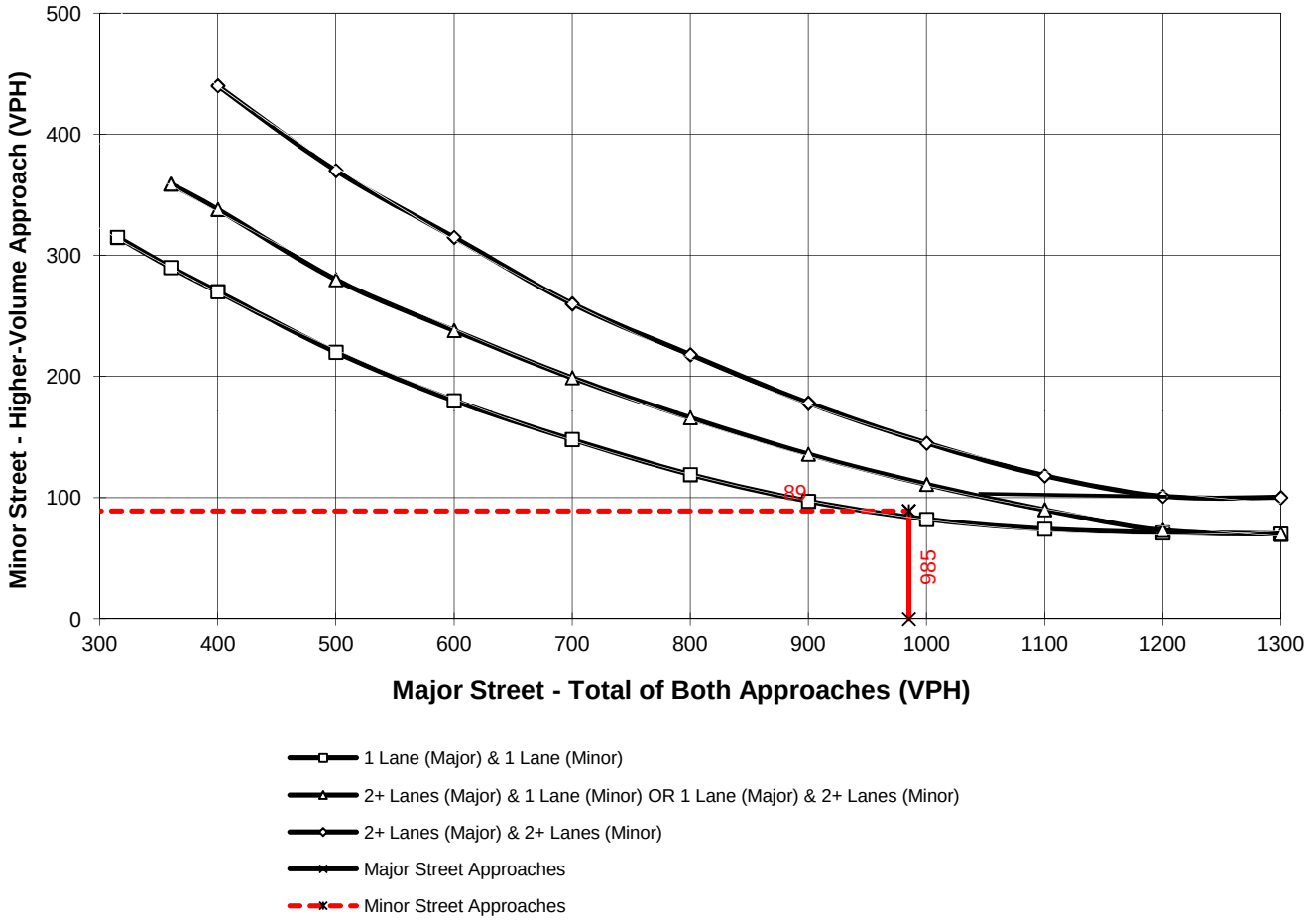
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **985**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.**
High Volume Approach (VPH) = **89**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

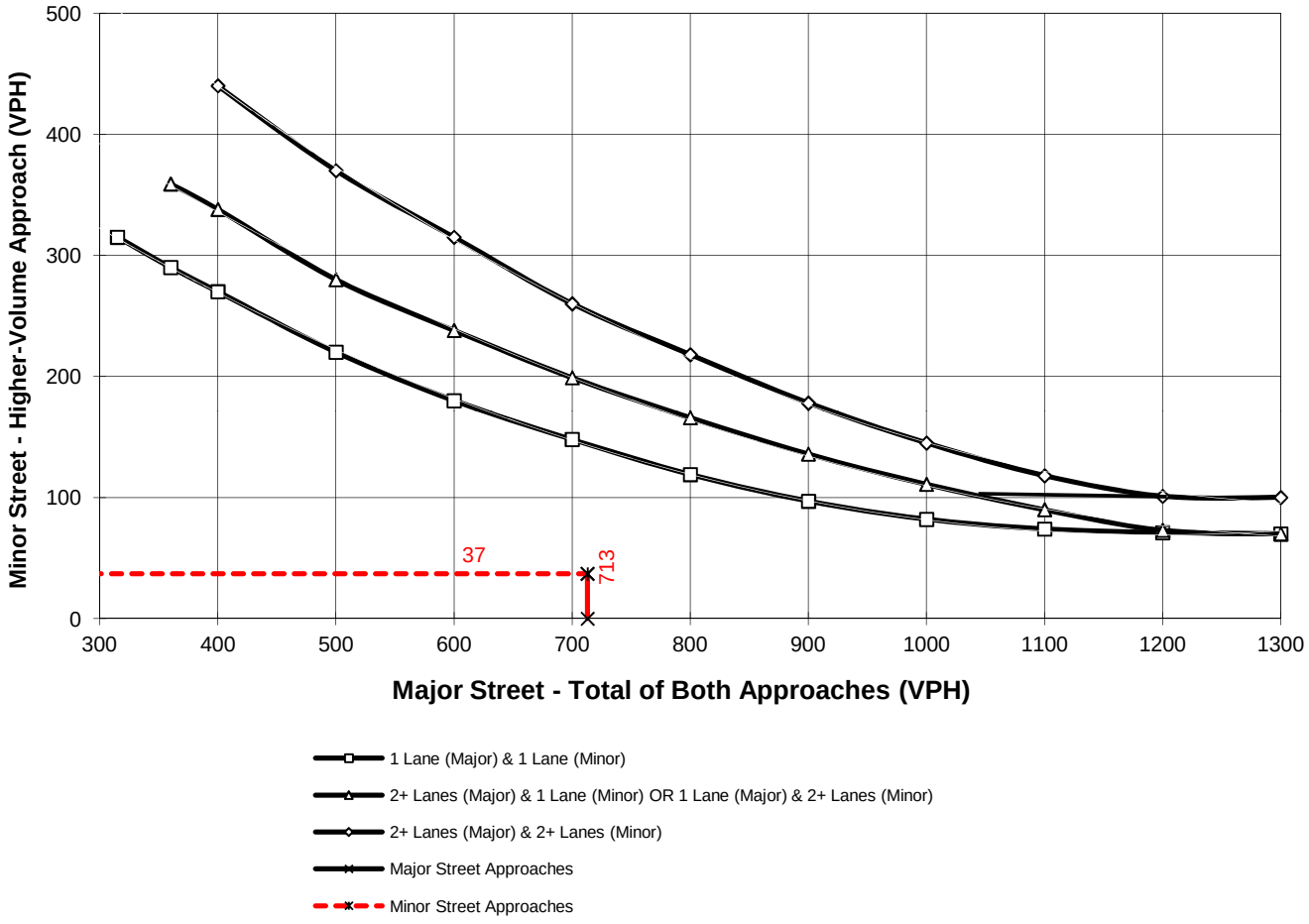
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **713**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **37**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

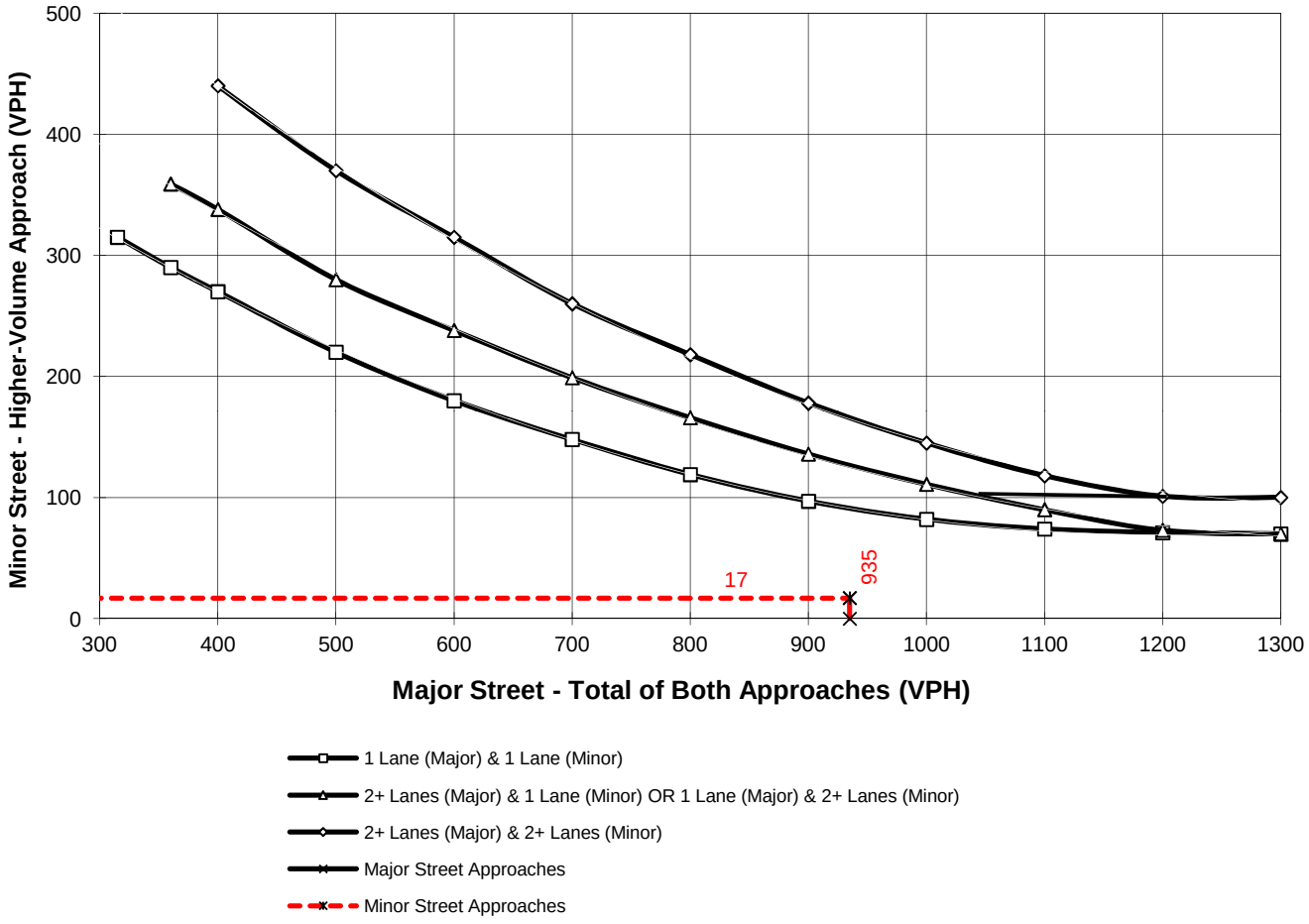
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **935**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **17**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

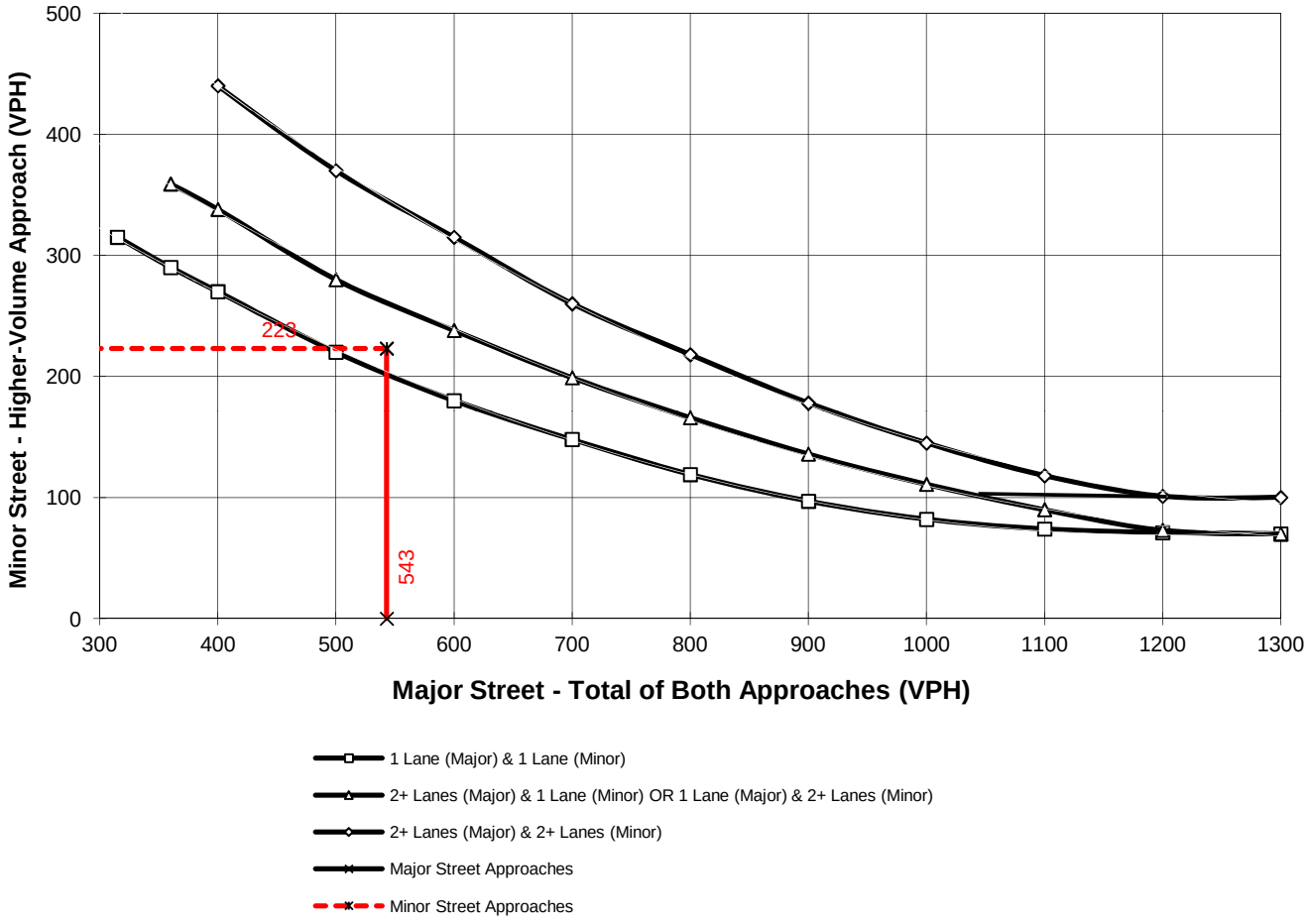
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **543**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.** High Volume Approach (VPH) = **223**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

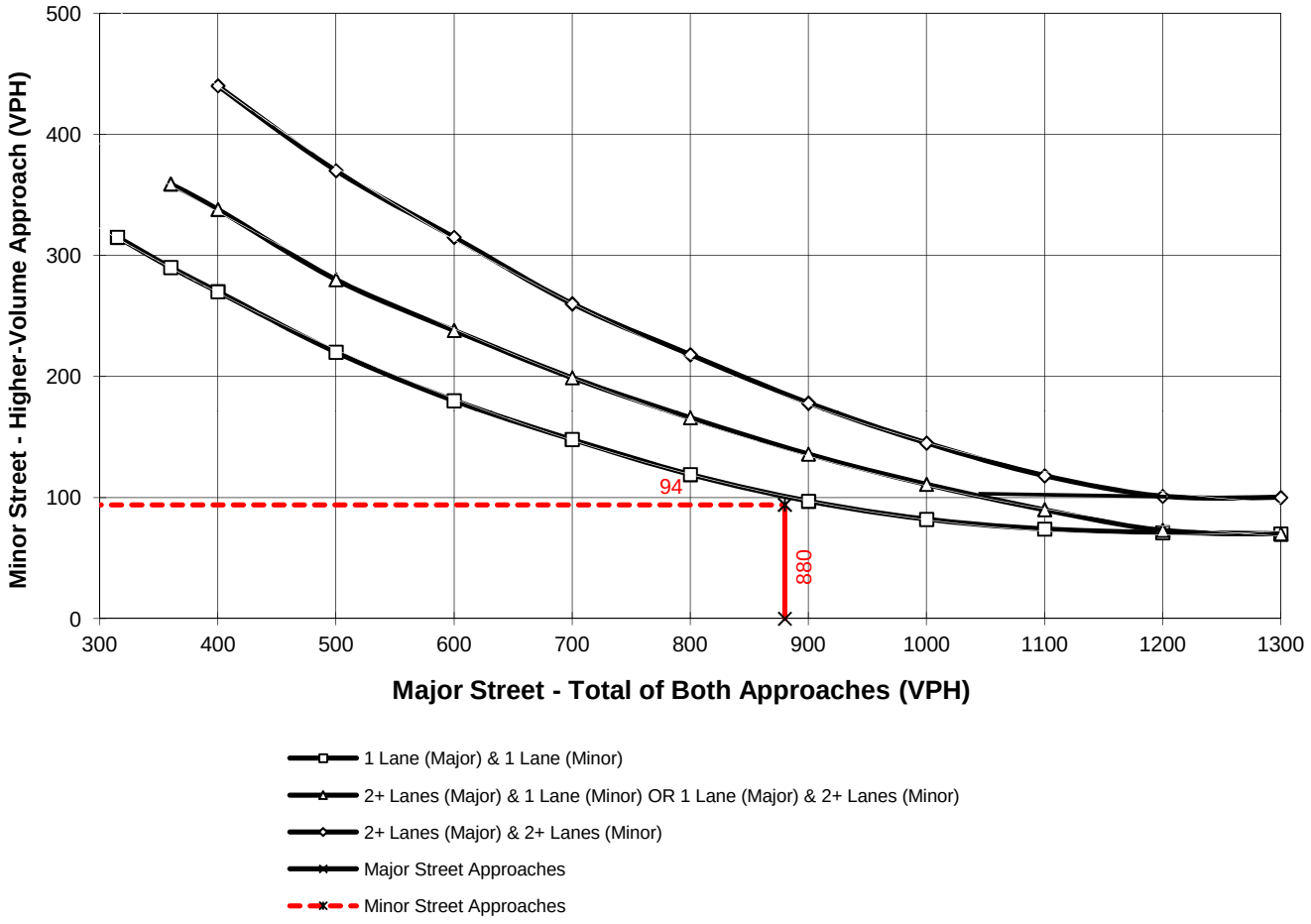
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **880**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.** High Volume Approach (VPH) = **94**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

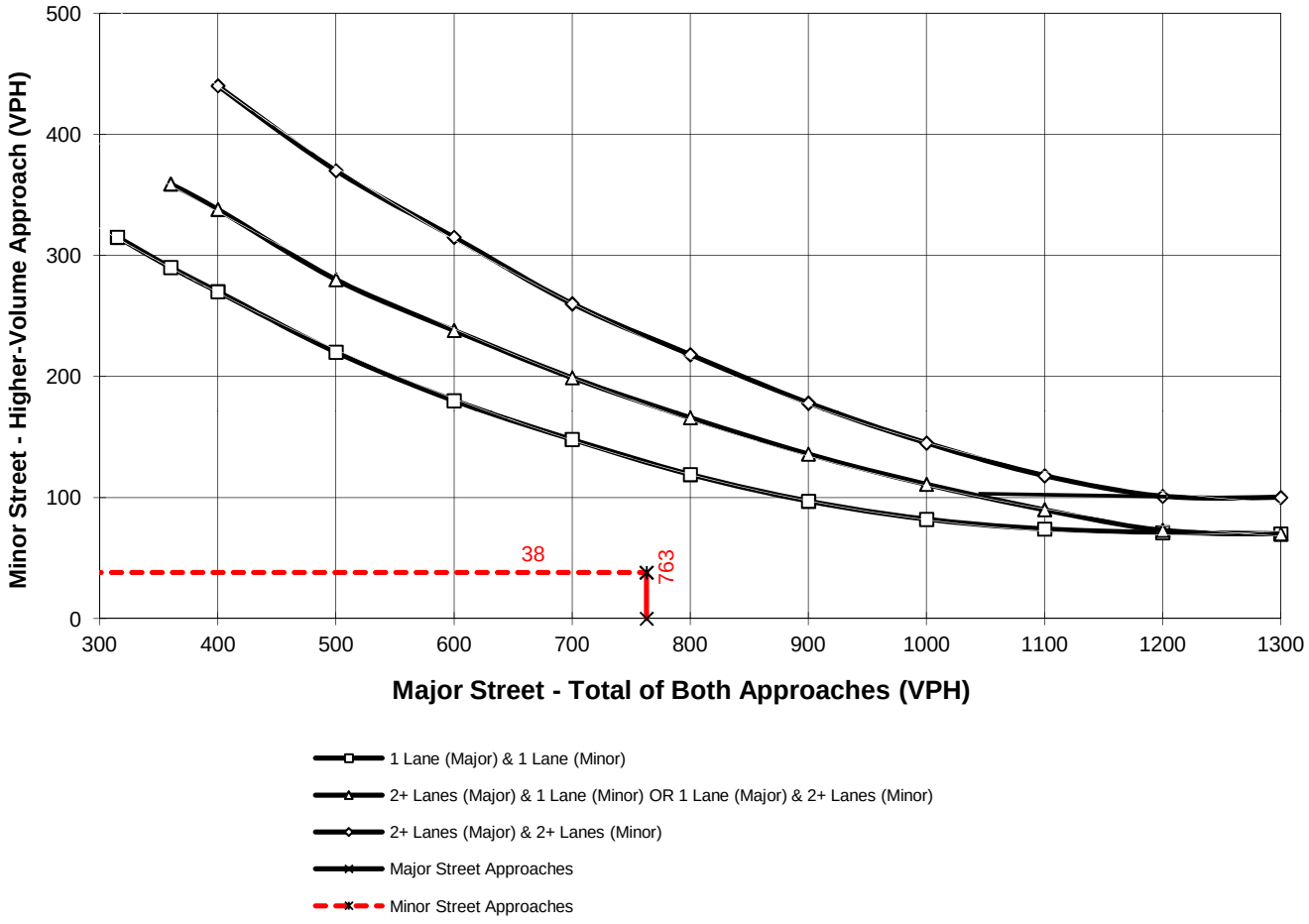
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035WP Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **763**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

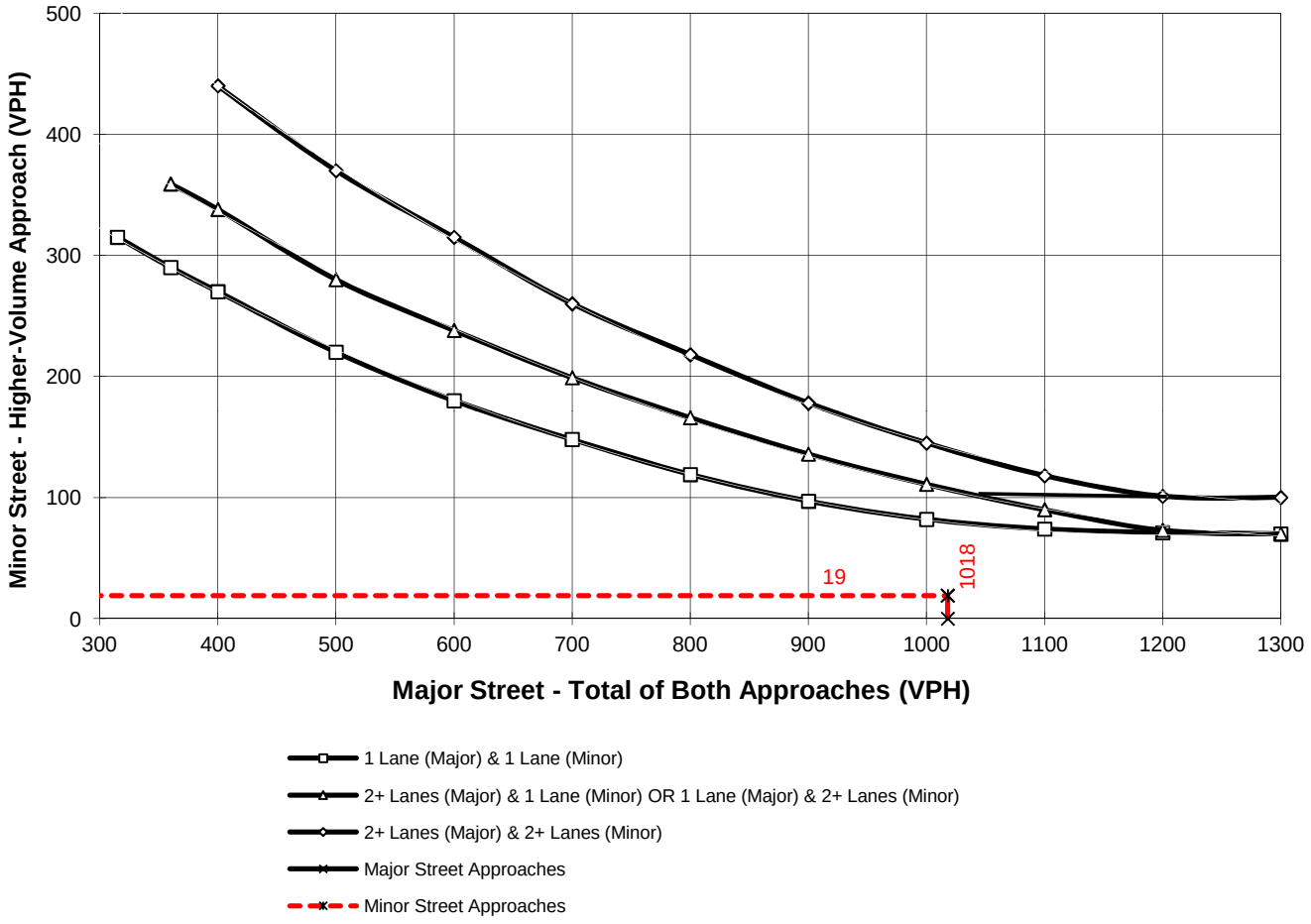
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **1,018**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **19**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2035WP w/o McMillan
				CALC JC	DATE 06/25/15
				CHK	DATE

Jurisdiction: **City of Corona**
Major Street: **Eagle Glen Pkwy.**
Minor Street: **St. "C"**

Critical Approach Speed (Major) 45 mph
Critical Approach Speed (Minor) 35 mph

Major Street Approach Lanes = **2** lane
Minor Street Approach Lanes **1** lane

Major Street Future ADT = **10,700** vpd
Minor Street Future ADT = **2,600** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... √
or
In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 + **10,700**	*1* **2,600**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 + **10,700**	*1* **2,600**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 100%	**B** 100%			

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		2035WP w/o McMillan
				CALC	JC	DATE	06/25/15
Jurisdiction:	City of Corona			CHK		DATE	
Major Street:	St. "A"				Critical Approach Speed (Major)		40 mph
Minor Street:	TAZ Main Dwy.				Critical Approach Speed (Minor)		35 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **11,550** vpd Minor Street Future ADT = **1,950** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	8,000	5,600	2,400	1,680
2 + **11,550**	*1* **1,950**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	12,000	8,400	1,200	850
2 + **11,550**	*1* **1,950**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	100% 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___ TRAFFIC CONDITIONS 2035WP w/o McMillan

CALC JC DATE 06/25/15

Jurisdiction: City of Corona CHK ____ DATE ____

Major Street: St. "A" Critical Approach Speed (Major) 40 mph

Minor Street: TAZ S. Dwy. Critical Approach Speed (Minor) 35 mph

Major Street Approach Lanes = 2 lane Minor Street Approach Lanes 1 lane

Major Street Future ADT = 9,050 vpd Minor Street Future ADT = 1,343 vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ..... ____

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements ADT	
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Satisfied / Not Satisfied: XX / XX	Urban / Rural	Urban / Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street		
1 / 1	8,000 / 5,600	2,400 / 1,680
2 + **9,050** / 1 **1,343**	9,600 / 6,720 *	2,400 / 1,680
2 + / 2 +	9,600 / 6,720	3,200 / 2,240
1 / 2 +	8,000 / 5,600	3,200 / 2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Satisfied / Not Satisfied: / XX	Urban / Rural	Urban / Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street		
1 / 1	12,000 / 8,400	1,200 / 850
2 + **9,050** / 1 **1,343**	14,400 / 10,080	1,200 / 850 *
2 + / 2 +	14,400 / 10,080	1,600 / 1,120
1 / 2 +	12,000 / 8,400	1,600 / 1,120
Combination of CONDITIONS A + B		
Satisfied / Not Satisfied: / XX	2 CONDITIONS 80%	2 CONDITIONS 80%
No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 80% B: 90%		

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 6.4:

2035 WITHOUT PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT FREEWAY RAMP MERGE AND DIVERGE ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerrito Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☑ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☐ Off
L_{up} = ft	Acceleration Lane Length, L_A:	L_{down} = 2500 ft
V_u = veh/h	Deceleration Lane Length L_D: 1500	V_D = 732 veh/h
	Freeway Volume, V_F: 7610	
	Ramp Volume, V_R: 770	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7610	0.92	Level	6	0	0.971	1.00	8520
Ramp	770	0.92	Level	6	0	0.971	1.00	862
UpStream								
DownStream	732	0.92	Level	6	0	0.971	1.00	820

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.507 using Equation (Exhibit 13-7)

V_{12} = 4747 pc/h

V_3 or V_{av34} 3773 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 5820 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8520	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7658	Exhibit 13-8	7050	Yes
V_R	862	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4747	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 40.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.506 (Exhibit 13-12)

S_R= 53.4 mph (Exhibit 13-12)

S_0= 64.7 mph (Exhibit 13-12)

S = 56.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 602 veh/h
	Freeway Volume, V_F: 6840	
	Ramp Volume, V_R: 732	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6840	0.92	Level	6	0	0.971	1.00	7658
Ramp	732	0.92	Level	6	0	0.971	1.00	820
UpStream								
DownStream	602	0.92	Level	6	0	0.971	1.00	674

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 5145.04 (Equation 13-6 or 13-7)

P_{FM} = 0.626 using Equation (Exhibit 13-6)

V_{12} = 4792 pc/h

V_3 or V_{av34} 2866 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4958 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8478	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5778	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 48.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.567 (Exibit 13-11)

S_R= 29.0 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 34.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{up} = 2300 ft
V_u = 732 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	2
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	7572
Ramp Volume, V_R	602
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7572	0.92	Level	6	0	0.971	1.00	8477
Ramp	602	0.92	Level	6	0	0.971	1.00	674
UpStream	732	0.92	Level	6	0	0.971	1.00	820
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 3818.45 (Equation 13-12 or 13-13)
P_{FD} = 0.450 using Equation (Exhibit 13-7)
V_{12} = 4185 pc/h
V_3 or V_{av34} 4292 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 5777 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8477	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7803	Exhibit 13-8	7050	Yes
V_R	674	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4185	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 45.8 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.489 (Exhibit 13-12)
S_R= 53.8 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.8 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 602 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 6970	
	Ramp Volume, V_R: 373	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6970	0.92	Level	6	0	0.971	1.00	7803
Ramp	373	0.92	Level	6	0	0.971	1.00	418
UpStream	602	0.92	Level	6	0	0.971	1.00	674
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1365.09 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 4594 pc/h

V_3 or V_{av34} 3209 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 5103 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8221	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5521	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 45.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.268 (Exibit 13-11)

S_R= 35.8 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 40.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 664 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9851	
	Ramp Volume, V_R: 939	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9851	0.92	Level	6	0	0.971	1.00	11029
Ramp	939	0.92	Level	6	0	0.971	1.00	1051
UpStream	664	0.92	Level	6	0	0.971	1.00	743
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2279.72 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 6555 pc/h

V_3 or V_{av34} 4474 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8329 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12080	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9380	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 74.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 46.490 (Exibit 13-11)

S_R= -1004.3 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 311.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	3	Downstream Adj Ramp	
☐ Yes	☐ On	Ramp Number of Lanes, N	1	☑ Yes	☑ On
☑ No	☐ Off	Acceleration Lane Length, L_A		☐ No	☐ Off
L_{up} =	ft	Deceleration Lane Length L_D	200	L_{down} =	2300 ft
V_u =	veh/h	Freeway Volume, V_F	10515	V_D =	939 veh/h
		Ramp Volume, V_R	664		
		Freeway Free-Flow Speed, S_{FF}	65.0		
		Ramp Free-Flow Speed, S_{FR}	35.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10515	0.92	Level	6	0	0.971	1.00	11772
Ramp	664	0.92	Level	6	0	0.971	1.00	743
UpStream								
DownStream	939	0.92	Level	6	0	0.971	1.00	1051

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.432 using Equation (Exhibit 13-7)

V_{12} = 5502 pc/h

V_3 or V_{av34} 6270 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 9072 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11772	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11029	Exhibit 13-8	7050	Yes
V_R	743	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5502	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 80.5 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.495 (Exhibit 13-12)

S_R = 53.6 mph (Exhibit 13-12)

S_0 = 64.7 mph (Exhibit 13-12)

S = 55.8 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off

L_{up} = 1900 ft

V_u = 362 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	400
Deceleration Lane Length L_D	
Freeway Volume, V_F	9383
Ramp Volume, V_R	1132
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9383	0.92	Level	6	0	0.971	1.00	10505
Ramp	1132	0.92	Level	6	0	0.971	1.00	1267
UpStream	362	0.92	Level	6	0	0.971	1.00	405
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2125.01 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6184 pc/h

V_3 or V_{av34} 4321 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7805 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11772	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9072	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 73.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 34.254 (Exibit 13-11)

S_R= -722.8 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 330.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 200 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 1132 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9021	
	Ramp Volume, V_R: 362	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9021	0.92	Level	6	0	0.971	1.00	10100
Ramp	362	0.92	Level	6	0	0.971	1.00	405
UpStream	1132	0.92	Level	6	0	0.971	1.00	1267
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1853.87 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 5946 pc/h

V_3 or V_{av34} 4154 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7400 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10505	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7805	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 63.7 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 9.859 (Exibit 13-11)

S_R= -161.8 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	9357
Ramp Volume, V_R	336
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 362 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9357	0.92	Level	6	0	0.971	1.00	10476
Ramp	336	0.92	Level	6	0	0.971	1.00	376
UpStream								
DownStream	362	0.92	Level	6	0	0.971	1.00	405

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.481 using Equation (Exhibit 13-7)
V_{12} = 5232 pc/h
V_3 or V_{av34} 5244 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 7776 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10476	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	10100	Exhibit 13-8	7050	Yes
V_R	376	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5232	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 69.3 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.462 (Exhibit 13-12)
S_R= 54.4 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	1500
Freeway Volume, V_F	8824
Ramp Volume, V_R	686
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2500 ft
V_D = 1022 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8824	0.92	Level	6	0	0.971	1.00	9879
Ramp	686	0.92	Level	6	0	0.971	1.00	768
UpStream								
DownStream	1022	0.92	Level	6	0	0.971	1.00	1144

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.478 using Equation (Exhibit 13-7)
V_{12} = 5120 pc/h
V_3 or V_{av34} 4759 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 7179 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9879	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9111	Exhibit 13-8	7050	Yes
V_R	768	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5120	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 52.5 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.497 (Exhibit 13-12)
S_R= 53.6 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = veh/h
	Freeway Volume, V_F: 8138	
	Ramp Volume, V_R: 1022	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8138	0.92	Level	6	0	0.971	1.00	9111
Ramp	1022	0.92	Level	6	0	0.971	1.00	1144
UpStream								
DownStream		0.92	Level	6	0	0.971	1.00	872

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 6656.49 (Equation 13-6 or 13-7)

P_{FM} = 0.648 using Equation (Exhibit 13-6)

V_{12} = 5907 pc/h

V_3 or V_{av34} 3204 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 6411 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10255	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7555	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 62.6 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 7.757 (Exibit 13-11)

S_R= -113.4 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	3	Downstream Adj Ramp	
☑ Yes	☑ On	Ramp Number of Lanes, N	2	☐ Yes	☐ On
☐ No	☐ Off	Acceleration Lane Length, L_A		☑ No	☐ Off
L_{up} =	2300 ft	Deceleration Lane Length L_D	200	L_{down} =	ft
V_u =	1022 veh/h	Freeway Volume, V_F	9160	V_D =	veh/h
		Ramp Volume, V_R	931		
		Freeway Free-Flow Speed, S_{FF}	65.0		
		Ramp Free-Flow Speed, S_{FR}	35.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9160	0.92	Level	6	0	0.971	1.00	10255
Ramp	931	0.92	Level	6	0	0.971	1.00	1042
UpStream	1022	0.92	Level	6	0	0.971	1.00	1144
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 5024.75 (Equation 13-12 or 13-13)

P_{FD} = 0.450 using Equation (Exhibit 13-7)

V_{12} = 5188 pc/h

V_3 or V_{av34} 5067 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7555 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10255	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9213	Exhibit 13-8	7050	Yes
V_R	1042	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5188	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 61.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.522 (Exhibit 13-12)

S_R= 53.0 mph (Exhibit 13-12)

S_0= 64.7 mph (Exhibit 13-12)

S = 55.6 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 931 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 8229	
	Ramp Volume, V_R: 632	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8229	0.92	Level	6	0	0.971	1.00	9213
Ramp	632	0.92	Level	6	0	0.971	1.00	708
UpStream	931	0.92	Level	6	0	0.971	1.00	1042
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1728.89 (Equation 13-6 or 13-7)

P_{FM} = 0.580 using Equation (Exhibit 13-6)

V_{12} = 5347 pc/h

V_3 or V_{av34} 3866 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 6513 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9921	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7221	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 59.0 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 5.628 (Exibit 13-11)

S_R= -64.4 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 532 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10132	
	Ramp Volume, V_R: 586	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10132	0.92	Level	6	0	0.971	1.00	11343
Ramp	586	0.92	Level	6	0	0.971	1.00	656
UpStream	532	0.92	Level	6	0	0.971	1.00	596
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2262.39 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 6741 pc/h

V_3 or V_{av34} 4602 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8643 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11999	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9299	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 73.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 42.895 (Exibit 13-11)

S_R= -921.6 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 315.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	10664
Ramp Volume, V_R	532
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 586 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10664	0.92	Level	6	0	0.971	1.00	11939
Ramp	532	0.92	Level	6	0	0.971	1.00	596
UpStream								
DownStream	586	0.92	Level	6	0	0.971	1.00	656

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.434 using Equation (Exhibit 13-7)
V_{12} = 5520 pc/h
V_3 or V_{av34} 6419 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9239 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11939	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11343	Exhibit 13-8	7050	Yes
V_R	596	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5520	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 81.9 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.482 (Exhibit 13-12)
S_R= 53.9 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 257 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10157	
	Ramp Volume, V_R: 507	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10157	0.92	Level	6	0	0.971	1.00	11371
Ramp	507	0.92	Level	6	0	0.971	1.00	568
UpStream	257	0.92	Level	6	0	0.971	1.00	288
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6694 pc/h

V_3 or V_{av34} 4677 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8671 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11939	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9239	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 74.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 40.427 (Exibit 13-11)

S_R= -864.8 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 318.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 507 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9900	
	Ramp Volume, V_R: 257	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9900	0.92	Level	6	0	0.971	1.00	11084
Ramp	257	0.92	Level	6	0	0.971	1.00	288
UpStream	507	0.92	Level	6	0	0.971	1.00	568
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6525 pc/h

V_3 or V_{av34} 4559 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8384 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11372	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8672	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 70.5 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 23.058 (Exibit 13-11)

S_R= -465.3 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 385.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP Conditions

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	3	Downstream Adj Ramp	
☐ Yes	☐ On	Ramp Number of Lanes, N	1	☑ Yes	☑ On
☑ No	☐ Off	Acceleration Lane Length, L_A		☐ No	☐ Off
L_{up} =	ft	Deceleration Lane Length L_D	200	L_{down} =	2000 ft
V_u =	veh/h	Freeway Volume, V_F	10592	V_D =	257 veh/h
		Ramp Volume, V_R	692		
		Freeway Free-Flow Speed, S_{FF}	65.0		
		Ramp Free-Flow Speed, S_{FR}	35.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10592	0.92	Level	6	0	0.971	1.00	11858
Ramp	692	0.92	Level	6	0	0.971	1.00	775
UpStream								
DownStream	257	0.92	Level	6	0	0.971	1.00	288

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = 1011.12 (Equation 13-12 or 13-13)

P_{FD} = 0.428 using Equation (Exhibit 13-7)

V_{12} = 5517 pc/h

V_3 or V_{av34} 6341 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 9158 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11858	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11083	Exhibit 13-8	7050	Yes
V_R	775	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5517	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 81.2 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.498 (Exhibit 13-12)

S_R= 53.6 mph (Exhibit 13-12)

S_0= 64.7 mph (Exhibit 13-12)

S = 55.7 mph (Exhibit 13-13)

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APPENDIX 6.5:

2035 WITH MODIFIED PROJECT, WITHOUT MCMILLAN TRUST PROPERTY DEVELOPMENT FREEWAY RAMP MERGE AND DIVERGE ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerrito Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	1500
Freeway Volume, V_F	7757
Ramp Volume, V_R	770
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2500 ft
V_D = 732 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7757	0.92	Level	6	0	0.971	1.00	8684
Ramp	770	0.92	Level	6	0	0.971	1.00	862
UpStream								
DownStream	732	0.92	Level	6	0	0.971	1.00	820

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.503 using Equation (Exhibit 13-7)
V_{12} = 4798 pc/h
V_3 or V_{av34} 3886 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 5984 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8684	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7822	Exhibit 13-8	7050	Yes
V_R	862	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4798	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 42.2 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.506 (Exhibit 13-12)
S_R= 53.4 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 749 veh/h
	Freeway Volume, V_F: 6987	
	Ramp Volume, V_R: 732	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6987	0.92	Level	6	0	0.971	1.00	7822
Ramp	732	0.92	Level	6	0	0.971	1.00	820
UpStream								
DownStream	749	0.92	Level	6	0	0.971	1.00	839

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 6404.58 (Equation 13-6 or 13-7)

P_{FM} = 0.645 using Equation (Exhibit 13-6)

V_{12} = 5042 pc/h

V_3 or V_{av34} = 2780 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 5122 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8642	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5942	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 50.2 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.792 (Exibit 13-11)

S_R = 23.8 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 29.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off; L_{up} = 2300 ft; V_u = 732 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	2
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	7719
Ramp Volume, V_R	749
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off; L_{down} = ft; V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7719	0.92	Level	6	0	0.971	1.00	8642
Ramp	749	0.92	Level	6	0	0.971	1.00	839
UpStream	732	0.92	Level	6	0	0.971	1.00	820
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.450 using Equation (Exhibit 13-7)

V_{12} = 4350 pc/h

V_3 or V_{av34} 4292 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 5942 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8642	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7803	Exhibit 13-8	7050	Yes
V_R	839	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4350	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 47.3 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.504 (Exhibit 13-12)

S_R= 53.4 mph (Exhibit 13-12)

S_0= 64.7 mph (Exhibit 13-12)

S = 56.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 749 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 6970	
	Ramp Volume, V_R: 530	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6970	0.92	Level	6	0	0.971	1.00	7803
Ramp	530	0.92	Level	6	0	0.971	1.00	593
UpStream	749	0.92	Level	6	0	0.971	1.00	839
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1402.54 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 4594 pc/h

V_3 or V_{av34} 3209 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 5103 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8396	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5696	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 47.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.454 (Exibit 13-11)

S_R= 31.6 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 36.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 664 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10273	
	Ramp Volume, V_R: 939	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10273	0.92	Level	6	0	0.971	1.00	11501
Ramp	939	0.92	Level	6	0	0.971	1.00	1051
UpStream	664	0.92	Level	6	0	0.971	1.00	743
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2380.73 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6774 pc/h

V_3 or V_{av34} 4727 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8801 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12552	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9852	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 78.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 74.365 (Exibit 13-11)

S_R= -1645.4 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 297.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	10937
Ramp Volume, V_R	664
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 939 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10937	0.92	Level	6	0	0.971	1.00	12245
Ramp	664	0.92	Level	6	0	0.971	1.00	743
UpStream								
DownStream	939	0.92	Level	6	0	0.971	1.00	1051

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.420 using Equation (Exhibit 13-7)
V_{12} = 5570 pc/h
V_3 or V_{av34} 6675 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9545 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12245	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11502	Exhibit 13-8	7050	Yes
V_R	743	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5570	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 84.5 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.495 (Exhibit 13-12)
S_R= 53.6 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 55.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 784 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9805	
	Ramp Volume, V_R: 1132	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9805	0.92	Level	6	0	0.971	1.00	10977
Ramp	1132	0.92	Level	6	0	0.971	1.00	1267
UpStream	784	0.92	Level	6	0	0.971	1.00	878
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6462 pc/h

V_3 or V_{av34} = 4515 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 8277 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12244	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9544	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 76.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 54.740 (Exibit 13-11)

S_R = -1194.0 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 304.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} = pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 200 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 1132 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9021	
	Ramp Volume, V_R: 784	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9021	0.92	Level	6	0	0.971	1.00	10100
Ramp	784	0.92	Level	6	0	0.971	1.00	878
UpStream	1132	0.92	Level	6	0	0.971	1.00	1267
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 5946 pc/h

V_3 or V_{av34} = 4154 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 7400 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10978	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8278	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 67.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 15.645 (Exibit 13-11)

S_R = -294.8 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 546.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} = pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	9418
Ramp Volume, V_R	397
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 784 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9418	0.92	Level	6	0	0.971	1.00	10544
Ramp	397	0.92	Level	6	0	0.971	1.00	444
UpStream								
DownStream	784	0.92	Level	6	0	0.971	1.00	878

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.476 using Equation (Exhibit 13-7)
V_{12} = 5251 pc/h
V_3 or V_{av34} 5293 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 7844 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10544	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	10100	Exhibit 13-8	7050	Yes
V_R	444	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5251	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 69.9 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.468 (Exhibit 13-12)
S_R= 54.2 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.6 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	3	Downstream Adj Ramp	
☐ Yes	☐ On	Ramp Number of Lanes, N	1	☑ Yes	☑ On
☑ No	☐ Off	Acceleration Lane Length, L_A		☐ No	☐ Off
L_{up} =	ft	Deceleration Lane Length L_D	1500	L_{down} =	2500 ft
V_u =	veh/h	Freeway Volume, V_F	9294	V_D =	1022 veh/h
		Ramp Volume, V_R	686		
		Freeway Free-Flow Speed, S_{FF}	65.0		
		Ramp Free-Flow Speed, S_{FR}	35.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9294	0.92	Level	6	0	0.971	1.00	10405
Ramp	686	0.92	Level	6	0	0.971	1.00	768
UpStream								
DownStream	1022	0.92	Level	6	0	0.971	1.00	1144

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.465 using Equation (Exhibit 13-7)

V_{12} = 5245 pc/h

V_3 or V_{av34} 5160 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7705 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10405	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9637	Exhibit 13-8	7050	Yes
V_R	768	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5245	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 57.0 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.497 (Exhibit 13-12)

S_R= 53.6 mph (Exhibit 13-12)

S_0= 64.7 mph (Exhibit 13-12)

S = 56.1 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 1401 veh/h
	Freeway Volume, V_F: 8608	
	Ramp Volume, V_R: 1022	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8608	0.92	Level	6	0	0.971	1.00	9637
Ramp	1022	0.92	Level	6	0	0.971	1.00	1144
UpStream								
DownStream	1401	0.92	Level	6	0	0.971	1.00	1569

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 11977.10 (Equation 13-6 or 13-7)

P_{FM} = 0.728 using Equation (Exhibit 13-6)

V_{12} = 7015 pc/h

V_3 or V_{av34} 2622 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7015 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10781	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8159	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 67.3 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 13.936 (Exibit 13-11)

S_R= -255.5 mph (Exhibit 13-11)

S_0= 56.5 mph (Exhibit 13-11)

S = 746.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off; L_{up} = 2300 ft; V_u = 1022 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	2
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	9630
Ramp Volume, V_R	1401
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off; L_{down} = ft; V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9630	0.92	Level	6	0	0.971	1.00	10781
Ramp	1401	0.92	Level	6	0	0.971	1.00	1569
UpStream	1022	0.92	Level	6	0	0.971	1.00	1144
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.450 using Equation (Exhibit 13-7)

V_{12} = 5714 pc/h

V_3 or V_{av34} 5067 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 8081 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10781	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9212	Exhibit 13-8	7050	Yes
V_R	1569	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5714	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 65.6 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.569 (Exhibit 13-12)

S_R= 51.9 mph (Exhibit 13-12)

S_0= 64.7 mph (Exhibit 13-12)

S = 54.6 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 1401 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 8229	
	Ramp Volume, V_R: 763	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8229	0.92	Level	6	0	0.971	1.00	9213
Ramp	763	0.92	Level	6	0	0.971	1.00	854
UpStream	1401	0.92	Level	6	0	0.971	1.00	1569
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1760.14 (Equation 13-6 or 13-7)

P_{FM} = 0.578 using Equation (Exhibit 13-6)

V_{12} = 5329 pc/h

V_3 or V_{av34} 3884 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 6513 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10067	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7367	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 60.0 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 6.466 (Exibit 13-11)

S_R= -83.7 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 532 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10432	
	Ramp Volume, V_R: 586	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10432	0.92	Level	6	0	0.971	1.00	11679
Ramp	586	0.92	Level	6	0	0.971	1.00	656
UpStream	532	0.92	Level	6	0	0.971	1.00	596
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2334.29 (Equation 13-6 or 13-7)

P_{FM} = 0.592 using Equation (Exhibit 13-6)

V_{12} = 6913 pc/h

V_3 or V_{av34} 4766 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8979 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12335	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9635	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 76.6 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 59.913 (Exibit 13-11)

S_R= -1313.0 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 302.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	10964
Ramp Volume, V_R	532
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 586 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10964	0.92	Level	6	0	0.971	1.00	12275
Ramp	532	0.92	Level	6	0	0.971	1.00	596
UpStream								
DownStream	586	0.92	Level	6	0	0.971	1.00	656

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.426 using Equation (Exhibit 13-7)
V_{12} = 5568 pc/h
V_3 or V_{av34} 6707 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9575 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12275	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11679	Exhibit 13-8	7050	Yes
V_R	596	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5568	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 84.8 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.482 (Exhibit 13-12)
S_R= 53.9 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 557 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10457	
	Ramp Volume, V_R: 507	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10457	0.92	Level	6	0	0.971	1.00	11707
Ramp	507	0.92	Level	6	0	0.971	1.00	568
UpStream	557	0.92	Level	6	0	0.971	1.00	624
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6892 pc/h

V_3 or V_{av34} = 4815 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 9007 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12275	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9575	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 77.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 56.454 (Exibit 13-11)

S_R = -1233.4 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 303.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} = pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 507 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9900	
	Ramp Volume, V_R: 557	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9900	0.92	Level	6	0	0.971	1.00	11084
Ramp	557	0.92	Level	6	0	0.971	1.00	624
UpStream	507	0.92	Level	6	0	0.971	1.00	568
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6525 pc/h

V_3 or V_{av34} 4559 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8384 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11708	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9008	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 72.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 32.149 (Exibit 13-11)

S_R= -674.4 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 336.5 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/o McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	10787
Ramp Volume, V_R	887
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 557 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10787	0.92	Level	6	0	0.971	1.00	12077
Ramp	887	0.92	Level	6	0	0.971	1.00	993
UpStream								
DownStream	557	0.92	Level	6	0	0.971	1.00	624

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.412 using Equation (Exhibit 13-7)
V_{12} = 5564 pc/h
V_3 or V_{av34} 6513 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9377 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12077	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11084	Exhibit 13-8	7050	Yes
V_R	993	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5564	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 83.1 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.517 (Exhibit 13-12)
S_R= 53.1 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 55.3 mph (Exhibit 13-13)

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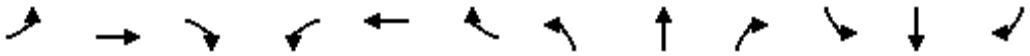
APPENDIX 7.1:

2035 WITHOUT PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT INTERSECTION OPERATIONS ANALYSIS WORKSHEETS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	72	120	104	165	118	247	254	191	129	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959				0.850		0.924			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1786	0	1770	1863	1583	1770	1721	0	1770	1850	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1786	0	1770	1863	1583	1770	1721	0	1770	1850	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	42.4
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	6	190	72	0	120	104	165	0	118	247	254
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	218	83	0	138	120	190	0	136	284	292
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	43.9	19.1	65.4
HCM LOS	E	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	49%	0%	73%	0%	100%	0%	0%	96%
Vol Right, %	0%	51%	0%	27%	0%	0%	100%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	501	6	262	120	104	165	191	135
LT Vol	118	0	6	0	120	0	0	191	0
Through Vol	0	247	0	190	0	104	0	0	129
RT Vol	0	254	0	72	0	0	165	0	6
Lane Flow Rate	136	576	7	301	138	120	190	220	155
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.381	1	0.02	0.819	0.393	0.324	0.478	0.63	0.423
Departure Headway (Hd)	10.125	9.239	10.473	9.785	10.265	9.766	9.068	10.338	9.808
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	358	397	341	370	350	367	396	349	366
Service Time	7.825	6.939	8.252	7.565	8.048	7.55	6.851	8.125	7.595
HCM Lane V/C Ratio	0.38	1.451	0.021	0.814	0.394	0.327	0.48	0.63	0.423
HCM Control Delay	18.9	76.4	13.5	44.6	19.6	17.2	20	29.3	19.7
HCM Lane LOS	C	F	B	E	C	C	C	D	C
HCM 95th-tile Q	1.7	12.1	0.1	7.2	1.8	1.4	2.5	4.1	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	191	129	6
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	220	148	7
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	25.3
HCM LOS	D

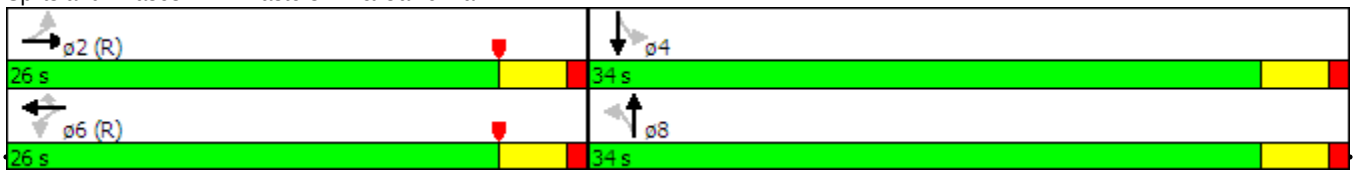
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	72	120	104	165	118	247	254	191	129	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959				0.850		0.924			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1786	0	1770	1863	1583	1770	1721	0	1770	1850	0
Flt Permitted	0.680			0.481			0.659			0.297		
Satd. Flow (perm)	1267	1786	0	896	1863	1583	1228	1721	0	553	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36				190		123			6	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

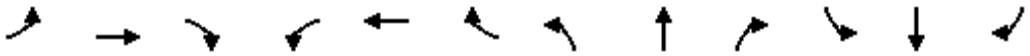
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	190	72	120	104	165	118	247	254	191	129	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	7	218	83	138	120	190	136	284	292	220	148	7
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	472	180	375	683	581	677	422	433	273	882	42
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.17	0.17	0.17	0.50	0.50	0.50
Sat Flow, veh/h	1065	1286	490	1074	1863	1583	1227	843	867	834	1765	83
Grp Volume(v), veh/h	7	0	301	138	120	190	136	0	576	220	0	155
Grp Sat Flow(s),veh/h/ln	1065	0	1776	1074	1863	1583	1227	0	1710	834	0	1848
Q Serve(g_s), s	0.3	0.0	7.8	6.7	2.6	5.2	5.9	0.0	19.0	11.0	0.0	2.7
Cycle Q Clear(g_c), s	2.9	0.0	7.8	14.5	2.6	5.2	8.6	0.0	19.0	30.0	0.0	2.7
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.51	1.00		0.05
Lane Grp Cap(c), veh/h	464	0	651	375	683	581	677	0	855	273	0	924
V/C Ratio(X)	0.02	0.00	0.46	0.37	0.18	0.33	0.20	0.00	0.67	0.81	0.00	0.17
Avail Cap(c_a), veh/h	464	0	651	375	683	581	677	0	855	273	0	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.82	0.00	0.82	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	0.0	14.5	20.0	12.9	13.7	17.3	0.0	20.5	26.2	0.0	8.2
Incr Delay (d2), s/veh	0.1	0.0	2.4	2.8	0.6	1.5	0.5	0.0	3.5	21.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	4.2	2.3	1.4	2.5	2.1	0.0	9.8	5.3	0.0	1.5
LnGrp Delay(d),s/veh	13.9	0.0	16.8	22.8	13.4	15.2	17.9	0.0	23.9	48.1	0.0	8.6
LnGrp LOS	B		B	C	B	B	B		C	D		A
Approach Vol, veh/h		308			448			712			375	
Approach Delay, s/veh		16.8			17.0			22.8			31.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		22.0		30.0		22.0		30.0
Max Q Clear Time (g_c+I1), s		9.8		32.0		16.5		21.0
Green Ext Time (p_c), s		2.9		0.0		1.8		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	17	3	32	7	187	14	28	163	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.917			0.989			0.989	
Flt Protected		0.975			0.984		0.950			0.950		
Satd. Flow (prot)	0	1722	0	0	1681	0	1770	1842	0	1770	1842	0
Flt Permitted		0.975			0.984		0.950			0.950		
Satd. Flow (perm)	0	1722	0	0	1681	0	1770	1842	0	1770	1842	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			617	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	44	9	32	0	17	3	32	0	7	187	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	9	34	0	18	3	34	0	7	197	15
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.7	8.2	9.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	33%	100%	0%
Vol Thru, %	0%	93%	11%	6%	0%	93%
Vol Right, %	0%	7%	38%	62%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	201	85	52	28	175
LT Vol	7	0	44	17	28	0
Through Vol	0	187	9	3	0	163
RT Vol	0	14	32	32	0	12
Lane Flow Rate	7	212	89	55	29	184
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.011	0.296	0.123	0.073	0.046	0.258
Departure Headway (Hd)	5.587	5.035	4.94	4.811	5.586	5.035
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	640	713	724	742	640	713
Service Time	3.329	2.776	2.982	2.859	3.328	2.776
HCM Lane V/C Ratio	0.011	0.297	0.123	0.074	0.045	0.258
HCM Control Delay	8.4	9.9	8.7	8.2	8.6	9.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	1.2	0.4	0.2	0.1	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	28	163	12
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	29	172	13
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.4
HCM LOS	A

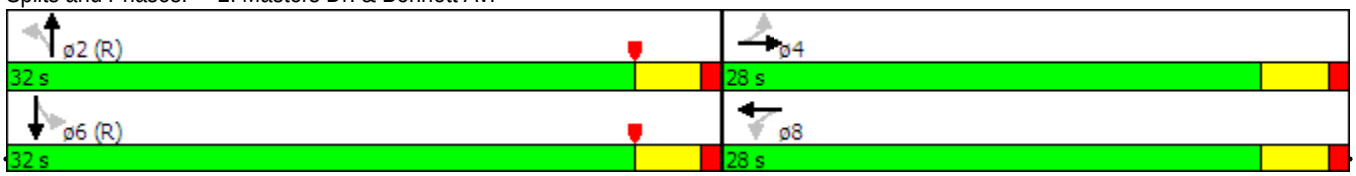
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	17	3	32	7	187	14	28	163	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.917			0.989			0.989	
Flt Protected		0.975			0.984		0.950			0.950		
Satd. Flow (prot)	0	1722	0	0	1681	0	1770	1842	0	1770	1842	0
Flt Permitted		0.815			0.888		0.641			0.625		
Satd. Flow (perm)	0	1439	0	0	1517	0	1194	1842	0	1164	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			34			9			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	28.0	28.0		28.0	28.0		32.0	32.0		32.0	32.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%		53.3%	53.3%		53.3%	53.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

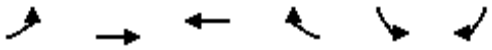
Splits and Phases: 2: Masters Dr. & Bennett Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	9	32	17	3	32	7	187	14	28	163	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	46	9	34	18	3	34	7	197	15	29	172	13
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	22	53	113	22	89	1021	1333	101	994	1333	101
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	732	252	608	385	248	1025	1194	1710	130	1165	1711	129
Grp Volume(v), veh/h	89	0	0	55	0	0	7	0	212	29	0	185
Grp Sat Flow(s),veh/h/ln	1592	0	0	1658	0	0	1194	0	1840	1165	0	1840
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.7	0.4	0.0	1.5
Cycle Q Clear(g_c), s	3.1	0.0	0.0	1.8	0.0	0.0	1.6	0.0	1.7	2.1	0.0	1.5
Prop In Lane	0.52		0.38	0.33		0.62	1.00		0.07	1.00		0.07
Lane Grp Cap(c), veh/h	230	0	0	224	0	0	1021	0	1434	994	0	1434
V/C Ratio(X)	0.39	0.00	0.00	0.25	0.00	0.00	0.01	0.00	0.15	0.03	0.00	0.13
Avail Cap(c_a), veh/h	694	0	0	698	0	0	1021	0	1434	994	0	1434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.98	0.00	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	0.0	25.8	0.0	0.0	1.8	0.0	1.6	1.9	0.0	1.6
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.9	0.1	0.0	0.8
LnGrp Delay(d),s/veh	27.4	0.0	0.0	26.4	0.0	0.0	1.8	0.0	1.9	2.0	0.0	1.8
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		89			55			219			214	
Approach Delay, s/veh		27.4			26.4			1.9			1.8	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.8		9.2		50.8		9.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		28.0		24.0		28.0		24.0
Max Q Clear Time (g_c+I1), s		3.7		5.1		4.1		3.8
Green Ext Time (p_c), s		2.4		0.7		2.4		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	8.1
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	34	623	479	127	152	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.968			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3426	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3426	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	34	623	0	479	127	0	152	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	656	0	504	134	0	160	25
Number of Lanes	0	1	2	0	2	0	0	1	1

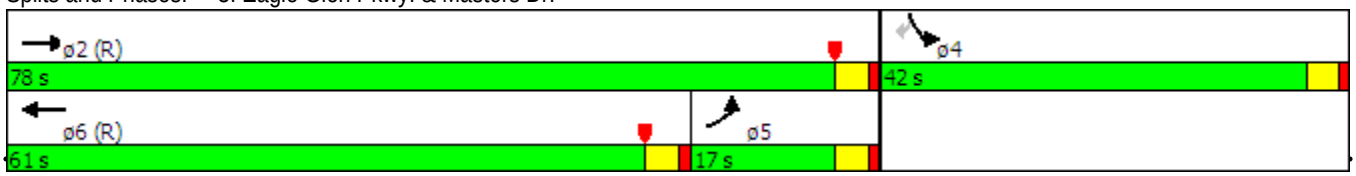
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	16.3	19.4	15.9
HCM LOS	C	C	C

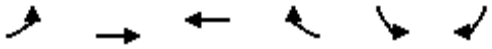
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	56%	0%	0%
Vol Right, %	0%	0%	0%	0%	44%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	312	312	319	287	152	24
LT Vol	34	0	0	0	0	152	0
Through Vol	0	312	312	319	160	0	0
RT Vol	0	0	0	0	127	0	24
Lane Flow Rate	36	328	328	336	302	160	25
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.074	0.628	0.468	0.641	0.549	0.385	0.052
Departure Headway (Hd)	7.516	7.008	5.245	6.972	6.657	8.655	7.432
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	480	518	692	521	546	418	485
Service Time	5.216	4.708	2.945	4.672	4.357	6.355	5.132
HCM Lane V/C Ratio	0.075	0.633	0.474	0.645	0.553	0.383	0.052
HCM Control Delay	10.8	20.8	12.5	21.3	17.2	16.7	10.5
HCM Lane LOS	B	C	B	C	C	C	B
HCM 95th-tile Q	0.2	4.3	2.5	4.5	3.3	1.8	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	34	623	479	127	152	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.968			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3426	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3426	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			38			25
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	17.0	78.0	61.0		42.0	42.0
Total Split (%)	14.2%	65.0%	50.8%		35.0%	35.0%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 1 (1%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	34	623	479	127	152	24
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	36	656	504	134	160	25
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	561	2918	1316	348	193	172
Arrive On Green	0.63	1.00	0.47	0.47	0.11	0.11
Sat Flow, veh/h	1774	3632	2863	733	1774	1583
Grp Volume(v), veh/h	36	656	321	317	160	25
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1733	1774	1583
Q Serve(g_s), s	0.9	0.0	14.0	14.1	10.6	1.7
Cycle Q Clear(g_c), s	0.9	0.0	14.0	14.1	10.6	1.7
Prop In Lane	1.00			0.42	1.00	1.00
Lane Grp Cap(c), veh/h	561	2918	841	823	193	172
V/C Ratio(X)	0.06	0.22	0.38	0.39	0.83	0.14
Avail Cap(c_a), veh/h	561	2918	841	823	562	501
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	20.2	20.2	52.4	48.4
Incr Delay (d2), s/veh	0.0	0.2	1.3	1.4	8.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	0.1	7.1	7.0	5.7	1.6
LnGrp Delay(d),s/veh	15.3	0.2	21.5	21.6	61.0	48.8
LnGrp LOS	B	A	C	C	E	D
Approach Vol, veh/h		692	638		185	
Approach Delay, s/veh		1.0	21.6		59.4	
Approach LOS		A	C		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		102.9		17.1	41.9	61.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		74.0		38.0	13.0	57.0		
Max Q Clear Time (g_c+I1), s		2.0		12.6	2.9	16.1		
Green Ext Time (p_c), s		4.7		0.5	3.0	3.9		

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1181	251	291	1179	339	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.974					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3447	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3447	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	28					201
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	60.0		28.0	88.0	32.0	32.0
Total Split (%)	50.0%		23.3%	73.3%	26.7%	26.7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

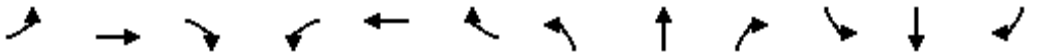
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 74 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1181	251	291	1179	339	291
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1243	264	306	1241	357	306
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1404	295	327	2477	414	369
Arrive On Green	0.48	0.48	0.37	1.00	0.23	0.23
Sat Flow, veh/h	3006	612	1774	3632	1774	1583
Grp Volume(v), veh/h	750	757	306	1241	357	306
Grp Sat Flow(s),veh/h/ln	1770	1755	1774	1770	1774	1583
Q Serve(g_s), s	45.7	47.1	19.9	0.0	23.2	22.0
Cycle Q Clear(g_c), s	45.7	47.1	19.9	0.0	23.2	22.0
Prop In Lane		0.35	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	853	846	327	2477	414	369
V/C Ratio(X)	0.88	0.89	0.93	0.50	0.86	0.83
Avail Cap(c_a), veh/h	853	846	355	2477	414	369
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.69	0.69	1.00	1.00
Uniform Delay (d), s/veh	27.9	28.3	37.2	0.0	44.2	43.7
Incr Delay (d2), s/veh	12.5	14.0	23.6	0.5	20.5	18.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	25.2	26.0	11.8	0.2	13.7	11.5
LnGrp Delay(d),s/veh	40.4	42.2	60.8	0.5	64.6	62.6
LnGrp LOS	D	D	E	A	E	E
Approach Vol, veh/h	1507			1547	663	
Approach Delay, s/veh	41.3			12.4	63.7	
Approach LOS	D			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	26.1	61.9				88.0		32.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	24.0	56.0				84.0		28.0
Max Q Clear Time (g_c+I1), s	21.9	49.1				2.0		25.2
Green Ext Time (p_c), s	0.2	6.3				46.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	41	2	2	2	18	263	10	35	475	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.994				0.850
Flt Protected		0.955			0.984		0.950				0.997	
Satd. Flow (prot)	0	1779	1583	0	1750	0	1770	1852	0	0	1857	1583
Flt Permitted		0.955			0.984		0.950				0.997	
Satd. Flow (perm)	0	1779	1583	0	1750	0	1770	1852	0	0	1857	1583
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	19.2
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	89	5	41	0	2	2	2	0	18	263	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	94	5	43	0	2	2	2	0	19	277	11
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	11	10.2	12.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	95%	0%	33%	7%	0%
Vol Thru, %	0%	96%	5%	0%	33%	93%	0%
Vol Right, %	0%	4%	0%	100%	33%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	273	94	41	6	510	53
LT Vol	18	0	89	0	2	35	0
Through Vol	0	263	5	0	2	475	0
RT Vol	0	10	0	41	2	0	53
Lane Flow Rate	19	287	99	43	6	537	56
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.033	0.453	0.2	0.073	0.012	0.798	0.071
Departure Headway (Hd)	6.206	5.674	7.282	6.09	7.069	5.462	4.721
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	579	638	495	590	507	666	763
Service Time	3.92	3.388	4.996	3.803	5.095	3.162	2.421
HCM Lane V/C Ratio	0.033	0.45	0.2	0.073	0.012	0.806	0.073
HCM Control Delay	9.1	13	11.8	9.3	10.2	26.2	7.8
HCM Lane LOS	A	B	B	A	B	D	A
HCM 95th-tile Q	0.1	2.4	0.7	0.2	0	8	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	35	475	53
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	500	56
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	24.5
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	41	2	2	2	18	263	10	35	475	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.994				0.850
Flt Protected		0.955			0.984		0.950				0.997	
Satd. Flow (prot)	0	1779	1583	0	1750	0	1770	1852	0	0	1857	1583
Flt Permitted		0.733			0.926		0.423				0.968	
Satd. Flow (perm)	0	1365	1583	0	1647	0	788	1852	0	0	1803	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			43		2			5				56
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	5	41	2	2	2	18	263	10	35	475	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	94	5	0	2	2	2	19	277	11	37	500	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	6	139	105	77	51	850	1386	55	115	1364	1233
Arrive On Green	0.09	0.09	0.00	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.00
Sat Flow, veh/h	1364	73	1583	288	872	580	894	1780	71	65	1751	1583
Grp Volume(v), veh/h	99	0	0	6	0	0	19	0	288	537	0	0
Grp Sat Flow(s),veh/h/ln	1437	0	1583	1740	0	0	894	0	1850	1816	0	1583
Q Serve(g_s), s	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	2.4	5.4	0.0	0.0
Prop In Lane	0.95		1.00	0.33		0.33	1.00		0.04	0.07		1.00
Lane Grp Cap(c), veh/h	243	0	139	233	0	0	850	0	1441	1479	0	1233
V/C Ratio(X)	0.41	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.20	0.36	0.00	0.00
Avail Cap(c_a), veh/h	640	0	581	678	0	0	850	0	1441	1479	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	0.0	0.0	25.0	0.0	0.0	1.5	0.0	1.7	2.1	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	0.0	0.0	0.1	0.0	0.0	0.1	0.0	1.3	3.0	0.0	0.0
LnGrp Delay(d),s/veh	27.9	0.0	0.0	25.1	0.0	0.0	1.5	0.0	2.1	2.8	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		99			6			307			537	
Approach Delay, s/veh		27.9			25.1			2.0			2.8	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.7		9.3		50.7		9.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		4.4		6.0		7.4		2.2
Green Ext Time (p_c), s		5.5		0.4		5.3		0.4

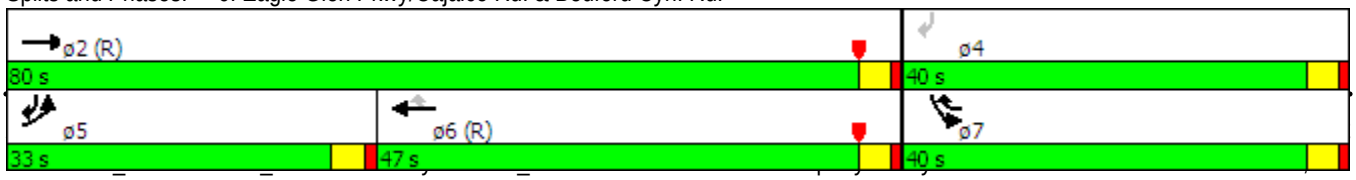
Intersection Summary	
HCM 2010 Ctrl Delay	5.3
HCM 2010 LOS	A

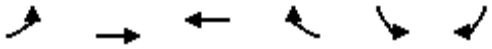
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø4
Lane Configurations							
Volume (vph)	119	656	453	221	161	153	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	180			200	450	0	
Storage Lanes	1			1	0	1	
Taper Length (ft)	100				180		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor				0.98		0.98	
Frt				0.850		0.850	
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	3539	3539	1550	1770	1550	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)				233		161	
Link Speed (mph)		45	45		45		
Link Distance (ft)		930	726		651		
Travel Time (s)		14.1	11.0		9.9		
Confl. Peds. (#/hr)				5		5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Shared Lane Traffic (%)							
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	5	2	6	7	7	5	4
Permitted Phases				6		4	
Detector Phase	5	2	6	7	7	5	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	23.0	8.0	8.0	8.0	23.0
Total Split (s)	33.0	80.0	47.0	40.0	40.0	33.0	40.0
Total Split (%)	27.5%	66.7%	39.2%	33.3%	33.3%	27.5%	33%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag			Lead	
Lead-Lag Optimize?	Yes		Yes			Yes	
Recall Mode	None	C-Max	C-Max	Max	Max	None	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	119	656	453	221	161	153
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	125	691	477	233	169	161
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	155	2242	1814	1283	532	613
Arrive On Green	0.09	0.63	0.51	0.51	0.30	0.30
Sat Flow, veh/h	1774	3632	3632	1576	1774	1583
Grp Volume(v), veh/h	125	691	477	233	169	161
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1576	1774	1583
Q Serve(g_s), s	8.3	10.7	9.1	3.9	8.8	8.3
Cycle Q Clear(g_c), s	8.3	10.7	9.1	3.9	8.8	8.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	155	2242	1814	1283	532	613
V/C Ratio(X)	0.81	0.31	0.26	0.18	0.32	0.26
Avail Cap(c_a), veh/h	429	2242	1814	1283	532	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	53.8	10.0	16.5	2.5	32.5	25.1
Incr Delay (d2), s/veh	9.4	0.4	0.3	0.3	1.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.5	5.3	4.5	9.3	4.6	8.8
LnGrp Delay(d),s/veh	63.2	10.4	16.8	2.8	34.1	26.1
LnGrp LOS	E	B	B	A	C	C
Approach Vol, veh/h		816	710		330	
Approach Delay, s/veh		18.5	12.2		30.2	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		80.0		40.0	14.5	65.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		76.0		36.0	29.0	43.0		
Max Q Clear Time (g_c+I1), s		12.7		10.8	10.3	11.1		
Green Ext Time (p_c), s		7.6		1.3	0.3	7.2		

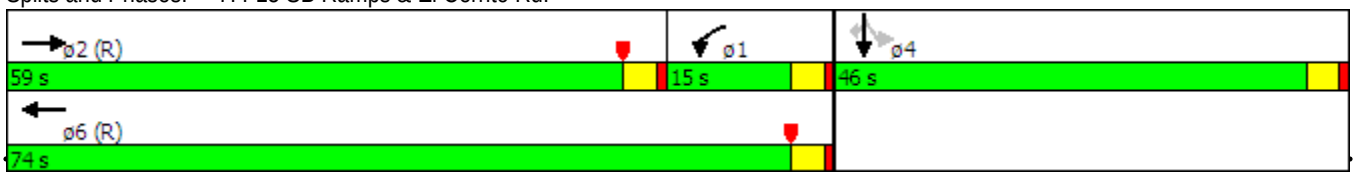
Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	896	576	151	855	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.941										0.850
Flt Protected				0.950							0.954	
Satd. Flow (prot)	0	3330	0	1770	3539	0	0	0	0	0	1777	1583
Flt Permitted				0.950							0.954	
Satd. Flow (perm)	0	3330	0	1770	3539	0	0	0	0	0	1777	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		161										143
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		59.0		15.0	74.0					46.0	46.0	46.0
Total Split (%)		49.2%		12.5%	61.7%					38.3%	38.3%	38.3%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lead		Lag								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 58 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	896	576	151	855	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	943	606	159	900	0				158	5	647
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	963	596	163	2065	0				603	19	554
Arrive On Green	0.00	0.31	0.31	0.18	1.00	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	2195	1301	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	788	761	159	900	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1633	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	52.8	55.0	10.7	0.0	0.0				7.9	0.0	42.0
Cycle Q Clear(g_c), s	0.0	52.8	55.0	10.7	0.0	0.0				7.9	0.0	42.0
Prop In Lane	0.00		0.80	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	811	749	163	2065	0				622	0	554
V/C Ratio(X)	0.00	0.97	1.02	0.98	0.44	0.00				0.26	0.00	1.17
Avail Cap(c_a), veh/h	0	811	749	163	2065	0				622	0	554
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.31	0.31	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	40.8	41.6	48.9	0.0	0.0				27.9	0.0	39.0
Incr Delay (d2), s/veh	0.0	14.3	24.8	33.6	0.2	0.0				1.0	0.0	93.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	29.1	30.0	6.7	0.1	0.0				4.0	0.0	32.7
LnGrp Delay(d),s/veh	0.0	55.1	66.4	82.5	0.2	0.0				28.9	0.0	132.6
LnGrp LOS		E	F	F	A					C		F
Approach Vol, veh/h		1549			1059						810	
Approach Delay, s/veh		60.6			12.6						111.7	
Approach LOS		E			B						F	

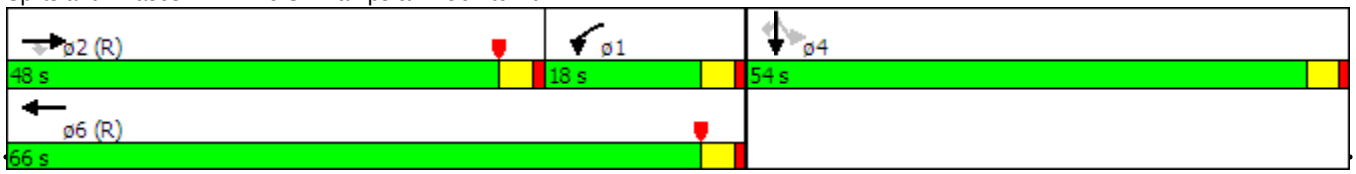
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.0	59.0		46.0		74.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	11.0	55.0		42.0		70.0		
Max Q Clear Time (g_c+I1), s	12.7	57.0		44.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		7.6		

Intersection Summary	
HCM 2010 Ctrl Delay	57.9
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	896	576	151	855	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.954	
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	1777	1583
Flt Permitted				0.950							0.954	
Satd. Flow (perm)	0	3539	1583	1770	3539	0	0	0	0	0	1777	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289									109
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		48.0	48.0	18.0	66.0					54.0	54.0	54.0
Total Split (%)		40.0%	40.0%	15.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lead	Lead	Lag								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	896	576	151	855	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	943	606	159	900	0				158	5	647
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1298	581	207	1829	0				718	23	660
Arrive On Green	0.00	0.12	0.12	0.16	0.69	0.00				0.42	0.42	0.42
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	943	606	159	900	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	30.8	44.0	10.3	14.4	0.0				7.1	0.0	48.4
Cycle Q Clear(g_c), s	0.0	30.8	44.0	10.3	14.4	0.0				7.1	0.0	48.4
Prop In Lane	0.00		1.00	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	1298	581	207	1829	0				740	0	660
V/C Ratio(X)	0.00	0.73	1.04	0.77	0.49	0.00				0.22	0.00	0.98
Avail Cap(c_a), veh/h	0	1298	581	207	1829	0				740	0	660
HCM Platoon Ratio	1.00	0.33	0.33	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.37	0.37	0.31	0.31	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	46.9	52.7	49.1	11.3	0.0				22.5	0.0	34.5
Incr Delay (d2), s/veh	0.0	1.4	35.2	5.3	0.3	0.0				0.7	0.0	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	15.4	25.0	5.4	6.9	0.0				3.6	0.0	26.6
LnGrp Delay(d),s/veh	0.0	48.3	87.9	54.5	11.6	0.0				23.2	0.0	65.2
LnGrp LOS		D	F	D	B					C		E
Approach Vol, veh/h		1549			1059						810	
Approach Delay, s/veh		63.8			18.1						56.7	
Approach LOS		E			B						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	18.0	48.0		54.0		66.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	44.0		50.0		62.0		
Max Q Clear Time (g_c+I1), s	12.3	46.0		50.4		16.4		
Green Ext Time (p_c), s	1.0	0.0		0.0		7.5		

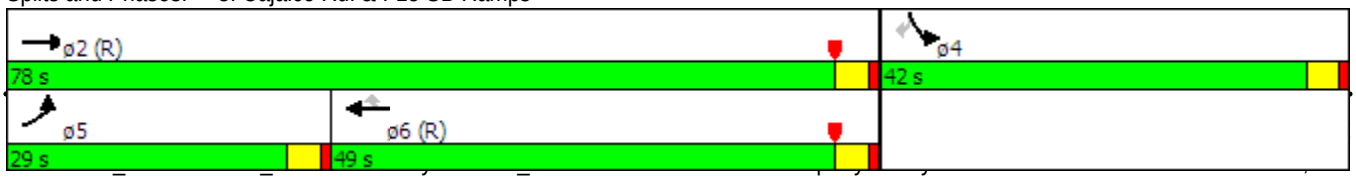
Intersection Summary	
HCM 2010 Ctrl Delay	47.9
HCM 2010 LOS	D

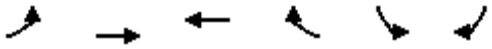
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	217	600	422	190	381	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	3433	2709
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				200		265
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	29.0	78.0	49.0	49.0	42.0	42.0
Total Split (%)	24.2%	65.0%	40.8%	40.8%	35.0%	35.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 6 (5%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	217	600	422	190	381	252
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	228	632	444	200	401	265
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	2183	1759	787	1090	882
Arrive On Green	0.17	1.00	0.50	0.50	0.32	0.32
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	228	632	444	200	401	265
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	7.6	0.0	8.7	8.7	10.8	8.6
Cycle Q Clear(g_c), s	7.6	0.0	8.7	8.7	10.8	8.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	297	2183	1759	787	1090	882
V/C Ratio(X)	0.77	0.29	0.25	0.25	0.37	0.30
Avail Cap(c_a), veh/h	717	2183	1759	787	1090	882
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	0.0	17.4	17.4	31.7	31.0
Incr Delay (d2), s/veh	4.0	0.3	0.3	0.8	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.8	0.1	4.3	3.9	5.3	7.5
LnGrp Delay(d),s/veh	52.5	0.3	17.7	18.2	32.7	31.8
LnGrp LOS	D	A	B	B	C	C
Approach Vol, veh/h		860	644		666	
Approach Delay, s/veh		14.2	17.8		32.3	
Approach LOS		B	B		C	

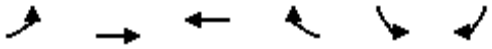
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		78.0		42.0	14.4	63.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		74.0		38.0	25.0	45.0		
Max Q Clear Time (g_c+I1), s		2.0		12.8	9.6	10.7		
Green Ext Time (p_c), s		6.6		3.1	0.8	6.4		

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	217	600	422	190	381	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	5085	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	5085	3539	1583	3433	2709
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				200		265
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	29.0	78.0	49.0	49.0	42.0	42.0
Total Split (%)	24.2%	65.0%	40.8%	40.8%	35.0%	35.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 4 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	217	600	422	190	381	252
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	228	632	444	200	401	265
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	3136	1759	787	1090	882
Arrive On Green	0.17	1.00	0.50	0.50	0.32	0.32
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	228	632	444	200	401	265
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	7.6	0.0	8.7	8.7	10.8	8.6
Cycle Q Clear(g_c), s	7.6	0.0	8.7	8.7	10.8	8.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	297	3136	1759	787	1090	882
V/C Ratio(X)	0.77	0.20	0.25	0.25	0.37	0.30
Avail Cap(c_a), veh/h	717	3136	1759	787	1090	882
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	0.0	17.4	17.4	31.7	31.0
Incr Delay (d2), s/veh	4.0	0.1	0.3	0.8	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.8	0.0	4.3	3.9	5.3	7.5
LnGrp Delay(d),s/veh	52.5	0.1	17.7	18.2	32.7	31.8
LnGrp LOS	D	A	B	B	C	C
Approach Vol, veh/h		860	644		666	
Approach Delay, s/veh		14.0	17.8		32.3	
Approach LOS		B	B		C	

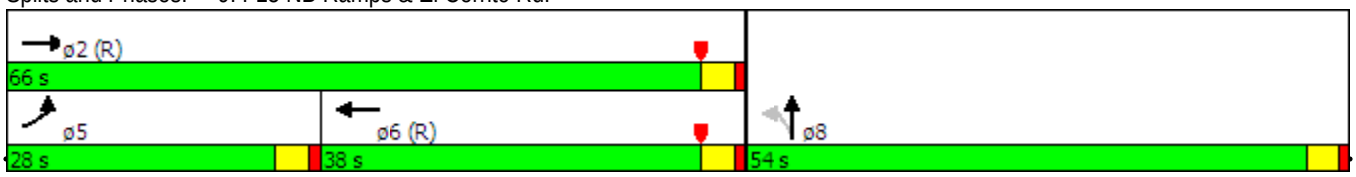
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		78.0		42.0	14.4	63.6		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		74.0		38.0	25.0	45.0		
Max Q Clear Time (g_c+I1), s		2.0		12.8	9.6	10.7		
Green Ext Time (p_c), s		6.7		3.1	0.8	6.5		

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	612	434	0	0	549	326	457	1	206	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.944			0.958				
Flt Protected	0.950							0.967				
Satd. Flow (prot)	3433	1863	0	0	3341	0	0	1726	0	0	0	0
Flt Permitted	0.950							0.967				
Satd. Flow (perm)	3433	1863	0	0	3341	0	0	1726	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					101			23				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	28.0	66.0			38.0		54.0	54.0				
Total Split (%)	23.3%	55.0%			31.7%		45.0%	45.0%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	612	434	0	0	549	326	457	1	206	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	644	457	0	0	578	343	481	1	217			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	685	962	0	0	608	361	490	1	221			
Arrive On Green	0.33	0.86	0.00	0.00	0.28	0.28	0.42	0.42	0.42			
Sat Flow, veh/h	3442	1863	0	0	2232	1269	1177	2	531			
Grp Volume(v), veh/h	644	457	0	0	478	443	699	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1639	1710	0	0			
Q Serve(g_s), s	21.8	6.8	0.0	0.0	31.8	31.8	48.4	0.0	0.0			
Cycle Q Clear(g_c), s	21.8	6.8	0.0	0.0	31.8	31.8	48.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.77	0.69		0.31			
Lane Grp Cap(c), veh/h	685	962	0	0	503	466	713	0	0			
V/C Ratio(X)	0.94	0.47	0.00	0.00	0.95	0.95	0.98	0.00	0.00			
Avail Cap(c_a), veh/h	688	962	0	0	503	466	713	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.18	0.18	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	39.4	4.4	0.0	0.0	42.1	42.1	34.5	0.0	0.0			
Incr Delay (d2), s/veh	5.7	0.3	0.0	0.0	29.4	31.0	29.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	10.8	3.4	0.0	0.0	19.7	18.4	28.5	0.0	0.0			
LnGrp Delay(d),s/veh	45.1	4.8	0.0	0.0	71.5	73.1	63.9	0.0	0.0			
LnGrp LOS	D	A			E	E	E					
Approach Vol, veh/h		1101			921			699				
Approach Delay, s/veh		28.3			72.3			63.9				
Approach LOS		C			E			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		66.0			27.9	38.1		54.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		62.0			24.0	34.0		50.0
Max Q Clear Time (g_c+I1), s		8.8			23.8	33.8		50.4
Green Ext Time (p_c), s		11.0			0.1	0.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.3
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	527	454	0	1528	215	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Lane Util. Factor	0.91	1.00	1.00	0.86	0.97	0.88
Ped Bike Factor						0.98
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	5085	1583	0	6408	3433	2787
Flt Permitted					0.950	
Satd. Flow (perm)	5085	1583	0	6408	3433	2742
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						139
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	73.0	47.0		73.0	47.0	47.0
Total Split (%)	60.8%	39.2%		60.8%	39.2%	39.2%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	527	454	0	1528	215	132
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	555	478	0	1608	226	139
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2924	1478	0	3685	1233	999
Arrive On Green	0.57	0.57	0.00	0.57	0.36	0.36
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	555	478	0	1608	226	139
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	6.2	3.5	0.0	17.1	5.4	4.0
Cycle Q Clear(g_c), s	6.2	3.5	0.0	17.1	5.4	4.0
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2924	1478	0	3685	1233	999
V/C Ratio(X)	0.19	0.32	0.00	0.44	0.18	0.14
Avail Cap(c_a), veh/h	2924	1478	0	3685	1233	999
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	0.4	0.0	14.5	26.4	26.0
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.0	1.7	0.0	7.6	2.6	1.6
LnGrp Delay(d),s/veh	12.3	1.0	0.0	14.8	26.8	26.3
LnGrp LOS	B	A		B	C	C
Approach Vol, veh/h	1033			1608	365	
Approach Delay, s/veh	7.1			14.8	26.6	
Approach LOS	A			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		73.0				73.0		47.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		69.0				69.0		43.0
Max Q Clear Time (g_c+I1), s		8.2				19.1		7.4
Green Ext Time (p_c), s		23.7				22.2		1.7

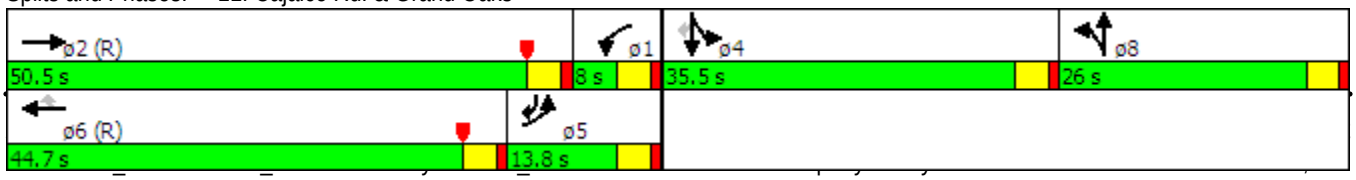
Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	193	466	0	0	1440	111	0	0	0	68	0	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	5085	0	1863	5085	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	5085	0	1863	5085	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118						138
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	13.8	50.5		8.0	44.7	44.7	26.0	26.0		35.5	35.5	13.8
Total Split (%)	11.5%	42.1%		6.7%	37.3%	37.3%	21.7%	21.7%		29.6%	29.6%	11.5%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	193	466	0	0	1440	111	0	0	0	68	0	131
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	203	491	0	0	1516	117	0	0	0	72	0	138
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1027	1971	0	444	1725	535	0	2	0	466	0	1559
Arrive On Green	0.30	0.39	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1576	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	203	491	0	0	1516	117	0	0	0	72	0	138
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1576	0	1863	0	1774	0	1385
Q Serve(g_s), s	5.3	7.9	0.0	0.0	33.7	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear(g_c), s	5.3	7.9	0.0	0.0	33.7	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1027	1971	0	444	1725	535	0	2	0	466	0	1559
V/C Ratio(X)	0.20	0.25	0.00	0.00	0.88	0.22	0.00	0.00	0.00	0.15	0.00	0.09
Avail Cap(c_a), veh/h	1027	1971	0	444	1725	535	0	342	0	466	0	1559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	24.9	0.0	0.0	37.3	28.3	0.0	0.0	0.0	34.0	0.0	12.2
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.0	6.7	0.9	0.0	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.5	3.7	0.0	0.0	16.8	2.9	0.0	0.0	0.0	1.9	0.0	1.1
LnGrp Delay(d),s/veh	31.5	25.2	0.0	0.0	44.1	29.2	0.0	0.0	0.0	34.7	0.0	12.3
LnGrp LOS	C	C			D	C				C		B
Approach Vol, veh/h		694			1633			0			210	
Approach Delay, s/veh		27.1			43.0			0.0			20.0	
Approach LOS		C			D						B	

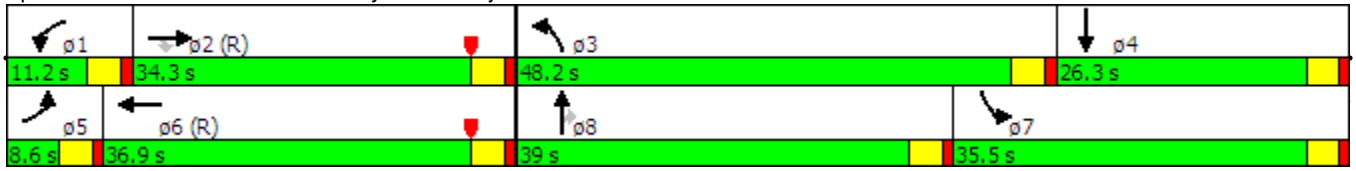
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	39.8	44.7		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	9.8	40.7		22.0
Max Q Clear Time (g_c+I1), s	0.0	9.9		5.7	7.3	35.7		0.0
Green Ext Time (p_c), s	0.0	2.3		1.0	0.2	3.3		0.0

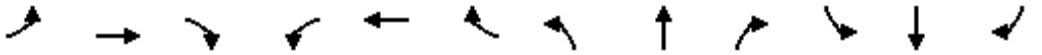
Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	332	173	63	566	621	914	858	320	233	138	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		0.99						0.99	
Frt			0.850		0.922				0.850		0.949	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4636	0	3433	3539	1794	1770	3336	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4636	0	3433	3539	1794	1770	3336	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182		227				305		67	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	8.6	34.3	34.3	11.2	36.9		48.2	39.0	39.0	35.5	26.3	
Total Split (%)	7.2%	28.6%	28.6%	9.3%	30.8%		40.2%	32.5%	32.5%	29.6%	21.9%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	29	332	173	63	566	621	914	858	320	233	138	71
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	31	349	182	66	596	654	962	903	337	245	145	75
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	598	506	84	1175	546	1075	1032	480	366	427	209
Arrive On Green	0.02	0.32	0.32	0.05	0.35	0.35	0.31	0.29	0.29	0.21	0.19	0.19
Sat Flow, veh/h	1774	1863	1576	1774	3390	1576	3442	3539	1647	1774	2297	1126
Grp Volume(v), veh/h	31	349	182	66	596	654	962	903	337	245	110	110
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1576	1721	1770	1647	1774	1770	1653
Q Serve(g_s), s	2.1	18.8	10.6	4.4	16.7	41.6	32.0	29.1	18.3	15.3	6.5	7.0
Cycle Q Clear(g_c), s	2.1	18.8	10.6	4.4	16.7	41.6	32.0	29.1	18.3	15.3	6.5	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	39	598	506	84	1175	546	1075	1032	480	366	329	307
V/C Ratio(X)	0.80	0.58	0.36	0.78	0.51	1.20	0.89	0.87	0.70	0.67	0.33	0.36
Avail Cap(c_a), veh/h	68	598	506	106	1175	546	1268	1032	480	466	329	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	34.1	31.3	56.5	31.1	39.2	39.4	40.4	26.6	43.8	42.4	42.6
Incr Delay (d2), s/veh	29.5	4.1	2.0	24.6	1.6	105.6	7.6	10.3	8.3	2.5	2.7	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.3	10.4	4.9	2.7	8.1	34.1	16.4	15.6	9.5	7.7	3.4	3.5
LnGrp Delay(d),s/veh	87.9	38.2	33.3	81.2	32.7	144.8	47.0	50.7	34.9	46.3	45.1	45.8
LnGrp LOS	F	D	C	F	C	F	D	D	C	D	D	D
Approach Vol, veh/h		562			1316			2202			465	
Approach Delay, s/veh		39.3			90.8			46.7			45.9	
Approach LOS		D			F			D			D	

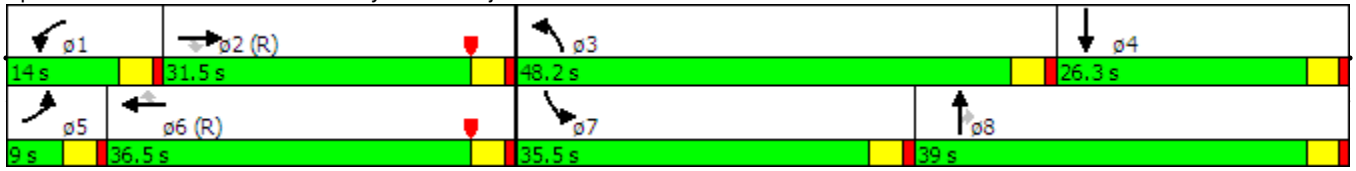
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	42.5	41.5	26.3	6.6	45.6	28.8	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.2	30.3	44.2	22.3	4.6	32.9	31.5	35.0
Max Q Clear Time (g_c+I1), s	6.4	20.8	34.0	9.0	4.1	43.6	17.3	31.1
Green Ext Time (p_c), s	0.0	5.5	3.5	1.5	0.0	0.0	1.5	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	58.5
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	332	173	63	566	621	914	858	320	233	138	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor			0.98			0.98					0.99	
Frt			0.850			0.850			0.850		0.949	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1794	3433	3539	1794	3433	3336	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1552	1770	5085	1756	3433	3539	1794	3433	3336	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			547			317		67	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	35.5	26.0	
Total Split (s)	9.0	31.5	31.5	14.0	36.5	36.5	48.2	39.0	39.0	35.5	26.3	
Total Split (%)	7.5%	26.3%	26.3%	11.7%	30.4%	30.4%	40.2%	32.5%	32.5%	29.6%	21.9%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 80.4 (67%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	29	332	173	63	566	621	914	858	320	233	138	71
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	31	349	182	66	596	654	962	903	337	245	145	75
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1135	505	85	1762	568	1075	1430	666	324	427	209
Arrive On Green	0.02	0.32	0.32	0.05	0.35	0.35	0.31	0.40	0.40	0.09	0.19	0.19
Sat Flow, veh/h	1774	3539	1576	1774	5085	1640	3442	3539	1647	3442	2297	1126
Grp Volume(v), veh/h	31	349	182	66	596	654	962	903	337	245	110	110
Grp Sat Flow(s),veh/h/ln	1774	1770	1576	1774	1695	1640	1721	1770	1647	1721	1770	1653
Q Serve(g_s), s	2.1	8.9	10.6	4.4	10.4	41.6	32.0	24.5	18.4	8.3	6.5	7.0
Cycle Q Clear(g_c), s	2.1	8.9	10.6	4.4	10.4	41.6	32.0	24.5	18.4	8.3	6.5	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	39	1135	505	85	1762	568	1075	1430	666	324	329	307
V/C Ratio(X)	0.80	0.31	0.36	0.78	0.34	1.15	0.89	0.63	0.51	0.76	0.33	0.36
Avail Cap(c_a), veh/h	74	1135	505	148	1762	568	1268	1430	666	903	329	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	30.7	31.3	56.5	29.0	39.2	39.4	28.6	26.8	53.0	42.4	42.6
Incr Delay (d2), s/veh	29.5	0.7	2.0	14.1	0.5	87.0	7.6	2.1	2.7	3.6	2.7	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.3	4.5	4.9	2.5	4.9	32.6	16.4	12.3	8.9	4.1	3.4	3.5
LnGrp Delay(d),s/veh	87.9	31.4	33.3	70.6	29.5	126.2	47.0	30.7	29.5	56.6	45.1	45.8
LnGrp LOS	F	C	C	E	C	F	D	C	C	E	D	D
Approach Vol, veh/h		562			1316			2202			465	
Approach Delay, s/veh		35.1			79.6			37.7			51.4	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	42.5	41.5	26.3	6.6	45.6	15.3	52.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	27.5	44.2	22.3	5.0	32.5	31.5	35.0
Max Q Clear Time (g_c+I1), s	6.4	12.6	34.0	9.0	4.1	43.6	10.3	26.5
Green Ext Time (p_c), s	0.0	7.5	3.5	5.6	0.0	0.0	1.0	4.3

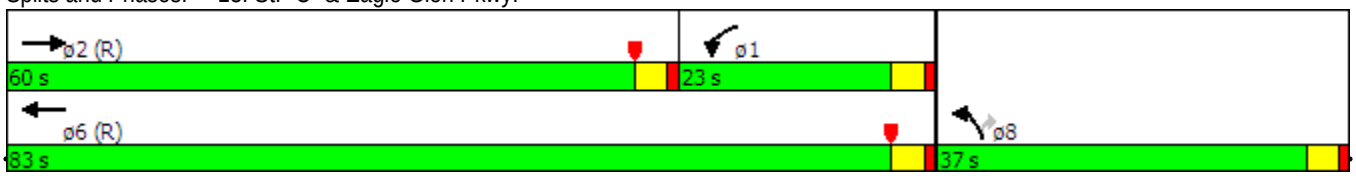
Intersection Summary	
HCM 2010 Ctrl Delay	50.9
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	489	0	57	446	0	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected			0.950			
Satd. Flow (prot)	3539	0	1770	1863	1863	1583
Flt Permitted			0.950			
Satd. Flow (perm)	3539	0	1770	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						470
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	552	
Travel Time (s)	11.8			19.1	8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	60.0		23.0	83.0	37.0	37.0
Total Split (%)	50.0%		19.2%	69.2%	30.8%	30.8%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

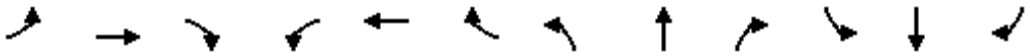
Splits and Phases: 13: St. "C" & Eagle Glen Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	489	0	57	446	0	168
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	515	0	60	469	0	177
Adj No. of Lanes	2	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1652	0	281	1226	488	435
Arrive On Green	0.47	0.00	0.16	0.66	0.00	0.28
Sat Flow, veh/h	3725	0	1774	1863	1774	1583
Grp Volume(v), veh/h	515	0	60	469	0	177
Grp Sat Flow(s),veh/h/ln	1770	0	1774	1863	1774	1583
Q Serve(g_s), s	10.9	0.0	3.5	13.8	0.0	10.9
Cycle Q Clear(g_c), s	10.9	0.0	3.5	13.8	0.0	10.9
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1652	0	281	1226	488	435
V/C Ratio(X)	0.31	0.00	0.21	0.38	0.00	0.41
Avail Cap(c_a), veh/h	1652	0	281	1226	488	435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.98	0.98	0.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	44.0	9.4	0.0	35.5
Incr Delay (d2), s/veh	0.5	0.0	0.4	0.9	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	5.4	0.0	1.8	7.3	0.0	5.1
LnGrp Delay(d),s/veh	20.5	0.0	44.4	10.2	0.0	38.3
LnGrp LOS	C		D	B		D
Approach Vol, veh/h	515			529	177	
Approach Delay, s/veh	20.5			14.1	38.3	
Approach LOS	C			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.0	60.0				83.0		37.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	19.0	56.0				79.0		33.0
Max Q Clear Time (g_c+I1), s	5.5	12.9				15.8		12.9
Green Ext Time (p_c), s	2.3	3.4				3.1		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	589	45	11	301	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.989			0.995	
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1702	0	1770	1842	0	1770	1853	0
Flt Permitted		0.986			0.987		0.950			0.950		
Satd. Flow (perm)	0	1704	0	0	1702	0	1770	1842	0	1770	1853	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	39.5
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	20	0	9	6	19	0	31	589	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	26	0	12	8	24	0	40	755	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.1	10	54.1
HCM LOS	B	A	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	26%	100%	0%
Vol Thru, %	0%	93%	18%	18%	0%	97%
Vol Right, %	0%	7%	53%	56%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	634	38	34	11	310
LT Vol	31	0	11	9	11	0
Through Vol	0	589	7	6	0	301
RT Vol	0	45	20	19	0	9
Lane Flow Rate	40	813	49	44	14	397
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.063	1	0.086	0.077	0.023	0.601
Departure Headway (Hd)	5.7	5.147	6.387	6.381	5.96	5.441
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	625	699	559	559	599	660
Service Time	3.466	2.912	4.45	4.444	3.709	3.19
HCM Lane V/C Ratio	0.064	1.163	0.088	0.079	0.023	0.602
HCM Control Delay	8.9	56.3	10.1	10	8.9	16.1
HCM Lane LOS	A	F	B	A	A	C
HCM 95th-tile Q	0.2	16.1	0.3	0.2	0.1	4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	301	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	386	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	15.9
HCM LOS	C

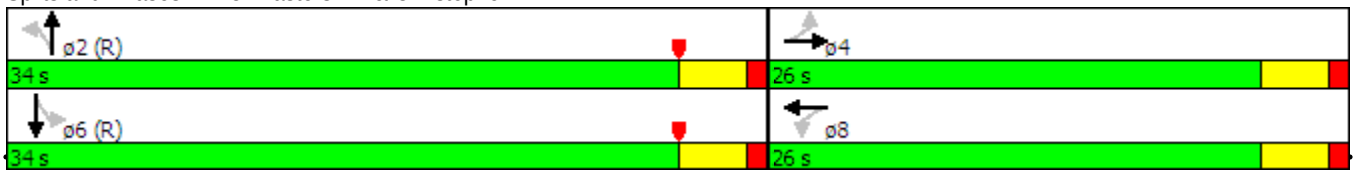
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	589	45	11	301	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.989			0.995	
Flt Protected		0.986			0.987		0.950			0.950		
Satd. Flow (prot)	0	1704	0	0	1702	0	1770	1842	0	1770	1853	0
Flt Permitted		0.904			0.909		0.524			0.292		
Satd. Flow (perm)	0	1563	0	0	1568	0	976	1842	0	544	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			24			9			4	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	7	20	9	6	19	31	589	45	11	301	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	9	26	12	8	24	40	755	58	14	386	12
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	18	47	98	18	48	808	1391	107	566	1463	45
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.81	0.81	0.81	0.55	0.55	0.55
Sat Flow, veh/h	442	343	888	415	352	920	983	1708	131	669	1797	56
Grp Volume(v), veh/h	49	0	0	44	0	0	40	0	813	14	0	398
Grp Sat Flow(s),veh/h/ln	1673	0	0	1687	0	0	983	0	1840	669	0	1853
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	8.8	0.7	0.0	6.8
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	0.0	7.6	0.0	8.8	9.5	0.0	6.8
Prop In Lane	0.29		0.53	0.27		0.55	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	165	0	0	165	0	0	808	0	1498	566	0	1509
V/C Ratio(X)	0.30	0.00	0.00	0.27	0.00	0.00	0.05	0.00	0.54	0.02	0.00	0.26
Avail Cap(c_a), veh/h	654	0	0	655	0	0	808	0	1498	566	0	1509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.97	0.00	0.97
Uniform Delay (d), s/veh	27.7	0.0	0.0	27.6	0.0	0.0	2.8	0.0	1.9	7.2	0.0	4.1
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.1	0.0	1.4	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	0.0	0.7	0.0	0.0	0.2	0.0	4.9	0.1	0.0	3.6
LnGrp Delay(d),s/veh	28.7	0.0	0.0	28.5	0.0	0.0	2.9	0.0	3.3	7.3	0.0	4.5
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		49			44			853			412	
Approach Delay, s/veh		28.7			28.5			3.3			4.6	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		10.8		3.6		11.5		3.4
Green Ext Time (p_c), s		8.6		0.4		8.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

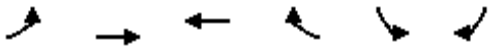
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	20	9	6	19	31	589	45	11	301	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.928			0.926			0.991			0.996	
Flt Protected		0.986			0.987			0.998			0.998	
Satd. Flow (prot)	0	1704	0	0	1702	0	0	1842	0	0	1852	0
Flt Permitted		0.986			0.987			0.998			0.998	
Satd. Flow (perm)	0	1704	0	0	1702	0	0	1842	0	0	1852	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	49	44	853	412
Demand Flow Rate, veh/h	50	44	870	420
Vehicles Circulating, veh/h	420	825	37	61
Vehicles Exiting, veh/h	61	82	433	808
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.7	8.5	19.2	7.7
Approach LOS	A	A	C	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	50	44	870	420
Cap Entry Lane, veh/h	742	495	1089	1063
Entry HV Adj Factor	0.976	0.996	0.980	0.982
Flow Entry, veh/h	49	44	853	412
Cap Entry, veh/h	725	493	1067	1044
V/C Ratio	0.067	0.089	0.799	0.395
Control Delay, s/veh	5.7	8.5	19.2	7.7
LOS	A	A	C	A
95th %tile Queue, veh	0	0	9	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	241	483	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.913	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1770	1863	1861	0	1670	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1770	1863	1861	0	1670	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

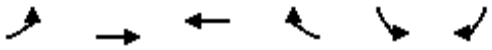
Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	241	0	483	2	0	13	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	254	0	508	2	0	14	25
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	10.3	14.7	8.7
HCM LOS	B	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	35%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	65%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	241	485	37
LT Vol	7	0	0	13
Through Vol	0	241	483	0
RT Vol	0	0	2	24
Lane Flow Rate	7	254	511	39
Geometry Grp	7	7	5	2
Degree of Util (X)	0.011	0.352	0.628	0.058
Departure Headway (Hd)	5.494	4.99	4.431	5.325
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	653	723	817	671
Service Time	3.217	2.714	2.451	3.372
HCM Lane V/C Ratio	0.011	0.351	0.625	0.058
HCM Control Delay	8.3	10.4	14.7	8.7
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0	1.6	4.5	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	241	483	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.913	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1770	1863	1861	0	1670	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1770	1863	1861	0	1670	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

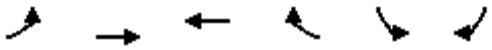
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	7	241	483	2	13	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	254	508	2	14	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	511	0	-	0	777	509
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	268	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1054	-	-	-	365	564
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1054	-	-	-	363	564
Mov Cap-2 Maneuver	-	-	-	-	363	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	772	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1054	-	-	-	472
HCM Lane V/C Ratio	0.007	-	-	-	0.083
HCM Control Delay (s)	8.4	-	-	-	13.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



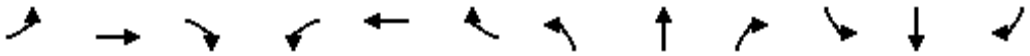
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	241	483	2	13	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.913	
Flt Protected		0.999			0.982	
Satd. Flow (prot)	0	1861	1861	0	1670	0
Flt Permitted		0.999			0.982	
Satd. Flow (perm)	0	1861	1861	0	1670	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	261	510	39
Demand Flow Rate, veh/h	266	520	40
Vehicles Circulating, veh/h	14	7	518
Vehicles Exiting, veh/h	543	273	9
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.5	8.4	6.1
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	266	520	40
Cap Entry Lane, veh/h	1114	1122	673
Entry HV Adj Factor	0.981	0.980	0.975
Flow Entry, veh/h	261	510	39
Cap Entry, veh/h	1093	1100	656
V/C Ratio	0.239	0.463	0.059
Control Delay, s/veh	5.5	8.4	6.1
LOS	A	A	A
95th %tile Queue, veh	1	3	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	174	63	35	284	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.998			0.955			0.939	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1770	1788	0	1770	1859	0	0	1722	0	0	1711	0
Flt Permitted	0.950			0.950				0.968			0.978	
Satd. Flow (perm)	1770	1788	0	1770	1859	0	0	1722	0	0	1711	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	174	63	0	35	284	4	0	147	1	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	183	66	0	37	299	4	0	155	1	79
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	11.5	12.5	11.3
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	73%	0%	99%	9%
Vol Right, %	34%	0%	27%	0%	1%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	3	237	35	288	11
LT Vol	147	3	0	35	0	5
Through Vol	1	0	174	0	284	1
RT Vol	75	0	63	0	4	5
Lane Flow Rate	235	3	249	37	303	12
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.348	0.005	0.38	0.062	0.459	0.019
Departure Headway (Hd)	5.449	6.181	5.486	6.065	5.558	5.787
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	664	582	659	593	652	621
Service Time	3.449	3.884	3.189	3.773	3.258	3.801
HCM Lane V/C Ratio	0.354	0.005	0.378	0.062	0.465	0.019
HCM Control Delay	11.3	8.9	11.5	9.2	12.9	8.9
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.6	0	1.8	0.2	2.4	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	1	5
Number of Lanes	0	0	1	0

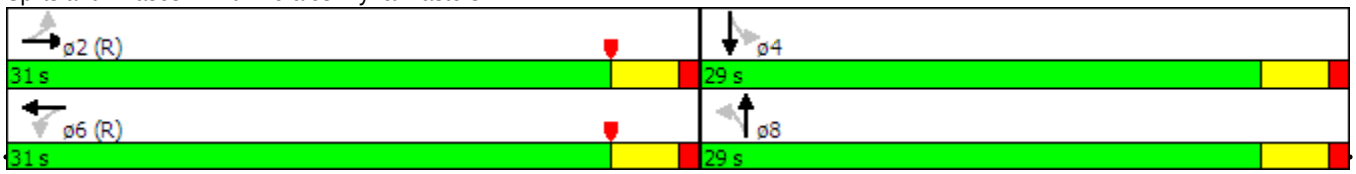
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.9
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	174	63	35	284	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.998			0.955			0.939	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1770	1788	0	1770	1859	0	0	1722	0	0	1711	0
Flt Permitted	0.518			0.576				0.805			0.917	
Satd. Flow (perm)	965	1788	0	1073	1859	0	0	1432	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			1			52			5	
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	31.0	31.0		31.0	31.0		29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%		51.7%	51.7%		48.3%	48.3%		48.3%	48.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 29 (48%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	174	63	35	284	4	147	1	75	5	1	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	183	66	37	299	4	155	1	79	5	1	5
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	488	589	212	526	825	11	485	23	206	349	90	293
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1072	1308	472	1126	1834	25	924	54	495	628	216	703
Grp Volume(v), veh/h	3	0	249	37	0	303	235	0	0	11	0	0
Grp Sat Flow(s),veh/h/ln	1072	0	1780	1126	0	1858	1474	0	0	1547	0	0
Q Serve(g_s), s	0.1	0.0	5.4	1.3	0.0	6.4	5.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	5.4	6.7	0.0	6.4	6.5	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.01	0.66		0.34	0.45		0.45
Lane Grp Cap(c), veh/h	488	0	801	526	0	836	714	0	0	732	0	0
V/C Ratio(X)	0.01	0.00	0.31	0.07	0.00	0.36	0.33	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	488	0	801	526	0	836	714	0	0	732	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.0	0.0	10.6	12.7	0.0	10.8	12.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.3	0.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	2.9	0.4	0.0	3.6	2.9	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	13.0	0.0	11.6	12.9	0.0	12.1	13.3	0.0	0.0	10.3	0.0	0.0
LnGrp LOS	B		B	B		B	B			B		
Approach Vol, veh/h		252			340			235			11	
Approach Delay, s/veh		11.6			12.2			13.3			10.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		27.0		25.0		27.0		25.0
Max Q Clear Time (g_c+I1), s		8.5		2.2		8.7		8.5
Green Ext Time (p_c), s		3.2		1.4		3.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	174	63	35	284	4	147	1	75	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.998			0.955			0.939	
Flt Protected		0.999			0.995			0.968			0.978	
Satd. Flow (prot)	0	1796	0	0	1850	0	0	1722	0	0	1711	0
Flt Permitted		0.999			0.995			0.968			0.978	
Satd. Flow (perm)	0	1796	0	0	1850	0	0	1722	0	0	1711	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

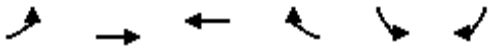
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	252	340	235	11
Demand Flow Rate, veh/h	257	347	240	11
Vehicles Circulating, veh/h	44	162	195	501
Vehicles Exiting, veh/h	468	273	106	8
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.6	7.8	6.6	5.4
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	257	347	240	11
Cap Entry Lane, veh/h	1081	961	930	685
Entry HV Adj Factor	0.982	0.980	0.979	0.998
Flow Entry, veh/h	252	340	235	11
Cap Entry, veh/h	1062	942	910	683
V/C Ratio	0.238	0.361	0.258	0.016
Control Delay, s/veh	5.6	7.8	6.6	5.4
LOS	A	A	A	A
95th %tile Queue, veh	1	2	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	517	410	4	5	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.999			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3536	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3536	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

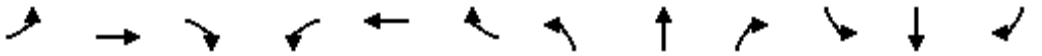
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	517	410	4	5	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	544	432	4	5	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	436	0	-	0	1043	218
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	609	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1120	-	-	-	239	787
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1120	-	-	-	232	787
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1120	-	-	-	232	787
HCM Lane V/C Ratio	0.029	-	-	-	0.023	0.051
HCM Control Delay (s)	8.3	-	-	-	20.9	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	319	229	135	28	95	143	140	31	115	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883				0.850		0.926			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1645	0	1770	1863	1583	1770	1725	0	1770	1859	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1645	0	1770	1863	1583	1770	1725	0	1770	1859	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	31.6
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	89	319	0	229	135	28	0	95	143	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	94	336	0	241	142	29	0	100	151	147
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	54.8	20.7	23.9
HCM LOS	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	51%	0%	22%	0%	100%	0%	0%	98%
Vol Right, %	0%	49%	0%	78%	0%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	283	4	408	229	135	28	31	117
LT Vol	95	0	4	0	229	0	0	31	0
Through Vol	0	143	0	89	0	135	0	0	115
RT Vol	0	140	0	319	0	0	28	0	2
Lane Flow Rate	100	298	4	429	241	142	29	33	123
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.253	0.681	0.01	0.934	0.605	0.336	0.064	0.09	0.322
Departure Headway (Hd)	9.094	8.225	8.907	7.825	9.032	8.516	7.793	9.953	9.423
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	395	438	402	464	400	422	459	359	381
Service Time	6.855	5.984	6.665	5.583	6.797	6.28	5.556	7.733	7.202
HCM Lane V/C Ratio	0.253	0.68	0.01	0.925	0.603	0.336	0.063	0.092	0.323
HCM Control Delay	14.9	26.9	11.8	55.2	24.8	15.6	11.1	13.7	16.6
HCM Lane LOS	B	D	B	F	C	C	B	B	C
HCM 95th-tile Q	1	5	0	10.9	3.8	1.5	0.2	0.3	1.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	115	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	121	2
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	16
HCM LOS	C

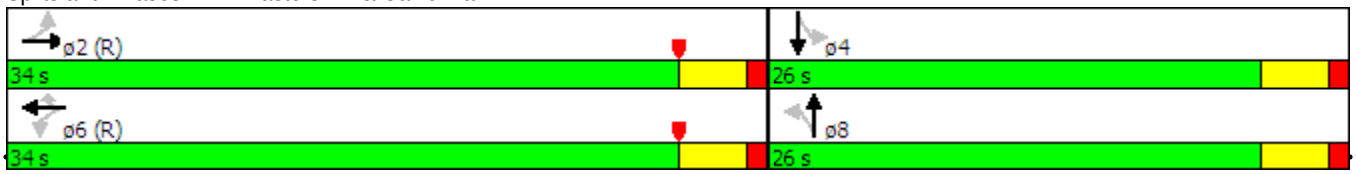
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	319	229	135	28	95	143	140	31	115	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883				0.850		0.926			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1645	0	1770	1863	1583	1770	1725	0	1770	1859	0
Flt Permitted	0.666			0.420			0.678			0.485		
Satd. Flow (perm)	1241	1645	0	782	1863	1583	1263	1725	0	903	1859	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		336				29		92			2	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%	56.7%	43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 1 (2%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

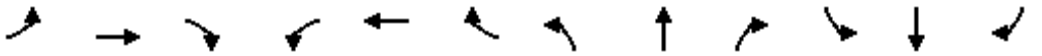
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	89	319	229	135	28	95	143	140	31	115	2
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	4	94	336	241	142	29	100	151	147	33	121	2
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	675	179	640	427	931	792	526	318	310	340	670	11
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.12	0.12	0.12	0.37	0.37	0.37
Sat Flow, veh/h	1209	358	1279	954	1863	1583	1263	868	845	1077	1827	30
Grp Volume(v), veh/h	4	0	430	241	142	29	100	0	298	33	0	123
Grp Sat Flow(s),veh/h/ln	1209	0	1637	954	1863	1583	1263	0	1714	1077	0	1857
Q Serve(g_s), s	0.1	0.0	10.7	13.8	2.5	0.6	4.4	0.0	9.7	1.5	0.0	2.7
Cycle Q Clear(g_c), s	2.6	0.0	10.7	24.4	2.5	0.6	7.1	0.0	9.7	11.2	0.0	2.7
Prop In Lane	1.00		0.78	1.00		1.00	1.00		0.49	1.00		0.02
Lane Grp Cap(c), veh/h	675	0	819	427	931	792	526	0	628	340	0	681
V/C Ratio(X)	0.01	0.00	0.53	0.56	0.15	0.04	0.19	0.00	0.47	0.10	0.00	0.18
Avail Cap(c_a), veh/h	675	0	819	427	931	792	526	0	628	340	0	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.98	0.00	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	10.2	18.5	8.1	7.6	21.0	0.0	21.0	19.6	0.0	12.9
Incr Delay (d2), s/veh	0.0	0.0	2.4	5.3	0.3	0.1	0.8	0.0	2.5	0.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	5.3	4.2	1.4	0.3	1.6	0.0	5.0	0.5	0.0	1.5
LnGrp Delay(d),s/veh	8.8	0.0	12.6	23.8	8.5	7.7	21.8	0.0	23.5	20.2	0.0	13.5
LnGrp LOS	A		B	C	A	A	C		C	C		B
Approach Vol, veh/h		434			412			398			156	
Approach Delay, s/veh		12.5			17.4			23.1			14.9	
Approach LOS		B			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		12.7		13.2		26.4		11.7
Green Ext Time (p_c), s		4.5		2.0		1.6		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	11	14	152	49	178	146	20	372	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.884			0.932			0.987	
Flt Protected		0.986			0.997		0.950			0.950		
Satd. Flow (prot)	0	1688	0	0	1642	0	1770	1736	0	1770	1839	0
Flt Permitted		0.986			0.997		0.950			0.950		
Satd. Flow (perm)	0	1688	0	0	1642	0	1770	1736	0	1770	1839	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			617	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	18	7	37	0	11	14	152	0	49	178	146
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	7	39	0	12	15	160	0	52	187	154
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.1	11.2	13.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	6%	100%	0%
Vol Thru, %	0%	55%	11%	8%	0%	91%
Vol Right, %	0%	45%	60%	86%	0%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	324	62	177	20	408
LT Vol	49	0	18	11	20	0
Through Vol	0	178	7	14	0	372
RT Vol	0	146	37	152	0	36
Lane Flow Rate	52	341	65	186	21	429
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.092	0.527	0.113	0.297	0.037	0.684
Departure Headway (Hd)	6.389	5.562	6.259	5.739	6.305	5.735
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	560	648	569	622	567	627
Service Time	4.137	3.309	4.338	3.803	4.05	3.481
HCM Lane V/C Ratio	0.093	0.526	0.114	0.299	0.037	0.684
HCM Control Delay	9.8	14.4	10.1	11.2	9.3	20.1
HCM Lane LOS	A	B	B	B	A	C
HCM 95th-tile Q	0.3	3.1	0.4	1.2	0.1	5.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	372	36
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	392	38
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	19.6
HCM LOS	C

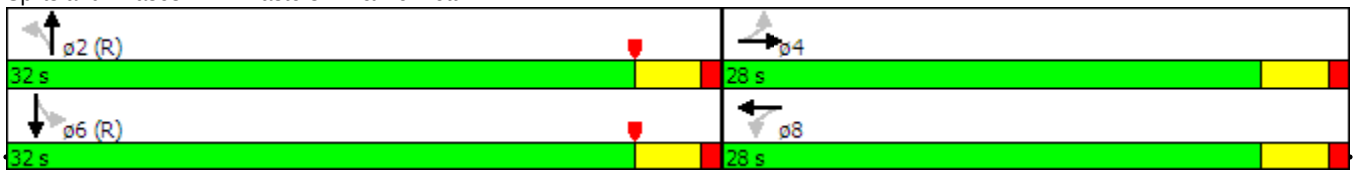
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	11	14	152	49	178	146	20	372	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.884			0.932			0.987	
Flt Protected		0.986			0.997		0.950			0.950		
Satd. Flow (prot)	0	1688	0	0	1642	0	1770	1736	0	1770	1839	0
Flt Permitted		0.875			0.980		0.494			0.554		
Satd. Flow (perm)	0	1498	0	0	1614	0	920	1736	0	1032	1839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			160			93			11	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	28.0	28.0		28.0	28.0		32.0	32.0		32.0	32.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%		53.3%	53.3%		53.3%	53.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

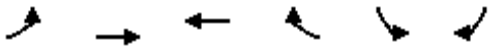
Splits and Phases: 2: Masters Dr. & Bennett Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	7	37	11	14	152	49	178	146	20	372	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	7	39	12	15	160	52	187	154	21	392	38
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	61	161	72	30	222	706	667	549	774	1178	114
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	285	378	995	48	183	1371	954	946	779	1035	1672	162
Grp Volume(v), veh/h	65	0	0	187	0	0	52	0	341	21	0	430
Grp Sat Flow(s),veh/h/ln	1658	0	0	1603	0	0	954	0	1725	1035	0	1834
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	1.3	0.0	4.4	0.5	0.0	5.4
Cycle Q Clear(g_c), s	2.0	0.0	0.0	6.6	0.0	0.0	6.8	0.0	4.4	4.8	0.0	5.4
Prop In Lane	0.29		0.60	0.06		0.86	1.00		0.45	1.00		0.09
Lane Grp Cap(c), veh/h	346	0	0	323	0	0	706	0	1216	774	0	1293
V/C Ratio(X)	0.19	0.00	0.00	0.58	0.00	0.00	0.07	0.00	0.28	0.03	0.00	0.33
Avail Cap(c_a), veh/h	696	0	0	701	0	0	706	0	1216	774	0	1293
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	0.0	23.8	0.0	0.0	4.7	0.0	3.3	4.1	0.0	3.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.6	0.0	0.0	0.2	0.0	0.5	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	3.1	0.0	0.0	0.4	0.0	2.2	0.1	0.0	2.9
LnGrp Delay(d),s/veh	22.2	0.0	0.0	25.5	0.0	0.0	4.9	0.0	3.8	4.2	0.0	4.1
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		65			187			393			451	
Approach Delay, s/veh		22.2			25.5			3.9			4.1	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.3		13.7		46.3		13.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		28.0		24.0		28.0		24.0
Max Q Clear Time (g_c+I1), s		8.8		4.0		7.4		8.6
Green Ext Time (p_c), s		5.1		1.4		5.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	66	475	638	328	311	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.949			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3359	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3359	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	49.9
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	66	475	0	638	328	0	311	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	69	500	0	672	345	0	327	48
Number of Lanes	0	1	2	0	2	0	0	1	1

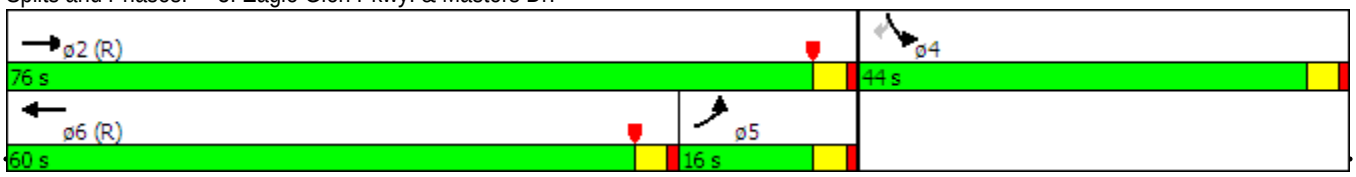
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	18.6	70	43
HCM LOS	C	F	E

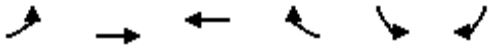
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	39%	0%	0%
Vol Right, %	0%	0%	0%	0%	61%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	238	238	425	541	311	46
LT Vol	66	0	0	0	0	311	0
Through Vol	0	238	238	425	213	0	0
RT Vol	0	0	0	0	328	0	46
Lane Flow Rate	69	250	250	448	569	327	48
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.175	0.593	0.473	1	1	0.852	0.11
Departure Headway (Hd)	9.045	8.544	6.806	8.056	7.617	9.369	8.174
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	397	423	530	452	478	386	438
Service Time	6.775	6.274	4.538	5.804	5.364	7.129	5.931
HCM Lane V/C Ratio	0.174	0.591	0.472	0.991	1.19	0.847	0.11
HCM Control Delay	13.7	23	15.5	71.2	69.1	47.6	11.9
HCM Lane LOS	B	C	C	F	F	E	B
HCM 95th-tile Q	0.6	3.7	2.5	12.9	13.3	8.1	0.4

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	66	475	638	328	311	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.949			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3359	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3359	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			102			48
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	16.0	76.0	60.0		44.0	44.0
Total Split (%)	13.3%	63.3%	50.0%		36.7%	36.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	66	475	638	328	311	46
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	69	500	672	345	327	48
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	405	2578	1057	542	363	324
Arrive On Green	0.46	1.00	0.47	0.47	0.20	0.20
Sat Flow, veh/h	1774	3632	2358	1162	1774	1583
Grp Volume(v), veh/h	69	500	525	492	327	48
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1658	1774	1583
Q Serve(g_s), s	2.7	0.0	27.0	27.0	21.6	3.0
Cycle Q Clear(g_c), s	2.7	0.0	27.0	27.0	21.6	3.0
Prop In Lane	1.00			0.70	1.00	1.00
Lane Grp Cap(c), veh/h	405	2578	826	774	363	324
V/C Ratio(X)	0.17	0.19	0.64	0.64	0.90	0.15
Avail Cap(c_a), veh/h	405	2578	826	774	591	528
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	1.00	1.00	0.95	0.95
Uniform Delay (d), s/veh	25.9	0.0	24.3	24.3	46.5	39.1
Incr Delay (d2), s/veh	0.2	0.2	3.7	4.0	10.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.4	0.1	14.0	13.2	11.6	2.9
LnGrp Delay(d),s/veh	26.1	0.2	28.0	28.2	56.8	39.3
LnGrp LOS	C	A	C	C	E	D
Approach Vol, veh/h		569	1017		375	
Approach Delay, s/veh		3.3	28.1		54.6	
Approach LOS		A	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		91.4		28.6	31.4	60.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		72.0		40.0	12.0	56.0		
Max Q Clear Time (g_c+I1), s		2.0		23.6	4.7	29.0		
Green Ext Time (p_c), s		3.5		1.0	1.9	6.9		

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1676	332	201	823	179	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.975					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3451	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3451	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	34					178
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	76.0		18.0	94.0	26.0	26.0
Total Split (%)	63.3%		15.0%	78.3%	21.7%	21.7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

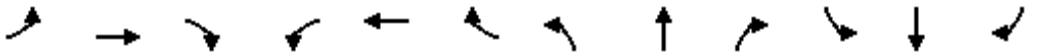
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1676	332	201	823	179	169
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1764	349	212	866	188	178
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1779	341	207	2654	325	290
Arrive On Green	0.60	0.60	0.23	1.00	0.18	0.18
Sat Flow, veh/h	3058	568	1774	3632	1774	1583
Grp Volume(v), veh/h	1029	1084	212	866	188	178
Grp Sat Flow(s),veh/h/ln	1770	1763	1774	1770	1774	1583
Q Serve(g_s), s	66.8	72.0	14.0	0.0	11.6	12.4
Cycle Q Clear(g_c), s	66.8	72.0	14.0	0.0	11.6	12.4
Prop In Lane		0.32	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1062	1058	207	2654	325	290
V/C Ratio(X)	0.97	1.02	1.02	0.33	0.58	0.61
Avail Cap(c_a), veh/h	1062	1058	207	2654	325	290
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	23.0	24.0	46.0	0.0	44.8	45.1
Incr Delay (d2), s/veh	21.2	34.1	64.4	0.3	7.3	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.2	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	38.6	44.7	10.5	0.1	6.4	6.2
LnGrp Delay(d),s/veh	44.1	58.1	110.6	0.3	52.1	54.4
LnGrp LOS	D	F	F	A	D	D
Approach Vol, veh/h	2113			1078	366	
Approach Delay, s/veh	51.3			22.0	53.2	
Approach LOS	D			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.0	76.0				94.0		26.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.0	72.0				90.0		22.0
Max Q Clear Time (g_c+I1), s	16.0	74.0				2.0		14.4
Green Ext Time (p_c), s	0.0	0.0				61.1		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	42.6
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	25	2	2	6	38	172	11	8	474	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.919			0.991				0.850
Flt Protected		0.953			0.990		0.950				0.999	
Satd. Flow (prot)	0	1775	1583	0	1695	0	1770	1846	0	0	1861	1583
Flt Permitted		0.953			0.990		0.950				0.999	
Satd. Flow (perm)	0	1775	1583	0	1695	0	1770	1846	0	0	1861	1583
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	56	1	25	0	2	2	6	0	38	172	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	1	26	0	2	2	6	0	40	181	12
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.1	9.5	10.1
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	20%	2%	0%
Vol Thru, %	0%	94%	2%	0%	20%	98%	0%
Vol Right, %	0%	6%	0%	100%	60%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	183	57	25	10	482	101
LT Vol	38	0	56	0	2	8	0
Through Vol	0	172	1	0	2	474	0
RT Vol	0	11	0	25	6	0	101
Lane Flow Rate	40	193	60	26	11	507	106
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.065	0.286	0.116	0.042	0.019	0.714	0.129
Departure Headway (Hd)	5.894	5.347	6.951	5.745	6.382	5.067	4.355
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	604	668	512	617	564	710	819
Service Time	3.663	3.116	4.744	3.537	4.382	2.817	2.105
HCM Lane V/C Ratio	0.066	0.289	0.117	0.042	0.02	0.714	0.129
HCM Control Delay	9.1	10.3	10.7	8.8	9.5	19.5	7.8
HCM Lane LOS	A	B	B	A	A	C	A
HCM 95th-tile Q	0.2	1.2	0.4	0.1	0.1	6	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	8	474	101
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	499	106
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	17.5
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	25	2	2	6	38	172	11	8	474	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.919			0.991				0.850
Flt Protected		0.953			0.990		0.950				0.999	
Satd. Flow (prot)	0	1775	1583	0	1695	0	1770	1846	0	0	1861	1583
Flt Permitted		0.723			0.948		0.453				0.997	
Satd. Flow (perm)	0	1347	1583	0	1623	0	844	1846	0	0	1857	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			26		6			8				106
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	1	25	2	2	6	38	172	11	8	474	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	59	1	0	2	2	6	40	181	12	8	499	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1	85	86	24	56	898	1405	93	66	1506	1288
Arrive On Green	0.05	0.05	0.00	0.05	0.05	0.05	0.81	0.81	0.81	0.81	0.81	0.00
Sat Flow, veh/h	1422	24	1583	254	442	1044	895	1728	115	7	1852	1583
Grp Volume(v), veh/h	60	0	0	10	0	0	40	0	193	507	0	0
Grp Sat Flow(s),veh/h/ln	1446	0	1583	1739	0	0	895	0	1843	1859	0	1583
Q Serve(g_s), s	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	0.3	0.0	0.0	0.3	0.0	1.3	4.2	0.0	0.0
Prop In Lane	0.98		1.00	0.20		0.60	1.00		0.06	0.02		1.00
Lane Grp Cap(c), veh/h	196	0	85	165	0	0	898	0	1499	1573	0	1288
V/C Ratio(X)	0.31	0.00	0.00	0.06	0.00	0.00	0.04	0.00	0.13	0.32	0.00	0.00
Avail Cap(c_a), veh/h	637	0	581	664	0	0	898	0	1499	1573	0	1288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.0	0.0	0.0	27.0	0.0	0.0	1.1	0.0	1.2	1.4	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.2	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.7	2.3	0.0	0.0
LnGrp Delay(d),s/veh	28.9	0.0	0.0	27.2	0.0	0.0	1.2	0.0	1.3	2.0	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		60			10			233			507	
Approach Delay, s/veh		28.9			27.2			1.3			2.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		3.3		4.4		6.2		2.3
Green Ext Time (p_c), s		4.6		0.2		4.5		0.2

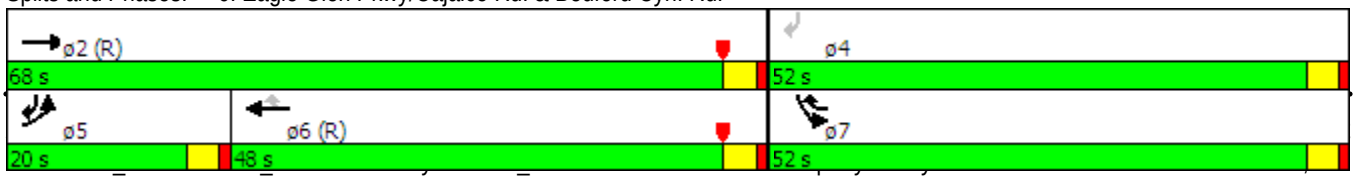
Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A

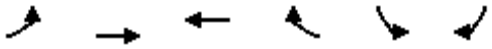
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	ø4
Lane Configurations							
Volume (vph)	104	682	825	145	421	141	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	180			200	450	0	
Storage Lanes	1			1	0	1	
Taper Length (ft)	100				180		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Ped Bike Factor				0.98		0.98	
Frt				0.850		0.850	
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1770	3539	3539	1550	1770	1550	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)				153		44	
Link Speed (mph)		45	45		45		
Link Distance (ft)		930	726		651		
Travel Time (s)		14.1	11.0		9.9		
Confl. Peds. (#/hr)				5		5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Shared Lane Traffic (%)							
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	5	2	6	7	7	5	4
Permitted Phases				6		4	
Detector Phase	5	2	6	7	7	5	
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	8.0	23.0	8.0	8.0	8.0	23.0
Total Split (s)	20.0	68.0	48.0	52.0	52.0	20.0	52.0
Total Split (%)	16.7%	56.7%	40.0%	43.3%	43.3%	16.7%	43%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag			Lead	
Lead-Lag Optimize?	Yes		Yes			Yes	
Recall Mode	None	C-Max	C-Max	Max	Max	None	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 6: Eagle Glen Pkwy/Cajalco Rd. & Bedford Cyn. Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	104	682	825	145	421	141
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	109	718	868	153	443	148
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	135	1888	1500	1300	710	754
Arrive On Green	0.08	0.53	0.28	0.28	0.40	0.40
Sat Flow, veh/h	1774	3632	3632	1574	1774	1583
Grp Volume(v), veh/h	109	718	868	153	443	148
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1574	1774	1583
Q Serve(g_s), s	7.3	14.3	25.2	2.7	24.0	6.5
Cycle Q Clear(g_c), s	7.3	14.3	25.2	2.7	24.0	6.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	135	1888	1500	1300	710	754
V/C Ratio(X)	0.81	0.38	0.58	0.12	0.62	0.20
Avail Cap(c_a), veh/h	237	1888	1500	1300	710	754
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	1.00	1.00
Uniform Delay (d), s/veh	54.5	16.4	33.8	2.6	28.8	18.2
Incr Delay (d2), s/veh	10.6	0.6	1.5	0.2	4.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.0	7.0	12.7	6.2	12.5	7.6
LnGrp Delay(d),s/veh	65.1	17.0	35.3	2.8	32.9	18.7
LnGrp LOS	E	B	D	A	C	B
Approach Vol, veh/h		827	1021		591	
Approach Delay, s/veh		23.3	30.4		29.4	
Approach LOS		C	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		68.0		52.0	13.2	54.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		64.0		48.0	16.0	44.0		
Max Q Clear Time (g_c+I1), s		16.3		26.0	9.3	27.2		
Green Ext Time (p_c), s		10.5		2.4	0.1	7.7		

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	992	853	130	532	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.931										0.850
Flt Protected				0.950							0.962	
Satd. Flow (prot)	0	3295	0	1770	3539	0	0	0	0	0	1792	1583
Flt Permitted				0.950							0.962	
Satd. Flow (perm)	0	3295	0	1770	3539	0	0	0	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		317										402
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		75.0		16.0	91.0					29.0	29.0	29.0
Total Split (%)		62.5%		13.3%	75.8%					24.2%	24.2%	24.2%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 33 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	992	853	130	532	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1044	898	137	560	0				163	41	518
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1158	871	161	2566	0				298	75	330
Arrive On Green	0.00	0.80	0.80	0.18	1.00	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	2020	1450	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	947	995	137	560	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1607	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	44.7	72.1	9.0	0.0	0.0				12.2	0.0	25.0
Cycle Q Clear(g_c), s	0.0	44.7	72.1	9.0	0.0	0.0				12.2	0.0	25.0
Prop In Lane	0.00		0.90	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1063	966	161	2566	0				373	0	330
V/C Ratio(X)	0.00	0.89	1.03	0.85	0.22	0.00				0.55	0.00	1.57
Avail Cap(c_a), veh/h	0	1063	966	177	2566	0				373	0	330
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.17	0.17	0.94	0.94	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	9.3	12.0	48.3	0.0	0.0				42.4	0.0	47.5
Incr Delay (d2), s/veh	0.0	2.2	20.8	27.4	0.2	0.0				5.7	0.0	270.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	21.7	36.3	5.6	0.1	0.0				6.7	0.0	35.7
LnGrp Delay(d),s/veh	0.0	11.5	32.9	75.8	0.2	0.0				48.1	0.0	318.4
LnGrp LOS		B	F	E	A					D		F
Approach Vol, veh/h		1942			697						722	
Approach Delay, s/veh		22.4			15.0						242.0	
Approach LOS		C			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.9	76.1		29.0		91.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	12.0	71.0		25.0		87.0		
Max Q Clear Time (g_c+I1), s	11.0	74.1		27.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		44.5		

Intersection Summary	
HCM 2010 Ctrl Delay	68.1
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	992	853	130	532	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.962	
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	1792	1583
Flt Permitted				0.950							0.962	
Satd. Flow (perm)	0	3539	1583	1770	3539	0	0	0	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			535									378
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		69.0	69.0	17.0	86.0					34.0	34.0	34.0
Total Split (%)		57.5%	57.5%	14.2%	71.7%					28.3%	28.3%	28.3%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	992	853	130	532	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1044	898	137	560	0				163	41	518
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1979	885	161	2418	0				358	90	396
Arrive On Green	0.00	0.74	0.74	0.18	1.00	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	1044	898	137	560	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	14.9	67.1	9.0	0.0	0.0				11.6	0.0	30.0
Cycle Q Clear(g_c), s	0.0	14.9	67.1	9.0	0.0	0.0				11.6	0.0	30.0
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1979	885	161	2418	0				448	0	396
V/C Ratio(X)	0.00	0.53	1.01	0.85	0.23	0.00				0.46	0.00	1.31
Avail Cap(c_a), veh/h	0	1979	885	192	2418	0				448	0	396
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.17	0.17	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.7	15.4	48.3	0.0	0.0				38.1	0.0	45.0
Incr Delay (d2), s/veh	0.0	0.2	16.2	23.7	0.2	0.0				3.3	0.0	156.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	7.2	32.5	5.4	0.1	0.0				6.1	0.0	30.2
LnGrp Delay(d),s/veh	0.0	8.9	31.6	72.0	0.2	0.0				41.4	0.0	201.0
LnGrp LOS		A	F	E	A					D		F
Approach Vol, veh/h		1942			697						722	
Approach Delay, s/veh		19.4			14.3						155.9	
Approach LOS		B			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.9	71.1		34.0		86.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	13.0	65.0		30.0		82.0		
Max Q Clear Time (g_c+I1), s	11.0	69.1		32.0		2.0		
Green Ext Time (p_c), s	0.1	0.0		0.0		29.7		

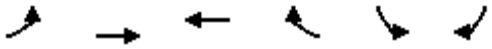
Intersection Summary	
HCM 2010 Ctrl Delay	47.7
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	373	729	573	281	638	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	3433	2711
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				296		418
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	30.0	74.0	44.0	44.0	46.0	46.0
Total Split (%)	25.0%	61.7%	36.7%	36.7%	38.3%	38.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 110 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	373	729	573	281	638	397
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	393	767	603	296	672	418
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	466	2065	1468	657	1205	975
Arrive On Green	0.27	1.00	0.41	0.41	0.35	0.35
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	393	767	603	296	672	418
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	13.0	0.0	14.4	16.2	18.9	13.8
Cycle Q Clear(g_c), s	13.0	0.0	14.4	16.2	18.9	13.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	466	2065	1468	657	1205	975
V/C Ratio(X)	0.84	0.37	0.41	0.45	0.56	0.43
Avail Cap(c_a), veh/h	746	2065	1468	657	1205	975
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	0.0	24.8	25.3	31.5	29.8
Incr Delay (d2), s/veh	4.4	0.5	0.9	2.2	1.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.4	0.1	7.2	7.5	9.3	11.6
LnGrp Delay(d),s/veh	47.0	0.5	25.6	27.5	33.4	31.2
LnGrp LOS	D	A	C	C	C	C
Approach Vol, veh/h		1160	899		1090	
Approach Delay, s/veh		16.2	26.3		32.5	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		74.0		46.0	20.2	53.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		70.0		42.0	26.0	40.0		
Max Q Clear Time (g_c+I1), s		2.0		20.9	15.0	18.2		
Green Ext Time (p_c), s		9.9		5.3	1.3	8.2		

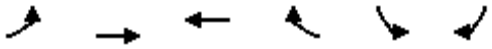
Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	373	729	573	281	638	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	5085	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	5085	3539	1583	3433	2711
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				296		418
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	30.0	74.0	44.0	44.0	46.0	46.0
Total Split (%)	25.0%	61.7%	36.7%	36.7%	38.3%	38.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 109 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	373	729	573	281	638	397
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	393	767	603	296	672	418
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	746	2966	1180	528	1205	975
Arrive On Green	0.43	1.00	0.33	0.33	0.35	0.35
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	393	767	603	296	672	418
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	10.1	0.0	16.4	18.4	18.9	13.8
Cycle Q Clear(g_c), s	10.1	0.0	16.4	18.4	18.9	13.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	746	2966	1180	528	1205	975
V/C Ratio(X)	0.53	0.26	0.51	0.56	0.56	0.43
Avail Cap(c_a), veh/h	746	2966	1180	528	1205	975
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	0.0	32.1	32.8	31.5	29.8
Incr Delay (d2), s/veh	0.6	0.2	1.6	4.3	1.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.8	0.1	8.3	8.7	9.3	11.6
LnGrp Delay(d),s/veh	30.1	0.2	33.7	37.1	33.4	31.2
LnGrp LOS	C	A	C	D	C	C
Approach Vol, veh/h		1160	899		1090	
Approach Delay, s/veh		10.3	34.8		32.5	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		74.0		46.0	30.0	44.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		70.0		42.0	26.0	40.0		
Max Q Clear Time (g_c+I1), s		2.0		20.9	12.1	20.4		
Green Ext Time (p_c), s		6.2		5.3	4.7	3.9		

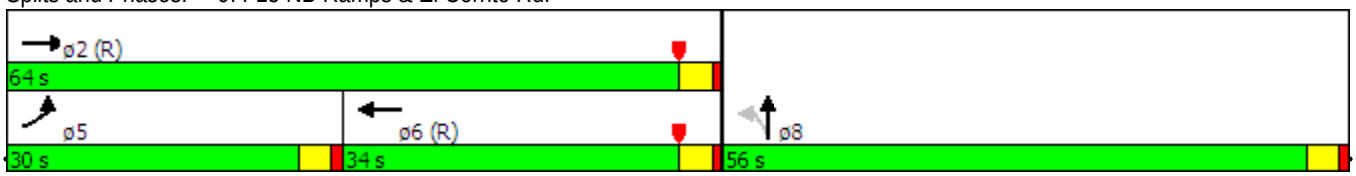
Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	493	654	0	0	248	85	414	8	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.962			0.972				
Flt Protected	0.950							0.963				
Satd. Flow (prot)	3433	1863	0	0	3405	0	0	1744	0	0	0	0
Flt Permitted	0.950							0.963				
Satd. Flow (perm)	3433	1863	0	0	3405	0	0	1744	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					37			14				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	30.0	64.0			34.0		56.0	56.0				
Total Split (%)	25.0%	53.3%			28.3%		46.7%	46.7%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 38 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	493	654	0	0	248	85	414	8	110	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	519	688	0	0	261	89	436	8	116			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	594	931	0	0	768	256	584	11	155			
Arrive On Green	0.17	0.50	0.00	0.00	0.29	0.29	0.43	0.43	0.43			
Sat Flow, veh/h	3442	1863	0	0	2703	869	1348	25	359			
Grp Volume(v), veh/h	519	688	0	0	175	175	560	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1709	1732	0	0			
Q Serve(g_s), s	17.6	35.1	0.0	0.0	9.3	9.7	32.5	0.0	0.0			
Cycle Q Clear(g_c), s	17.6	35.1	0.0	0.0	9.3	9.7	32.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.51	0.78		0.21			
Lane Grp Cap(c), veh/h	594	931	0	0	521	503	751	0	0			
V/C Ratio(X)	0.87	0.74	0.00	0.00	0.34	0.35	0.75	0.00	0.00			
Avail Cap(c_a), veh/h	746	931	0	0	521	503	751	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.25	0.25	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	48.4	23.8	0.0	0.0	33.2	33.3	28.5	0.0	0.0			
Incr Delay (d2), s/veh	2.6	1.4	0.0	0.0	1.7	1.9	6.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	8.6	18.3	0.0	0.0	4.8	4.8	16.9	0.0	0.0			
LnGrp Delay(d),s/veh	51.0	25.1	0.0	0.0	34.9	35.2	35.1	0.0	0.0			
LnGrp LOS	D	C			C	D	D					
Approach Vol, veh/h		1207			350			560				
Approach Delay, s/veh		36.3			35.1			35.1				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		64.0			24.7	39.3		56.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		60.0			26.0	30.0		52.0
Max Q Clear Time (g_c+I1), s		37.1			19.6	11.7		34.5
Green Ext Time (p_c), s		6.6			1.1	6.0		3.2

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1049	318	0	1078	284	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Lane Util. Factor	0.91	1.00	1.00	0.86	0.97	0.88
Ped Bike Factor						0.98
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	5085	1583	0	6408	3433	2787
Flt Permitted					0.950	
Satd. Flow (perm)	5085	1583	0	6408	3433	2742
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						138
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	71.0	49.0		71.0	49.0	49.0
Total Split (%)	59.2%	40.8%		59.2%	40.8%	40.8%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1049	318	0	1078	284	346
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	1104	335	0	1135	299	364
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2839	1478	0	3578	1291	1045
Arrive On Green	0.56	0.56	0.00	0.56	0.38	0.38
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	1104	335	0	1135	299	364
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	14.7	2.1	0.0	11.4	7.1	11.3
Cycle Q Clear(g_c), s	14.7	2.1	0.0	11.4	7.1	11.3
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2839	1478	0	3578	1291	1045
V/C Ratio(X)	0.39	0.23	0.00	0.32	0.23	0.35
Avail Cap(c_a), veh/h	2839	1478	0	3578	1291	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	0.3	0.0	14.2	25.7	27.0
Incr Delay (d2), s/veh	0.4	0.4	0.0	0.2	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.0	1.0	0.0	5.1	3.5	4.5
LnGrp Delay(d),s/veh	15.4	0.7	0.0	14.5	26.1	27.9
LnGrp LOS	B	A		B	C	C
Approach Vol, veh/h	1439			1135	663	
Approach Delay, s/veh	11.9			14.5	27.1	
Approach LOS	B			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		71.0				71.0		49.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		67.0				67.0		45.0
Max Q Clear Time (g_c+I1), s		16.7				13.4		13.3
Green Ext Time (p_c), s		20.7				21.1		3.3

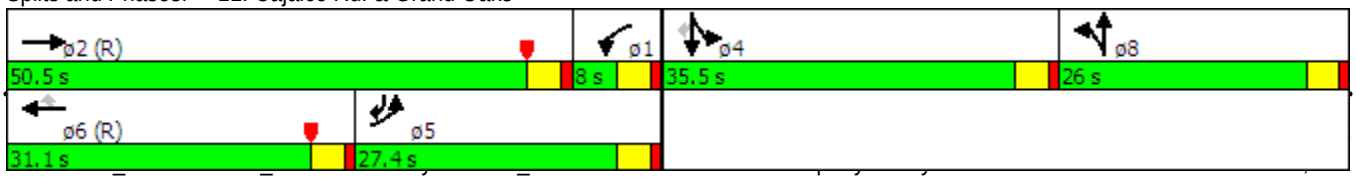
Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	675	720	0	0	516	155	0	0	0	363	0	583
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	5085	0	1863	5085	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	5085	0	1863	5085	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						163						614
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	27.4	50.5		8.0	31.1	31.1	26.0	26.0		35.5	35.5	27.4
Total Split (%)	22.8%	42.1%		6.7%	25.9%	25.9%	21.7%	21.7%		29.6%	29.6%	22.8%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	675	720	0	0	516	155	0	0	0	363	0	583
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	711	758	0	0	543	163	0	0	0	382	0	614
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1417	1971	0	444	1148	355	0	2	0	466	0	1874
Arrive On Green	0.41	0.39	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1573	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	711	758	0	0	543	163	0	0	0	382	0	614
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1573	0	1863	0	1774	0	1385
Q Serve(g_s), s	18.4	12.9	0.0	0.0	11.1	10.7	0.0	0.0	0.0	24.3	0.0	0.0
Cycle Q Clear(g_c), s	18.4	12.9	0.0	0.0	11.1	10.7	0.0	0.0	0.0	24.3	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1417	1971	0	444	1148	355	0	2	0	466	0	1874
V/C Ratio(X)	0.50	0.38	0.00	0.00	0.47	0.46	0.00	0.00	0.00	0.82	0.00	0.33
Avail Cap(c_a), veh/h	1417	1971	0	444	1148	355	0	342	0	466	0	1874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	26.5	0.0	0.0	40.3	40.1	0.0	0.0	0.0	41.6	0.0	8.2
Incr Delay (d2), s/veh	0.3	0.6	0.0	0.0	1.4	4.2	0.0	0.0	0.0	14.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.7	6.1	0.0	0.0	5.3	5.1	0.0	0.0	0.0	13.8	0.0	4.3
LnGrp Delay(d),s/veh	26.5	27.0	0.0	0.0	41.7	44.3	0.0	0.0	0.0	56.5	0.0	8.6
LnGrp LOS	C	C			D	D				E		A
Approach Vol, veh/h		1469			706			0			996	
Approach Delay, s/veh		26.7			42.3			0.0			27.0	
Approach LOS		C			D						C	

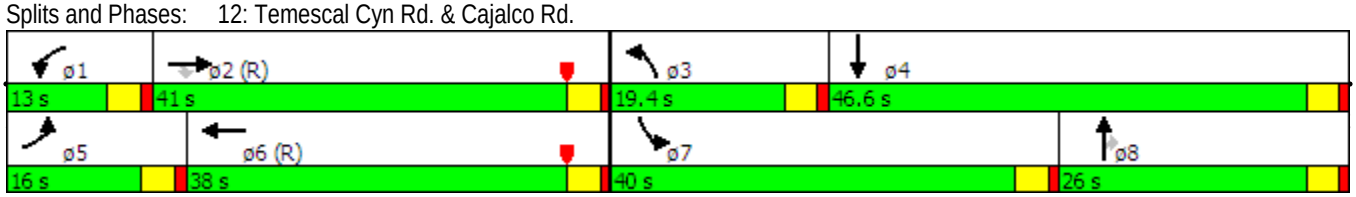
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	53.4	31.1		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	23.4	27.1		22.0
Max Q Clear Time (g_c+I1), s	0.0	14.9		26.3	20.4	13.1		0.0
Green Ext Time (p_c), s	0.0	3.6		2.5	1.1	2.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	639	328	184	358	461	254	675	96	599	520	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		0.99						1.00	
Frt			0.850		0.916				0.850		0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4602	0	3433	3539	1794	1770	3479	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4602	0	3433	3539	1794	1770	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			245		271				118		11	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	16.0	41.0	41.0	13.0	38.0		19.4	26.0	26.0	40.0	46.6	
Total Split (%)	13.3%	34.2%	34.2%	10.8%	31.7%		16.2%	21.7%	21.7%	33.3%	38.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 8 (7%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	116	639	328	184	358	461	254	675	96	599	520	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	122	673	345	194	377	485	267	711	101	631	547	62
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	574	486	133	1017	473	331	649	302	532	1241	140
Arrive On Green	0.08	0.31	0.31	0.08	0.30	0.30	0.10	0.18	0.18	0.30	0.39	0.39
Sat Flow, veh/h	1774	1863	1576	1774	3390	1575	3442	3539	1647	1774	3205	362
Grp Volume(v), veh/h	122	673	345	194	377	485	267	711	101	631	301	308
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1575	1721	1770	1647	1774	1770	1797
Q Serve(g_s), s	8.1	37.0	23.3	9.0	10.5	36.0	9.1	22.0	6.4	36.0	15.1	15.2
Cycle Q Clear(g_c), s	8.1	37.0	23.3	9.0	10.5	36.0	9.1	22.0	6.4	36.0	15.1	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	148	574	486	133	1017	473	331	649	302	532	685	696
V/C Ratio(X)	0.82	1.17	0.71	1.46	0.37	1.03	0.81	1.10	0.33	1.19	0.44	0.44
Avail Cap(c_a), veh/h	177	574	486	133	1017	473	442	649	302	532	685	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	41.5	36.8	55.5	33.1	42.0	53.1	49.0	42.6	42.0	27.2	27.2
Incr Delay (d2), s/veh	22.7	94.7	8.5	242.7	1.0	48.3	7.9	64.4	3.0	101.3	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.9	34.1	11.2	13.4	5.1	22.0	4.7	16.5	3.2	32.6	7.8	7.9
LnGrp Delay(d),s/veh	76.8	136.2	45.3	298.2	34.1	90.3	61.0	113.4	45.6	143.3	29.2	29.2
LnGrp LOS	E	F	D	F	C	F	E	F	D	F	C	C
Approach Vol, veh/h		1140			1056			1079			1240	
Approach Delay, s/veh		102.4			108.4			94.1			87.3	
Approach LOS		F			F			F			F	

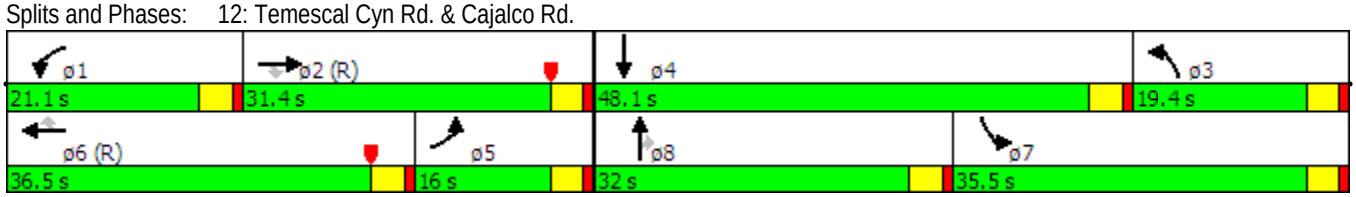
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	41.0	15.5	50.5	14.0	40.0	40.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	37.0	15.4	42.6	12.0	34.0	36.0	22.0
Max Q Clear Time (g_c+I1), s	11.0	39.0	11.1	17.2	10.1	38.0	38.0	24.0
Green Ext Time (p_c), s	0.0	0.0	0.4	6.6	0.1	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	97.7
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	639	328	184	358	461	254	675	96	599	520	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor			0.98			0.98					1.00	
Frt			0.850			0.850			0.850		0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1794	3433	3539	1794	3433	3479	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1552	1770	5085	1756	3433	3539	1794	3433	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			345			485			155		11	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	35.5	26.0	
Total Split (s)	16.0	31.4	31.4	21.1	36.5	36.5	19.4	32.0	32.0	35.5	48.1	
Total Split (%)	13.3%	26.2%	26.2%	17.6%	30.4%	30.4%	16.2%	26.7%	26.7%	29.6%	40.1%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 78 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	116	639	328	184	358	461	254	675	96	599	520	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	122	673	345	194	377	485	267	711	101	631	547	62
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	947	421	222	1377	444	366	826	384	828	1178	133
Arrive On Green	0.12	0.27	0.27	0.13	0.27	0.27	0.11	0.23	0.23	0.24	0.37	0.37
Sat Flow, veh/h	1774	3539	1574	1774	5085	1638	3442	3539	1647	3442	3204	362
Grp Volume(v), veh/h	122	673	345	194	377	485	267	711	101	631	301	308
Grp Sat Flow(s),veh/h/ln	1774	1770	1574	1774	1695	1638	1721	1770	1647	1721	1770	1797
Q Serve(g_s), s	7.8	20.6	18.8	12.9	7.0	32.5	9.0	23.1	4.5	20.5	15.6	15.7
Cycle Q Clear(g_c), s	7.8	20.6	18.8	12.9	7.0	32.5	9.0	23.1	4.5	20.5	15.6	15.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	216	947	421	222	1377	444	366	826	384	828	650	660
V/C Ratio(X)	0.56	0.71	0.82	0.87	0.27	1.09	0.73	0.86	0.26	0.76	0.46	0.47
Avail Cap(c_a), veh/h	216	947	421	253	1377	444	442	826	384	903	650	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	39.7	24.0	51.6	34.5	43.8	51.9	44.1	21.1	42.4	28.9	29.0
Incr Delay (d2), s/veh	3.4	4.5	16.1	24.9	0.5	70.5	4.8	11.4	1.7	3.6	2.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.0	10.7	10.0	7.8	3.3	23.4	4.5	12.6	2.2	10.1	8.0	8.2
LnGrp Delay(d),s/veh	53.0	44.2	40.1	76.5	34.9	114.2	56.8	55.5	22.8	45.9	31.3	31.3
LnGrp LOS	D	D	D	E	C	F	E	E	C	D	C	C
Approach Vol, veh/h		1140			1056			1079			1240	
Approach Delay, s/veh		43.9			79.0			52.8			38.7	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	36.1	16.8	48.1	18.6	36.5	32.9	32.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.1	27.4	15.4	44.1	12.0	32.5	31.5	28.0
Max Q Clear Time (g_c+I1), s	14.9	22.6	11.0	17.7	9.8	34.5	22.5	25.1
Green Ext Time (p_c), s	0.1	2.3	1.8	2.3	0.4	0.0	2.9	1.1

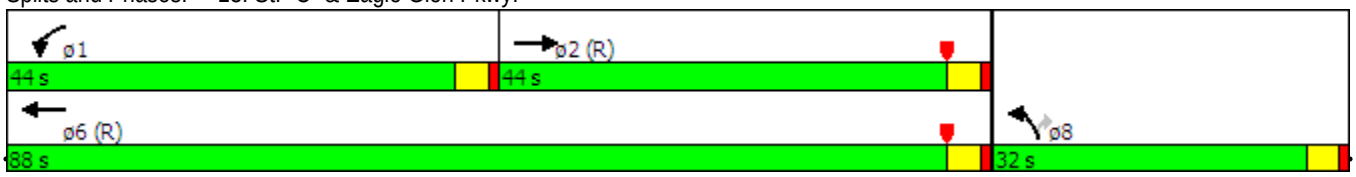
Intersection Summary	
HCM 2010 Ctrl Delay	52.8
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	430	0	189	495	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected			0.950			
Satd. Flow (prot)	3539	0	1770	1863	1863	1583
Flt Permitted			0.950			
Satd. Flow (perm)	3539	0	1770	1863	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						637
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	553	
Travel Time (s)	11.8			19.1	8.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	44.0		44.0	88.0	32.0	32.0
Total Split (%)	36.7%		36.7%	73.3%	26.7%	26.7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 81 (68%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

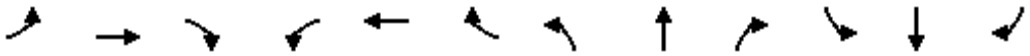
Splits and Phases: 13: St. "C" & Eagle Glen Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	430	0	189	495	0	111
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	453	0	199	521	0	117
Adj No. of Lanes	2	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1897	0	232	1304	414	369
Arrive On Green	0.54	0.00	0.13	0.70	0.00	0.23
Sat Flow, veh/h	3725	0	1774	1863	1774	1583
Grp Volume(v), veh/h	453	0	199	521	0	117
Grp Sat Flow(s),veh/h/ln	1770	0	1774	1863	1774	1583
Q Serve(g_s), s	8.2	0.0	13.2	14.0	0.0	7.3
Cycle Q Clear(g_c), s	8.2	0.0	13.2	14.0	0.0	7.3
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1897	0	232	1304	414	369
V/C Ratio(X)	0.24	0.00	0.86	0.40	0.00	0.32
Avail Cap(c_a), veh/h	1897	0	591	1304	414	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.87	0.87	0.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	51.1	7.5	0.0	38.1
Incr Delay (d2), s/veh	0.3	0.0	7.9	0.8	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.0	0.0	7.0	7.4	0.0	3.4
LnGrp Delay(d),s/veh	15.1	0.0	59.0	8.3	0.0	40.3
LnGrp LOS	B		E	A		D
Approach Vol, veh/h	453			720	117	
Approach Delay, s/veh	15.1			22.3	40.3	
Approach LOS	B			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.7	68.3				88.0		32.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	40.0	40.0				84.0		28.0
Max Q Clear Time (g_c+I1), s	15.2	10.2				16.0		9.3
Green Ext Time (p_c), s	0.5	6.5				7.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	51	18	4	6	4	336	9	7	643	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.972			0.996			0.997	
Flt Protected		0.980			0.968		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1753	0	1770	1855	0	1770	1857	0
Flt Permitted		0.980			0.968		0.950			0.950		
Satd. Flow (perm)	0	1683	0	0	1753	0	1770	1855	0	1770	1857	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	39
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	36	2	51	0	18	4	6	0	4	336	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	2	54	0	19	4	6	0	4	354	9
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.6	10.2	15
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	40%	64%	100%	0%
Vol Thru, %	0%	97%	2%	14%	0%	98%
Vol Right, %	0%	3%	57%	21%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	345	89	28	7	656
LT Vol	4	0	36	18	7	0
Through Vol	0	336	2	4	0	643
RT Vol	0	9	51	6	0	13
Lane Flow Rate	4	363	94	29	7	691
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.007	0.557	0.163	0.056	0.012	1
Departure Headway (Hd)	6.047	5.523	6.259	6.813	5.855	5.337
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	590	650	570	529	615	684
Service Time	3.802	3.284	4.337	4.813	3.557	3.039
HCM Lane V/C Ratio	0.007	0.558	0.165	0.055	0.011	1.01
HCM Control Delay	8.8	15.1	10.6	10.2	8.6	57.1
HCM Lane LOS	A	C	B	B	A	F
HCM 95th-tile Q	0	3.4	0.6	0.2	0	15.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	643	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	677	14
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	56.6
HCM LOS	F

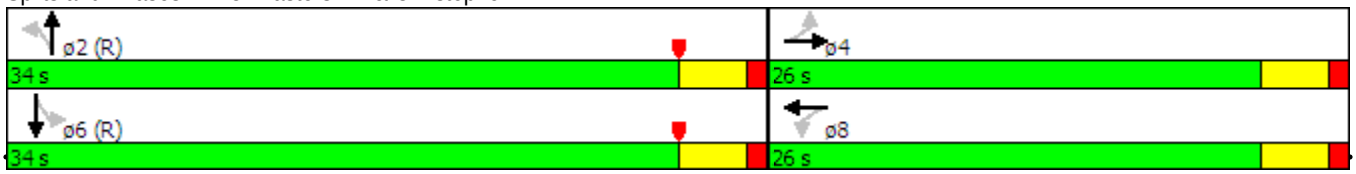
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	51	18	4	6	4	336	9	7	643	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.972			0.996			0.997	
Flt Protected		0.980			0.968		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1753	0	1770	1855	0	1770	1857	0
Flt Permitted		0.864			0.837		0.343			0.542		
Satd. Flow (perm)	0	1484	0	0	1515	0	639	1855	0	1010	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			6			3			2	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	2	51	18	4	6	4	336	9	7	643	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	38	2	54	19	4	6	4	354	9	7	677	14
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	12	78	177	40	31	704	1409	36	856	1416	29
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	1.00	1.00	1.00
Sat Flow, veh/h	525	132	886	881	453	348	749	1809	46	1015	1819	38
Grp Volume(v), veh/h	94	0	0	29	0	0	4	0	363	7	0	691
Grp Sat Flow(s),veh/h/ln	1543	0	0	1682	0	0	749	0	1855	1015	0	1856
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	0.0	0.9	0.0	0.0	0.1	0.0	3.2	3.3	0.0	0.0
Prop In Lane	0.40		0.57	0.66		0.21	1.00		0.02	1.00		0.02
Lane Grp Cap(c), veh/h	220	0	0	247	0	0	704	0	1445	856	0	1446
V/C Ratio(X)	0.43	0.00	0.00	0.12	0.00	0.00	0.01	0.00	0.25	0.01	0.00	0.48
Avail Cap(c_a), veh/h	640	0	0	649	0	0	704	0	1445	856	0	1446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.88	0.00	0.88
Uniform Delay (d), s/veh	26.5	0.0	0.0	25.4	0.0	0.0	1.5	0.0	1.8	0.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.4
LnGrp Delay(d),s/veh	27.8	0.0	0.0	25.6	0.0	0.0	1.5	0.0	2.2	0.1	0.0	1.0
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		94			29			367			698	
Approach Delay, s/veh		27.8			25.6			2.2			1.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.7		9.3		50.7		9.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		5.2		5.5		5.3		2.9
Green Ext Time (p_c), s		7.6		0.5		7.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	51	18	4	6	4	336	9	7	643	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.972			0.997			0.997	
Flt Protected		0.980			0.968			0.999			0.999	
Satd. Flow (prot)	0	1683	0	0	1753	0	0	1855	0	0	1855	0
Flt Permitted		0.980			0.968			0.999			0.999	
Satd. Flow (perm)	0	1683	0	0	1753	0	0	1855	0	0	1855	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

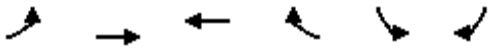
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	94	29	367	698
Demand Flow Rate, veh/h	96	29	374	712
Vehicles Circulating, veh/h	717	404	48	27
Vehicles Exiting, veh/h	22	18	765	406
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.9	5.2	6.9	12.5
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	96	29	374	712
Cap Entry Lane, veh/h	552	754	1077	1100
Entry HV Adj Factor	0.979	0.997	0.981	0.981
Flow Entry, veh/h	94	29	367	698
Cap Entry, veh/h	540	752	1057	1079
V/C Ratio	0.174	0.038	0.347	0.647
Control Delay, s/veh	8.9	5.2	6.9	12.5
LOS	A	A	A	B
95th %tile Queue, veh	1	0	2	5



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	657	289	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.962	
Flt Protected	0.950				0.965	
Satd. Flow (prot)	1770	1863	1852	0	1729	0
Flt Permitted	0.950				0.965	
Satd. Flow (perm)	1770	1863	1852	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

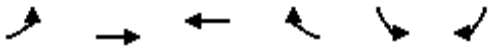
Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	27.6
Intersection LOS	D

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	657	0	289	12	0	12	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	692	0	304	13	0	13	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	35.5	11.3	9.4
HCM LOS	E	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	71%
Vol Thru, %	0%	100%	96%	0%
Vol Right, %	0%	0%	4%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	657	301	17
LT Vol	4	0	0	12
Through Vol	0	657	289	0
RT Vol	0	0	12	5
Lane Flow Rate	4	692	317	18
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.907	0.424	0.031
Departure Headway (Hd)	5.335	4.833	4.819	6.192
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	754	751	579
Service Time	3.035	2.533	2.828	4.223
HCM Lane V/C Ratio	0.006	0.918	0.422	0.031
HCM Control Delay	8.1	35.7	11.3	9.4
HCM Lane LOS	A	E	B	A
HCM 95th-tile Q	0	12.2	2.1	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	657	289	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.962	
Flt Protected	0.950				0.965	
Satd. Flow (prot)	1770	1863	1852	0	1729	0
Flt Permitted	0.950				0.965	
Satd. Flow (perm)	1770	1863	1852	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

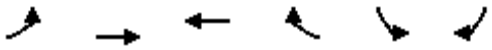
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	657	289	12	12	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	692	304	13	13	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	317	0	-	0	1011	311
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	700	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1243	-	-	-	265	729
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	493	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1243	-	-	-	264	729
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	491	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1243	-	-	-	325
HCM Lane V/C Ratio	0.003	-	-	-	0.055
HCM Control Delay (s)	7.9	-	-	-	16.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2



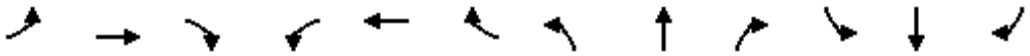
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	657	289	12	12	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.962	
Flt Protected					0.965	
Satd. Flow (prot)	0	1863	1852	0	1729	0
Flt Permitted					0.965	
Satd. Flow (perm)	0	1863	1852	0	1729	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	696	317	18
Demand Flow Rate, veh/h	710	323	18
Vehicles Circulating, veh/h	13	4	310
Vehicles Exiting, veh/h	315	719	17
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	12.1	6.0	4.5
Approach LOS	B	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	710	323	18
Cap Entry Lane, veh/h	1115	1125	829
Entry HV Adj Factor	0.981	0.981	1.000
Flow Entry, veh/h	696	317	18
Cap Entry, veh/h	1094	1104	829
V/C Ratio	0.637	0.287	0.022
Control Delay, s/veh	12.1	6.0	4.5
LOS	B	A	A
95th %tile Queue, veh	5	1	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	503	125	33	245	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.998			0.948			0.973	
Flt Protected	0.950			0.950				0.972			0.971	
Satd. Flow (prot)	1770	1807	0	1770	1859	0	0	1716	0	0	1760	0
Flt Permitted	0.950			0.950				0.972			0.971	
Satd. Flow (perm)	1770	1807	0	1770	1859	0	0	1716	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	27.8
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	503	125	0	33	245	3	0	55	3	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	529	132	0	35	258	3	0	58	3	38
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	37.8	11.4	10.4
HCM LOS	E	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	59%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	80%	0%	99%	20%
Vol Right, %	38%	0%	20%	0%	1%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	3	628	33	248	5
LT Vol	55	3	0	33	0	3
Through Vol	3	0	503	0	245	1
RT Vol	36	0	125	0	3	1
Lane Flow Rate	99	3	661	35	261	5
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.169	0.005	0.914	0.057	0.391	0.01
Departure Headway (Hd)	6.16	5.622	4.978	5.908	5.394	6.56
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	586	632	721	600	660	548
Service Time	4.161	3.395	2.751	3.701	3.187	4.566
HCM Lane V/C Ratio	0.169	0.005	0.917	0.058	0.395	0.009
HCM Control Delay	10.4	8.4	37.9	9.1	11.7	9.6
HCM Lane LOS	B	A	E	A	B	A
HCM 95th-tile Q	0.6	0	12.3	0.2	1.9	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

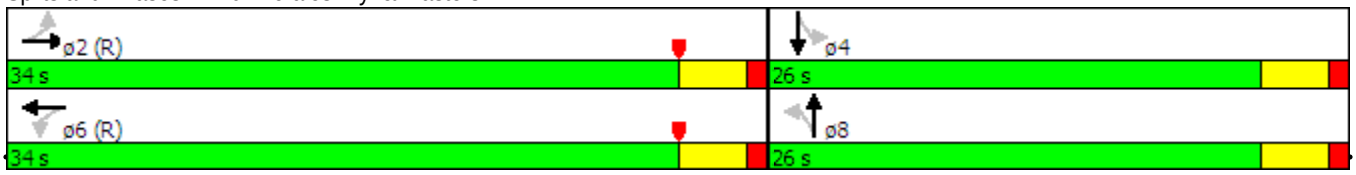
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.6
HCM LOS	A

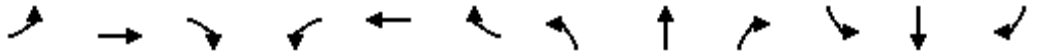
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	503	125	33	245	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.998			0.948			0.973	
Flt Protected	0.950			0.950				0.972			0.971	
Satd. Flow (prot)	1770	1807	0	1770	1859	0	0	1716	0	0	1760	0
Flt Permitted	0.576			0.229				0.863			0.927	
Satd. Flow (perm)	1073	1807	0	427	1859	0	0	1524	0	0	1680	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			1			38			1	
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0		26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%		43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 20: Morales Wy. & Masters Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	503	125	33	245	3	55	3	36	3	1	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	529	132	35	258	3	58	3	38	3	1	1
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	586	720	180	282	919	11	393	41	211	406	135	111
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1114	1440	359	771	1838	21	813	111	576	845	369	304
Grp Volume(v), veh/h	3	0	661	35	0	261	99	0	0	5	0	0
Grp Sat Flow(s),veh/h/ln	1114	0	1799	771	0	1859	1500	0	0	1518	0	0
Q Serve(g_s), s	0.1	0.0	17.4	2.3	0.0	4.9	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.0	0.0	17.4	19.7	0.0	4.9	2.5	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.01	0.59		0.38	0.60		0.20
Lane Grp Cap(c), veh/h	586	0	900	282	0	929	645	0	0	653	0	0
V/C Ratio(X)	0.01	0.00	0.73	0.12	0.00	0.28	0.15	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	586	0	900	282	0	929	645	0	0	653	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.2	0.0	11.9	19.6	0.0	8.7	12.8	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	5.3	0.9	0.0	0.8	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	9.8	0.5	0.0	2.7	1.2	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	10.2	0.0	17.2	20.5	0.0	9.5	13.3	0.0	0.0	12.1	0.0	0.0
LnGrp LOS	B		B	C		A	B			B		
Approach Vol, veh/h		664			296			99			5	
Approach Delay, s/veh		17.1			10.8			13.3			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		19.4		2.1		21.7		4.5
Green Ext Time (p_c), s		4.5		0.5		3.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

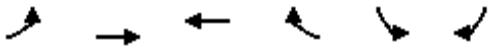
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	503	125	33	245	3	55	3	36	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.999			0.948			0.973	
Flt Protected					0.994			0.972			0.971	
Satd. Flow (prot)	0	1812	0	0	1850	0	0	1716	0	0	1760	0
Flt Permitted					0.994			0.972			0.971	
Satd. Flow (perm)	0	1812	0	0	1850	0	0	1716	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	664	296	99	5
Demand Flow Rate, veh/h	678	302	101	5
Vehicles Circulating, veh/h	40	65	546	358
Vehicles Exiting, veh/h	323	582	172	9
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.0	6.3	7.4	4.6
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	678	302	101	5
Cap Entry Lane, veh/h	1086	1059	655	790
Entry HV Adj Factor	0.980	0.980	0.980	0.996
Flow Entry, veh/h	664	296	99	5
Cap Entry, veh/h	1064	1037	641	787
V/C Ratio	0.625	0.285	0.154	0.006
Control Delay, s/veh	12.0	6.3	7.4	4.6
LOS	B	A	A	A
95th %tile Queue, veh	5	1	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	357	399	63	35	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.980			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3468	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3468	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	357	399	63	35	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	376	420	66	37	14

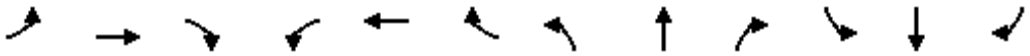
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	486	0	-	0	856	243
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	403	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1073	-	-	-	312	758
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	674	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1073	-	-	-	308	758
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1073	-	-	-	308	758
HCM Lane V/C Ratio	0.013	-	-	-	0.12	0.018
HCM Control Delay (s)	8.4	-	-	-	18.3	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0.1

APPENDIX 7.2:

2035 WITH MODIFIED PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT INTERSECTION OPERATIONS ANALYSIS WORKSHEETS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	76	124	104	165	126	258	266	191	133	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957				0.850		0.924			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1783	0	1770	1863	1583	1770	1721	0	1770	1850	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1783	0	1770	1863	1583	1770	1721	0	1770	1850	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	43.5
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	6	190	76	0	124	104	165	0	126	258	266
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	218	87	0	143	120	190	0	145	297	306
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	46.5	19.5	65.8
HCM LOS	E	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	49%	0%	71%	0%	100%	0%	0%	96%
Vol Right, %	0%	51%	0%	29%	0%	0%	100%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	524	6	266	124	104	165	191	139
LT Vol	126	0	6	0	124	0	0	191	0
Through Vol	0	258	0	190	0	104	0	0	133
RT Vol	0	266	0	76	0	0	165	0	6
Lane Flow Rate	145	602	7	306	143	120	190	220	160
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.411	1	0.02	0.836	0.409	0.327	0.481	0.635	0.439
Departure Headway (Hd)	10.215	9.328	10.536	9.841	10.334	9.835	9.137	10.512	9.983
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	355	398	339	367	348	365	393	345	363
Service Time	7.915	7.028	8.332	7.637	8.132	7.633	6.934	8.212	7.683
HCM Lane V/C Ratio	0.408	1.513	0.021	0.834	0.411	0.329	0.483	0.638	0.441
HCM Control Delay	19.9	76.8	13.5	47.2	20.2	17.4	20.2	29.8	20.3
HCM Lane LOS	C	F	B	E	C	C	C	D	C
HCM 95th-tile Q	1.9	12	0.1	7.6	1.9	1.4	2.5	4.1	2.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	191	133	6
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	220	153	7
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	25.8
HCM LOS	D

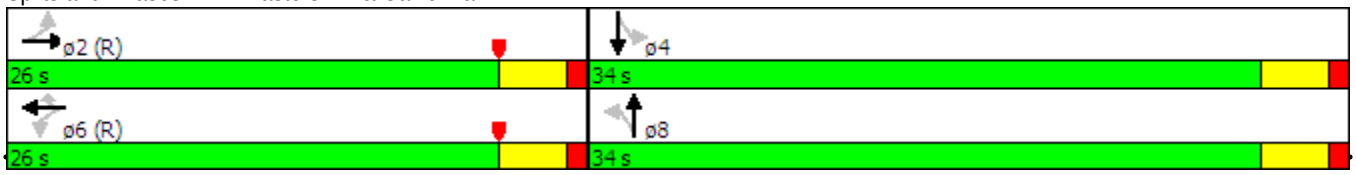
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	190	76	124	104	165	126	258	266	191	133	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957				0.850		0.924			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1783	0	1770	1863	1583	1770	1721	0	1770	1850	0
Flt Permitted	0.680			0.476			0.656			0.275		
Satd. Flow (perm)	1267	1783	0	887	1863	1583	1222	1721	0	512	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38				190		124			5	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			666			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

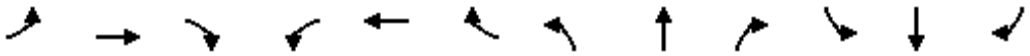
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	190	76	124	104	165	126	258	266	191	133	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	7	218	87	143	120	190	145	297	306	220	153	7
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	465	185	372	683	581	673	421	434	256	884	40
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.17	0.17	0.17	0.50	0.50	0.50
Sat Flow, veh/h	1065	1268	506	1070	1863	1583	1221	842	868	813	1768	81
Grp Volume(v), veh/h	7	0	305	143	120	190	145	0	603	220	0	160
Grp Sat Flow(s),veh/h/ln	1065	0	1773	1070	1863	1583	1221	0	1710	813	0	1848
Q Serve(g_s), s	0.3	0.0	7.9	7.1	2.6	5.2	6.3	0.0	20.0	10.0	0.0	2.8
Cycle Q Clear(g_c), s	2.9	0.0	7.9	15.0	2.6	5.2	9.1	0.0	20.0	30.0	0.0	2.8
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.51	1.00		0.04
Lane Grp Cap(c), veh/h	464	0	650	372	683	581	673	0	855	256	0	924
V/C Ratio(X)	0.02	0.00	0.47	0.38	0.18	0.33	0.22	0.00	0.71	0.86	0.00	0.17
Avail Cap(c_a), veh/h	464	0	650	372	683	581	673	0	855	256	0	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.79	0.00	0.79	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	0.0	14.5	20.3	12.9	13.7	17.6	0.0	20.9	26.9	0.0	8.2
Incr Delay (d2), s/veh	0.1	0.0	2.4	3.0	0.6	1.5	0.6	0.0	3.9	29.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	4.2	2.4	1.4	2.5	2.2	0.0	10.4	5.7	0.0	1.5
LnGrp Delay(d),s/veh	13.9	0.0	17.0	23.3	13.4	15.2	18.2	0.0	24.8	56.5	0.0	8.6
LnGrp LOS	B		B	C	B	B	B		C	E		A
Approach Vol, veh/h		312			453			748			380	
Approach Delay, s/veh		16.9			17.3			23.5			36.3	
Approach LOS		B			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		22.0		30.0		22.0		30.0
Max Q Clear Time (g_c+I1), s		9.9		32.0		17.0		22.0
Green Ext Time (p_c), s		2.9		0.0		1.7		4.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	18	3	32	7	221	15	28	179	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.918			0.990			0.990	
Flt Protected		0.975			0.983		0.950			0.950		
Satd. Flow (prot)	0	1722	0	0	1681	0	1770	1844	0	1770	1844	0
Flt Permitted		0.975			0.983		0.950			0.950		
Satd. Flow (perm)	0	1722	0	0	1681	0	1770	1844	0	1770	1844	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			618	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	44	9	32	0	18	3	32	0	7	221	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	46	9	34	0	19	3	34	0	7	233	16
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.9	8.4	10.4
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	34%	100%	0%
Vol Thru, %	0%	94%	11%	6%	0%	94%
Vol Right, %	0%	6%	38%	60%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	236	85	53	28	191
LT Vol	7	0	44	18	28	0
Through Vol	0	221	9	3	0	179
RT Vol	0	15	32	32	0	12
Lane Flow Rate	7	248	89	56	29	201
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.011	0.35	0.126	0.077	0.046	0.284
Departure Headway (Hd)	5.616	5.068	5.072	4.955	5.633	5.086
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	636	708	703	719	634	704
Service Time	3.362	2.814	3.126	3.014	3.38	2.832
HCM Lane V/C Ratio	0.011	0.35	0.127	0.078	0.046	0.286
HCM Control Delay	8.4	10.5	8.9	8.4	8.7	9.9
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0	1.6	0.4	0.2	0.1	1.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	28	179	12
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	29	188	13
Number of Lanes	0	1	1	0

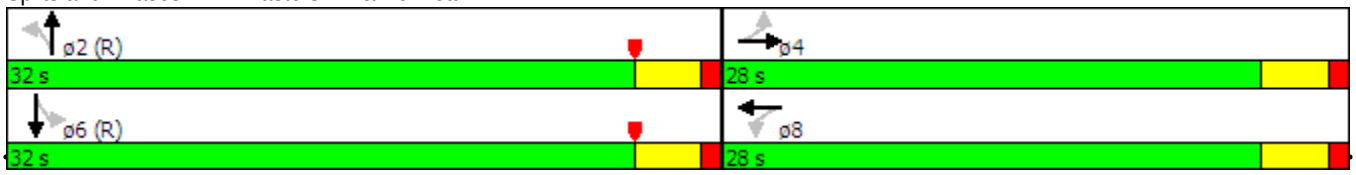
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.7
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	9	32	18	3	32	7	221	15	28	179	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.918			0.990			0.990	
Flt Protected		0.975			0.983		0.950			0.950		
Satd. Flow (prot)	0	1722	0	0	1681	0	1770	1844	0	1770	1844	0
Flt Permitted		0.814			0.883		0.632			0.605		
Satd. Flow (perm)	0	1437	0	0	1510	0	1177	1844	0	1127	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			34			8			8	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	28.0	28.0		28.0	28.0		32.0	32.0		32.0	32.0	
Total Split (%)	46.7%	46.7%		46.7%	46.7%		53.3%	53.3%		53.3%	53.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

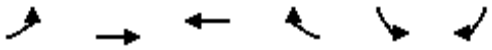
Splits and Phases: 2: Masters Dr. & Bennett Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	9	32	18	3	32	7	221	15	28	179	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	46	9	34	19	3	34	7	233	16	29	188	13
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	22	53	116	22	88	1005	1343	92	959	1342	93
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	732	253	609	404	247	1007	1177	1724	118	1126	1723	119
Grp Volume(v), veh/h	89	0	0	56	0	0	7	0	249	29	0	201
Grp Sat Flow(s),veh/h/ln	1594	0	0	1658	0	0	1177	0	1842	1126	0	1842
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1	0.4	0.0	1.6
Cycle Q Clear(g_c), s	3.1	0.0	0.0	1.8	0.0	0.0	1.7	0.0	2.1	2.5	0.0	1.6
Prop In Lane	0.52		0.38	0.34		0.61	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	230	0	0	225	0	0	1005	0	1435	959	0	1435
V/C Ratio(X)	0.39	0.00	0.00	0.25	0.00	0.00	0.01	0.00	0.17	0.03	0.00	0.14
Avail Cap(c_a), veh/h	694	0	0	697	0	0	1005	0	1435	959	0	1435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	0.0	25.8	0.0	0.0	1.9	0.0	1.7	2.0	0.0	1.6
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.9
LnGrp Delay(d),s/veh	27.4	0.0	0.0	26.4	0.0	0.0	1.9	0.0	1.9	2.1	0.0	1.8
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		89			56			256			230	
Approach Delay, s/veh		27.4			26.4			1.9			1.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.8		9.2		50.8		9.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		28.0		24.0		28.0		24.0
Max Q Clear Time (g_c+I1), s		4.1		5.1		4.5		3.8
Green Ext Time (p_c), s		2.7		0.7		2.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	59	903	569	136	161	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.971			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3437	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3437	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	38.3
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	59	903	0	569	136	0	161	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	62	951	0	599	143	0	169	34
Number of Lanes	0	1	2	0	2	0	0	1	1

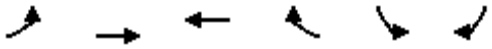
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	44	35.8	19.4
HCM LOS	E	E	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	58%	0%	0%
Vol Right, %	0%	0%	0%	0%	42%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	452	452	379	326	161	32
LT Vol	59	0	0	0	0	161	0
Through Vol	0	452	452	379	190	0	0
RT Vol	0	0	0	0	136	0	32
Lane Flow Rate	62	475	475	399	343	169	34
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.139	0.995	0.762	0.865	0.714	0.462	0.08
Departure Headway (Hd)	8.05	7.54	5.77	7.798	7.499	9.814	8.581
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	480	627	463	480	366	416
Service Time	5.802	5.292	3.521	5.557	5.258	7.597	6.364
HCM Lane V/C Ratio	0.139	0.99	0.758	0.862	0.715	0.462	0.082
HCM Control Delay	12.1	67.5	24.7	43.3	27	20.8	12.1
HCM Lane LOS	B	F	C	E	D	C	B
HCM 95th-tile Q	0.5	13.2	7	8.9	5.6	2.4	0.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	59	903	569	136	161	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.971			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3437	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3437	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			33			34
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	20.0	81.0	61.0		39.0	39.0
Total Split (%)	16.7%	67.5%	50.8%		32.5%	32.5%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	59	903	569	136	161	32
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	62	951	599	143	169	34
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	80	2899	2102	501	203	181
Arrive On Green	0.09	1.00	0.74	0.74	0.11	0.11
Sat Flow, veh/h	1774	3632	2930	676	1774	1583
Grp Volume(v), veh/h	62	951	373	369	169	34
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1743	1774	1583
Q Serve(g_s), s	4.1	0.0	8.3	8.3	11.2	2.3
Cycle Q Clear(g_c), s	4.1	0.0	8.3	8.3	11.2	2.3
Prop In Lane	1.00			0.39	1.00	1.00
Lane Grp Cap(c), veh/h	80	2899	1311	1292	203	181
V/C Ratio(X)	0.78	0.33	0.28	0.29	0.83	0.19
Avail Cap(c_a), veh/h	237	2899	1311	1292	517	462
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	1.00	1.00	0.99	0.99
Uniform Delay (d), s/veh	54.0	0.0	5.1	5.1	52.0	48.1
Incr Delay (d2), s/veh	13.2	0.3	0.5	0.6	8.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.3	0.1	4.2	4.2	6.0	2.2
LnGrp Delay(d),s/veh	67.3	0.3	5.7	5.7	60.6	48.6
LnGrp LOS	E	A	A	A	E	D
Approach Vol, veh/h		1013	742		203	
Approach Delay, s/veh		4.4	5.7		58.6	
Approach LOS		A	A		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		102.3		17.7	9.4	92.9		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		77.0		35.0	16.0	57.0		
Max Q Clear Time (g_c+I1), s		2.0		13.2	6.1	10.3		
Green Ext Time (p_c), s		16.3		0.5	0.1	15.1		

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1181	271	302	1179	389	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.972					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3440	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3440	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	30					197
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	59.0		27.0	86.0	34.0	34.0
Total Split (%)	49.2%		22.5%	71.7%	28.3%	28.3%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

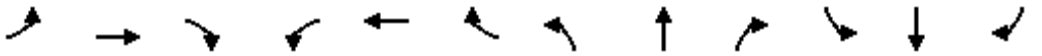
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1181	271	302	1179	389	318
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1243	285	318	1241	409	335
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1319	299	337	2418	444	396
Arrive On Green	0.46	0.46	0.38	1.00	0.25	0.25
Sat Flow, veh/h	2961	650	1774	3632	1774	1583
Grp Volume(v), veh/h	761	767	318	1241	409	335
Grp Sat Flow(s),veh/h/ln	1770	1748	1774	1770	1774	1583
Q Serve(g_s), s	48.9	50.7	20.8	0.0	27.0	24.2
Cycle Q Clear(g_c), s	48.9	50.7	20.8	0.0	27.0	24.2
Prop In Lane		0.37	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	814	804	337	2418	444	396
V/C Ratio(X)	0.93	0.95	0.94	0.51	0.92	0.85
Avail Cap(c_a), veh/h	814	804	340	2418	444	396
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.68	0.68	1.00	1.00
Uniform Delay (d), s/veh	30.7	31.2	36.6	0.0	43.9	42.8
Incr Delay (d2), s/veh	19.2	22.3	26.6	0.5	27.1	19.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	28.2	29.3	12.6	0.2	16.5	12.7
LnGrp Delay(d),s/veh	49.9	53.5	63.2	0.5	71.0	62.3
LnGrp LOS	D	D	E	A	E	E
Approach Vol, veh/h	1528			1559	744	
Approach Delay, s/veh	51.7			13.3	67.1	
Approach LOS	D			B	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	26.8	59.2				86.0		34.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	23.0	55.0				82.0		30.0
Max Q Clear Time (g_c+I1), s	22.8	52.7				2.0		29.0
Green Ext Time (p_c), s	0.0	2.2				46.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	39.1
HCM 2010 LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	42	2	2	2	19	340	10	35	506	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.996				0.850
Flt Protected		0.955			0.984		0.950				0.997	
Satd. Flow (prot)	0	1779	1583	0	1750	0	1770	1855	0	0	1857	1583
Flt Permitted		0.955			0.984		0.950				0.997	
Satd. Flow (perm)	0	1779	1583	0	1750	0	1770	1855	0	0	1857	1583
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			7.6			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	24.6
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	89	5	42	0	2	2	2	0	19	340	10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	94	5	44	0	2	2	2	0	20	358	11
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	11.5	10.6	16
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	95%	0%	33%	6%	0%
Vol Thru, %	0%	97%	5%	0%	33%	94%	0%
Vol Right, %	0%	3%	0%	100%	33%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	350	94	42	6	541	53
LT Vol	19	0	89	0	2	35	0
Through Vol	0	340	5	0	2	506	0
RT Vol	0	10	0	42	2	0	53
Lane Flow Rate	20	368	99	44	6	569	56
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.035	0.589	0.208	0.078	0.013	0.88	0.075
Departure Headway (Hd)	6.286	5.759	7.566	6.369	7.422	5.566	4.826
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	570	626	475	562	481	655	743
Service Time	4.017	3.49	5.311	4.113	5.486	3.292	2.552
HCM Lane V/C Ratio	0.035	0.588	0.208	0.078	0.012	0.869	0.075
HCM Control Delay	9.2	16.4	12.3	9.7	10.6	35.5	7.9
HCM Lane LOS	A	C	B	A	B	E	A
HCM 95th-tile Q	0.1	3.8	0.8	0.3	0	10.5	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	35	506	53
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	533	56
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	33
HCM LOS	D

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	5	42	2	2	2	19	340	10	35	506	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.955			0.996				0.850
Flt Protected		0.955			0.984		0.950				0.997	
Satd. Flow (prot)	0	1779	1583	0	1750	0	1770	1855	0	0	1857	1583
Flt Permitted		0.733			0.926		0.403				0.965	
Satd. Flow (perm)	0	1365	1583	0	1647	0	751	1855	0	0	1798	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			44		2			4				56
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	5	42	2	2	2	19	340	10	35	506	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	94	5	0	2	2	2	20	358	11	37	533	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	6	139	105	77	51	825	1400	43	110	1366	1233
Arrive On Green	0.09	0.09	0.00	0.09	0.09	0.09	0.78	0.78	0.78	0.78	0.78	0.00
Sat Flow, veh/h	1364	73	1583	288	872	580	868	1798	55	59	1754	1583
Grp Volume(v), veh/h	99	0	0	6	0	0	20	0	369	570	0	0
Grp Sat Flow(s),veh/h/ln	1437	0	1583	1740	0	0	868	0	1853	1813	0	1583
Q Serve(g_s), s	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	3.3	5.9	0.0	0.0
Prop In Lane	0.95		1.00	0.33		0.33	1.00		0.03	0.06		1.00
Lane Grp Cap(c), veh/h	243	0	139	233	0	0	825	0	1443	1476	0	1233
V/C Ratio(X)	0.41	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.26	0.39	0.00	0.00
Avail Cap(c_a), veh/h	640	0	581	678	0	0	825	0	1443	1476	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	0.0	0.0	25.0	0.0	0.0	1.5	0.0	1.8	2.1	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	0.0	0.0	0.1	0.0	0.0	0.1	0.0	1.8	3.2	0.0	0.0
LnGrp Delay(d),s/veh	27.9	0.0	0.0	25.1	0.0	0.0	1.5	0.0	2.3	2.9	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		99			6			389			570	
Approach Delay, s/veh		27.9			25.1			2.2			2.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.7		9.3		50.7		9.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		5.3		6.0		7.9		2.2
Green Ext Time (p_c), s		6.4		0.4		6.2		0.4

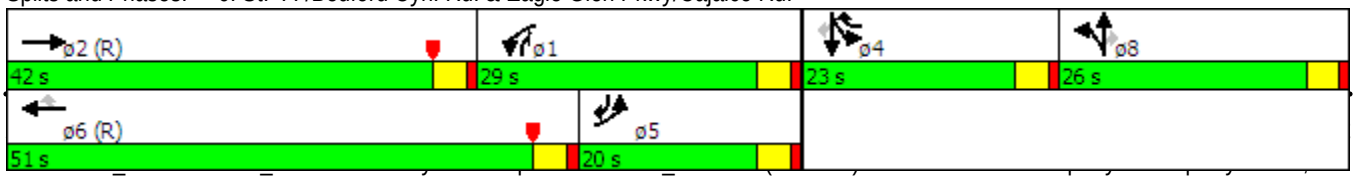
Intersection Summary	
HCM 2010 Ctrl Delay	5.1
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	123	927	15	190	538	221	13	73	492	161	32	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		100	200		200	150		0	450		0
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	90			120			180			180		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor						0.98						0.98
Frt		0.998				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.968	
Satd. Flow (prot)	1770	3532	0	3433	3539	1583	1770	1863	1583	1681	1713	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.968	
Satd. Flow (perm)	1770	3532	0	3433	3539	1550	1770	1863	1583	1681	1713	1550
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				233			101			162
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			726			413			651	
Travel Time (s)		14.1			11.0			6.3			9.9	
Confl. Peds. (#/hr)						5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										40%		
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	4	8	8	1	4	4	5
Permitted Phases						6			8			4
Detector Phase	5	2		1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.0		8.0	23.0	23.0	26.0	26.0	8.0	23.0	23.0	8.0
Total Split (s)	20.0	42.0		29.0	51.0	23.0	26.0	26.0	29.0	23.0	23.0	20.0
Total Split (%)	16.7%	35.0%		24.2%	42.5%	19.2%	21.7%	21.7%	24.2%	19.2%	19.2%	16.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead				Lag			Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max		None	C-Max	Max	None	None	None	Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	123	927	15	190	538	221	13	73	492	161	32	154
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	129	976	16	200	566	233	14	77	518	193	0	162
Adj No. of Lanes	1	2	0	2	2	1	1	1	1	2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	431	1128	18	1094	1386	868	131	138	620	562	0	633
Arrive On Green	0.24	0.32	0.32	0.10	0.13	0.13	0.07	0.07	0.07	0.16	0.00	0.16
Sat Flow, veh/h	1774	3564	58	3442	3539	1577	1774	1863	1583	3548	0	1568
Grp Volume(v), veh/h	129	485	507	200	566	233	14	77	518	193	0	162
Grp Sat Flow(s),veh/h/ln	1774	1770	1852	1721	1770	1577	1774	1863	1583	1774	0	1568
Q Serve(g_s), s	7.1	30.9	30.9	6.4	17.6	12.0	0.9	4.8	0.0	5.8	0.0	0.0
Cycle Q Clear(g_c), s	7.1	30.9	30.9	6.4	17.6	12.0	0.9	4.8	0.0	5.8	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	431	560	587	1094	1386	868	131	138	620	562	0	633
V/C Ratio(X)	0.30	0.86	0.86	0.18	0.41	0.27	0.11	0.56	0.84	0.34	0.00	0.26
Avail Cap(c_a), veh/h	431	560	587	1094	1386	868	325	342	793	562	0	633
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	38.6	38.6	39.5	39.5	21.3	51.9	53.7	33.0	44.9	0.0	24.0
Incr Delay (d2), s/veh	0.4	16.2	15.6	0.1	0.8	0.7	0.4	3.5	6.2	1.7	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.5	17.6	18.3	3.1	8.8	7.3	0.4	2.6	16.5	3.0	0.0	3.7
LnGrp Delay(d),s/veh	37.5	54.8	54.2	39.6	40.3	22.0	52.2	57.2	39.2	46.6	0.0	24.9
LnGrp LOS	D	D	D	D	D	C	D	E	D	D		C
Approach Vol, veh/h		1121			999			609			355	
Approach Delay, s/veh		52.5			35.9			41.8			36.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	42.1	42.0		23.0	33.1	51.0		12.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	25.0	38.0		19.0	16.0	47.0		22.0
Max Q Clear Time (g_c+I1), s	8.4	32.9		7.8	9.1	19.6		6.8
Green Ext Time (p_c), s	1.0	2.0		1.1	0.6	3.6		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	43.2
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	923	576	151	866	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.942										0.850
Flt Protected				0.950							0.954	
Satd. Flow (prot)	0	3334	0	1770	3539	0	0	0	0	0	1777	1583
Flt Permitted				0.950							0.954	
Satd. Flow (perm)	0	3334	0	1770	3539	0	0	0	0	0	1777	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		149										139
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		59.0		15.0	74.0					46.0	46.0	46.0
Total Split (%)		49.2%		12.5%	61.7%					38.3%	38.3%	38.3%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 82 (68%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	923	576	151	866	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	972	606	159	912	0				158	5	647
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	976	585	163	2065	0				603	19	554
Arrive On Green	0.00	0.31	0.31	0.03	0.19	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	2224	1277	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	801	777	159	912	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1637	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	54.0	55.0	10.7	27.3	0.0				7.9	0.0	42.0
Cycle Q Clear(g_c), s	0.0	54.0	55.0	10.7	27.3	0.0				7.9	0.0	42.0
Prop In Lane	0.00		0.78	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	811	751	163	2065	0				622	0	554
V/C Ratio(X)	0.00	0.99	1.04	0.98	0.44	0.00				0.26	0.00	1.17
Avail Cap(c_a), veh/h	0	811	751	163	2065	0				622	0	554
HCM Platoon Ratio	1.00	0.67	0.67	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.32	0.32	0.34	0.34	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	41.2	41.6	58.1	31.2	0.0				27.9	0.0	39.0
Incr Delay (d2), s/veh	0.0	15.2	28.6	35.0	0.2	0.0				1.0	0.0	93.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	29.8	30.8	6.9	13.5	0.0				4.0	0.0	32.7
LnGrp Delay(d),s/veh	0.0	56.4	70.2	93.1	31.4	0.0				28.9	0.0	132.6
LnGrp LOS		E	F	F	C					C		F
Approach Vol, veh/h		1578			1071						810	
Approach Delay, s/veh		63.2			40.6						111.7	
Approach LOS		E			D						F	

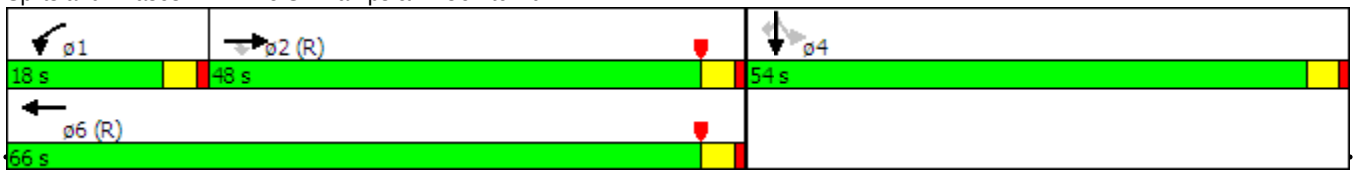
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.0	59.0		46.0		74.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	11.0	55.0		42.0		70.0		
Max Q Clear Time (g_c+I1), s	12.7	57.0		44.0		29.3		
Green Ext Time (p_c), s	0.0	0.0		0.0		26.6		

Intersection Summary	
HCM 2010 Ctrl Delay	67.6
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	923	576	151	866	0	0	0	0	150	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.954	
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	1777	1583
Flt Permitted				0.950							0.954	
Satd. Flow (perm)	0	3539	1583	1770	3539	0	0	0	0	0	1777	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			280									105
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		48.0	48.0	18.0	66.0					54.0	54.0	54.0
Total Split (%)		40.0%	40.0%	15.0%	55.0%					45.0%	45.0%	45.0%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	923	576	151	866	0	0	0	0	150	5	615
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	972	606	159	912	0				158	5	647
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1340	599	186	1829	0				718	23	660
Arrive On Green	0.00	0.12	0.12	0.10	0.52	0.00				0.42	0.42	0.42
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1722	54	1583
Grp Volume(v), veh/h	0	972	606	159	912	0				163	0	647
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	31.7	45.4	10.6	20.1	0.0				7.1	0.0	48.4
Cycle Q Clear(g_c), s	0.0	31.7	45.4	10.6	20.1	0.0				7.1	0.0	48.4
Prop In Lane	0.00		1.00	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	1340	599	186	1829	0				740	0	660
V/C Ratio(X)	0.00	0.73	1.01	0.86	0.50	0.00				0.22	0.00	0.98
Avail Cap(c_a), veh/h	0	1340	599	207	1829	0				740	0	660
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.32	0.32	0.33	0.33	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	46.5	52.5	52.8	18.9	0.0				22.5	0.0	34.5
Incr Delay (d2), s/veh	0.0	1.1	23.6	10.4	0.3	0.0				0.7	0.0	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	15.8	23.9	5.7	9.8	0.0				3.6	0.0	26.6
LnGrp Delay(d),s/veh	0.0	47.6	76.1	63.2	19.2	0.0				23.2	0.0	65.2
LnGrp LOS		D	F	E	B					C		E
Approach Vol, veh/h		1578			1071						810	
Approach Delay, s/veh		58.6			25.7						56.7	
Approach LOS		E			C						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	16.6	49.4		54.0		66.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	44.0		50.0		62.0		
Max Q Clear Time (g_c+I1), s	12.6	47.4		50.4		22.1		
Green Ext Time (p_c), s	0.1	0.0		0.0		22.7		

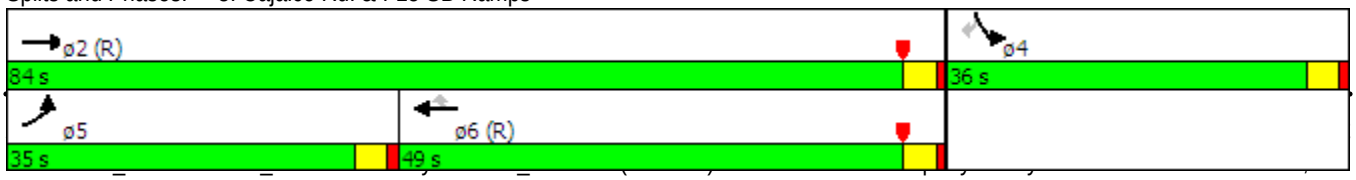
Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

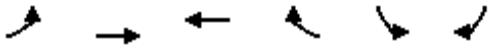
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	393	1186	532	190	381	417
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	3433	2705
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				200		439
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	35.0	84.0	49.0	49.0	36.0	36.0
Total Split (%)	29.2%	70.0%	40.8%	40.8%	30.0%	30.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 111 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	393	1186	532	190	381	417
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	414	1248	560	200	401	439
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	492	2359	1735	776	918	743
Arrive On Green	0.29	1.00	0.49	0.49	0.27	0.27
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	414	1248	560	200	401	439
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	13.6	0.0	11.5	8.8	11.6	16.5
Cycle Q Clear(g_c), s	13.6	0.0	11.5	8.8	11.6	16.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	492	2359	1735	776	918	743
V/C Ratio(X)	0.84	0.53	0.32	0.26	0.44	0.59
Avail Cap(c_a), veh/h	889	2359	1735	776	918	743
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	0.0	18.5	17.8	36.5	38.3
Incr Delay (d2), s/veh	0.4	0.1	0.5	0.8	1.5	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.5	0.0	5.7	4.0	5.7	13.0
LnGrp Delay(d),s/veh	41.9	0.1	19.0	18.6	38.0	41.7
LnGrp LOS	D	A	B	B	D	D
Approach Vol, veh/h		1662	760		840	
Approach Delay, s/veh		10.5	18.9		40.0	
Approach LOS		B	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		84.0		36.0	21.2	62.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		80.0		32.0	31.0	45.0		
Max Q Clear Time (g_c+I1), s		2.0		18.5	15.6	13.5		
Green Ext Time (p_c), s		14.5		3.4	1.6	12.3		

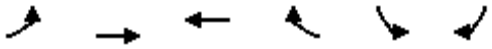
Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	393	1186	532	190	381	417
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Ped Bike Factor						0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	5085	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	5085	3539	1583	3433	2718
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				200		245
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	5
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.0
Total Split (s)	37.0	84.0	47.0	47.0	36.0	37.0
Total Split (%)	30.8%	70.0%	39.2%	39.2%	30.0%	30.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	C-Max	C-Max	C-Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 4 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	393	1186	532	190	381	417
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	414	1248	560	200	401	439
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	494	3390	1734	776	918	1143
Arrive On Green	0.29	1.00	0.49	0.49	0.27	0.27
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	414	1248	560	200	401	439
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	13.6	0.0	11.5	8.8	11.6	13.2
Cycle Q Clear(g_c), s	13.6	0.0	11.5	8.8	11.6	13.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	494	3390	1734	776	918	1143
V/C Ratio(X)	0.84	0.37	0.32	0.26	0.44	0.38
Avail Cap(c_a), veh/h	946	3390	1734	776	918	1143
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	18.5	17.9	36.5	24.8
Incr Delay (d2), s/veh	2.3	0.2	0.5	0.8	1.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.6	0.1	5.7	4.1	5.7	11.7
LnGrp Delay(d),s/veh	43.8	0.2	19.0	18.7	38.0	25.8
LnGrp LOS	D	A	B	B	D	C
Approach Vol, veh/h		1662	760		840	
Approach Delay, s/veh		11.0	18.9		31.6	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		84.0		36.0	21.2	62.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		80.0		32.0	33.0	43.0		
Max Q Clear Time (g_c+I1), s		2.0		15.2	15.6	13.5		
Green Ext Time (p_c), s		14.2		3.7	1.7	11.8		

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	612	461	0	0	560	326	457	1	206	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.945			0.958				
Flt Protected	0.950							0.967				
Satd. Flow (prot)	3433	1863	0	0	3345	0	0	1726	0	0	0	0
Flt Permitted	0.950							0.967				
Satd. Flow (perm)	3433	1863	0	0	3345	0	0	1726	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					98			23				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	28.0	67.0			39.0		53.0	53.0				
Total Split (%)	23.3%	55.8%			32.5%		44.2%	44.2%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	612	461	0	0	560	326	457	1	206	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	644	485	0	0	589	343	481	1	217			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	685	978	0	0	631	367	481	1	217			
Arrive On Green	0.33	0.88	0.00	0.00	0.29	0.29	0.41	0.41	0.41			
Sat Flow, veh/h	3442	1863	0	0	2249	1255	1177	2	531			
Grp Volume(v), veh/h	644	485	0	0	483	449	699	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1641	1710	0	0			
Q Serve(g_s), s	21.8	6.8	0.0	0.0	31.9	31.9	49.0	0.0	0.0			
Cycle Q Clear(g_c), s	21.8	6.8	0.0	0.0	31.9	31.9	49.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.76	0.69		0.31			
Lane Grp Cap(c), veh/h	685	978	0	0	518	480	698	0	0			
V/C Ratio(X)	0.94	0.50	0.00	0.00	0.93	0.93	1.00	0.00	0.00			
Avail Cap(c_a), veh/h	688	978	0	0	518	480	698	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.13	0.13	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	39.4	3.9	0.0	0.0	41.3	41.3	35.5	0.0	0.0			
Incr Delay (d2), s/veh	4.3	0.2	0.0	0.0	26.0	27.4	34.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	10.7	3.4	0.0	0.0	19.3	18.1	29.7	0.0	0.0			
LnGrp Delay(d),s/veh	43.7	4.2	0.0	0.0	67.3	68.7	69.8	0.0	0.0			
LnGrp LOS	D	A			E	E	F					
Approach Vol, veh/h		1129			932			699				
Approach Delay, s/veh		26.7			68.0			69.8				
Approach LOS		C			E			E				

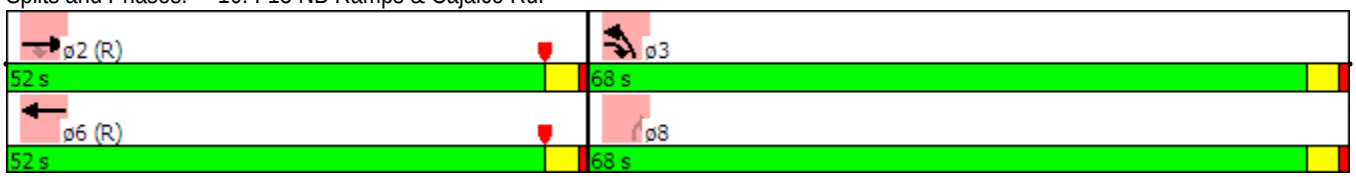
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		67.0			27.9	39.1		53.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		63.0			24.0	35.0		49.0
Max Q Clear Time (g_c+I1), s		8.8			23.8	33.9		51.0
Green Ext Time (p_c), s		11.5			0.1	0.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	640	927	0	1570	283	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Lane Util. Factor	0.91	1.00	1.00	0.86	0.97	0.88
Ped Bike Factor						0.99
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	5085	1583	0	6408	3433	2787
Flt Permitted					0.950	
Satd. Flow (perm)	5085	1583	0	6408	3433	2746
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						139
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	52.0	68.0		52.0	68.0	68.0
Total Split (%)	43.3%	56.7%		43.3%	56.7%	56.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	640	927	0	1570	283	132
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	674	976	0	1653	298	139
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2034	1478	0	2563	1836	1486
Arrive On Green	0.40	0.40	0.00	0.40	0.53	0.53
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	674	976	0	1653	298	139
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	11.0	12.9	0.0	25.0	5.3	2.9
Cycle Q Clear(g_c), s	11.0	12.9	0.0	25.0	5.3	2.9
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2034	1478	0	2563	1836	1486
V/C Ratio(X)	0.33	0.66	0.00	0.64	0.16	0.09
Avail Cap(c_a), veh/h	2034	1478	0	2563	1836	1486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	0.7	0.0	29.1	14.3	13.8
Incr Delay (d2), s/veh	0.4	2.3	0.0	1.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	5.2	6.1	0.0	11.2	2.6	1.1
LnGrp Delay(d),s/veh	25.3	3.0	0.0	30.4	14.5	13.9
LnGrp LOS	C	A		C	B	B
Approach Vol, veh/h	1650			1653	437	
Approach Delay, s/veh	12.1			30.4	14.3	
Approach LOS	B			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		52.0				52.0		68.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		48.0				48.0		64.0
Max Q Clear Time (g_c+I1), s		14.9				27.0		7.3
Green Ext Time (p_c), s		24.8				17.2		2.1

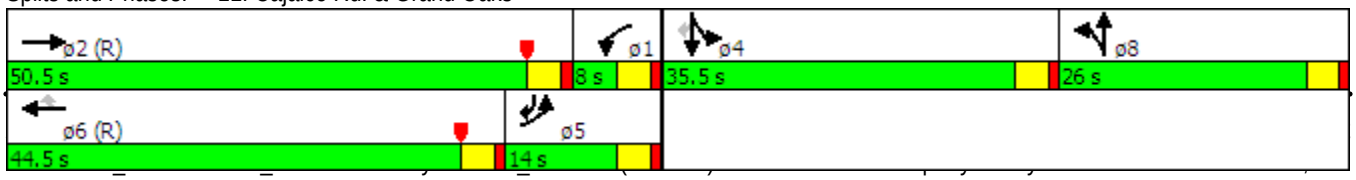
Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	218	555	0	0	1474	111	0	0	0	68	0	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	5085	0	1863	5085	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	5085	0	1863	5085	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118						146
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	14.0	50.5		8.0	44.5	44.5	26.0	26.0		35.5	35.5	14.0
Total Split (%)	11.7%	42.1%		6.7%	37.1%	37.1%	21.7%	21.7%		29.6%	29.6%	11.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	218	555	0	0	1474	111	0	0	0	68	0	139
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	229	584	0	0	1552	117	0	0	0	72	0	146
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1032	1971	0	444	1716	532	0	2	0	466	0	1563
Arrive On Green	0.30	0.39	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1576	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	229	584	0	0	1552	117	0	0	0	72	0	146
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1576	0	1863	0	1774	0	1385
Q Serve(g_s), s	6.0	9.5	0.0	0.0	34.9	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear(g_c), s	6.0	9.5	0.0	0.0	34.9	6.4	0.0	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1032	1971	0	444	1716	532	0	2	0	466	0	1563
V/C Ratio(X)	0.22	0.30	0.00	0.00	0.90	0.22	0.00	0.00	0.00	0.15	0.00	0.09
Avail Cap(c_a), veh/h	1032	1971	0	444	1716	532	0	342	0	466	0	1563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	25.4	0.0	0.0	37.9	28.4	0.0	0.0	0.0	34.0	0.0	12.1
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	8.3	1.0	0.0	0.0	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.8	4.5	0.0	0.0	17.6	2.9	0.0	0.0	0.0	1.9	0.0	1.1
LnGrp Delay(d),s/veh	31.6	25.8	0.0	0.0	46.2	29.4	0.0	0.0	0.0	34.7	0.0	12.2
LnGrp LOS	C	C			D	C				C		B
Approach Vol, veh/h		813			1669			0			218	
Approach Delay, s/veh		27.4			45.0			0.0			19.7	
Approach LOS		C			D						B	

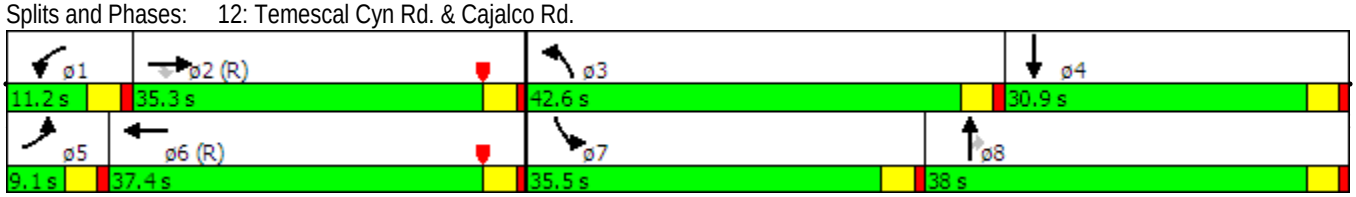
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	40.0	44.5		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	10.0	40.5		22.0
Max Q Clear Time (g_c+I1), s	0.0	11.5		5.7	8.0	36.9		0.0
Green Ext Time (p_c), s	0.0	2.7		1.0	0.2	2.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	385	199	63	586	621	924	858	320	233	138	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		0.99						0.99	
Frt			0.850		0.923				0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4642	0	3433	3539	1794	1770	3328	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4642	0	3433	3539	1794	1770	3328	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			209		221				294		80	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	9.1	35.3	35.3	11.2	37.4		42.6	38.0	38.0	35.5	30.9	
Total Split (%)	7.6%	29.4%	29.4%	9.3%	31.2%		35.5%	31.7%	31.7%	29.6%	25.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	39	385	199	63	586	621	924	858	320	233	138	76
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	41	405	209	66	617	654	973	903	337	245	145	80
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	540	457	84	1044	485	1050	1316	612	279	503	263
Arrive On Green	0.03	0.29	0.29	0.05	0.31	0.31	0.31	0.37	0.37	0.16	0.22	0.22
Sat Flow, veh/h	1774	1863	1575	1774	3390	1576	3442	3539	1647	1774	2245	1172
Grp Volume(v), veh/h	41	405	209	66	617	654	973	903	337	245	113	112
Grp Sat Flow(s),veh/h/ln	1774	1863	1575	1774	1695	1576	1721	1770	1647	1774	1770	1647
Q Serve(g_s), s	2.8	23.7	13.0	4.4	18.5	37.0	32.9	25.8	19.4	16.2	6.3	6.8
Cycle Q Clear(g_c), s	2.8	23.7	13.0	4.4	18.5	37.0	32.9	25.8	19.4	16.2	6.3	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	52	540	457	84	1044	485	1050	1316	612	279	397	369
V/C Ratio(X)	0.78	0.75	0.46	0.78	0.59	1.35	0.93	0.69	0.55	0.88	0.28	0.30
Avail Cap(c_a), veh/h	75	540	457	106	1044	485	1107	1316	612	466	397	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	38.7	34.9	56.5	35.1	41.5	40.4	31.8	29.8	49.4	38.6	38.8
Incr Delay (d2), s/veh	27.5	9.2	3.3	24.6	2.5	169.8	12.7	2.9	3.5	10.0	1.8	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.8	13.5	6.1	2.7	9.0	38.9	17.4	13.1	9.4	8.7	3.3	3.3
LnGrp Delay(d),s/veh	85.3	47.9	38.2	81.2	37.6	211.3	53.1	34.7	33.3	59.4	40.4	40.9
LnGrp LOS	F	D	D	F	D	F	D	C	C	E	D	D
Approach Vol, veh/h		655			1337			2213			470	
Approach Delay, s/veh		47.1			124.7			42.6			50.4	
Approach LOS		D			F			D			D	

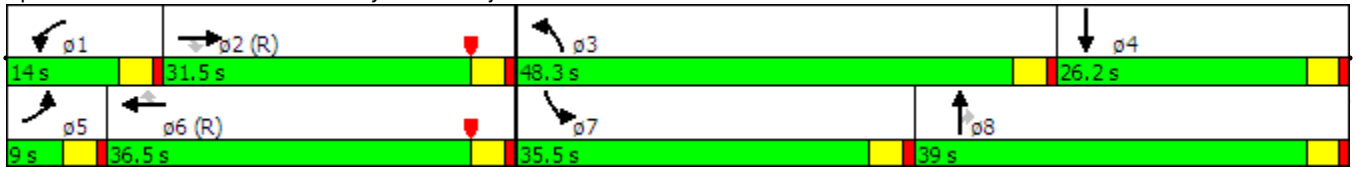
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	38.8	40.6	30.9	7.5	41.0	22.9	48.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.2	31.3	38.6	26.9	5.1	33.4	31.5	34.0
Max Q Clear Time (g_c+I1), s	6.4	25.7	34.9	8.8	4.8	39.0	18.2	27.8
Green Ext Time (p_c), s	0.0	3.9	1.7	6.5	0.0	0.0	0.7	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	67.5
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	385	199	63	586	621	924	858	320	233	138	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor			0.98			0.98					0.99	
Frt			0.850			0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1794	3433	3539	1794	3433	3328	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1552	1770	5085	1759	3433	3539	1794	3433	3328	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			209			539			300		77	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	35.5	26.0	
Total Split (s)	9.0	31.5	31.5	14.0	36.5	36.5	48.3	39.0	39.0	35.5	26.2	
Total Split (%)	7.5%	26.3%	26.3%	11.7%	30.4%	30.4%	40.3%	32.5%	32.5%	29.6%	21.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 74 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	39	385	199	63	586	621	924	858	320	233	138	76
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	41	405	209	66	617	654	973	903	337	245	145	80
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	1127	502	85	1712	552	1085	1438	669	324	415	217
Arrive On Green	0.03	0.32	0.32	0.05	0.34	0.34	0.32	0.41	0.41	0.09	0.19	0.19
Sat Flow, veh/h	1774	3539	1576	1774	5085	1639	3442	3539	1647	3442	2244	1171
Grp Volume(v), veh/h	41	405	209	66	617	654	973	903	337	245	113	112
Grp Sat Flow(s),veh/h/ln	1774	1770	1576	1774	1695	1639	1721	1770	1647	1721	1770	1645
Q Serve(g_s), s	2.8	10.6	12.5	4.4	11.0	40.4	32.4	24.4	18.3	8.3	6.6	7.2
Cycle Q Clear(g_c), s	2.8	10.6	12.5	4.4	11.0	40.4	32.4	24.4	18.3	8.3	6.6	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	52	1127	502	85	1712	552	1085	1438	669	324	327	304
V/C Ratio(X)	0.78	0.36	0.42	0.78	0.36	1.18	0.90	0.63	0.50	0.76	0.34	0.37
Avail Cap(c_a), veh/h	74	1127	502	148	1712	552	1271	1438	669	903	327	304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	31.5	32.1	56.5	30.0	39.8	39.2	28.4	26.6	53.0	42.6	42.8
Incr Delay (d2), s/veh	28.8	0.9	2.5	14.1	0.6	100.4	7.8	2.1	2.7	3.6	2.9	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.8	5.3	5.8	2.5	5.2	33.6	16.6	12.3	8.9	4.1	3.5	3.5
LnGrp Delay(d),s/veh	86.7	32.4	34.7	70.6	30.6	140.2	47.0	30.5	29.3	56.6	45.4	46.2
LnGrp LOS	F	C	C	E	C	F	D	C	C	E	D	D
Approach Vol, veh/h		655			1337			2213			470	
Approach Delay, s/veh		36.5			86.2			37.6			51.5	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	42.2	41.8	26.2	7.5	44.4	15.3	52.8
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	27.5	44.3	22.2	5.0	32.5	31.5	35.0
Max Q Clear Time (g_c+I1), s	6.4	14.5	34.4	9.2	4.8	42.4	10.3	26.4
Green Ext Time (p_c), s	0.0	7.3	3.5	5.6	0.0	0.0	1.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	52.7
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	494	10	150	449	10	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.997					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3529	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3529	0	1770	1863	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2					117
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	799	
Travel Time (s)	11.8			19.1	12.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases						8
Detector Phase	2		1	6	8	1
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	8.0
Total Split (s)	41.0		53.0	94.0	26.0	53.0
Total Split (%)	34.2%		44.2%	78.3%	21.7%	44.2%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	C-Max		None	C-Max	Max	None

Intersection Summary

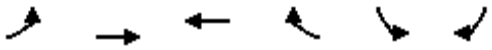
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 76 (63%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 13: St. "C" & Eagle Glen Pkwy.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	494	10	150	449	10	468
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	520	11	158	473	11	493
Adj No. of Lanes	2	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1093	23	724	1397	325	937
Arrive On Green	0.31	0.31	0.41	0.75	0.18	0.18
Sat Flow, veh/h	3637	75	1774	1863	1774	1583
Grp Volume(v), veh/h	259	272	158	473	11	493
Grp Sat Flow(s),veh/h/ln	1770	1850	1774	1863	1774	1583
Q Serve(g_s), s	14.3	14.3	6.9	10.2	0.6	0.0
Cycle Q Clear(g_c), s	14.3	14.3	6.9	10.2	0.6	0.0
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	546	570	724	1397	325	937
V/C Ratio(X)	0.48	0.48	0.22	0.34	0.03	0.53
Avail Cap(c_a), veh/h	546	570	724	1397	325	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	33.6	33.6	23.1	5.0	40.3	14.5
Incr Delay (d2), s/veh	3.0	2.8	0.1	0.6	0.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.4	7.8	3.4	5.4	0.3	10.1
LnGrp Delay(d),s/veh	36.6	36.5	23.2	5.7	40.5	16.6
LnGrp LOS	D	D	C	A	D	B
Approach Vol, veh/h	531			631	504	
Approach Delay, s/veh	36.5			10.1	17.2	
Approach LOS	D			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	53.0	41.0				94.0		26.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	49.0	37.0				90.0		22.0
Max Q Clear Time (g_c+I1), s	8.9	16.3				12.2		2.6
Green Ext Time (p_c), s	3.3	2.7				3.4		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C



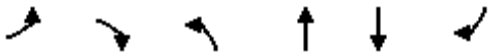
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	331	43	16	137	42	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.879		0.903	
Flt Protected		0.958			0.986	
Satd. Flow (prot)	0	1785	1637	0	1659	0
Flt Permitted		0.958			0.986	
Satd. Flow (perm)	0	1785	1637	0	1659	0
Link Speed (mph)		45	45		45	
Link Distance (ft)		972	1258		585	
Travel Time (s)		14.7	19.1		8.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	6.6
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	393	161	158
Demand Flow Rate, veh/h	401	164	161
Vehicles Circulating, veh/h	45	355	17
Vehicles Exiting, veh/h	133	91	502
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.2	6.9	4.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	401	164	161
Cap Entry Lane, veh/h	1080	792	1111
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	393	161	158
Cap Entry, veh/h	1059	776	1090
V/C Ratio	0.371	0.207	0.145
Control Delay, s/veh	7.2	6.9	4.6
LOS	A	A	A
95th %tile Queue, veh	2	1	1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	376	0	0	95	32	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.894	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1665	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1665	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	1285			542	309	
Travel Time (s)	19.5			8.2	4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	6.4
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	396	100	160
Demand Flow Rate, veh/h	404	102	164
Vehicles Circulating, veh/h	35	404	0
Vehicles Exiting, veh/h	129	35	506
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.2	6.3	4.5
Approach LOS	A	A	A

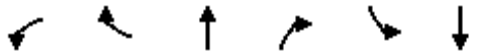
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	404	102	164
Cap Entry Lane, veh/h	1091	754	1130
Entry HV Adj Factor	0.980	0.980	0.978
Flow Entry, veh/h	396	100	160
Cap Entry, veh/h	1069	740	1105
V/C Ratio	0.370	0.135	0.145
Control Delay, s/veh	7.2	6.3	4.5
LOS	A	A	A
95th %tile Queue, veh	2	0	1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	7	25	546	11	49	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				60	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3529	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3529	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		26	4			
Link Speed (mph)	45		45			45
Link Distance (ft)	264		567			343
Travel Time (s)	4.0		8.6			5.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	26.0	26.0	26.0		8.0	26.0
Total Split (s)	26.0	26.0	26.0		8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%		13.3%	56.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 16 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

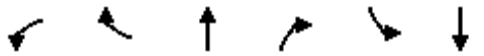
Splits and Phases: 16: St. "A" & TAZ 4 Main Dwy.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	7	25	546	11	49	186
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	7	26	575	12	52	196
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	50	45	2599	54	69	2968
Arrive On Green	0.03	0.03	0.73	0.73	0.04	0.84
Sat Flow, veh/h	1774	1583	3638	74	1774	3632
Grp Volume(v), veh/h	7	26	287	300	52	196
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1850	1774	1770
Q Serve(g_s), s	0.2	1.0	3.1	3.1	1.7	0.6
Cycle Q Clear(g_c), s	0.2	1.0	3.1	3.1	1.7	0.6
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	50	45	1297	1356	69	2968
V/C Ratio(X)	0.14	0.58	0.22	0.22	0.76	0.07
Avail Cap(c_a), veh/h	650	581	1297	1356	118	2968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	28.8	2.5	2.6	28.6	0.8
Incr Delay (d2), s/veh	1.3	11.4	0.4	0.4	15.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.6	1.7	1.7	1.1	0.3
LnGrp Delay(d),s/veh	29.7	40.2	2.9	2.9	44.1	0.9
LnGrp LOS	C	D	A	A	D	A
Approach Vol, veh/h	33		587			248
Approach Delay, s/veh	38.0		2.9			9.9
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.3	48.0				54.3		5.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	22.0				30.0		22.0
Max Q Clear Time (g_c+I1), s	3.7	5.1				2.6		3.0
Green Ext Time (p_c), s	0.0	4.0				4.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	3	91	466	5	45	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				60	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.869		0.998			
Flt Protected	0.998				0.950	
Satd. Flow (prot)	1615	0	3532	0	1770	3539
Flt Permitted	0.998				0.950	
Satd. Flow (perm)	1615	0	3532	0	1770	3539
Link Speed (mph)	45		45			45
Link Distance (ft)	302		233			567
Travel Time (s)	4.6		3.5			8.6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

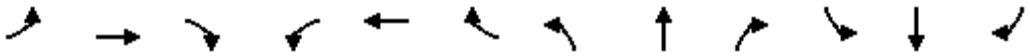
Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	91	466	5	45	148
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	96	491	5	47	156

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	666	248	0	0	496	0
Stage 1	493	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	393	752	-	-	1064	-
Stage 1	579	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	376	752	-	-	1064	-
Mov Cap-2 Maneuver	376	-	-	-	-	-
Stage 1	579	-	-	-	-	-
Stage 2	803	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	729	1064	-
HCM Lane V/C Ratio	-	-	0.136	0.045	-
HCM Control Delay (s)	-	-	10.7	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	620	45	11	313	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.927			0.928			0.990			0.996	
Flt Protected		0.986			0.986		0.950			0.950		
Satd. Flow (prot)	0	1703	0	0	1704	0	1770	1844	0	1770	1855	0
Flt Permitted		0.986			0.986		0.950			0.950		
Satd. Flow (perm)	0	1703	0	0	1704	0	1770	1844	0	1770	1855	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	40
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	21	0	10	6	19	0	31	620	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	27	0	13	8	24	0	40	795	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.1	10.1	54.4
HCM LOS	B	B	F

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	28%	29%	100%	0%
Vol Thru, %	0%	93%	18%	17%	0%	97%
Vol Right, %	0%	7%	54%	54%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	665	39	35	11	322
LT Vol	31	0	11	10	11	0
Through Vol	0	620	7	6	0	313
RT Vol	0	45	21	19	0	9
Lane Flow Rate	40	853	50	45	14	413
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.063	1	0.089	0.08	0.023	0.626
Departure Headway (Hd)	5.733	5.182	6.418	6.433	5.978	5.459
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	622	699	557	555	598	661
Service Time	3.497	2.945	4.479	4.496	3.724	3.205
HCM Lane V/C Ratio	0.064	1.22	0.09	0.081	0.023	0.625
HCM Control Delay	8.9	56.5	10.1	10.1	8.9	17
HCM Lane LOS	A	F	B	B	A	C
HCM 95th-tile Q	0.2	16	0.3	0.3	0.1	4.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	313	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	401	12
Number of Lanes	0	1	1	0

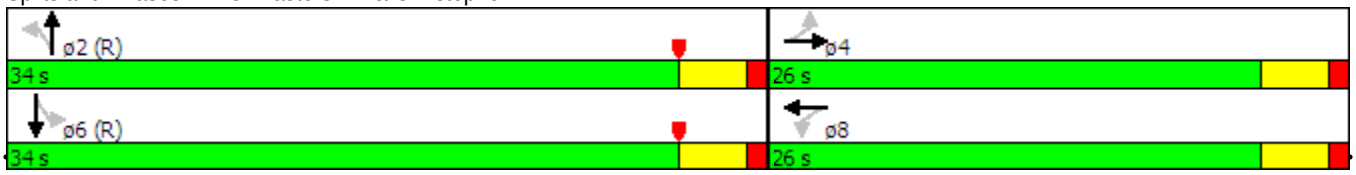
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	16.7
HCM LOS	C

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	620	45	11	313	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.927			0.928			0.990			0.996	
Flt Protected		0.986			0.986		0.950			0.950		
Satd. Flow (prot)	0	1703	0	0	1704	0	1770	1844	0	1770	1855	0
Flt Permitted		0.906			0.903		0.514			0.272		
Satd. Flow (perm)	0	1564	0	0	1561	0	957	1844	0	507	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			24			9			4	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	7	21	10	6	19	31	620	45	11	313	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	9	27	13	8	24	40	795	58	14	401	12
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	18	48	101	19	48	792	1395	102	540	1463	44
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.81	0.81	0.81	0.54	0.54	0.54
Sat Flow, veh/h	427	342	903	439	347	899	969	1716	125	644	1799	54
Grp Volume(v), veh/h	50	0	0	45	0	0	40	0	853	14	0	413
Grp Sat Flow(s),veh/h/ln	1672	0	0	1685	0	0	969	0	1841	644	0	1853
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	9.7	0.7	0.0	7.2
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	0.0	7.9	0.0	9.7	10.4	0.0	7.2
Prop In Lane	0.28		0.54	0.29		0.53	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	166	0	0	168	0	0	792	0	1497	540	0	1507
V/C Ratio(X)	0.30	0.00	0.00	0.27	0.00	0.00	0.05	0.00	0.57	0.03	0.00	0.27
Avail Cap(c_a), veh/h	654	0	0	654	0	0	792	0	1497	540	0	1507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.96	0.00	0.96
Uniform Delay (d), s/veh	27.6	0.0	0.0	27.6	0.0	0.0	2.9	0.0	2.0	7.7	0.0	4.2
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.1	0.0	1.6	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	0.0	0.0	0.8	0.0	0.0	0.2	0.0	5.4	0.1	0.0	3.9
LnGrp Delay(d),s/veh	28.6	0.0	0.0	28.4	0.0	0.0	3.1	0.0	3.5	7.8	0.0	4.6
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		50			45			893			427	
Approach Delay, s/veh		28.6			28.4			3.5			4.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		11.7		3.6		12.4		3.4
Green Ext Time (p_c), s		8.9		0.4		8.7		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

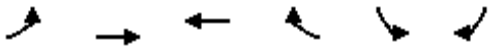
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	620	45	11	313	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.927			0.928			0.991			0.996	
Flt Protected		0.986			0.986			0.998			0.998	
Satd. Flow (prot)	0	1703	0	0	1704	0	0	1842	0	0	1852	0
Flt Permitted		0.986			0.986			0.998			0.998	
Satd. Flow (perm)	0	1703	0	0	1704	0	0	1842	0	0	1852	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	16.7
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	50	45	893	427
Demand Flow Rate, veh/h	51	45	911	435
Vehicles Circulating, veh/h	436	866	37	62
Vehicles Exiting, veh/h	61	82	450	849
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.8	8.9	22.0	7.9
Approach LOS	A	A	C	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	51	45	911	435
Cap Entry Lane, veh/h	731	475	1089	1062
Entry HV Adj Factor	0.977	0.997	0.980	0.982
Flow Entry, veh/h	50	45	893	427
Cap Entry, veh/h	714	474	1068	1042
V/C Ratio	0.070	0.095	0.837	0.410
Control Delay, s/veh	5.8	8.9	22.0	7.9
LOS	A	A	C	A
95th %tile Queue, veh	0	0	10	2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	255	515	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.916	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1770	1863	1863	0	1676	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1770	1863	1863	0	1676	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

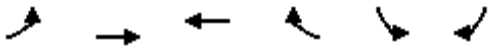
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	255	0	515	2	0	14	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	268	0	542	2	0	15	25
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	10.6	16.2	8.8
HCM LOS	B	C	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	37%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	255	517	38
LT Vol	7	0	0	14
Through Vol	0	255	515	0
RT Vol	0	0	2	24
Lane Flow Rate	7	268	544	40
Geometry Grp	7	7	5	2
Degree of Util (X)	0.011	0.374	0.673	0.06
Departure Headway (Hd)	5.523	5.02	4.454	5.443
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	649	717	811	656
Service Time	3.248	2.745	2.473	3.495
HCM Lane V/C Ratio	0.011	0.374	0.671	0.061
HCM Control Delay	8.3	10.7	16.2	8.8
HCM Lane LOS	A	B	C	A
HCM 95th-tile Q	0	1.7	5.3	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	255	515	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.916	
Flt Protected	0.950				0.982	
Satd. Flow (prot)	1770	1863	1863	0	1676	0
Flt Permitted	0.950				0.982	
Satd. Flow (perm)	1770	1863	1863	0	1676	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

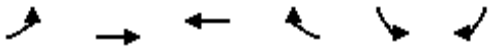
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	7	255	515	2	14	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	268	542	2	15	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	544	0	-	0	826	543
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1025	-	-	-	342	540
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1025	-	-	-	340	540
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	760	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1025	-	-	-	444
HCM Lane V/C Ratio	0.007	-	-	-	0.09
HCM Control Delay (s)	8.5	-	-	-	13.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	255	515	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.916	
Flt Protected		0.999			0.982	
Satd. Flow (prot)	0	1861	1863	0	1676	0
Flt Permitted		0.999			0.982	
Satd. Flow (perm)	0	1861	1863	0	1676	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

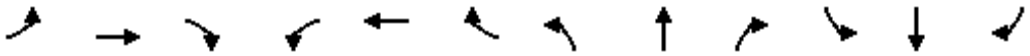
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	275	544	40
Demand Flow Rate, veh/h	280	555	41
Vehicles Circulating, veh/h	15	7	553
Vehicles Exiting, veh/h	578	288	9
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.7	8.9	6.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	280	555	41
Cap Entry Lane, veh/h	1113	1122	650
Entry HV Adj Factor	0.981	0.980	0.976
Flow Entry, veh/h	275	544	40
Cap Entry, veh/h	1092	1100	634
V/C Ratio	0.252	0.495	0.063
Control Delay, s/veh	5.7	8.9	6.4
LOS	A	A	A
95th %tile Queue, veh	1	3	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	189	63	36	317	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.998			0.954			0.939	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1770	1794	0	1770	1859	0	0	1720	0	0	1711	0
Flt Permitted	0.950			0.950				0.968			0.978	
Satd. Flow (perm)	1770	1794	0	1770	1859	0	0	1720	0	0	1711	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	189	63	0	36	317	4	0	147	1	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	199	66	0	38	334	4	0	155	1	80
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	12.1	13.9	11.8
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	75%	0%	99%	9%
Vol Right, %	34%	0%	25%	0%	1%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	224	3	252	36	321	11
LT Vol	147	3	0	36	0	5
Through Vol	1	0	189	0	317	1
RT Vol	76	0	63	0	4	5
Lane Flow Rate	236	3	265	38	338	12
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.365	0.005	0.41	0.064	0.525	0.019
Departure Headway (Hd)	5.569	6.251	5.567	6.111	5.596	5.958
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	646	573	647	587	645	599
Service Time	3.6	3.979	3.295	3.836	3.322	4.007
HCM Lane V/C Ratio	0.365	0.005	0.41	0.065	0.524	0.02
HCM Control Delay	11.8	9	12.1	9.3	14.4	9.1
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.7	0	2	0.2	3.1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	1	5
Number of Lanes	0	0	1	0

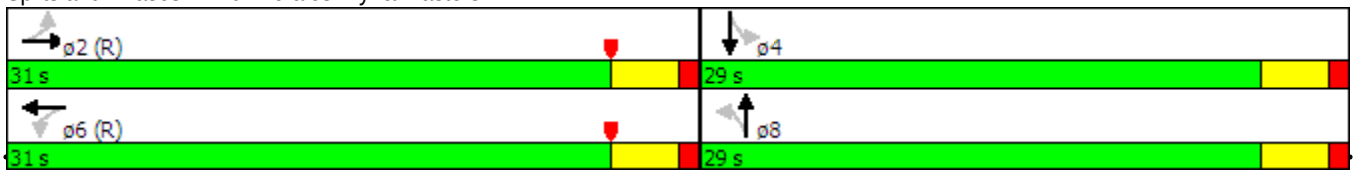
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.1
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	189	63	36	317	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.998			0.954			0.939	
Flt Protected	0.950			0.950				0.968			0.978	
Satd. Flow (prot)	1770	1794	0	1770	1859	0	0	1720	0	0	1711	0
Flt Permitted	0.482			0.558				0.806			0.916	
Satd. Flow (perm)	898	1794	0	1039	1859	0	0	1432	0	0	1602	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			1			53			5	
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	31.0	31.0		31.0	31.0		29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%		51.7%	51.7%		48.3%	48.3%		48.3%	48.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	189	63	36	317	4	147	1	76	5	1	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	199	66	38	334	4	155	1	80	5	1	5
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	460	603	200	513	827	10	483	23	208	349	90	293
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1038	1340	444	1110	1837	22	920	55	500	627	216	703
Grp Volume(v), veh/h	3	0	265	38	0	338	236	0	0	11	0	0
Grp Sat Flow(s),veh/h/ln	1038	0	1784	1110	0	1859	1474	0	0	1546	0	0
Q Serve(g_s), s	0.1	0.0	5.8	1.4	0.0	7.3	5.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.5	0.0	5.8	7.1	0.0	7.3	6.5	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.01	0.66		0.34	0.45		0.45
Lane Grp Cap(c), veh/h	460	0	803	513	0	836	714	0	0	731	0	0
V/C Ratio(X)	0.01	0.00	0.33	0.07	0.00	0.40	0.33	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	460	0	803	513	0	836	714	0	0	731	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	10.7	13.0	0.0	11.1	12.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.1	0.3	0.0	1.5	1.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	3.0	0.5	0.0	4.1	2.9	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	13.6	0.0	11.8	13.2	0.0	12.5	13.3	0.0	0.0	10.3	0.0	0.0
LnGrp LOS	B		B	B		B	B			B		
Approach Vol, veh/h		268			376			236			11	
Approach Delay, s/veh		11.8			12.6			13.3			10.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		27.0		25.0		27.0		25.0
Max Q Clear Time (g_c+I1), s		9.5		2.2		9.3		8.5
Green Ext Time (p_c), s		3.5		1.4		3.5		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	189	63	36	317	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.967			0.999			0.954			0.939	
Flt Protected		0.999			0.995			0.968			0.978	
Satd. Flow (prot)	0	1799	0	0	1852	0	0	1720	0	0	1711	0
Flt Permitted		0.999			0.995			0.968			0.978	
Satd. Flow (perm)	0	1799	0	0	1852	0	0	1720	0	0	1711	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

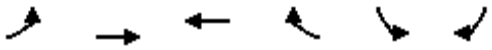
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	268	376	236	11
Demand Flow Rate, veh/h	273	384	241	11
Vehicles Circulating, veh/h	45	162	211	538
Vehicles Exiting, veh/h	504	290	107	8
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.8	8.3	6.8	5.6
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	273	384	241	11
Cap Entry Lane, veh/h	1080	961	915	660
Entry HV Adj Factor	0.982	0.980	0.979	0.998
Flow Entry, veh/h	268	376	236	11
Cap Entry, veh/h	1061	942	896	659
V/C Ratio	0.253	0.400	0.263	0.017
Control Delay, s/veh	5.8	8.3	6.8	5.6
LOS	A	A	A	A
95th %tile Queue, veh	1	2	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	521	413	5	6	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.998			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3532	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3532	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

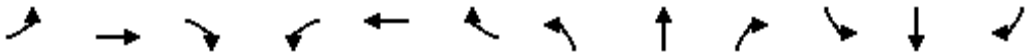
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	521	413	5	6	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	548	435	5	6	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	440	0	-	0	1051	220
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	614	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1116	-	-	-	236	785
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1116	-	-	-	229	785
Mov Cap-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	523	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1116	-	-	-	229	785
HCM Lane V/C Ratio	0.029	-	-	-	0.028	0.051
HCM Control Delay (s)	8.3	-	-	-	21.2	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	331	242	135	28	103	151	148	31	127	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.882				0.850		0.926			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1643	0	1770	1863	1583	1770	1725	0	1770	1859	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1643	0	1770	1863	1583	1770	1725	0	1770	1859	0
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	38.4
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	89	331	0	242	135	28	0	103	151	148
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	94	348	0	255	142	29	0	108	159	156
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	71.1	23.2	27.9
HCM LOS	F	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	51%	0%	21%	0%	100%	0%	0%	98%
Vol Right, %	0%	49%	0%	79%	0%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	299	4	420	242	135	28	31	129
LT Vol	103	0	4	0	242	0	0	31	0
Through Vol	0	151	0	89	0	135	0	0	127
RT Vol	0	148	0	331	0	0	28	0	2
Lane Flow Rate	108	315	4	442	255	142	29	33	136
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.28	0.746	0.011	1	0.664	0.35	0.067	0.092	0.365
Departure Headway (Hd)	9.296	8.528	9.238	8.149	9.273	8.867	8.141	10.178	9.671
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	389	431	387	447	392	412	447	354	375
Service Time	6.984	6.144	6.999	5.909	6.973	6.472	5.771	7.875	7.368
HCM Lane V/C Ratio	0.278	0.731	0.01	0.989	0.651	0.345	0.065	0.093	0.363
HCM Control Delay	15.6	32.1	12.1	71.7	28.5	16.1	11.3	13.9	17.8
HCM Lane LOS	C	D	B	F	D	C	B	B	C
HCM 95th-tile Q	1.1	6.1	0	12.8	4.6	1.5	0.2	0.3	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	127	2
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	134	2
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	17
HCM LOS	C

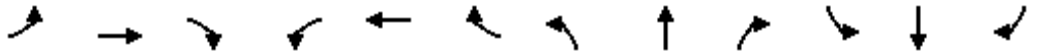
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	89	331	242	135	28	103	151	148	31	127	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.882				0.850		0.926			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1643	0	1770	1863	1583	1770	1725	0	1770	1859	0
Flt Permitted	0.666			0.274			0.670			0.464		
Satd. Flow (perm)	1241	1643	0	510	1863	1583	1248	1725	0	864	1859	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		348				91		93			1	
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	8.0	26.0		8.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	8.0	26.0		8.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (%)	13.3%	43.3%		13.3%	43.3%	43.3%	43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Recall Mode	None	C-Max		None	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

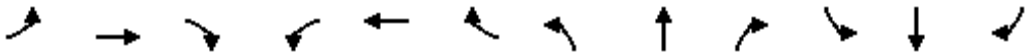
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	89	331	242	135	28	103	151	148	31	127	2
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	4	94	348	255	142	29	108	159	156	33	134	2
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	571	128	472	363	799	679	515	317	311	326	671	10
Arrive On Green	0.00	0.37	0.37	0.07	0.43	0.43	0.12	0.12	0.12	0.37	0.37	0.37
Sat Flow, veh/h	1774	348	1288	1774	1863	1583	1248	865	848	1060	1831	27
Grp Volume(v), veh/h	4	0	442	255	142	29	108	0	315	33	0	136
Grp Sat Flow(s),veh/h/ln	1774	0	1636	1774	1863	1583	1248	0	1713	1060	0	1858
Q Serve(g_s), s	0.1	0.0	14.1	4.0	2.8	0.6	4.8	0.0	10.3	1.6	0.0	3.0
Cycle Q Clear(g_c), s	0.1	0.0	14.1	4.0	2.8	0.6	7.8	0.0	10.3	11.9	0.0	3.0
Prop In Lane	1.00		0.79	1.00		1.00	1.00		0.50	1.00		0.01
Lane Grp Cap(c), veh/h	571	0	600	363	799	679	515	0	628	326	0	681
V/C Ratio(X)	0.01	0.00	0.74	0.70	0.18	0.04	0.21	0.00	0.50	0.10	0.00	0.20
Avail Cap(c_a), veh/h	682	0	600	363	799	679	515	0	628	326	0	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.97	0.00	0.97	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	16.5	16.1	10.6	10.0	21.5	0.0	21.2	20.1	0.0	13.0
Incr Delay (d2), s/veh	0.0	0.0	7.9	6.0	0.5	0.1	0.9	0.0	2.8	0.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	7.6	3.1	1.6	0.3	1.8	0.0	5.4	0.5	0.0	1.6
LnGrp Delay(d),s/veh	11.9	0.0	24.4	22.1	11.1	10.1	22.4	0.0	24.0	20.7	0.0	13.6
LnGrp LOS	B		C	C	B	B	C		C	C		B
Approach Vol, veh/h		446			426			423			169	
Approach Delay, s/veh		24.3			17.6			23.6			15.0	
Approach LOS		C			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	26.0		26.0	4.3	29.7		26.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	22.0		22.0	4.0	22.0		22.0
Max Q Clear Time (g_c+I1), s	6.0	16.1		13.9	2.1	4.8		12.3
Green Ext Time (p_c), s	0.0	1.8		2.0	0.0	3.3		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	15	14	152	49	212	149	20	421	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.887			0.938			0.988	
Flt Protected		0.986			0.996		0.950			0.950		
Satd. Flow (prot)	0	1688	0	0	1646	0	1770	1747	0	1770	1840	0
Flt Permitted		0.986			0.996		0.950			0.950		
Satd. Flow (perm)	0	1688	0	0	1646	0	1770	1747	0	1770	1840	0
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			617	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	18	7	37	0	15	14	152	0	49	212	149
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	7	39	0	16	15	160	0	52	223	157
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.6	11.9	16.1
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	8%	100%	0%
Vol Thru, %	0%	59%	11%	8%	0%	92%
Vol Right, %	0%	41%	60%	84%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	361	62	181	20	457
LT Vol	49	0	18	15	20	0
Through Vol	0	212	7	14	0	421
RT Vol	0	149	37	152	0	36
Lane Flow Rate	52	380	65	191	21	481
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.093	0.604	0.121	0.318	0.038	0.783
Departure Headway (Hd)	6.525	5.723	6.682	6.016	6.422	5.859
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	547	627	540	593	556	616
Service Time	4.293	3.491	4.682	4.103	4.184	3.62
HCM Lane V/C Ratio	0.095	0.606	0.12	0.322	0.038	0.781
HCM Control Delay	10	16.9	10.6	11.9	9.4	26.7
HCM Lane LOS	A	C	B	B	A	D
HCM 95th-tile Q	0.3	4	0.4	1.4	0.1	7.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	421	36
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	21	443	38
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	26
HCM LOS	D

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	7	37	15	14	152	49	212	149	20	421	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.887			0.938			0.988	
Flt Protected		0.986			0.996		0.950			0.950		
Satd. Flow (prot)	0	1688	0	0	1646	0	1770	1747	0	1770	1840	0
Flt Permitted		0.873			0.972		0.460			0.527		
Satd. Flow (perm)	0	1494	0	0	1606	0	857	1747	0	982	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			160			84			10	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

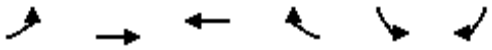
Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: Masters Dr. & Bennett Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	7	37	15	14	152	49	212	149	20	421	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	7	39	16	15	160	52	223	157	21	443	38
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	62	163	76	31	219	664	716	504	739	1190	102
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	287	377	997	68	191	1341	910	1019	717	999	1692	145
Grp Volume(v), veh/h	65	0	0	191	0	0	52	0	380	21	0	481
Grp Sat Flow(s),veh/h/ln	1662	0	0	1600	0	0	910	0	1736	999	0	1837
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	0.0	1.5	0.0	5.0	0.5	0.0	6.3
Cycle Q Clear(g_c), s	2.0	0.0	0.0	6.8	0.0	0.0	7.8	0.0	5.0	5.5	0.0	6.3
Prop In Lane	0.29		0.60	0.08		0.84	1.00		0.41	1.00		0.08
Lane Grp Cap(c), veh/h	349	0	0	327	0	0	664	0	1221	739	0	1292
V/C Ratio(X)	0.19	0.00	0.00	0.58	0.00	0.00	0.08	0.00	0.31	0.03	0.00	0.37
Avail Cap(c_a), veh/h	648	0	0	648	0	0	664	0	1221	739	0	1292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.82	0.00	0.82	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	0.0	23.8	0.0	0.0	5.1	0.0	3.4	4.4	0.0	3.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.7	0.0	0.0	0.2	0.0	0.5	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	3.1	0.0	0.0	0.4	0.0	2.5	0.1	0.0	3.4
LnGrp Delay(d),s/veh	22.1	0.0	0.0	25.5	0.0	0.0	5.3	0.0	3.9	4.5	0.0	4.4
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		65			191			432			502	
Approach Delay, s/veh		22.1			25.5			4.1			4.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.2		13.8		46.2		13.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		9.8		4.0		8.3		8.8
Green Ext Time (p_c), s		5.9		1.4		6.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	80	657	921	351	341	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.959			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3394	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3394	0	1770	1583
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	60.4
Intersection LOS	F

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	80	657	0	921	351	0	341	69
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	84	692	0	969	369	0	359	73
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	32.1	74.3	68.3
HCM LOS	D	F	F

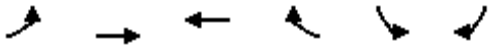
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	47%	0%	0%
Vol Right, %	0%	0%	0%	0%	53%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	329	329	614	658	341	69
LT Vol	80	0	0	0	0	341	0
Through Vol	0	329	329	614	307	0	0
RT Vol	0	0	0	0	351	0	69
Lane Flow Rate	84	346	346	646	693	359	73
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.218	0.846	0.679	1	1	0.997	0.178
Departure Headway (Hd)	9.309	8.808	7.071	8.961	8.572	10	8.803
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	384	411	508	414	429	363	406
Service Time	7.098	6.597	4.861	6.661	6.272	7.786	6.588
HCM Lane V/C Ratio	0.219	0.842	0.681	1.56	1.615	0.989	0.18
HCM Control Delay	14.7	44.7	23.7	75.2	73.4	79.4	13.5
HCM Lane LOS	B	E	C	F	F	F	B
HCM 95th-tile Q	0.8	8.1	5.1	12.3	12.5	11.5	0.6

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	80	657	921	351	341	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.959			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3394	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3394	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			66			73
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	16.0	80.0	64.0		40.0	40.0
Total Split (%)	13.3%	66.7%	53.3%		33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	80	657	921	351	341	69
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	84	692	969	369	359	73
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	106	2516	1554	587	395	352
Arrive On Green	0.08	0.95	0.62	0.62	0.22	0.22
Sat Flow, veh/h	1774	3632	2609	949	1774	1583
Grp Volume(v), veh/h	84	692	679	659	359	73
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1695	1774	1583
Q Serve(g_s), s	5.6	1.7	28.6	29.2	23.7	4.5
Cycle Q Clear(g_c), s	5.6	1.7	28.6	29.2	23.7	4.5
Prop In Lane	1.00			0.56	1.00	1.00
Lane Grp Cap(c), veh/h	106	2516	1093	1047	395	352
V/C Ratio(X)	0.79	0.28	0.62	0.63	0.91	0.21
Avail Cap(c_a), veh/h	177	2516	1093	1047	532	475
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	54.5	1.0	14.2	14.3	45.5	38.0
Incr Delay (d2), s/veh	11.2	0.2	2.7	2.9	15.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.1	0.9	14.6	14.4	13.2	4.3
LnGrp Delay(d),s/veh	65.7	1.2	16.9	17.2	60.8	38.3
LnGrp LOS	E	A	B	B	E	D
Approach Vol, veh/h		776	1338		432	
Approach Delay, s/veh		8.2	17.0		57.0	
Approach LOS		A	B		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		89.3		30.7	11.2	78.1		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		76.0		36.0	12.0	60.0		
Max Q Clear Time (g_c+I1), s		3.7		25.7	7.6	31.2		
Green Ext Time (p_c), s		23.7		1.0	0.1	16.4		

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1676	397	234	823	223	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.971					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3437	0	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3437	0	1770	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	42					187
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	25.0	25.0
Total Split (s)	75.0		20.0	95.0	25.0	25.0
Total Split (%)	62.5%		16.7%	79.2%	20.8%	20.8%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 63 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1676	397	234	823	223	191
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1764	418	246	866	235	201
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1695	386	237	2684	310	277
Arrive On Green	0.59	0.59	0.27	1.00	0.17	0.17
Sat Flow, veh/h	2957	653	1774	3632	1774	1583
Grp Volume(v), veh/h	1063	1119	246	866	235	201
Grp Sat Flow(s),veh/h/ln	1770	1748	1774	1770	1774	1583
Q Serve(g_s), s	71.0	71.0	16.0	0.0	15.1	14.4
Cycle Q Clear(g_c), s	71.0	71.0	16.0	0.0	15.1	14.4
Prop In Lane		0.37	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1047	1034	237	2684	310	277
V/C Ratio(X)	1.02	1.08	1.04	0.32	0.76	0.73
Avail Cap(c_a), veh/h	1047	1034	237	2684	310	277
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	24.5	24.5	44.0	0.0	47.1	46.8
Incr Delay (d2), s/veh	31.7	53.0	64.9	0.3	15.8	15.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	43.5	49.1	12.0	0.1	8.7	7.5
LnGrp Delay(d),s/veh	56.2	77.5	108.9	0.3	62.9	62.0
LnGrp LOS	F	F	F	A	E	E
Approach Vol, veh/h	2182			1112	436	
Approach Delay, s/veh	67.1			24.3	62.5	
Approach LOS	E			C	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	20.0	75.0				95.0		25.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	71.0				91.0		21.0
Max Q Clear Time (g_c+I1), s	18.0	73.0				2.0		17.1
Green Ext Time (p_c), s	0.0	0.0				64.7		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	29	2	2	6	41	238	11	8	573	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.919			0.993				0.850
Flt Protected		0.953			0.990		0.950				0.999	
Satd. Flow (prot)	0	1775	1583	0	1695	0	1770	1850	0	0	1861	1583
Flt Permitted		0.953			0.990		0.950				0.999	
Satd. Flow (perm)	0	1775	1583	0	1695	0	1770	1850	0	0	1861	1583
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			7.6			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	23.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	56	1	29	0	2	2	6	0	41	238	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	1	31	0	2	2	6	0	43	251	12
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.6	10	11.6
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	20%	1%	0%
Vol Thru, %	0%	96%	2%	0%	20%	99%	0%
Vol Right, %	0%	4%	0%	100%	60%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	249	57	29	10	581	101
LT Vol	41	0	56	0	2	8	0
Through Vol	0	238	1	0	2	573	0
RT Vol	0	11	0	29	6	0	101
Lane Flow Rate	43	262	60	31	11	612	106
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.072	0.4	0.124	0.053	0.02	0.877	0.132
Departure Headway (Hd)	6.028	5.492	7.458	6.246	6.842	5.165	4.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	647	484	577	526	697	796
Service Time	3.828	3.291	5.158	3.946	4.847	2.941	2.23
HCM Lane V/C Ratio	0.073	0.405	0.124	0.054	0.021	0.878	0.133
HCM Control Delay	9.3	12	11.2	9.3	10	33.5	7.9
HCM Lane LOS	A	B	B	A	A	D	A
HCM 95th-tile Q	0.2	1.9	0.4	0.2	0.1	10.7	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	8	573	101
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	8	603	106
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	29.7
HCM LOS	D

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	1	29	2	2	6	41	238	11	8	573	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.919			0.993				0.850
Flt Protected		0.953			0.990		0.950				0.999	
Satd. Flow (prot)	0	1775	1583	0	1695	0	1770	1850	0	0	1861	1583
Flt Permitted		0.723			0.948		0.393				0.997	
Satd. Flow (perm)	0	1347	1583	0	1623	0	732	1850	0	0	1857	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			31		6			6				104
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0		26.0	26.0		26.0	26.0	26.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 5: Bedford Cyn. Rd. & Georgetown Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	56	1	29	2	2	6	41	238	11	8	573	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	59	1	0	2	2	6	43	251	12	8	603	0
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1	85	86	24	56	819	1434	69	65	1507	1288
Arrive On Green	0.05	0.05	0.00	0.05	0.05	0.05	0.81	0.81	0.81	0.81	0.81	0.00
Sat Flow, veh/h	1422	24	1583	254	442	1044	813	1764	84	6	1853	1583
Grp Volume(v), veh/h	60	0	0	10	0	0	43	0	263	611	0	0
Grp Sat Flow(s),veh/h/ln	1446	0	1583	1739	0	0	813	0	1848	1859	0	1583
Q Serve(g_s), s	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	0.3	0.0	0.0	0.4	0.0	1.9	5.5	0.0	0.0
Prop In Lane	0.98		1.00	0.20		0.60	1.00		0.05	0.01		1.00
Lane Grp Cap(c), veh/h	196	0	85	165	0	0	819	0	1503	1573	0	1288
V/C Ratio(X)	0.31	0.00	0.00	0.06	0.00	0.00	0.05	0.00	0.18	0.39	0.00	0.00
Avail Cap(c_a), veh/h	637	0	581	664	0	0	819	0	1503	1573	0	1288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.0	0.0	0.0	27.0	0.0	0.0	1.1	0.0	1.2	1.6	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.3	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	1.1	3.0	0.0	0.0
LnGrp Delay(d),s/veh	28.9	0.0	0.0	27.2	0.0	0.0	1.2	0.0	1.5	2.3	0.0	0.0
LnGrp LOS	C			C			A		A	A		
Approach Vol, veh/h		60			10			306			611	
Approach Delay, s/veh		28.9			27.2			1.4			2.3	
Approach LOS		C			C			A			A	

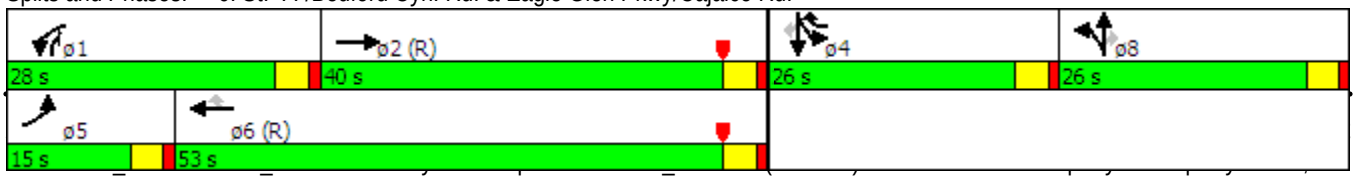
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		3.9		4.4		7.5		2.3
Green Ext Time (p_c), s		6.1		0.2		5.8		0.2

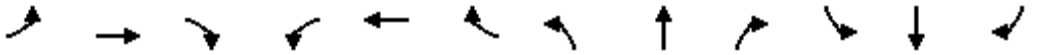
Intersection Summary	
HCM 2010 Ctrl Delay	3.9
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	845	46	600	1091	145	37	67	393	421	100	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		100	200		200	150		0	450		0
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	90			120			180			180		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor						0.98						0.98
Frt		0.992				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950	0.970	
Satd. Flow (prot)	1770	3511	0	3433	3539	1583	1770	1863	1583	1681	1717	1583
Flt Permitted	0.950			0.950			0.950			0.950	0.970	
Satd. Flow (perm)	1770	3511	0	3433	3539	1550	1770	1863	1583	1681	1717	1550
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				153			45			152
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			726			413			651	
Travel Time (s)		14.1			11.0			6.3			9.9	
Confl. Peds. (#/hr)						5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										39%		
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6	4	8	8	1	4	4	
Permitted Phases						6			8			4
Detector Phase	5	2		1	6	4	8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.0		8.0	23.0	23.0	26.0	26.0	8.0	23.0	23.0	23.0
Total Split (s)	15.0	40.0		28.0	53.0	26.0	26.0	26.0	28.0	26.0	26.0	26.0
Total Split (%)	12.5%	33.3%		23.3%	44.2%	21.7%	21.7%	21.7%	23.3%	21.7%	21.7%	21.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Recall Mode	None	C-Max		None	C-Max	Max	None	None	None	Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	106	845	46	600	1091	145	37	67	393	421	100	144
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	112	889	48	632	1148	153	39	71	414	274	342	152
Adj No. of Lanes	1	2	0	2	2	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1040	56	673	1496	957	325	342	600	325	342	288
Arrive On Green	0.08	0.30	0.30	0.39	0.85	0.85	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1774	3415	184	3442	3539	1578	1774	1863	1583	1774	1863	1570
Grp Volume(v), veh/h	112	461	476	632	1148	153	39	71	414	274	342	152
Grp Sat Flow(s),veh/h/ln	1774	1770	1830	1721	1770	1578	1774	1863	1583	1774	1863	1570
Q Serve(g_s), s	7.5	29.4	29.4	21.2	17.1	1.5	2.2	3.9	22.0	17.9	22.0	10.5
Cycle Q Clear(g_c), s	7.5	29.4	29.4	21.2	17.1	1.5	2.2	3.9	22.0	17.9	22.0	10.5
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	137	539	557	673	1496	957	325	342	600	325	342	288
V/C Ratio(X)	0.82	0.85	0.85	0.94	0.77	0.16	0.12	0.21	0.69	0.84	1.00	0.53
Avail Cap(c_a), veh/h	163	539	557	688	1496	957	325	342	600	325	342	288
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	39.2	39.2	35.9	6.7	2.6	40.9	41.6	31.4	47.3	49.0	44.3
Incr Delay (d2), s/veh	23.3	15.8	15.4	15.6	2.6	0.2	0.2	0.3	3.4	22.5	49.1	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.6	16.7	17.2	11.5	8.2	1.0	1.1	2.0	12.1	10.8	15.9	5.1
LnGrp Delay(d),s/veh	77.9	55.0	54.6	51.4	9.3	2.8	41.1	41.9	34.7	69.8	98.1	51.1
LnGrp LOS	E	E	D	D	A	A	D	D	C	E	F	D
Approach Vol, veh/h		1049			1933			524			768	
Approach Delay, s/veh		57.3			22.6			36.2			78.7	
Approach LOS		E			C			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.4	40.6		26.0	13.3	54.7		26.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	24.0	36.0		22.0	11.0	49.0		22.0
Max Q Clear Time (g_c+I1), s	23.2	31.4		24.0	9.5	19.1		24.0
Green Ext Time (p_c), s	0.2	3.6		0.0	0.0	13.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1014	853	130	565	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.931										0.850
Flt Protected				0.950							0.962	
Satd. Flow (prot)	0	3295	0	1770	3539	0	0	0	0	0	1792	1583
Flt Permitted				0.950							0.962	
Satd. Flow (perm)	0	3295	0	1770	3539	0	0	0	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		310										373
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		75.0		15.0	90.0					30.0	30.0	30.0
Total Split (%)		62.5%		12.5%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 67 (56%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1014	853	130	565	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1067	898	137	595	0				163	41	518
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1153	850	161	2536	0				310	78	343
Arrive On Green	0.00	0.59	0.59	0.18	1.00	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2038	1434	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	957	1008	137	595	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1610	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	57.6	71.1	9.0	0.0	0.0				12.1	0.0	26.0
Cycle Q Clear(g_c), s	0.0	57.6	71.1	9.0	0.0	0.0				12.1	0.0	26.0
Prop In Lane	0.00		0.89	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1049	954	161	2536	0				388	0	343
V/C Ratio(X)	0.00	0.91	1.06	0.85	0.23	0.00				0.53	0.00	1.51
Avail Cap(c_a), veh/h	0	1049	954	163	2536	0				388	0	343
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.7	24.4	48.4	0.0	0.0				41.5	0.0	47.0
Incr Delay (d2), s/veh	0.0	1.6	28.1	31.1	0.2	0.0				5.0	0.0	244.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	28.4	38.7	5.7	0.1	0.0				6.5	0.0	34.6
LnGrp Delay(d),s/veh	0.0	23.2	52.5	79.5	0.2	0.0				46.6	0.0	291.1
LnGrp LOS		C	F	E	A					D		F
Approach Vol, veh/h		1965			732						722	
Approach Delay, s/veh		38.3			15.0						222.0	
Approach LOS		D			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	14.9	75.1		30.0		90.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	11.0	71.0		26.0		86.0		
Max Q Clear Time (g_c+I1), s	11.0	73.1		28.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		46.2		

Intersection Summary	
HCM 2010 Ctrl Delay	72.1
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1014	853	130	565	0	0	0	0	155	39	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	90		0	0		0	0		525
Storage Lanes	0		1	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950							0.962	
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	1792	1583
Flt Permitted				0.950							0.962	
Satd. Flow (perm)	0	3539	1583	1770	3539	0	0	0	0	0	1792	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			514									348
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0	26.0	8.0	26.0					26.0	26.0	26.0
Total Split (s)		68.0	68.0	17.0	85.0					35.0	35.0	35.0
Total Split (%)		56.7%	56.7%	14.2%	70.8%					29.2%	29.2%	29.2%
Yellow Time (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		C-Max	C-Max	None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 101 (84%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1014	853	130	565	0	0	0	0	155	39	492
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	1067	898	137	595	0				163	41	518
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1945	870	163	2389	0				370	93	409
Arrive On Green	0.00	1.00	1.00	0.09	0.68	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	3632	1583	1774	3632	0				1431	360	1583
Grp Volume(v), veh/h	0	1067	898	137	595	0				204	0	518
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	0.0	65.9	9.1	7.9	0.0				11.4	0.0	31.0
Cycle Q Clear(g_c), s	0.0	0.0	65.9	9.1	7.9	0.0				11.4	0.0	31.0
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1945	870	163	2389	0				463	0	409
V/C Ratio(X)	0.00	0.55	1.03	0.84	0.25	0.00				0.44	0.00	1.27
Avail Cap(c_a), veh/h	0	1945	870	192	2389	0				463	0	409
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	53.6	7.6	0.0				37.2	0.0	44.5
Incr Delay (d2), s/veh	0.0	0.1	19.0	22.0	0.2	0.0				3.0	0.0	138.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	4.6	5.5	3.9	0.0				6.1	0.0	29.2
LnGrp Delay(d),s/veh	0.0	0.1	19.0	75.6	7.8	0.0				40.3	0.0	182.6
LnGrp LOS		A	F	E	A					D		F
Approach Vol, veh/h		1965			732						722	
Approach Delay, s/veh		8.7			20.5						142.4	
Approach LOS		A			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.1	69.9		35.0		85.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	13.0	64.0		31.0		81.0		
Max Q Clear Time (g_c+I1), s	11.1	67.9		33.0		9.9		
Green Ext Time (p_c), s	0.1	0.0		0.0		30.1		

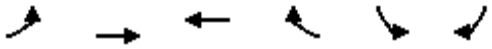
Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	514	1145	920	281	638	916
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	0.88
Ped Bike Factor						0.97
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	3539	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	3539	3539	1583	3433	2708
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				296		757
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	31.0	79.9	48.9	48.9	40.1	40.1
Total Split (%)	25.8%	66.6%	40.8%	40.8%	33.4%	33.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 111 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	514	1145	920	281	638	916
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	541	1205	968	296	672	964
Adj No. of Lanes	2	2	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	609	2239	1494	668	1035	838
Arrive On Green	0.35	1.00	0.42	0.42	0.30	0.30
Sat Flow, veh/h	3442	3632	3632	1583	3442	2787
Grp Volume(v), veh/h	541	1205	968	296	672	964
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583	1721	1393
Q Serve(g_s), s	17.8	0.0	26.1	15.9	20.4	36.1
Cycle Q Clear(g_c), s	17.8	0.0	26.1	15.9	20.4	36.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	609	2239	1494	668	1035	838
V/C Ratio(X)	0.89	0.54	0.65	0.44	0.65	1.15
Avail Cap(c_a), veh/h	774	2239	1494	668	1035	838
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	0.0	27.6	24.6	36.4	42.0
Incr Delay (d2), s/veh	1.1	0.1	2.2	2.1	3.2	81.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	8.5	0.0	13.2	7.4	10.2	33.1
LnGrp Delay(d),s/veh	38.7	0.1	29.8	26.8	39.6	123.1
LnGrp LOS	D	A	C	C	D	F
Approach Vol, veh/h		1746	1264		1636	
Approach Delay, s/veh		12.1	29.1		88.8	
Approach LOS		B	C		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		79.9		40.1	25.2	54.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		75.9		36.1	27.0	44.9		
Max Q Clear Time (g_c+I1), s		2.0		38.1	19.8	28.1		
Green Ext Time (p_c), s		21.3		0.0	1.5	11.1		

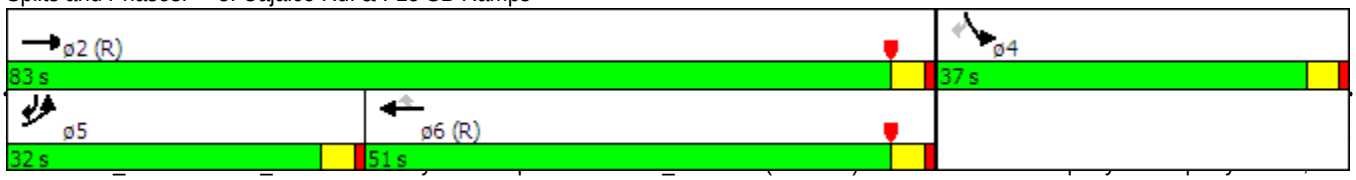
Intersection Summary	
HCM 2010 Ctrl Delay	43.7
HCM 2010 LOS	D

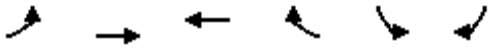
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	514	1145	920	281	638	916
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	120				25	
Lane Util. Factor	0.97	0.91	0.95	1.00	0.97	0.88
Ped Bike Factor						0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	5085	3539	1583	3433	2787
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	5085	3539	1583	3433	2718
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				296		69
Link Speed (mph)		45	45		45	
Link Distance (ft)		726	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	5
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.0
Total Split (s)	32.0	83.0	51.0	51.0	37.0	32.0
Total Split (%)	26.7%	69.2%	42.5%	42.5%	30.8%	26.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	C-Max	C-Max	C-Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 22 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	514	1145	920	281	638	916
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	541	1205	968	296	672	964
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	612	3348	1583	708	946	1262
Arrive On Green	0.36	1.00	0.45	0.45	0.28	0.28
Sat Flow, veh/h	3442	5253	3632	1583	3442	2787
Grp Volume(v), veh/h	541	1205	968	296	672	964
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1721	1393
Q Serve(g_s), s	17.7	0.0	25.0	15.3	21.1	33.0
Cycle Q Clear(g_c), s	17.7	0.0	25.0	15.3	21.1	33.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	612	3348	1583	708	946	1262
V/C Ratio(X)	0.88	0.36	0.61	0.42	0.71	0.76
Avail Cap(c_a), veh/h	803	3348	1583	708	946	1262
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	25.2	22.6	39.2	27.5
Incr Delay (d2), s/veh	5.9	0.2	1.8	1.8	4.5	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.8	0.1	12.6	7.0	10.6	25.5
LnGrp Delay(d),s/veh	43.4	0.2	27.0	24.4	43.7	31.9
LnGrp LOS	D	A	C	C	D	C
Approach Vol, veh/h		1746	1264		1636	
Approach Delay, s/veh		13.6	26.4		36.7	
Approach LOS		B	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		83.0		37.0	25.3	57.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		79.0		33.0	28.0	47.0		
Max Q Clear Time (g_c+I1), s		2.0		35.0	19.7	27.0		
Green Ext Time (p_c), s		21.1		0.0	1.6	12.4		

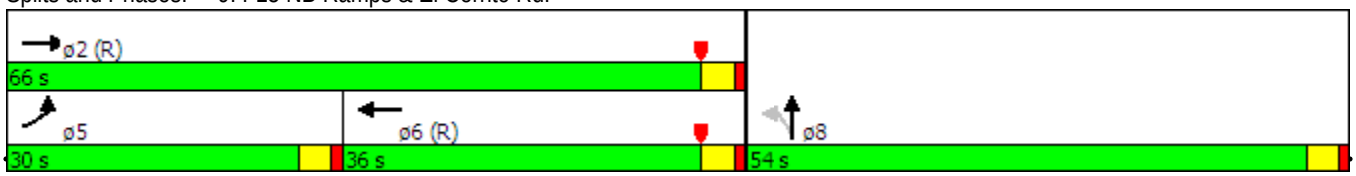
Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	493	676	0	0	281	85	414	8	110	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.965			0.972				
Flt Protected	0.950							0.963				
Satd. Flow (prot)	3433	1863	0	0	3415	0	0	1744	0	0	0	0
Flt Permitted	0.950							0.963				
Satd. Flow (perm)	3433	1863	0	0	3415	0	0	1744	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					32			13				
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	30.0	66.0			36.0		54.0	54.0				
Total Split (%)	25.0%	55.0%			30.0%		45.0%	45.0%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	493	676	0	0	281	85	414	8	110	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	519	712	0	0	296	89	436	8	116			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	581	962	0	0	848	250	562	10	149			
Arrive On Green	0.34	1.00	0.00	0.00	0.31	0.31	0.42	0.42	0.42			
Sat Flow, veh/h	3442	1863	0	0	2789	796	1348	25	359			
Grp Volume(v), veh/h	519	712	0	0	192	193	560	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1722	1732	0	0			
Q Serve(g_s), s	17.2	0.0	0.0	0.0	10.0	10.4	33.4	0.0	0.0			
Cycle Q Clear(g_c), s	17.2	0.0	0.0	0.0	10.0	10.4	33.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.46	0.78		0.21			
Lane Grp Cap(c), veh/h	581	962	0	0	556	541	722	0	0			
V/C Ratio(X)	0.89	0.74	0.00	0.00	0.35	0.36	0.78	0.00	0.00			
Avail Cap(c_a), veh/h	746	962	0	0	556	541	722	0	0			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.22	0.22	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	38.7	0.0	0.0	0.0	31.6	31.8	30.2	0.0	0.0			
Incr Delay (d2), s/veh	2.8	1.1	0.0	0.0	1.7	1.8	8.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(0%),veh/ln	8.3	0.3	0.0	0.0	5.2	5.2	17.5	0.0	0.0			
LnGrp Delay(d),s/veh	41.5	1.1	0.0	0.0	33.3	33.6	38.2	0.0	0.0			
LnGrp LOS	D	A			C	C	D					
Approach Vol, veh/h		1231			385			560				
Approach Delay, s/veh		18.1			33.5			38.2				
Approach LOS		B			C			D				

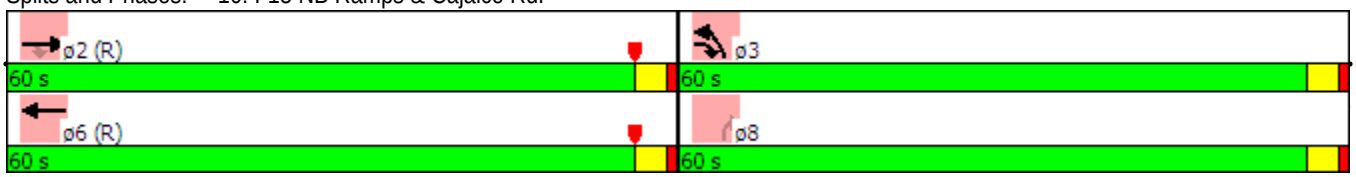
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		66.0			24.3	41.7		54.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		62.0			26.0	32.0		50.0
Max Q Clear Time (g_c+I1), s		2.0			19.2	12.4		35.4
Green Ext Time (p_c), s		8.3			1.1	6.6		3.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1136	647	0	1211	498	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		130	
Lane Util. Factor	0.91	1.00	1.00	0.86	0.97	0.88
Ped Bike Factor						0.98
Frt		0.850				0.850
Flt Protected					0.950	
Satd. Flow (prot)	5085	1583	0	6408	3433	2787
Flt Permitted					0.950	
Satd. Flow (perm)	5085	1583	0	6408	3433	2744
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						60
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			191	332	
Travel Time (s)	4.4			2.9	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	60.0	60.0		60.0	60.0	60.0
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1136	647	0	1211	498	346
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	1196	681	0	1275	524	364
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2373	1478	0	2990	1606	1300
Arrive On Green	0.47	0.47	0.00	0.47	0.47	0.47
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	1196	681	0	1275	524	364
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	19.7	6.0	0.0	15.9	11.5	9.6
Cycle Q Clear(g_c), s	19.7	6.0	0.0	15.9	11.5	9.6
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2373	1478	0	2990	1606	1300
V/C Ratio(X)	0.50	0.46	0.00	0.43	0.33	0.28
Avail Cap(c_a), veh/h	2373	1478	0	2990	1606	1300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.5	0.0	21.3	20.1	19.6
Incr Delay (d2), s/veh	0.8	1.0	0.0	0.4	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	9.4	2.9	0.0	7.1	5.6	3.8
LnGrp Delay(d),s/veh	23.1	1.5	0.0	21.8	20.7	20.2
LnGrp LOS	C	A		C	C	C
Approach Vol, veh/h	1877			1275	888	
Approach Delay, s/veh	15.3			21.8	20.5	
Approach LOS	B			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.0				60.0		60.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		56.0				56.0		56.0
Max Q Clear Time (g_c+I1), s		21.7				17.9		13.5
Green Ext Time (p_c), s		23.2				24.8		4.6

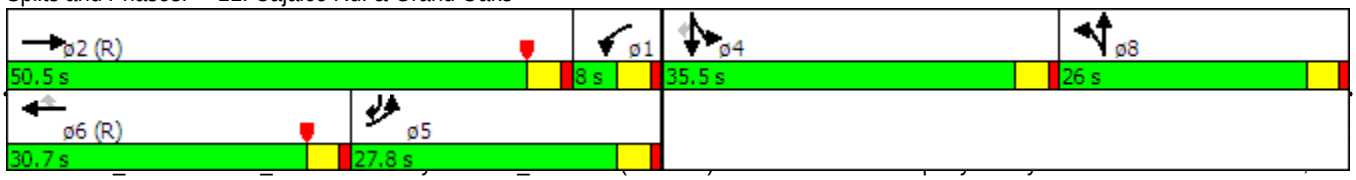
Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

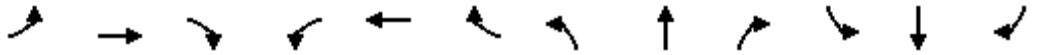
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	690	792	0	0	624	155	0	0	0	363	0	607
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Lane Util. Factor	0.97	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Ped Bike Factor						0.98					0.99	
Frt						0.850						0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	3433	5085	0	1863	5085	1583	0	1863	0	0	1770	2787
Flt Permitted	0.950										0.950	
Satd. Flow (perm)	3433	5085	0	1863	5085	1550	0	1863	0	0	1755	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						162						639
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		584			407			301			891	
Travel Time (s)		8.8			6.2			4.6			13.5	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	27.8	50.5		8.0	30.7	30.7	26.0	26.0		35.5	35.5	27.8
Total Split (%)	23.2%	42.1%		6.7%	25.6%	25.6%	21.7%	21.7%		29.6%	29.6%	23.2%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead	Lead						Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 91 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	690	792	0	0	624	155	0	0	0	363	0	607
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	726	834	0	0	657	163	0	0	0	382	0	639
Adj No. of Lanes	2	3	0	1	3	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1428	1971	0	444	1131	350	0	2	0	466	0	1884
Arrive On Green	0.41	0.39	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	5253	0	1774	5085	1573	0	1863	0	1774	0	2771
Grp Volume(v), veh/h	726	834	0	0	657	163	0	0	0	382	0	639
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1774	1695	1573	0	1863	0	1774	0	1385
Q Serve(g_s), s	18.8	14.4	0.0	0.0	13.8	10.8	0.0	0.0	0.0	24.3	0.0	0.0
Cycle Q Clear(g_c), s	18.8	14.4	0.0	0.0	13.8	10.8	0.0	0.0	0.0	24.3	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	1428	1971	0	444	1131	350	0	2	0	466	0	1884
V/C Ratio(X)	0.51	0.42	0.00	0.00	0.58	0.47	0.00	0.00	0.00	0.82	0.00	0.34
Avail Cap(c_a), veh/h	1428	1971	0	444	1131	350	0	342	0	466	0	1884
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.0	26.9	0.0	0.0	41.7	40.5	0.0	0.0	0.0	41.6	0.0	8.1
Incr Delay (d2), s/veh	0.3	0.7	0.0	0.0	2.2	4.4	0.0	0.0	0.0	14.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	8.9	6.8	0.0	0.0	6.7	5.1	0.0	0.0	0.0	13.8	0.0	4.5
LnGrp Delay(d),s/veh	26.3	27.6	0.0	0.0	43.8	44.9	0.0	0.0	0.0	56.5	0.0	8.6
LnGrp LOS	C	C			D	D				E		A
Approach Vol, veh/h		1560			820			0			1021	
Approach Delay, s/veh		27.0			44.0			0.0			26.5	
Approach LOS		C			D						C	

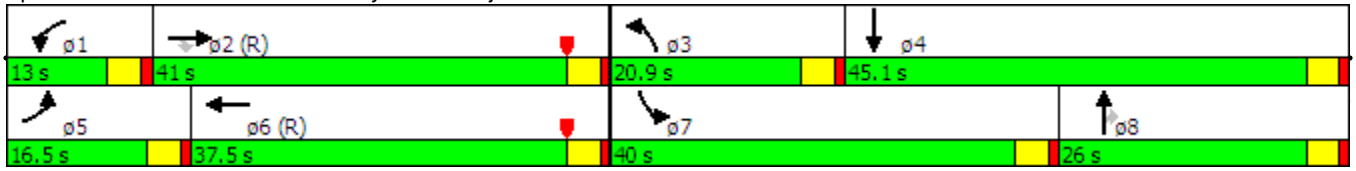
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	34.0	50.5		35.5	53.8	30.7		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	23.8	26.7		22.0
Max Q Clear Time (g_c+I1), s	0.0	16.4		26.3	20.8	15.8		0.0
Green Ext Time (p_c), s	0.0	4.1		2.5	1.1	2.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	679	348	184	420	461	285	675	96	599	520	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.97	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98		0.99						1.00	
Frt			0.850		0.922				0.850		0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	4636	0	3433	3539	1794	1770	3463	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1552	1770	4636	0	3433	3539	1794	1770	3463	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			244		229				118		14	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	16.5	41.0	41.0	13.0	37.5		20.9	26.0	26.0	40.0	45.1	
Total Split (%)	13.8%	34.2%	34.2%	10.8%	31.3%		17.4%	21.7%	21.7%	33.3%	37.6%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	126	679	348	184	420	461	285	675	96	599	520	74
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	133	715	366	194	442	485	300	711	101	631	547	78
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	574	486	133	995	462	366	649	302	532	1172	167
Arrive On Green	0.09	0.31	0.31	0.08	0.29	0.29	0.11	0.18	0.18	0.30	0.38	0.38
Sat Flow, veh/h	1774	1863	1576	1774	3390	1575	3442	3539	1647	1774	3110	442
Grp Volume(v), veh/h	133	715	366	194	442	485	300	711	101	631	310	315
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1575	1721	1770	1647	1774	1770	1783
Q Serve(g_s), s	8.9	37.0	25.1	9.0	12.7	35.2	10.2	22.0	6.4	36.0	15.9	16.0
Cycle Q Clear(g_c), s	8.9	37.0	25.1	9.0	12.7	35.2	10.2	22.0	6.4	36.0	15.9	16.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	159	574	486	133	995	462	366	649	302	532	667	672
V/C Ratio(X)	0.83	1.24	0.75	1.46	0.44	1.05	0.82	1.10	0.33	1.19	0.47	0.47
Avail Cap(c_a), veh/h	185	574	486	133	995	462	485	649	302	532	667	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	41.5	37.4	55.5	34.4	42.4	52.5	49.0	42.6	42.0	28.2	28.3
Incr Delay (d2), s/veh	24.1	124.3	10.4	242.7	1.4	55.3	8.2	64.4	3.0	101.3	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	5.4	38.8	12.3	13.4	6.2	22.4	5.3	16.5	3.2	32.6	8.2	8.3
LnGrp Delay(d),s/veh	77.8	165.8	47.7	298.2	35.9	97.7	60.7	113.4	45.6	143.3	30.6	30.6
LnGrp LOS	E	F	D	F	D	F	E	F	D	F	C	C
Approach Vol, veh/h		1214			1121			1112			1256	
Approach Delay, s/veh		120.6			108.0			93.0			87.2	
Approach LOS		F			F			F			F	

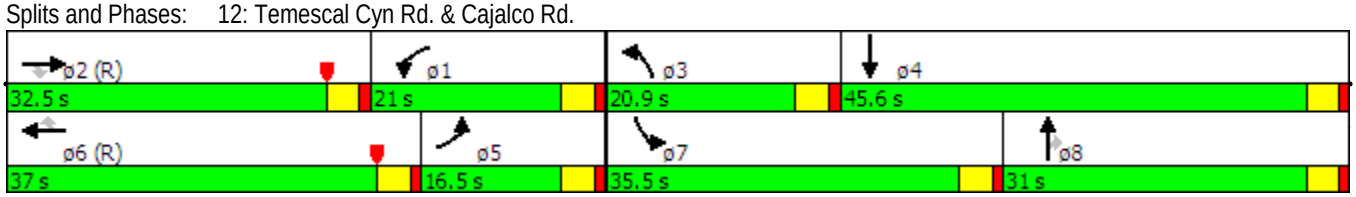
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	41.0	16.8	49.2	14.8	39.2	40.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	37.0	16.9	41.1	12.5	33.5	36.0	22.0
Max Q Clear Time (g_c+I1), s	11.0	39.0	12.2	18.0	10.9	37.2	38.0	24.0
Green Ext Time (p_c), s	0.0	0.0	0.5	6.5	0.1	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	102.2
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	679	348	184	420	461	285	675	96	599	520	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	450		200	300		325	200		200
Storage Lanes	1		0	1		1	2		1	2		0
Taper Length (ft)	180			180			180			180		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Ped Bike Factor			0.98			0.98					1.00	
Frt			0.850			0.850			0.850		0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1794	3433	3539	1794	3433	3463	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1552	1770	5085	1759	3433	3539	1794	3433	3463	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			366			485			155		14	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		661			935			1167			1000	
Travel Time (s)		10.0			14.2			17.7			15.2	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7	30.7	8.5	26.0	26.0	35.5	26.0	
Total Split (s)	16.5	32.5	32.5	21.0	37.0	37.0	20.9	31.0	31.0	35.5	45.6	
Total Split (%)	13.8%	27.1%	27.1%	17.5%	30.8%	30.8%	17.4%	25.8%	25.8%	29.6%	38.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 90 (75%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	126	679	348	184	420	461	285	675	96	599	520	74
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1937	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	133	715	366	194	442	485	300	711	101	631	547	78
Adj No. of Lanes	1	2	1	1	3	1	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	841	374	312	1398	450	366	860	400	723	1078	153
Arrive On Green	0.14	0.24	0.24	0.18	0.28	0.28	0.11	0.24	0.24	0.21	0.35	0.35
Sat Flow, veh/h	1774	3539	1573	1774	5085	1638	3442	3539	1647	3442	3110	442
Grp Volume(v), veh/h	133	715	366	194	442	485	300	711	101	631	311	314
Grp Sat Flow(s),veh/h/ln	1774	1770	1573	1774	1695	1638	1721	1770	1647	1721	1770	1782
Q Serve(g_s), s	8.4	23.2	21.4	12.1	8.3	20.4	10.2	22.8	4.0	21.3	16.7	16.8
Cycle Q Clear(g_c), s	8.4	23.2	21.4	12.1	8.3	20.4	10.2	22.8	4.0	21.3	16.7	16.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	246	841	374	312	1398	450	366	860	400	723	613	618
V/C Ratio(X)	0.54	0.85	0.98	0.62	0.32	1.08	0.82	0.83	0.25	0.87	0.51	0.51
Avail Cap(c_a), veh/h	246	841	374	312	1398	450	485	860	400	903	613	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	43.7	27.2	45.7	34.5	16.6	52.5	43.0	16.9	45.9	31.1	31.1
Incr Delay (d2), s/veh	2.4	10.5	41.7	3.7	0.6	64.6	8.2	8.9	1.5	7.9	3.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.3	12.6	13.7	6.3	4.0	17.3	5.3	12.2	2.0	10.9	8.6	8.7
LnGrp Delay(d),s/veh	50.5	54.3	68.9	49.5	35.1	81.2	60.7	52.0	18.4	53.8	34.0	34.1
LnGrp LOS	D	D	E	D	D	F	E	D	B	D	C	C
Approach Vol, veh/h		1214			1121			1112			1256	
Approach Delay, s/veh		58.2			57.6			51.3			44.0	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.1	32.5	16.8	45.6	20.6	37.0	29.2	33.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	28.5	16.9	41.6	12.5	33.0	31.5	27.0
Max Q Clear Time (g_c+I1), s	14.1	25.2	12.2	18.8	10.4	22.4	23.3	24.8
Green Ext Time (p_c), s	0.3	1.7	0.5	6.5	0.3	3.3	1.9	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	52.6
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	447	10	483	509	10	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.997					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3529	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3529	0	1770	1863	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2					81
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	799	
Travel Time (s)	11.8			19.1	12.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases						8
Detector Phase	2		1	6	8	1
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	8.0
Total Split (s)	33.0		61.0	94.0	26.0	61.0
Total Split (%)	27.5%		50.8%	78.3%	21.7%	50.8%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	C-Max		None	C-Max	Max	None

Intersection Summary

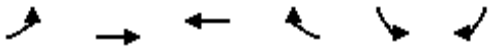
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 46 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 13: St. "C" & Eagle Glen Pkwy.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	447	10	483	509	10	290
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	471	11	508	536	11	305
Adj No. of Lanes	2	0	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	854	20	843	1397	325	1042
Arrive On Green	0.24	0.24	0.47	0.75	0.18	0.18
Sat Flow, veh/h	3628	82	1774	1863	1774	1583
Grp Volume(v), veh/h	236	246	508	536	11	305
Grp Sat Flow(s),veh/h/ln	1770	1848	1774	1863	1774	1583
Q Serve(g_s), s	14.0	14.0	25.3	12.1	0.6	0.0
Cycle Q Clear(g_c), s	14.0	14.0	25.3	12.1	0.6	0.0
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	428	447	843	1397	325	1042
V/C Ratio(X)	0.55	0.55	0.60	0.38	0.03	0.29
Avail Cap(c_a), veh/h	428	447	843	1397	325	1042
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.73	0.73	1.00	1.00
Uniform Delay (d), s/veh	39.8	39.8	23.2	5.3	40.3	8.7
Incr Delay (d2), s/veh	5.0	4.8	0.9	0.6	0.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.4	7.7	12.5	6.3	0.3	4.4
LnGrp Delay(d),s/veh	44.8	44.7	24.1	5.9	40.5	9.4
LnGrp LOS	D	D	C	A	D	A
Approach Vol, veh/h	482			1044	316	
Approach Delay, s/veh	44.7			14.7	10.5	
Approach LOS	D			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	61.0	33.0				94.0		26.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	57.0	29.0				90.0		22.0
Max Q Clear Time (g_c+I1), s	27.3	16.0				14.1		2.6
Green Ext Time (p_c), s	5.1	2.1				5.4		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C



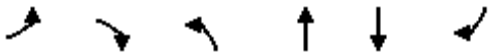
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	209	36	71	81	132	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.928		0.902	
Flt Protected		0.959			0.987	
Satd. Flow (prot)	0	1786	1729	0	1658	0
Flt Permitted		0.959			0.987	
Satd. Flow (perm)	0	1786	1729	0	1658	0
Link Speed (mph)		45	45		45	
Link Distance (ft)		972	1258		585	
Travel Time (s)		14.7	19.1		8.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	258	160	508
Demand Flow Rate, veh/h	263	163	518
Vehicles Circulating, veh/h	142	224	76
Vehicles Exiting, veh/h	452	181	311
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.4	5.9	9.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	263	163	518
Cap Entry Lane, veh/h	980	903	1047
Entry HV Adj Factor	0.982	0.979	0.981
Flow Entry, veh/h	258	160	508
Cap Entry, veh/h	963	884	1027
V/C Ratio	0.268	0.180	0.495
Control Delay, s/veh	6.4	5.9	9.4
LOS	A	A	A
95th %tile Queue, veh	1	1	3



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	247	0	0	62	105	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.891	
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1863	1660	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1863	1660	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	1285			542	309	
Travel Time (s)	19.5			8.2	4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	8.0
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	260	65	566
Demand Flow Rate, veh/h	265	66	577
Vehicles Circulating, veh/h	113	265	0
Vehicles Exiting, veh/h	464	113	331
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.2	5.0	9.1
Approach LOS	A	A	A

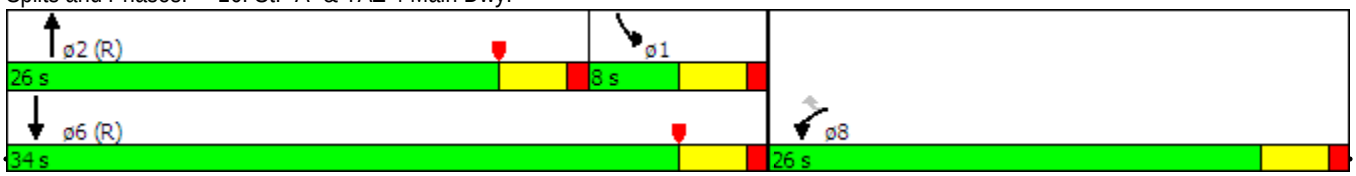
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	265	66	577
Cap Entry Lane, veh/h	1009	867	1130
Entry HV Adj Factor	0.981	0.980	0.981
Flow Entry, veh/h	260	65	566
Cap Entry, veh/h	990	850	1108
V/C Ratio	0.263	0.076	0.511
Control Delay, s/veh	6.2	5.0	9.1
LOS	A	A	A
95th %tile Queue, veh	1	0	3

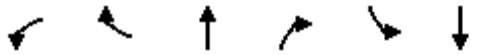
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	63	103	362	23	157	589
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				60	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.991			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3507	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3507	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		108	12			
Link Speed (mph)	45		45			45
Link Distance (ft)	264		567			343
Travel Time (s)	4.0		8.6			5.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	26.0	26.0	26.0		8.0	26.0
Total Split (s)	26.0	26.0	26.0		8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%		13.3%	56.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 11 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 16: St. "A" & TAZ 4 Main Dwy.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	63	103	362	23	157	589
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	66	108	381	24	165	620
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	178	159	1240	78	591	2713
Arrive On Green	0.10	0.10	0.37	0.37	0.33	0.77
Sat Flow, veh/h	1774	1583	3476	212	1774	3632
Grp Volume(v), veh/h	66	108	199	206	165	620
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1825	1774	1770
Q Serve(g_s), s	2.1	4.0	4.8	4.8	4.1	3.0
Cycle Q Clear(g_c), s	2.1	4.0	4.8	4.8	4.1	3.0
Prop In Lane	1.00	1.00		0.12	1.00	
Lane Grp Cap(c), veh/h	178	159	649	669	591	2713
V/C Ratio(X)	0.37	0.68	0.31	0.31	0.28	0.23
Avail Cap(c_a), veh/h	650	581	649	669	591	2713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	26.1	13.6	13.6	14.7	2.0
Incr Delay (d2), s/veh	1.3	5.1	1.2	1.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.1	1.9	2.5	2.6	2.1	1.5
LnGrp Delay(d),s/veh	26.5	31.1	14.8	14.8	15.0	2.2
LnGrp LOS	C	C	B	B	B	A
Approach Vol, veh/h	174		405			785
Approach Delay, s/veh	29.4		14.8			4.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	24.0	26.0				50.0		10.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	22.0				30.0		22.0
Max Q Clear Time (g_c+I1), s	6.1	6.8				5.0		6.0
Green Ext Time (p_c), s	0.0	1.8				4.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	27	87	299	11	141	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				60	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.896		0.994			
Flt Protected	0.988				0.950	
Satd. Flow (prot)	1649	0	3518	0	1770	3539
Flt Permitted	0.988				0.950	
Satd. Flow (perm)	1649	0	3518	0	1770	3539
Link Speed (mph)	45		45			45
Link Distance (ft)	302		233			567
Travel Time (s)	4.6		3.5			8.6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

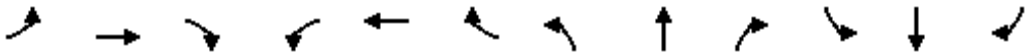
Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	27	87	299	11	141	510
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	92	315	12	148	537

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	886	163	0	0	326	0
Stage 1	321	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	284	853	-	-	1230	-
Stage 1	708	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	250	853	-	-	1230	-
Mov Cap-2 Maneuver	250	-	-	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	468	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	543	1230	-
HCM Lane V/C Ratio	-	-	0.221	0.121	-
HCM Control Delay (s)	-	-	13.5	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.4	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	53	20	4	6	6	360	11	7	679	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.921			0.974			0.995			0.997	
Flt Protected		0.981			0.967		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1754	0	1770	1853	0	1770	1857	0
Flt Permitted		0.981			0.967		0.950			0.950		
Satd. Flow (perm)	0	1683	0	0	1754	0	1770	1853	0	1770	1857	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	39.4
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	36	2	53	0	20	4	6	0	6	360	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	2	56	0	21	4	6	0	6	379	12
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.7	10.3	16.2
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	40%	67%	100%	0%
Vol Thru, %	0%	97%	2%	13%	0%	98%
Vol Right, %	0%	3%	58%	20%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	371	91	30	7	692
LT Vol	6	0	36	20	7	0
Through Vol	0	360	2	4	0	679
RT Vol	0	11	53	6	0	13
Lane Flow Rate	6	391	96	32	7	728
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.011	0.599	0.168	0.061	0.012	1
Departure Headway (Hd)	6.044	5.524	6.321	6.899	5.912	5.394
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	648	564	522	609	677
Service Time	3.827	3.307	4.395	4.899	3.614	3.096
HCM Lane V/C Ratio	0.01	0.603	0.17	0.061	0.011	1.075
HCM Control Delay	8.9	16.3	10.7	10.3	8.7	57.4
HCM Lane LOS	A	C	B	B	A	F
HCM 95th-tile Q	0	4	0.6	0.2	0	15.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	679	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	715	14
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	56.9
HCM LOS	F

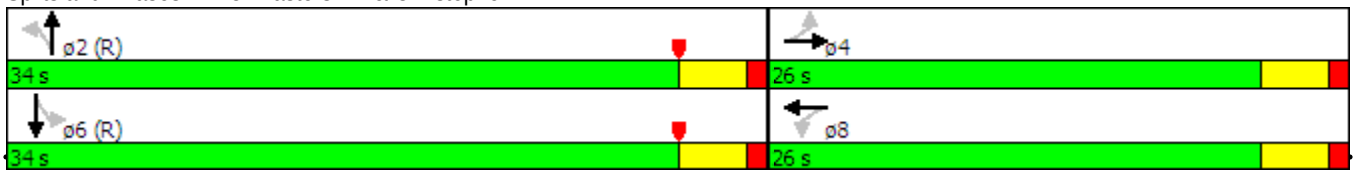
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	53	20	4	6	6	360	11	7	679	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.921			0.974			0.995			0.997	
Flt Protected		0.981			0.967		0.950			0.950		
Satd. Flow (prot)	0	1683	0	0	1754	0	1770	1853	0	1770	1857	0
Flt Permitted		0.865			0.851		0.323			0.523		
Satd. Flow (perm)	0	1484	0	0	1544	0	602	1853	0	974	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			6			4			2	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

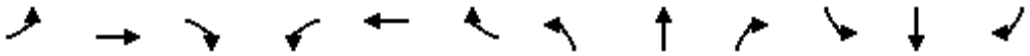
Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	2	53	20	4	6	6	360	11	7	679	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	38	2	56	21	4	6	6	379	12	7	715	14
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	12	81	184	38	29	682	1395	44	829	1414	28
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.78	0.78	0.78	1.00	1.00	1.00
Sat Flow, veh/h	509	135	901	931	422	325	723	1796	57	989	1821	36
Grp Volume(v), veh/h	96	0	0	31	0	0	6	0	391	7	0	729
Grp Sat Flow(s),veh/h/ln	1544	0	0	1678	0	0	723	0	1853	989	0	1856
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	0.0	1.0	0.0	0.0	0.1	0.0	3.6	3.6	0.0	0.0
Prop In Lane	0.40		0.58	0.68		0.19	1.00		0.03	1.00		0.02
Lane Grp Cap(c), veh/h	223	0	0	251	0	0	682	0	1439	829	0	1442
V/C Ratio(X)	0.43	0.00	0.00	0.12	0.00	0.00	0.01	0.00	0.27	0.01	0.00	0.51
Avail Cap(c_a), veh/h	640	0	0	648	0	0	682	0	1439	829	0	1442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.80	0.00	0.80
Uniform Delay (d), s/veh	26.4	0.0	0.0	25.3	0.0	0.0	1.5	0.0	1.9	0.1	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.4
LnGrp Delay(d),s/veh	27.8	0.0	0.0	25.5	0.0	0.0	1.5	0.0	2.4	0.2	0.0	1.0
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		96			31			397			736	
Approach Delay, s/veh		27.8			25.5			2.3			1.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.6		9.4		50.6		9.4
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		5.6		5.6		5.6		3.0
Green Ext Time (p_c), s		8.3		0.6		8.3		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	4.1
HCM 2010 LOS	A



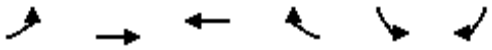
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	2	53	20	4	6	6	360	11	7	679	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.921			0.974			0.996			0.997	
Flt Protected		0.981			0.967			0.999				
Satd. Flow (prot)	0	1683	0	0	1754	0	0	1853	0	0	1857	0
Flt Permitted		0.981			0.967			0.999				
Satd. Flow (perm)	0	1683	0	0	1754	0	0	1853	0	0	1857	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		214			162			1115			681	
Travel Time (s)		4.9			3.7			21.7			13.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	96	31	397	736
Demand Flow Rate, veh/h	98	31	405	750
Vehicles Circulating, veh/h	757	432	48	31
Vehicles Exiting, veh/h	24	21	807	432
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.4	5.3	7.3	13.7
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	98	31	405	750
Cap Entry Lane, veh/h	530	734	1077	1095
Entry HV Adj Factor	0.979	0.997	0.981	0.981
Flow Entry, veh/h	96	31	397	736
Cap Entry, veh/h	519	732	1057	1075
V/C Ratio	0.185	0.042	0.376	0.685
Control Delay, s/veh	9.4	5.3	7.3	13.7
LOS	A	A	A	B
95th %tile Queue, veh	1	0	2	6



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	700	318	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.966	
Flt Protected	0.950				0.964	
Satd. Flow (prot)	1770	1863	1852	0	1735	0
Flt Permitted	0.950				0.964	
Satd. Flow (perm)	1770	1863	1852	0	1735	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

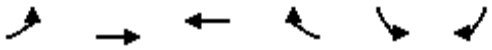
Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	38.8
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	700	0	318	14	0	14	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	737	0	335	15	0	15	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	52.1	12.2	9.7
HCM LOS	F	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	74%
Vol Thru, %	0%	100%	96%	0%
Vol Right, %	0%	0%	4%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	700	332	19
LT Vol	4	0	0	14
Through Vol	0	700	318	0
RT Vol	0	0	14	5
Lane Flow Rate	4	737	349	20
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.992	0.474	0.035
Departure Headway (Hd)	5.347	4.845	4.879	6.38
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	670	752	737	558
Service Time	3.073	2.571	2.907	4.454
HCM Lane V/C Ratio	0.006	0.98	0.474	0.036
HCM Control Delay	8.1	52.4	12.2	9.7
HCM Lane LOS	A	F	B	A
HCM 95th-tile Q	0	16.2	2.6	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	700	318	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.966	
Flt Protected	0.950				0.964	
Satd. Flow (prot)	1770	1863	1852	0	1735	0
Flt Permitted	0.950				0.964	
Satd. Flow (perm)	1770	1863	1852	0	1735	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

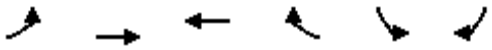
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	700	318	14	14	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	737	335	15	15	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	349	0	-	0	1087	342
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	745	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1210	-	-	-	239	701
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1210	-	-	-	238	701
Mov Cap-2 Maneuver	-	-	-	-	238	-
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	467	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1210	-	-	-	288
HCM Lane V/C Ratio	0.003	-	-	-	0.069
HCM Control Delay (s)	8	-	-	-	18.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	700	318	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.966	
Flt Protected	0.950				0.964	
Satd. Flow (prot)	1770	1863	1852	0	1735	0
Flt Permitted	0.950				0.964	
Satd. Flow (perm)	1770	1863	1852	0	1735	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Approach	EB	WB	SB
Entry Lanes	2	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	741	350	20
Demand Flow Rate, veh/h	756	357	20
Vehicles Circulating, veh/h	15	4	342
Vehicles Exiting, veh/h	347	767	19
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	13.2	6.4	4.7
Approach LOS	B	A	A

Lane	Left	Right	Left	Left
Designated Moves	L	TR	TR	LR
Assumed Moves	L	TR	TR	LR
RT Channelized				
Lane Util	0.005	0.995	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	4	752	357	20
Cap Entry Lane, veh/h	1113	1113	1125	803
Entry HV Adj Factor	1.000	0.980	0.981	1.000
Flow Entry, veh/h	4	737	350	20
Cap Entry, veh/h	1113	1091	1104	803
V/C Ratio	0.004	0.676	0.317	0.025
Control Delay, s/veh	3.3	13.3	6.4	4.7
LOS	A	B	A	A
95th %tile Queue, veh	0	6	1	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	548	125	36	276	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.998			0.945			0.973	
Flt Protected	0.950			0.950				0.973			0.971	
Satd. Flow (prot)	1770	1811	0	1770	1859	0	0	1713	0	0	1760	0
Flt Permitted	0.950			0.950				0.973			0.971	
Satd. Flow (perm)	1770	1811	0	1770	1859	0	0	1713	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	37.9
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	548	125	0	36	276	3	0	55	3	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	577	132	0	38	291	3	0	58	3	42
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	54	12.3	10.8
HCM LOS	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	56%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	81%	0%	99%	20%
Vol Right, %	41%	0%	19%	0%	1%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	3	673	36	279	5
LT Vol	55	3	0	36	0	3
Through Vol	3	0	548	0	276	1
RT Vol	40	0	125	0	3	1
Lane Flow Rate	103	3	708	38	294	5
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.182	0.005	0.993	0.064	0.446	0.01
Departure Headway (Hd)	6.344	5.679	5.045	6.078	5.575	6.81
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	569	624	708	592	649	528
Service Time	4.345	3.469	2.834	3.789	3.275	4.819
HCM Lane V/C Ratio	0.181	0.005	1	0.064	0.453	0.009
HCM Control Delay	10.8	8.5	54.2	9.2	12.7	9.9
HCM Lane LOS	B	A	F	A	B	A
HCM 95th-tile Q	0.7	0	15.9	0.2	2.3	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.9
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	548	125	36	276	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.998			0.945			0.973	
Flt Protected	0.950			0.950				0.973			0.971	
Satd. Flow (prot)	1770	1811	0	1770	1859	0	0	1713	0	0	1760	0
Flt Permitted	0.544			0.191				0.867			0.926	
Satd. Flow (perm)	1013	1811	0	356	1859	0	0	1526	0	0	1678	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			1			42			1	
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0		26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%		43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 34 (57%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 20: Morales Wy. & Masters Dr.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	548	125	36	276	3	55	3	40	3	1	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	577	132	38	291	3	58	3	42	3	1	1
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	559	734	168	250	920	9	379	41	225	406	135	111
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1081	1468	336	737	1840	19	778	113	613	844	369	303
Grp Volume(v), veh/h	3	0	709	38	0	294	103	0	0	5	0	0
Grp Sat Flow(s),veh/h/ln	1081	0	1803	737	0	1859	1504	0	0	1516	0	0
Q Serve(g_s), s	0.1	0.0	19.4	2.7	0.0	5.6	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	19.4	22.1	0.0	5.6	2.5	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.01	0.56		0.41	0.60		0.20
Lane Grp Cap(c), veh/h	559	0	902	250	0	930	645	0	0	652	0	0
V/C Ratio(X)	0.01	0.00	0.79	0.15	0.00	0.32	0.16	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	559	0	902	250	0	930	645	0	0	652	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.6	0.0	12.4	21.5	0.0	8.9	12.8	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.9	1.3	0.0	0.9	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	11.2	0.6	0.0	3.1	1.2	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	10.6	0.0	19.2	22.8	0.0	9.8	13.3	0.0	0.0	12.1	0.0	0.0
LnGrp LOS	B		B	C		A	B			B		
Approach Vol, veh/h		712			332			103			5	
Approach Delay, s/veh		19.2			11.3			13.3			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		21.4		2.1		24.1		4.5
Green Ext Time (p_c), s		4.3		0.5		3.2		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

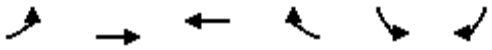
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	548	125	36	276	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.999			0.945			0.973	
Flt Protected					0.994			0.973			0.971	
Satd. Flow (prot)	0	1816	0	0	1850	0	0	1713	0	0	1760	0
Flt Permitted					0.994			0.973			0.971	
Satd. Flow (perm)	0	1816	0	0	1850	0	0	1713	0	0	1760	0
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	712	332	103	5
Demand Flow Rate, veh/h	727	339	105	5
Vehicles Circulating, veh/h	43	65	595	395
Vehicles Exiting, veh/h	357	635	175	9
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	13.4	6.7	7.9	4.8
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	727	339	105	5
Cap Entry Lane, veh/h	1082	1059	623	761
Entry HV Adj Factor	0.980	0.980	0.980	0.996
Flow Entry, veh/h	712	332	103	5
Cap Entry, veh/h	1061	1038	611	758
V/C Ratio	0.672	0.320	0.168	0.007
Control Delay, s/veh	13.4	6.7	7.9	4.8
LOS	B	A	A	A
95th %tile Queue, veh	5	1	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	370	409	66	39	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.979			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	2111	3465	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	2111	3465	0	1770	1583
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	370	409	66	39	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	389	431	69	41	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	500	0	-	0	882	250
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	417	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1060	-	-	-	301	751
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1060	-	-	-	297	751
Mov Cap-2 Maneuver	-	-	-	-	297	-
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1060	-	-	-	297	751
HCM Lane V/C Ratio	0.013	-	-	-	0.138	0.018
HCM Control Delay (s)	8.4	-	-	-	19.1	9.9
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0.1

APPENDIX 7.3:

2035 CONDITIONS
WITH MCMILLAN TRUST PROPERTY DEVELOPMENT
TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

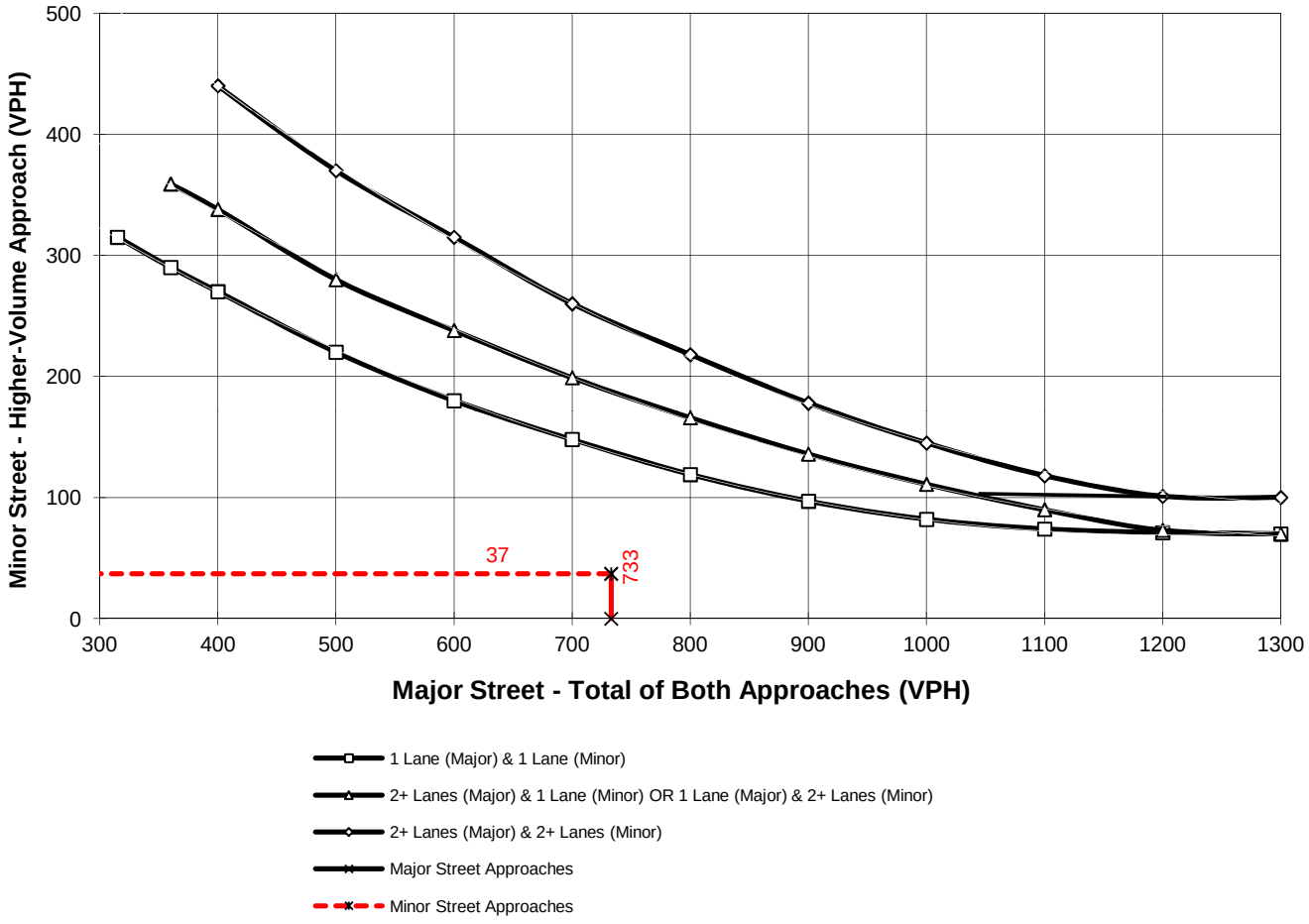
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP With McMillan Trust Property Development - AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **733**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.** High Volume Approach (VPH) = **37**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

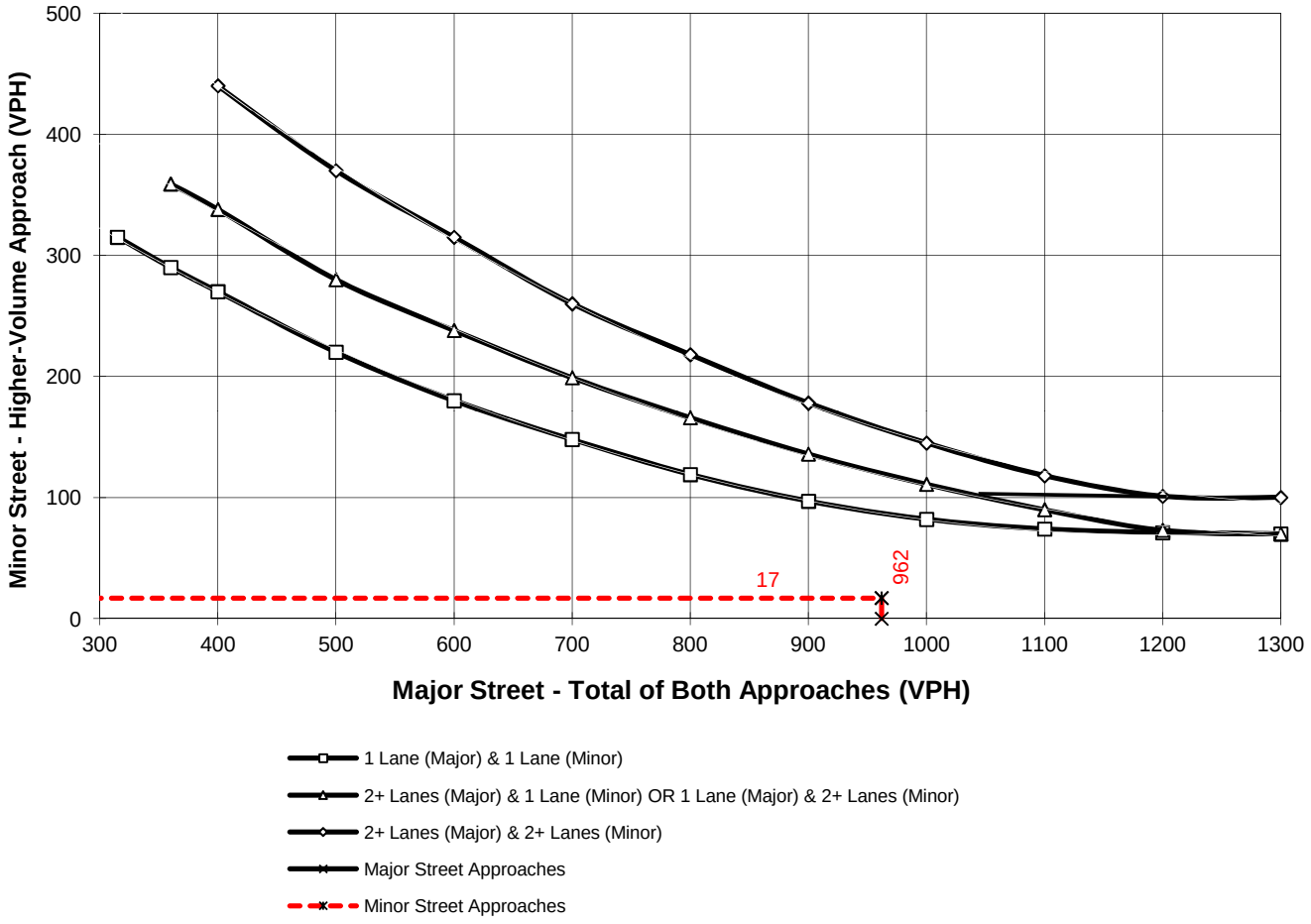
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035NP With McMillan Trust Property Development - PM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **962**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.** High Volume Approach (VPH) = **17**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

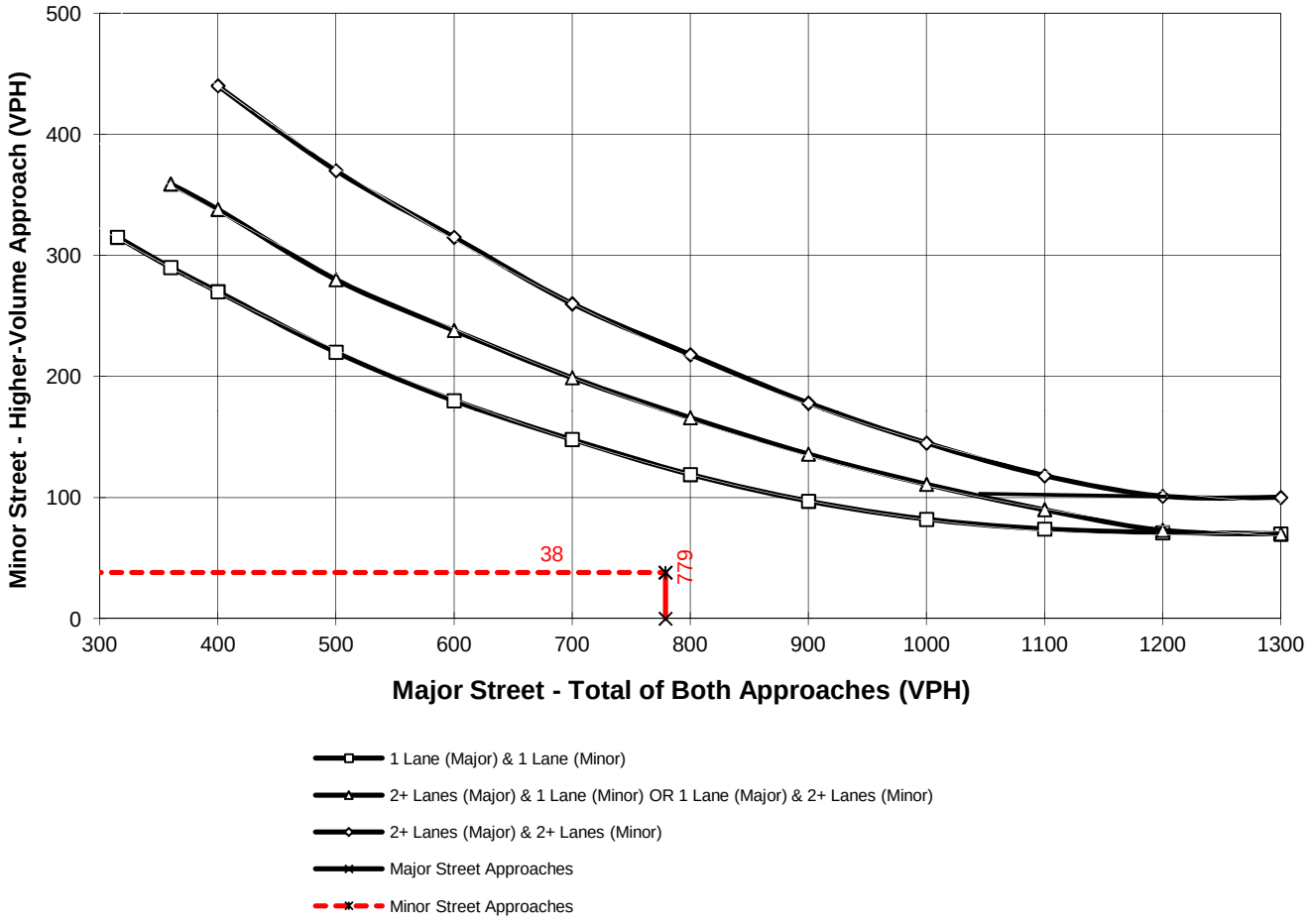
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035WP With McMillan Trust Property Development - AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **779**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.** High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

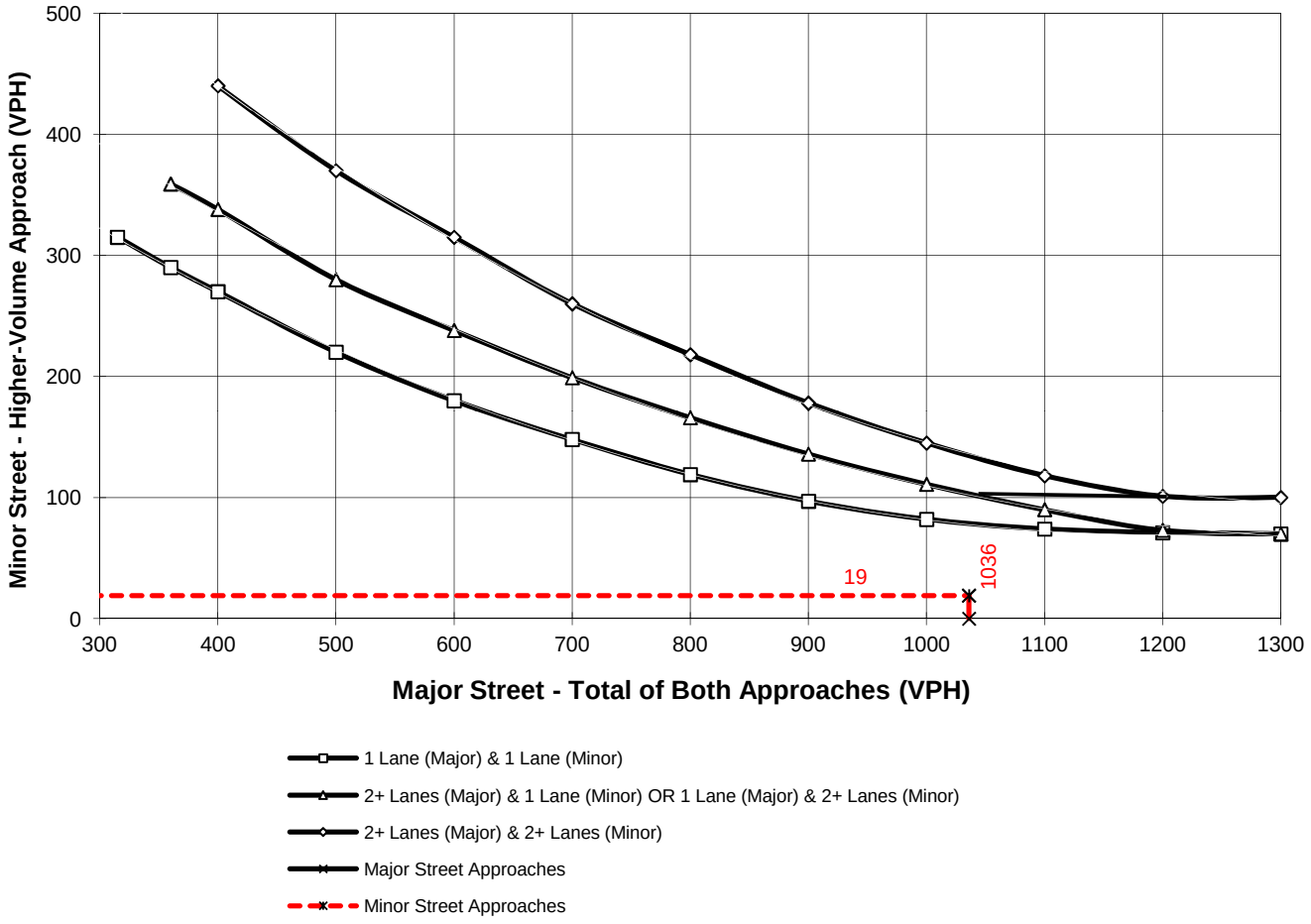
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2035WP With McMillan Trust Property Development - PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **1,036**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **19**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2035NP w/ McMillan
				CALC JC	DATE 06/25/15
Jurisdiction: City of Corona				CHK	DATE
Major Street: Eagle Glen Pkwy.				Critical Approach Speed (Major)	45 mph
Minor Street: St. "C"				Critical Approach Speed (Minor)	35 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **9,150** vpd Minor Street Future ADT = **1,450** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 + **9,150**	1 **1,450**	9,600	6,720 *	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	12,000	8,400	1,200	850
2 + **9,150**	1 **1,450**	14,400	10,080	1,200	850 *
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A / B				
	86% / 91%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 7.4:

2035 WITHOUT PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT FREEWAY RAMP MERGE AND DIVERGE ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerrito Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off; L_{up} = ft; V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	1500
Freeway Volume, V_F	7639
Ramp Volume, V_R	770
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off; L_{down} = 2500 ft; V_D = 732 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7639	0.92	Level	6	0	0.971	1.00	8552
Ramp	770	0.92	Level	6	0	0.971	1.00	862
UpStream								
DownStream	732	0.92	Level	6	0	0.971	1.00	820

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.507 using Equation (Exhibit 13-7)

V_{12} = 4757 pc/h

V_3 or V_{av34} 3795 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 5852 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8552	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7690	Exhibit 13-8	7050	Yes
V_R	862	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4757	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 41.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.506 (Exhibit 13-12)

S_R = 53.4 mph (Exhibit 13-12)

S_0 = 64.7 mph (Exhibit 13-12)

S = 56.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 631 veh/h
	Freeway Volume, V_F: 6869	
	Ramp Volume, V_R: 732	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6869	0.92	Level	6	0	0.971	1.00	7690
Ramp	732	0.92	Level	6	0	0.971	1.00	820
UpStream								
DownStream	631	0.92	Level	6	0	0.971	1.00	706

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 5389.31 (Equation 13-6 or 13-7)

P_{FM} = 0.629 using Equation (Exhibit 13-6)

V_{12} = 4840 pc/h

V_3 or V_{av34} 2850 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 4990 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8510	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5810	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 49.2 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.608 (Exibit 13-11)

S_R= 28.0 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 33.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{up} = 2300 ft
V_u = 732 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	2
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	7601
Ramp Volume, V_R	631
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7601	0.92	Level	6	0	0.971	1.00	8510
Ramp	631	0.92	Level	6	0	0.971	1.00	706
UpStream	732	0.92	Level	6	0	0.971	1.00	820
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.450 using Equation (Exhibit 13-7)
V_{12} = 4218 pc/h
V_3 or V_{av34} 4292 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 5810 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8510	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7804	Exhibit 13-8	7050	Yes
V_R	706	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4218	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 46.1 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.492 (Exhibit 13-12)
S_R= 53.7 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.8 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 631 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 6970	
	Ramp Volume, V_R: 403	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6970	0.92	Level	6	0	0.971	1.00	7803
Ramp	403	0.92	Level	6	0	0.971	1.00	451
UpStream	631	0.92	Level	6	0	0.971	1.00	706
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1372.16 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 4594 pc/h

V_3 or V_{av34} 3209 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 5103 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8254	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5554	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 46.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.300 (Exibit 13-11)

S_R= 35.1 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 40.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 664 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9935	
	Ramp Volume, V_R: 939	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9935	0.92	Level	6	0	0.971	1.00	11123
Ramp	939	0.92	Level	6	0	0.971	1.00	1051
UpStream	664	0.92	Level	6	0	0.971	1.00	743
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2299.84 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 6610 pc/h

V_3 or V_{av34} 4513 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8423 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12174	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9474	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 75.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 51.045 (Exibit 13-11)

S_R= -1109.0 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 307.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	10599
Ramp Volume, V_R	664
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 939 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10599	0.92	Level	6	0	0.971	1.00	11866
Ramp	664	0.92	Level	6	0	0.971	1.00	743
UpStream								
DownStream	939	0.92	Level	6	0	0.971	1.00	1051

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.429 using Equation (Exhibit 13-7)
V_{12} = 5517 pc/h
V_3 or V_{av34} 6349 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9166 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11866	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11123	Exhibit 13-8	7050	Yes
V_R	743	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5517	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 81.3 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.495 (Exhibit 13-12)
S_R= 53.6 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 55.8 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 446 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9467	
	Ramp Volume, V_R: 1132	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9467	0.92	Level	6	0	0.971	1.00	10599
Ramp	1132	0.92	Level	6	0	0.971	1.00	1267
UpStream	446	0.92	Level	6	0	0.971	1.00	499
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6240 pc/h

V_3 or V_{av34} = 4359 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 7899 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11866	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9166	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 73.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 37.602 (Exibit 13-11)

S_R = -799.8 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 323.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 200 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 1132 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9021	
	Ramp Volume, V_R: 446	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9021	0.92	Level	6	0	0.971	1.00	10100
Ramp	446	0.92	Level	6	0	0.971	1.00	499
UpStream	1132	0.92	Level	6	0	0.971	1.00	1267
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 5946 pc/h

V_3 or V_{av34} 4154 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7400 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10599	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7899	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 64.3 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 10.802 (Exibit 13-11)

S_R= -183.4 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 2080.5 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off; L_{up} = ft; V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	9367
Ramp Volume, V_R	346
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off; L_{down} = 2000 ft; V_D = 446 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9367	0.92	Level	6	0	0.971	1.00	10487
Ramp	346	0.92	Level	6	0	0.971	1.00	387
UpStream								
DownStream	446	0.92	Level	6	0	0.971	1.00	499

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.480 using Equation (Exhibit 13-7)

V_{12} = 5235 pc/h

V_3 or V_{av34} 5252 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 7787 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10487	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	10100	Exhibit 13-8	7050	Yes
V_R	387	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5235	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 69.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.463 (Exhibit 13-12)

S_R = 54.4 mph (Exhibit 13-12)

S_0 = 64.7 mph (Exhibit 13-12)

S = 56.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	1500
Freeway Volume, V_F	8919
Ramp Volume, V_R	686
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2500 ft
V_D = 1022 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8919	0.92	Level	6	0	0.971	1.00	9985
Ramp	686	0.92	Level	6	0	0.971	1.00	768
UpStream								
DownStream	1022	0.92	Level	6	0	0.971	1.00	1144

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.475 using Equation (Exhibit 13-7)
V_{12} = 5147 pc/h
V_3 or V_{av34} 4838 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 7285 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	9985	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9217	Exhibit 13-8	7050	Yes
V_R	768	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5147	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 53.4 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.497 (Exhibit 13-12)
S_R= 53.6 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 1026 veh/h
	Freeway Volume, V_F: 8233	
	Ramp Volume, V_R: 1022	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8233	0.92	Level	6	0	0.971	1.00	9217
Ramp	1022	0.92	Level	6	0	0.971	1.00	1144
UpStream								
DownStream	1026	0.92	Level	6	0	0.971	1.00	1149

Merge Areas | **Diverge Areas**

Estimation of v_{12}

Merge Areas

$V_{12} = V_F (P_{FM})$

L_{EQ} = 8770.99 (Equation 13-6 or 13-7)

P_{FM} = 0.680 using Equation (Exhibit 13-6)

V_{12} = 6267 pc/h

V_3 or V_{av34} 2950 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 6517 pc/h (Equation 13-16, 13-18, or 13-19)

Diverge Areas

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

Merge Areas

	Actual	Capacity		LOS F?
V_{FO}	10361	Exhibit 13-8		Yes

Diverge Areas

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7661	Exhibit 13-8	4600:All	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

Merge Areas

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 63.5 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Diverge Areas

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

Merge Areas

M_S = 8.590 (Exibit 13-11)

S_R= -132.6 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp: ☑ Yes ☑ On ☐ No ☐ Off; L_{up} = 2300 ft; V_u = 1022 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	2
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	9255
Ramp Volume, V_R	1026
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp: ☐ Yes ☐ On ☑ No ☐ Off; L_{down} = ft; V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9255	0.92	Level	6	0	0.971	1.00	10362
Ramp	1026	0.92	Level	6	0	0.971	1.00	1149
UpStream	1022	0.92	Level	6	0	0.971	1.00	1144
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.450 using Equation (Exhibit 13-7)

V_{12} = 5295 pc/h

V_3 or V_{av34} 5067 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7662 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10362	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9213	Exhibit 13-8	7050	Yes
V_R	1149	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5295	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 62.0 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.531 (Exhibit 13-12)

S_R= 52.8 mph (Exhibit 13-12)

S_0= 64.7 mph (Exhibit 13-12)

S = 55.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 1026 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 8229	
	Ramp Volume, V_R: 652	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8229	0.92	Level	6	0	0.971	1.00	9213
Ramp	652	0.92	Level	6	0	0.971	1.00	730
UpStream	1026	0.92	Level	6	0	0.971	1.00	1149
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1733.60 (Equation 13-6 or 13-7)

P_{FM} = 0.580 using Equation (Exhibit 13-6)

V_{12} = 5345 pc/h

V_3 or V_{av34} 3868 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 6513 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	9943	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7243	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 59.1 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 5.746 (Exibit 13-11)

S_R= -67.2 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 532 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10188	
	Ramp Volume, V_R: 586	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10188	0.92	Level	6	0	0.971	1.00	11406
Ramp	586	0.92	Level	6	0	0.971	1.00	656
UpStream	532	0.92	Level	6	0	0.971	1.00	596
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2275.87 (Equation 13-6 or 13-7)

P_{FM} = 0.594 using Equation (Exhibit 13-6)

V_{12} = 6779 pc/h

V_3 or V_{av34} 4627 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 8706 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12062	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9362	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 74.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 45.666 (Exibit 13-11)

S_R= -985.3 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 312.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	10720
Ramp Volume, V_R	532
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 586 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10720	0.92	Level	6	0	0.971	1.00	12002
Ramp	532	0.92	Level	6	0	0.971	1.00	596
UpStream								
DownStream	586	0.92	Level	6	0	0.971	1.00	656

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.433 using Equation (Exhibit 13-7)
V_{12} = 5529 pc/h
V_3 or V_{av34} 6473 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9302 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12002	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11406	Exhibit 13-8	7050	Yes
V_R	596	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5529	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 82.4 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.482 (Exhibit 13-12)
S_R= 53.9 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 313 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10213	
	Ramp Volume, V_R: 507	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10213	0.92	Level	6	0	0.971	1.00	11434
Ramp	507	0.92	Level	6	0	0.971	1.00	568
UpStream	313	0.92	Level	6	0	0.971	1.00	350
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6731 pc/h

V_3 or V_{av34} 4703 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8734 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12002	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9302	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 75.3 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 43.037 (Exibit 13-11)

S_R= -924.8 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 315.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 507 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9900	
	Ramp Volume, V_R: 313	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9900	0.92	Level	6	0	0.971	1.00	11084
Ramp	313	0.92	Level	6	0	0.971	1.00	350
UpStream	507	0.92	Level	6	0	0.971	1.00	568
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6525 pc/h

V_3 or V_{av34} 4559 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8384 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11434	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8734	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 70.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 24.514 (Exibit 13-11)

S_R= -498.8 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 373.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035NP w/ McMillan Trust

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	3	Downstream Adj Ramp	
☐ Yes	☐ On	Ramp Number of Lanes, N	1	☑ Yes	☑ On
☑ No	☐ Off	Acceleration Lane Length, L_A		☐ No	☐ Off
L_{up} =	ft	Deceleration Lane Length L_D	200	L_{down} =	2000 ft
V_u =	veh/h	Freeway Volume, V_F	10626	V_D =	313 veh/h
		Ramp Volume, V_R	726		
		Freeway Free-Flow Speed, S_{FF}	65.0		
		Ramp Free-Flow Speed, S_{FR}	35.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10626	0.92	Level	6	0	0.971	1.00	11896
Ramp	726	0.92	Level	6	0	0.971	1.00	813
UpStream								
DownStream	313	0.92	Level	6	0	0.971	1.00	350

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R = mph (Exhibit 13-11)

S_0 = mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.425 using Equation (Exhibit 13-7)

V_{12} = 5526 pc/h

V_3 or V_{av34} 6370 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 9196 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	11896	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11083	Exhibit 13-8	7050	Yes
V_R	813	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5526	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 81.5 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.501 (Exhibit 13-12)

S_R = 53.5 mph (Exhibit 13-12)

S_0 = 64.7 mph (Exhibit 13-12)

S = 55.7 mph (Exhibit 13-13)

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APPENDIX 7.5:

2035 WITH MODIFIED PROJECT, WITH MCMILLAN TRUST PROPERTY DEVELOPMENT FREEWAY RAMP MERGE AND DIVERGE ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerrito Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	1500
Freeway Volume, V_F	7785
Ramp Volume, V_R	770
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2500 ft
V_D = 732 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7785	0.92	Level	6	0	0.971	1.00	8716
Ramp	770	0.92	Level	6	0	0.971	1.00	862
UpStream								
DownStream	732	0.92	Level	6	0	0.971	1.00	820

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R = mph (Exhibit 13-11)
S_0 = mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.502 using Equation (Exhibit 13-7)
V_{12} = 4808 pc/h
V_3 or V_{av34} 3908 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes, V_{12a} = 6016 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8716	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7854	Exhibit 13-8	7050	Yes
V_R	862	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4808	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 42.5 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.506 (Exhibit 13-12)
S_R = 53.4 mph (Exhibit 13-12)
S_0 = 64.7 mph (Exhibit 13-12)
S = 56.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 777 veh/h
	Freeway Volume, V_F: 7015	
	Ramp Volume, V_R: 732	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7015	0.92	Level	6	0	0.971	1.00	7854
Ramp	732	0.92	Level	6	0	0.971	1.00	820
UpStream								
DownStream	777	0.92	Level	6	0	0.971	1.00	870

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 6641.22 (Equation 13-6 or 13-7)

P_{FM} = 0.648 using Equation (Exhibit 13-6)

V_{12} = 5090 pc/h

V_3 or V_{av34} = 2764 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 5154 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8674	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5974	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 50.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.840 (Exibit 13-11)

S_R = 22.7 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 27.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{up} = 2300 ft
V_u = 732 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	2
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	7747
Ramp Volume, V_R	777
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7747	0.92	Level	6	0	0.971	1.00	8673
Ramp	777	0.92	Level	6	0	0.971	1.00	870
UpStream	732	0.92	Level	6	0	0.971	1.00	820
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.450 using Equation (Exhibit 13-7)
V_{12} = 4381 pc/h
V_3 or V_{av34} 4292 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 5973 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8673	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	7803	Exhibit 13-8	7050	Yes
V_R	870	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4381	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 47.5 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.506 (Exhibit 13-12)
S_R= 53.4 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 777 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 6970	
	Ramp Volume, V_R: 560	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6970	0.92	Level	6	0	0.971	1.00	7803
Ramp	560	0.92	Level	6	0	0.971	1.00	627
UpStream	777	0.92	Level	6	0	0.971	1.00	870
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1409.82 (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 4594 pc/h

V_3 or V_{av34} 3209 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 5103 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	8430	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5730	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 47.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.494 (Exibit 13-11)

S_R= 30.6 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 35.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 664 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10356	
	Ramp Volume, V_R: 939	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10356	0.92	Level	6	0	0.971	1.00	11594
Ramp	939	0.92	Level	6	0	0.971	1.00	1051
UpStream	664	0.92	Level	6	0	0.971	1.00	743
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2400.63 (Equation 13-6 or 13-7)

P_{FM} = 0.588 using Equation (Exhibit 13-6)

V_{12} = 6814 pc/h

V_3 or V_{av34} 4780 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8894 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12645	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9945	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 78.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 81.585 (Exibit 13-11)

S_R= -1811.5 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 296.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	11020
Ramp Volume, V_R	664
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 939 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	11020	0.92	Level	6	0	0.971	1.00	12338
Ramp	664	0.92	Level	6	0	0.971	1.00	743
UpStream								
DownStream	939	0.92	Level	6	0	0.971	1.00	1051

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.417 using Equation (Exhibit 13-7)
V_{12} = 5582 pc/h
V_3 or V_{av34} 6756 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9638 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12338	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11595	Exhibit 13-8	7050	Yes
V_R	743	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5582	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 85.3 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.495 (Exhibit 13-12)
S_R= 53.6 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 55.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 867 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9888	
	Ramp Volume, V_R: 1132	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9888	0.92	Level	6	0	0.971	1.00	11070
Ramp	1132	0.92	Level	6	0	0.971	1.00	1267
UpStream	867	0.92	Level	6	0	0.971	1.00	971
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6517 pc/h

V_3 or V_{av34} = 4553 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 8370 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12337	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9637	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 77.6 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 60.046 (Exibit 13-11)

S_R = -1316.1 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 302.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} = pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 200 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 1132 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9021	
	Ramp Volume, V_R: 867	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9021	0.92	Level	6	0	0.971	1.00	10100
Ramp	867	0.92	Level	6	0	0.971	1.00	971
UpStream	1132	0.92	Level	6	0	0.971	1.00	1267
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 5946 pc/h

V_3 or V_{av34} 4154 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7400 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11071	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8371	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 67.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 17.141 (Exibit 13-11)

S_R= -329.2 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 487.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	9428
Ramp Volume, V_R	407
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 867 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9428	0.92	Level	6	0	0.971	1.00	10555
Ramp	407	0.92	Level	6	0	0.971	1.00	456
UpStream								
DownStream	867	0.92	Level	6	0	0.971	1.00	971

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.475 using Equation (Exhibit 13-7)
V_{12} = 5255 pc/h
V_3 or V_{av34} 5300 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 7855 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10555	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	10099	Exhibit 13-8	7050	Yes
V_R	456	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5255	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 70.0 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.469 (Exhibit 13-12)
S_R= 54.2 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.6 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	1500
Freeway Volume, V_F	9388
Ramp Volume, V_R	686
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2500 ft
V_D = 1022 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9388	0.92	Level	6	0	0.971	1.00	10510
Ramp	686	0.92	Level	6	0	0.971	1.00	768
UpStream								
DownStream	1022	0.92	Level	6	0	0.971	1.00	1144

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$
L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$
D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.462 using Equation (Exhibit 13-7)
V_{12} = 5268 pc/h
V_3 or V_{av34} 5242 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 7810 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10510	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9742	Exhibit 13-8	7050	Yes
V_R	768	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5268	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$
D_R = 57.9 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.497 (Exhibit 13-12)
S_R= 53.6 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☐ Yes ☐ On	Freeway Number of Lanes, N: 3	☑ Yes ☐ On
☑ No ☐ Off	Ramp Number of Lanes, N: 1	☐ No ☑ Off
L_{up} = ft	Acceleration Lane Length, L_A: 200	L_{down} = 2300 ft
V_u = veh/h	Deceleration Lane Length L_D	V_D = 1495 veh/h
	Freeway Volume, V_F: 8702	
	Ramp Volume, V_R: 1022	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8702	0.92	Level	6	0	0.971	1.00	9742
Ramp	1022	0.92	Level	6	0	0.971	1.00	1144
UpStream								
DownStream	1495	0.92	Level	6	0	0.971	1.00	1674

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 12778.63 (Equation 13-6 or 13-7)

P_{FM} = 0.740 using Equation (Exhibit 13-6)

V_{12} = 7209 pc/h

V_3 or V_{av34} 2533 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 7209 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10886	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	8353	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 68.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 16.854 (Exibit 13-11)

S_R= -322.6 mph (Exhibit 13-11)

S_0= 57.1 mph (Exhibit 13-11)

S = 588.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{up} = 2300 ft
V_u = 1022 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	2
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	9724
Ramp Volume, V_R	1495
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9724	0.92	Level	6	0	0.971	1.00	10887
Ramp	1495	0.92	Level	6	0	0.971	1.00	1674
UpStream	1022	0.92	Level	6	0	0.971	1.00	1144
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.450 using Equation (Exhibit 13-7)
V_{12} = 5820 pc/h
V_3 or V_{av34} 5067 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 8187 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	10887	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	9213	Exhibit 13-8	7050	Yes
V_R	1674	Exhibit 13-10	4000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5820	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 66.6 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.579 (Exhibit 13-12)
S_R= 51.7 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 54.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1600 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 1495 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 8229	
	Ramp Volume, V_R: 779	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	8229	0.92	Level	6	0	0.971	1.00	9213
Ramp	779	0.92	Level	6	0	0.971	1.00	872
UpStream	1495	0.92	Level	6	0	0.971	1.00	1674
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1763.99 (Equation 13-6 or 13-7)

P_{FM} = 0.578 using Equation (Exhibit 13-6)

V_{12} = 5327 pc/h

V_3 or V_{av34} 3886 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 6513 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	10085	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	7385	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 60.2 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 6.578 (Exibit 13-11)

S_R= -86.3 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	El Cerrito On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☐ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☑ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 2300 ft	Acceleration Lane Length, L_A: 600	L_{down} = ft
V_u = 532 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10483	
	Ramp Volume, V_R: 586	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10483	0.92	Level	6	0	0.971	1.00	11736
Ramp	586	0.92	Level	6	0	0.971	1.00	656
UpStream	532	0.92	Level	6	0	0.971	1.00	596
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 2346.49 (Equation 13-6 or 13-7)

P_{FM} = 0.591 using Equation (Exhibit 13-6)

V_{12} = 6938 pc/h

V_3 or V_{av34} 4798 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 9036 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12392	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9692	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 77.0 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 63.411 (Exibit 13-11)

S_R= -1393.4 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 300.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	El Cerritos Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	11015
Ramp Volume, V_R	532
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2300 ft
V_D = 586 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	11015	0.92	Level	6	0	0.971	1.00	12332
Ramp	532	0.92	Level	6	0	0.971	1.00	596
UpStream								
DownStream	586	0.92	Level	6	0	0.971	1.00	656

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.424 using Equation (Exhibit 13-7)
V_{12} = 5575 pc/h
V_3 or V_{av34} 6757 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9632 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12332	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11736	Exhibit 13-8	7050	Yes
V_R	596	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5575	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 85.3 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.482 (Exhibit 13-12)
S_R= 53.9 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 56.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description: Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 608 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 10508	
	Ramp Volume, V_R: 507	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10508	0.92	Level	6	0	0.971	1.00	11764
Ramp	507	0.92	Level	6	0	0.971	1.00	568
UpStream	608	0.92	Level	6	0	0.971	1.00	681
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6925 pc/h

V_3 or V_{av34} = 4839 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 9064 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	12332	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9632	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 77.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 59.748 (Exibit 13-11)

S_R = -1309.2 mph (Exhibit 13-11)

S_0 = 56.1 mph (Exhibit 13-11)

S = 302.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} = pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R = mph (Exhibit 13-12)

S_0 = mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cajalco Loop On-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp		Downstream Adj Ramp
☑ Yes ☑ On	Freeway Number of Lanes, N: 3	☐ Yes ☐ On
☐ No ☐ Off	Ramp Number of Lanes, N: 1	☑ No ☐ Off
L_{up} = 1900 ft	Acceleration Lane Length, L_A: 400	L_{down} = ft
V_u = 507 veh/h	Deceleration Lane Length L_D:	V_D = veh/h
	Freeway Volume, V_F: 9900	
	Ramp Volume, V_R: 608	
	Freeway Free-Flow Speed, S_{FF}: 65.0	
	Ramp Free-Flow Speed, S_{FR}: 35.0	

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	9900	0.92	Level	6	0	0.971	1.00	11084
Ramp	608	0.92	Level	6	0	0.971	1.00	681
UpStream	507	0.92	Level	6	0	0.971	1.00	568
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.589 using Equation (Exhibit 13-6)

V_{12} = 6525 pc/h

V_3 or V_{av34} 4559 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 8384 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	11765	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	9065	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 73.4 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 34.017 (Exibit 13-11)

S_R= -717.4 mph (Exhibit 13-11)

S_0= 56.1 mph (Exhibit 13-11)

S = 331.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	JC	Freeway/Dir of Travel	I-15 Northbound
Agency or Company	Urban Crossroad, Inc.	Junction	Cajalco Rd. Off-Ramp
Date Performed	07/17/14	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035WP (1806DU) w/ McMillan

Project Description Arantine Hills Modified Project Traffic Study (JN:09260)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	200
Freeway Volume, V_F	10820
Ramp Volume, V_R	920
Freeway Free-Flow Speed, S_{FF}	65.0
Ramp Free-Flow Speed, S_{FR}	35.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 2000 ft
V_D = 608 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	10820	0.92	Level	6	0	0.971	1.00	12114
Ramp	920	0.92	Level	6	0	0.971	1.00	1030
UpStream								
DownStream	608	0.92	Level	6	0	0.971	1.00	681

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.410 using Equation (Exhibit 13-7)
V_{12} = 5572 pc/h
V_3 or V_{av34} 6542 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 9414 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	12114	Exhibit 13-8	7050	Yes
$V_{FO} = V_F - V_R$	11084	Exhibit 13-8	7050	Yes
V_R	1030	Exhibit 13-10	2000	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	5572	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 83.4 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.521 (Exhibit 13-12)
S_R= 53.0 mph (Exhibit 13-12)
S_0= 64.7 mph (Exhibit 13-12)
S = 55.2 mph (Exhibit 13-13)

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APPENDIX 8.1:

INTERIM YEAR WITH PROJECT BUILDOUT, INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	151	66	117	83	154	86	247	251	185	123	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	38.4
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	151	66	0	117	83	154	0	86	247	251
Peak Hour Factor	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	174	76	0	134	95	177	0	99	284	289
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	27.4	16.9	64.6
HCM LOS	D	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	50%	0%	70%	0%	100%	0%	0%	98%
Vol Right, %	0%	50%	0%	30%	0%	0%	100%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	498	4	217	117	83	154	185	126
LT Vol	86	0	4	0	117	0	0	185	0
Through Vol	0	247	0	151	0	83	0	0	123
RT Vol	0	251	0	66	0	0	154	0	3
Lane Flow Rate	99	572	5	249	134	95	177	213	145
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.256	1	0.013	0.646	0.363	0.244	0.418	0.572	0.369
Departure Headway (Hd)	9.311	8.433	10.026	9.319	9.705	9.206	8.508	9.686	9.17
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	385	429	357	387	371	390	423	372	392
Service Time	7.088	6.21	7.782	7.074	7.458	6.959	6.261	7.445	6.929
HCM Lane V/C Ratio	0.257	1.333	0.014	0.643	0.361	0.244	0.418	0.573	0.37
HCM Control Delay	15.3	73.1	12.9	27.7	17.9	14.9	17.3	24.7	17.2
HCM Lane LOS	C	F	B	D	C	B	C	C	C
HCM 95th-tile Q	1	12.6	0	4.4	1.6	0.9	2	3.4	1.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	185	123	3
Peak Hour Factor	0.95	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	213	141	3
Number of Lanes	0	1	1	0

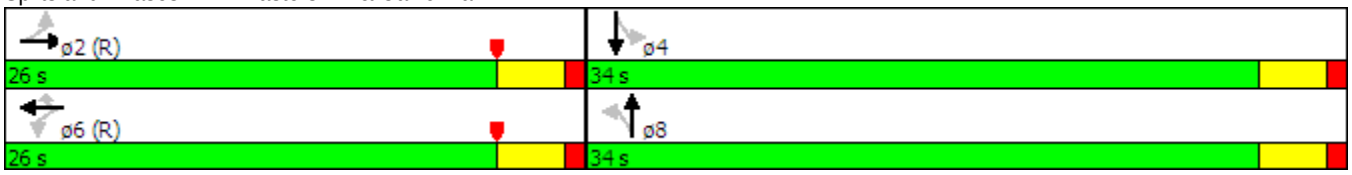
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	21.7
HCM LOS	C

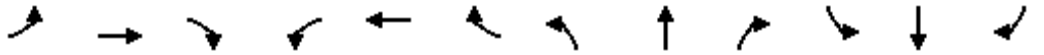
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	151	66	117	83	154	86	247	251	185	123	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: Masters Dr. & California Av.

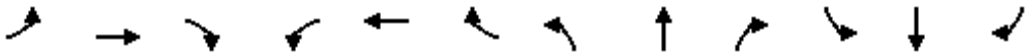




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	151	66	117	83	154	86	247	251	185	123	3
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	5	174	76	134	95	177	99	284	289	213	141	3
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	487	451	197	415	683	581	687	424	431	275	909	19
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.17	0.17	0.17	0.50	0.50	0.50
Sat Flow, veh/h	1103	1230	537	1125	1863	1583	1239	848	863	836	1817	39
Grp Volume(v), veh/h	5	0	250	134	95	177	99	0	573	213	0	144
Grp Sat Flow(s),veh/h/ln	1103	0	1768	1125	1863	1583	1239	0	1711	836	0	1856
Q Serve(g_s), s	0.2	0.0	6.3	6.0	2.0	4.8	4.2	0.0	18.9	11.1	0.0	2.5
Cycle Q Clear(g_c), s	2.2	0.0	6.3	12.2	2.0	4.8	6.7	0.0	18.9	30.0	0.0	2.5
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.50	1.00		0.02
Lane Grp Cap(c), veh/h	487	0	648	415	683	581	687	0	855	275	0	928
V/C Ratio(X)	0.01	0.00	0.39	0.32	0.14	0.30	0.14	0.00	0.67	0.77	0.00	0.16
Avail Cap(c_a), veh/h	487	0	648	415	683	581	687	0	855	275	0	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.84	0.00	0.84	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	14.0	18.5	12.7	13.5	16.4	0.0	20.4	25.9	0.0	8.1
Incr Delay (d2), s/veh	0.0	0.0	1.7	2.1	0.4	1.4	0.4	0.0	3.5	18.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	0.0	3.4	2.1	1.1	2.3	1.5	0.0	9.8	4.9	0.0	1.4
LnGrp Delay(d),s/veh	13.5	0.0	15.7	20.6	13.1	14.9	16.8	0.0	23.9	44.9	0.0	8.5
LnGrp LOS	B		B	C	B	B	B		C	D		A
Approach Vol, veh/h		255			406			672			357	
Approach Delay, s/veh		15.7			16.4			22.9			30.2	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		22.0		30.0		22.0		30.0
Max Q Clear Time (g_c+I1), s		8.3		32.0		14.2		20.9
Green Ext Time (p_c), s		2.6		0.0		1.9		4.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	8	31	12	2	31	6	155	14	23	158	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	43	8	31	0	12	2	31	0	6	155	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	45	8	33	0	13	2	33	0	6	163	15
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.5	8	9.3
HCM LOS	A	A	A

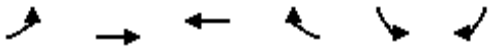
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	52%	27%	100%	0%
Vol Thru, %	0%	92%	10%	4%	0%	93%
Vol Right, %	0%	8%	38%	69%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	169	82	45	23	169
LT Vol	6	0	43	12	23	0
Through Vol	0	155	8	2	0	158
RT Vol	0	14	31	31	0	11
Lane Flow Rate	6	178	86	47	24	178
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.01	0.246	0.115	0.061	0.037	0.246
Departure Headway (Hd)	5.539	4.978	4.81	4.629	5.519	4.971
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	646	720	744	772	649	722
Service Time	3.271	2.71	2.847	2.669	3.251	2.702
HCM Lane V/C Ratio	0.009	0.247	0.116	0.061	0.037	0.247
HCM Control Delay	8.3	9.3	8.5	8	8.5	9.3
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	1	0.4	0.2	0.1	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	158	11
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	24	166	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.2
HCM LOS	A

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	46	618	358	132	145	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	46	618	0	358	132	0	145	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	651	0	377	139	0	153	20
Number of Lanes	0	1	2	0	2	0	0	1	1

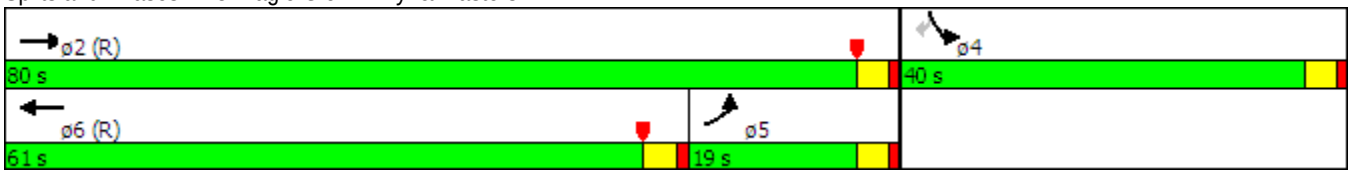
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	14.5	15	14.7
HCM LOS	B	B	B

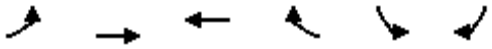
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	47%	0%	0%
Vol Right, %	0%	0%	0%	0%	53%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	46	309	309	239	251	145	19
LT Vol	46	0	0	0	0	145	0
Through Vol	0	309	309	239	119	0	0
RT Vol	0	0	0	0	132	0	19
Lane Flow Rate	48	325	325	251	265	153	20
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.095	0.591	0.433	0.47	0.467	0.347	0.039
Departure Headway (Hd)	7.052	6.546	4.788	6.729	6.356	8.184	6.966
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	506	550	745	533	564	437	510
Service Time	4.831	4.323	2.564	4.509	4.136	5.984	4.765
HCM Lane V/C Ratio	0.095	0.591	0.436	0.471	0.47	0.35	0.039
HCM Control Delay	10.6	18.4	11.2	15.4	14.6	15.3	10.1
HCM Lane LOS	B	C	B	C	B	C	B
HCM 95th-tile Q	0.3	3.8	2.2	2.5	2.5	1.5	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	46	618	358	132	145	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	19.0	80.0	61.0		40.0	40.0
Total Split (%)	15.8%	66.7%	50.8%		33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	46	618	358	132	145	19
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	48	651	377	139	153	20
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	568	2933	1208	440	186	166
Arrive On Green	0.32	0.83	0.47	0.47	0.10	0.10
Sat Flow, veh/h	1774	3632	2637	925	1774	1583
Grp Volume(v), veh/h	48	651	261	255	153	20
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1699	1774	1583
Q Serve(g_s), s	2.3	4.6	10.9	11.1	10.1	1.4
Cycle Q Clear(g_c), s	2.3	4.6	10.9	11.1	10.1	1.4
Prop In Lane	1.00			0.54	1.00	1.00
Lane Grp Cap(c), veh/h	568	2933	841	807	186	166
V/C Ratio(X)	0.08	0.22	0.31	0.32	0.82	0.12
Avail Cap(c_a), veh/h	568	2933	841	807	532	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	2.2	19.4	19.5	52.6	48.7
Incr Delay (d2), s/veh	0.1	0.2	1.0	1.0	8.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	1.1	2.3	5.5	5.4	5.4	1.3
LnGrp Delay(d),s/veh	28.5	2.3	20.4	20.5	61.5	49.0
LnGrp LOS	C	A	C	C	E	D
Approach Vol, veh/h		699	516		173	
Approach Delay, s/veh		4.1	20.4		60.0	
Approach LOS		A	C		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		103.4		16.6	42.4	61.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		76.0		36.0	15.0	57.0		
Max Q Clear Time (g_c+I1), s		6.6		12.1	4.3	13.1		
Green Ext Time (p_c), s		4.7		0.5	3.1	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	826	108	102	735	374	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Right Turn on Red		Yes				Yes
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	53.0		20.0	73.0	47.0	47.0
Total Split (%)	44.2%		16.7%	60.8%	39.2%	39.2%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

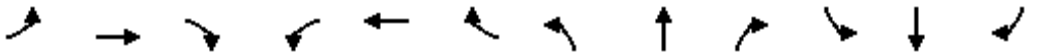
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	826	108	102	735	374	240
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	869	114	107	774	394	253
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1472	193	131	2035	636	567
Arrive On Green	0.47	0.47	0.15	1.00	0.36	0.36
Sat Flow, veh/h	3240	413	1774	3632	1774	1583
Grp Volume(v), veh/h	489	494	107	774	394	253
Grp Sat Flow(s),veh/h/ln	1770	1790	1774	1770	1774	1583
Q Serve(g_s), s	24.4	24.4	7.0	0.0	22.0	14.6
Cycle Q Clear(g_c), s	24.4	24.4	7.0	0.0	22.0	14.6
Prop In Lane		0.23	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	828	837	131	2035	636	567
V/C Ratio(X)	0.59	0.59	0.82	0.38	0.62	0.45
Avail Cap(c_a), veh/h	828	837	237	2035	636	567
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	23.5	23.5	50.3	0.0	31.8	29.4
Incr Delay (d2), s/veh	3.1	3.0	11.1	0.5	4.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	12.5	12.7	3.8	0.1	11.5	6.8
LnGrp Delay(d),s/veh	26.6	26.5	61.4	0.5	36.3	31.9
LnGrp LOS	C	C	E	A	D	C
Approach Vol, veh/h	983			881	647	
Approach Delay, s/veh	26.5			7.9	34.6	
Approach LOS	C			A	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.9	60.1				73.0		47.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	49.0				69.0		43.0
Max Q Clear Time (g_c+I1), s	9.0	26.4				2.0		24.0
Green Ext Time (p_c), s	0.1	12.0				17.5		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	3	33	2	1	1	18	231	6	5	105	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	86	3	33	0	2	1	1	0	18	231	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	91	3	35	0	2	1	1	0	19	243	6
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.3	8.8	10.3
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	97%	0%	50%	5%	0%
Vol Thru, %	0%	97%	3%	0%	25%	95%	0%
Vol Right, %	0%	3%	0%	100%	25%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	237	89	33	4	110	30
LT Vol	18	0	86	0	2	5	0
Through Vol	0	231	3	0	1	105	0
RT Vol	0	6	0	33	1	0	30
Lane Flow Rate	19	249	94	35	4	116	32
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.029	0.348	0.157	0.047	0.007	0.167	0.039
Departure Headway (Hd)	5.548	5.028	6.034	4.844	5.701	5.181	4.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	645	716	594	737	625	691	802
Service Time	3.281	2.761	3.777	2.587	3.758	2.918	2.191
HCM Lane V/C Ratio	0.029	0.348	0.158	0.047	0.006	0.168	0.04
HCM Control Delay	8.4	10.4	9.9	7.8	8.8	9	7.4
HCM Lane LOS	A	B	A	A	A	A	A
HCM 95th-tile Q	0.1	1.6	0.6	0.1	0	0.6	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	105	30
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	111	32
Number of Lanes	0	0	1	1

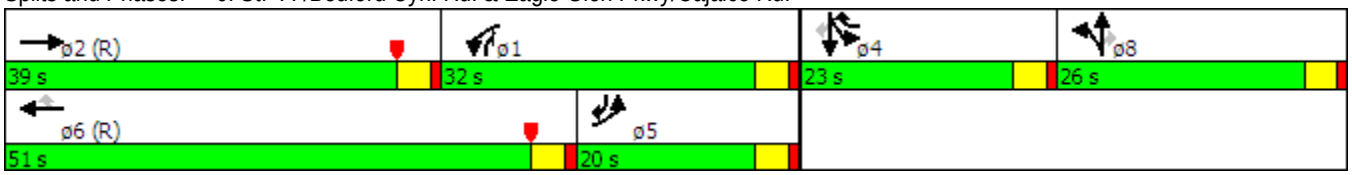
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.7
HCM LOS	A

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	88	660	15	189	334	213	13	66	485	157	29	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		100	200		200	150		0	450		0
Storage Lanes	1		1	2		1	1		1	1		1
Taper Length (ft)	100			120			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			727			413			651	
Travel Time (s)		14.1			11.0			6.3			9.9	
Confl. Peds. (#/hr)			5			5			5			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										41%		
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	4	8	8	1	4	4	5
Permitted Phases						6			8			4
Detector Phase	5	2		1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.0		8.0	23.0	23.0	26.0	26.0	8.0	23.0	23.0	8.0
Total Split (s)	20.0	39.0		32.0	51.0	23.0	26.0	26.0	32.0	23.0	23.0	20.0
Total Split (%)	16.7%	32.5%		26.7%	42.5%	19.2%	21.7%	21.7%	26.7%	19.2%	19.2%	16.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead				Lag			Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max		None	C-Max	Max	None	None	None	Max	Max	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	88	660	15	189	334	213	13	66	485	157	29	142
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	93	695	16	199	352	224	14	69	511	187	0	149
Adj No. of Lanes	1	2	0	2	2	1	1	1	1	2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	1031	24	1154	1386	868	145	152	657	562	0	621
Arrive On Green	0.24	0.29	0.29	0.11	0.13	0.13	0.08	0.08	0.08	0.16	0.00	0.16
Sat Flow, veh/h	1774	3536	81	3442	3539	1577	1774	1863	1554	3548	0	1568
Grp Volume(v), veh/h	93	348	363	199	352	224	14	69	511	187	0	149
Grp Sat Flow(s),veh/h/ln	1774	1770	1848	1721	1770	1577	1774	1863	1554	1774	0	1568
Q Serve(g_s), s	5.1	20.8	20.8	6.3	10.7	11.5	0.9	4.2	0.0	5.6	0.0	0.0
Cycle Q Clear(g_c), s	5.1	20.8	20.8	6.3	10.7	11.5	0.9	4.2	0.0	5.6	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	417	516	539	1154	1386	868	145	152	657	562	0	621
V/C Ratio(X)	0.22	0.67	0.67	0.17	0.25	0.26	0.10	0.45	0.78	0.33	0.00	0.24
Avail Cap(c_a), veh/h	417	516	539	1154	1386	868	325	342	816	562	0	621
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.0	37.5	37.5	38.3	36.5	21.1	51.0	52.6	30.1	44.9	0.0	24.4
Incr Delay (d2), s/veh	0.3	6.9	6.6	0.1	0.4	0.7	0.3	2.1	3.8	1.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	2.5	11.1	11.6	3.0	5.4	7.0	0.4	2.3	15.2	2.9	0.0	3.5
LnGrp Delay(d),s/veh	37.3	44.3	44.1	38.3	36.9	21.8	51.3	54.7	34.0	46.5	0.0	25.3
LnGrp LOS	D	D	D	D	D	C	D	D	C	D		C
Approach Vol, veh/h		804			775			594			336	
Approach Delay, s/veh		43.4			32.9			36.8			37.1	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	44.2	39.0		23.0	32.2	51.0		13.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	28.0	35.0		19.0	16.0	47.0		22.0
Max Q Clear Time (g_c+I1), s	8.3	22.8		7.6	7.1	13.5		6.2
Green Ext Time (p_c), s	1.1	2.2		1.1	0.8	2.5		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	773	293	147	579	0	0	0	0	111	4	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		66.0		25.0	91.0					29.0	29.0	29.0
Total Split (%)		55.0%		20.8%	75.8%					24.2%	24.2%	24.2%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	773	293	147	579	0	0	0	0	111	4	258
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	814	308	155	609	0				117	4	272
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1482	560	181	2566	0				358	12	330
Arrive On Green	0.00	1.00	1.00	0.20	1.00	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	2608	950	1774	3632	0				1718	59	1583
Grp Volume(v), veh/h	0	572	550	155	609	0				121	0	272
Grp Sat Flow(s),veh/h/ln	0	1770	1695	1774	1770	0				1777	0	1583
Q Serve(g_s), s	0.0	0.0	0.0	10.1	0.0	0.0				6.9	0.0	19.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.1	0.0	0.0				6.9	0.0	19.7
Prop In Lane	0.00		0.56	1.00		0.00				0.97		1.00
Lane Grp Cap(c), veh/h	0	1043	999	181	2566	0				370	0	330
V/C Ratio(X)	0.00	0.55	0.55	0.85	0.24	0.00				0.33	0.00	0.82
Avail Cap(c_a), veh/h	0	1043	999	310	2566	0				370	0	330
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	0.68	0.68	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	46.9	0.0	0.0				40.4	0.0	45.4
Incr Delay (d2), s/veh	0.0	1.6	1.7	7.7	0.1	0.0				2.3	0.0	20.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.5	0.5	5.3	0.1	0.0				3.6	0.0	10.5
LnGrp Delay(d),s/veh	0.0	1.6	1.7	54.6	0.1	0.0				42.7	0.0	65.8
LnGrp LOS		A	A	D	A					D		E
Approach Vol, veh/h		1122			764						393	
Approach Delay, s/veh		1.7			11.2						58.7	
Approach LOS		A			B						E	

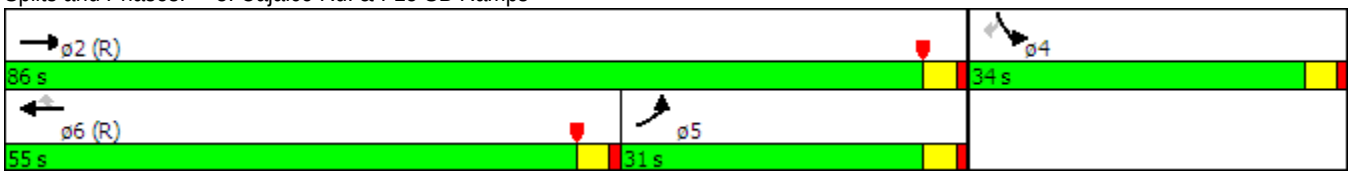
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	16.3	74.7		29.0		91.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	21.0	62.0		25.0		87.0		
Max Q Clear Time (g_c+I1), s	12.1	2.0		21.7		2.0		
Green Ext Time (p_c), s	0.2	16.6		0.5		17.3		

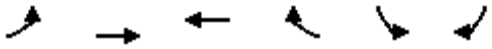
Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	286	1016	500	84	315	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	31.0	86.0	55.0	55.0	34.0	34.0
Total Split (%)	25.8%	71.7%	45.8%	45.8%	28.3%	28.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead	Lead		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 116 (97%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	286	1016	500	84	315	350
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	301	1069	526	88	332	368
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	399	1273	792	673	444	396
Arrive On Green	0.45	1.00	0.14	0.14	0.25	0.25
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	301	1069	526	88	332	368
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	16.9	0.0	32.1	5.8	20.7	27.3
Cycle Q Clear(g_c), s	16.9	0.0	32.1	5.8	20.7	27.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	399	1273	792	673	444	396
V/C Ratio(X)	0.75	0.84	0.66	0.13	0.75	0.93
Avail Cap(c_a), veh/h	399	1273	792	673	444	396
HCM Platoon Ratio	2.00	2.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.28	0.28	0.88	0.88	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	43.5	32.2	41.5	44.0
Incr Delay (d2), s/veh	2.3	2.0	3.9	0.4	11.0	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.5	0.7	17.5	2.6	11.5	24.7
LnGrp Delay(d),s/veh	32.6	2.0	47.3	32.5	52.5	74.5
LnGrp LOS	C	A	D	C	D	E
Approach Vol, veh/h		1370	614		700	
Approach Delay, s/veh		8.7	45.2		64.1	
Approach LOS		A	D		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		34.0	31.0	55.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		82.0		30.0	27.0	51.0		
Max Q Clear Time (g_c+I1), s		2.0		29.3	18.9	34.1		
Green Ext Time (p_c), s		8.8		0.3	4.3	2.3		

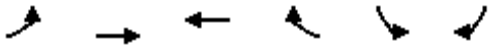
Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	286	1016	500	84	315	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	90				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		727	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	36.0	83.0	47.0	47.0	37.0	37.0
Total Split (%)	30.0%	69.2%	39.2%	39.2%	30.8%	30.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	286	1016	500	84	315	350
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	301	1069	526	88	332	368
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	377	3348	1825	816	976	766
Arrive On Green	0.22	1.00	0.52	0.52	0.28	0.28
Sat Flow, veh/h	3442	5253	3632	1583	3548	2787
Grp Volume(v), veh/h	301	1069	526	88	332	368
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1774	1393
Q Serve(g_s), s	9.9	0.0	10.1	3.4	9.0	13.2
Cycle Q Clear(g_c), s	9.9	0.0	10.1	3.4	9.0	13.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	377	3348	1825	816	976	766
V/C Ratio(X)	0.80	0.32	0.29	0.11	0.34	0.48
Avail Cap(c_a), veh/h	918	3348	1825	816	976	766
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	0.0	16.5	14.9	34.8	36.3
Incr Delay (d2), s/veh	2.9	0.2	0.4	0.3	0.9	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	4.8	0.1	5.1	1.6	4.5	10.8
LnGrp Delay(d),s/veh	48.5	0.2	16.9	15.2	35.7	38.5
LnGrp LOS	D	A	B	B	D	D
Approach Vol, veh/h		1370	614		700	
Approach Delay, s/veh		10.8	16.7		37.2	
Approach LOS		B	B		D	

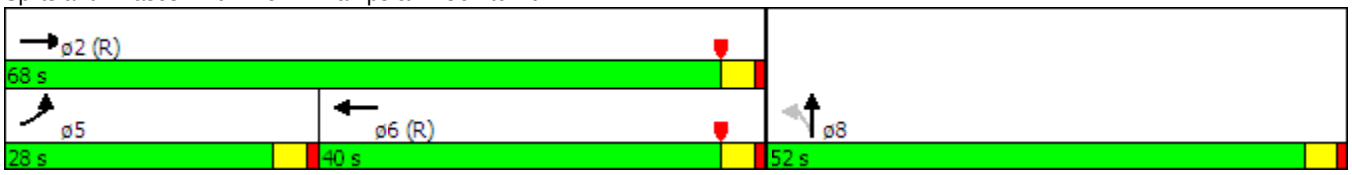
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		83.0		37.0	17.1	65.9		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		79.0		33.0	32.0	43.0		
Max Q Clear Time (g_c+I1), s		2.0		15.2	11.9	12.1		
Green Ext Time (p_c), s		10.4		3.1	1.2	9.4		

Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	443	441	0	0	445	314	281	1	185	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	28.0	68.0			40.0		52.0	52.0				
Total Split (%)	23.3%	56.7%			33.3%		43.3%	43.3%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 109 (91%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	443	441	0	0	445	314	281	1	185	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	466	464	0	0	468	331	296	1	195			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	531	993	0	0	686	484	408	1	268			
Arrive On Green	0.26	0.89	0.00	0.00	0.35	0.35	0.40	0.40	0.40			
Sat Flow, veh/h	3442	1863	0	0	2079	1399	1019	3	671			
Grp Volume(v), veh/h	466	464	0	0	417	382	492	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1616	1693	0	0			
Q Serve(g_s), s	15.6	5.6	0.0	0.0	24.2	24.3	29.5	0.0	0.0			
Cycle Q Clear(g_c), s	15.6	5.6	0.0	0.0	24.2	24.3	29.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.87	0.60		0.40			
Lane Grp Cap(c), veh/h	531	993	0	0	612	558	677	0	0			
V/C Ratio(X)	0.88	0.47	0.00	0.00	0.68	0.68	0.73	0.00	0.00			
Avail Cap(c_a), veh/h	688	993	0	0	612	558	677	0	0			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.79	0.79	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.4	3.4	0.0	0.0	33.6	33.7	30.4	0.0	0.0			
Incr Delay (d2), s/veh	8.2	1.2	0.0	0.0	6.0	6.7	6.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	7.9	2.9	0.0	0.0	12.8	11.9	15.1	0.0	0.0			
LnGrp Delay(d),s/veh	51.6	4.6	0.0	0.0	39.6	40.3	37.1	0.0	0.0			
LnGrp LOS	D	A			D	D	D					
Approach Vol, veh/h		930			799			492				
Approach Delay, s/veh		28.2			40.0			37.1				
Approach LOS		C			D			D				

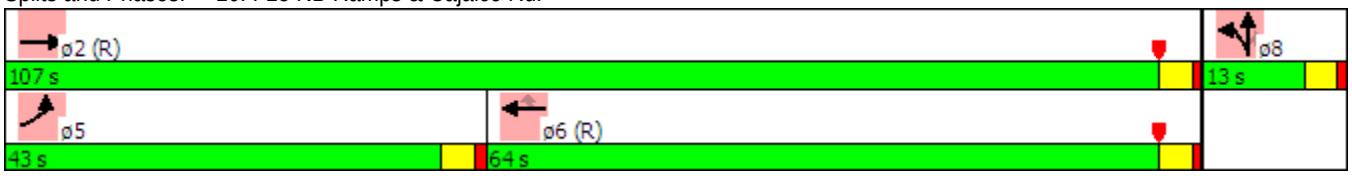
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		68.0			22.5	45.5		52.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		64.0			24.0	36.0		48.0
Max Q Clear Time (g_c+I1), s		7.6			17.6	26.3		31.5
Green Ext Time (p_c), s		9.6			0.9	5.0		2.7

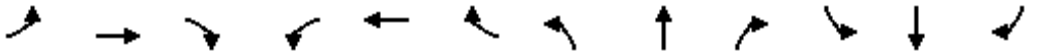
Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	790	541	0	0	419	1092	165	0	55	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	43.0	107.0			64.0	64.0	13.0	13.0	13.0			
Total Split (%)	35.8%	89.2%			53.3%	53.3%	10.8%	10.8%	10.8%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 104 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	790	541	0	0	419	1092	165	0	55	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	832	569	0	0	441	1149	174	0	58			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	577	1599	0	0	931	792	133	0	115			
Arrive On Green	0.54	1.00	0.00	0.00	0.50	0.50	0.08	0.00	0.08			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1774	0	1531			
Grp Volume(v), veh/h	832	569	0	0	441	1149	174	0	58			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1774	0	1531			
Q Serve(g_s), s	39.0	0.0	0.0	0.0	18.6	60.0	9.0	0.0	4.4			
Cycle Q Clear(g_c), s	39.0	0.0	0.0	0.0	18.6	60.0	9.0	0.0	4.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	577	1599	0	0	931	792	133	0	115			
V/C Ratio(X)	1.44	0.36	0.00	0.00	0.47	1.45	1.31	0.00	0.51			
Avail Cap(c_a), veh/h	577	1599	0	0	931	792	133	0	115			
HCM Platoon Ratio	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.47	0.47	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.4	0.0	0.0	0.0	19.7	30.0	55.5	0.0	53.4			
Incr Delay (d2), s/veh	204.0	0.3	0.0	0.0	1.7	210.2	182.2	0.0	15.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	51.4	0.1	0.0	0.0	10.0	72.2	11.1	0.0	2.3			
LnGrp Delay(d),s/veh	231.4	0.3	0.0	0.0	21.4	240.2	237.7	0.0	68.4			
LnGrp LOS	F	A			C	F	F		E			
Approach Vol, veh/h		1401			1590			232				
Approach Delay, s/veh		137.6			179.5			195.4				
Approach LOS		F			F			F				

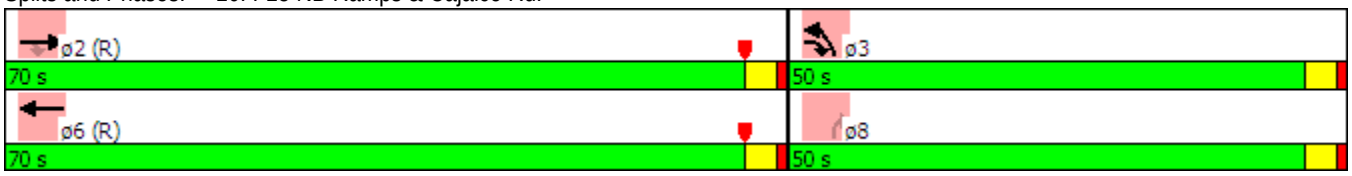
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		107.0			43.0	64.0		13.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		103.0			39.0	60.0		9.0
Max Q Clear Time (g_c+I1), s		2.0			41.0	62.0		11.0
Green Ext Time (p_c), s		16.5			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	162.4
HCM 2010 LOS	F

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	541	790	0	1511	165	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		180	
Right Turn on Red		Yes				Yes
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			227	332	
Travel Time (s)	4.4			3.4	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	70.0	50.0		70.0	50.0	50.0
Total Split (%)	58.3%	41.7%		58.3%	41.7%	41.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	541	790	0	1511	165	55
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	569	832	0	1591	174	58
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2797	1478	0	3524	1319	1068
Arrive On Green	0.55	0.55	0.00	0.55	0.38	0.38
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	569	832	0	1591	174	58
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	6.8	8.9	0.0	17.8	3.9	1.6
Cycle Q Clear(g_c), s	6.8	8.9	0.0	17.8	3.9	1.6
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2797	1478	0	3524	1319	1068
V/C Ratio(X)	0.20	0.56	0.00	0.45	0.13	0.05
Avail Cap(c_a), veh/h	2797	1478	0	3524	1319	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	0.6	0.0	16.2	24.0	23.3
Incr Delay (d2), s/veh	0.2	1.6	0.0	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	3.2	4.1	0.0	7.9	1.9	0.6
LnGrp Delay(d),s/veh	13.8	2.1	0.0	16.6	24.2	23.4
LnGrp LOS	B	A		B	C	C
Approach Vol, veh/h	1401			1591	232	
Approach Delay, s/veh	6.9			16.6	24.0	
Approach LOS	A			B	C	

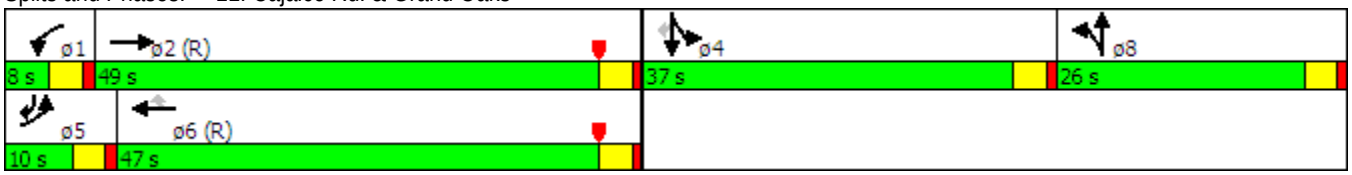
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		70.0				70.0		50.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		66.0				66.0		46.0
Max Q Clear Time (g_c+I1), s		10.9				19.8		5.9
Green Ext Time (p_c), s		29.5				26.9		1.0

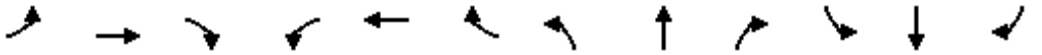
Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	430	0	0	1396	53	0	0	0	27	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			590			544			904	
Travel Time (s)		10.6			8.9			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	10.0	49.0		8.0	47.0	47.0	26.0	26.0		37.0	37.0	10.0
Total Split (%)	8.3%	40.8%		6.7%	39.2%	39.2%	21.7%	21.7%		30.8%	30.8%	8.3%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	

Splits and Phases: 11: Cajalco Rd. & Grand Oaks





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	166	430	0	0	1396	53	0	0	0	27	0	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	175	453	0	0	1469	56	0	0	0	28	0	117
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	2330	0	1	2035	908	0	2	0	488	0	899
Arrive On Green	0.05	0.66	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.28	0.00	0.28
Sat Flow, veh/h	3442	3632	0	1774	3539	1579	0	1863	0	1774	0	2761
Grp Volume(v), veh/h	175	453	0	0	1469	56	0	0	0	28	0	117
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1770	1579	0	1863	0	1774	0	1381
Q Serve(g_s), s	6.0	6.0	0.0	0.0	36.2	1.9	0.0	0.0	0.0	1.4	0.0	3.6
Cycle Q Clear(g_c), s	6.0	6.0	0.0	0.0	36.2	1.9	0.0	0.0	0.0	1.4	0.0	3.6
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	172	2330	0	1	2035	908	0	2	0	488	0	899
V/C Ratio(X)	1.02	0.19	0.00	0.00	0.72	0.06	0.00	0.00	0.00	0.06	0.00	0.13
Avail Cap(c_a), veh/h	172	2330	0	59	2035	908	0	342	0	488	0	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.0	8.0	0.0	0.0	18.5	11.2	0.0	0.0	0.0	32.0	0.0	28.5
Incr Delay (d2), s/veh	73.1	0.2	0.0	0.0	2.3	0.1	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.6	3.0	0.0	0.0	18.2	0.8	0.0	0.0	0.0	0.7	0.0	1.4
LnGrp Delay(d),s/veh	130.3	8.2	0.0	0.0	20.8	11.4	0.0	0.0	0.0	32.3	0.0	28.8
LnGrp LOS	F	A			C	B				C		C
Approach Vol, veh/h		628			1525			0			145	
Approach Delay, s/veh		42.2			20.4			0.0			29.5	
Approach LOS		D			C						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	83.0		37.0	10.0	73.0		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	45.0		33.0	6.0	43.0		22.0
Max Q Clear Time (g_c+I1), s	0.0	8.0		5.6	8.0	38.2		0.0
Green Ext Time (p_c), s	0.0	13.3		0.6	0.0	3.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	241	188	61	511	156	890	616	309	65	70	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		453			935			1167			432	
Travel Time (s)		6.9			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	10.0	30.0	30.0	14.0	34.0		50.0	40.0	40.0	36.0	26.0	
Total Split (%)	8.3%	25.0%	25.0%	11.7%	28.3%		41.7%	33.3%	33.3%	30.0%	21.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 106 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	28	241	188	61	511	156	890	616	309	65	70	48
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	29	254	198	64	538	164	937	648	325	68	74	51
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	614	519	82	1381	410	1058	1559	726	89	381	240
Arrive On Green	0.02	0.33	0.33	0.05	0.36	0.36	0.31	0.44	0.44	0.05	0.18	0.18
Sat Flow, veh/h	1774	1863	1576	1774	3889	1154	3442	3539	1647	1774	2078	1311
Grp Volume(v), veh/h	29	254	198	64	467	235	937	648	325	68	62	63
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1653	1721	1770	1647	1774	1770	1619
Q Serve(g_s), s	2.0	12.7	11.6	4.3	12.4	12.8	31.1	15.0	16.5	4.5	3.6	4.0
Cycle Q Clear(g_c), s	2.0	12.7	11.6	4.3	12.4	12.8	31.1	15.0	16.5	4.5	3.6	4.0
Prop In Lane	1.00		1.00	1.00		0.70	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	37	614	519	82	1204	587	1058	1559	726	89	324	297
V/C Ratio(X)	0.79	0.41	0.38	0.78	0.39	0.40	0.89	0.42	0.45	0.76	0.19	0.21
Avail Cap(c_a), veh/h	89	614	519	148	1204	587	1319	1559	726	473	324	297
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	31.2	30.9	56.6	28.9	29.1	39.5	23.0	23.4	56.3	41.5	41.6
Incr Delay (d2), s/veh	30.4	2.1	2.1	14.4	0.9	2.0	6.4	0.8	2.0	12.6	1.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.3	6.9	5.3	2.4	5.9	6.2	15.6	7.6	7.9	2.5	1.9	1.9
LnGrp Delay(d),s/veh	88.9	33.3	33.0	71.0	29.9	31.1	45.9	23.8	25.4	68.9	42.8	43.3
LnGrp LOS	F	C	C	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		481			766			1910			193	
Approach Delay, s/veh		36.5			33.7			34.9			52.1	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	43.5	40.9	26.0	6.5	46.6	10.0	56.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	26.0	46.0	22.0	6.0	30.0	32.0	36.0
Max Q Clear Time (g_c+I1), s	6.3	14.7	33.1	6.0	4.0	14.8	6.5	18.5
Green Ext Time (p_c), s	0.0	3.9	3.8	4.5	0.0	4.4	0.2	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	35.9
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	346	10	101	276	10	319
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	804	
Travel Time (s)	11.8			19.1	12.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

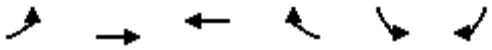
Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	346	10	101	276	10	319
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	200	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	364	11	106	291	11	336

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	375	0	872	187
Stage 1	-	-	-	-	369	-
Stage 2	-	-	-	-	503	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1180	-	305	824
Stage 1	-	-	-	-	670	-
Stage 2	-	-	-	-	606	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1180	-	278	824
Mov Cap-2 Maneuver	-	-	-	-	401	-
Stage 1	-	-	-	-	670	-
Stage 2	-	-	-	-	552	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	401	824	-	-	1180	-
HCM Lane V/C Ratio	0.026	0.408	-	-	0.09	-
HCM Control Delay (s)	14.2	12.3	-	-	8.4	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	2	-	-	0.3	-



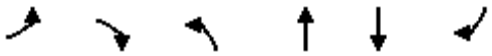
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	182	23	8	137	42	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45	45		45	
Link Distance (ft)		488	1258		582	
Travel Time (s)		7.4	19.1		8.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	5.1
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	216	152	106
Demand Flow Rate, veh/h	220	155	108
Vehicles Circulating, veh/h	45	196	8
Vehicles Exiting, veh/h	71	69	343
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.3	5.6	4.1
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	220	155	108
Cap Entry Lane, veh/h	1080	929	1121
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	216	152	106
Cap Entry, veh/h	1058	910	1100
V/C Ratio	0.204	0.167	0.096
Control Delay, s/veh	5.3	5.6	4.1
LOS	A	A	A
95th %tile Queue, veh	1	1	0



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	356	0	0	95	32	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	120		100			
Link Speed (mph)	45			45	45	
Link Distance (ft)	1283			519	309	
Travel Time (s)	19.4			7.9	4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	6.2
Intersection LOS	A

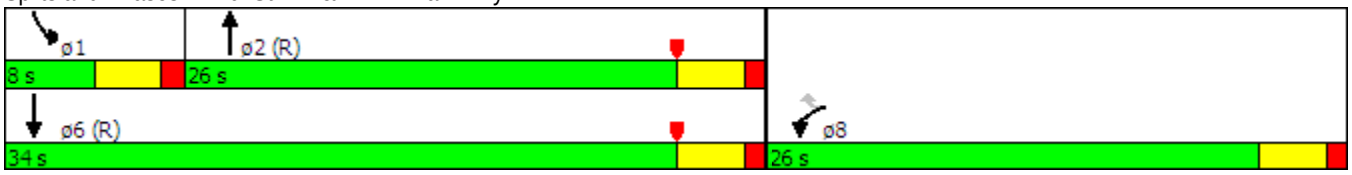
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	375	100	152
Demand Flow Rate, veh/h	382	102	155
Vehicles Circulating, veh/h	35	382	0
Vehicles Exiting, veh/h	120	35	484
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.9	6.1	4.4
Approach LOS	A	A	A

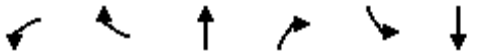
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	382	102	155
Cap Entry Lane, veh/h	1091	771	1130
Entry HV Adj Factor	0.982	0.980	0.983
Flow Entry, veh/h	375	100	152
Cap Entry, veh/h	1071	756	1110
V/C Ratio	0.350	0.132	0.137
Control Delay, s/veh	6.9	6.1	4.4
LOS	A	A	A
95th %tile Queue, veh	2	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	26	530	9	52	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				100	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	45		45			45
Link Distance (ft)	264		567			343
Travel Time (s)	4.0		8.6			5.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	26.0	26.0	26.0		8.0	26.0
Total Split (s)	26.0	26.0	26.0		8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%		13.3%	56.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 16: St. "A" & TAZ 4 Main Dwy.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	26	530	9	52	181
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	5	27	558	9	55	191
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	49	44	2611	42	71	2970
Arrive On Green	0.03	0.03	0.73	0.73	0.04	0.84
Sat Flow, veh/h	1774	1583	3658	57	1774	3632
Grp Volume(v), veh/h	5	27	277	290	55	191
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1853	1774	1770
Q Serve(g_s), s	0.2	1.0	3.0	3.0	1.8	0.6
Cycle Q Clear(g_c), s	0.2	1.0	3.0	3.0	1.8	0.6
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	49	44	1296	1357	71	2970
V/C Ratio(X)	0.10	0.62	0.21	0.21	0.77	0.06
Avail Cap(c_a), veh/h	650	581	1296	1357	118	2970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	28.9	2.5	2.5	28.5	0.8
Incr Delay (d2), s/veh	0.9	13.4	0.4	0.4	16.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	0.6	1.5	1.6	1.2	0.3
LnGrp Delay(d),s/veh	29.4	42.3	2.9	2.9	44.8	0.9
LnGrp LOS	C	D	A	A	D	A
Approach Vol, veh/h	32		567			246
Approach Delay, s/veh	40.3		2.9			10.7
Approach LOS	D		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.4	47.9				54.3		5.7
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	22.0				30.0		22.0
Max Q Clear Time (g_c+I1), s	3.8	5.0				2.6		3.0
Green Ext Time (p_c), s	0.0	3.9				4.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	2	92	447	4	45	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Link Speed (mph)	45		45			45
Link Distance (ft)	337		233			567
Travel Time (s)	5.1		3.5			8.6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

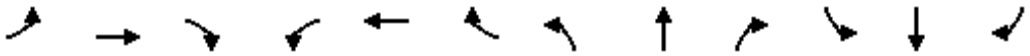
Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	92	447	4	45	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	97	471	4	47	148

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	642	237	0	0	475	0
Stage 1	473	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	407	764	-	-	1083	-
Stage 1	593	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	389	764	-	-	1083	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	593	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	749	1083	-
HCM Lane V/C Ratio	-	-	0.132	0.044	-
HCM Control Delay (s)	-	-	10.5	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	554	45	11	286	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	39
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	7	21	0	10	6	19	0	31	554	45
Peak Hour Factor	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	9	27	0	13	8	24	0	40	710	58
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10	10	54
HCM LOS	A	A	F

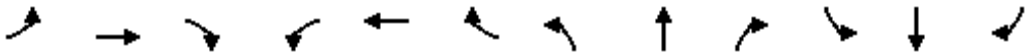
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	28%	29%	100%	0%
Vol Thru, %	0%	92%	18%	17%	0%	97%
Vol Right, %	0%	8%	54%	54%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	599	39	35	11	295
LT Vol	31	0	11	10	11	0
Through Vol	0	554	7	6	0	286
RT Vol	0	45	21	19	0	9
Lane Flow Rate	40	768	50	45	14	378
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.063	1	0.088	0.079	0.023	0.572
Departure Headway (Hd)	5.683	5.127	6.342	6.356	5.963	5.442
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	626	707	563	561	598	662
Service Time	3.457	2.9	4.408	4.424	3.719	3.199
HCM Lane V/C Ratio	0.064	1.086	0.089	0.08	0.023	0.571
HCM Control Delay	8.8	56.3	10	10	8.9	15.3
HCM Lane LOS	A	F	A	A	A	C
HCM 95th-tile Q	0.2	16.1	0.3	0.3	0.1	3.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	286	9
Peak Hour Factor	0.95	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	367	12
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	15.1
HCM LOS	C

Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	554	45	11	286	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

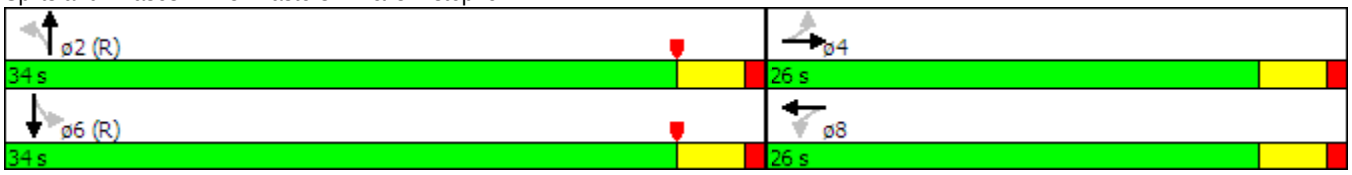
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	50	45	808	393
Demand Flow Rate, veh/h	51	45	824	400
Vehicles Circulating, veh/h	401	779	37	62
Vehicles Exiting, veh/h	61	82	415	762
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.6	8.1	16.8	7.4
Approach LOS	A	A	C	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	51	45	824	400
Cap Entry Lane, veh/h	757	518	1089	1062
Entry HV Adj Factor	0.977	0.997	0.980	0.982
Flow Entry, veh/h	50	45	808	393
Cap Entry, veh/h	739	517	1067	1043
V/C Ratio	0.067	0.087	0.757	0.377
Control Delay, s/veh	5.6	8.1	16.8	7.4
LOS	A	A	C	A
95th %tile Queue, veh	0	0	8	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	7	21	10	6	19	31	554	45	11	286	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

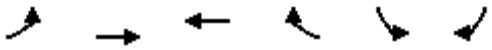
Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	7	21	10	6	19	31	554	45	11	286	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	9	27	13	8	24	40	710	58	14	367	12
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	18	48	101	19	48	825	1382	113	594	1459	48
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.81	0.81	0.81	0.54	0.54	0.54
Sat Flow, veh/h	427	342	903	439	347	899	1000	1699	139	697	1794	59
Grp Volume(v), veh/h	50	0	0	45	0	0	40	0	768	14	0	379
Grp Sat Flow(s),veh/h/ln	1672	0	0	1685	0	0	1000	0	1838	697	0	1852
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	8.0	0.7	0.0	6.5
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.4	0.0	0.0	7.2	0.0	8.0	8.7	0.0	6.5
Prop In Lane	0.28		0.54	0.29		0.53	1.00		0.08	1.00		0.03
Lane Grp Cap(c), veh/h	166	0	0	168	0	0	825	0	1495	594	0	1506
V/C Ratio(X)	0.30	0.00	0.00	0.27	0.00	0.00	0.05	0.00	0.51	0.02	0.00	0.25
Avail Cap(c_a), veh/h	654	0	0	654	0	0	825	0	1495	594	0	1506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.98	0.00	0.98
Uniform Delay (d), s/veh	27.6	0.0	0.0	27.6	0.0	0.0	2.7	0.0	1.8	6.8	0.0	4.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.9	0.0	0.0	0.1	0.0	1.3	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.9	0.0	0.0	0.8	0.0	0.0	0.2	0.0	4.4	0.1	0.0	3.5
LnGrp Delay(d),s/veh	28.6	0.0	0.0	28.4	0.0	0.0	2.8	0.0	3.1	6.8	0.0	4.4
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		50			45			808			393	
Approach Delay, s/veh		28.6			28.4			3.1			4.5	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		7.2		52.8		7.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		10.0		3.6		10.7		3.4
Green Ext Time (p_c), s		8.2		0.4		8.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	234	459	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

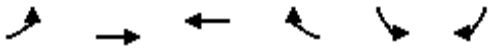
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	7	234	0	459	2	0	14	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	246	0	483	2	0	15	25
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	10.1	13.8	8.6
HCM LOS	B	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	37%
Vol Thru, %	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	234	461	38
LT Vol	7	0	0	14
Through Vol	0	234	459	0
RT Vol	0	0	2	24
Lane Flow Rate	7	246	485	40
Geometry Grp	7	7	5	2
Degree of Util (X)	0.011	0.34	0.596	0.059
Departure Headway (Hd)	5.478	4.975	4.425	5.27
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	655	724	815	678
Service Time	3.201	2.697	2.443	3.313
HCM Lane V/C Ratio	0.011	0.34	0.595	0.059
HCM Control Delay	8.3	10.2	13.8	8.6
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0	1.5	4	0.2



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	234	459	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

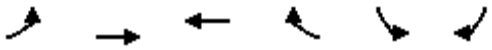
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	253	485	40
Demand Flow Rate, veh/h	258	495	41
Vehicles Circulating, veh/h	15	7	493
Vehicles Exiting, veh/h	518	266	9
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.4	8.0	6.0
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	258	495	41
Cap Entry Lane, veh/h	1113	1122	690
Entry HV Adj Factor	0.981	0.980	0.976
Flow Entry, veh/h	253	485	40
Cap Entry, veh/h	1092	1100	673
V/C Ratio	0.232	0.441	0.059
Control Delay, s/veh	5.4	8.0	6.0
LOS	A	A	A
95th %tile Queue, veh	1	2	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	7	234	459	2	14	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	7	234	459	2	14	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	246	483	2	15	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	485	0	-	0	745	484
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1078	-	-	-	382	583
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1078	-	-	-	380	583
Mov Cap-2 Maneuver	-	-	-	-	380	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	778	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1078	-	-	-	487
HCM Lane V/C Ratio	0.007	-	-	-	0.082
HCM Control Delay (s)	8.4	-	-	-	13.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	165	63	36	253	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	165	63	0	36	253	4	0	147	1	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	174	66	0	38	266	4	0	155	1	80
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	11.1	11.6	11.1
HCM LOS	B	B	B

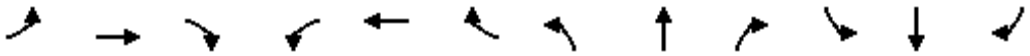
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	66%	100%	0%	100%	0%	45%
Vol Thru, %	0%	0%	72%	0%	98%	9%
Vol Right, %	34%	0%	28%	0%	2%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	224	3	228	36	257	11
LT Vol	147	3	0	36	0	5
Through Vol	1	0	165	0	253	1
RT Vol	76	0	63	0	4	5
Lane Flow Rate	236	3	240	38	271	12
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.343	0.005	0.355	0.063	0.408	0.018
Departure Headway (Hd)	5.239	6.032	5.331	5.947	5.431	5.653
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	679	587	667	597	655	637
Service Time	3.324	3.829	3.128	3.739	3.223	3.653
HCM Lane V/C Ratio	0.348	0.005	0.36	0.064	0.414	0.019
HCM Control Delay	11.1	8.9	11.1	9.1	12	8.8
HCM Lane LOS	B	A	B	A	B	A
HCM 95th-tile Q	1.5	0	1.6	0.2	2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	5	1	5
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	5	1	5
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.8
HCM LOS	A

Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	165	63	36	253	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	6.5
Intersection LOS	A

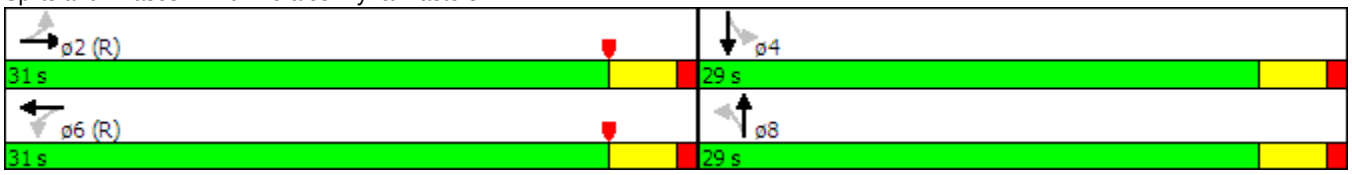
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	243	308	236	11
Demand Flow Rate, veh/h	247	314	241	11
Vehicles Circulating, veh/h	45	162	185	468
Vehicles Exiting, veh/h	434	264	107	8
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	7.3	6.5	5.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	247	314	241	11
Cap Entry Lane, veh/h	1080	961	939	708
Entry HV Adj Factor	0.982	0.980	0.979	0.998
Flow Entry, veh/h	243	308	236	11
Cap Entry, veh/h	1061	942	920	706
V/C Ratio	0.229	0.327	0.257	0.016
Control Delay, s/veh	5.5	7.3	6.5	5.3
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	165	63	36	253	4	147	1	76	5	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	31.0	31.0		31.0	31.0		29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%		51.7%	51.7%		48.3%	48.3%		48.3%	48.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

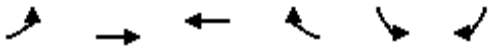
Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	165	63	36	253	4	147	1	76	5	1	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	174	66	38	266	4	155	1	80	5	1	5
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	514	580	220	533	824	12	483	23	208	349	90	293
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1105	1288	489	1135	1830	28	920	55	500	627	216	703
Grp Volume(v), veh/h	3	0	240	38	0	270	236	0	0	11	0	0
Grp Sat Flow(s),veh/h/ln	1105	0	1777	1135	0	1858	1474	0	0	1546	0	0
Q Serve(g_s), s	0.1	0.0	5.2	1.3	0.0	5.6	5.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	5.2	6.5	0.0	5.6	6.5	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.28	1.00		0.01	0.66		0.34	0.45		0.45
Lane Grp Cap(c), veh/h	514	0	799	533	0	836	714	0	0	731	0	0
V/C Ratio(X)	0.01	0.00	0.30	0.07	0.00	0.32	0.33	0.00	0.00	0.02	0.00	0.00
Avail Cap(c_a), veh/h	514	0	799	533	0	836	714	0	0	731	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.5	0.0	10.5	12.6	0.0	10.6	12.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.3	0.0	1.0	1.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	0.0	2.7	0.4	0.0	3.1	2.9	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	12.5	0.0	11.5	12.8	0.0	11.6	13.3	0.0	0.0	10.3	0.0	0.0
LnGrp LOS	B		B	B		B	B			B		
Approach Vol, veh/h		243			308			236			11	
Approach Delay, s/veh		11.5			11.8			13.3			10.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		31.0		29.0		31.0		29.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		27.0		25.0		27.0		25.0
Max Q Clear Time (g_c+I1), s		7.7		2.2		8.5		8.5
Green Ext Time (p_c), s		3.0		1.4		3.0		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	31	372	304	5	6	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

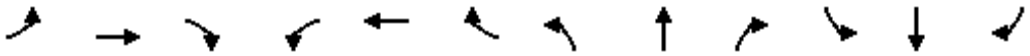
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	31	372	304	5	6	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	392	320	5	6	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	325	0	-	0	780	163
Stage 1	-	-	-	-	323	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1231	-	-	-	348	854
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	637	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1231	-	-	-	339	854
Mov Cap-2 Maneuver	-	-	-	-	339	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1231	-	-	-	339	854
HCM Lane V/C Ratio	0.027	-	-	-	0.019	0.047
HCM Control Delay (s)	8	-	-	-	15.8	9.4
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	86	318	227	94	27	67	77	139	31	120	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	23.2
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	86	318	0	227	94	27	0	67	77	139
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	91	335	0	239	99	28	0	71	81	146
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	3
HCM Control Delay	35.9	17.9	16.3
HCM LOS	E	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	36%	0%	21%	0%	100%	0%	0%	99%
Vol Right, %	0%	64%	0%	79%	0%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	216	3	404	227	94	27	31	121
LT Vol	67	0	3	0	227	0	0	31	0
Through Vol	0	77	0	86	0	94	0	0	120
RT Vol	0	139	0	318	0	0	27	0	1
Lane Flow Rate	71	227	3	425	239	99	28	33	127
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.168	0.481	0.007	0.832	0.55	0.214	0.056	0.083	0.304
Departure Headway (Hd)	8.683	7.61	8.124	7.047	8.289	7.876	7.058	9.119	8.599
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	415	471	438	510	432	458	503	395	420
Service Time	6.383	5.41	5.916	4.838	6.089	5.576	4.857	6.819	6.299
HCM Lane V/C Ratio	0.171	0.482	0.007	0.833	0.553	0.216	0.056	0.084	0.302
HCM Control Delay	13.1	17.3	11	36.1	20.9	12.7	10.3	12.6	15
HCM Lane LOS	B	C	B	E	C	B	B	B	B
HCM 95th-tile Q	0.6	2.6	0	8.3	3.2	0.8	0.2	0.3	1.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	31	120	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	126	1
Number of Lanes	0	1	1	0

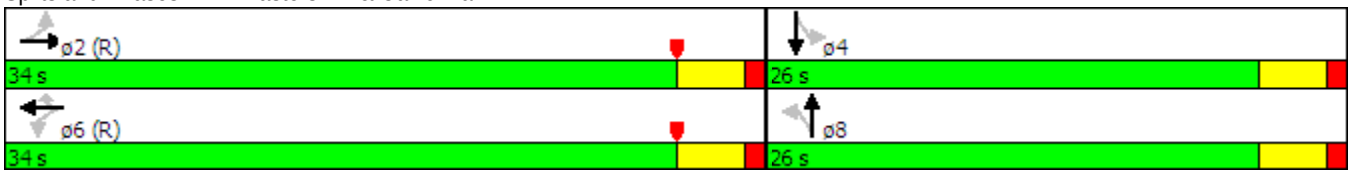
Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.5
HCM LOS	B

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	86	318	227	94	27	67	77	139	31	120	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	135		0	130		200	100		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	100			90			60			65		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		495			683			669			695	
Travel Time (s)		7.5			10.3			13.0			13.5	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Detector Phase	2	2		6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0	26.0	26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%	56.7%	43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 36 (60%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

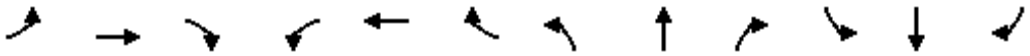
Splits and Phases: 1: Masters Dr. & California Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	86	318	227	94	27	67	77	139	31	120	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	3	99	366	261	108	31	77	89	160	36	138	1
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	704	174	644	398	931	792	513	219	394	408	677	5
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1245	348	1287	924	1863	1583	1245	598	1075	1126	1847	13
Grp Volume(v), veh/h	3	0	465	261	108	31	77	0	249	36	0	139
Grp Sat Flow(s),veh/h/ln	1245	0	1636	924	1863	1583	1245	0	1673	1126	0	1860
Q Serve(g_s), s	0.1	0.0	11.9	16.5	1.8	0.6	2.7	0.0	6.6	1.5	0.0	3.1
Cycle Q Clear(g_c), s	1.9	0.0	11.9	28.4	1.8	0.6	5.8	0.0	6.6	8.1	0.0	3.1
Prop In Lane	1.00		0.79	1.00		1.00	1.00		0.64	1.00		0.01
Lane Grp Cap(c), veh/h	704	0	818	398	931	792	513	0	613	408	0	682
V/C Ratio(X)	0.00	0.00	0.57	0.66	0.12	0.04	0.15	0.00	0.41	0.09	0.00	0.20
Avail Cap(c_a), veh/h	704	0	818	398	931	792	513	0	613	408	0	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.98	0.00	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.5	0.0	10.5	20.4	8.0	7.6	15.0	0.0	14.1	17.2	0.0	13.0
Incr Delay (d2), s/veh	0.0	0.0	2.9	8.2	0.3	0.1	0.6	0.0	1.9	0.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	0.0	5.9	5.1	1.0	0.3	1.0	0.0	3.4	0.5	0.0	1.7
LnGrp Delay(d),s/veh	8.5	0.0	13.3	28.6	8.2	7.7	15.6	0.0	16.1	17.6	0.0	13.7
LnGrp LOS	A		B	C	A	A	B		B	B		B
Approach Vol, veh/h		468			400			326			175	
Approach Delay, s/veh		13.3			21.5			16.0			14.5	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		13.9		10.1		30.4		8.6
Green Ext Time (p_c), s		4.6		2.1		0.0		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	6	31	14	13	28	28	201	20	19	397	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	110		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		537			564			945			616	
Travel Time (s)		10.5			11.0			18.4			12.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	15	6	31	0	14	13	28	0	28	201	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	6	33	0	15	14	29	0	29	212	21
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.1	9.1	10.4
HCM LOS	A	A	B

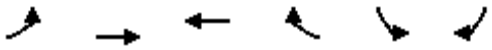
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	29%	25%	100%	0%
Vol Thru, %	0%	91%	12%	24%	0%	92%
Vol Right, %	0%	9%	60%	51%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	221	52	55	19	431
LT Vol	28	0	15	14	19	0
Through Vol	0	201	6	13	0	397
RT Vol	0	20	31	28	0	34
Lane Flow Rate	29	233	55	58	20	454
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.047	0.335	0.083	0.089	0.031	0.632
Departure Headway (Hd)	5.752	5.185	5.465	5.504	5.575	5.016
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	620	689	649	645	640	717
Service Time	3.516	2.948	3.551	3.588	3.329	2.771
HCM Lane V/C Ratio	0.047	0.338	0.085	0.09	0.031	0.633
HCM Control Delay	8.8	10.6	9.1	9.1	8.5	16.1
HCM Lane LOS	A	B	A	A	A	C
HCM 95th-tile Q	0.1	1.5	0.3	0.3	0.1	4.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	19	397	34
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	20	418	36
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	15.8
HCM LOS	C

Lane



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	35	404	587	217	330	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	37.8
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	35	404	0	587	217	0	330	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	37	425	0	618	228	0	347	49
Number of Lanes	0	1	2	0	2	0	0	1	1

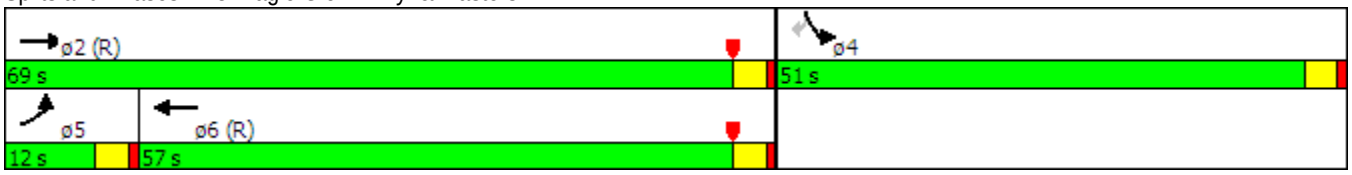
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	16.5	46.9	43.4
HCM LOS	C	E	E

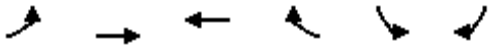
Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	47%	0%	0%
Vol Right, %	0%	0%	0%	0%	53%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	202	202	391	413	330	47
LT Vol	35	0	0	0	0	330	0
Through Vol	0	202	202	391	196	0	0
RT Vol	0	0	0	0	217	0	47
Lane Flow Rate	37	213	213	412	434	347	49
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.092	0.503	0.398	0.892	0.895	0.865	0.106
Departure Headway (Hd)	9.038	8.522	6.731	7.798	7.418	8.96	7.736
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	396	423	532	465	487	403	462
Service Time	6.809	6.292	4.501	5.567	5.186	6.731	5.506
HCM Lane V/C Ratio	0.093	0.504	0.4	0.886	0.891	0.861	0.106
HCM Control Delay	12.7	19.7	13.9	47.5	46.3	48	11.4
HCM Lane LOS	B	C	B	E	E	E	B
HCM 95th-tile Q	0.3	2.7	1.9	9.7	9.9	8.5	0.4

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	35	404	587	217	330	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200			0	130	0
Storage Lanes	1			0	1	1
Taper Length (ft)	120				60	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		35	
Link Distance (ft)		1259	417		945	
Travel Time (s)		19.1	6.3		18.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	26.0	26.0		26.0	26.0
Total Split (s)	12.0	69.0	57.0		51.0	51.0
Total Split (%)	10.0%	57.5%	47.5%		42.5%	42.5%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 36 (30%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 3: Eagle Glen Pkwy. & Masters Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	35	404	587	217	330	47
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	37	425	618	228	347	49
Adj No. of Lanes	1	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	47	2536	1664	613	385	343
Arrive On Green	0.03	0.72	0.66	0.66	0.22	0.22
Sat Flow, veh/h	1774	3632	2627	934	1774	1583
Grp Volume(v), veh/h	37	425	431	415	347	49
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1698	1774	1583
Q Serve(g_s), s	2.5	4.6	13.3	13.3	22.9	3.0
Cycle Q Clear(g_c), s	2.5	4.6	13.3	13.3	22.9	3.0
Prop In Lane	1.00			0.55	1.00	1.00
Lane Grp Cap(c), veh/h	47	2536	1162	1115	385	343
V/C Ratio(X)	0.78	0.17	0.37	0.37	0.90	0.14
Avail Cap(c_a), veh/h	118	2536	1162	1115	695	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.1	5.5	9.4	9.4	45.7	38.0
Incr Delay (d2), s/veh	24.1	0.1	0.9	1.0	7.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	1.5	2.3	6.8	6.5	12.0	2.9
LnGrp Delay(d),s/veh	82.2	5.6	10.3	10.3	53.6	38.2
LnGrp LOS	F	A	B	B	D	D
Approach Vol, veh/h		462	846		396	
Approach Delay, s/veh		11.8	10.3		51.7	
Approach LOS		B	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		90.0		30.0	7.2	82.8		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		65.0		47.0	8.0	53.0		
Max Q Clear Time (g_c+I1), s		6.6		24.9	4.5	15.3		
Green Ext Time (p_c), s		9.8		1.2	0.0	9.3		

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1106	280	189	513	216	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	120		0	125
Storage Lanes		0	1		1	1
Taper Length (ft)			90		100	
Right Turn on Red		Yes				Yes
Link Speed (mph)	40			45	40	
Link Distance (ft)	351			305	404	
Travel Time (s)	6.0			4.6	6.9	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Detector Phase	2		1	6	8	8
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	26.0		8.0	26.0	26.0	26.0
Total Split (s)	70.0		24.0	94.0	26.0	26.0
Total Split (%)	58.3%		20.0%	78.3%	21.7%	21.7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Max	Max

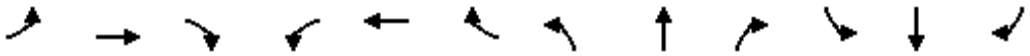
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Bedford Cyn. Rd. & El Cerrito Rd.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1106	280	189	513	216	131
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	1164	295	199	540	227	138
Adj No. of Lanes	2	0	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1656	415	224	2654	325	290
Arrive On Green	0.59	0.59	0.25	1.00	0.18	0.18
Sat Flow, veh/h	2898	703	1774	3632	1774	1583
Grp Volume(v), veh/h	730	729	199	540	227	138
Grp Sat Flow(s),veh/h/ln	1770	1739	1774	1770	1774	1583
Q Serve(g_s), s	34.5	35.5	13.0	0.0	14.4	9.4
Cycle Q Clear(g_c), s	34.5	35.5	13.0	0.0	14.4	9.4
Prop In Lane		0.40	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1045	1026	224	2654	325	290
V/C Ratio(X)	0.70	0.71	0.89	0.20	0.70	0.48
Avail Cap(c_a), veh/h	1045	1026	296	2654	325	290
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	17.1	17.4	44.0	0.0	45.9	43.8
Incr Delay (d2), s/veh	3.9	4.2	21.1	0.2	11.8	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	18.0	18.2	7.6	0.1	8.1	4.5
LnGrp Delay(d),s/veh	21.0	21.5	65.1	0.2	57.7	49.3
LnGrp LOS	C	C	E	A	E	D
Approach Vol, veh/h	1459			739	365	
Approach Delay, s/veh	21.3			17.7	54.5	
Approach LOS	C			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.2	74.8				94.0		26.0
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	20.0	66.0				90.0		22.0
Max Q Clear Time (g_c+I1), s	15.0	37.5				2.0		16.4
Green Ext Time (p_c), s	0.2	16.6				25.5		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1	28	1	1	2	37	208	7	7	356	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	80		0	0		100
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	100			100			80			100		
Link Speed (mph)		45			45			30			45	
Link Distance (ft)		786			200			500			246	
Travel Time (s)		11.9			3.0			11.4			3.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	45	1	28	0	1	1	2	0	37	208	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	47	1	29	0	1	1	2	0	39	219	7
Number of Lanes	0	0	1	1	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.6	9.2	10.2
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	98%	0%	25%	2%	0%
Vol Thru, %	0%	97%	2%	0%	25%	98%	0%
Vol Right, %	0%	3%	0%	100%	50%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	215	46	28	4	363	97
LT Vol	37	0	45	0	1	7	0
Through Vol	0	208	1	0	1	356	0
RT Vol	0	7	0	28	2	0	97
Lane Flow Rate	39	226	48	29	4	382	102
Geometry Grp	7	7	7	7	6	7	7
Degree of Util (X)	0.062	0.325	0.09	0.045	0.007	0.534	0.122
Departure Headway (Hd)	5.703	5.177	6.719	5.517	6.102	5.03	4.317
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	627	693	531	645	582	715	828
Service Time	3.45	2.923	4.488	3.286	4.185	2.768	2.054
HCM Lane V/C Ratio	0.062	0.326	0.09	0.045	0.007	0.534	0.123
HCM Control Delay	8.8	10.4	10.2	8.5	9.2	13.4	7.7
HCM Lane LOS	A	B	B	A	A	B	A
HCM 95th-tile Q	0.2	1.4	0.3	0.1	0	3.2	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	356	97
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	375	102
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.2
HCM LOS	B

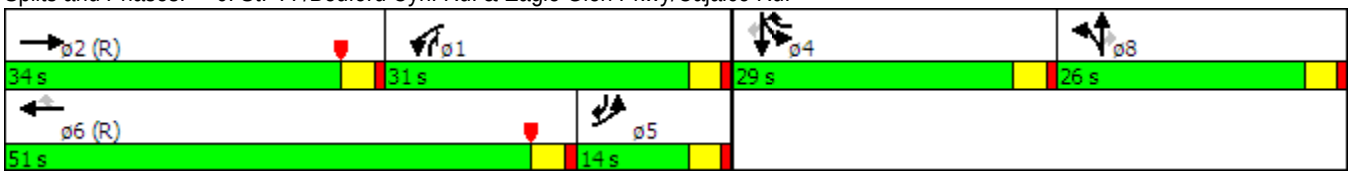
Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	622	47	594	647	84	40	64	398	392	92	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		180	200		200	150		0	450		0
Storage Lanes	1		1	2		1	1		1	1		1
Taper Length (ft)	100			120			180			180		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		930			727			413			651	
Travel Time (s)		14.1			11.0			6.3			9.9	
Confl. Peds. (#/hr)			5			5			5			5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										39%		
Turn Type	Prot	NA		Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	4	8	8	1	4	4	5
Permitted Phases						6			8			4
Detector Phase	5	2		1	6	4	8	8	1	4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.0		8.0	23.0	23.0	26.0	26.0	8.0	23.0	23.0	8.0
Total Split (s)	14.0	34.0		31.0	51.0	29.0	26.0	26.0	31.0	29.0	29.0	14.0
Total Split (%)	11.7%	28.3%		25.8%	42.5%	24.2%	21.7%	21.7%	25.8%	24.2%	24.2%	11.7%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		Lag	Lead				Lag			Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			Yes
Recall Mode	None	C-Max		None	C-Max	Max	None	None	None	Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: St. "A"/Bedford Cyn. Rd. & Eagle Glen Pkwy/Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	622	47	594	647	84	40	64	398	392	92	117
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	68	655	49	625	681	88	42	67	419	255	318	123
Adj No. of Lanes	1	2	0	2	2	1	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	335	834	62	1138	1386	948	138	145	644	370	388	627
Arrive On Green	0.19	0.25	0.25	0.55	0.65	0.65	0.08	0.08	0.08	0.21	0.21	0.21
Sat Flow, veh/h	1774	3337	249	3442	3539	1577	1774	1863	1553	1774	1863	1572
Grp Volume(v), veh/h	68	347	357	625	681	88	42	67	419	255	318	123
Grp Sat Flow(s),veh/h/ln	1774	1770	1817	1721	1770	1577	1774	1863	1553	1774	1863	1572
Q Serve(g_s), s	3.9	22.0	22.0	14.0	11.8	1.7	2.7	4.1	0.0	15.9	19.6	0.0
Cycle Q Clear(g_c), s	3.9	22.0	22.0	14.0	11.8	1.7	2.7	4.1	0.0	15.9	19.6	0.0
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	442	454	1138	1386	948	138	145	644	370	388	627
V/C Ratio(X)	0.20	0.78	0.79	0.55	0.49	0.09	0.30	0.46	0.65	0.69	0.82	0.20
Avail Cap(c_a), veh/h	335	442	454	1138	1386	948	325	342	808	370	388	627
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	42.0	42.0	21.1	14.7	5.6	52.3	52.9	28.6	43.9	45.3	23.6
Incr Delay (d2), s/veh	0.3	13.0	12.8	0.4	1.0	0.2	1.2	2.3	1.3	10.1	17.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	1.9	12.3	12.6	6.6	5.9	1.1	1.4	2.2	11.3	8.8	11.9	2.8
LnGrp Delay(d),s/veh	41.3	55.0	54.8	21.6	15.7	5.8	53.5	55.2	29.8	54.0	62.7	24.3
LnGrp LOS	D	E	D	C	B	A	D	E	C	D	E	C
Approach Vol, veh/h		772			1394			528			696	
Approach Delay, s/veh		53.7			17.7			34.9			52.7	
Approach LOS		D			B			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	43.7	34.0		29.0	26.7	51.0		13.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	27.0	30.0		25.0	10.0	47.0		22.0
Max Q Clear Time (g_c+I1), s	16.0	24.0		21.6	5.9	13.8		6.1
Green Ext Time (p_c), s	2.4	1.5		1.0	1.3	3.6		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	514	723	83	482	0	0	0	0	150	37	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	90		0	0		0	0		525
Storage Lanes	0		0	1		0	0		0	0		1
Taper Length (ft)	100			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		305			387			1098			1308	
Travel Time (s)		4.6			5.9			16.6			19.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases										4		4
Detector Phase		2		1	6					4	4	4
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	4.0
Minimum Split (s)		26.0		8.0	26.0					26.0	26.0	26.0
Total Split (s)		72.0		18.0	90.0					30.0	30.0	30.0
Total Split (%)		60.0%		15.0%	75.0%					25.0%	25.0%	25.0%
Yellow Time (s)		3.0		3.0	3.0					3.0	3.0	3.0
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	0.0
Total Lost Time (s)		4.0		4.0	4.0						4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		C-Max		None	C-Max					Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 7: I-15 SB Ramps & El Cerrito Rd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	514	723	83	482	0	0	0	0	150	37	220
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	0				1900	1863	1863
Adj Flow Rate, veh/h	0	541	761	87	507	0				158	39	232
Adj No. of Lanes	0	2	0	1	2	0				0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1101	985	109	2536	0				311	77	343
Arrive On Green	0.00	0.42	0.42	0.12	1.00	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	1863	1583	1774	3632	0				1436	355	1583
Grp Volume(v), veh/h	0	541	761	87	507	0				197	0	232
Grp Sat Flow(s),veh/h/ln	0	1770	1583	1774	1770	0				1791	0	1583
Q Serve(g_s), s	0.0	26.9	49.6	5.7	0.0	0.0				11.6	0.0	16.1
Cycle Q Clear(g_c), s	0.0	26.9	49.6	5.7	0.0	0.0				11.6	0.0	16.1
Prop In Lane	0.00		1.00	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	1101	985	109	2536	0				388	0	343
V/C Ratio(X)	0.00	0.49	0.77	0.80	0.20	0.00				0.51	0.00	0.68
Avail Cap(c_a), veh/h	0	1101	985	207	2536	0				388	0	343
HCM Platoon Ratio	1.00	0.67	0.67	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.65	0.65	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.1	27.7	51.9	0.0	0.0				41.4	0.0	43.1
Incr Delay (d2), s/veh	0.0	1.0	3.9	12.0	0.2	0.0				4.7	0.0	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	13.5	22.7	3.2	0.1	0.0				6.3	0.0	8.0
LnGrp Delay(d),s/veh	0.0	22.1	31.6	63.9	0.2	0.0				46.1	0.0	53.4
LnGrp LOS		C	C	E	A					D		D
Approach Vol, veh/h		1302			594						429	
Approach Delay, s/veh		27.6			9.5						50.0	
Approach LOS		C			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	11.4	78.6		30.0		90.0		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	14.0	68.0		26.0		86.0		
Max Q Clear Time (g_c+I1), s	7.7	51.6		18.1		2.0		
Green Ext Time (p_c), s	0.1	10.5		1.1		20.7		

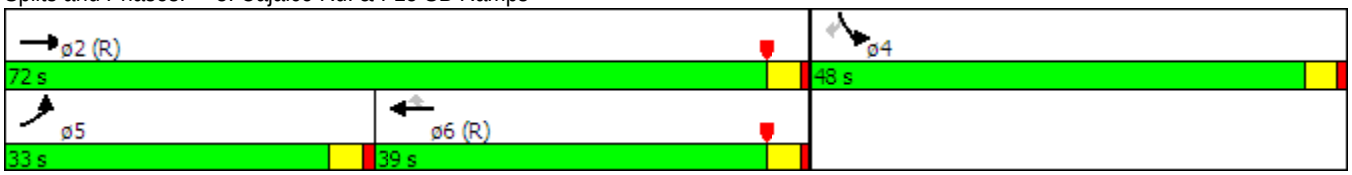
Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

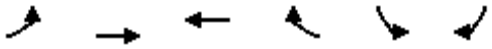
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	483	928	741	272	553	805
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			200	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	90				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		785	1279		297	
Travel Time (s)		11.9	19.4		4.5	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	33.0	72.0	39.0	39.0	48.0	48.0
Total Split (%)	27.5%	60.0%	32.5%	32.5%	40.0%	40.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 108 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	483	928	741	272	553	805
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	508	977	780	286	582	847
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	429	1056	543	462	650	581
Arrive On Green	0.24	0.57	0.39	0.39	0.37	0.37
Sat Flow, veh/h	1774	1863	1863	1583	1774	1583
Grp Volume(v), veh/h	508	977	780	286	582	847
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1774	1583
Q Serve(g_s), s	29.0	57.4	35.0	17.5	37.1	44.0
Cycle Q Clear(g_c), s	29.0	57.4	35.0	17.5	37.1	44.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	429	1056	543	462	650	581
V/C Ratio(X)	1.18	0.93	1.44	0.62	0.89	1.46
Avail Cap(c_a), veh/h	429	1056	543	462	650	581
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.16	0.16	1.00	1.00
Uniform Delay (d), s/veh	45.5	23.7	36.7	31.4	35.8	38.0
Incr Delay (d2), s/veh	85.6	1.8	197.8	1.0	17.2	216.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	24.4	29.8	47.8	7.8	21.2	66.3
LnGrp Delay(d),s/veh	131.1	25.5	234.5	32.4	53.1	254.0
LnGrp LOS	F	C	F	C	D	F
Approach Vol, veh/h		1485	1066		1429	
Approach Delay, s/veh		61.6	180.3		172.1	
Approach LOS		E	F		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		72.0		48.0	33.0	39.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		68.0		44.0	29.0	35.0		
Max Q Clear Time (g_c+I1), s		59.4		46.0	31.0	37.0		
Green Ext Time (p_c), s		5.9		0.0	0.0	0.0		

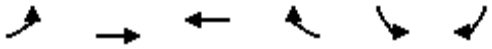
Intersection Summary	
HCM 2010 Ctrl Delay	133.1
HCM 2010 LOS	F

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	483	928	741	272	553	805
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290			250	0	0
Storage Lanes	2			0	2	2
Taper Length (ft)	90				25	
Right Turn on Red				Yes		Yes
Link Speed (mph)		45	45		45	
Link Distance (ft)		727	285		339	
Travel Time (s)		11.0	4.3		5.1	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	23.7	30.7	30.7	8.5	8.5
Total Split (s)	33.0	81.0	48.0	48.0	39.0	39.0
Total Split (%)	27.5%	67.5%	40.0%	40.0%	32.5%	32.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 36 (30%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 8: Cajalco Rd. & I-15 SB Ramps



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	483	928	741	272	553	805
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	508	977	780	286	582	847
Adj No. of Lanes	2	3	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	583	3263	1554	695	1035	813
Arrive On Green	0.34	1.00	0.44	0.44	0.29	0.29
Sat Flow, veh/h	3442	5253	3632	1583	3548	2787
Grp Volume(v), veh/h	508	977	780	286	582	847
Grp Sat Flow(s),veh/h/ln	1721	1695	1770	1583	1774	1393
Q Serve(g_s), s	16.6	0.0	19.0	14.8	16.7	35.0
Cycle Q Clear(g_c), s	16.6	0.0	19.0	14.8	16.7	35.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	583	3263	1554	695	1035	813
V/C Ratio(X)	0.87	0.30	0.50	0.41	0.56	1.04
Avail Cap(c_a), veh/h	832	3263	1554	695	1035	813
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	0.0	24.2	23.0	36.0	42.5
Incr Delay (d2), s/veh	5.2	0.2	1.2	1.8	2.2	43.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	8.2	0.0	9.6	6.9	8.5	27.9
LnGrp Delay(d),s/veh	43.7	0.2	25.4	24.8	38.2	85.6
LnGrp LOS	D	A	C	C	D	F
Approach Vol, veh/h		1485	1066		1429	
Approach Delay, s/veh		15.0	25.2		66.3	
Approach LOS		B	C		E	

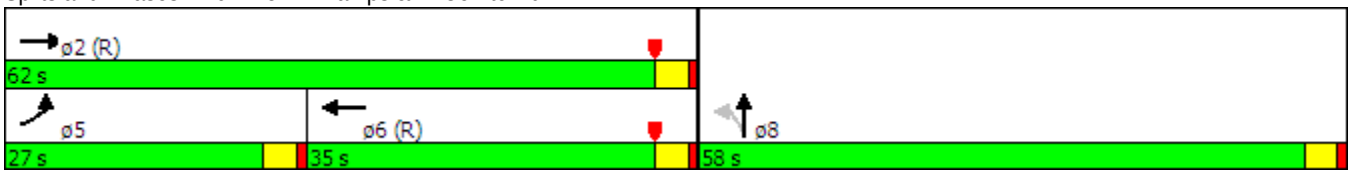
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		81.0		39.0	24.3	56.7		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		77.0		35.0	29.0	44.0		
Max Q Clear Time (g_c+I1), s		2.0		37.0	18.6	21.0		
Green Ext Time (p_c), s		14.4		0.0	1.7	10.8		

Intersection Summary	
HCM 2010 Ctrl Delay	36.2
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	256	408	0	0	269	59	296	7	58	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	60			100			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		387			489			1198			782	
Travel Time (s)		5.9			7.4			18.2			11.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Detector Phase	5	2			6		8	8				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	26.0			26.0		26.0	26.0				
Total Split (s)	27.0	62.0			35.0		58.0	58.0				
Total Split (%)	22.5%	51.7%			29.2%		48.3%	48.3%				
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	4.0	4.0			4.0			4.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	C-Max			C-Max		Max	Max				

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 9: I-15 NB Ramps & El Cerrito Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	256	408	0	0	269	59	296	7	58	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1900	1863	1900			
Adj Flow Rate, veh/h	269	429	0	0	283	62	312	7	61			
Adj No. of Lanes	2	1	0	0	2	0	0	1	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	342	900	0	0	1016	219	644	14	126			
Arrive On Green	0.07	0.32	0.00	0.00	0.35	0.35	0.45	0.45	0.45			
Sat Flow, veh/h	3442	1863	0	0	2990	625	1430	32	280			
Grp Volume(v), veh/h	269	429	0	0	171	174	380	0	0			
Grp Sat Flow(s),veh/h/ln	1721	1863	0	0	1770	1752	1742	0	0			
Q Serve(g_s), s	9.2	22.1	0.0	0.0	8.3	8.6	18.4	0.0	0.0			
Cycle Q Clear(g_c), s	9.2	22.1	0.0	0.0	8.3	8.6	18.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		0.36	0.82		0.16			
Lane Grp Cap(c), veh/h	342	900	0	0	621	615	784	0	0			
V/C Ratio(X)	0.79	0.48	0.00	0.00	0.28	0.28	0.48	0.00	0.00			
Avail Cap(c_a), veh/h	660	900	0	0	621	615	784	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.75	0.75	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	54.8	28.4	0.0	0.0	28.0	28.1	23.2	0.0	0.0			
Incr Delay (d2), s/veh	3.1	1.4	0.0	0.0	1.1	1.2	2.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(0%),veh/ln	4.6	11.7	0.0	0.0	4.3	4.3	9.3	0.0	0.0			
LnGrp Delay(d),s/veh	57.8	29.8	0.0	0.0	29.1	29.2	25.4	0.0	0.0			
LnGrp LOS	E	C			C	C	C					
Approach Vol, veh/h		698			345			380				
Approach Delay, s/veh		40.6			29.2			25.4				
Approach LOS		D			C			C				

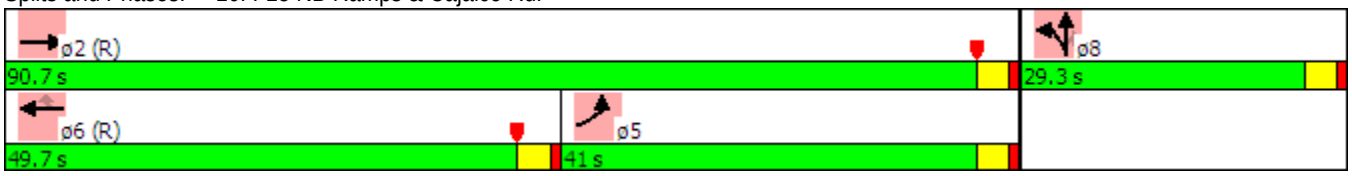
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		62.0			15.9	46.1		58.0
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		58.0			23.0	31.0		54.0
Max Q Clear Time (g_c+I1), s		24.1			11.2	10.6		20.4
Green Ext Time (p_c), s		4.7			0.7	4.2		2.3

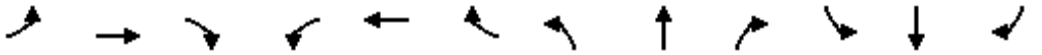
Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	537	945	0	0	654	489	359	0	203	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	575		300	0		0	300		175	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	50			25			180			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1279			459			714			1440	
Travel Time (s)		19.4			7.0			10.8			21.8	
Confl. Peds. (#/hr)									5			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Prot	NA			NA	Perm	Split	NA	Perm			
Protected Phases	5	2			6		8	8				
Permitted Phases						6			8			
Detector Phase	5	2			6	6	8	8	8			
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)	8.0	23.7			30.7	30.7	8.5	8.5	8.5			
Total Split (s)	41.0	90.7			49.7	49.7	29.3	29.3	29.3			
Total Split (%)	34.2%	75.6%			41.4%	41.4%	24.4%	24.4%	24.4%			
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lead/Lag	Lag				Lead	Lead						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	Max	Max	Max			

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	537	945	0	0	654	489	359	0	203	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	565	995	0	0	688	515	378	0	214			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	547	1346	0	0	709	603	374	0	330			
Arrive On Green	0.62	1.00	0.00	0.00	0.38	0.38	0.21	0.00	0.21			
Sat Flow, veh/h	1774	1863	0	0	1863	1583	1774	0	1565			
Grp Volume(v), veh/h	565	995	0	0	688	515	378	0	214			
Grp Sat Flow(s),veh/h/ln	1774	1863	0	0	1863	1583	1774	0	1565			
Q Serve(g_s), s	37.0	0.0	0.0	0.0	43.5	35.8	25.3	0.0	15.0			
Cycle Q Clear(g_c), s	37.0	0.0	0.0	0.0	43.5	35.8	25.3	0.0	15.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	547	1346	0	0	709	603	374	0	330			
V/C Ratio(X)	1.03	0.74	0.00	0.00	0.97	0.85	1.01	0.00	0.65			
Avail Cap(c_a), veh/h	547	1346	0	0	709	603	374	0	330			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.28	0.28	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	23.0	0.0	0.0	0.0	36.5	34.1	47.4	0.0	43.3			
Incr Delay (d2), s/veh	29.5	1.1	0.0	0.0	27.2	14.3	49.2	0.0	9.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0			
%ile BackOfQ(0%),veh/ln	22.1	0.4	0.0	0.0	27.7	18.0	17.5	0.0	7.4			
LnGrp Delay(d),s/veh	52.5	1.1	0.0	0.0	63.6	48.4	96.6	0.0	52.8			
LnGrp LOS	F	A			E	D	F		D			
Approach Vol, veh/h		1560			1203			592				
Approach Delay, s/veh		19.7			57.1			80.8				
Approach LOS		B			E			F				

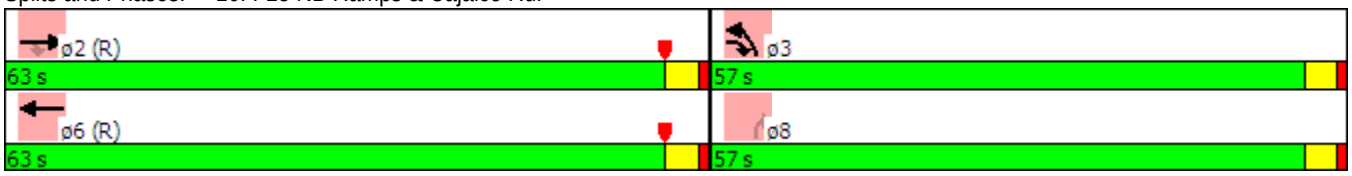
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		90.7			41.0	49.7		29.3
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0
Max Green Setting (Gmax), s		86.7			37.0	45.7		25.3
Max Q Clear Time (g_c+I1), s		2.0			39.0	45.5		27.3
Green Ext Time (p_c), s		8.9			0.0	0.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.9
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	945	537	0	1143	359	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		330	0		500	500
Storage Lanes		0	0		0	0
Taper Length (ft)			25		180	
Right Turn on Red		Yes				Yes
Link Speed (mph)	45			45	45	
Link Distance (ft)	293			227	332	
Travel Time (s)	4.4			3.4	5.0	
Confl. Peds. (#/hr)						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	0%	2%	2%	2%
Shared Lane Traffic (%)						
Turn Type	NA	pm+ov		NA	Prot	Perm
Protected Phases	2	3		6	3	
Permitted Phases		2				8
Detector Phase	2	3		6	3	8
Switch Phase						
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	23.7	8.5		30.7	8.5	8.5
Total Split (s)	63.0	57.0		63.0	57.0	57.0
Total Split (%)	52.5%	47.5%		52.5%	47.5%	47.5%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	Max		C-Max	Max	Max

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	

Splits and Phases: 10: I-15 NB Ramps & Cajalco Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	945	537	0	1143	359	203
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863
Adj Flow Rate, veh/h	995	565	0	1203	378	214
Adj No. of Lanes	3	1	0	4	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	0	2	2	2
Cap, veh/h	2500	1478	0	3151	1520	1231
Arrive On Green	0.49	0.49	0.00	0.49	0.44	0.44
Sat Flow, veh/h	5253	1583	0	6929	3442	2787
Grp Volume(v), veh/h	995	565	0	1203	378	214
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1602	1721	1393
Q Serve(g_s), s	14.8	4.4	0.0	14.1	8.3	5.6
Cycle Q Clear(g_c), s	14.8	4.4	0.0	14.1	8.3	5.6
Prop In Lane		1.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2500	1478	0	3151	1520	1231
V/C Ratio(X)	0.40	0.38	0.00	0.38	0.25	0.17
Avail Cap(c_a), veh/h	2500	1478	0	3151	1520	1231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.4	0.0	19.1	21.0	20.3
Incr Delay (d2), s/veh	0.5	0.8	0.0	0.4	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	7.0	2.0	0.0	6.3	4.0	2.2
LnGrp Delay(d),s/veh	19.8	1.2	0.0	19.4	21.4	20.6
LnGrp LOS	B	A		B	C	C
Approach Vol, veh/h	1560			1203	592	
Approach Delay, s/veh	13.0			19.4	21.1	
Approach LOS	B			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		63.0				63.0		57.0
Change Period (Y+Rc), s		4.0				4.0		4.0
Max Green Setting (Gmax), s		59.0				59.0		53.0
Max Q Clear Time (g_c+I1), s		16.8				16.1		10.3
Green Ext Time (p_c), s		21.8				21.9		2.9

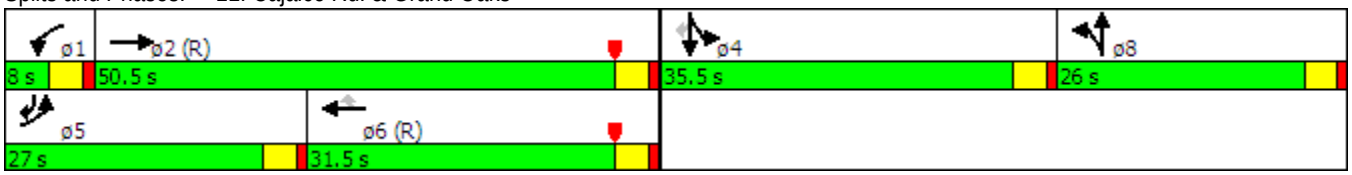
Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

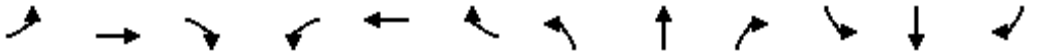
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	596	551	0	0	591	126	0	0	0	143	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	130		130	0		0	200		0
Storage Lanes	2		0	1		1	0		0	1		2
Taper Length (ft)	180			110			100			120		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		699			590			544			904	
Travel Time (s)		10.6			8.9			8.2			13.7	
Confl. Peds. (#/hr)						5				5		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA	Perm				Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases						6						4
Detector Phase	5	2		1	6	6	8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.5	23.2		8.0	30.7	30.7	26.0	26.0		35.5	35.5	8.5
Total Split (s)	27.0	50.5		8.0	31.5	31.5	26.0	26.0		35.5	35.5	27.0
Total Split (%)	22.5%	42.1%		6.7%	26.3%	26.3%	21.7%	21.7%		29.6%	29.6%	22.5%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		Max	Max	None

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 74 (62%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 115
Control Type: Actuated-Coordinated

Splits and Phases: 11: Cajalco Rd. & Grand Oaks





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	596	551	0	0	591	126	0	0	0	143	0	500
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	627	580	0	0	622	133	0	0	0	151	0	526
Adj No. of Lanes	2	2	0	1	2	1	0	1	0	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	660	2374	0	1	1578	704	0	2	0	466	0	1259
Arrive On Green	0.19	0.67	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.26	0.00	0.26
Sat Flow, veh/h	3442	3632	0	1774	3539	1578	0	1863	0	1774	0	2760
Grp Volume(v), veh/h	627	580	0	0	622	133	0	0	0	151	0	526
Grp Sat Flow(s),veh/h/ln	1721	1770	0	1774	1770	1578	0	1863	0	1774	0	1380
Q Serve(g_s), s	21.6	7.7	0.0	0.0	14.2	6.1	0.0	0.0	0.0	8.2	0.0	15.4
Cycle Q Clear(g_c), s	21.6	7.7	0.0	0.0	14.2	6.1	0.0	0.0	0.0	8.2	0.0	15.4
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	660	2374	0	1	1578	704	0	2	0	466	0	1259
V/C Ratio(X)	0.95	0.24	0.00	0.00	0.39	0.19	0.00	0.00	0.00	0.32	0.00	0.42
Avail Cap(c_a), veh/h	660	2374	0	59	1578	704	0	342	0	466	0	1259
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	7.8	0.0	0.0	22.4	20.1	0.0	0.0	0.0	35.7	0.0	22.1
Incr Delay (d2), s/veh	23.5	0.2	0.0	0.0	0.7	0.6	0.0	0.0	0.0	1.8	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	12.4	3.9	0.0	0.0	7.1	2.8	0.0	0.0	0.0	4.3	0.0	6.1
LnGrp Delay(d),s/veh	71.5	8.0	0.0	0.0	23.1	20.7	0.0	0.0	0.0	37.5	0.0	23.1
LnGrp LOS	E	A			C	C				D		C
Approach Vol, veh/h		1207			755			0			677	
Approach Delay, s/veh		41.0			22.7			0.0			26.3	
Approach LOS		D			C						C	

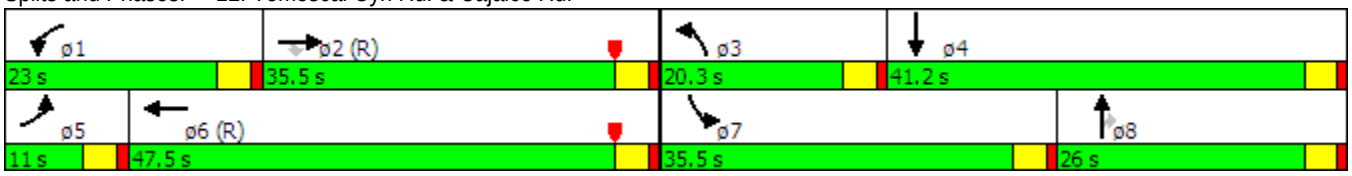
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	84.5		35.5	27.0	57.5		0.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	46.5		31.5	23.0	27.5		22.0
Max Q Clear Time (g_c+I1), s	0.0	9.7		17.4	23.6	16.2		0.0
Green Ext Time (p_c), s	0.0	6.9		3.0	0.0	4.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	323	334	177	392	96	271	166	92	238	332	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	16	12	12	16	12	12	12
Storage Length (ft)	300		200	100		200	160		160	185		200
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	180			115			90			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		453			935			1167			432	
Travel Time (s)		6.9			14.2			17.7			6.5	
Confl. Peds. (#/hr)			5			5						5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2						8			
Detector Phase	5	2	2	1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	26.0	26.0	8.5	30.7		8.5	26.0	26.0	35.5	26.0	
Total Split (s)	11.0	35.5	35.5	23.0	47.5		20.3	26.0	26.0	35.5	41.2	
Total Split (%)	9.2%	29.6%	29.6%	19.2%	39.6%		16.9%	21.7%	21.7%	29.6%	34.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	Max	Max	None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 92 (77%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	

Splits and Phases: 12: Temescal Cyn Rd. & Cajalco Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	38	323	334	177	392	96	271	166	92	238	332	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1976	1863	1863	1937	1863	1863	1900
Adj Flow Rate, veh/h	40	340	352	186	413	101	285	175	97	251	349	58
Adj No. of Lanes	1	1	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	621	526	215	1749	414	350	888	413	285	943	155
Arrive On Green	0.03	0.33	0.33	0.12	0.43	0.43	0.10	0.25	0.25	0.16	0.31	0.31
Sat Flow, veh/h	1774	1863	1576	1774	4106	971	3442	3539	1647	1774	3041	500
Grp Volume(v), veh/h	40	340	352	186	339	175	285	175	97	251	202	205
Grp Sat Flow(s),veh/h/ln	1774	1863	1576	1774	1695	1687	1721	1770	1647	1774	1770	1772
Q Serve(g_s), s	2.7	17.9	23.0	12.3	7.6	8.0	9.7	4.7	5.6	16.6	10.7	10.9
Cycle Q Clear(g_c), s	2.7	17.9	23.0	12.3	7.6	8.0	9.7	4.7	5.6	16.6	10.7	10.9
Prop In Lane	1.00		1.00	1.00		0.58	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	51	621	526	215	1444	719	350	888	413	285	549	549
V/C Ratio(X)	0.78	0.55	0.67	0.86	0.23	0.24	0.81	0.20	0.23	0.88	0.37	0.37
Avail Cap(c_a), veh/h	103	621	526	281	1444	719	467	888	413	466	549	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	32.6	34.3	51.7	22.0	22.1	52.8	35.4	35.8	49.2	32.2	32.3
Incr Delay (d2), s/veh	22.2	3.4	6.6	19.1	0.4	0.8	7.9	0.5	1.3	10.7	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	1.6	9.8	10.9	7.2	3.7	3.9	5.0	2.3	2.7	9.0	5.5	5.6
LnGrp Delay(d),s/veh	80.1	36.0	41.0	70.8	22.3	22.9	60.7	35.9	37.1	59.9	34.1	34.3
LnGrp LOS	F	D	D	E	C	C	E	D	D	E	C	C
Approach Vol, veh/h		732			700			557			658	
Approach Delay, s/veh		40.8			35.3			48.8			44.0	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	44.0	16.2	41.2	7.5	55.1	23.3	34.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	31.5	16.3	37.2	7.0	43.5	31.5	22.0
Max Q Clear Time (g_c+I1), s	14.3	25.0	11.7	12.9	4.7	10.0	18.6	7.6
Green Ext Time (p_c), s	0.2	2.9	0.5	2.6	0.0	5.6	0.7	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	41.8
HCM 2010 LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	244	10	326	309	10	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			120		120	
Link Speed (mph)	45			45	45	
Link Distance (ft)	781			1259	804	
Travel Time (s)	11.8			19.1	12.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

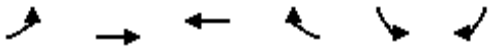
Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	244	10	326	309	10	195
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	200	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	257	11	343	325	11	205

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	267	0	1274	134
Stage 1	-	-	-	-	262	-
Stage 2	-	-	-	-	1012	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1294	-	171	891
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	350	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1294	-	126	891
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	257	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	214	891	-	-	1294	-
HCM Lane V/C Ratio	0.049	0.23	-	-	0.265	-
HCM Control Delay (s)	22.7	10.2	-	-	8.8	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.9	-	-	1.1	-



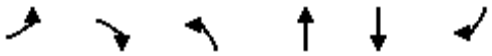
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	114	20	39	81	132	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45	45		45	
Link Distance (ft)		488	1258		582	
Travel Time (s)		7.4	19.1		8.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

Intersection Summary	
Area Type:	Other
Control Type: Roundabout	

Intersection	
Intersection Delay, s/veh	5.9
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	141	126	343
Demand Flow Rate, veh/h	143	129	350
Vehicles Circulating, veh/h	142	122	42
Vehicles Exiting, veh/h	250	163	209
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.1	4.9	6.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	143	129	350
Cap Entry Lane, veh/h	980	1000	1083
Entry HV Adj Factor	0.983	0.978	0.980
Flow Entry, veh/h	141	126	343
Cap Entry, veh/h	964	978	1062
V/C Ratio	0.146	0.129	0.323
Control Delay, s/veh	5.1	4.9	6.6
LOS	A	A	A
95th %tile Queue, veh	1	0	1



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	231	0	0	62	105	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	1	0	0			0
Taper Length (ft)	120		100			
Link Speed (mph)	45			45	45	
Link Distance (ft)	1283			519	309	
Travel Time (s)	19.4			7.9	4.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

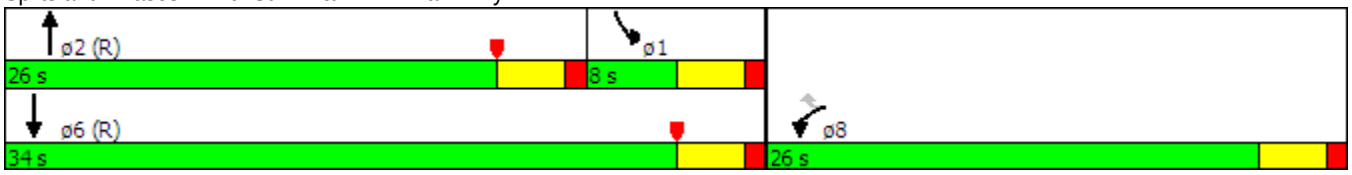
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	243	65	532
Demand Flow Rate, veh/h	248	66	542
Vehicles Circulating, veh/h	113	248	0
Vehicles Exiting, veh/h	429	113	314
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.1	4.9	8.6
Approach LOS	A	A	A

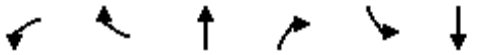
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	248	66	542
Cap Entry Lane, veh/h	1009	882	1130
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	243	65	532
Cap Entry, veh/h	989	864	1109
V/C Ratio	0.246	0.075	0.480
Control Delay, s/veh	6.1	4.9	8.6
LOS	A	A	A
95th %tile Queue, veh	1	0	3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	53	112	354	20	160	573
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				100	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	45		45			45
Link Distance (ft)	264		567			343
Travel Time (s)	4.0		8.6			5.2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	26.0	26.0	26.0		8.0	26.0
Total Split (s)	26.0	26.0	26.0		8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%		13.3%	56.7%
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	C-Max		None	C-Max

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 8 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 16: St. "A" & TAZ 4 Main Dwy.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	53	112	354	20	160	573
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	56	118	373	21	168	603
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	188	168	1249	70	581	2692
Arrive On Green	0.11	0.11	0.37	0.37	0.33	0.76
Sat Flow, veh/h	1774	1583	3501	191	1774	3632
Grp Volume(v), veh/h	56	118	193	201	168	603
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1829	1774	1770
Q Serve(g_s), s	1.7	4.3	4.7	4.7	4.2	2.9
Cycle Q Clear(g_c), s	1.7	4.3	4.7	4.7	4.2	2.9
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	188	168	649	671	581	2692
V/C Ratio(X)	0.30	0.70	0.30	0.30	0.29	0.22
Avail Cap(c_a), veh/h	650	581	649	671	581	2692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	25.9	13.5	13.5	15.0	2.1
Incr Delay (d2), s/veh	0.9	5.3	1.2	1.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.9	2.1	2.5	2.6	2.1	1.5
LnGrp Delay(d),s/veh	25.6	31.2	14.7	14.7	15.3	2.3
LnGrp LOS	C	C	B	B	B	A
Approach Vol, veh/h	174		394			771
Approach Delay, s/veh	29.4		14.7			5.1
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.6	26.0				49.6		10.4
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	4.0	22.0				30.0		22.0
Max Q Clear Time (g_c+I1), s	6.2	6.7				4.9		6.3
Green Ext Time (p_c), s	0.0	1.8				4.3		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	22	90	284	9	143	483
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				100	
Link Speed (mph)	45		45			45
Link Distance (ft)	337		233			567
Travel Time (s)	5.1		3.5			8.6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

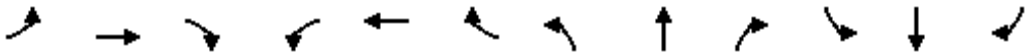
Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	90	284	9	143	483
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	95	299	9	151	508

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	859	154	0	0	308	0
Stage 1	304	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	296	864	-	-	1249	-
Stage 1	722	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	260	864	-	-	1249	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	474	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	593	1249	-
HCM Lane V/C Ratio	-	-	0.199	0.121	-
HCM Control Delay (s)	-	-	12.6	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.4	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	53	20	4	6	6	265	11	7	645	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	36.2
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	2	53	0	20	4	6	0	6	265	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	2	56	0	21	4	6	0	6	279	12
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	9.8	10	12.3
HCM LOS	A	A	B

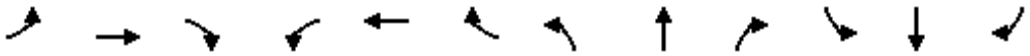
Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	17%	67%	100%	0%
Vol Thru, %	0%	96%	3%	13%	0%	98%
Vol Right, %	0%	4%	80%	20%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	276	66	30	7	658
LT Vol	6	0	11	20	7	0
Through Vol	0	265	2	4	0	645
RT Vol	0	11	53	6	0	13
Lane Flow Rate	6	291	69	32	7	693
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.01	0.436	0.116	0.058	0.011	0.977
Departure Headway (Hd)	5.934	5.401	6.034	6.613	5.595	5.078
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	597	659	597	545	635	706
Service Time	3.732	3.198	4.035	4.616	3.372	2.855
HCM Lane V/C Ratio	0.01	0.442	0.116	0.059	0.011	0.982
HCM Control Delay	8.8	12.4	9.8	10	8.4	50.6
HCM Lane LOS	A	B	A	A	A	F
HCM 95th-tile Q	0	2.2	0.4	0.2	0	15

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	645	13
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	679	14
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	50.2
HCM LOS	F

Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	53	20	4	6	6	265	11	7	645	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			60			60		
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

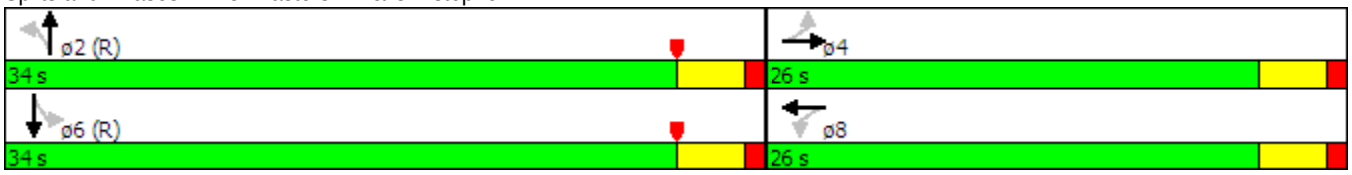
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	70	31	297	700
Demand Flow Rate, veh/h	71	31	303	714
Vehicles Circulating, veh/h	721	303	21	31
Vehicles Exiting, veh/h	24	21	771	303
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.3	4.7	5.9	12.6
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	71	31	303	714
Cap Entry Lane, veh/h	549	835	1106	1095
Entry HV Adj Factor	0.985	0.997	0.982	0.981
Flow Entry, veh/h	70	31	297	700
Cap Entry, veh/h	541	832	1086	1075
V/C Ratio	0.129	0.037	0.274	0.652
Control Delay, s/veh	8.3	4.7	5.9	12.6
LOS	A	A	A	B
95th %tile Queue, veh	0	0	1	5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	53	20	4	6	6	265	11	7	645	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			60			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		237			740			1123			669	
Travel Time (s)		5.4			16.8			21.9			13.0	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	26.0	26.0		26.0	26.0		34.0	34.0		34.0	34.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

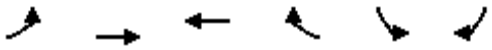
Splits and Phases: 18: Masters Dr. & Christopher Ln.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	2	53	20	4	6	6	265	11	7	645	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	3	68	26	5	8	8	340	14	9	827	17
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	11	104	173	36	28	630	1393	57	870	1426	29
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.78	0.78	0.78	1.00	1.00	1.00
Sat Flow, veh/h	179	137	1264	881	439	341	650	1777	73	1023	1819	37
Grp Volume(v), veh/h	85	0	0	39	0	0	8	0	354	9	0	844
Grp Sat Flow(s),veh/h/ln	1580	0	0	1661	0	0	650	0	1850	1023	0	1856
Q Serve(g_s), s	1.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	3.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	0.0	1.2	0.0	0.0	0.2	0.0	3.1	3.1	0.0	0.0
Prop In Lane	0.16		0.80	0.67		0.21	1.00		0.04	1.00		0.02
Lane Grp Cap(c), veh/h	200	0	0	237	0	0	630	0	1451	870	0	1456
V/C Ratio(X)	0.43	0.00	0.00	0.16	0.00	0.00	0.01	0.00	0.24	0.01	0.00	0.58
Avail Cap(c_a), veh/h	643	0	0	642	0	0	630	0	1451	870	0	1456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.82	0.00	0.82
Uniform Delay (d), s/veh	26.7	0.0	0.0	25.8	0.0	0.0	1.4	0.0	1.7	0.1	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	1.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.6
LnGrp Delay(d),s/veh	28.1	0.0	0.0	26.1	0.0	0.0	1.4	0.0	2.1	0.1	0.0	1.4
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		85			39			362			853	
Approach Delay, s/veh		28.1			26.1			2.1			1.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		51.1		8.9		51.1		8.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		5.1		5.1		5.1		3.2
Green Ext Time (p_c), s		9.5		0.6		9.5		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	4.0
HCM 2010 LOS	A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	641	224	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Stop	Stop		Stop	

Intersection Summary	
Area Type:	Other

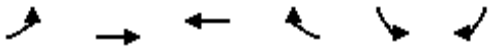
Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	25.5
Intersection LOS	D

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	4	641	0	224	14	0	14	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	675	0	236	15	0	15	5
Number of Lanes	0	1	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	31.6	10.2	9.3
HCM LOS	D	B	A

Lane	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	74%
Vol Thru, %	0%	100%	94%	0%
Vol Right, %	0%	0%	6%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	641	238	19
LT Vol	4	0	0	14
Through Vol	0	641	224	0
RT Vol	0	0	14	5
Lane Flow Rate	4	675	251	20
Geometry Grp	7	7	5	2
Degree of Util (X)	0.006	0.88	0.333	0.034
Departure Headway (Hd)	5.194	4.693	4.792	6.054
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	680	762	754	593
Service Time	2.991	2.489	2.801	4.079
HCM Lane V/C Ratio	0.006	0.886	0.333	0.034
HCM Control Delay	8	31.7	10.2	9.3
HCM Lane LOS	A	D	B	A
HCM 95th-tile Q	0	11.1	1.5	0.1



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	641	224	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Yield	Yield		Yield	

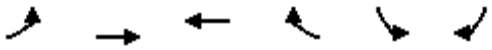
Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	679	251	20
Demand Flow Rate, veh/h	692	256	20
Vehicles Circulating, veh/h	15	4	241
Vehicles Exiting, veh/h	246	703	19
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	11.7	5.4	4.3
Approach LOS	B	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	692	256	20
Cap Entry Lane, veh/h	1113	1125	888
Entry HV Adj Factor	0.981	0.982	1.000
Flow Entry, veh/h	679	251	20
Cap Entry, veh/h	1091	1105	888
V/C Ratio	0.622	0.227	0.023
Control Delay, s/veh	11.7	5.4	4.3
LOS	B	A	A
95th %tile Queue, veh	5	1	0



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	4	641	224	14	14	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	60				100	
Link Speed (mph)		35	35		30	
Link Distance (ft)		1094	784		251	
Travel Time (s)		21.3	15.3		5.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	4	641	224	14	14	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	675	236	15	15	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	251	0	-	0	926	243
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	683	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1314	-	-	-	298	796
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1314	-	-	-	297	796
Mov Cap-2 Maneuver	-	-	-	-	297	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	500	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1314	-	-	-	356
HCM Lane V/C Ratio	0.003	-	-	-	0.056
HCM Control Delay (s)	7.7	-	-	-	15.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	502	125	37	182	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Intersection Delay, s/veh	27.1
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	502	125	0	37	182	3	0	55	3	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	528	132	0	39	192	3	0	58	3	42
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	35.8	10.2	10.2
HCM LOS	E	B	B

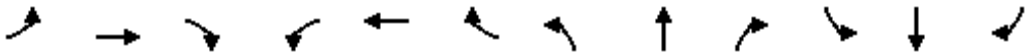
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	56%	100%	0%	100%	0%	60%
Vol Thru, %	3%	0%	80%	0%	98%	20%
Vol Right, %	41%	0%	20%	0%	2%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	3	627	37	185	5
LT Vol	55	3	0	37	0	3
Through Vol	3	0	502	0	182	1
RT Vol	40	0	125	0	3	1
Lane Flow Rate	103	3	660	39	195	5
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.169	0.005	0.903	0.064	0.292	0.009
Departure Headway (Hd)	5.904	5.571	4.928	5.912	5.396	6.406
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	601	639	733	601	660	562
Service Time	4	3.331	2.687	3.691	3.174	4.406
HCM Lane V/C Ratio	0.171	0.005	0.9	0.065	0.295	0.009
HCM Control Delay	10.2	8.4	35.9	9.1	10.4	9.5
HCM Lane LOS	B	A	E	A	B	A
HCM 95th-tile Q	0.6	0	11.9	0.2	1.2	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	3	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	1	1
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.5
HCM LOS	A

Lane



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	502	125	37	182	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary	
Area Type:	Other

Control Type: Roundabout

Intersection	
Intersection Delay, s/veh	10.0
Intersection LOS	B

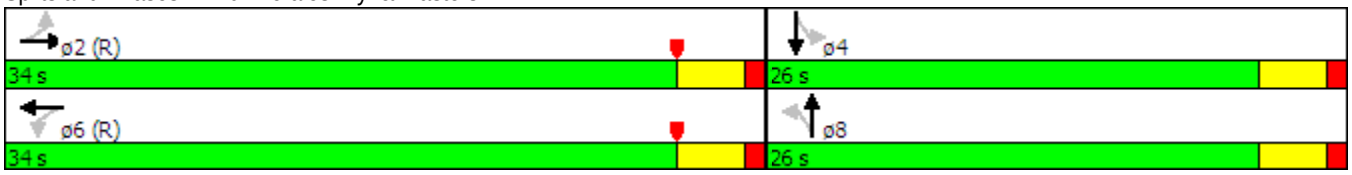
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	663	234	103	5
Demand Flow Rate, veh/h	677	239	105	5
Vehicles Circulating, veh/h	44	65	545	295
Vehicles Exiting, veh/h	256	585	176	9
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.0	5.6	7.5	4.4
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	677	239	105	5
Cap Entry Lane, veh/h	1081	1059	655	841
Entry HV Adj Factor	0.980	0.980	0.980	0.996
Flow Entry, veh/h	663	234	103	5
Cap Entry, veh/h	1060	1037	642	838
V/C Ratio	0.626	0.226	0.160	0.006
Control Delay, s/veh	12.0	5.6	7.5	4.4
LOS	B	A	A	A
95th %tile Queue, veh	5	1	1	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	502	125	37	182	3	55	3	40	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	60			60			100			100		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			30			45	
Link Distance (ft)		1240			953			626			709	
Travel Time (s)		24.2			18.6			14.2			10.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0	
Total Split (s)	34.0	34.0		34.0	34.0		26.0	26.0		26.0	26.0	
Total Split (%)	56.7%	56.7%		56.7%	56.7%		43.3%	43.3%		43.3%	43.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max		Max	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

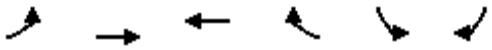
Splits and Phases: 20: Morales Wy. & Masters Dr.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	502	125	37	182	3	55	3	40	3	1	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	3	528	132	39	192	3	58	3	42	3	1	1
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	642	720	180	282	915	14	379	41	225	406	135	111
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1183	1439	360	771	1829	29	778	113	613	844	369	303
Grp Volume(v), veh/h	3	0	660	39	0	195	103	0	0	5	0	0
Grp Sat Flow(s),veh/h/ln	1183	0	1799	771	0	1858	1504	0	0	1516	0	0
Q Serve(g_s), s	0.1	0.0	17.4	2.5	0.0	3.5	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	17.4	19.9	0.0	3.5	2.5	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.02	0.56		0.41	0.60		0.20
Lane Grp Cap(c), veh/h	642	0	900	282	0	929	645	0	0	652	0	0
V/C Ratio(X)	0.00	0.00	0.73	0.14	0.00	0.21	0.16	0.00	0.00	0.01	0.00	0.00
Avail Cap(c_a), veh/h	642	0	900	282	0	929	645	0	0	652	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.4	0.0	11.8	19.7	0.0	8.4	12.8	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	5.3	1.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	0.0	9.8	0.6	0.0	1.9	1.2	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	9.4	0.0	17.1	20.7	0.0	8.9	13.3	0.0	0.0	12.1	0.0	0.0
LnGrp LOS	A		B	C		A	B			B		
Approach Vol, veh/h		663			234			103			5	
Approach Delay, s/veh		17.1			10.9			13.3			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		26.0		34.0		26.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		30.0		22.0		30.0		22.0
Max Q Clear Time (g_c+I1), s		19.4		2.1		21.9		4.5
Green Ext Time (p_c), s		4.3		0.5		3.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	13	168	209	67	39	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12
Storage Length (ft)	75			0	125	0
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Link Speed (mph)		45	30		35	
Link Distance (ft)		294	783		737	
Travel Time (s)		4.5	17.8		14.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	168	209	67	39	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	125	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	177	220	71	41	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	291	0	-	0	459	145
Stage 1	-	-	-	-	255	-
Stage 2	-	-	-	-	204	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	1268	-	-	-	545	877
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	830	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1268	-	-	-	539	877
Mov Cap-2 Maneuver	-	-	-	-	539	-
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	821	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1268	-	-	-	539	877
HCM Lane V/C Ratio	0.011	-	-	-	0.076	0.016
HCM Control Delay (s)	7.9	-	-	-	12.2	9.2
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0

APPENDIX 8.2:

INTERIM YEAR WITH PROJECT BUILDOUT, TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

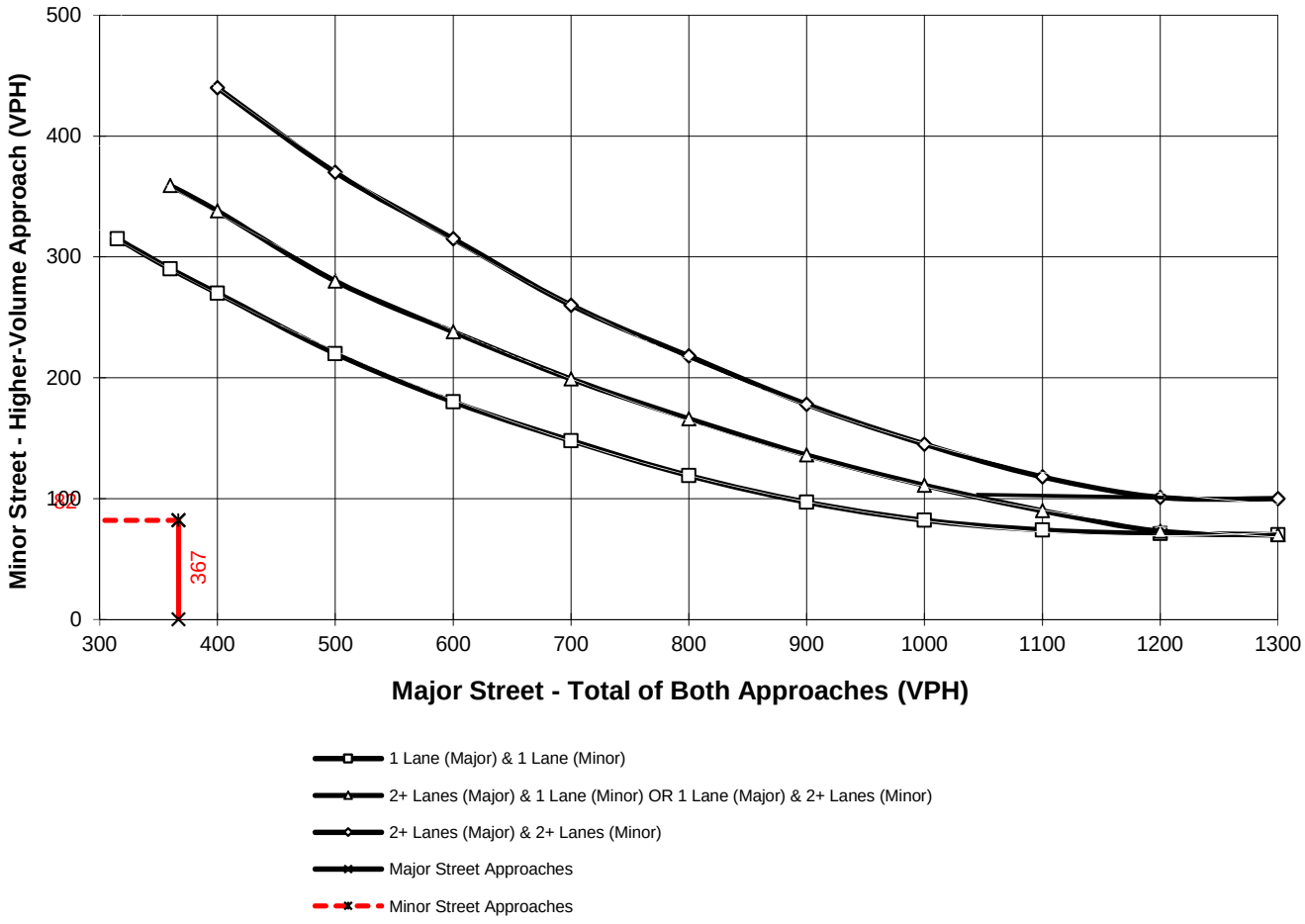
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **367**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.**
High Volume Approach (VPH) = **82**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

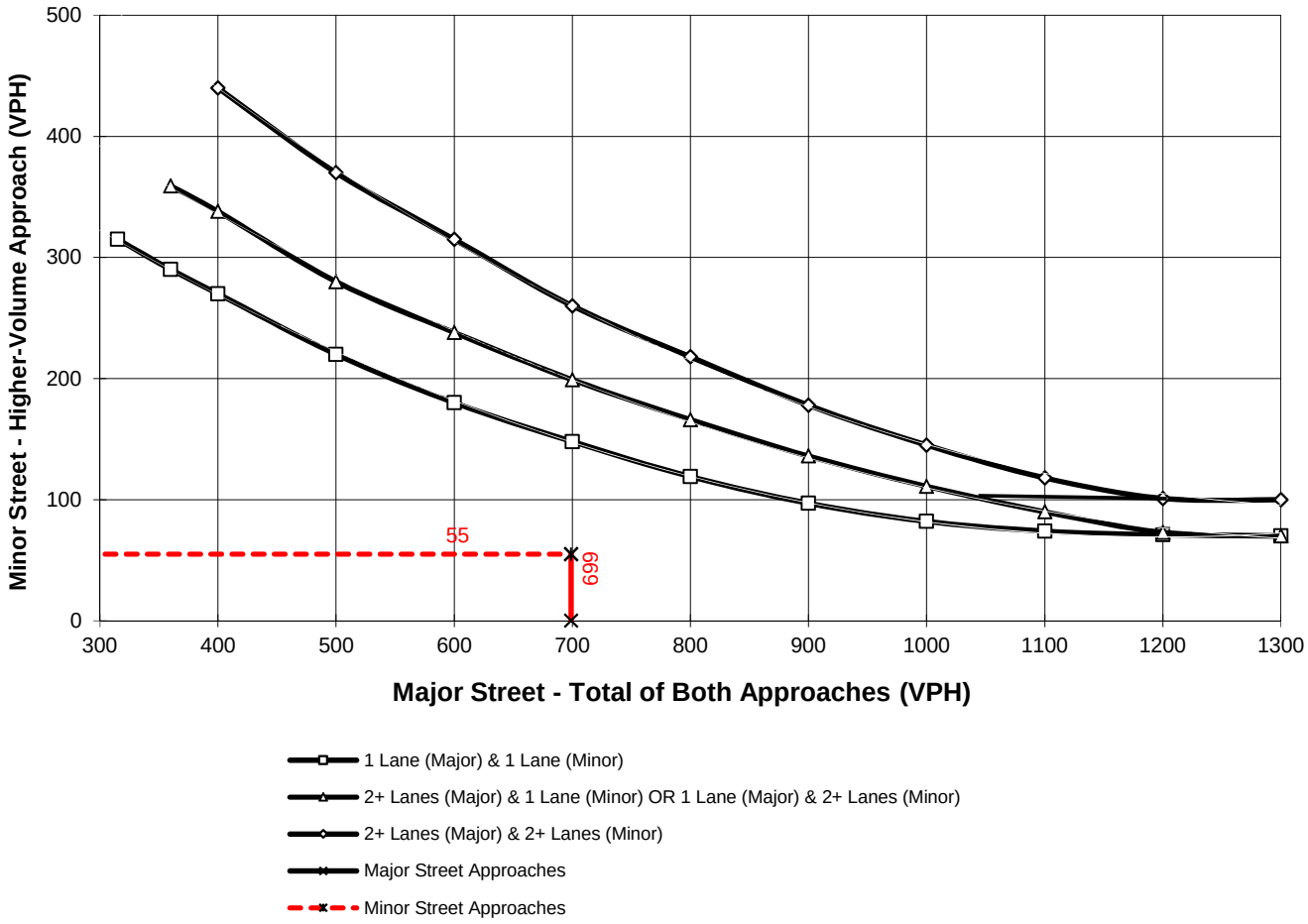
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **699**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Bennett Av.**
High Volume Approach (VPH) = **55**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

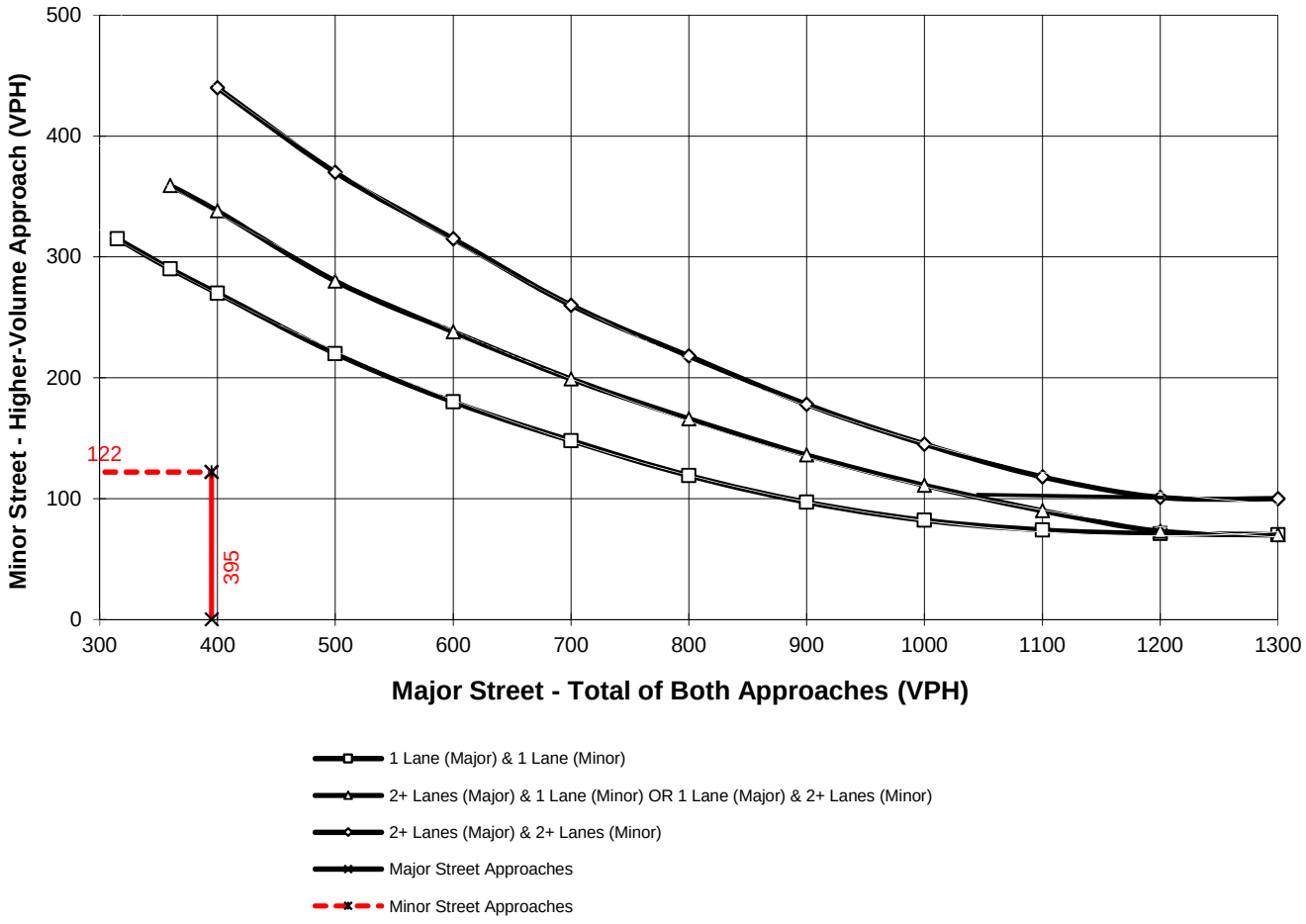
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday AM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **395**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **122**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

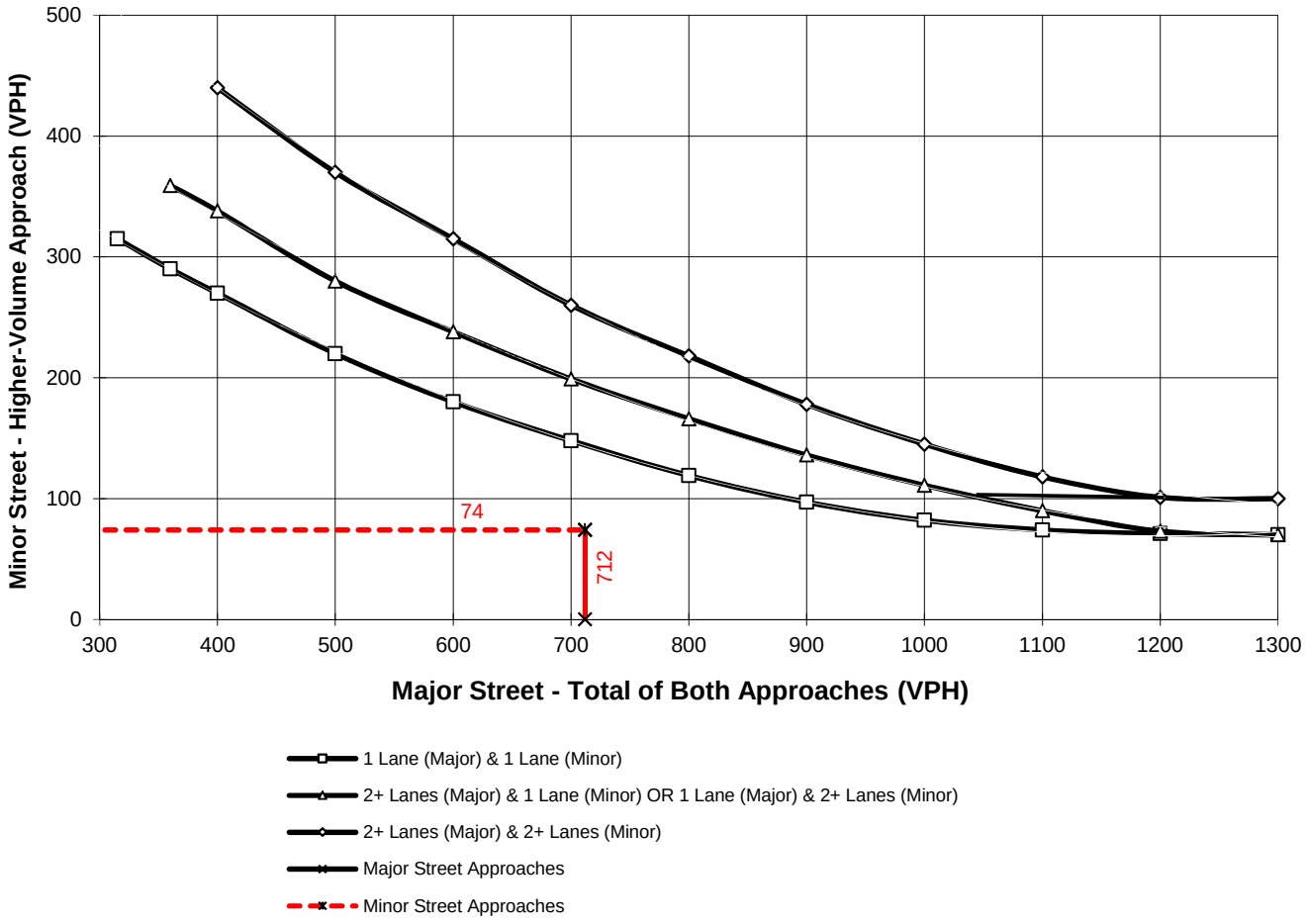
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday PM Peak Hour**

Major Street Name = **Bedford Cyn. Rd.** Total of Both Approaches (VPH) = **712**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Georgetown Dr.** High Volume Approach (VPH) = **74**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

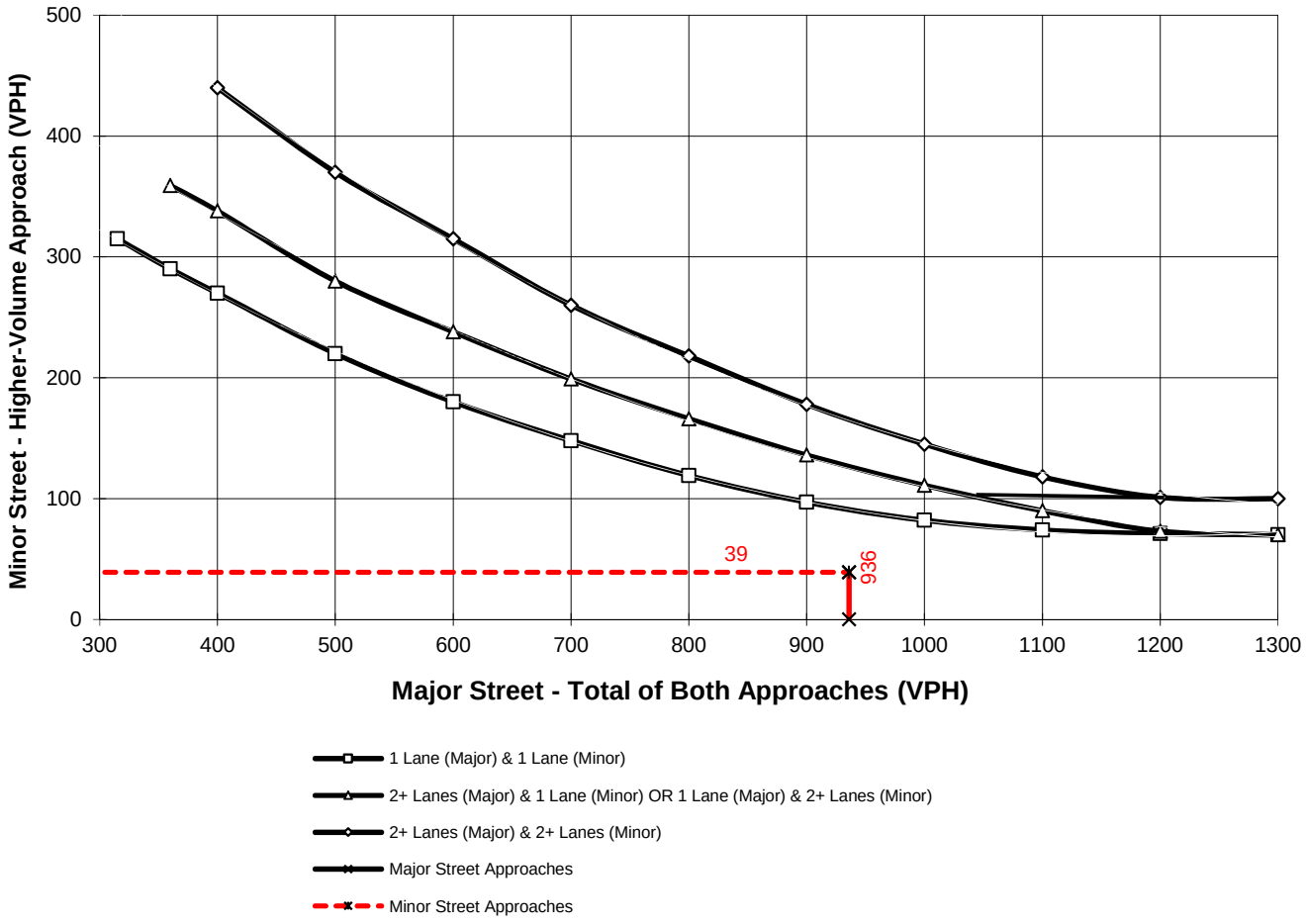
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **936**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.**
High Volume Approach (VPH) = **39**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

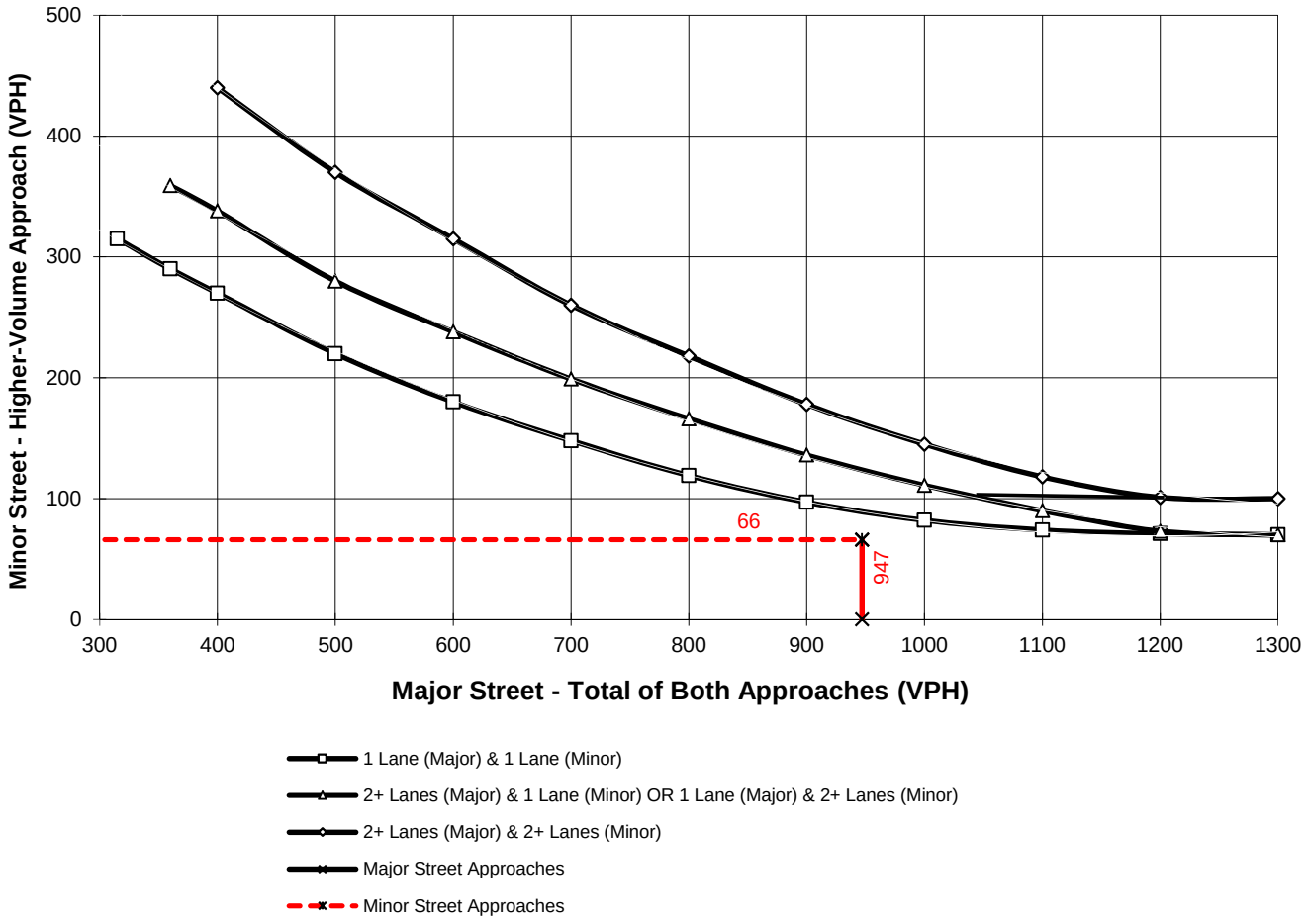
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **947**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Christopher Ln.**
High Volume Approach (VPH) = **66**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

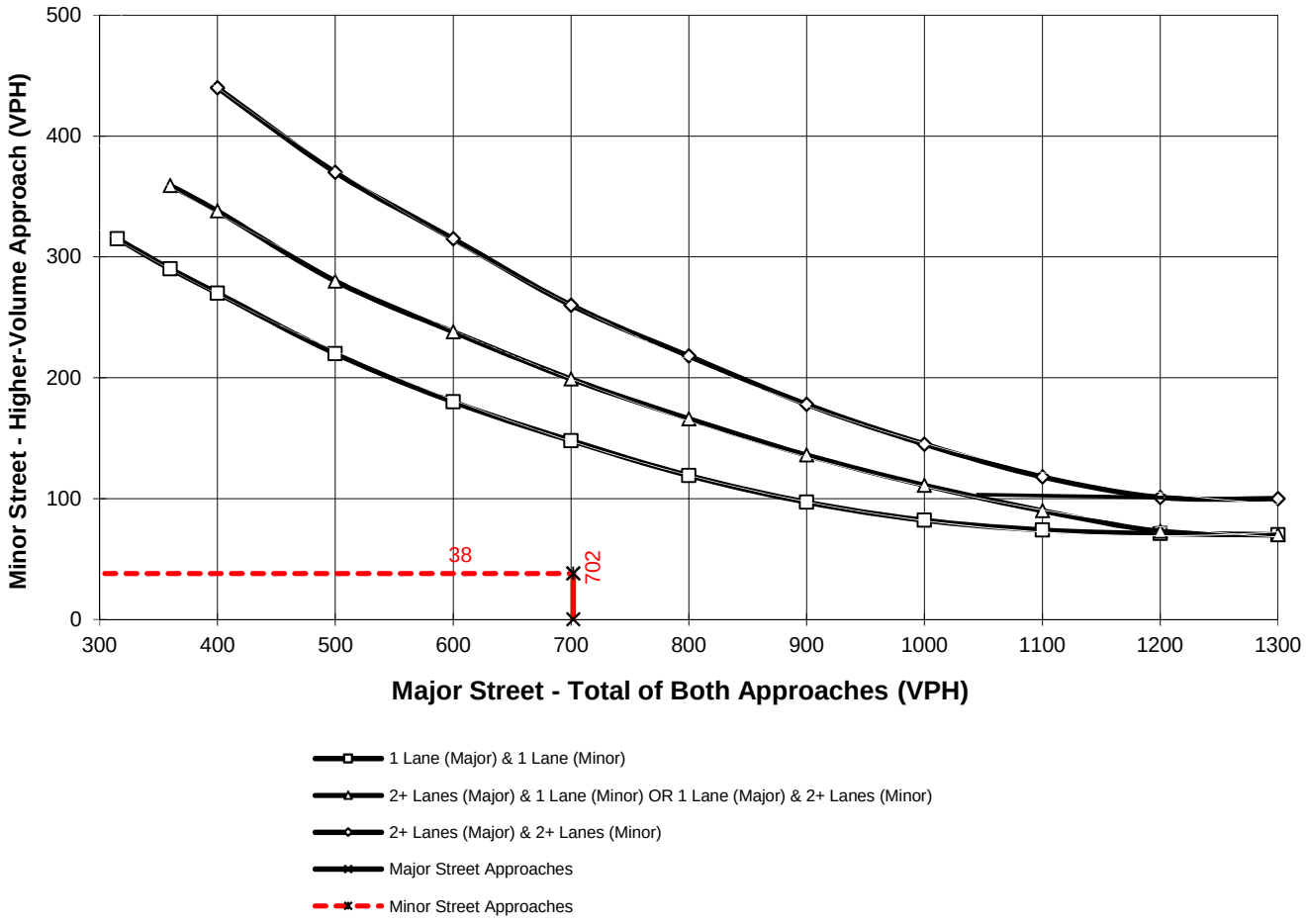
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **702**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **38**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

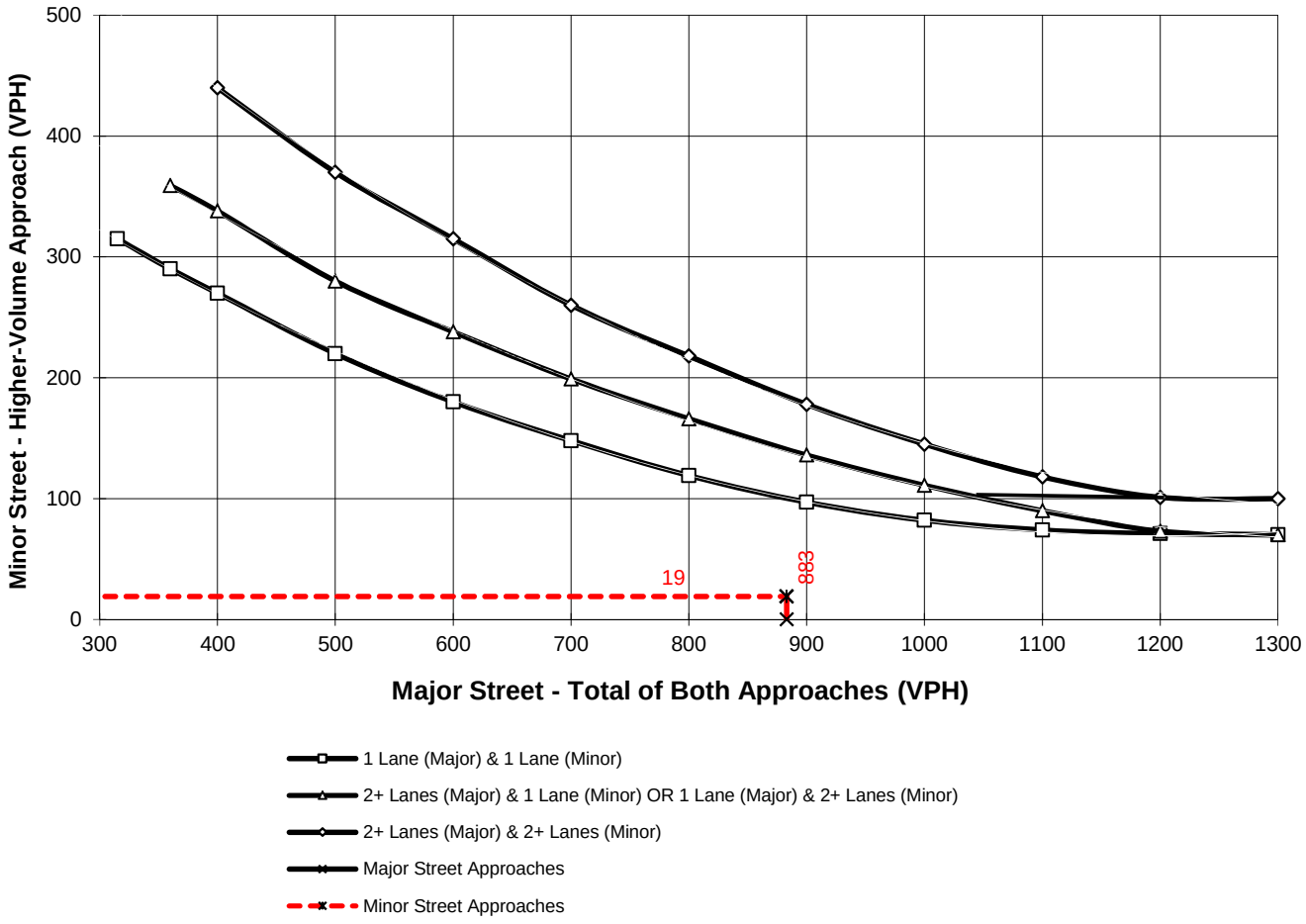
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **883**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Via Castilla St.**
High Volume Approach (VPH) = **19**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

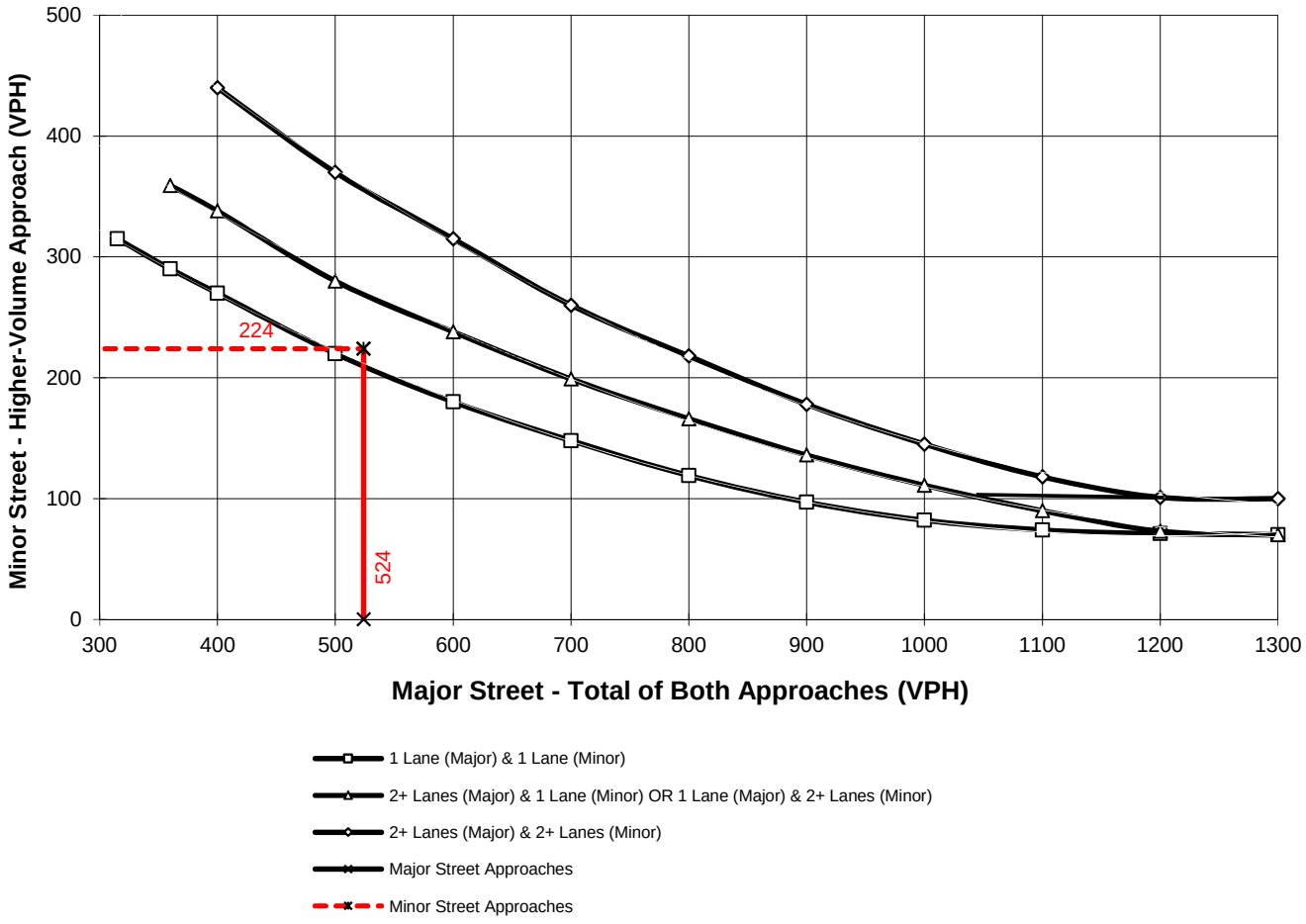
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday AM Peak Hour**

Major Street Name = **Masters Dr.** Total of Both Approaches (VPH) = **524**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.** High Volume Approach (VPH) = **224**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

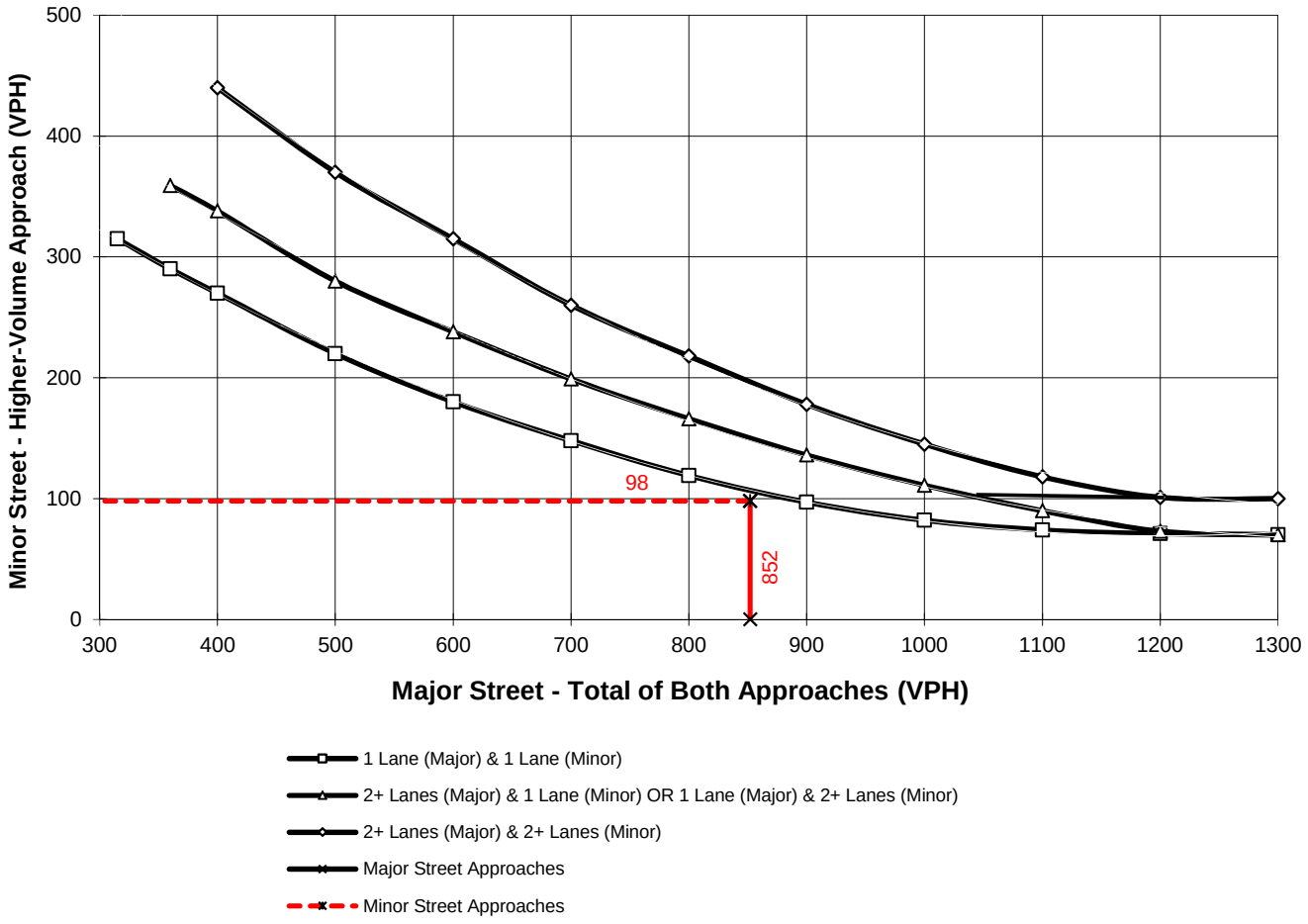
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday PM Peak Hour**

Major Street Name = **Masters Dr.**
Total of Both Approaches (VPH) = **852**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Morales Wy.**
High Volume Approach (VPH) = **98**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

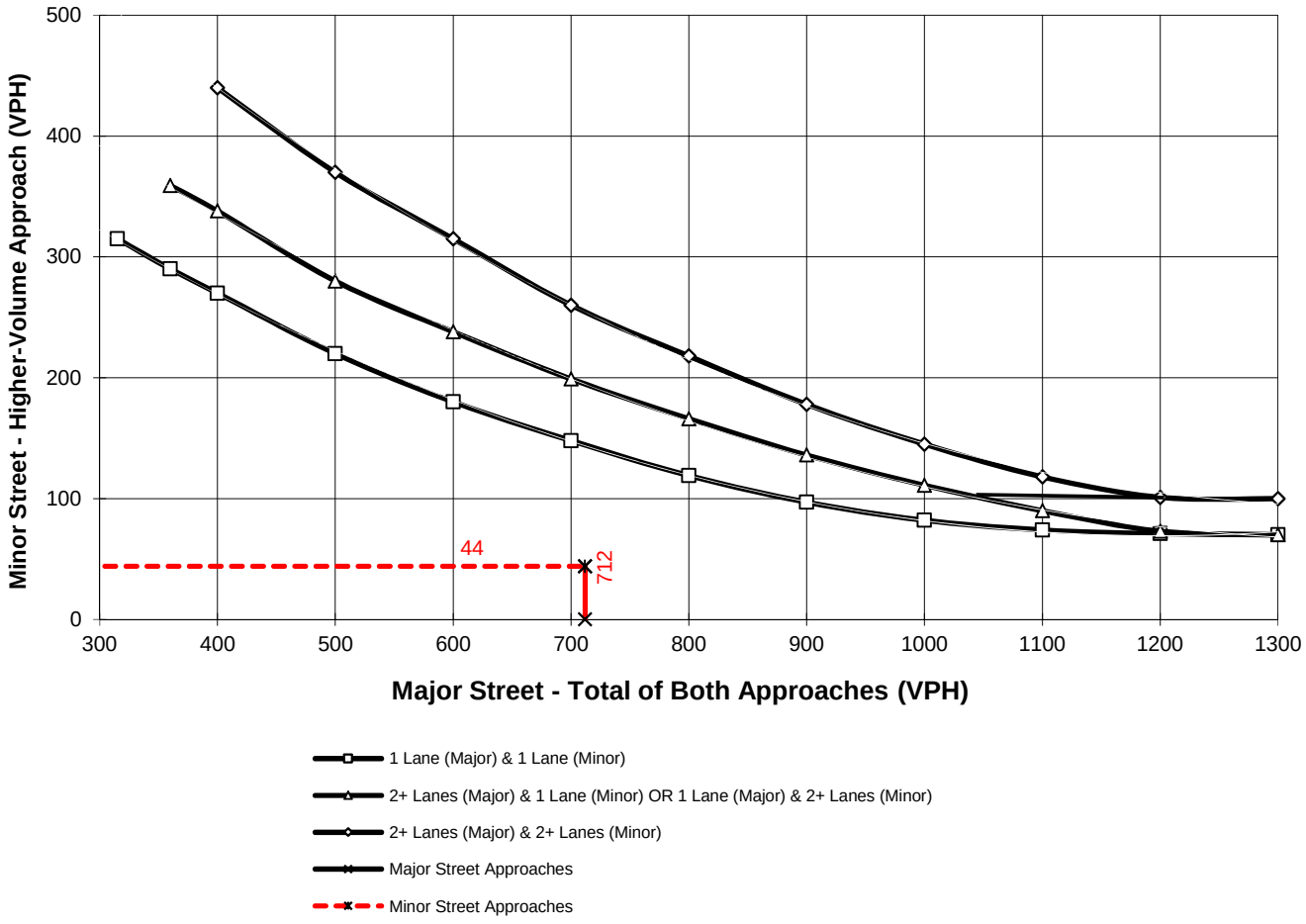
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday AM Peak Hour**

Major Street Name = **Eagle Glen Pkwy.** Total of Both Approaches (VPH) = **712**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **44**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

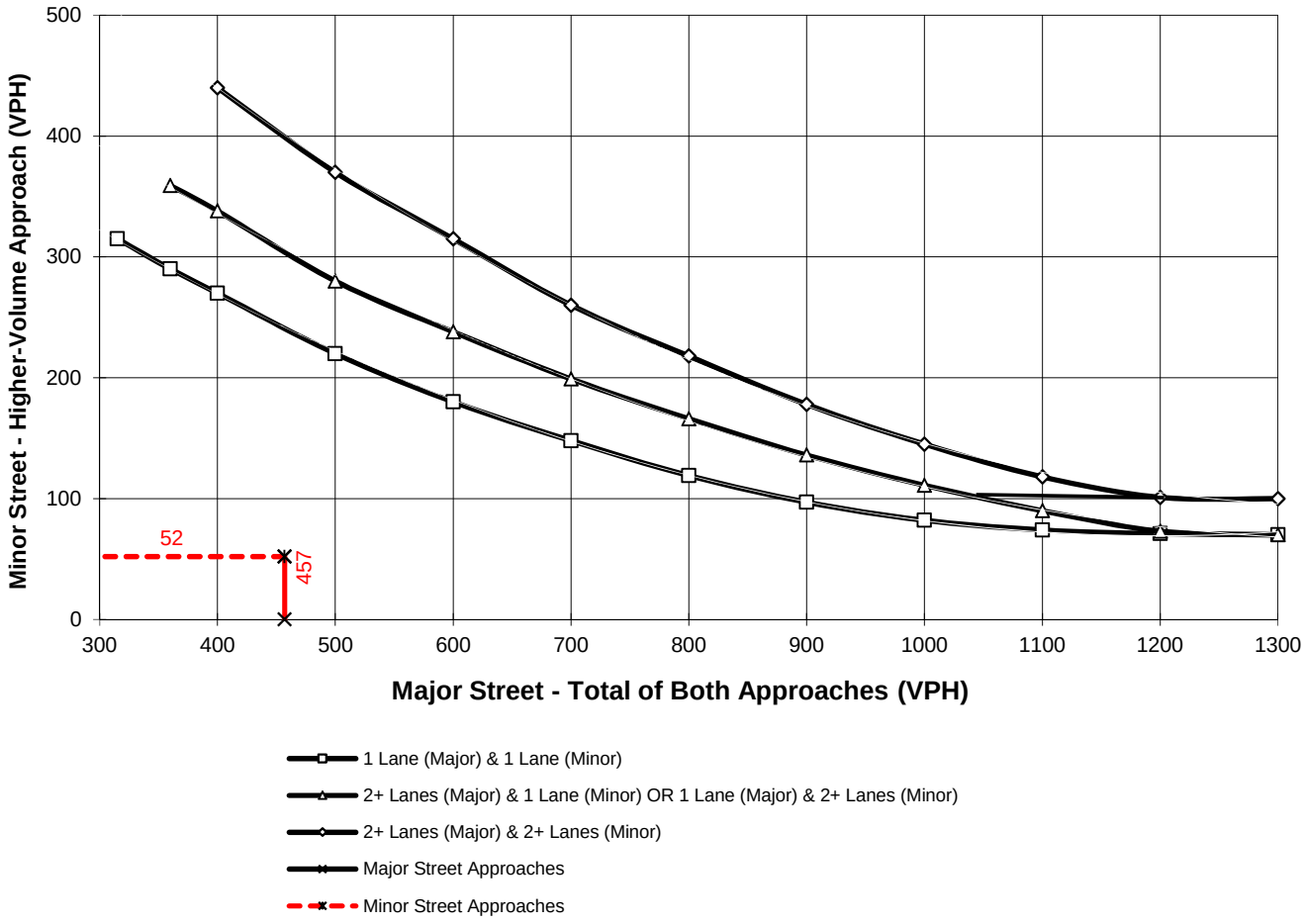
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **IYWPBO Conditions - Weekday PM Peak Hour**

Major Street Name = **Eagle Glen Pkwy.** Total of Both Approaches (VPH) = **457**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Bennett Av.** High Volume Approach (VPH) = **52**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

___ DIST	___ CO	___ RTE	___ PM		TRAFFIC CONDITIONS		IYWPBO
				CALC	JC	DATE	09/09/18
Jurisdiction:	City of Corona			CHK		DATE	
Major Street:	Eagle Glen Pkwy.				Critical Approach Speed (Major)		45 mph
Minor Street:	St. "C"				Critical Approach Speed (Minor)		35 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **10,400** vpd Minor Street Future ADT = **2,600** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 + **10,400**	*1* **2,600**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 + **10,400**	*1* **2,600**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX					
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 100% **B** 100%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	IYWPBO
				CALC JC	DATE 09/09/18
				CHK	DATE

Jurisdiction: **City of Corona**
Major Street: **St. "A"**
Minor Street: **TAZ Main Dwy.**

Critical Approach Speed (Major) 40 mph
Critical Approach Speed (Minor) 35 mph

Major Street Approach Lanes = **2** lane
Minor Street Approach Lanes **1** lane

Major Street Future ADT = **11,550** vpd
Minor Street Future ADT = **1,950** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... √
or
In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	8,000	5,600	2,400	1,680
2 + **11,550**	*1* **1,950**	9,600	6,720 *	2,400	1,680 *
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied	Urban	Rural	Urban	Rural
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1	*1*	12,000	8,400	1,200	850
2 + **11,550**	*1* **1,950**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
XX					
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 100% **B** 100%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	IYWPBO
				CALC JC	DATE 09/09/18
				CHK	DATE

Jurisdiction: **City of Corona**
Major Street: **St. "A"**
Minor Street: **TAZ S. Dwy.**

Critical Approach Speed (Major) 40 mph
Critical Approach Speed (Minor) 35 mph

Major Street Approach Lanes = **2** lane
Minor Street Approach Lanes **1** lane

Major Street Future ADT = **9,050** vpd
Minor Street Future ADT = **1,343** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √
or
In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Major Street	Minor Street	Minimum Requirements ADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
CONDITION A - Minimum Vehicular Volume						
Satisfied / Not Satisfied XX						
Number of lanes for moving traffic on each approach						
	1	*1*	8,000	5,600	2,400	1,680
	2 + **9,050**	*1* **1,343**	9,600	6,720 *	2,400	1,680
	2 +	*2* +	9,600	6,720	3,200	2,240
	1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic						
Satisfied / Not Satisfied XX						
Number of lanes for moving traffic on each approach						
	1	*1*	12,000	8,400	1,200	850
	2 + **9,050**	*1* **1,343**	14,400	10,080	1,200	850 *
	2 +	*2* +	14,400	10,080	1,600	1,120
	1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B						
Satisfied / Not Satisfied XX						
No one condition satisfied, but following conditions fulfilled 80% of more	**A** 80%	**B** 90%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX B:

Water Supply Assessment and Written Verification of Water Supply for the Arantine Hills Specific Plan Amendment No. 1 Project

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Water Supply Assessment and Written Verification of Water Supply for the Arantine Hills Specific Plan Amendment No. 1 Project

City of Corona, California

City of Corona Department of Water and Power; August 2015

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List of Abbreviations

Abbreviation:	Description:
AB	Assembly Bill
AF	Acre-Feet
AFY	Acre-Feet per Year
BDCP	Bay Delta Conservation Plan
BPS	Booster Pump Station
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CRA	Colorado River Aqueduct
CWC	California Water Code
DPH	Department of Public Health
DWP	City of Corona Department of Water and Power
DWR	Department of Water Resources
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EVMWD	Elsinore Valley Municipal Water District
GWMP	Groundwater Management Plan
MCL	Maximum Contaminant Levels
MWDSC	Metropolitan Water District of Southern California
NPDES	National Pollutant Discharge Elimination System
QSA	Quantification Settlement Agreement
RCFCWCD	Riverside County Flood Control and Water Conservation District

RCTC	Riverside County Transportation Commission
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SAWPA	Santa Ana Water Protection Authority
SB	Senate Bill
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
WRF	Water Reclamation Facility
WSA	Water Supply Assessment
WSAP	Water Supply Allocation Plan
WTP	Water Treatment Plant

INTRODUCTION

This Water Supply Assessment and Written Verification provide an evaluation of water demand and substantive evidence of water supplies for the proposed Arantine Hills Specific Plan Amendment No. 1 (proposed Project) pursuant to the requirements of §10910-10915 of the California Water Code (CWC). The report includes the description of existing land uses, the proposed Project, the relevant existing regulations, the existing water supply service area, the existing water supply and water demands of the City of Corona, documentation that verifies that the water entitlements, water rights and related service contracts needed by the City of Corona (City), as supplied by the City of Corona Department of Water and Power (DWP) to produce a sufficient supply for the entire project are in place. It quantifies the water demand of the existing land use and of the proposed Project, and identifies the difference between the existing land use and uses that would result from the proposed Project. The evaluation accounts for this difference within the projected water supply and water demand information for three weather year scenarios (average year, single-dry year, and multiple-dry water year) provided through various data sources to determine whether there is a sufficient water supply projected by the City to meet the proposed Project water demands plus that of the City's water supply service area through the next 20-years.

This report provides evidence that water supply sources for the City DPW service area plus the proposed Project have been included within the City's capital improvement program, that permits for infrastructure construction and mitigation requirements have been received, and that related regulatory approvals have been or will be met.

To improve the link between information on water supply availability and certain land use decisions made by cities and counties, the State of California enacted legislation that promotes collaborative planning between local water suppliers and cities and counties. Senate Bills (SB) 610 (Costa) and 221 (Kuehl) were signed into law by Governor Gray Davis on October 9, 2001. SB 610 and 221 require a water supply assessment in conjunction with development project reviews under the California Environmental Quality Act (CEQA) and a written verification of water supply where a development is proposed for approval to ensure that increased demands are adequately addressed and that a firm source of water is available.

Pursuant to California Water Code §10910, cities and counties, acting as lead agencies, request that water purveyors prepare WSAs for certain projects (as defined in Water Code §10912) subject to the CEQA. "Projects" under SB610 are defined under Water Code §10912(a) as follows:

- A proposed residential development of more than 500-dwelling units,
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square-feet of floor space,
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square-feet of floor space,
- A proposed hotel or motel, or both, having more than 500 rooms,

- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40-acres of land, or having more than 650,000 square-feet of floor area.
- A mixed-use project that includes one or more of the specified projects, or
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

If a proposed Project meets any one of these criteria, a Water Supply Assessment must be prepared.

The primary issue for the Water Supply Assessment to determine is whether the projected water supply for the next 20 years – based on normal, single-dry, and multiple-dry water years – will meet the demand projected for the project plus the existing and planned future uses, including agricultural and manufacturing uses, throughout the service area of the public water supplier.

If the lead agency is not able to identify any public water system that may supply water for the project, the lead agency shall prepare a water supply assessment after consulting with any entity serving domestic water supplies whose service area includes the site of the proposed project, the local agency formation commission, and the governing body of any public water system adjacent to the site of the project. The governing body of the lead agency must approve the water supply assessment prepared pursuant to this section at a regular or special meeting.

Pursuant to California Water Code §10910, cities and counties, acting as lead agencies, request that water purveyors prepare Written Verifications of Supply for any residential developments of 500 or greater units as a condition of approval of a tentative tract or parcel map. The verification must conclude whether the water supplier is able or unable to provide a sufficient water supply to meet the projected demand of the proposed Project. Sufficient supply is defined as the total water available during normal, single dry and multiple dry years within a 20-year projection that will meet the water suppliers existing and planned future uses for its service area plus the proposed project.

The following key issues must be considered by the water purveyor in the preparation of Written Verification of Supply:

- Historical record of water demands for at least 20 years;
- Urban Water Shortage Contingency Analysis;
- Supply reduction for specific water use sector;
- Amount of water that can be reasonably relied upon from specific supply projects.

The Urban Water Management Planning Act (UWMPA) requires municipal water providers serving over 3,000 acre-feet (AF) of water or having at least 3,000 service connections to prepare Urban Water Management Plans (UWMP) every five years to demonstrate their ability to provide water supplies for current and future expected development under normal, single dry, and multiple dry year scenarios. These plans require the assessment of water conservation measures, wastewater recycling, and a water shortage contingency plan. This report incorporates and relies upon the planning assumptions and projections of the City's 2010 Urban Water Management Plan Update (City of Corona, July 2011). The proposed Project is within the City's sphere of influence. Its water demands were included in the City's 2005 and 2010 UWMP updates.

As the CEQA lead agency, the City of Corona has determined that the proposed Project is subject to CEQA. The proposed Project specifically meets the SB610 "project" criteria by proposing a new residential development of more than 500-dwelling units. Therefore, pursuant to CWC §10912(a)(1), the proposed Project requires the preparation of a WSA.

The City of Corona supplies more than 3,000 AFY of water and serves more than 3,000 customers and therefore pursuant to the California Water Code is a California urban water supplier. In 2005 the City provided domestic water to nearly 146,700 customers with an estimated total water demand of 45,000 AFY. Therefore, the City of Corona is considered a public water utility responsible for the preparation of this Water Supply Assessment and Written Verification of Supply.

A Water Supply Assessment for the 2012 Arantine Hills Specific Plan (City of Corona, 2010) was prepared in September 2010 pursuant to SB 610 and was adopted by the City Council on October 6, 2010. A Written Verification of Supply of for the 2012 Arantine Hills Specific Plan was prepared in May 2012. The 2012 Arantine Hills Specific Plan was approved by the City Council in August 2012. This WSA and Written Verification of Supply is for a Arantine Hills Specific Plan Amendment No. 1 (Corona, 2015) and supplement to the Environmental Impact Report.

SECTION 1.0 PROPOSED PROJECT

1.1 INTRODUCTION

The Arantine Hills Specific Plan Amendment No. 1consists of approximately 276.0 acres located at the foothills of the Santa Ana Mountains in the southeastern boundary of the City of Corona, Riverside County, California. The project is bounded by the Eagle Glen Specific Plan development on the north and west, by the Cleveland National Forest and privately owned agricultural land on the south, and by Interstate 15 on the east. The Project site consists of all or portions of seven parcels. The following seven assessor's parcel numbers (APN) comprise the project:

- 279-190-045-5
- 279-240-018-5
- 282-030-003-6
- 282-030-004-7
- 282-030-005-8
- 282-030-006-9
- 282-030-008-1.

Figure 1-1 presents a map of the regional project location. Figure 1-2 presents the local vicinity map of the proposed Project.

Figure 1-1: Regional Location Map (KTGY, 2009)

Figure 1-2: Project Location Map (KTGY, 2009)

1.2 PROJECT DESCRIPTION

Existing land uses within the Arantine Hills Specific Plan Amendment No. 1 area consist entirely of agricultural land uses that were previously dominated by citrus groves. The City's existing General Plan Land Use Designation for the proposed Project area is entirely "Agricultural-Possible Future Urban Use". The existing zoning designation is Agriculture.

The proposed Project site had historically been used for the production of grapefruit. A total of 41,584 grapefruit trees were planted on 231 acres. Irrigation was supplied from water purchased from the Elsinore Valley Municipal Water District (EVMWD) and by local onsite wells.

Directly north of the Arantine Hills Specific Plan Amendment No. 1 area is the Eagle Glen Specific Plan area, a residential and golf course community. There is an existing neighborhood commercial center with a supermarket located on Bedford Canyon Road, just north of Cajalco Road. To the northeast, Arantine Hills abuts land owned by the Riverside County Transportation Commission (RCTC). This land was formerly planned for improvements to the Interstate 15 Freeway (I-15), including flyovers and ramps associated with the planned Mid-County Parkway, a limited access east/west route through western Riverside County. The Mid-County Parkway is a proposed transportation corridor that, as originally proposed, would have connected the City of San Jacinto with the Corona area. The portion of the County Parkway between Corona and Perris is no longer under consideration by the RCTC. To the south of the proposed Project area lies unincorporated County land and a series of large scattered lots located on rugged topography, privately owned agricultural land.

The proposed Project would create a master-planned community that includes a balanced residential, commercial and mixed-use development, as well as open space/recreation uses. The proposed Project consists of the following mix of land uses:

- Approximately 184 acres of residential development, providing 1,806 detached and attached single-family homes and multi-family dwellings
- Approximately 10 acres of General Commercial land uses, providing retail, office, entertainment, lodging and employment opportunities.
- Approximately 57 acres of Open Space, including natural open space, land associated with Bedford Canyon Wash, and a water quality basin.
- Approximately 9 acres of Parkland, including active neighborhood parks, a special use park and two pocket parks.
- Approximately 16 acres of Master Planned Roadways.

The proposed Project will integrate these land uses through a system of public and private streets and pedestrian/bike trail circulation system. Paseos (or promenades) and parkways within the neighborhoods would link the community with the parks, and commercial centers. The Bedford Canyon Wash open space corridor would provide a unifying aesthetic component to the proposed Project. The Specific Plan Amendment No. 1 would establish land use types, locations, and densities; a circulation concept; infrastructure and public facility improvements; development standards and design guidelines; and an implementation program that would guide development for the proposed Project area. A summary of the proposed Project land uses by planning area is presented as Table 1-1. Figure 1-3 presents a map of the proposed land use plan.

Table 1-1: Arantine Hills Specific Plan Amendment No. 1 Land Use (KTGY, 2015)

Land Use	Acres	Dwelling Units
General Commercial (GC)	10.0	
High Density Residential (HDR)	34.0	**699**
Medium Density Residential (MDR)	75.0	**720**
Low Density Residential (LDR)	74.8	**387**
Parks (P)	9.3	**N/A**
Open Space (OS)	57.3	**N/A**
Master Planned Roadways	15.6	**N/A**
TOTAL	**276.0**	**1,806**

1.3 CLIMATE

The climate of the proposed Project area is typical of Southern California, characterized as having mild temperatures year-round. The mean annual rainfall in the City of Corona and vicinity is approximately 10 inches. Reference evapotranspiration is 56.4 inches per year or approximately 4.7 AFY/acre. Table 1-2 presents the monthly reference evapotranspiration and rainfall data from the University of Riverside (Station 44) as provided on their CIMIS website database at *www.cimis.water.ca.gov* for the period of record from June 1985.

Evapotranspiration and rainfall data is used in calculations of irrigation water demands.

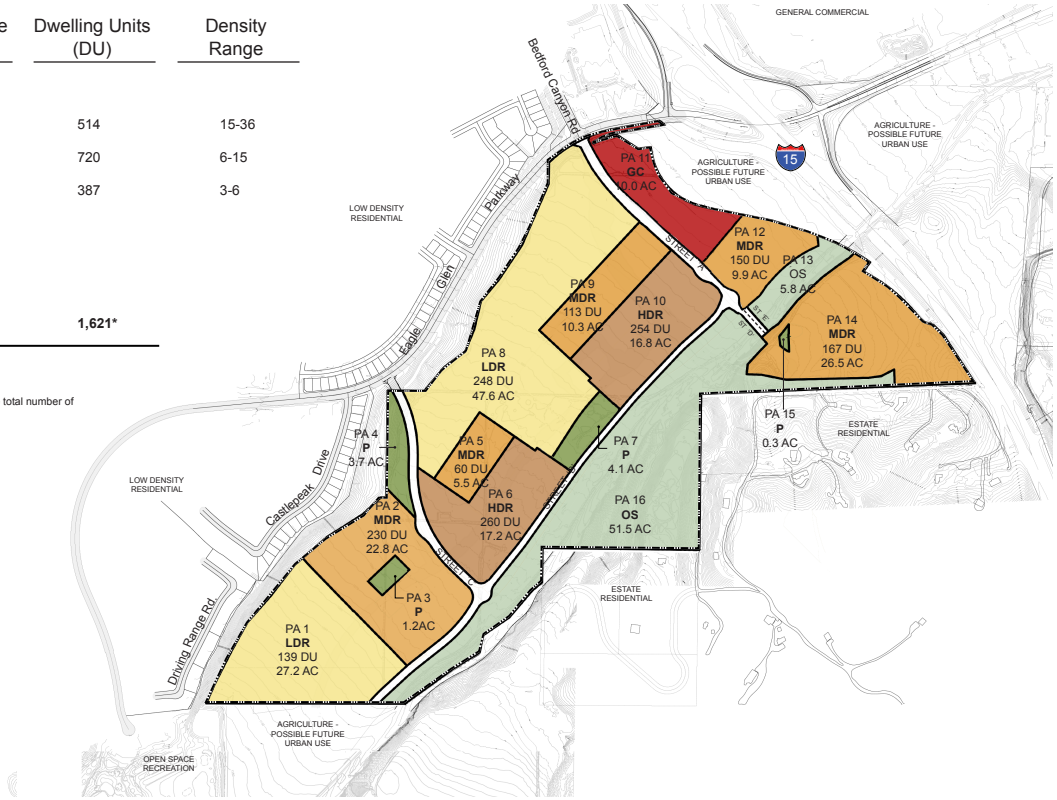
Table 1-2 Project Area Climate Characteristics (inches)

Project Area Climate Characteristics (inches)							
	Jan	Feb	Mar	Apr	May	Jun	
Standard Monthly ETo	2.49	2.91	4.16	5.2	5.94	6.56	
Average Rainfall	2.16	2.15	1.75	0.8	0.23	0.07	
	Jul	Aug	Sep	Oct	Nov	Dec	**Total**
Standard Monthly ETo	7.22	6.92	5.35	4.05	2.94	2.56	**56.4**
Average Rainfall	**0.04**	**0.12**	**0.26**	**0.32**	**0.93**	**1.21**	**10.1**

Figure 1-3: Land Use Plan (KTGY, 2015)

Land Use	Acreage (AC)	Dwelling Units (DU)	Density Range
General Commercial (GC)	10.0		
High Density Residential (HDR)	34.0	514	15-36
Medium Density Residential (MDR)	75.0	720	6-15
Low Density Residential (LDR)	74.8	387	3-6
Parks (P)	9.3		
Open Space (OS)	57.3		
Master Planned Roadways	15.6		
TOTAL	**276.0**	**1,621***	

*Note: If PA 6 and 10 are developed with age-qualified units, the total number of dwelling units would increase to 1,806 du.



Arantine Hills Specific Plan Amendment No.1

Land Use Plan (June 2015)

N

0' 200' 400' 800'

THE NEW HOME COMPANY

Corona, CA
KTGY # 2014-0353

KTGY Group, Inc.
Architecture + Planning
17922 Fitch
Irvine, CA 92614
949.851.2133
ktgy.com

ktgy

SECTION 2.0 PROPOSED PROJECT WATER SUPPLY & DEMANDS

2.1 PROPOSED PROJECT WATER SUPPLY

The Arantine Hills Specific Plan Amendment No. 1 area is entirely located within the City of Corona (City) Department of Water and Power (DWP) water supply service area. The City would serve the proposed Project with water for the required facilities. The City obtains its water from two sources. The primary source is groundwater from the Temescal, Bedford, and Coldwater Sub-Basins. The secondary source is water imported by Metropolitan Water District of Southern California (MWDSC) from the Colorado River and the State Water Project (SWP). MWDSC wholesales its water to Western Municipal Water District (WMWD or Western). WMWD then retails its water to the City. To ensure comprehensive information and analysis are provided herein, the City consulted with Western in preparing its 2005 UWMP and reviewed other water supply documents relevant to the region.

The proposed Project's water distribution systems would be designed to satisfy the water demand requirements for residential, commercial, recreational, landscaping and fire-fighting purposes associated with the development.

The proposed water system improvements, as described in the proposed Project Specific Plan, would consist of additional water transmission pipelines and a reservoir per the City's current Water Master Plan. The water distribution system would be designed and constructed with capacities to serve potential future development to the south of Arantine Hills.

The City DWP prepared a Groundwater Management Plan (GWMP) pursuant to the guidance provided by AB3030 and the California Groundwater Management Act (Todd/AKM, 2008). The proposed Project will maximize the use of recycled municipal wastewater, consistent with the recommendations of the GWMP.

To reduce the proposed Project's demand for potable water, an extension of the existing recycled municipal wastewater system in the neighboring Eagle Glen development would be designed and constructed to provide recycled water for landscape irrigation in street medians, open space, slopes and parks, entry monuments, fuel modification areas, as well as in commercial areas within the Project.

In March of 2007, the City received from the State Water Quality Control Board - Santa Ana Region, Board Order Number R8-2007-0005 and NPDES Number CA8000383 describing the Waste Discharge and Reclamation Requirements for the production and use of treated effluent from its Water Reclamation Facility Number 1. The City's estimated recycled water supply capacity over the next 20 years is presented as Table 2-1.

Table 2-1: Recycled Water Capacity

City of Corona Recycled Water Supply Capacity	
Year	**Capacity (AFY)**
2015	**12,330**
2020	**18,480**
2025	**18,480**
2030	**20,270**

Recycled water use in 2010 was approximately 3,180 AFY.

The City will maintain ongoing coordination with the State Water Resources Control Board Division of Drinking Water (DDW) for the review and approval of the use of recycled water on an "as required basis".

Refer to Figures 2-1 and 2-2 for information on the proposed Project's potable water distribution and reclaimed water distribution plans.

Figure 2-1 Proposed Project Potable Water Facilities (NOTE: REPLACE WITH HIGHER RESOLUTION)

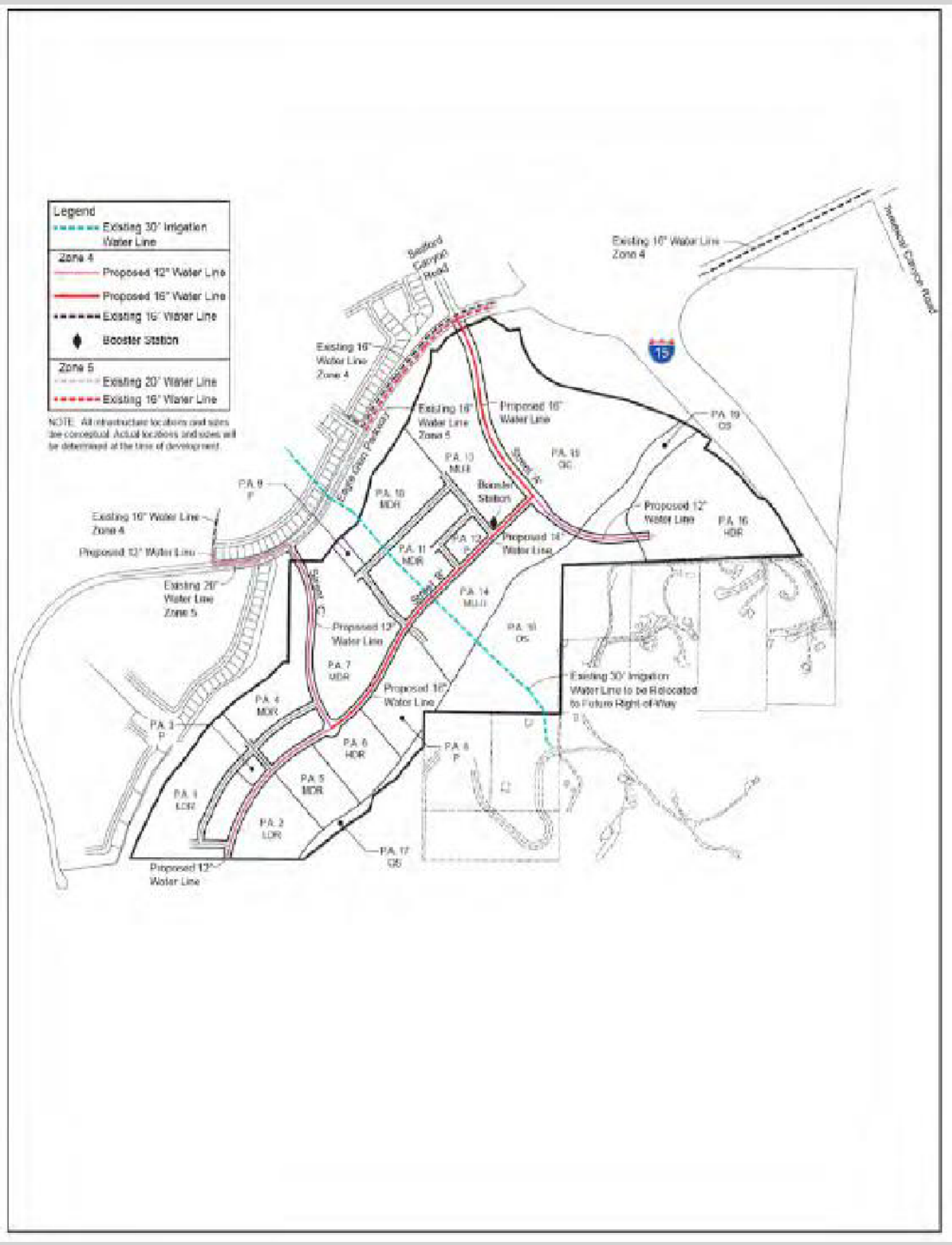
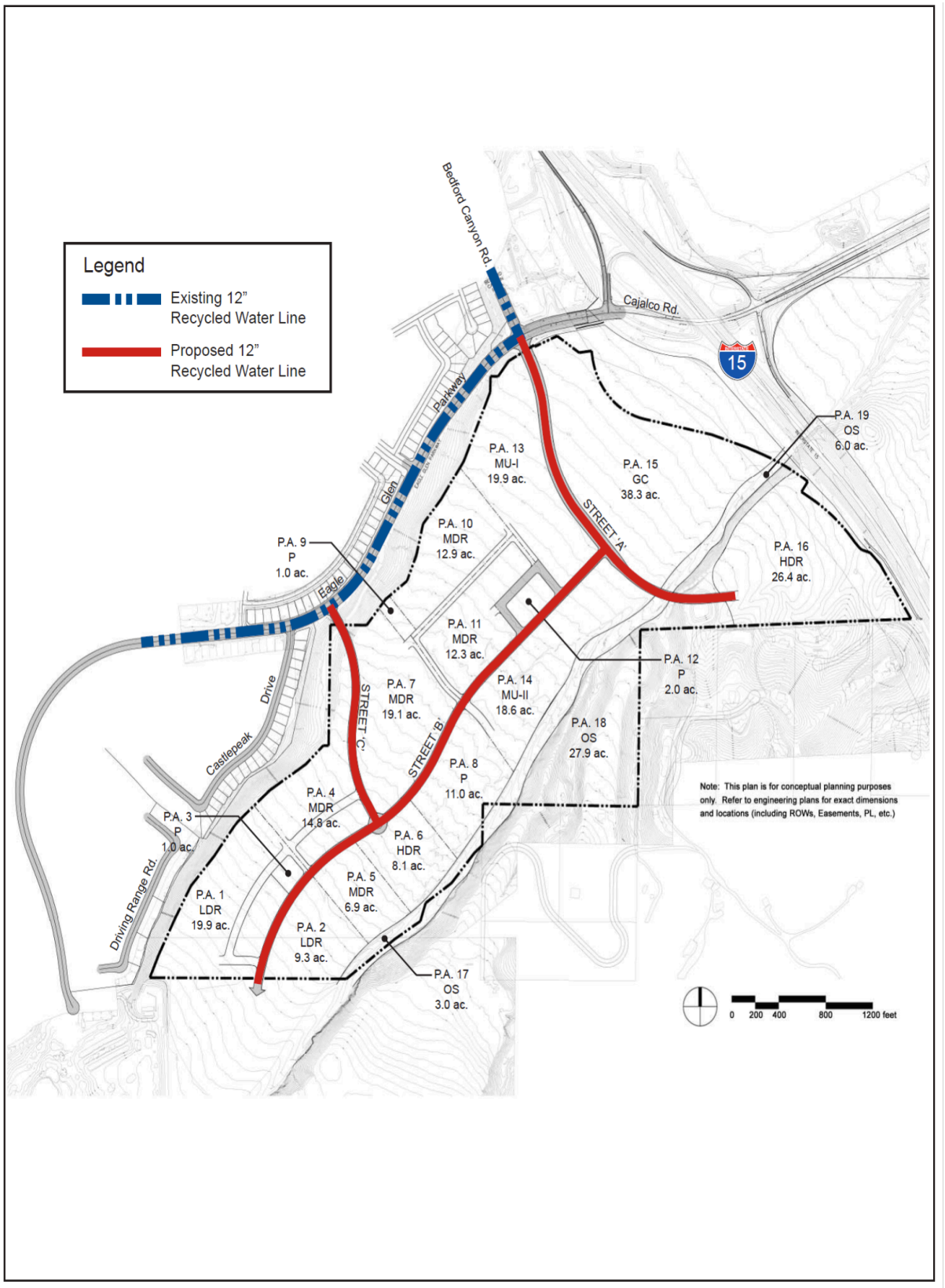


Figure 2-2: Propose Project Reclaimed Water Infrastructure



2.2 PROJECT WATER DEMANDS

The proposed Project has a water demand of approximately 796 AFY. A summary of the anticipated water demands, for each of the planning areas in the proposed Project is presented as Table 2-2. Non-residential unit water demand values were obtained from the City of Corona Water Master Plan (Corona, 2010) and are consistent with values used for similar projects. Exterior water demands are calculated pursuant to the City's Landscape Design Guidelines (Corona, 2001). Exterior demands are calculated based upon local evapotranspiration factors for ornamental and turf grass areas.

Water demands are estimated separately for interior and exterior needs of the proposed Project to facilitate the identification of the potential uses of reclaimed water. The proposed Project will maximize the use of recycled municipal wastewater, (also referred to as reclaimed water), consistent with the recommendations of the City's Groundwater Master Plan (GWMP). The City will not be providing recycled water to single-family homes. All irrigation of commercial landscapes, parks, fuel modification areas, entry monuments, median strips and open spaces are planned for use of reclaimed water throughout the proposed Project. Table 2-2 presents the anticipated breakdown of the total water demand for the proposed Project into potable and recycled water demands. Interior potable water demands were calculated based upon per unit water demand factors for each land use type described within the City's UWMP.

To promote water-efficient landscaping, water-use management and water conservation throughout the plan area, the proposed Project will be required to design and construct its irrigation system in conformance with City Municipal Code Section 17.70 and to adopted landscape guidelines for residential and commercial projects. The irrigation system would be designed and operated to prevent runoff and overspray. Where applicable, the irrigation system would use drip and/or micro-spray technology to achieve as high an overall irrigation efficiency as possible. Plant materials will be grouped in accordance with WULCOLS III (Water Use Classifications of Landscape Species) (DWR, 2000) and recycled water would be used to irrigate all common landscape areas throughout the plan area.

All the potable water and recycled water design criteria would be in accordance with the City of Corona Municipal Code, City of Corona's Standards and Specifications, DWP Design Policy, and California Department of Public Health Drinking Water Related Regulations.

Table 2-2: Project Demand by Land Use

					INTERIOR RESIDENTIAL DEMAND			EXTERIOR RESIDENTIAL DEMAND						
Land Use	Acreage	Dwelling Units	Water Unit Flow Factor [1] (gpd/ac)	Total Demand (AFY)	Estimated Persons Per Dwelling Unit [2]	Estimated Interior Gallons per Capita Per Day [5]	Residential Interior Demand (AFY)	Yard Area (Acres)	Irrigable Area (Acres)	Ornamental Area (Acres)	Turf Area (Acres)	Exterior Demand [3] (AFY)	Total Residential Demand (AFY)	Project Demand Interior + Exterior Demand (AFY)
General Commercial (GC) [8]	10.0		1,610	18.0										18.0
High Density Residential (HDR)	34.3	514			2.5	102	146.8	10.8	7.6	5.4	2.2	13.1	159.9	159.9
High Density Residential (HDR) [6]		185			2.0	102	42.3						42.3	42.3
Medium Density Residential (MDR)	74.3	720			3.3	102	271.5	10.8	7.6	5.4	2.2	13.1	284.6	284.6
Low Density Residential (LDR)	75.6	387			4.1	102	181.3	17.9	12.6	5.4	7.2	31.9	213.2	213.2
Parks [4] **(P)**	8.7		1,200	11.7										11.7
Open Space [4] **(OS)**	57.3		1,000	64.2										64.2
Master Planned Roadways [7]	15.8		1,000	1.8										1.8
Total	276.0	1,806		95.7			641.8	39.5	27.7	16.2	11.5	58.1	700.0	795.6

NOTES:

1. **Water Master Plan Unit Demand**
2. **Estimated for Corona General Plan Housing Element (2004)**
3. **MAWA Calculation; Area based on Corona Landscape Ordinance**
4. **Irrigation with Recycled Water**
5. **Per City of Corona Personal Communications**
6. **Acreage included above. Exterior Demand included above.**
7. **10% of Roadway Acreage to be Landscaped**
8. **50% of GC Acreage to be Landscaped**

Table 2-3: Demand by Source Type

Land Use (Designation)	Water Source		
	POTABLE (AFY)	RECYCLED (AFY)	TOTAL (AFY)
General Commercial (GC)	9.0	9.0	18.0
High Density Residential (HDR)	202.2		202.2
Medium Density Residential (MDR)	284.6		284.6
Low Density Residential (LDR)	213.2		213.2
Parks (P)		11.7	11.7
Open Space [(4)] (OS)		64.2	64.2
Master Planned Roadways		1.8	1.8
TOTAL	709.0	86.6	795.6

A comparison of the City's historical use and future recycled water supply capacity identifies a four-fold average annual increase of the use of recycled water. The City will therefore have more than sufficient supplies of recycled water to meet the anticipated needs of the proposed Project, a maximum demand of 87 AFY for exterior irrigation. Any excess capacity of recycled water is therefore anticipated to be sufficient to meet the needs of existing recycled water demands, plus the proposed project, plus other recycled water demands throughout the City.

SECTION 3.0 AVAILABILITY OF WATER SUPPLY

3.1 CITY OF CORONA WATER SERVICE AREA

The City of Corona (City) provides municipal water service to an area of approximately 39 square-miles. This area includes approximately 32 square-miles within the City's municipal area, and 7 square- miles within the City's Sphere of Influence (SOI) in Riverside County. The proposed Project would be directly serviced by the City for all of its potable and recycled water demands (City of Corona, 2005a, 2005b).

The City currently maintains and operates 21 groundwater production wells for its primary municipal water supply (City of Corona 2005a, 2005b). Locations of the City wells and those of other historical groundwater pumpers are shown in Figure 6.

The City's secondary water supply source is imported Colorado River and State Project Water from Metropolitan Water District of Southern California (MWDSC) through Western Municipal Water District (WMWD or Western).

The City's water supply availability as described within the City's Urban Water Management Plan (UWMP) (City of Corona, 2012) is detailed in Table 3-1 for years 2010 to 2035.

Table 3-1: City of Corona Water Supplies

City of Corona Current and Planned Water Supplies (AFY) (City of Corona 2012)						
Water Supply Source	**YEAR**					
	2010	**2015**	**2020**	**2025**	**2030**	**2035**
Imported (Water Western Municipal Water District)	13,427	20,444	18,467	18,775	19,125	19,503
Groundwater	19,218	20,444	18,467	18,775	19,125	19,503
Total Potable Supply	**32,645**	**40,888**	**36,934**	**37,550**	**38,250**	**39,006**
Reclaimed Water	3,308	5,222	6,873	6,873	6,873	6,873
TOTAL SUPPLY	**35,953**	**46,110**	**43,807**	**44,423**	**45,123**	**45,879**

3.2 DISTRIBUTION SYSTEM AND STORAGE

Treated imported water from MWDSC is delivered via a single imported water connection to the City's Mills Transmission Pipeline. Untreated imported water from MWDSC (through sales through WMWD) is delivered to the City via three imported water connections on MWDSC's Lower Feeder, the City's Lester Water Treatment Plant (WTP), Sierra del Oro WTP, and Green

River WTP .The City maintains 25 active groundwater wells, 7 supplying the Temescal Desalter, 18 directly supplying the potable water distribution system, and 2 that are inactive.

The City's potable water distribution system consists of 535 miles of pipeline forming six primary pressure zones that serve elevations varying from a low point at 430 feet (Zone 1) in the Green River area to a high point of 1,520 feet (Zone 6) in South Corona. Pressures to City customers vary from about 40 pounds per square inch (psi) to 150 psi. Water is delivered to the various pressure zones by 16 domestic water booster pump stations (BPS).

The City operates 16 potable reservoirs ranging in size from 0.5 million gallons (MG) to 6 MG with a total storage capacity of 43.3 MG. The city operates six blending stations. These stations blend high nitrate Temescal Basin groundwater with high quality imported water and Temescal Desalter product water to lower nitrates and total dissolved solids (TDS). The blended water meets the Safe Drinking Water Act standards of the Federal Environmental Protection Agency (EPA) and California Division of Drinking Water (DDW). The City's pressure zones are interconnected between reservoirs and supply sources by major transmission mains, ranging in size from 12 inches to 36 inches in diameter, and BPS. Distribution pipelines in the City's potable water distribution system generally range in size from 2 inches to 12 inches in diameter and are used to distribute water to residential developments and industrial and commercial users.

3.3 IMPORTED WATER

The City's imported water is supplied by MWDSC and purchased through WMWD, a member agency of MWDSC. The WMWD service area covers approximately 527 square-miles throughout western Riverside County and serves roughly 24,000 retail and eight wholesale customers, including the City of Corona. Approximately two-thirds of the water WMWD sells is treated and the remaining is raw water. Roughly one-quarter of the water WMWD sells is for agricultural uses with the remainder used for domestic purposes (WMWD, 2009).

The majority of water that WMWD purchases comes from the State Water Project (SWP), which transports water from Northern California via the California Aqueduct. WMWD water is also imported (approximately one-fifth) from the Colorado River Aqueduct and a very small quantity is purchased from San Bernardino Basin. WMWD also operates several wells for pumping groundwater in its Murrieta Division (WMWD, 2009).

The City's imported water supply consists of treated water supplied via the Mills Pipeline from MWDSC's Henry J. Mills filtration plant and untreated water via the Lower Feeder.

The capacities of each of the City's imported water sources are listed in Table 3-2.

Table 3-2: Imported Water Source Capacity

Imported Water Source	Treatment or Effective Capacity (MGD)
Colorado River Aqueduct	30
State Water Project – Lester WTP	6.5
Colorado River Aqueduct – Sierro De Oro	9.0
Total	45.5

3.3.1 Projects Planned by MWDSC

MWDSC describes in its 2010 Regional Urban Water Management Plan (RUWMP) the following programs to meet its supply reliability goals:

- Surface water storage programs related to the SWP and the Colorado River
- Colorado River water management programs
- SWP management programs
- Central Valley/SWP storage and transfer programs
- Water conservation
- Development of local supplies
- Water reclamation projects
- Ocean desalination programs
- Groundwater banking programs in Southern California region (Riverside – Corona Feeder).

3.3.2 Imported Water Proof of Rights

The City purchases imported water from WMWD. WMWD obtains approximately 90% of its total supply through imported water sources from MWDSC. About one-quarter of the water Western purchases from MWDSC comes from the Colorado River Aqueduct and about three-quarters from the SWP, which transports water from Northern California via the California Aqueduct. Western became a member agency of MWDSC in November 1954. Western has a purchase agreement for an initial base demand of 65,298.5 AF with a Tier 1 annual maximum of 58,768.7 AF[1] . Western has a Purchase Order Commitment with MWDSC for 391,791 AFY (see Appendix B). Western provides imported water for its direct retail customers in the unincorporated areas around Lake Mathews, portions of the City of Riverside, and the Murrieta area.

3.3.3 Imported Water Capital Outlay Program

No additional capital improvements are required for continued importation of the water from WMWD. Existing agreements and infrastructure will remain in place and are sufficient for delivery of water to meet the service area and proposed Project demands.

3.3.4 Imported Water Permits and Regulatory Approvals

No new water permits or regulatory approvals are required for continued importation of water from WMWD. The City currently has in place the following permits and regulatory approvals for potable water distribution and related construction and maintenance activities:

- California Division of Drinking Water, domestic water supply permit to operate, pursuant to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116525;

[1] MWDSC bills customers on a tiered system. Tier 1 supplies are set at 90% of the base demand and billed at Tier 1 rates. Supplies in excess of the Tier 1 amount are billed at the higher Tier 2 rate.

- Santa Ana Region RWQCB NPDES General Construction Permit and Storm Water Santa Ana Region RWQCB Order No. R8-2002-011 NPDES No. CAS 618033 Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region Area-wide Urban Runoff; County of Riverside Department of Environmental Health.

The following permits may be required on a project specific basis:

- Pollution Prevention Plan for construction projects resulting in the disturbance of one or more acres of land; County of Riverside Department of Environmental Health;
- RCFCWCD Encroachment Permit for project elements crossing and or within District right-of-way, easement or facilities;
- California Department of Transportation Encroachment Permits for project elements in State right-of-ways;
- County of Riverside Transportation Department Encroachment Permits for project elements in public right-of-ways;
- City of Corona, Public Works Department, Encroachment Permits for project elements in public right-of-ways;
- City of Corona, Public Works Department, Haul Route Permit; Railroad Encroachment

3.4 GROUNDWATER SUPPLY

3.4.1 Groundwater Management Plan

The City of Corona developed a Groundwater Management Plan in 2008 (GWMP) to support the management of a reliable and sustainable groundwater resource for the City (Todd/AKM, 2008).

The GWMP follows the guidelines set forth by AB 3030, the California Department of Water Resources Groundwater Management Act (Sections 10750-10756 of the California Water Code). It provides a systematic procedure for an existing local agency to develop a groundwater management plan. The GWMP allows the City of Corona to address issues of groundwater recharge and storage in order to effectively manage the local sub-basins and the City's potable water supply. Implementation of the GWMP allows the City to raise revenue to pay for facilities to manage the groundwater basins.

AB 3030 also provides grant funds to local public agencies to carry out groundwater monitoring and groundwater management activities. Preferential funding to implement groundwater management activities is given to agencies that have adopted a GWMP and demonstrate collaboration with other agencies in the management of the affected groundwater basin.

3.4.2 Description of Groundwater Basins

The City's groundwater supplies are pumped from the following three sub-basins:

- Bedford;

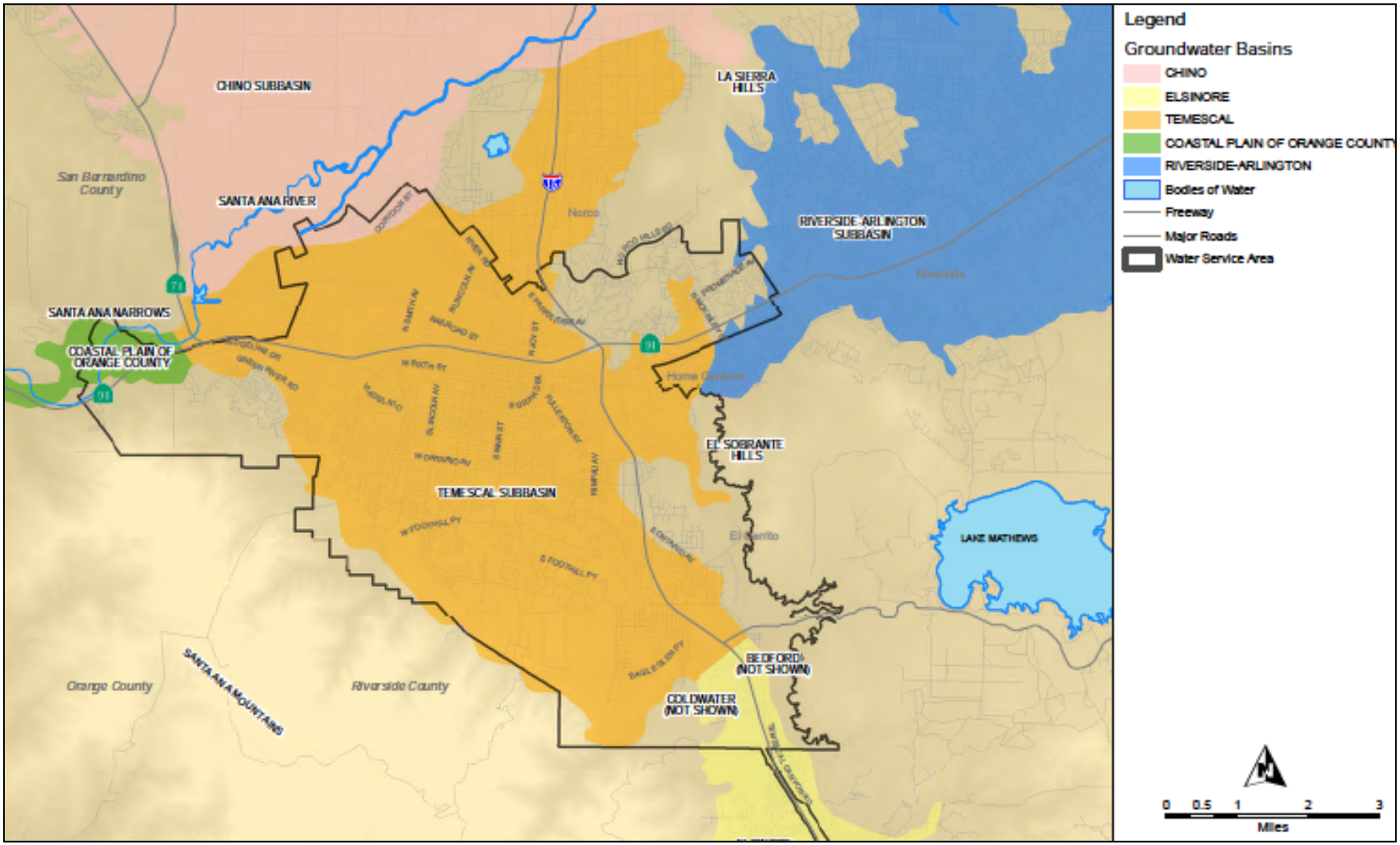
- Coldwater;
- Temescal.

Figure 3-1 presents the extent of the Temescal Sub-basin and the approximate locations of the Bedford and Coldwater sub-basins. The City has 25 active groundwater wells consisting of 20 wells in the Temescal sub-basin, and 5 wells in the Coldwater Sub-basin (2 of which are inactive). The City has no potable water wells in the Bedford Basin.

None of the basins from which the City extracts water have been adjudicated. Therefore, there are currently no legally defined pumping rights held by the City. However, the Orange County Water District vs. City of Chino, et al. (1968) judgment requires provision of a base flow, and a memorandum of agreement with Elsinore Valley Water Management District (EVWMD) ensures allowance to pump from the Coldwater sub-basin. An operating committee annually determines the amount of groundwater that can be safely extracted from the Coldwater Sub-basin.

The Bedford Sub-basin is located south of the Temescal Sub-basin in Temescal Canyon between the Santa Ana Mountains and the El Sobrante Hills. The City has one abandoned potable well (Well no. 4) and two non-potable wells that can be used to supplement reclaimed water from the water reclamation facility. Other extractors from the Bedford Sub-basin have been EVMWD and Foothill Properties.

Figure 3-1: Groundwater Basins



3.4.2.1 Coldwater Sub-basin

The Coldwater Sub-basin is located southwest of the Bedford Sub-basin and the Temescal Wash. The sub-basin lies within the structural graben[2] between the Santa Ana Mountains to the west and the El Sobrante Hills to the east. The Coldwater Sub-basin is bound to the northeast by the North Glen Ivy Fault. The North Glen Ivy Fault behaves as an effective barrier to groundwater flow and prevents migration of groundwater from Coldwater Sub-basin into the Temescal Wash. Groundwater levels throughout the sub-basin typically respond to precipitation and recharge because of the high permeability and limited groundwater storage.

The City and EVMWD are the two major groundwater pumpers from the Coldwater Sub-basin. The City currently operates three wells in the Coldwater Sub-basin pursuant to the 2008 memorandum of agreement described above.

3.4.2.2 Temescal Sub-basin

The Temescal Sub-basin encompasses an area of approximately 26 square-miles bound by the Santa Ana River, La Sierra Hills, El Sobrante hills and the Santa Ana Mountains. Typical depths of the City's wells in the Temescal Sub-basin range from 180 to 480 feet. Groundwater quality of these wells requires treatment and/or blending to meet regulatory requirements for nitrate. The City operates the Temescal Desalter to produce 10,000 AFY of high quality drinking water and to improve water quality of the Temescal Sub-basin.

3.4.2.3 Sources of Recharge and Discharge

The Temescal Sub-basin receives runoff and recharge from almost 14,000 acres of uplands in the adjacent Santa Ana Mountains. Watersheds contributing runoff from the east are almost as large, but contribute less runoff because of lower elevations and precipitation.

Temescal Wash is lined through most of the City limits. The only unlined portion in Temescal Sub-basin is the 1.5-mile area where the wash emerges from Temescal Canyon. This area is characterized by high groundwater, likely the result of infiltration of stream flow and relatively fine-grained surficial deposits. Other than limited infiltration in this narrow section of the Sub-basin, Temescal Wash does not contribute significant natural recharge to the Temescal Sub-basin. However, the City operates three wastewater reclamation facilities (WRFs), two of which provide percolation to groundwater in the Temescal Sub-basin via wastewater discharge ponds. Percolation volumes typically range between 4,000 and 10,000 AFY.

Watersheds contributing runoff to Coldwater Sub-basin and Bedford Sub-basin cover 9,525 acres and 11,858 acres, respectively, more than three times the area of the Sub-basin. Although the watershed contributing runoff to Bedford Sub-basin is more than 2,000 acres larger than the Coldwater watershed, the Coldwater Sub-basin receives more runoff due to the higher watershed elevations.

[2] Definition: Depressed block of land bordered by two faults

3.4.2.4 Groundwater Pumping Record

Groundwater pumping by the City has varied over time and by sub-basin. In the late 1940s, the total amount of groundwater pumping in the Temescal, Coldwater, and Bedford Sub-basins was about 20,000 acre-feet per year (AFY), and increased to between 25,000 AFY and 32,000 AFY from the late 1950s to the mid 1970s. Total groundwater pumping decreased below 20,000 AFY in the late 1980s and early 1990s due to a decrease in agricultural irrigation, but has increased to about 25,000 AFY in recent years due to municipal pumping.

Average pumping from the Temescal Sub-basin from 1990 – 2002 was 10,821 AFY. Since 2002, groundwater pumping increased by 80 percent to more then 19,000 AFY (Todd/AKM, 2008). Average pumping from the Coldwater Sub-basin was 6,284 AFY from 1990 to 2004, with groundwater pumping ranging between 3,800 and 4,600 since 2002 (Todd/AKM, 2008). Production from the Bedford Sub-basin is significantly less than in Temescal or Coldwater. Production from the Bedford Sub-basin has ranged from 373 AFY – 4,658 AFY, mostly for agriculture, and has declined slightly with decreasing agriculture land use. Production from the Bedford Sub-basin has not had effects on the domestic water supply. The City has not supplied its potable water system from the Bedford Sub-basin since 2000. Figure 3-2 presents the location of City groundwater supply wells.

Figure 3-2: City Production Wells

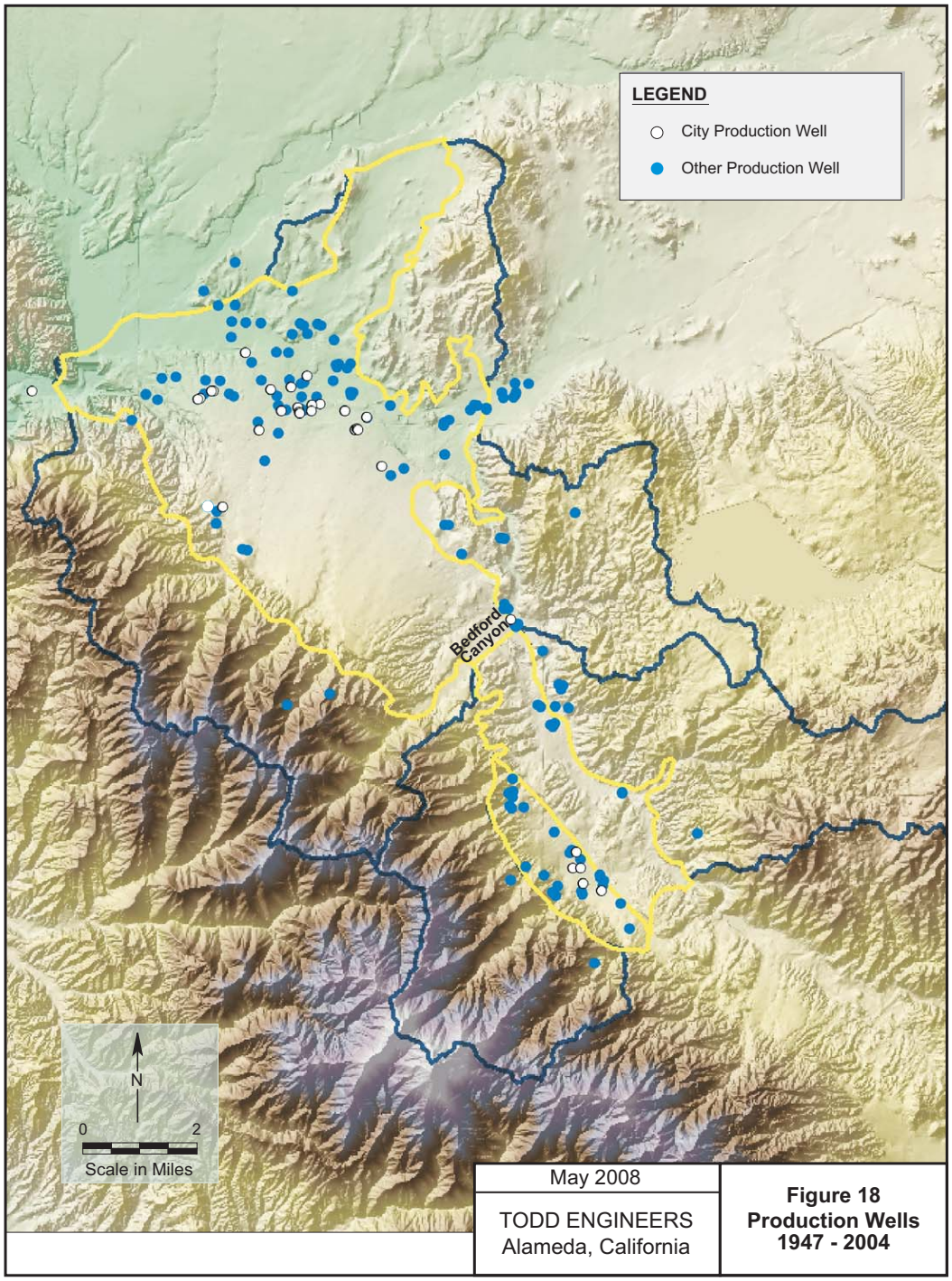


Table 3-3 presents historical groundwater pumping in the Coldwater and Temescal Sub-basins.

Table 3-3: Historical Groundwater Pumping

Historical Groundwater Pumped By Basin (AFY)					
Basin Name	2006	2007	2008	2009	2010
Temescal Sub-basin	21,248	20,093	22,297	20,444	17,664
Bedford Sub-basin [(1)]	151	253	268	326	258
Coldwater Sub-basin	3,725	3,517	2,027	3,101	3,131
TOTAL [(2)]	24,973	23,610	24,592	23,545	20,795
(1) Supply from Bedford Sub-basin is non-potable supplying the reclaimed water system					
(2) Excludes supply from non-potable wells in Bedford Sub-basin					

The GWMP compiled data on groundwater levels in the Temescal, Coldwater, and Bedford Sub-basins. Data for the Temescal Sub-basin indicate that groundwater levels are near record lows. With near normal precipitation conditions in the basin, the declining water levels may be indicative of over-pumping conditions in the basin (Todd/AKM, 2008).

Data regarding groundwater levels in the Coldwater Sub-basin show that water levels in 2004 were the lowest in the last 40 years (Todd/AKM, 2008). Groundwater storage in the Coldwater Sub-basin is estimated to have an average deficit of 1,629 AFY (study period 1990-2004).

Groundwater data for the Bedford Sub-basin is limited to a few wells. One City owned well located near the boundary of the Temescal Sub-basin has been used to plot groundwater levels. The data indicate that groundwater levels have been more stable than those in the Coldwater and Temescal Sub-basins. Water level fluctuations have generally been less than 60 feet in the last 40 years.

Groundwater data dating back to 1916 were compiled into a water level database from multiple sources, including DWR, Santa Ana Watershed Protection Authority (SAWPA), United States Geological Survey (USGS), Riverside County, and the City. Hydrographs were generated for most of the wells containing five or more measurements to examine water level trends and fluctuations throughout the basin. Three key hydrographs were selected to represent long-term water levels in each sub-basin. Hydrographs are presented on Figures 3-3 to 3-5.

More recent groundwater level data (2005-2012) also indicate slight rise in groundwater levels. Additional tables of groundwater level data are included in Appendix D.

Figure 3-3: Temescal Sub-basin Water Levels

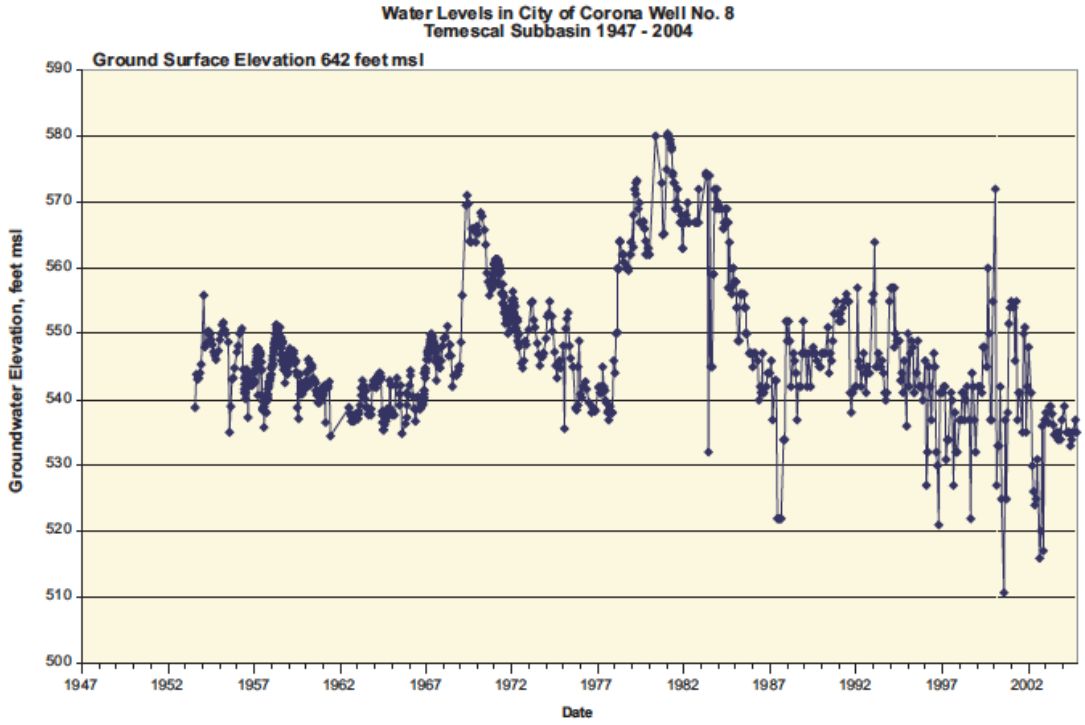


Figure 3-4: Coldwater Sub-basin Water Levels

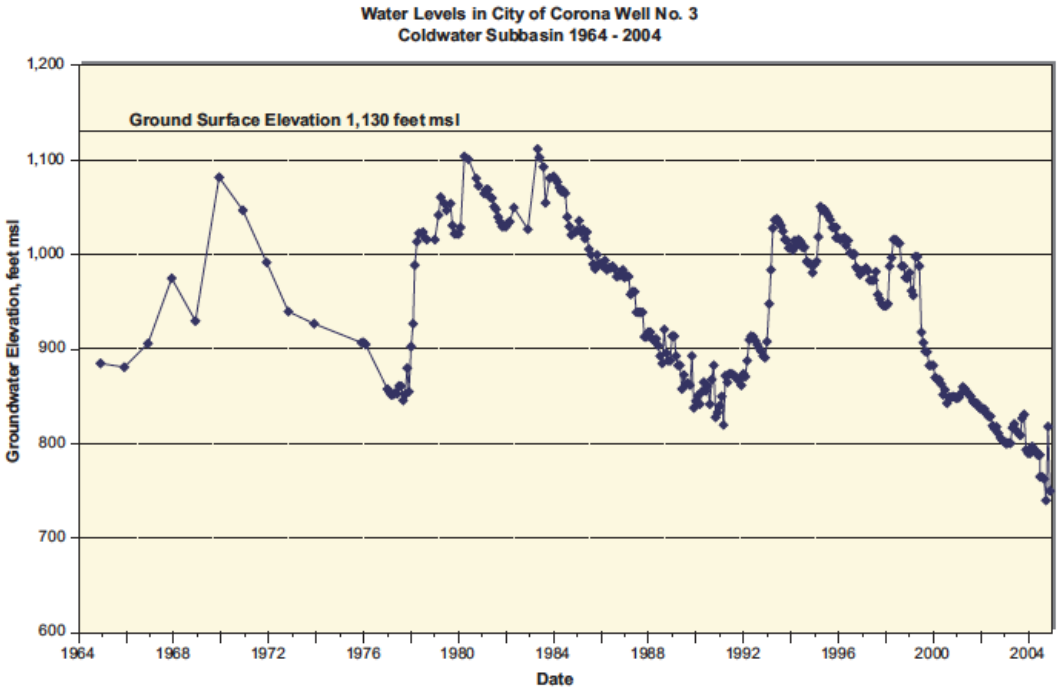
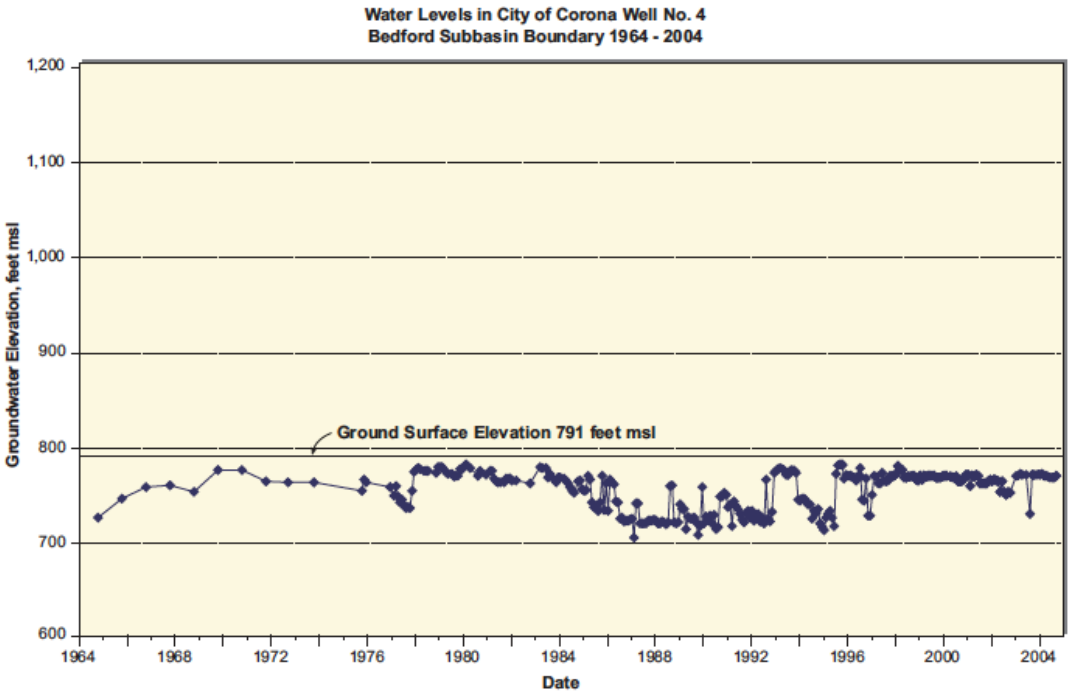


Figure 3-5: Bedford Sub-basin Water Levels



3.4.2.5 Projected Groundwater Pumping

The amount of groundwater anticipated to be pumped by the City is projected to decline until 2020 in order to meet State conservation goals, and then resume a growth trend (UWMP, 2010). Table 3-4 presents the groundwater supply projections for the City.

Table 3-4: Projected Groundwater Pumping

Annual Groundwater to be Pumped (AFY)						
Basin Name	2010	2015	2020	2025	2030	2035
Temescal Sub-basin	17,664	17,413	15,730	15,992	16,290	16,612
Bedford Sub-basin	-	-	-	-	-	-
Coldwater Sub-basin	3,131	3,031	2,737	2,782	2,835	2,891
TOTAL	20,795	20,444	18,467	18,774	19,125	19,503

Adapted from Table 3.4 2010 Urban Water Management Plan Update

3.4.2.6 Groundwater Management Strategies

From 1990 through 2004, Coldwater Sub-basin experienced conditions with an estimated loss of about 20,000 AF of groundwater storage. However, the GWMP indicates that conditions were improving by 2004 because of decreased pumping rates in the sub-basin. The City is working to

control groundwater storage losses through pumping limitations and has an agreement with EVMWD to establish a process and projects to enhance and sustain the Coldwater Sub-basin groundwater supply. As previously stated, an MOA between the City and EVMWD went into affect in 2008, and ensures that the City and EVMWD will be allowed to pump sufficient water from the Coldwater Sub-basin to meet their respective requirements and to maximize the sustainable use of the Coldwater Sub-basin as a water supply (Corona, 2008).

The water balance in the Temescal Sub-basin indicates that groundwater losses occurred in the last 3 years of the 1990 to 2004 period as average pumping rates increased from about 10,000 AFY to almost 20,000 AFY. The City will continue to utilize the groundwater sub-basin for a substantial amount of its water supply; therefore, implementation of groundwater management strategies is necessary to control and protect basin conditions while maintaining groundwater production. The City is implementing the GWMP and its recommended strategies to reduce excessive extraction pressures resulting in groundwater losses (ESA, 2011).

The GWMP identified groundwater management strategies to meet the objectives for the sustainable management and operations of the Coldwater and Temescal Sub-basins. The following management strategies are being implemented by the City to meet the GWMP's objectives:

- **New and Replacement Water Supply Wells and Wellhead Treatment**
  The management strategies in this category provide for re-distribution of pumping within the Temescal Sub-basin aquifers, use of poorer-quality groundwater, capturing a larger percentage of groundwater discharge from the sub-basin, and replacing older less-efficient wells. Facilities associated with these management strategies include new wells, wellhead treatment, conveyance to the distribution system, and conveyance to brine disposal lines.

- **Groundwater Treatment Process Improvements**
  The management strategies in this category provide for increased treatment capacity to improve the quality of the water supply and thereby, the quality of the groundwater basin by reducing the concentration of nitrates and salts in the ambient groundwater. Improving the quality of the water supply would reduce the subsequent loading of these constituents in groundwater from wastewater return flows, thereby benefiting the groundwater basin.

- **Enhanced Groundwater Recharge**
  Groundwater recharge in the three sub-basins will increase basin yield and replenish extracted water. Management strategies for enhancing groundwater recharge include surface recharge basins, recharge wells, and in-lieu pumping when imported water is available. Sources of recharge water include storm water, imported water, and recycled water.

- **Temescal Creek Storm Water Diversion**
  The Temescal Creek Storm Water Diversion project would provide for diversion of storm water runoff from the Temescal Creek flood control channel, Oak Channel, and Main Street Channel into the Cota Street and Lincoln Avenue percolation ponds. A diversion structure would be constructed with a screen and a grit removal system to allow storm water, after a first flush of a storm, to be diverted to the percolation ponds.

- **Expanded Use of Recycled Water**
  The management strategies in this category provide for expanded treatment and use of recycled water. Given the potential restrictions on imported water and highly variable rainfall patterns in the area, recycled water may be the most reliable source of water available to the City. Currently, recycled water is used for irrigation, but the demand is relatively small. The management strategies in this category develop the infrastructure to expand recycled water use for irrigation and recharge, which decreases reliance on potable water from the groundwater basin. The infrastructure would also allow the movement of recycled water to areas within the Temescal Sub-basin for enhanced groundwater recharge, currently planned through injection.

- **Wastewater Pond Maintenance**
  This management strategy provides for improved percolation of permitted amounts of wastewater into the groundwater basin.

3.4.2.7 Groundwater Management Strategies Permitting Requirements

The projects outlined in the GWMP have been evaluated in the GWMP Environmental Impact Report (ESA, 2011).

The City has obtained, or will obtain, the following approvals or permits from regulatory agencies for implementation of the groundwater management strategies:

- California State Water Resources Control Board (SWRCB), Authority to Divert Storm Water;
- California SWRCB change petitions, as necessary;
- California SWRCB reclaimed water Waste Discharge Requirements (WDRs) for end uses;
- California Department of Public Health (DPH), permit update to operate expanded reclaimed water system;
- Santa Ana Region RWQCB WDRs for reclaimed water ponds;
- Santa Ana Region RWQCB NPDES General Construction Permit and Storm Water
- Pollution Prevention Plan for construction projects resulting in the disturbance of one or more acres of land;
- County of Riverside Department of Environmental Health
- RCFCWCD Encroachment Permit for project elements crossing and or within District right-of-way, easement or facilities;
- California Department of Transportation Encroachment Permits for project elements in public right-of-ways;
- County of Riverside Transportation Department Encroachment Permits for project elements n public right-of-ways;
- City of Corona, Public Works Department, Encroachment Permits for project elements in public right-of-ways;
- City of Corona, Public Works Department, Haul Route Permit;
- Railroad Encroachment Permit for jack and bore pipe installation under the railroad.

Overall implementation of the groundwater management strategies will require ongoing coordination with the Riverside County Department of Environmental Health and the Santa Ana Regional Water Quality Control Board. The County of Riverside Department of Environmental Health (RDEH) conducts programs and services that are beneficial to the local groundwater sub-basins (RDEH, 2008). Through the Water Engineering Program, the County handles well permitting for any well constructed in the County including, but not limited to, driven wells, monitoring wells, extraction wells, agricultural wells, and community water supply wells.

They are also responsible for the permitting, inspection, compliance, monitoring, and enforcement of state standards for small water systems in the County. These programs are consistent with and ensure well construction/destruction standards are implemented as developed by the California Division of Drinking Water. The City will maintain a positive working relationship with the Water Engineering Program to track wells drilled within the sub-basins and ensure proper well construction and destruction for the protection of the groundwater resource. Methods of coordination to access the well information at the County will be further explored through communication with Riverside DEH.

The City will work with the Santa Ana Region RWQCB to obtain information on groundwater contamination areas that may adversely impact water quality in the City's drinking water wells. This coordination will involve communication with the RWQCB on sites or areas of known or suspected groundwater impacts. This communication will also involve the periodic access of site cleanup lists on the RWQCB websites. The City will also continue coordination with the RWQCB on monitoring industrial waste discharges to the sanitary sewer through the City's ongoing Industrial Waste Pretreatment and Source Control Program. The City will review the requisite quarterly and annual reports that are provided to the RWQCB.

3.4.2.8 Evaluation of Water Rights

The City has been using the groundwater basin as a source of water supply to its customers. The City will implement the groundwater management strategies to meet the objectives for a sustainable management and operations of the Coldwater and Temescal Sub-basins. The potable water demand for the proposed project is 752 AFY. The City has sufficient rights to extract the necessary water demands to serve the proposed Project, based on the parameters of the existing basin management program, and ability to import sufficient quantities of surface water to serve the service area and project without decreasing availability of water supply for existing and future customers.

3.5 RECYCLED WATER SUPPLY

The City owns and operates three wastewater treatment plants that produce tertiary treated recycled water complying with California Health and Safety Code Title 22 standards for unrestricted non-potable uses. The City has the capacity to produce approximately 8.5 mgd of recycled water from WRF1, 1 mgd of recycled water at WRF2, and approximately 1 mgd from WRF3. The City's firm recycled water supply capacity is approximately 10.5 mgd, or 11,771 AFY. Use of recycled water will decrease the City's dependence on imported water and will extend local groundwater supplies.

The City has received a State Water Resource Control Board (SWRCB) Order Approving Change in Purpose of Use, and Discharge Quantity that allows the City to reduce its discharge of treated wastewater into the Temescal Creek by 1,685 AFY. This SWRCB Order allows the City to use the recycled water for irrigation, industrial, municipal, fish and wildlife enhancement and recreational purposes included as Appendix C.

The City currently provides recycled water for irrigation and construction uses. The City's existing recycled water demands are 3,570 AFY. The City expanded its recycled water system to 199 accounts in 2010 since initially constructing its system in 2006. Highest demand months are typically June through August; lowest demand months are December through February.

The City prepared a draft Reclaimed Water Master Plan in 2010 and determined future recycled water demands to be up to 6,800 AFY. The City is currently revising the draft Reclaimed Water Master Plan and adoption of the Reclaimed Water Master Plan is expected in the spring of 2014. The City anticipates that recycled water expansion will occur by 2020.

The City's estimates for recycled water demands over the next 20 years are presented in Table 3-5. The revised Reclaimed Water Master Plan will update the recycled water demand projections as well as required improvements to the recycled water distribution system.

Table 3-6: Recycled Water Demand Projection

	Project Demand (AFY)					
User Type	2010[(1)]	2015	2020	2025	2030	2035
Agricultural	59.7	60	60	60	60	60
Landscape	3,248	5,287	6,938	6,938	6,938	6,938
Dual Plumbing	0.3	1	1	1	1	1
Total	3,308	5,348	6,999	6,999	6,999	6,999
(1) 2010 actual demand						

Adapted from 2010 Urban Water Management Plan Update

SECTION 4.0 DOCUMENTING DEMAND

Historical and projected potable water demands are presented in Table 4-1. Projected demands for the planning period are projected to remain below the year 2010 demand, reflecting the SBX7-7 water conservation targets and the limited growth potential within the City.

Table 4-1: Historical and Projected Annual Potable Water Demand

Historical and Projected Annual Potable Water Demand (AFY)										
Customer Type	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035
Single Family	16,321	12,223	20,506	24,127	26,219	24,183	21,844	22,209	22,622	23,069
Multifamily	2,333	2,792	3,402	2,858	3,105	3,309	3,032	3,075	3,124	3,177
Commercial	1,633	2,955	6,231	3,863	4,198	3,872	3,498	3,556	3,622	3,694
Industrial	1,400	1,592	2,543	1,493	1,622	1,496	1,351	1,374	1,399	1,427
Institutional	46	0	0	2,540	2,760	2,546	2,300	2,338	2,382	2,429
Landscape Irrigation	0	3,455	3,026	3,843	4,177	3,852	3,480	3,538	3,604	3,675
Agricultural	0	0	0	31	33	31	28	28	29	29
Other (Water Loss)	1,688	52	648	2,040	2,217	2,044	1,847	1,878	1,912	1,950
Total	23,420	23,069	36,356	40,795	44,331	41,333	37,380	37,996	38,694	39,450

SECTION 5.0 DOCUMENTING DRY YEAR SUPPLIES

5.1 GENERAL

Governor Brown issued Executive Order B-29-15 in April of 2015 (http://gov.ca.gov/docs/4.1.15_Executive_Order.pdf.). This executive order mandated a net 25% statewide reduction in potable, or drinking, water use from 2013 water usage. The executive order contains many on water use. Each water agency is assigned a tier based on their water usage from June through September 2014. Corona's conservation target tier is a 28% reduction from water use in 2013. In response to the Executive Order, the City implemented Stage 2 of its Water Conservation Ordinance that includes watering guidelines and prohibitions, requirements for irrigation system repairs, service of drinking water at restaurants unless requested by patrons, and prohibition of water runoff.

5.2 GROUNDWATER SUPPLY RELIABILITY

Groundwater is considered a reliable supply source since it is not significantly impacted by short-term droughts. However, groundwater basins must be replenished in years with excess rainfall in order to maintain the supply in drought years. During extended drought periods, groundwater elevations may fall, as the basins do not receive replenishment for an extended period of time.

As discussed in the City's 2008 Groundwater Management Plan (GWMP), the City has made efforts to decrease its reliance on imported water by additional pumping and by development of groundwater management strategies for sustainable management of its groundwater resources. The City, through the management of its internal capital improvement program, has evaluated and prioritized the groundwater management strategies described previously to balance the increased pumping with the increased storage. The City has planned for the funding and permitting compliance for these groundwater management strategies.

Pursuant to the Memorandum of Understanding with Elsinore Valley Municipal Water District, no other municipal agencies are permitted to pump groundwater from the City's sources. Therefore, no negative impact to the City's groundwater supplies will occur.

The City's 2010 Urban Water Management Plan (UWMP) Update assumes groundwater supplies to be equal to currently existing well capacities. Groundwater supplies will be managed through groundwater recharge and other strategies outlined in the GWMP. Groundwater demand projections are determined by taking the total demand for the City and projecting that a minimum of 50 percent of demand will be satisfied with local groundwater (Corona UWMP, 2012).

Although the amount of groundwater stored within the groundwater basins will decrease during single or multiple dry year events due to lower rates of recharge, the 2008 GWMP does not require that for reduced groundwater supplies in the City's groundwater basins. As such, groundwater supply is assumed to remain constant over the projected timeframe (Corona UWMP, 2012).

5.3 RECLAIMED WATER SUPPLY RELIABILITY

Reclaimed water supply is based upon the treatment capacity of the City's WRFs. The treatment capacity of the WRF is the limiting factor on the quantity of reclaimed water supply available. Reclaimed water is generally considered to be a reliable water supply since the WRFs provide effluent regardless of climatic conditions. Because source water to the WRFs consists mostly from interior use that would not be reduced as severely as exterior uses during drought conditions, it is not likely that drought conditions would have a significant effect on the City's ability to utilize reclaimed water.

5.4 IMPORTED WATER SUPPLY RELIABILITY

Under normal conditions, imported water supplies are projected to increase as Metropolitan Water District of Southern California (MWDSC) supplies are anticipated to increase, and WMWD would be allocated its proportional share of the increased supplies. Supply reliability for single dry and multiple dry years are obtained from MWDSC's Regional 2010 UWMP (RUWMP).

The 2010 RUWMP reports on MWDSC's water reliability and identifies projected supplies to meet the long-term demand within its service area. MWDSC's supply capabilities are evaluated using the assumptions outlined in the 2010 RUWMP.

5.4.1 Colorado River Aqueduct Supplies

Colorado River Aqueduct (CRA) supplies include supplies that would result from existing and committed programs and from implementation of the Quantification Settlement Agreement (QSA) and related agreements. The QSA, is a component of the California Water Plan and establishes the baseline water use for each of the agreement parties and facilitates the transfer of water from agricultural agencies to urban uses. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 MAF on an as-needed basis.

5.4.2 State Water Project Supplies

DWR's "State Water Project Final Delivery Reliability Report 2011" (2011 Report), dated June 2012, indicates the delivery reliability of SWP water is approximately 60 percent, on average, over the next 20 years. The DWR report incorporates future impacts on water deliveries as a result of climate change and potential limited pumping of the SWP to protect salmon, smelt, and other species in the Sacramento-San Joaquin Delta and Central Valley areas, including operational restrictions of the biological opinions issued by the U.S. Fish and Wildlife Service (USFWS) in December 2008 and the National Marine Fisheries Service (NMFS) in June 2009 governing the SWP and Central Valley Project (a Federal water storage and conveyance facility) operations. Under the 2011 reliability report, the delivery estimates for the SWP for 2011 conditions as percentage of maximum Table A amounts, are nine percent, equivalent to 380 TAF, under a single dry-year (1977) condition and 61%, equivalent to 2.5 MAF, under long-term average conditions.

In dry, below-normal conditions, MWDSC has increased the supplies received from the California Aqueduct by developing flexible Central Valley storage and transfer programs. The goal of this storage/transfer program is to develop additional dry-year supplies that can be

conveyed through the available Banks pumping capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

5.4.3 Delta Improvements

The listing of several fish species as threatened or endangered under the federal or California Endangered Species Acts (ESAs) have adversely impacted operations and limited the flexibility of the SWP. In response to court decisions related to the Biological Opinions for fish species listed under the ESAs, DWR altered the operations of the SWP. This resulted in export restrictions and reduced SWP deliveries. In June 2007, Metropolitan's Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment.

The Delta Action Plan aims to prioritize immediate short-term actions to stabilize the Delta while an ultimate solution is selected, and mid-term steps to maintain the Bay-Delta while the long-term solution is implemented.

In the near-term, the physical and operational actions in the Bay-Delta being developed include measures that protect fish species and reduce supply impacts with the goal of reducing conflicts between water supply conveyance and environmental needs. The potential for Increased supply due to these near-term fixes is included in the 2010 RUWMP as a 10 percent increase in water supplies obtained from the SWP allocation for the year. In evaluating the supply capabilities for the 2010 RUWMP, additional supplies from this interim fix are assumed to materialize by 2013.

Operational constraints likely will continue until a long-term solution to the problems in the Bay-Delta is identified and implemented. State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan (BDCP), which is aimed at addressing the basic elements that include the Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development. In dealing with these basic issues, the ideal solutions sought are the ones that address both the physical changes required as well as the financing and governance. In evaluating the supply capabilities for the 2010 RUWMP, MWDSC assumed a new Delta conveyance is fully operational by 2022 that would return supply reliability similar to 2005 condition, prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with MWDSC's long-term Delta Action Plan that recognizes the need for a global, comprehensive approach to the fundamental issues and conflicts to result in a sustainable Bay-Delta, sufficient to avoid biological opinion restrictions on planned SWP deliveries to MWDSC and the other SWP Contractors. Further, recently passed state legislation included pathways for establishing governance structures and financing approaches to implement and manage the identified elements.

5.4.4 Storage

A key component of MWDSC's water supply capability is the amount of water in MWDSC's storage facilities. Storage is a major component of MWDSC's dry-year resource management strategy. MWDSC's likelihood of having adequate supply capability to meet projected demands, without implementing the Water Supply Allocation Plan (WSAP), is dependent on its storage resources.

In developing the supply capabilities for the 2010 RUWMP, MWDSC assumed a simulated median storage level going into each of five-year increments based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. All storage capability figures shown in the 2010 RUWMP reflect actual storage program conveyance constraints. It is important to note that under some conditions, MWDSC may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands.

5.5 SUPPLY AND DEMAND COMPARISON

As presented in Table 5-1, it is anticipated that in normal, single dry, and multiple dry year, that the City has sufficient water supplies available to meet future demands of the service area and the proposed Project under all conditions. The City is implementing groundwater management strategies such as groundwater recharge and expanded use of recycled water, that will decrease the City's use of potable water supplies and allow the City to continue sustainable groundwater pumping to meet the projected demands of the City's existing and planned future uses, specifically including the proposed Project. Recycled water supplies are based upon the treatment capacity of the City's WRFs.

The City's 2010 UMWP provides the percent MWDSC supplies as a percent of demand, and notes that the projected supplies are substantially greater than the project demands due to increased water conservation efforts as well as increases in supplies.

Dry year demands are anticipated to be higher than normal year demands due to increased irrigation demands.

Table 5-1: Supply and Demand Comparison

Water Supply Source	2015	2020	2025	2030	2035
NORMAL YEAR (AFY)					
SUPPLY					
IMPORT [2]	35,517	36,399	38,676	38,840	35,320
GROUNDWATER	24,921	24,921	24,921	24,921	24,921
RECYCLED	11,201	14,952	14,952	14,952	14,952
TOTAL SUPPLY	71,639	76,272	78,549	78,713	75,193
DEMAND [1]					
IMPORT	20,667	18,690	18,998	19,348	19,726
GROUNDWATER [3]	20,667	18,690	18,998	19,348	19,726
RECYCLED [4]	5,339	6,999	6,999	6,999	6,999
TOTAL DEMAND	46,672	44,378	44,994	45,694	46,450
Difference Supply - Demand	24,967	31,894	33,555	33,019	28,743
Difference as % of Supply	35%	42%	43%	42%	38%
Difference as % of Demand	54%	72%	75%	72%	62%
SINGLE DRY YEAR (AFY)					
SUPPLY					
IMPORT	27,009	27,739	29,644	27,961	26,408
GROUNDWATER	24,921	24,921	24,921	24,921	24,921
RECYCLED	11,201	14,952	14,952	14,952	14,952
TOTAL SUPPLY	63,131	67,612	69,517	67,834	66,281
DEMAND					
IMPORT	24,088	21,780	22,140	22,548	22,989
GROUNDWATER	24,088	21,780	22,140	22,548	22,989
RECYCLED	6,222	8,149	8,149	8,149	8,149
TOTAL DEMAND	54,397	51,708	52,428	53,244	54,126
Difference Supply - Demand	8,734	15,904	17,089	14,590	12,155
Difference as % of Supply	14%	24%	25%	22%	18%
Difference as % of Demand	16%	31%	33%	27%	22%
MULTIPLE DRY YEAR (AFY)					
SUPPLY					
IMPORT	23,993	23,813	24,192	23,470	22,918
GROUNDWATER	24,921	24,921	24,921	24,921	24,921
RECYCLED	11,201	14,952	14,952	14,952	14,952
TOTAL SUPPLY	60,115	63,686	64,065	63,343	62,791
DEMAND					
IMPORT	24,088	21,780	22,140	22,548	22,989
GROUNDWATER	24,088	21,780	22,140	22,548	22,989
RECYCLED	6,219	8,149	8,149	8,149	8,149
TOTAL DEMAND	54,394	51,708	52,428	53,244	54,126
Difference Supply - Demand	5,721	11,978	11,637	10,099	8,665
Difference as % of Supply	10%	19%	18%	16%	14%
Difference as % of Demand	11%	23%	22%	19%	16%

Adapted from Tables 7.10 -7.16 of the City of Corona 2010 Urban Water Management Plan.

1. Demand projections based on water conservation targets associated with the Water Conservation Act of 2009.
2. Calculated from the projected average year supply as percentage of demand (UWMP, 2010)
3. Groundwater demands are established at 50% of potable demands.

SECTION 6.0 CONCLUSION

The proposed Project would create an estimated potable water demand of 796 acre-feet per year (AFY) and an estimated recycled water demand of 87 AFY. The proposed Project potable water demands are 85 AFY greater than the estimated Project demands included within the City's 2010 UWMP water demand projections. The additional 85 AFY of proposed Project demands are potable water demands for residential use.

The City's 2010 UWMP identifies an availability of sufficient water supplies to meet future needs for the City's water service area through its anticipated build-out, projected to occur in year 2030 under normal, single-dry and multiple-dry water years. This report is a refinement of the analysis in the 2010 UWMP, accounting for changes in groundwater production from wells in the Temescal Sub-Basin and recent SWP and Colorado River water litigation issues.

The conclusion of this assessment and written verification of water supply is that Corona has sufficient water supplies to support the proposed Arantine Hills Specific Plan Amendment No. 1.

The facility requirements for the proposed project are being determined as a part of the City's review of the project Specific Plan Amendment No. 1, its associated environmental impact report, and development application for the proposed Project. The City may undertake additional design and permitting reviews and or approvals as required when it would be determined if additional facilities and cost contributions are required by the proposed Project to provide water service.

SECTION 7.0 REFERENCES

AKM Consulting Engineers. *Groundwater Management Plan 2008.* Prepared for the City of Corona. Adopted June 2008.

Brezack and Associates Planning. *Water Supply Assessment for Arantine Hills Specific Plan Project, Corona, California.* September 2010.

Brezack and Associates Planning. *Written Verification of Water Supply for Arantine Hills Specific Plan Project, Corona, California.* July 2012.

Carollo Engineers, *2010 Urban Water Management Plan, June 2011*, prepared for the City of Corona

City of Corona. 2012-2012 Capital Improvement Projects. January 2012

City of Corona. Email from Tom Koper. June 23, 2013.

ESA. *Groundwater Management Plan Program Environmental Impact Report.* Prepared for the City of Corona. Adopted January 2010.

Kennedy Jenks Consultants. *2010 Urban Water Management Plan.* Prepared for Western Municipal Water Districy. June 2011.

Ktgb. *Arantine Hills Specific Plan.* Prepared for Bluestone Communities. October 2011.

Ktgb. Email from Michael Recupero. June 19, 2015.

LSA. *Arantine Hills Specific Plan Administrative Draft Environmental Impact Report.* Prepared for Bluestone Communities. February 2012.

Metropolitan Water District of Southern California, *2010 Regional Urban Water Management Plan.* November 2010.

APPENDIX B

Department of Water and Power

MEMORANDUM

DATE: May 4, 2009

TO: Karly Gaynor, Business Supervisor

FROM: Michelle Tveito, Assistant to the General Manager

SUBJECT: Fully executed agreement for file

Please find the attached "Agreement concerning Water Production from the Coldwater Basin" with the EVMWD dated April 21, 2009 for your records.

AGREEMENT CONCERNING WATER PRODUCTION FROM THE COLDWATER BASIN

THIS AGREEMENT, effective this 1st day of December, 2008, is made and entered into by and between the CITY OF CORONA, a municipal corporation ("City") and the ELSINORE VALLEY MUNICIPAL WATER DISTRICT, a municipal water district ("District"). The City and the District are sometimes collectively referred to herein as the "Parties."

RECITALS

A. The City and the District both own and operate water production facilities in the Coldwater Basin in Temescal Canyon of Riverside County. The agreed-upon boundaries of the Coldwater Basin are depicted on the map attached hereto as Exhibit "A" and made a part hereof.

B. Pursuant to that certain "Agreement of Sale of Certain Assets of the Corona City Water Company and the Temescal Water Company to the City of Corona" dated December 27, 1963 (hereafter referred to as the "1963 Agreement"), the Parties (or their predecessors) agreed to restrict a portion of the Coldwater Basin from which the District may produce water.

C. The District constructed a well ("the Trilogy Well") in order to replace production lost when its Well 72 went out of production due to the expansion of Cemex, Inc. Sand and Gravel Mining Activities. The location of the Trilogy Well is not in accord with the terms of the 1963 Agreement.

D. By this Agreement, the Parties (i) intend to supersede all prior agreements dealing with the subject matter hereof, including the 1963 Agreement and that certain January 6, 1999 "Agreement for the Sale or Exchange of Water Between the City of Corona and Elsinore Valley Municipal Water District" (the "1999 Agreement"), (ii) intend to provide for the joint use of the Trilogy Well, and (iii) intend to establish a process and develop projects which will enhance the available supply of groundwater in the Coldwater Basin, and to maximize the sustainable use thereof.

AGREEMENT

NOW, THEREFORE, the Parties agree as follows:

1. **Operating Committee.** Within 30 days of the effective date hereof, the City Manager of the City and the General Manager of the District shall each appoint a representative to a Committee ("the Operating Committee") which will make operational decisions in order to implement the terms and provisions of this Agreement. Any such appointee may be replaced through the same appointment process, and any vacancy in an Operating Committee position shall be filled promptly by such appointment. The primary purpose of the Operating Committee is to ensure that the City and the District be allowed to pump sufficient water from the Coldwater Basin to meet their respective requirements and to maximize the sustainable use of the Basin as a water supply. A primary function of the Operating Committee will be to annually determine the amount of groundwater that can be safely extracted from the Coldwater Basin (the "Allowable Production").

2. **Determining Allowable Production.** The Allowable Production by the Parties shall be determined by the Operating Committee as follows:

a. The accounting year shall be July 1 to June 30. The accounting commencement date shall be July 1, 2008. Thereafter, the Allowable Production shall be determined by May 1 of each year.

b. The Allowable Production will be determined in light of the best information available to the Operating Committee. It shall be the goal of the Operating Committee to estimate an amount of Production that (i) ensures the sustainability of the Basin as a water supply and (ii) allows the Parties to flexibly adjust the Allowable Production in response to extreme hydrologic conditions and/or the short term operational needs of each of the Parties.

c. The amount of the annual Allowable Production shall be allocated to each Party annually by the Operating Committee, and will be equal to their respective share in the total of: Native Safe Yield **plus** return flows and water imported to the Basin by either or both Parties during the preceding fiscal year:

i. The initial Native Safe Yield shall be 3,300 acre feet per year for each of the first five fiscal years following the effective date of this Agreement. Thereafter, the Operating Committee shall re-determine the Native Safe Yield every five years;

ii. The initial shares in the total of Native Safe Yield, return flows and water imported to the Basin shall be as follows:

To the City:	64%
To the District:	32%

The remaining 4% shall be allocated in the aggregate to the private well producers in the Coldwater Basin. The two-thirds/one-third proportion shall also be used to allocate the costs and expenses incurred in connection with the study and implementation of capital projects jointly undertaken by the Parties in each of the first five years following the effective date of this Agreement.

d. The Operating Committee shall review, every five years following the effective date of this Agreement, the annual production records of all producers in the Coldwater Basin to determine the actual amount of groundwater production by each producer. At the conclusion of such review, the respective shares of the Parties in Native Safe Yield for the following five years shall be adjusted on a pro-rata basis. For example, if the actual production of the overlying producers is 2% and not 4%, then the City shall be entitled to 63.2917% of the difference and the District shall be entitled to 34.7083%.

3. **Storage Rights.** The City and the District shall have the right to store un-produced Allowable Production up to ten times their initial share in the Native Safe Yield

multiplied by the initial Native Safe Yield of 3,300 acre feet per year, in a Storage Account; provided, however, that the maximum amount of groundwater storage shall be:

a. For the City: 21,120 acre feet;

b. For the District: 10,560 acre feet.

4. Annual Production Right. The "Annual Production Right" of a Party shall be equal to a Party's Annual Allowable Production **plus** some or all of the water held in that Party's Storage Account as determined by that Party.

5. Joint Use of the Trilogy Well. Although the City and the District individually own and operate groundwater production wells in the Coldwater Basin, they mutually acknowledge and agree that joint operation of the District's Trilogy Well is desirable because it is capable of producing large amounts of water cost-effectively. Under the supervision of the Operating Committee, which shall review the specifications and bids thereon, the District shall complete construction of the Well and the pipelines connecting the Well to the City's and the District's water distribution systems. Thereafter, the District shall operate and maintain the Well and deliver therefrom, to the District and to the City, such amounts of water as may be ordered by them through the Operating Committee.

6. Water Rate. The cost of water produced from the Trilogy Well shall consist of Fixed Costs and Variable Costs:

a. Fixed Costs consist of 20 annual replacement cost payments of approximately $60,000.00, which is the annual payment amortized at 5% over 20 years on a principal of $750,000.00. This will provide adequate funds to replace or refurbish the pumping equipment after a 20-year useful life. The District shall be obligated to pay one-third of the Fixed Costs, and the City shall be obligated to pay two-thirds of such Costs. Fixed Costs shall be paid by the District and the City whether or not the Parties purchase water produced by the Well. These funds, and all accumulated interest, shall be held in a separate interest-bearing fund specifically for future replacement or refurbishment of the Well.

b. Variable Costs consist of the actual costs and expenses incurred in operating and maintaining the Trilogy Well, and shall be paid in proportion to the amount of water purchased by a Party. The Operating Committee shall annually reconcile the Variable Costs with the amount of revenue received from the sale of water to ensure that the revenue is sufficient to defray such Costs. Any revenue shortfalls shall be pro-ratably shared by the Parties; excess revenue shall be carried over to the next year or refunded upon request.

7. Supplemental Water Projects. The District owns surface water rights licensed by the State Water Resources Control Board in Mayhew, Indian and Horsethief Creeks, which licenses authorize the diversion and storage of up to 1,887 acre feet per year. Under the supervision of the Operating Committee, the City and the District shall jointly formulate and fund plans and projects to deliver such water for storage in the Coldwater Basin, to be shared by the Parties as a component of their respective Annual Production Right.

8. **Trilogy Well Operations.** The District shall retain title in and to the Trilogy Well and the parcel of land upon which it is located, shall operate the Trilogy Well and, as may be necessary from time-to-time rehabilitate the Trilogy Well. All operations shall be conducted under the supervision of the Operating Committee, and the Committee shall provide a quarterly report of such operations to the Parties.

9. **Access and Indemnification.** The District shall provide reasonable access to the City's agents and employees to inspect operations at the Trilogy Well. The District shall indemnify the City and its elected officials, officers, agents and employees and hold each of them harmless from any damages, claims, actions, causes of action or suits, including attendant costs and attorneys' fees, which may arise out of or be in any way connected with the District's operation of the Trilogy Well except for any such damages, claims, actions, causes of action or suits alleged or found to be caused by the negligent, reckless or intentional actions of any of the City's elected officials, officers, agents or employees.

10. **Insurance.** The Operating Committee shall cause the operation of the Trilogy Well to be ensured in a manner and extent similar to the operation of other publicly-owned wells in the Coldwater Basin.

11. **Functions of the Operating Committee.** The Operating Committee shall perform the following functions concerning management of the Basin in order to sustain it as a water resource for the benefit of the Parties:

a. Annually specify the amount of the Parties' Allowable Production, Annual Production Right and water in storage in accordance with the best information available to the Committee;

b. In its discretion, retain technical consultants to assist the Committee in establishing Allowable Production and the Annual Production Right for each Party and to evaluate and resolve other groundwater management issues;

c. Review and approve new water production facilities proposed to be developed in the Coldwater Basin by either Party and any proposal to increase the capacity of any such existing facility;

d. Represent the City and the District in transactions involving other public agencies and/or private parties intended to implement projects which will increase groundwater recharge and surface retention for the Basin;

e. Provide for joint funding, in proportion to yield, for completion of the Trilogy Well and implementing groundwater recharge and surface retention of projects;

f. Develop and implement a process whereby the City will assume the responsibility for water service to the District's present Temescal non-potable water customers located within the City but outside the Coldwater Basin including the sale by District to City of certain stranded Temescal facilities; and

g. Develop and implement a process by which the Parties will employ their best efforts to negotiate the District's sale of non-potable water to the City for use in the City's Recycled Water System.

12. Integration. This Agreement shall supersede any other agreement between the Parties or any provision or provisions therein contained including, but not limited to, the 1963 Agreement, the 1999 Agreement and Amendment No. 1 thereto dated July 18, 2001, and they are hereby deemed to be null and void and rescinded in their entirety.

13. Dispute Resolution Procedures. The Parties will attempt in good faith to resolve any dispute, claim or controversy arising out of or relating to this Agreement, as follows:

Step 1: All disputes, claims or controversies shall first be considered, and resolution shall be attempted, by the Operating Committee. If the Operating Committee is deadlocked, then the matter shall be referred to an informal negotiation between the parties, Step 2.

Step 2: The Operating Committee shall initiate such negotiations by providing written notice to the Parties setting forth the subject of the dispute. The Parties, through the City Manager of the City and the General Manager of the District, shall promptly schedule a negotiation meeting to be attended by such representatives of either Party as may be reasonably necessary to address the issues presented by the Operating Committee. If the dispute is not resolved by these informal negotiations, the issue will be submitted for mediation, Step 3.

Step 3: The Parties shall submit to a mandatory mediation, which shall be conducted by a mutually agreed-upon neutral mediator. The mediator selected shall be experienced, neutral, without conflicts of interest, and qualified to mediate disputes of the nature of those that may arise under this Agreement. If the Parties are unable to agree upon a mediator, each Party shall select one mediator, with the two selected mediators selecting a third, qualified neutral mediator. The Parties covenant that they will participate in the mediation in good faith and that they will share equally in all costs of the mediation. In the event mediation fails, the Parties shall submit the issue to binding arbitration, Step 4.

Step 4: Binding arbitration shall be initiated promptly upon the failure of the mandatory mediation phase. Arbitration shall be conducted by the Judicial Arbitration and Mediation Services, Inc. ("JAMS") or its successor, or any other neutral, impartial arbitration service that the Parties mutually agree upon, in accordance with its rules in effect at the time of the commencement of the arbitration proceeding an as set forth in this Paragraph. The arbitrator chosen must decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. The arbitrator's decision is subject to judicial review by the Riverside County Superior Court for material errors of fact or law. Upon a showing of good cause the arbitrator may permit limited discovery in the arbitration proceeding.

14. Amendment. This Agreement may be amended only by agreement in writing of the Parties. No waiver of any provision of, nor any consent to any exception to the terms of this Agreement, shall be effective unless in writing and signed by the Party to be bound and then only for the specific purpose, extent and instance so provided.

15. **Notices.** Any notice or other communication hereunder must be given in writing and either: (a) delivered in person; (b) transmitted by telecopy, e-mail or other telecommunications mechanism; or (c) mailed, postage prepaid, as follows:

If to City:
Jonathan Daly, General Manager
City of Corona
Department of Water and Power
730 Corporation Way
Corona, California 92880
Telecopier: 951-735-5786
E-mail: jonathan.daly@ci.corona.ca.us

If to District:
Ronald Young, General Manager
Elsinore Valley Municipal Water District
31315 Chaney Street
Lake Elsinore, California 92531
Telecopier: 951-674-9872
E-mail: ryoung@evmwd.net

Or to any such other address or such other person as either Party shall have last designated to the other Party.

16. **Severability.** In case any one or more of the provisions of this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, and the remainder of the provisions of this Agreement shall continue in full force and effect without impairment, provided that the essential provisions of this Agreement for both Parties remain valid, binding and enforceable.

17. **Assignment.** Neither Party shall transfer or assign this Agreement without the prior written consent of the other Party, which consent shall not be unreasonably withheld. This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns.

18. **Further Documents.** The Parties shall execute such other and further documents and do such further acts as may be reasonably required to effectuate the intent of the Parties and carry out the terms of this Agreement.

19. **No Third Party Beneficiaries.** Nothing in this Agreement whether expressed or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the Parties to this Agreement and their respective successors and assigns.

20. **Purchase and Sale of Assets.** The District agrees to sell and the City agrees to buy the following assets (and real property interests necessary to utilize those assets), as they are depicted on Exhibit "B" attached hereto, for the sum of $2,000,000.00 or, at the City's election, the sum of $2,500,000.00 paid to the District over a period of 10 years from the Effective Date of this Agreement, in equal annual installments:

a. No. 2 Line
b. The Riverside Booster Line
c. MWD WR 19b Connection
d. Miscellaneous pipelines and service laterals.

The City acknowledges and agrees that the purchase of such assets by the City will impair the District's ability to convey water to the Santa Ana River. Therefore, as additional consideration for the purchase and sale the City hereby grants the District the irrevocable right to use the City's storm drains to convey the District's water to the Santa Ana River, provided that there is available capacity in the drains to convey stormwater.

21. First Right to Purchase Temescal Valley Line. The District hereby grants to the City a right of first refusal to purchase the District's interest in the Temescal Valley Line, in the event the District determines to sell the same and has received a bona fide offer from a third party. Prior to accepting such offer, the District shall submit the same to the City, and the City shall have up to 60 calendar days to precisely match or exceed such offer in a signed and binding writing as to all terms and conditions. In the event the City does not respond in writing to the District within the time allowed, the lack of such response shall be deemed a refusal to exercise the right granted herein. In addition, in the event the District is capable of delivering clear title to the Temescal Valley Line to a purchaser, the District shall give the City 60 days' notice thereof, in order to give the City an opportunity to purchase the Temescal Valley Line.

WHEREFORE, the Parties have executed this Agreement to be effective as of the date first set forth above.

CITY OF CORONA

By _____
Mayor

Dated: April 21, 2009

Approved as to Form:

_____

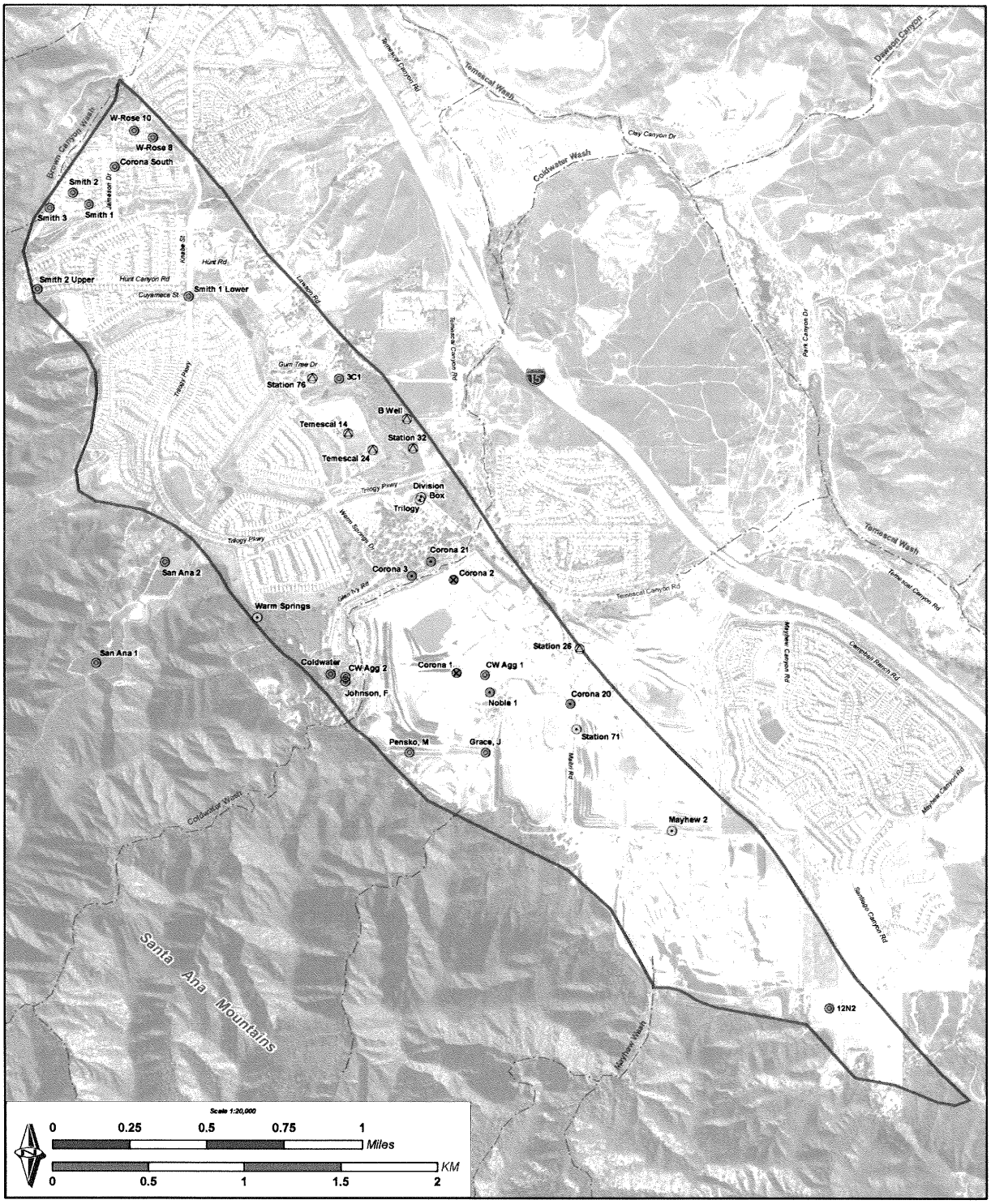
ELSINORE VALLEY MUNICIPAL WATER DISTRICT

By _____
Phil Williams, President

Dated: March 25, 2009

Approved as to Form:

_____
Aklufi & Wysocki
District Counsel



Air photo acquired in Spring 2008 Imagery Source: AirPhotoUSA, LLC and Elsinore Valley Municipal Water District (951-694-8713)

Production Wells (Symbolized by Ownership)

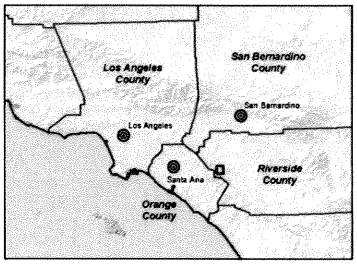
- Elsinore Valley Municipal Water District
- City of Corona
- Private Wells (locations not confirmed)

Production Wells (Symbolized by Status)

- Active
- Inactive
- Abandoned
- Unknown

Other Map Features

- Coldwater Basin Boundary
- Rivers & Streams



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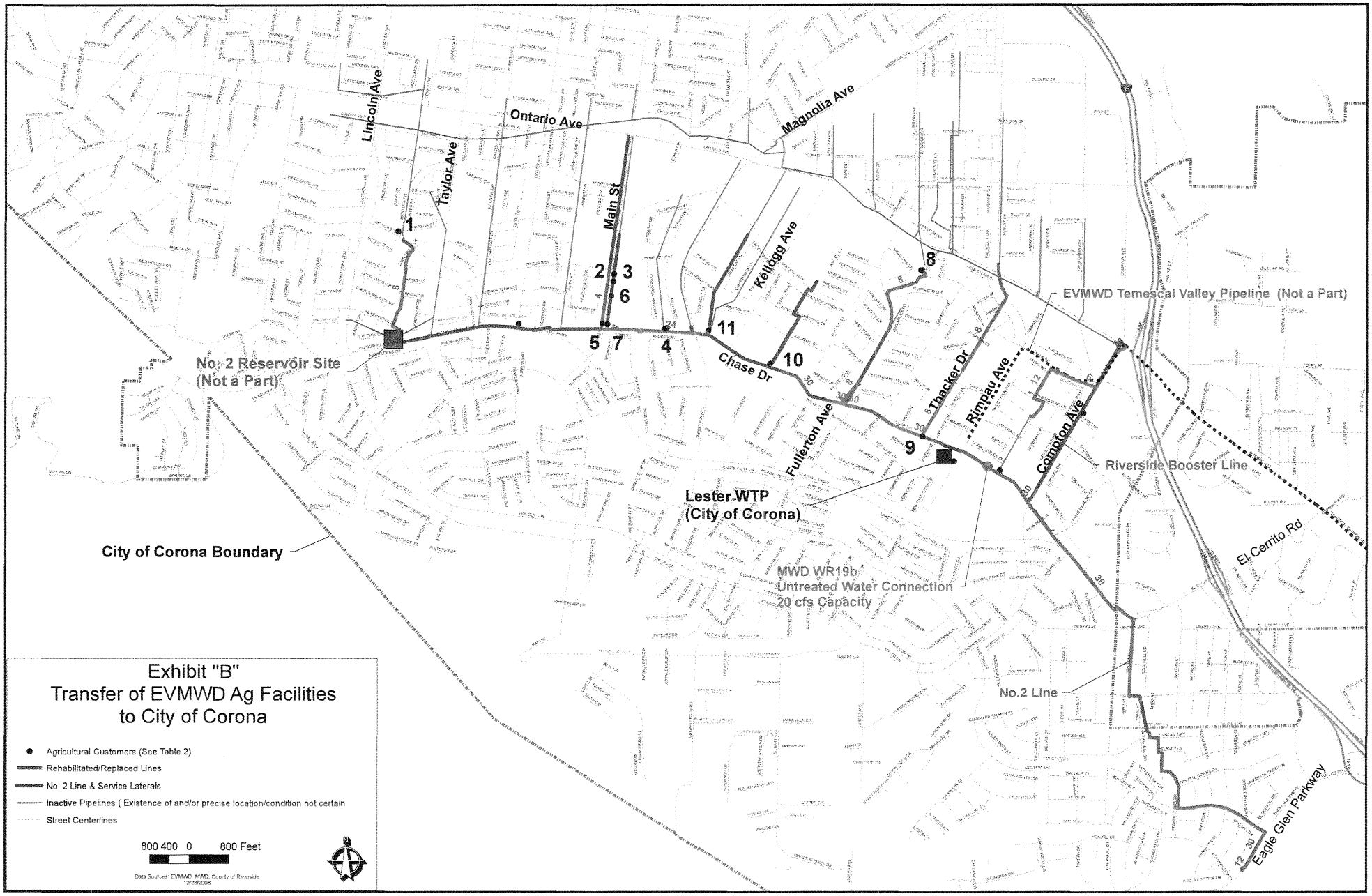
Date: 20081119
File: Exhibit_A_Ledger.mxd

Coldwater Basin

Basin Boundary and Well Locations

Exhibit A


Lincoln Ave
Ontario Ave
Magnolia Ave
Taylor Ave
Main St
Kellogg Ave
Chase Dr
Fullerton Ave
Thacker Dr
Rimpau Ave
Compton Ave
El Cerrito Rd
Eagle Glen Parkway
1
2
3
4
5
6
7
8
9
10
11
No. 2 Reservoir Site
(Not a Part)
Lester WTP
(City of Corona)
City of Corona Boundary
EVMWD Temescal Valley Pipeline (Not a Part)
Riverside Booster Line
MWD WR19b
Untreated Water Connection
20 cfs Capacity
No.2 Line
Exhibit "B"
Transfer of EVMWD Ag Facilities
to City of Corona
Agricultural Customers (See Table 2)
Rehabilitated/Replaced Lines
No. 2 Line & Service Laterals
Inactive Pipelines (Existence of and/or precise location/condition not certain
Street Centerlines
800 400 0 800 Feet
Data Sources: EVMWD, MMD, County of Riverside
12/29/2006

APPENDIX C

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

AUG 15 2012

City of Corona
c/o Stefanie Hedlund
Stefanie.hedlund@bbklaw.com

In Reply Refer
To:KDM:WW-56

Dear Ms. Hedlund:

WASTEWATER CHANGE PETITION WW-56 OF CITY OF CORONA, BUTTERFIELD DRAIN IN RIVERSIDE COUNTY

The wastewater change petition filed by City of Corona has been approved in the enclosed order. The order also responds to the Department of Fish and Game protest. The order may be viewed at:
http://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/wastewater_petition_orders/

If you require further assistance, please contact me at (916) 341- 5363 or by email at kmrowka@waterboards.ca.gov. Written correspondences or inquiries should be addressed as follows: Division of Water Rights, Attn: Katherine Mrowka, PO Box 2000, Sacramento, CA, 95812-2000.

Sincerely,

Katherine Mrowka

Katherine Mrowka, Chief
Inland Streams Unit

Enclosure

cc: Anna Ewing
Department of Fish and Game
aewing@dfg.ca.gov

Nancy Murray
Department of Fish and Game
nmurray@dfg.ca.gov

Bradley Herrema
Brownstein Farber Hyatt Schreck, LLP
bherrema@bhfs.com

APPENDIX D

Approximate Water Elevations for Wells 3, 8A and WRF#1&2_non-potable Wells

Well 3				Well 8A				Non-Potable Well #1				Non-Potable Well #2			
Pumping		Static		Pumping		Static		Pumping		Static		Pumping		Static	
4/4/05	879														
6/7/05	794														
6/8/05	794			6/14/05	402										
9/7/05	892			9/7/05	545										
10/11/05	888			10/12/05	542					10/13/05	781				
11/2/05	887			11/1/05	539					11/1/05	778			11/1/05	779
12/20/05	885			12/22/05	542										
1/6/06	885			1/10/06	540										
2/3/06	884			2/28/06	540					2/28/06	780			2/28/06	781
3/31/06	882			3/31/06	547					3/31/06	781			3/31/06	781
4/3/06	886			4/3/06	542										
6/30/06	885			5/3/06	546										
7/16/06	886			6/30/06	540										
8/5/06	882			7/16/06	560					7/16/06	779			7/16/06	779
				8/5/06	544					8/5/06	779			8/5/06	780
9/29/06	877			9/29/06	542					9/29/06	779			9/29/06	776
10/31/06	873			10/31/06	541					10/31/06	778			10/31/06	778
11/30/06	869			11/30/06	541					11/30/06	779			11/30/06	780
12/30/06	865			12/30/06	539					12/30/06	779			12/30/06	779
1/1/07	865			1/1/07	541					1/1/07	780			1/1/07	780
2/1/07	856			2/1/07	540					2/1/07	780			2/1/07	779
3/1/07	856			3/1/07	541					3/1/07	780			3/1/07	780
3/5/07	857														
4/1/07	856			4/1/07	541					4/1/07	780			4/1/07	780
5/1/07	856			5/1/07	541					5/1/07	780			5/1/07	780
6/1/07	841			6/1/07	541					6/1/07	781			6/1/07	776
7/1/07	842			7/1/07	541					7/1/07	781			7/1/07	776
8/1/07	839			8/1/07	539			8/1/07	775					8/1/07	774
9/1/07	843			9/1/07	538			9/1/07	775					9/1/07	774
10/1/07	817			10/1/07	537					10/1/07	775			10/1/07	777
11/1/07	807			11/1/07	535					11/1/07	777			11/1/07	777
12/13/07	821			12/4/07	537										
1/10/08	808			1/4/08	535										
2/7/08	804			2/13/08	534										
3/4/08	807					3/5/08	539			3/5/08	779			3/5/08	778
4/30/08	804			4/30/08	536										
5/6/08	808			5/8/08	537										
6/13/08	807			6/9/08	536					6/30/08	778			6/30/08	777
7/3/08	811			7/3/08	536					7/7/08	778			7/7/08	776
7/8/08	811			7/8/08	536					8/14/08	777			8/14/08	775
9/5/08	797			9/5/08	533					9/5/08	777			9/5/08	775
10/3/08	786			10/6/08	532					10/8/08	777			10/8/08	775
11/18/08	778			11/5/08	530										

Approximate Water Elevations for Wells 3, 8A and WRF# non-potable Wells

Well 3				Well 8A				Non-Potable Well #1				Non-Potable Well #2			
Pumping		Static		Pumping		Static		Pumping		Static		Pumping		Static	
1/6/09	778					1/13/09	536			1/13/09	779	7/23/10	764	1/13/09	773
2/25/09	768			2/10/09	529					2/27/09	780			2/27/09	773
						3/24/09	538			3/11/09	780			3/11/09	773
4/8/09	766			4/8/09	533										
5/8/09	1144					5/8/09	536								
6/14/09	770			6/14/09	529										
7/21/09	763			7/21/09	527										
8/13/09	777			8/18/09	525										
				9/9/09	525										
10/24/09	745					10/21/09	538								
11/13/09	719					11/23/09	540								
12/1/09	739			12/17/09	536										
1/14/10	746			1/14/10	537										
2/9/10	751			2/9/10	538										
3/5/10	755									3/8/10	776			3/8/10	780
4/18/10	757	4/14/10	786	4/20/10	538					4/29/10	780			4/29/10	780
5/15/10	759	5/11/10	789	5/13/10	541	5/11/10	545			5/26/10	780				
6/2/10	768	6/11/10	784	6/4/10	536	6/11/10	547			6/24/10	778				
7/3/10	768	7/14/10	784	7/1/10	536					7/23/10	776				
8/8/10	774	8/8/10	774	8/18/10	536	8/18/10	545			8/24/10	776			8/24/10	776
9/8/10	756	9/8/10	774	9/3/10	536	9/3/10	544			9/6/10	776			9/6/10	776
10/18/10	739	10/27/10	762	10/24/10	534					10/17/10	778			10/17/10	779
11/5/10	702	11/10/10	762	11/15/10	532	11/15/10	542			11/7/10	779			11/7/10	780
12/1/10	695	12/13/10	762	12/1/10	534	12/13/10	542			12/27/10	781			12/27/10	782
1/12/11	705			1/15/11	532					1/12/11	781			1/12/11	781
		2/18/11	824	2/25/11	535	2/2/11	544			2/24/11	780			2/24/11	781
3/16/11	831	3/9/11	834	3/9/11	536	3/25/11	547			3/31/11	781			3/31/11	782
4/23/11	819	4/20/11	834	4/22/11	539	4/8/11	547			4/28/11	781			4/28/11	781
5/28/11	824	5/30/11	851	5/18/11	538	5/27/11	547			5/29/11	781			5/29/11	781
6/15/11	779	6/21/11	853	6/15/11	543	6/15/11	548	6/11/11	779	6/11/11	780	6/11/11	779	6/11/11	781
7/9/11	824	7/28/11	850	7/16/11	541	7/16/11	548	7/20/11	770	7/20/11	779	7/20/11	759	7/20/11	780
8/13/11	822	8/28/11	853	8/3/11	541	8/5/11	549	8/28/11	774	8/28/11	780	8/28/11	758	8/28/11	780
9/13/11	849	9/11/11	857	9/6/11	541	9/20/11	548	9/26/11	773	9/12/11	780	9/26/11	755	9/12/11	779
10/11/11	853	10/25/11	861	10/4/11	541	10/11/11	548	10/10/11	776	10/10/11	780	10/10/11	757	10/10/11	780
11/2/11	857	11/9/11	862	11/3/11	541	11/22/11	548	11/9/11	754	11/9/11	779	11/9/11	774	11/9/11	780
12/5/11	861	12/4/11	867	12/4/11	541	12/6/11	549	12/10/11	778	12/10/11	778	12/10/11	781	12/10/11	779
		1/16/12	869	1/3/12	544	1/23/12	550	1/11/12	756	1/11/12	778	1/11/12	775	1/11/12	781
		2/14/12	874	2/2/12	544	2/15/12	549	2/14/12	778	2/14/12	779	2/14/12	777	2/14/12	780
								2/29/12	755						

1144 - depth to water	646 - depth to water	808.5 - depth to water	808.5 - depth to water

APPENDIX C-1:

Floodplain Analysis Bedford Wash at Arantine Hills

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Floodplain Analysis

Bedford Wash at Arantine Hills

Corona, CA

Prepared For:

The New Home Company
85 Enterprise, Suite 450
Aliso Viejo, CA 92656

Prepared By:

Albert A. Webb Associates
3788 McCray St
Riverside, CA 92506

Preparation Date: September 8, 2015

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INTRODUCTION

This report is prepared for analyzing and documenting the floodplain limits along Bedford wash channel located in the proposed Arantine Hills development in Corona, California. The 100 yr. flows were obtained from sediment transport study entitled “Sediment Yield and Transport Study for Arantine Hills baseline and With-Project conditions” prepared by AEI-CASC Engineering. See Appendix B. The hydraulics is prepared using FLO-2D software from FLO-2D Software, Inc. The results of the analysis are presented in Appendix A.

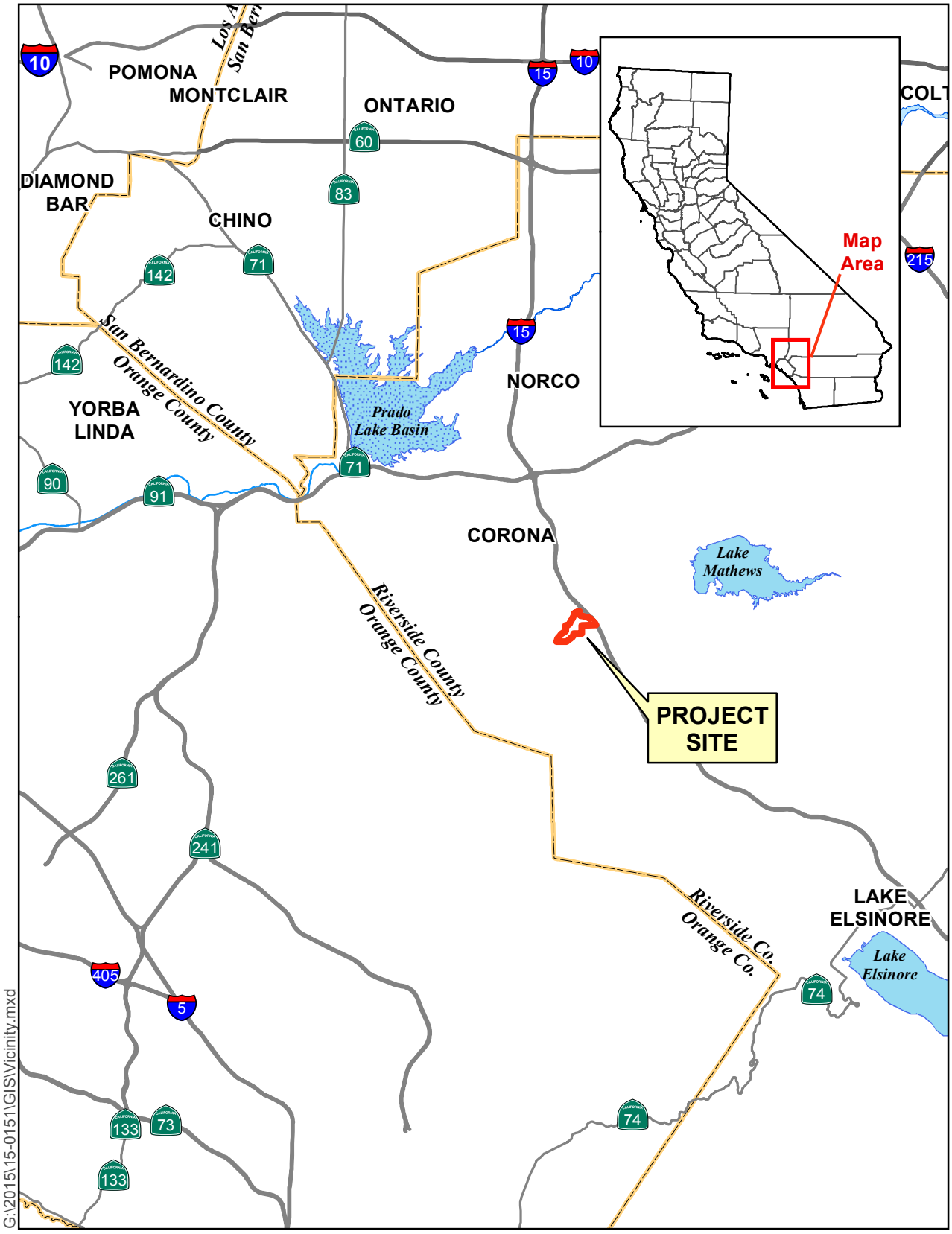
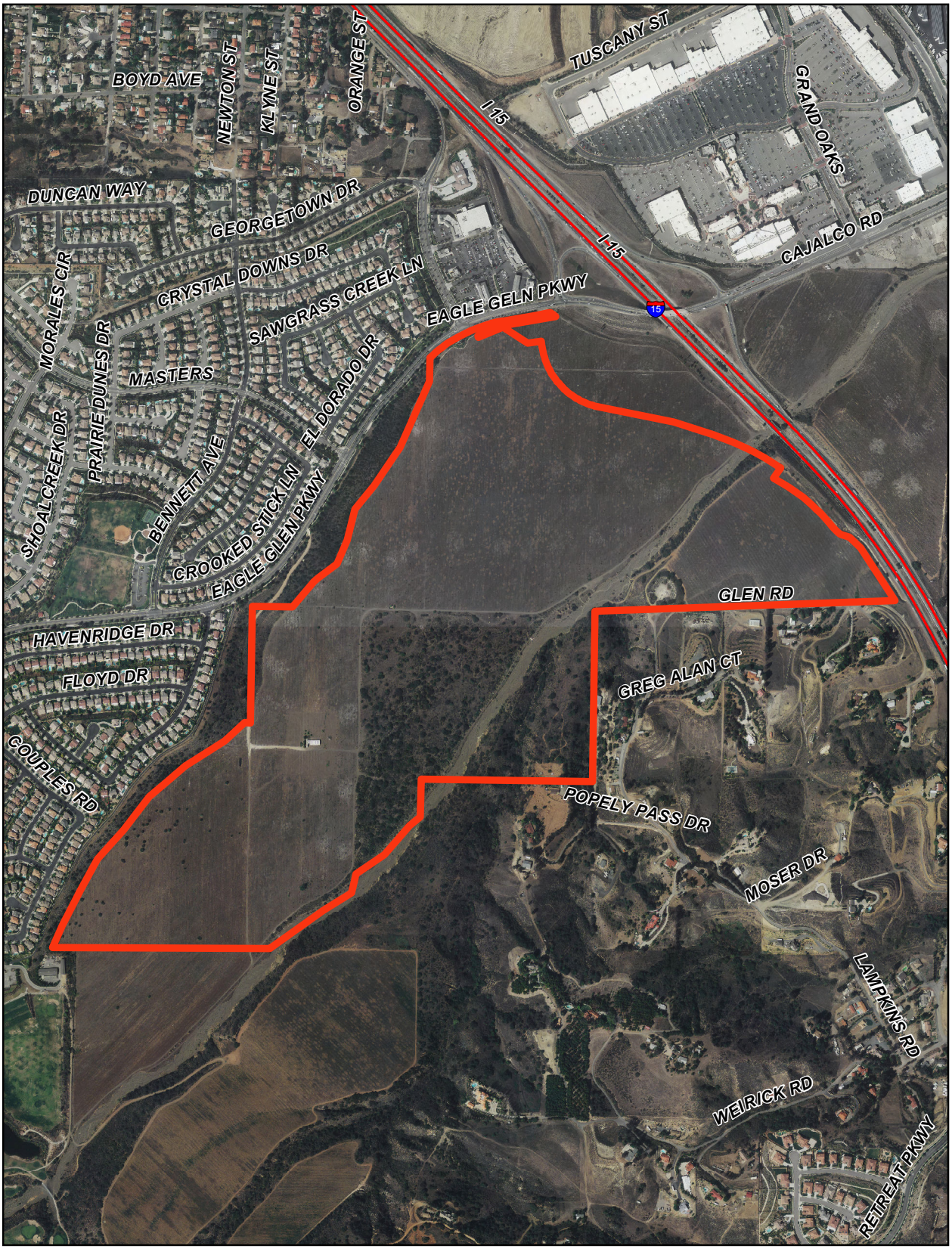


Figure 1 – Vicinity Map

Bedford Wash



Sources: County of Riverside GIS, 2013;
Eagle Aerial, April 2012.

N
W E
S

0 500 1,000
Feet

Figure 2 – Aerial Photograph
Bedford Wash

BACKGROUND

LOCATION

Bedford wash is located along the western edge of Riverside County in Corona, CA. A location map of the study area is shown below in Figure 1. The study area commences 20' downstream of the South Caltrans Right-of-Way at I-15 Bridge crossing and runs 6000', ending 500' upstream of the proposed Arantine Hills development's southerly property line.

HYDROLOGY

Existing condition 100 yr. flows were obtained from sediment transport study presented in Appendix B for reference. The un-bulked 100 yr. flow as identified in this report is 4370 cfs. Assuming a bulking factor of 1.4, the bulked 100 yr. flow used for analysis is 6114 cfs.

FLOODPLAIN ANALYSIS/ MODELING

Floodplain analysis was carried out using FLO-2D software. Upstream and downstream boundary conditions were assumed at normal depth. The floodplain was modelled using a 25' grid spacing and Manning's roughness coefficient of 0.04.

Refer to Hydraulic Analyses section for more information on methodology used. The floodplain map is presented in Appendix A.

HYDRAULIC ANALYSES

OBJECTIVE

The objective of this analysis is to determine 100 yr. water surface elevations and limits of inundation for the stretch of the wash running on the proposed Arantine Hills site.

METHOD

The analysis was performed using FLO-2D model as follows:

- 25' grid spacing was used to model the flood routing. The hydrograph was generated till it reached the bulked flow of 6114 cfs and simulated for several hours until the system reached a steady state condition.
- Manning's "n" value of 0.04 was used.
- The downstream boundary condition was assumed at normal depth.
- The upstream boundary condition was assumed at normal depth.

RESULTS

The resulting water surface elevations indicate that shallow flooding (up to 2 ft) exists in the overbank area of the main wash. It is recommended that any grading operations be performed in such a manner that fills are placed to protect graded areas within the overbank until such time that the Bedford Canyon channel is constructed.

APPENDIX A

FLOODPLAIN ANALYSIS MAP

Bedford Wash - 100- Year Flow Depths

N

Legend

Area of Inundation

Flow Depth at Cell

Var

0.010 - 0.300

0.301 - 1.000

1.001 - 2.000

2.001 - 5.000

5.001 - 10.000

10.001 - 15.000

Feet

0 250 500 1,000

Bedford Wash - 100 Year Flow Velocity

N

Legend

Var

- 0.000 - 1.000
- 1.001 - 4.000
- 4.001 - 6.000
- 6.001 - 10.000
- 10.001 - 15.000
- 15.001 - 25.000

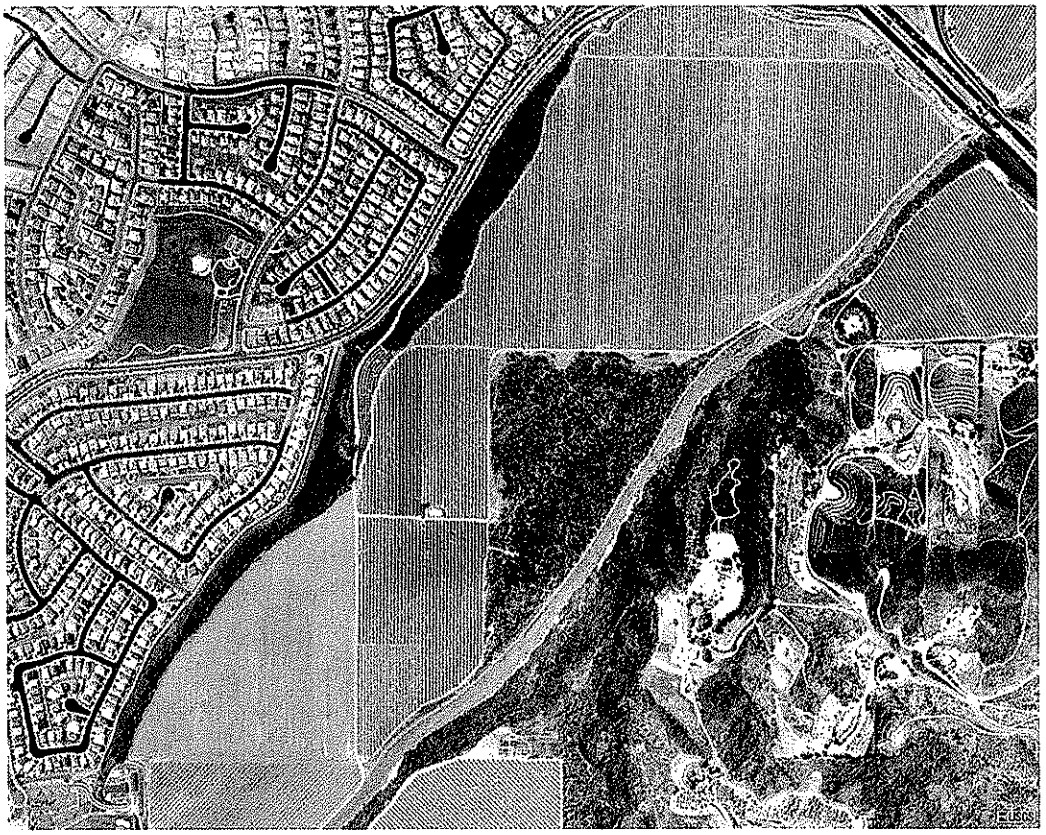
Feet

0 250 500 1,000

APPENDIX B

SEDIMENT TRANSPORT STUDY

DRAFT REPORT



Sediment Yield and Transport Study for Arantine Hills Baseline and With-Project Conditions

Bedford Wash

prepared for:

AEI-CASC Engineering

prepared by:

Fehlman Consulting Services

August 20, 2010

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Exhibit B – Proposed Grading Plan
Exhibit C – Existing Conditions Floodplain Map
Exhibit D – With-Project Conditions Floodplain Map

Attachment A – HEC-RAS Summary and Output Files
Attachment B – NRCS Soils Reports
Attachment C – SAM Computations
Attachment D – GSTARS Computations

Executive Summary

The Bedford Wash watershed is located amidst the eastern slopes of the Santa Ana Mountains. Most of the watershed is contained within the Cleveland National Forest. The watershed is predominantly undeveloped, and is characterized by steep slopes (average = 42%) and shrub coverage (chaparral). Watershed soils are approximately 34 percent fines (silts and clays), and have relatively high erodibility (average K = 0.24). Sediment yield rates from the Bedford Wash watershed are expected to be high, with unit rates of 5 to 6 acre-feet per square mile per year. Average annual sediment yields of approximately 104,000 tons are expected for the watershed. 100-year event yields of more than 500,000 tons are possible. Under full watershed burn conditions, yield rates may be up to five times higher.

The channel slope through the project reach is relatively steep, and supercritical flow conditions are expected within Bedford Wash during runoff events. Peak flow velocities of more than 20 feet per second are expected under peak 100-year flood conditions. Bed material sizes are predominantly very fine to fine gravels. These conditions enable mobilization of the alluvial material of which the channel bed and banks are composed. High rates of bed material transport are expected through the project reach. Average annual transport of up to 10,600 tons of bed material has been computed for the local wash. 100-year bed material loads of up to 58,500 tons were computed for the project reach.

The existing channel through the project reach has been artificially guided toward the high bluff on the southeast side of the subject property. An earthen berm has been graded from local materials to protect the adjacent northwest properties from watershed runoff. The materials of which both the bluff and the earthen berm are composed are transportable during runoff events, and the stability of each cannot be guaranteed without some form of armoring. Slope failure along the bluff is an added source of material to the channel, and has locally distorted the channel slope near the upstream end of the subject site.

The proposed flood control plan includes a transverse levee/collector dike at the upstream end of the development site, and an engineered levee faced with concrete to replace the existing graded berm that parallels the Bedford Wash through the site limits. In the upstream portions of the project, an inset channel is proposed adjacent to the engineered levee to help draw flow concentration away from the existing high bluff.

The hydraulic and sediment transport characteristics through Bedford Wash under improved conditions are expected to be little changed by the proposed project. Slight improvement in sediment balance will be achieved with the proposed lowering of the invert within the upper portion of the project. The proposed plan will also provide a

higher level of flood protection than the existing graded berm provides. No significant hydraulic or sediment transport impacts on adjacent properties up- and downstream of the project are expected.

Levee height and toe-down protection allowances were developed using the results of both steady-state and quasi-unsteady state hydraulic and sediment transport models. The results of these analyses were compared to typical sizing requirements for soft-bottom flood control facilities. The proposed plan has been developed in consideration of the results of these analyses and guidelines.

Table 1 Hydrologic quantities for the study area

Return Period	Peak Discharge cfs	Runoff Volume acre-feet
100-year	4,370	833
50-year	3,823	699
25-year	3,276	569
10-year	2,555	417
5-year	1,430	200
2-year	816	115

APPENDIX C-2:

Hydrology and Hydraulic Memorandum for Bedford Canyon Wash

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ALBERT A. WEBB ASSOCIATES

Memorandum

To: Peter Carlson, Vice President, VCS Environmental

From: Scott R. Hildebrandt, P.E., Senior Vice President

Date: October 09, 2015

Re: Hydrology and Hydraulic Summary for Bedford Canyon Wash

This memorandum summarizes the hydrology and hydraulic conditions for the Bedford Canyon Wash and the proposed natural channel restoration proposed with the Arantine Hills Specific Plan. Please refer to Hydrology report entitled "Preliminary Hydrology Report for Tract 36294 Specific Plan Amendment" by CASC Engineering and Consulting for hydrology of the overall tract.

EXISTING FLOODPLAIN

The attached detailed floodplain analysis was prepared for the Bedford Canyon Wash from the mouth of the canyon northwesterly of the Arantine Hills Specific Plan area to the I-15 bridge crossing southeasterly of the Arantine Specific Plan area. While the majority of the 100-year flood is contained by the defined natural channel along the southerly side of the canyon, there is minimal flooding within the overbank area along the northerly side of the wash. Average flood depth within the channel is approximately 6 feet deep with an average velocity of 20 feet per second. Within the floodplain overbank area, the flood depth is approximately 1 foot deep with an average velocity of 4 feet per second. The majority of all sediment transport occurs within the Bedford Canyon Wash.

HYDROLOGY

The Bedford Canyon watershed totals approximately 7.0 square miles at the point where runoff enters the Arantine Hills Specific Plan area. Peak stormwater runoff and volumes along with sediment transport capacities were previously determined for a series of storm events ranging from the average annual storm to the 100-year storm. Based on these previous studies, runoff discharge rates ranged from approximately 800 cfs for the average annual storm to approximately 4400 cfs for the 100-year storm event. Factoring in the debris/sediment potential for the watershed, the 100-year design flowrate was increased from approximately 4400 cfs to approximately 6100 cfs.

As part of the alternatives analysis for addressing flood protection for the Arantine Hills Specific Plan, alternatives were developed for restoring the natural channel in such a manner to minimize erosion to the existing bluff and perpetuating the sediment transport capabilities of the natural wash. While an initial option of using a setback levee was analyzed, it was determined that operation and maintenance of a setback levee was not feasible. Therefore, the first alternative with Concrete rectangular channel and a low-flow diversion channel (Option 1); the second alternative which remains

outside of existing Bedford Canyon Wash (Option 2), and the third alternative which re-establishes Bedford Canyon Wash as a wider and deeper drainage course (Option 3) were analyzed. The 3 alternatives are explained below.

RECTANGULAR CONCRETE CHANNEL W/ LOW FLOW DIVERSION CHANNEL (OPTION 1)

A 46' wide, 10' deep concrete rectangular channel was analyzed to convey the entire 100 yr. flood of 6100 cfs. The attached cross-sections (Option 1) depict the channel geometry. A debris basin is provided on the offsite upstream property at southerly boundary of the project to minimize large debris from entering the concrete channel. To feed the riparian area along the natural channel, low flows are diverted through a riser pipe and grated inlet arrangement in the debris basin. A flow rate of 150 cfs produces approximate average velocity of 5 fps in the natural wash/low flow diversion channel. It was decided, with RCFCD concurrence, to limit low flows to 150 cfs to prevent excessive erosion in the natural channel. In a 100 yr. event, the debris basin overflows to the rectangular concrete channel. Based on the hydraulics, the 100-yr flows are contained in the concrete channel. Flood depth in the concrete channel ranges between 4 to 7 ft. and average velocity ranges between 25 and 46 fps. In the low flow channel, the flood depth is approximately 0.7' and average flow velocity is around 5 fps.

NATURAL CHANNEL RESTORATION (OPTION 2 AND OPTION 3)

Options 2 and 3 both contemplate utilizing buried riprap slope protection for the bluff and the slope for the Arantine Hills development and buried riprap drop structures to control erosion of the wash. The attached cross-sections (Option 2 and Option 3) depict the channel geometry. Based on the attached hydraulic analysis, both alternatives contain the 100-year flood. Flood flow depths range from 3.5 feet deep to 5.0 feet deep. The average velocity ranges from 11 feet per second to 13 feet per second.

In reviewing the two studied alternatives, it was determined that portions of existing Bedford Canyon Wash that were avoided in the second alternative potentially would not be inundated in lower level storm events. In both alternatives two and three, the sediment transport capabilities were maintained based upon the average channel velocities exceeding the minimum velocity of 5 feet per second. It is possible that some of the larger boulders that require velocities above 13 feet per second may not migrate down to the I-15 Freeway bridge crossing. Boulders of that size will need to be observed to see if they pose a structural risk to the system.

APPENDIX C-3:

Preliminary Hydrology Study for Tract 36294 Specific Plan Amendment

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PRELIMINARY HYDROLOGY STUDY
FOR
TRACT 36294
SPECIFIC PLAN AMENDMENT

CORONA, CALIFORNIA

Prepared for:

TNHC LAND COMPANY, LLC
85 Enterprise, Suite 450
Aliso, Viejo, CA 92656

Prepared by:

CASC Engineering and Consulting

1470 E. Cooley Dr.
Colton, CA 92324
(909) 783-0101 ·Fax (909) 783-0108

October 15, 2015

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FIGURE 2: LOCAL VICINITY MAP
FIGURE 3: FEMA FLOODPLAIN MAP
FIGURE 4: DETENTION BASIN/WATER QUALITY BASIN SCHEMATIC
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APPENDIX

APPENDIX A: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA "A" (RATIONAL TABLING METHOD)

APPENDIX A.1: 100-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX A.2: 10-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX B: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA "A" (RATIONAL TABLING METHOD)

APPENDIX B.1: 100-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX B.2: 10-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX C: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA "B" (RATIONAL TABLING METHOD)

APPENDIX C.1: 100-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX C.2: 10-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX D: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA "B" (RATIONAL TABLING METHOD)

APPENDIX D.1: 100-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX D.2: 10-YEAR RATIONAL TABLING CALCULATIONS

APPENDIX E: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA "A" (HYDROGRAPH METHOD)

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APPENDIX E.2: 10 – YEAR HYDROGRAPH CALCULATIONS

APPENDIX E.3: 5 – YEAR HYDROGRAPH CALCULATIONS

APPENDIX E.4: 2-YEAR HYDROGRAPH CALCULATIONS

APPENDIX F: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA "A" (HYDROGRAPH METHOD)

APPENDIX F.1: 100-YEAR HYDROGRAPH CALCULATIONS

APPENDIX F.2: 10 – YEAR HYDROGRAPH CALCULATIONS

APPENDIX F.3: 5 – YEAR HYDROGRAPHIC CALCULATIONS

APPENDIX F.4: 2-YEAR HYDROGRAPH CALCULATIONS

APPENDIX G: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA "B" (HYDROGRAPH METHOD)

APPENDIX G.1: 100-YEAR HYDROGRAPH CALCULATIONS

APPENDIX G.2: 10 – YEAR HYDROGRAPH CALCULATIONS

APPENDIX G.3: 5 – YEAR HYDROGRAPH CALCULATIONS

APPENDIX G.4: 2-YEAR HYDROGRAPH CALCULATIONS

APPENDIX H: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA "B" (HYDROGRAPH METHOD)

APPENDIX H.1: 100-YEAR HYDROGRAPH CALCULATIONS

APPENDIX H.2: 10 – YEAR HYDROGRAPH CALCULATIONS

APPENDIX H.3: 5 – YEAR HYDROGRAPH CALCULATIONS

APPENDIX H.4: 2-YEAR HYDROGRAPH CALCULATIONS

APPENDIX I: BASIN ROUTING CALCULATIONS FOR DETENTION BASIN "A"

APPENDIX I.1: 100-YEAR BASIN ROUTING CALCULATIONS

APPENDIX I.2 10-YEAR BASIN ROUTING CALCULATIONS

APPENDIX I.3 5-YEAR BASIN ROUTING CALCULATIONS

APPENDIX I.4: 2-YEAR BASIN ROUTING CALCULATIONS

APPENDIX J: BASIN ROUTING CALCULATIONS FOR DETENTION BASIN "B"

APPENDIX J.1: 100-YEAR BASIN ROUTING CALCULATIONS

APPENDIX J.2: 10-YEAR BASIN ROUTING CALCULATIONS

APPENDIX J.3: 5-YEAR BASIN ROUTING CALCULATIONS

APPENDIX J.4: 2-YEAR BASIN ROUTING CALCULATIONS

APPENDIX K: BACKUP CALCULATIONS

EXHIBITS & PLATES

EXHIBIT “A”: HYDROLOGY MAP BASED ON EXISTING CONDITION–RATIONAL TABLING METHOD (SCALE: 1" = 100')

EXHIBIT “B”: HYDROLOGY MAP BASED ON PROPOSED CONDITION - RATIONAL TABLING METHOD (SCALE: 1" = 100')

EXHIBIT "C": HYDROLOGY MAP BASED ON EXISTING CONDITION - HYDROGRAPH METHOD (SCALE: 1" = 100')

EXHIBIT "D": HYDROLOGY MAP BASED ON PROPOSED CONDITION - HYDROGRAPH METHOD (SCALE: 1" = 100')

EXHIBIT "E": RCFC & WCD PLATES

PLATE “C 1.27”: HYDROLOGIC SOILS GROUP MAP - CORONA SO.

PLATE “D 4.3”: 2 YEAR - 1 HOUR PRECIPITATION

PLATE “D 4.4”: 100 YEAR - 1 HOUR PRECIPITATION

PLATE “E 5.5”: 2 YEAR - 24 HOUR PRECIPITATION

PLATE “E 5.6”:100 YEAR - 24 HOUR PRECIPITATION

PLATE “D 4.6”: SLOPE OF INTENSITY DURATION CURVE

I. PURPOSE AND SCOPE

The purpose of this report is to investigate and evaluate the drainage conditions of the Arantine Hills Project area and to develop a preliminary drainage plan that will provide this 276-acre project area with improved drainage and flood protection from the 100-year flood. This preliminary drainage plan, in conjunction with the improvement of the major drainage facility, the Bedford Canyon Wash Channel, will achieve this goal. The plan will also act as a planning guide for locating and sizing drainage facilities to be constructed within the project area.

The scope of this preliminary hydrology study includes the following:

A. Review of available drainage reports for the project site.

B. Preparation of a drainage area map and points of flow concentration of storm runoff in the project area.

C. Determination of the quantities of the 100-year and 10-year storm runoff based on existing (pre-project) and proposed (with-project) conditions.

D. Determination of the location and size of the proposed drainage facilities.

E. Preparation of the drainage report and hydrology maps.

For purposes of this hydrology study, ultimate improvements to the Bedford Canyon Wash Channel located along the east side of the property are assumed to be in place. The development of preliminary plans and supporting studies for the Bedford Canyon Wash Channel is included in a separate report prepared by Albert A. Webb & Associates titled "Floodplain Analysis – Bedford Wash at Arantine Hills" dated September 8, 2015.

II. PROJECT SITE AND DRAINAGE AREA OVERVIEW

The Arantine Hills Specific Plan is located in the City of Corona. The project is generally bounded by Eagle Glen Parkway to the west, I-15 to the north, and Bedford Canyon Wash to the east (see Figure 1).

The drainage area covered by this plan consists of approximately 241 acres or 0.38 square miles (excluding the area tributary to the Bedford Canyon Wash Channel, which is approximately 35 acres). The watershed tributary to the Arantine Hills Specific Plan is characterized by uniform, steep slopes with elevations ranging from a high of 1,216 feet above sea level to a low of 897 feet near I-15. The 276-acre Arantine Hills project is currently undeveloped. The upper portion of the project site is covered with annual grass

and open brush. The project site generally slopes northerly at a grade of approximately 3-5 percent.

The project is impacted by Bedford Canyon Wash traversing along the southeast side of the property (see Figure 2). The flow tributary to this wash is currently conveyed in a natural channel. Bedford Canyon Wash discharges into Temescal Canyon Creek.

III. PREVIOUS STUDIES

AEI-CASC Consulting prepared a master drainage plan (MDP) in support of a previous SP application for this property in July 2002 (Reference 1). That MDP was used in the preparation of this report. A list of other study references is included in Section IX.

IV. HYDROLOGY

Drainage basin boundaries and points of storm flow concentration associated with the existing or pre-project condition were determined utilizing the existing project site topography (2014 aerial topographic map). For the proposed with-project condition, the roadway and grading layouts were utilized in the analysis. Field investigations were conducted to verify the relative accuracy of the drainage boundaries. Exhibits "A" and "C" show the rational method and hydrograph method hydrology maps, respectively, for the existing condition while Exhibits "B" and "D" show the rational method and hydrograph method hydrology maps, respectively, for the proposed condition.

The results of the rational method calculations for Drainage Area "A" based upon the existing and proposed conditions are included in Appendix A and Appendix B, respectively. The results of the rational method calculations for Drainage Area "B" based upon the existing and proposed conditions are included in Appendix C and Appendix D, respectively.

The hydrograph calculations for Drainage Area "A" based upon the existing and proposed conditions are included in Appendix E and Appendix F, respectively, while the results of the hydrograph calculations for Drainage Area "B" based upon the existing and proposed conditions are included in Appendix G and Appendix H, respectively. Under the proposed condition, approximately 5.8 acres of drainage area encompassed within the existing Area "B" boundary will be diverted to Area "A" via overland street flow. The basin routing calculations included in Appendix I of this report mitigate for the additional flows from this diverted area.

The RCFC & WCD Hydrology Manual was used to develop the hydrologic parameters for the 100-year, 10-year 5-year and 2-year storm events (Reference 2). The rational tabling method was utiltized to determine the peak flow rates for the study areas. Computations

were performed using the RRIV computer program developed by CivilCadd/CivilDesign (CDD). The unit hydrograph method was utilized for basin routing. This method was completed using the UNRIV computer program developed by CDD.

The rainfall values and slope of intensity duration curves used for the study were obtained from the maps contained in the RCFCD hydrology manual (see Plates Attached). The rainfall values for the 2-year/1-hour and 100-year/1-hour storm events are 0.55 inches and 1.36 inches, respectively. For the 100-year/24-hour and 2-year/24-hour storm events, the rainfall values are 8.0 inches and 2.5 inches, respectively. The slope of intensity duration curve of 0.43 was used in the study (Plate D-4.6)

The entire study area consists of four hydrologic soils groups, A, B, C and D (Plate C1.27). Antecedent Moisture Condition (AMC) 2 was used to determine the peak storm flows and flood volumes for the 100-year and 10-year storm events, while AMC 1 was used to determine the peak storm flows and flood volumes for the 5-year and 2-year storm events.

Land use category descriptions for this drainage plan were derived from the Arantine Hills Specific Plan (see Figure 5). For the existing condition hydrology analysis, grass, annual or perennial (fair) cover types were used.

V. FLOOD PLAIN STUDY

As shown on Figure 3, the Arantine Hills project is currently "unmapped". However, the area immediately downstream of I-15 and east of the project (adjacent to Bedford Canyon Wash) falls within the "Zone A" flood plain as determined by the Federal Emergency Management Agency (FEMA). The "Zone A" flood plain designation is defined by FEMA as "Areas of 100-year flood; base flood elevations and flood hazard factors not determined". The origin of this Zone "A" flood plain is the storm flows emanating from Bedford Canyon Wash.

FEMA has not mapped the flood plain information for the Arantine Hills project and in particular, for the Bedford Canyon Wash. AEI-CASC prepared a detailed flood plain and sediment transport study entitled, "Sediment Yield and Transport Study for Arantine Hills, Baseline and With-Project Conditions, Bedford Wash" (Reference 5). The flood plain information derived in that study will provide the existing, or "baseline", hydraulic parameters for the areas off-site from the Arantine Hills project. The parameters will be necessary for evaluating the adverse impacts, if any, associated with the construction of the proposed channel improvements.

VI. FACILITY DESIGN CRITERIA

Criteria for the conceptual layout and design of drainage improvements were adopted based

on the current guidelines of the City of Corona and Riverside County Flood Control and Water Conservation District (RCFC & WCD). The criteria are defined below:

A. UNDERGROUND STORM DRAINS

All underground storm drains proposed in this plan are intended to collect local urban runoff and offsite undeveloped flows. For the most part, these drains are located in existing and proposed street rights-of-way including proposed easements. For local and major streets located within the plan area, runoff from a 10-year storm is allowed to accumulate in the streets until it reaches the top of the curb. The 100-year storm flow, on the other hand, is allowed to accumulate within the street section until it reaches the right-of-way. If either of these two conditions is violated, the plan proposes to construct an underground storm drain to convey the tributary 100-year flows. These conduits are proposed to be either reinforced concrete pipes (RCP) or cast-in-place concrete pipes (CIPCP) or reinforced concrete boxes (RCB). Manning's roughness coefficients (n-values) of 0.013 and 0.014 were used for the proposed RCPs, RCBs, and CIPCPs respectively.

B. OPEN CHANNELS

Open channels are proposed when construction and right-of-way costs for a channel improvement prove to be significantly less than the costs of an underground storm drain. Where open channels are provided, they are designed to convey the 100-year storm runoff. These channels are proposed to be lined with concrete with 1.5:1 side slopes. A manning's N-value of 0.015 is used to perform the normal-depth calculations. A minimum channel freeboard of 1.5 feet is used. The Concrete Trapezoidal Channel is identified on Exhibit "B", Sheet 2. This channel serves the function of redirecting off-site flows around the proposed development, which keeps flows from co-mingling, and replicates the existing condition.

C. DETENTION BASINS

The proposed detention basins are designed to ensure that the total combined developed outflows are less than or equal to the existing undeveloped flows for the 2-year, 5-year, 10-year and 100-year, 24-hour storm events (see Figure 4). The 24-hour event duration, for all return periods, typically generates the lowest peak flow rate and the highest flood volume. Therefore, the detention basins are capable of also handling the 1-hour, 3-hour, and 6-hour events for all four return periods. Calculations supporting these three event durations will be performed during final design.

The proposed detention basin design volumes include the volumes required for treatment by the water quality basins, as the water quality basins will be situated within

the footprint of each proposed detention basin (Figure 4). The incorporation of a water quality basin within each detention basin will allow for the treatment of runoff flows as well as flood control without requiring additional on-site area. Detention Basins "A" and "B" utilize extended detention for water quality treatment, since the in-situ infiltration rates are minimal. This design will be in accordance with the City's and RCFC & WCD requirements.

Each proposed detention basin will be sized based upon the design criteria established by RCFC & WCD (Reference 3), and located within a drainage easement. The proposed detention basins will each have an emergency spillway capable of safely conveying the 100-year flood. A minimum freeboard of one foot above the 100-year water surface elevation will be incorporated in the basin design.

D. WATER QUALITY BASINS

The drainage plan proposes to construct water quality basins to remove pollutants from surface runoff by capturing the tributary water quality volume and treating flows via two extended detention basins ("A" and "B"). The detention/water quality basins will be owned and maintained by the development's Home Owners' Association.

The primary functions of the proposed water quality basins are to remove pollutants from storm water runoff and to recharge or replenish the ground water. Additionally, these basins can significantly reduce the total annual surface runoff volume, which can reduce stream or overland erosion and other adverse impacts to stream habitat from the proposed development project. The water quality basins will be sized based upon ASCE Manual and Report on Engineering Practice No. 87 (Reference 7). The water quality volume quantity will be included in the detention basin storage volume.

Proposed Drainage Design and Maintenance Program

1. All drainage facilities and flood control measures will be designed in accordance with the requirements of the City of Corona and RCFC & WCD.

2. The proposed public drainage facilities will be maintained by the City of Corona and RCFC & WCD.

3. Detention basins are proposed in order to mitigate the impact of increased runoff due to the proposed development.

4. This project shall comply with the requirements of the State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ permit as amended by Order No. 2010-0014-DWQ (NPDES No. CAS000002) and 2012-0006-DWQ at the time of final

development entitlement. All projects proposing construction activities including cleaning, grading or excavation that results in the disturbance of at least one acre of total land area should obtain the appropriate State General Permit for National Pollution Discharge Elimination System (NPDES) and pay the appropriate fees. All developments within the Specific Plan boundaries shall be subject to future requirements adopted by the City for implementation of the NPDES program.

5. Water quality basins are proposed in order to remove pollutants from surface discharges by capturing the tributary water quality volume and treating it prior to the next significant storm event. Each proposed water quality basin will be located within the footprint of each proposed detention basin (see Figure 4). The primary functions of the proposed water quality basins are to remove pollutants from storm water runoff and to recharge or replenish the ground water. Maintenance of the extended detention water quality basins shall be in accordance with the maintenance requirements outlined in the project's Preliminary Water Quality Management Plan (P-WQMP).

6. Storm drainage facilities should ensure the acceptance and disposal of storm run-off without damage to streets or adjacent properties.

VII. EXISTING FACILITIES

With the exception of the Bedford Canyon Wash that runs along the southeast side of the project and small culverts under I-15 near the southeast and northeast sides of the project, there are no other drainage facilities existing near or within the project area.

VIII. RECOMMENDED PLAN

The drainage plan for the Arantine Hills project proposes a system of drainage channels, underground storm drains and basins to intercept and convey the storm flows generated by the project site as well as off-site run-on flows.

Bedford Canyon Wash is to maintain the existing 5-year flows within the existing natural channel. The greater than 5-year flows will be split from the natural wash into a 26-foot-wide concrete rectangular channel via a side weir. The concrete rectangular channel is sized to convey the 100-year flow of 4,370cfs with 40% bulking for a total 100-year bulked flow of 6,114cfs. The approach is to maintain the existing bluffs within the Army Corps of Engineers (ACOE) jurisdictional limits to the south while minimizing the impacts due to water volume, depths and erosive velocities. The existing flow depths ranged from 6.1 – 10.9 feet with velocities from 8.3 – 14.4 fps. The 5-year flows will have flow depths ranging from 3.5 – 5.3 feet with velocities from 4.3 -11.1 fps. These reduced depths and velocities will minimize the erosion potential on the existing bluffs. The concrete rectangular channel will convey the flows to the northeasterly project limits then through a

CSU Rigid Boundary Basin (RBB) per FHWA HEC No. 14 design requirements before it outlets back into the existing natural Bedford Wash. Three (3) separate designs were analyzed for the CSU RBB. It was determined that the fifty-two (52) feet wide outlet would best reduce the flow velocities while allowing a reasonable transition back into existing Bedford Wash. A separate report entitled, "Sediment Yield and Transport Study for Arantine Hills, Baseline and With-Project Conditions, Bedford Wash".

The alignment and location of the facilities proposed in this plan are general; precise facility locations will be dictated by conditions and other factors existing at the time of final design. Similarly, the sizing information shown on the enclosed maps is preliminary. A more detailed analysis performed at the final design stage will determine final sizing of the proposed facilities.

The majority of the underground drainage facilities are proposed to be placed under the future streets. An open channel is proposed along the north side of the project site. Detention basins are proposed at two locations in order to mitigate increases in storm runoff due to the development of the various planning areas. These detention basins are located toward the north end of Planning Area 12 and the east end of Planning Area 14.

The improvements proposed by this plan are shown on Exhibits "B" and "D", which are enclosed in the back of this report. These exhibits not only show proposed preliminary alignments, but pertinent preliminary size information, as well as the design flow rates, and detention basin volumes.

Basin routing calculations for Basins "A" and "B" are included in Appendix I and Appendix J, respectively.

The following is a brief description of the recommended drainage improvements proposed in this MDP:

Line "A"

Line "A" is a proposed underground main storm drain system designed to intercept and convey the on-site peak 100-year storm flows, ranging from 13.4 cfs to 363.0 cfs and discharge them into Detention Basin "A". It is a reinforced concrete pipe (RCP) that ranges in diameter from 18 to 60 inches. Line "A" accepts flows from Planning Areas 1 through 12, 15, and a portion of Planning Area 14.

Detention Basin "A"

Detention Basin "A" is located in Planning Area 12, Lot G, which has a land use designation of Medium Density Residential. This approach maintains the land use designation should the basin location move in the future. Detention Basin "A" is proposed

to attenuate the increase in storm runoff due to the proposed development of the various upstream planning areas tributary to the basin. This basin is sized to attenuate the 2, 5, 10 and 100-year developed storm flows. The proposed basin volume of approximately 42.9 acre-feet includes the water quality volume required for treatment of approximately 4.9 acre-feet. The basin will utilize a 36-inch diameter outlet riser to regulate flows leaving the basin. The maximum basin outflow of 138.0 cfs will discharge to Bedford Canyon Wash Channel. In the event the outlet riser fails, the basin also includes an emergency spillway capable of safely conveying the 100-year peak flow rate of 363.0 cfs. Table 8.1, below, shows the on-site peak flow rates for both the existing and proposed conditions, and the design outflows for Detention Basin "A". Basin routing calculations for Detention Basin "A" are included in Appendix I.

Table 8.1: Detention Basin "A" Routing Summary

Event Frequency/Duration		Peak Flow Rate (CFS)		
		Existing	Proposed	Outflows
2-yr	24-hr	6.9	36.8	6.4
5-yr	24-hr	11.3	55.8	10.7
10-yr	24-hr	68.9	77.5	44.9
100-yr	24-hr	158.2	174.5	138.0

Line "B"

Line "B" is a proposed underground main storm drain line designed to direct outflows from Detention Basin "A" to Bedford Canyon Wash Channel. Line "B" is a double 36-inch RCP that is sized to convey the maximum basin outflow of 138.0 cfs.

Line "C"

Line "C" is a proposed underground storm drain line designed to collect and convey on-site storm flows generated by a portion of Planning Area 14. Line "C" is a 24-inch RCP that is sized to convey a maximum 100-year peak flow rate of 16.5 cfs.

Line "D"

Line "D" is a proposed underground storm drain line designed to collect and convey on-site storm flows generated by a portion of Planning Area 14. Line "D" is a 24-inch RCP that is sized to convey a maximum 100-year peak flow rate of 36.1 cfs.

Detention Basin "B"

Detention Basin "B" is proposed to attenuate the increase in storm runoff due to the proposed development of the upstream Planning Area 14. This basin is sized to attenuate

the 2, 5, 10 and 100-year developed storm flows. The proposed basin volume of approximately 5.7 acre-feet includes the water quality volume required for treatment of approximately 0.4 acre-feet. The basin will utilize an 18-inch diameter outlet riser to regulate flows leaving the basin. The maximum basin outflow of 11.7 cfs will discharge to the existing watercourse running along the south side of I-15 via the proposed Line "G". In the event the outlet riser fails, the basin also includes an emergency spillway capable of safely conveying the 100-year peak flow rate of 36.1 cfs. Table 8.2, below, shows the on-site peak flow rates for both the existing and proposed conditions, and the design outflows for Detention Basin "B". Basin routing calculations for Detention Basin "B" are included in Appendix J.

Table 8.2: Detention Basin "B" Routing Summary

Event Frequency/Duration		Peak Flow Rate (CFS)		
		Existing	Proposed	Outflows
2-yr	24-hr	0.8	3.1	0.6
5-yr	24-hr	3.2	4.7	1.0
10-yr	24-hr	10.6	7.9	1.4
100-yr	24-hr	21.3	16.4	11.7

Line "E"

Line "E" is a proposed underground main storm drain line designed to direct outflows from Detention Basin "B" to the existing watercourse running along the south side of I-15. Line "E" is a 36-inch RCP that is sized to convey the maximum basin outflow of 11.7 cfs.

Transverse Levee

The Transverse Levee system is located along the southerly boundary of the Project site. The Transverse Levee system consists of a concrete-lined open channel and levee, and is primarily designed to intercept and convey the 100-year breakout or errant flows from Bedford Canyon Channel. The channel portion is trapezoidal shaped with a bottom width of 6 feet, height of 8 feet, and side slopes of 1.5 horizontal to 1 vertical. The levee is concrete lined with side slopes of 1.5 horizontal to 1 vertical and varying height. The height of the levee varies from a maximum height of 10 feet and minimum height of 5 feet measured from the top of the concrete-lined channel to the top of the levee. The channel portion of the system has the capacity to convey approximately the 10-year **clear-water** flow of 2,535 cfs, which is equivalent to just over the 5-year **bulked** flow condition. The combined channel and levee system is able to convey the entire 100-year **bulked** flow of Bedford Canyon Channel with a minimum of 7.4 feet of freeboard (i.e. 4.4 feet of freeboard for super-elevation plus 3 feet of freeboard for levee condition). The 100-year storm flow emanating from the local off-site area is 39.4 cfs, which can easily be accommodated by the

proposed system. The Transverse Levee system will require a right of way width of 54 feet. In order to provide access for future development to the south, Street "B" will be extended southerly across the Transverse Levee. This drainage system will be modified to include a culvert (pipe or box) under the roadway to allow safe passage of storm flows. The Transverse Levee is identified on Exhibit "B", Sheet 1.

IX. REFERENCES

1. AEI CASC Companies, *Arantine Hills Master Drainage Plan*, 2002.

2. Riverside County Flood Control and Water Conservation District; *Hydrology Manual*, April 1978.

3. Riverside County Flood Control and Water Conservation District; *Criteria for Sizing Increased Runoff Detention Basin Facilities*, 1999.

4. Federal Emergency Management Agency, *Flood Insurance Study, Riverside County, CA, Unincorporated Areas, Revised* September 30, 1992.

5. AEI CASC Companies, *"Sediment Yield and Transport Study for Arantine Hills, Baseline and With-Project Conditions, Bedford Wash"*, August 2010.

6. AEI CASC Companies, *Arantine Hills Specific Plan*, August 2001.

7. ASCE Manual and Report on Engineering Practice No. 87, 1998

FIGURE 1: REGIONAL LOCATION MAP

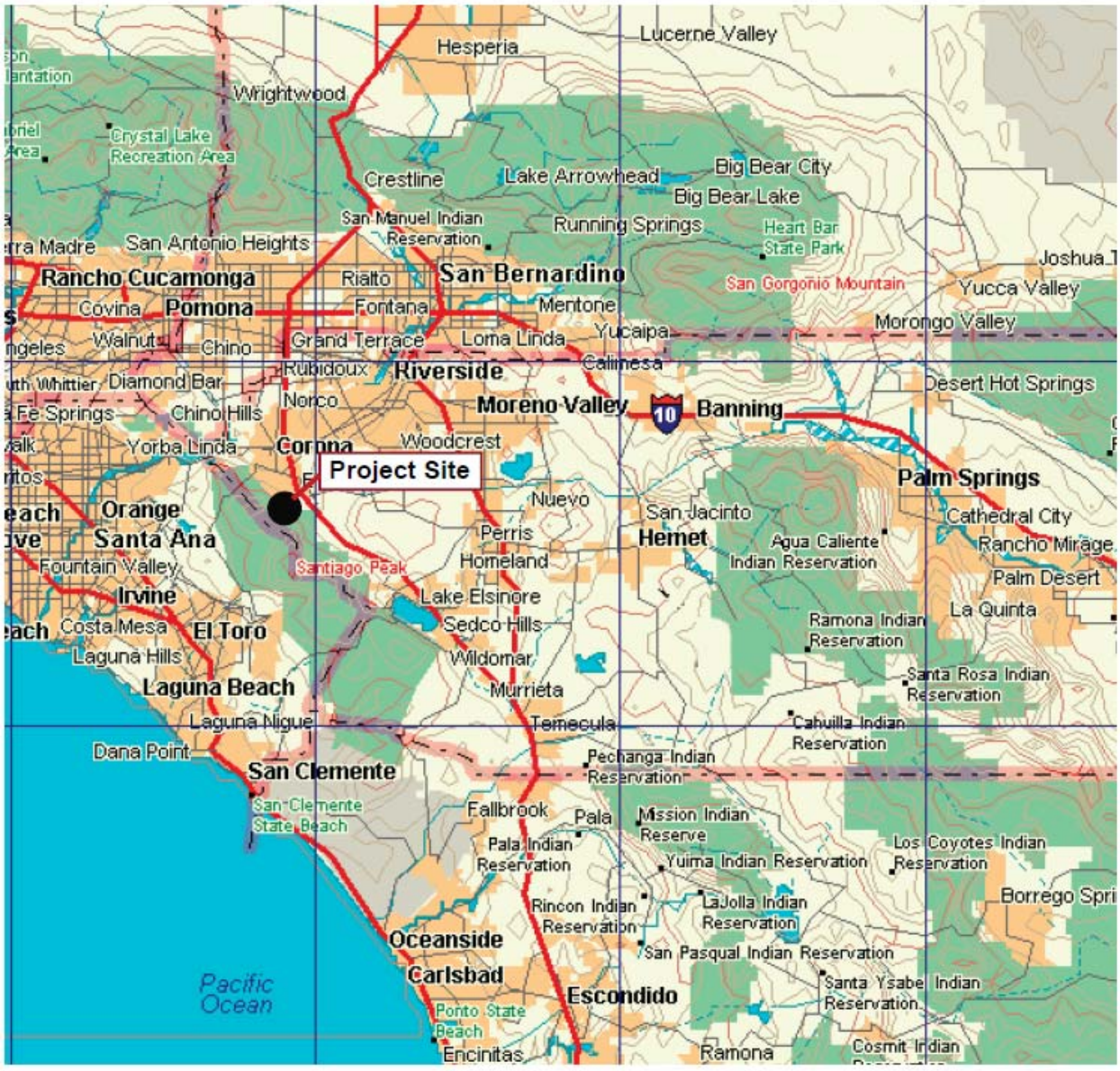


FIGURE 2: LOCAL VICINITY MAP

FIGURE 3: FEMA FLOOD PLAIN MAP

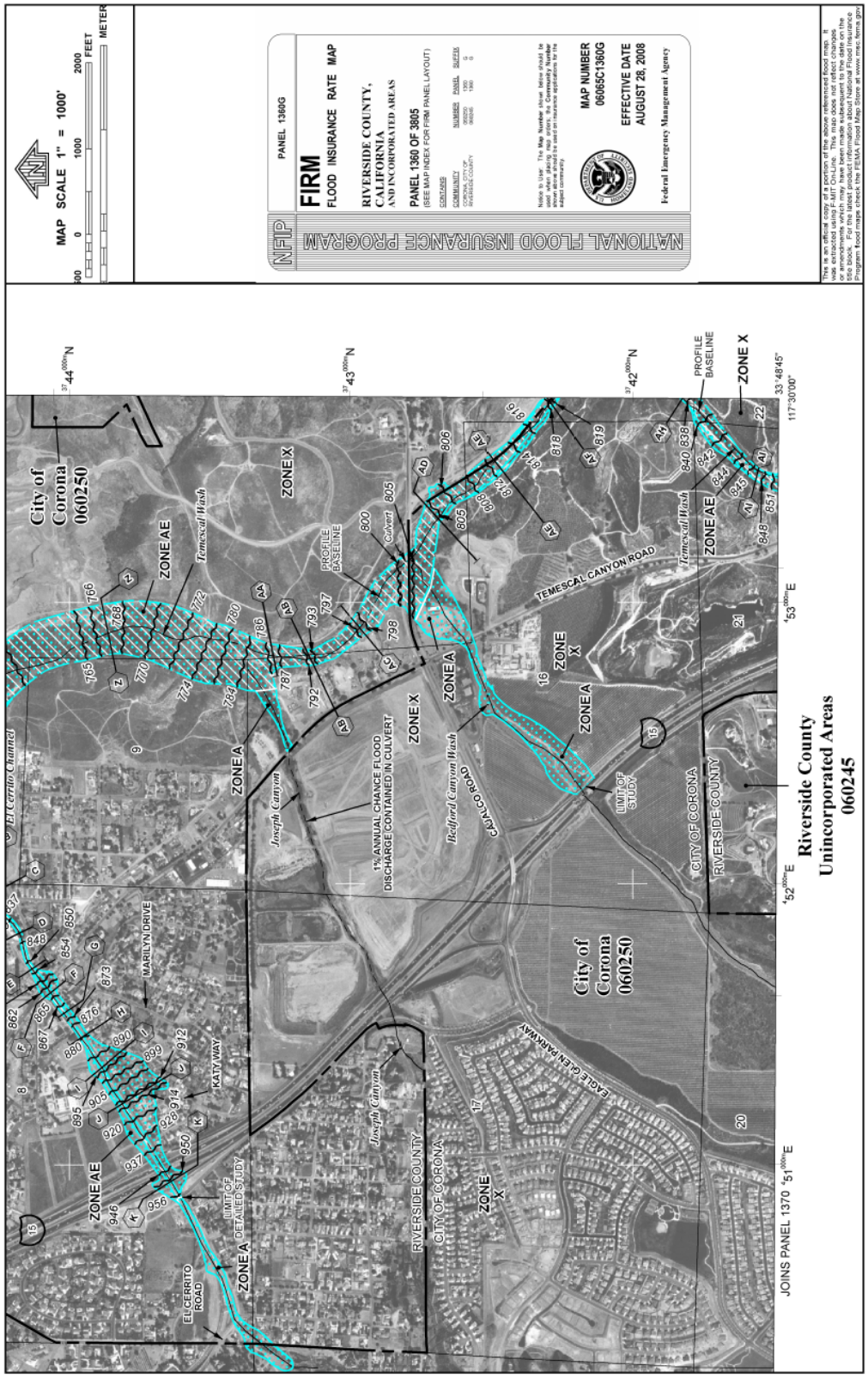


FIGURE 4: DETENTION BASIN/WATER QUALITY BASIN SCHEMATIC

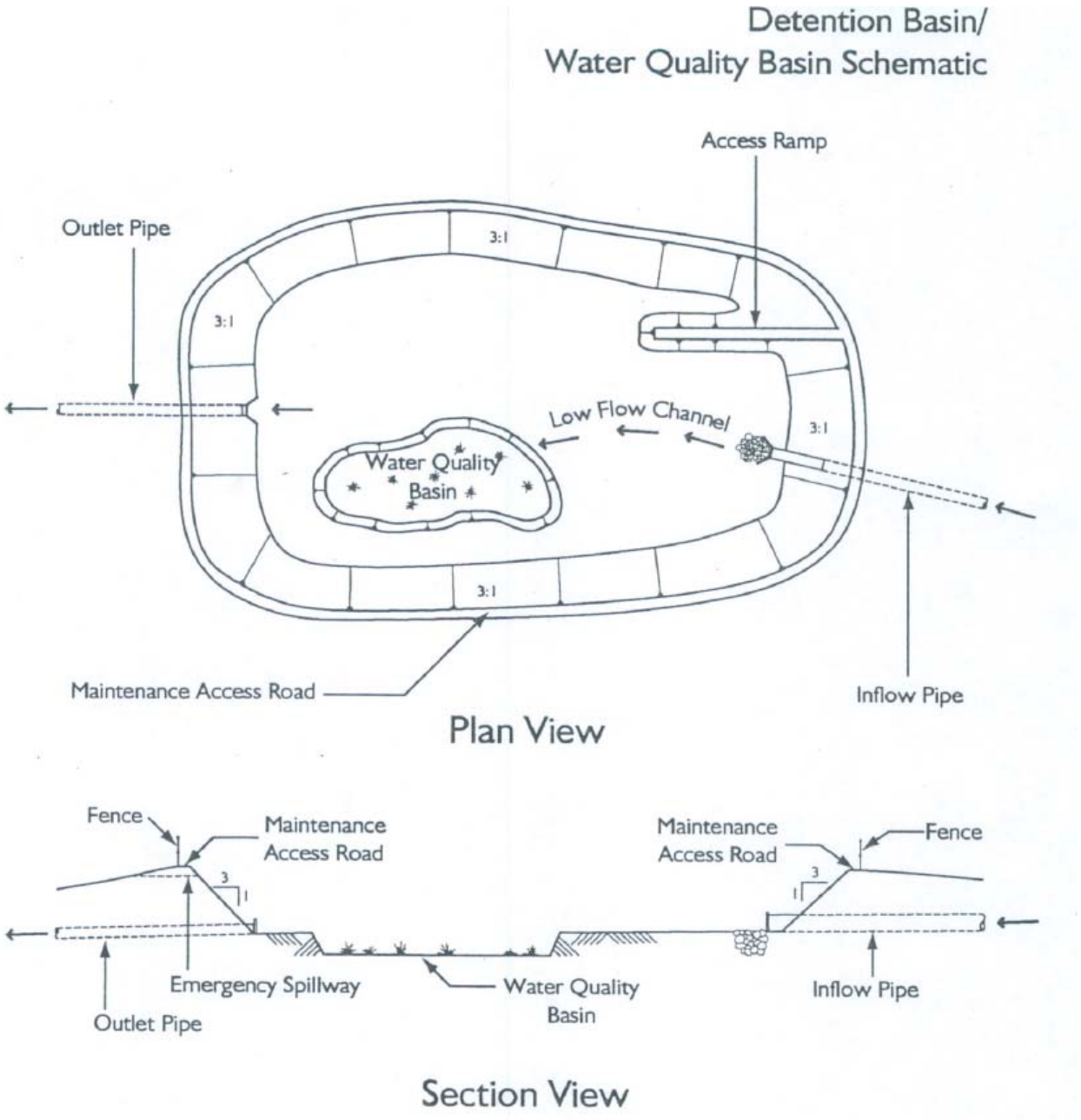
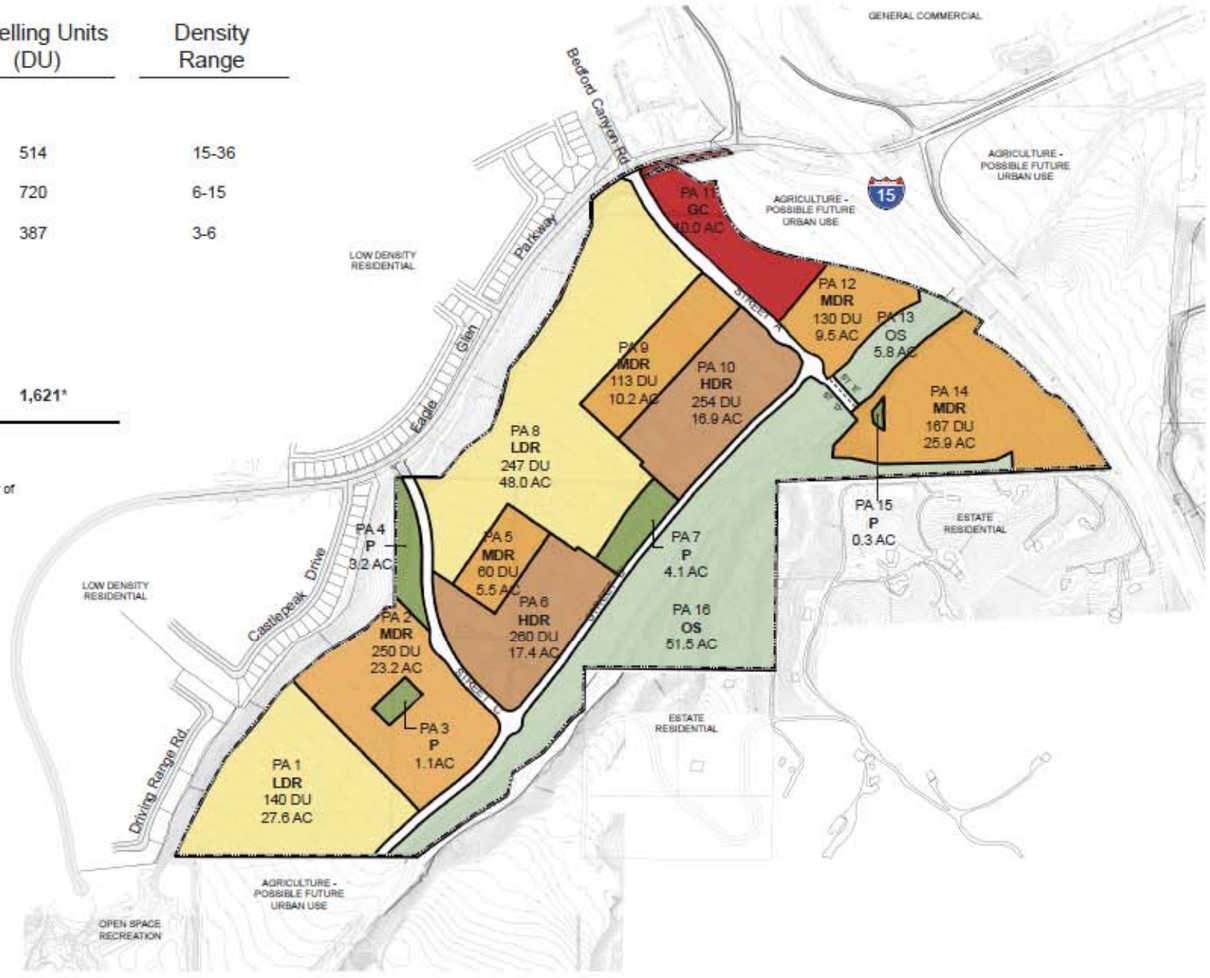


FIGURE 5: LAND USE MAP

Land Use	Acreage (AC)	Dwelling Units (DU)	Density Range
General Commercial (GC)	10.0		
High Density Residential (HDR)	34.3	514	15-36
Medium Density Residential (MDR)	74.3	720	6-15
Low Density Residential (LDR)	75.6	387	3-6
Parks (P)	8.7		
Open Space (OS)	57.3		
Master Planned Roadways	15.8		
TOTAL	**276.0**	**1,621***	

*Note: If PA 6 and 10 are developed with age-qualified units, the total number of dwelling units would increase to 1,806 du.



Arantine Hills Specific Plan Amendment No.1

Land Use Plan (June 2015)

N

0' 200' 400' 800'

THE NEW HOME COMPANY

Corona, CA
KTGY # 2014-0353

KTGY Group, Inc.
Architecture + Planning
17922 Fitch
Irvine, CA 92614
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APPENDIX A: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA “A” (RATIONAL TABLING METHOD)

APPENDIX A.1: AREA “A” - EXISTING CONDITION
100 – YEAR RATIONAL TABLING CALCULATIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 10/15/15 File:A1100EXIST.out

TRACT NO. 36294
AREA A
100-YR - EXISTING CONDITION
FN: A1100EXIST

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.360(In/Hr)
Slope of intensity duration curve = 0.4300

++

Process from Point/Station 100.000 to Point/Station 101.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 794.000(Ft.)
Top (of initial area) elevation = 1140.000(Ft.)
Bottom (of initial area) elevation = 1103.000(Ft.)
Difference in elevation = 37.000(Ft.)
Slope = 0.04660 s(percent)= 4.66
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 14.143 min.
Rainfall intensity = 2.532(In/Hr) for a 100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.757
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.300
RI index for soil(AMC 2) = 73.60
Pervious area fraction = 1.000; Impervious fraction = 0.000
Initial subarea runoff = 18.897(CFS)
Total initial stream area = 9.860(Ac.)
Pervious area fraction = 1.000

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      101.000 to Point/Station      102.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
----------------------------------------------------------------------------
Top of natural channel elevation =   1103.000(Ft.)
End of natural channel elevation =   1059.000(Ft.)
Length of natural channel  =  1071.000(Ft.)
Estimated mean flow rate at midpoint of channel =     38.302(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   7.27(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0411
Corrected/adjusted channel slope =  0.0411
Travel time =    2.46 min.     TC =   16.60  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.734
Decimal fraction soil group A = 0.800
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.200
RI index for soil(AMC 2)  =  71.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.363(In/Hr) for a   100.0 year storm
Subarea runoff =     35.132(CFS) for     20.250(Ac.)
Total runoff =     54.029(CFS)   Total area =      30.110(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      102.000 to Point/Station      103.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
----------------------------------------------------------------------------
Top of natural channel elevation =   1059.000(Ft.)
End of natural channel elevation =    921.000(Ft.)
Length of natural channel  =  3946.000(Ft.)
Estimated mean flow rate at midpoint of channel =     89.010(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   8.57(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0350
Corrected/adjusted channel slope =  0.0350
Travel time =    7.67 min.     TC =   24.27  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.773
Decimal fraction soil group A = 0.300
Decimal fraction soil group B = 0.200
Decimal fraction soil group C = 0.000
```

```
Decimal fraction soil group D = 0.500
RI index for soil(AMC 2)  =  80.20
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.007(In/Hr) for a   100.0 year storm
Subarea runoff =     60.507(CFS) for     38.990(Ac.)
Total runoff =    114.536(CFS)   Total area =      69.100(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      103.000 to Point/Station      108.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
Top of natural channel elevation =    921.000(Ft.)
End of natural channel elevation =    899.000(Ft.)
Length of natural channel  =  2063.000(Ft.)
Estimated mean flow rate at midpoint of channel =    114.536(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   5.11(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0107
Corrected/adjusted channel slope =  0.0107
Travel time =    6.73 min.     TC =   31.00  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.825
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
RI index for soil(AMC 2)  =  89.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.807(In/Hr) for a   100.0 year storm
Subarea runoff =      0.000(CFS) for      0.000(Ac.)
Total runoff =    114.536(CFS)   Total area =      69.100(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      103.000 to Point/Station      108.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     69.100(Ac.)
Runoff from this stream =    114.536(CFS)
Time of concentration =   31.00 min.
Rainfall intensity =     1.807(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      104.000 to Point/Station      105.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   998.000(Ft.)
Top (of initial area) elevation =  1123.000(Ft.)
Bottom (of initial area) elevation =  1080.000(Ft.)
```

```
Difference in elevation =    43.000(Ft.)
Slope =    0.04309  s(percent)=       4.31
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   15.742 min.
Rainfall intensity =      2.418(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.708
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  67.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =     15.743(CFS)
Total initial stream area =        9.200(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      105.000 to Point/Station      106.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------
Top of natural channel elevation =   1080.000(Ft.)
End of natural channel elevation =   1033.000(Ft.)
Length of natural channel  =  1098.000(Ft.)
Estimated mean flow rate at midpoint of channel =     34.591(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   7.21(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0428
Corrected/adjusted channel slope =  0.0428
Travel time =    2.54 min.     TC =   18.28  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.698
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  67.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.267(In/Hr) for a   100.0 year storm
Subarea runoff =     34.856(CFS) for     22.030(Ac.)
Total runoff =     50.598(CFS)   Total area =      31.230(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      106.000 to Point/Station      107.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------
Top of natural channel elevation =   1033.000(Ft.)
End of natural channel elevation =    974.000(Ft.)
Length of natural channel  =  1813.000(Ft.)
Estimated mean flow rate at midpoint of channel =     83.432(CFS)

Natural valley channel type used
```

```
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   8.11(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0325
Corrected/adjusted channel slope =  0.0325
Travel time =    3.73 min.     TC =   22.01  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.709
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  70.30
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.093(In/Hr) for a   100.0 year storm
Subarea runoff =     60.171(CFS) for     40.530(Ac.)
Total runoff =    110.770(CFS)   Total area =      71.760(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      107.000 to Point/Station      108.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =    974.000(Ft.)
End of natural channel elevation =    899.000(Ft.)
Length of natural channel  =  2429.000(Ft.)
Estimated mean flow rate at midpoint of channel =    167.551(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   9.76(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0309
Corrected/adjusted channel slope =  0.0309
Travel time =    4.15 min.     TC =   26.15  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.706
Decimal fraction soil group A = 0.600
Decimal fraction soil group B = 0.400
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  71.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.944(In/Hr) for a   100.0 year storm
Subarea runoff =    100.949(CFS) for     73.570(Ac.)
Total runoff =    211.719(CFS)   Total area =     145.330(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      107.000 to Point/Station      108.000
**** CONFLUENCE OF MAIN STREAMS ****
```

The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area = 145.330(Ac.)
Runoff from this stream = 211.719(CFS)
Time of concentration = 26.15 min.
Rainfall intensity = 1.944(In/Hr)
Summary of stream data:

Stream No.	Flow rate (CFS)	TC (min)	Rainfall Intensity (In/Hr)
1	114.536	31.00	1.807
2	211.719	26.15	1.944

Largest stream flow has longer or shorter time of concentration
Qp = 211.719 + sum of
Qa Tb/Ta
114.536 * 0.844 = 96.622
Qp = 308.341

Total of 2 main streams to confluence:
Flow rates before confluence point:
114.536 211.719
Area of streams before confluence:
69.100 145.330

Results of confluence:
Total flow rate = 308.341(CFS)
Time of concentration = 26.154 min.
Effective stream area after confluence = 214.430(Ac.)
End of computations, total study area = 214.43 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number = 72.3

APPENDIX A.2: AREA “A” - EXISTING CONDITION
10 – YEAR RATIONAL TABLING CALCULATIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 10/15/15 File:A110EXIST.out

TRACT NO. 36294
AREA A
10-YR - EXISTING CONDITION
FN: A110EXIST

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 10.0
Calculated rainfall intensity data:
1 hour intensity = 0.883(In/Hr)
Slope of intensity duration curve = 0.4300

++

Process from Point/Station 100.000 to Point/Station 101.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 794.000(Ft.)
Top (of initial area) elevation = 1140.000(Ft.)
Bottom (of initial area) elevation = 1103.000(Ft.)
Difference in elevation = 37.000(Ft.)
Slope = 0.04660 s(percent)= 4.66
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 14.143 min.
Rainfall intensity = 1.644(In/Hr) for a 10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.697
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.300
RI index for soil(AMC 2) = 73.60
Pervious area fraction = 1.000; Impervious fraction = 0.000
Initial subarea runoff = 11.303(CFS)
Total initial stream area = 9.860(Ac.)
Pervious area fraction = 1.000

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      101.000 to Point/Station      102.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------
Top of natural channel elevation =   1103.000(Ft.)
End of natural channel elevation =   1059.000(Ft.)
Length of natural channel  =  1071.000(Ft.)
Estimated mean flow rate at midpoint of channel =     22.910(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   6.30(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0411
Corrected/adjusted channel slope =  0.0411
Travel time =    2.83 min.     TC =   16.98  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.666
Decimal fraction soil group A = 0.800
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.200
RI index for soil(AMC 2)  =  71.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.520(In/Hr) for a    10.0 year storm
Subarea runoff =     20.500(CFS) for     20.250(Ac.)
Total runoff =     31.803(CFS)   Total area =      30.110(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      102.000 to Point/Station      103.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------
Top of natural channel elevation =   1059.000(Ft.)
End of natural channel elevation =    921.000(Ft.)
Length of natural channel  =  3946.000(Ft.)
Estimated mean flow rate at midpoint of channel =     52.395(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   7.34(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0350
Corrected/adjusted channel slope =  0.0350
Travel time =    8.96 min.     TC =   25.94  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.714
Decimal fraction soil group A = 0.300
Decimal fraction soil group B = 0.200
Decimal fraction soil group C = 0.000
```

```
Decimal fraction soil group D = 0.500
RI index for soil(AMC 2)  =  80.20
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.267(In/Hr) for a    10.0 year storm
Subarea runoff =     35.282(CFS) for     38.990(Ac.)
Total runoff =     67.085(CFS)   Total area =      69.100(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      103.000 to Point/Station      108.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
Top of natural channel elevation =    921.000(Ft.)
End of natural channel elevation =    899.000(Ft.)
Length of natural channel  =  2063.000(Ft.)
Estimated mean flow rate at midpoint of channel =     67.085(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   4.35(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0107
Corrected/adjusted channel slope =  0.0107
Travel time =    7.90 min.     TC =   33.84  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.785
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
RI index for soil(AMC 2)  =  89.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.130(In/Hr) for a    10.0 year storm
Subarea runoff =      0.000(CFS) for      0.000(Ac.)
Total runoff =     67.085(CFS)   Total area =      69.100(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      103.000 to Point/Station      108.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     69.100(Ac.)
Runoff from this stream =     67.085(CFS)
Time of concentration =   33.84 min.
Rainfall intensity =     1.130(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      104.000 to Point/Station      105.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   998.000(Ft.)
Top (of initial area) elevation =  1123.000(Ft.)
Bottom (of initial area) elevation =  1080.000(Ft.)
```

```
Difference in elevation =    43.000(Ft.)
Slope =    0.04309  s(percent)=       4.31
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   15.742 min.
Rainfall intensity =      1.570(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.635
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  67.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      9.167(CFS)
Total initial stream area =        9.200(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      105.000 to Point/Station      106.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =   1080.000(Ft.)
End of natural channel elevation =   1033.000(Ft.)
Length of natural channel  =  1098.000(Ft.)
Estimated mean flow rate at midpoint of channel =     20.142(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   6.21(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0428
Corrected/adjusted channel slope =  0.0428
Travel time =    2.95 min.     TC =   18.69  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.621
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  67.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.459(In/Hr) for a    10.0 year storm
Subarea runoff =     19.940(CFS) for     22.030(Ac.)
Total runoff =     29.107(CFS)   Total area =      31.230(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      106.000 to Point/Station      107.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =   1033.000(Ft.)
End of natural channel elevation =    974.000(Ft.)
Length of natural channel  =  1813.000(Ft.)
Estimated mean flow rate at midpoint of channel =     47.994(CFS)

Natural valley channel type used
```

```
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   6.90(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0325
Corrected/adjusted channel slope =  0.0325
Travel time =    4.38 min.     TC =   23.07  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.633
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  70.30
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.332(In/Hr) for a    10.0 year storm
Subarea runoff =     34.156(CFS) for     40.530(Ac.)
Total runoff =     63.263(CFS)   Total area =      71.760(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      107.000 to Point/Station      108.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =    974.000(Ft.)
End of natural channel elevation =    899.000(Ft.)
Length of natural channel  =  2429.000(Ft.)
Estimated mean flow rate at midpoint of channel =     95.692(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   8.23(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0309
Corrected/adjusted channel slope =  0.0309
Travel time =    4.92 min.     TC =   27.99  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.627
Decimal fraction soil group A = 0.600
Decimal fraction soil group B = 0.400
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  71.40
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.226(In/Hr) for a    10.0 year storm
Subarea runoff =     56.547(CFS) for     73.570(Ac.)
Total runoff =    119.810(CFS)   Total area =     145.330(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      107.000 to Point/Station      108.000
**** CONFLUENCE OF MAIN STREAMS ****
```

```
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =    145.330(Ac.)
Runoff from this stream =    119.810(CFS)
Time of concentration =   27.99 min.
Rainfall intensity =     1.226(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       67.085     33.84           1.130
2      119.810     27.99           1.226
Largest stream flow has longer or shorter time of concentration
Qp =    119.810 + sum of
         Qa          Tb/Ta
         67.085 *    0.827 =     55.485
Qp =    175.294

Total of 2 main streams to confluence:
Flow rates before confluence point:
      67.085     119.810
Area of streams before confluence:
       69.100      145.330


Results of confluence:
Total flow rate =    175.294(CFS)
Time of concentration =    27.985 min.
Effective stream area after confluence  =    214.430(Ac.)
End of computations, total study area =          214.43 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number =  72.3
```

APPENDIX B: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA “A” (RATIONAL TABLING METHOD)

APPENDIX B.1: AREA “A” – PROPOSED CONDITION
100 – YEAR RATIONAL TABLING CALCULATIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 06/25/15 File:A1100PROP.out

TRACT NO. 36294
AREA A
100-YR - PROPOSED CONDITION
FN: A1100PROP

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.360(In/Hr)
Slope of intensity duration curve = 0.4300

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Process from Point/Station 100.000 to Point/Station 101.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 961.000(Ft.)
Top (of initial area) elevation = 1110.000(Ft.)
Bottom (of initial area) elevation = 1100.000(Ft.)
Difference in elevation = 10.000(Ft.)
Slope = 0.01041 s(percent)= 1.04
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 15.160 min.
Rainfall intensity = 2.457(In/Hr) for a 100.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.659
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 32.00
Pervious area fraction = 0.500; Impervious fraction = 0.500
Initial subarea runoff = 7.983(CFS)
Total initial stream area = 4.930(Ac.)
Pervious area fraction = 0.500

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Process from Point/Station      101.000 to Point/Station      102.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1100.000(Ft.)
End of street segment elevation =  1096.000(Ft.)
Length of street segment  =   405.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     13.591(CFS)
Depth of flow =   0.416(Ft.), Average velocity =   2.728(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  16.658(Ft.)
Flow velocity =   2.73(Ft/s)
Travel time =    2.47 min.     TC =   17.63  min.
 Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.652
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      2.303(In/Hr) for a   100.0 year storm
Subarea runoff =     11.105(CFS) for      7.400(Ac.)
Total runoff =     19.088(CFS)   Total area =      12.330(Ac.)
Street flow at end of street =     19.088(CFS)
Half street flow at end of street =      9.544(CFS)
Depth of flow =   0.453(Ft.), Average velocity =   3.029(Ft/s)
Note:  depth of flow exceeds top of street crown.
Flow width (from curb towards crown)=  18.000(Ft.)


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Process from Point/Station      102.000 to Point/Station      105.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1086.000(Ft.)
Downstream point/station elevation =  1052.000(Ft.)
Pipe length  =   726.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    19.088(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =    19.088(CFS)
Normal flow depth in pipe =   12.63(In.)
Flow top width inside pipe =   16.47(In.)
Critical depth could not be calculated.
Pipe flow velocity =     14.41(Ft/s)
Travel time through pipe =    0.84 min.
Time of concentration (TC) =    18.47 min.
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Process from Point/Station      102.000 to Point/Station      105.000
**** CONFLUENCE OF MAIN STREAMS ****
----------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     12.330(Ac.)
Runoff from this stream =     19.088(CFS)
Time of concentration =   18.47 min.
Rainfall intensity =     2.257(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      103.000 to Point/Station      104.000
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
Initial area flow distance =   997.000(Ft.)
Top (of initial area) elevation =  1093.000(Ft.)
Bottom (of initial area) elevation =  1081.000(Ft.)
Difference in elevation =    12.000(Ft.)
Slope =    0.01204  s(percent)=       1.20
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   14.943 min.
Rainfall intensity =      2.472(In/Hr) for a   100.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.660
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Initial subarea runoff =      7.405(CFS)
Total initial stream area =        4.540(Ac.)
Pervious area fraction = 0.500


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Process from Point/Station      104.000 to Point/Station      105.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
----------------------------------------------------------------------
Top of street segment elevation =  1081.000(Ft.)
End of street segment elevation =  1062.000(Ft.)
Length of street segment  =   611.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     19.034(CFS)
Depth of flow =   0.390(Ft.), Average velocity =   4.573(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  15.140(Ft.)
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Flow velocity =   4.57(Ft/s)
Travel time =    2.23 min.     TC =   17.17  min.
 Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.653
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      2.329(In/Hr) for a   100.0 year storm
Subarea runoff =     23.149(CFS) for     15.220(Ac.)
Total runoff =     30.554(CFS)   Total area =      19.760(Ac.)
Street flow at end of street =     30.554(CFS)
Half street flow at end of street =     15.277(CFS)
Depth of flow =   0.443(Ft.), Average velocity =   5.159(Ft/s)
Note:  depth of flow exceeds top of street crown.
Flow width (from curb towards crown)=  18.000(Ft.)


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Process from Point/Station      104.000 to Point/Station      105.000
**** CONFLUENCE OF MAIN STREAMS ****
------------------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     19.760(Ac.)
Runoff from this stream =     30.554(CFS)
Time of concentration =   17.17 min.
Rainfall intensity =     2.329(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       19.088     18.47           2.257
2       30.554     17.17           2.329
Largest stream flow has longer or shorter time of concentration
Qp =     30.554 + sum of
         Qa          Tb/Ta
         19.088 *    0.929 =     17.741
Qp =     48.295

Total of 2 main streams to confluence:
Flow rates before confluence point:
      19.088      30.554
Area of streams before confluence:
       12.330       19.760


Results of confluence:
Total flow rate =     48.295(CFS)
Time of concentration =    17.170 min.
Effective stream area after confluence  =     32.090(Ac.)


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Process from Point/Station      105.000 to Point/Station      107.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------------
Upstream point/station elevation =  1052.000(Ft.)
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Downstream point/station elevation =  1048.000(Ft.)
Pipe length  =   376.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    48.295(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    48.295(CFS)
Normal flow depth in pipe =   24.14(In.)
Flow top width inside pipe =   29.25(In.)
Critical Depth =   27.51(In.)
Pipe flow velocity =     10.37(Ft/s)
Travel time through pipe =    0.60 min.
Time of concentration (TC) =    17.77 min.


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Process from Point/Station      105.000 to Point/Station      107.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     32.090(Ac.)
Runoff from this stream =     48.295(CFS)
Time of concentration =   17.77 min.
Rainfall intensity =     2.295(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      106.000 to Point/Station      107.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   991.000(Ft.)
Top (of initial area) elevation =  1073.000(Ft.)
Bottom (of initial area) elevation =  1058.000(Ft.)
Difference in elevation =    15.000(Ft.)
Slope =    0.01514  s(percent)=       1.51
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   13.509 min.
Rainfall intensity =      2.582(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.735
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =     14.389(CFS)
Total initial stream area =        7.580(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      106.000 to Point/Station      107.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      7.580(Ac.)
Runoff from this stream =     14.389(CFS)
Time of concentration =   13.51 min.
Rainfall intensity =     2.582(In/Hr)
Summary of stream data:
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Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       48.295     17.77            2.295
2       14.389     13.51            2.582
Largest stream flow has longer time of concentration
Qp =     48.295 + sum of
         Qb         Ia/Ib
         14.389 *    0.889 =     12.788
Qp =     61.083

Total of 2 main streams to confluence:
Flow rates before confluence point:
      48.295      14.389
Area of streams before confluence:
       32.090        7.580


Results of confluence:
Total flow rate =     61.083(CFS)
Time of concentration =    17.774 min.
Effective stream area after confluence  =     39.670(Ac.)


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Process from Point/Station      107.000 to Point/Station      114.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1048.000(Ft.)
Downstream point/station elevation =  1034.000(Ft.)
Pipe length  =   285.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    61.083(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    61.083(CFS)
Normal flow depth in pipe =   19.83(In.)
Flow top width inside pipe =   23.85(In.)
Critical depth could not be calculated.
Pipe flow velocity =     19.51(Ft/s)
Travel time through pipe =    0.24 min.
Time of concentration (TC) =    18.02 min.


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Process from Point/Station      107.000 to Point/Station      114.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     39.670(Ac.)
Runoff from this stream =     61.083(CFS)
Time of concentration =   18.02 min.
Rainfall intensity =     2.281(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      108.000 to Point/Station      109.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   996.000(Ft.)
Top (of initial area) elevation =  1140.000(Ft.)
Bottom (of initial area) elevation =  1095.000(Ft.)
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Difference in elevation =    45.000(Ft.)
Slope =    0.04518  s(percent)=       4.52
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   15.581 min.
Rainfall intensity =      2.428(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.843
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
RI index for soil(AMC 2)  =  89.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      7.368(CFS)
Total initial stream area =        3.600(Ac.)
Pervious area fraction = 1.000


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Process from Point/Station      109.000 to Point/Station      112.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------
Top of natural channel elevation =   1095.000(Ft.)
End of natural channel elevation =   1043.000(Ft.)
Length of natural channel  =  1255.000(Ft.)
Estimated mean flow rate at midpoint of channel =     19.956(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   6.10(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0414
Corrected/adjusted channel slope =  0.0414
Travel time =    3.43 min.     TC =   19.01  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.825
Decimal fraction soil group A = 0.100
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.900
RI index for soil(AMC 2)  =  86.80
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.229(In/Hr) for a   100.0 year storm
Subarea runoff =     22.620(CFS) for     12.300(Ac.)
Total runoff =     29.989(CFS)   Total area =      15.900(Ac.)


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Process from Point/Station      109.000 to Point/Station      112.000
**** CONFLUENCE OF MINOR STREAMS ****
------------------------------------------------------------------------
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     15.900(Ac.)
Runoff from this stream =     29.989(CFS)
Time of concentration =   19.01 min.
Rainfall intensity =     2.229(In/Hr)
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Process from Point/Station      110.000 to Point/Station      111.000
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------------
Initial area flow distance =   919.000(Ft.)
Top (of initial area) elevation =  1064.000(Ft.)
Bottom (of initial area) elevation =  1056.000(Ft.)
Difference in elevation =     8.000(Ft.)
Slope =    0.00871  s(percent)=       0.87
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   14.641 min.
Rainfall intensity =      2.494(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.732
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =     13.410(CFS)
Total initial stream area =        7.340(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      111.000 to Point/Station      112.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------------
Upstream point/station elevation =  1046.000(Ft.)
Downstream point/station elevation =  1037.000(Ft.)
Pipe length  =   206.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    13.410(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =    13.410(CFS)
Normal flow depth in pipe =   12.21(In.)
Flow top width inside pipe =   11.67(In.)
Critical depth could not be calculated.
Pipe flow velocity =     12.54(Ft/s)
Travel time through pipe =    0.27 min.
Time of concentration (TC) =    14.91 min.


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Process from Point/Station      111.000 to Point/Station      112.000
**** CONFLUENCE OF MINOR STREAMS ****
------------------------------------------------------------------------------
Along Main Stream number: 2 in normal stream number 2
Stream flow area =      7.340(Ac.)
Runoff from this stream =     13.410(CFS)
Time of concentration =   14.91 min.
Rainfall intensity =     2.475(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       29.989     19.01                2.229
2       13.410     14.91                2.475
Largest stream flow has longer time of concentration
Qp =     29.989 + sum of
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         Qb         Ia/Ib
         13.410 *    0.901 =     12.081
Qp =     42.070

Total of 2 streams to confluence:
Flow rates before confluence point:
      29.989      13.410
Area of streams before confluence:
       15.900        7.340
Results of confluence:
Total flow rate =     42.070(CFS)
Time of concentration =    19.012 min.
Effective stream area after confluence =     23.240(Ac.)


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Process from Point/Station      112.000 to Point/Station      113.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1037.000(Ft.)
Downstream point/station elevation =  1036.000(Ft.)
Pipe length  =   282.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    42.070(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    42.070(CFS)
Normal flow depth in pipe =   31.97(In.)
Flow top width inside pipe =   22.70(In.)
Critical Depth =   25.34(In.)
Pipe flow velocity =      6.34(Ft/s)
Travel time through pipe =    0.74 min.
Time of concentration (TC) =    19.75 min.


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Process from Point/Station      112.000 to Point/Station      113.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.738
Decimal fraction soil group A = 0.850
Decimal fraction soil group B = 0.100
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.050
RI index for soil(AMC 2)  =  36.55
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    19.75 min.
Rainfall intensity =      2.193(In/Hr) for a   100.0 year storm
Subarea runoff =      6.897(CFS) for      4.260(Ac.)
Total runoff =     48.966(CFS)   Total area =      27.500(Ac.)


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Process from Point/Station      113.000 to Point/Station      114.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1036.000(Ft.)
Downstream point/station elevation =  1034.000(Ft.)
Pipe length  =   443.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    48.966(CFS)
Nearest computed pipe diameter  =     39.00(In.)
Calculated individual pipe flow  =    48.966(CFS)
Normal flow depth in pipe =   28.45(In.)
Flow top width inside pipe =   34.65(In.)
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Critical Depth =   26.78(In.)
Pipe flow velocity =      7.55(Ft/s)
Travel time through pipe =    0.98 min.
Time of concentration (TC) =    20.73 min.


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Process from Point/Station      113.000 to Point/Station      114.000
**** CONFLUENCE OF MAIN STREAMS ****
____________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     27.500(Ac.)
Runoff from this stream =     48.966(CFS)
Time of concentration =   20.73 min.
Rainfall intensity =     2.148(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       61.083     18.02            2.281
2       48.966     20.73            2.148
Largest stream flow has longer or shorter time of concentration
Qp =     61.083 + sum of
         Qa          Tb/Ta
         48.966 *    0.869 =     42.557
Qp =    103.640

Total of 2 main streams to confluence:
Flow rates before confluence point:
      61.083      48.966
Area of streams before confluence:
       39.670       27.500


Results of confluence:
Total flow rate =    103.640(CFS)
Time of concentration =    18.018 min.
Effective stream area after confluence  =     67.170(Ac.)


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Process from Point/Station      114.000 to Point/Station      117.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
____________________________________________________________________________
Upstream point/station elevation =  1034.000(Ft.)
Downstream point/station elevation =  1030.000(Ft.)
Pipe length  =   614.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   103.640(CFS)
Nearest computed pipe diameter  =     45.00(In.)
Calculated individual pipe flow  =   103.640(CFS)
Normal flow depth in pipe =   40.13(In.)
Flow top width inside pipe =   27.97(In.)
Critical Depth =   37.34(In.)
Pipe flow velocity =      9.96(Ft/s)
Travel time through pipe =    1.03 min.
Time of concentration (TC) =    19.04 min.


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Process from Point/Station      114.000 to Point/Station      117.000
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**** CONFLUENCE OF MAIN STREAMS ****

The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area = 67.170(Ac.)
Runoff from this stream = 103.640(CFS)
Time of concentration = 19.04 min.
Rainfall intensity = 2.228(In/Hr)
Program is now starting with Main Stream No. 2

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Process from Point/Station 115.000 to Point/Station 116.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 925.000(Ft.)
Top (of initial area) elevation = 1105.000(Ft.)
Bottom (of initial area) elevation = 1054.000(Ft.)
Difference in elevation = 51.000(Ft.)
Slope = 0.05514 s(percent)= 5.51
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.148 min.
Rainfall intensity = 2.920(In/Hr) for a 100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.819
Decimal fraction soil group A = 0.200
Decimal fraction soil group B = 0.500
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.300
RI index for soil(AMC 2) = 56.90
Pervious area fraction = 0.350; Impervious fraction = 0.650
Initial subarea runoff = 3.707(CFS)
Total initial stream area = 1.550(Ac.)
Pervious area fraction = 0.350

++

Process from Point/Station 116.000 to Point/Station 117.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****

Top of street segment elevation = 1054.000(Ft.)
End of street segment elevation = 1040.000(Ft.)
Length of street segment = 1142.000(Ft.)
Height of curb above gutter flowline = 6.0(In.)
Width of half street (curb to crown) = 18.000(Ft.)
Distance from crown to crossfall grade break = 16.000(Ft.)
Slope from gutter to grade break (v/hz) = 0.083
Slope from grade break to crown (v/hz) = 0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line = 10.000(Ft.)
Slope from curb to property line (v/hz) = 0.021
Gutter width = 2.000(Ft.)
Gutter hike from flowline = 2.000(In.)
Manning's N in gutter = 0.0150
Manning's N from gutter to grade break = 0.0150
Manning's N from grade break to crown = 0.0150
Estimated mean flow rate at midpoint of street = 8.821(CFS)
Depth of flow = 0.360(Ft.), Average velocity = 2.672(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width = 13.364(Ft.)
Flow velocity = 2.67(Ft/s)
Travel time = 7.12 min. TC = 17.27 min.
Adding area flow to street

```
CONDOMINIUM subarea type
Runoff Coefficient = 0.727
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      2.323(In/Hr) for a   100.0 year storm
Subarea runoff =     10.082(CFS) for      5.970(Ac.)
Total runoff =     13.789(CFS)   Total area =       7.520(Ac.)
Street flow at end of street =     13.789(CFS)
Half street flow at end of street =      6.895(CFS)
Depth of flow =   0.405(Ft.), Average velocity =   2.971(Ft/s)
Flow width (from curb towards crown)=  16.043(Ft.)


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Process from Point/Station      116.000 to Point/Station      117.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      7.520(Ac.)
Runoff from this stream =     13.789(CFS)
Time of concentration =   17.27 min.
Rainfall intensity =     2.323(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1      103.640     19.04           2.228
2       13.789     17.27           2.323
Largest stream flow has longer time of concentration
Qp =    103.640 + sum of
         Qb         Ia/Ib
         13.789 *    0.959 =     13.222
Qp =    116.862

Total of 2 main streams to confluence:
Flow rates before confluence point:
     103.640      13.789
Area of streams before confluence:
       67.170        7.520


Results of confluence:
Total flow rate =    116.862(CFS)
Time of concentration =    19.045 min.
Effective stream area after confluence  =     74.690(Ac.)


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Process from Point/Station      117.000 to Point/Station      123.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1030.000(Ft.)
Downstream point/station elevation =   984.000(Ft.)
Pipe length  =  1233.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   116.862(CFS)
Nearest computed pipe diameter  =     36.00(In.)
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```
Calculated individual pipe flow  =   116.862(CFS)
Normal flow depth in pipe =   26.86(In.)
Flow top width inside pipe =   31.34(In.)
Critical depth could not be calculated.
Pipe flow velocity =     20.64(Ft/s)
Travel time through pipe =    1.00 min.
Time of concentration (TC) =    20.04 min.


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Process from Point/Station      117.000 to Point/Station      123.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.722
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    20.04 min.
Rainfall intensity =      2.179(In/Hr) for a   100.0 year storm
Subarea runoff =      3.461(CFS) for      2.200(Ac.)
Total runoff =    120.324(CFS)   Total area =      76.890(Ac.)


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Process from Point/Station      117.000 to Point/Station      123.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     76.890(Ac.)
Runoff from this stream =    120.324(CFS)
Time of concentration =   20.04 min.
Rainfall intensity =     2.179(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      118.000 to Point/Station      119.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   578.000(Ft.)
Top (of initial area) elevation =  1016.000(Ft.)
Bottom (of initial area) elevation =  1012.000(Ft.)
Difference in elevation =     4.000(Ft.)
Slope =    0.00692  s(percent)=       0.69
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.733 min.
Rainfall intensity =      2.649(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.737
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      9.275(CFS)
Total initial stream area =        4.750(Ac.)
Pervious area fraction = 0.350
```

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Process from Point/Station      119.000 to Point/Station      120.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
----------------------------------------------------------------------------
Top of street segment elevation =  1012.000(Ft.)
End of street segment elevation =  1000.000(Ft.)
Length of street segment  =   648.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     24.472(CFS)
Depth of flow =   0.447(Ft.), Average velocity =   4.041(Ft/s)
Note:  depth of flow exceeds top of street crown.
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  18.000(Ft.)
Flow velocity =   4.04(Ft/s)
Travel time =    2.67 min.     TC =   15.41  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.751
Decimal fraction soil group A = 0.800
Decimal fraction soil group B = 0.150
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.050
RI index for soil(AMC 2)  =  37.75
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      2.440(In/Hr) for a   100.0 year storm
Subarea runoff =     30.263(CFS) for     16.520(Ac.)
Total runoff =     39.537(CFS)   Total area =      21.270(Ac.)
Street flow at end of street =     39.537(CFS)
Half street flow at end of street =     19.769(CFS)
Depth of flow =   0.504(Ft.), Average velocity =   4.871(Ft/s)
Warning: depth of flow exceeds top of curb
Note:  depth of flow exceeds top of street crown.
Distance that curb overflow reaches into property =    0.18(Ft.)
Flow width (from curb towards crown)=  18.000(Ft.)


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Process from Point/Station      120.000 to Point/Station      122.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
----------------------------------------------------------------------------
Upstream point/station elevation =   990.000(Ft.)
Downstream point/station elevation =   986.000(Ft.)
Pipe length  =   356.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    39.537(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    39.537(CFS)
Normal flow depth in pipe =   22.45(In.)
Flow top width inside pipe =   26.03(In.)
Critical Depth =   25.43(In.)
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Pipe flow velocity =     10.04(Ft/s)
Travel time through pipe =    0.59 min.
Time of concentration (TC) =    16.00 min.


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Process from Point/Station      120.000 to Point/Station      122.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     21.270(Ac.)
Runoff from this stream =     39.537(CFS)
Time of concentration =   16.00 min.
Rainfall intensity =     2.401(In/Hr)


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Process from Point/Station      118.000 to Point/Station      121.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   637.000(Ft.)
Top (of initial area) elevation =  1016.000(Ft.)
Bottom (of initial area) elevation =  1009.000(Ft.)
Difference in elevation =     7.000(Ft.)
Slope =    0.01099  s(percent)=       1.10
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.069 min.
Rainfall intensity =      2.710(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.739
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      9.033(CFS)
Total initial stream area =        4.510(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      121.000 to Point/Station      122.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1009.000(Ft.)
End of street segment elevation =   999.000(Ft.)
Length of street segment  =   648.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     14.300(CFS)
Depth of flow =   0.397(Ft.), Average velocity =   3.271(Ft/s)
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Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  15.541(Ft.)
Flow velocity =   3.27(Ft/s)
Travel time =    3.30 min.     TC =   15.37  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.731
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      2.443(In/Hr) for a   100.0 year storm
Subarea runoff =     10.372(CFS) for      5.810(Ac.)
Total runoff =     19.406(CFS)   Total area =      10.320(Ac.)
Street flow at end of street =     19.406(CFS)
Half street flow at end of street =      9.703(CFS)
Depth of flow =   0.431(Ft.), Average velocity =   3.521(Ft/s)
Flow width (from curb towards crown)=  17.567(Ft.)


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Process from Point/Station      121.000 to Point/Station      122.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     10.320(Ac.)
Runoff from this stream =     19.406(CFS)
Time of concentration =   15.37 min.
Rainfall intensity =     2.443(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       39.537     16.00                2.401
2       19.406     15.37                2.443
Largest stream flow has longer time of concentration
Qp =     39.537 + sum of
         Qb         Ia/Ib
         19.406 *    0.983 =     19.075
Qp =     58.612

Total of 2 streams to confluence:
Flow rates before confluence point:
      39.537      19.406
Area of streams before confluence:
       21.270       10.320
Results of confluence:
Total flow rate =     58.612(CFS)
Time of concentration =    15.998 min.
Effective stream area after confluence =     31.590(Ac.)


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Process from Point/Station      122.000 to Point/Station      123.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   986.000(Ft.)
Downstream point/station elevation =   984.000(Ft.)
Pipe length  =   226.00(Ft.)   Manning's N = 0.013
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No. of pipes = 1  Required pipe flow  =    58.612(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    58.612(CFS)
Normal flow depth in pipe =   27.56(In.)
Flow top width inside pipe =   30.50(In.)
Critical Depth =   29.73(In.)
Pipe flow velocity =     10.09(Ft/s)
Travel time through pipe =    0.37 min.
Time of concentration (TC) =    16.37 min.


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Process from Point/Station      122.000 to Point/Station      123.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     31.590(Ac.)
Runoff from this stream =     58.612(CFS)
Time of concentration =   16.37 min.
Rainfall intensity =     2.377(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1      120.324     20.04           2.179
2       58.612     16.37           2.377
Largest stream flow has longer time of concentration
Qp =    120.324 + sum of
         Qb         Ia/Ib
         58.612 *    0.917 =     53.730
Qp =    174.054

Total of 2 main streams to confluence:
Flow rates before confluence point:
     120.324      58.612
Area of streams before confluence:
       76.890       31.590


Results of confluence:
Total flow rate =    174.054(CFS)
Time of concentration =    20.040 min.
Effective stream area after confluence  =    108.480(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      123.000 to Point/Station      129.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   984.000(Ft.)
Downstream point/station elevation =   950.000(Ft.)
Pipe length  =   719.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   174.054(CFS)
Nearest computed pipe diameter  =     39.00(In.)
Calculated individual pipe flow  =   174.054(CFS)
Normal flow depth in pipe =   30.94(In.)
Flow top width inside pipe =   31.59(In.)
Critical depth could not be calculated.
Pipe flow velocity =     24.66(Ft/s)
Travel time through pipe =    0.49 min.
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Time of concentration (TC) =    20.53 min.


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Process from Point/Station      123.000 to Point/Station      129.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.730
Decimal fraction soil group A = 0.900
Decimal fraction soil group B = 0.100
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  34.40
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    20.53 min.
Rainfall intensity =      2.157(In/Hr) for a   100.0 year storm
Subarea runoff =      2.172(CFS) for      1.380(Ac.)
Total runoff =    176.226(CFS)   Total area =     109.860(Ac.)


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Process from Point/Station      123.000 to Point/Station      129.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =    109.860(Ac.)
Runoff from this stream =    176.226(CFS)
Time of concentration =   20.53 min.
Rainfall intensity =     2.157(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      124.000 to Point/Station      125.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   894.000(Ft.)
Top (of initial area) elevation =  1003.000(Ft.)
Bottom (of initial area) elevation =   995.000(Ft.)
Difference in elevation =     8.000(Ft.)
Slope =    0.00895  s(percent)=       0.89
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   15.179 min.
Rainfall intensity =      2.456(In/Hr) for a   100.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.683
Decimal fraction soil group A = 0.800
Decimal fraction soil group B = 0.200
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  36.80
Pervious area fraction =  0.500; Impervious fraction =  0.500
Initial subarea runoff =     11.454(CFS)
Total initial stream area =        6.830(Ac.)
Pervious area fraction = 0.500


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Process from Point/Station      125.000 to Point/Station      126.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
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Top of street segment elevation =   995.000(Ft.)
End of street segment elevation =   992.000(Ft.)
Length of street segment  =   348.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     18.360(CFS)
Depth of flow =   0.456(Ft.), Average velocity =   2.863(Ft/s)
Note:  depth of flow exceeds top of street crown.
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  18.000(Ft.)
Flow velocity =   2.86(Ft/s)
Travel time =    2.03 min.     TC =   17.21  min.
 Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.760
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  56.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      2.327(In/Hr) for a   100.0 year storm
Subarea runoff =     13.995(CFS) for      7.910(Ac.)
Total runoff =     25.449(CFS)   Total area =      14.740(Ac.)
Street flow at end of street =     25.449(CFS)
Half street flow at end of street =     12.725(CFS)
Depth of flow =   0.495(Ft.), Average velocity =   3.260(Ft/s)
Note:  depth of flow exceeds top of street crown.
Flow width (from curb towards crown)=  18.000(Ft.)


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Process from Point/Station      126.000 to Point/Station      129.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   982.000(Ft.)
Downstream point/station elevation =   950.000(Ft.)
Pipe length  =   723.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    25.449(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    25.449(CFS)
Normal flow depth in pipe =   13.73(In.)
Flow top width inside pipe =   19.98(In.)
Critical depth could not be calculated.
Pipe flow velocity =     15.26(Ft/s)
Travel time through pipe =    0.79 min.
Time of concentration (TC) =    17.99 min.


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Process from Point/Station      126.000 to Point/Station      129.000
**** CONFLUENCE OF MAIN STREAMS ****
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The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     14.740(Ac.)
Runoff from this stream =     25.449(CFS)
Time of concentration =   17.99 min.
Rainfall intensity =     2.283(In/Hr)
Program is now starting with Main Stream No. 3


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Process from Point/Station      127.000 to Point/Station      128.000
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------
Initial area flow distance =   661.000(Ft.)
Top (of initial area) elevation =   982.000(Ft.)
Bottom (of initial area) elevation =   976.000(Ft.)
Difference in elevation =     6.000(Ft.)
Slope =    0.00908  s(percent)=       0.91
TC = k(0.940)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   32.331 min.
Rainfall intensity =      1.774(In/Hr) for a   100.0 year storm
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.550
Decimal fraction soil group A = 0.300
Decimal fraction soil group B = 0.700
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  54.10
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      3.608(CFS)
Total initial stream area =        3.700(Ac.)
Pervious area fraction = 1.000


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Process from Point/Station      128.000 to Point/Station      129.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------
Upstream point/station elevation =   966.000(Ft.)
Downstream point/station elevation =   950.000(Ft.)
Pipe length  =   120.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.608(CFS)
Nearest computed pipe diameter  =      9.00(In.)
Calculated individual pipe flow  =     3.608(CFS)
Normal flow depth in pipe =    5.01(In.)
Flow top width inside pipe =    8.94(In.)
Critical depth could not be calculated.
Pipe flow velocity =     14.28(Ft/s)
Travel time through pipe =    0.14 min.
Time of concentration (TC) =    32.47 min.


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Process from Point/Station      128.000 to Point/Station      129.000
**** CONFLUENCE OF MAIN STREAMS ****
------------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 3
Stream flow area =      3.700(Ac.)
Runoff from this stream =      3.608(CFS)
Time of concentration =   32.47 min.
Rainfall intensity =     1.771(In/Hr)
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Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1      176.226     20.53           2.157
2       25.449     17.99           2.283
3        3.608     32.47           1.771
Largest stream flow has longer or shorter time of concentration
Qp =    176.226 + sum of
         Qb          Ia/Ib
         25.449 *    0.945 =     24.049
         Qa          Tb/Ta
          3.608 *    0.632 =      2.281
Qp =    202.555

Total of 3 main streams to confluence:
Flow rates before confluence point:
     176.226      25.449       3.608
Area of streams before confluence:
      109.860       14.740        3.700


Results of confluence:
Total flow rate =    202.555(CFS)
Time of concentration =    20.526 min.
Effective stream area after confluence  =    128.300(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      129.000 to Point/Station      130.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   950.000(Ft.)
Downstream point/station elevation =   931.000(Ft.)
Pipe length  =  1137.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   202.555(CFS)
Nearest computed pipe diameter  =     51.00(In.)
Calculated individual pipe flow  =   202.555(CFS)
Normal flow depth in pipe =   38.81(In.)
Flow top width inside pipe =   43.50(In.)
Critical Depth =   47.77(In.)
Pipe flow velocity =     17.47(Ft/s)
Travel time through pipe =    1.08 min.
Time of concentration (TC) =    21.61 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      129.000 to Point/Station      130.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.752
Decimal fraction soil group A = 0.600
Decimal fraction soil group B = 0.400
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  41.60
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    21.61 min.
Rainfall intensity =      2.110(In/Hr) for a   100.0 year storm
Subarea runoff =      4.585(CFS) for      2.890(Ac.)
```

```
Total runoff =    207.140(CFS)   Total area =     131.190(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      130.000 to Point/Station      152.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   931.000(Ft.)
Downstream point/station elevation =   912.000(Ft.)
Pipe length  =   149.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   207.140(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =   207.140(CFS)
Normal flow depth in pipe =   25.97(In.)
Flow top width inside pipe =   32.28(In.)
Critical depth could not be calculated.
Pipe flow velocity =     37.96(Ft/s)
Travel time through pipe =    0.07 min.
Time of concentration (TC) =    21.68 min.


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Process from Point/Station      130.000 to Point/Station      152.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =    131.190(Ac.)
Runoff from this stream =    207.140(CFS)
Time of concentration =   21.68 min.
Rainfall intensity =     2.107(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      131.000 to Point/Station      132.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   909.000(Ft.)
Top (of initial area) elevation =  1100.000(Ft.)
Bottom (of initial area) elevation =   973.000(Ft.)
Difference in elevation =   127.000(Ft.)
Slope =    0.13971  s(percent)=      13.97
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.985 min.
Rainfall intensity =      2.718(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.843
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.100
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.900
RI index for soil(AMC 2)  =  87.90
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =     10.611(CFS)
Total initial stream area =        4.630(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      132.000 to Point/Station      133.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
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Top of natural channel elevation =    973.000(Ft.)
End of natural channel elevation =    921.000(Ft.)
Length of natural channel  =  1789.000(Ft.)
Estimated mean flow rate at midpoint of channel =     20.982(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   5.18(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0291
Corrected/adjusted channel slope =  0.0291
Travel time =    5.76 min.     TC =   17.75  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.830
Decimal fraction soil group A = 0.050
Decimal fraction soil group B = 0.050
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.900
RI index for soil(AMC 2)  =  87.35
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.296(In/Hr) for a   100.0 year storm
Subarea runoff =     17.252(CFS) for      9.050(Ac.)
Total runoff =     27.864(CFS)   Total area =      13.680(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      133.000 to Point/Station      137.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   921.000(Ft.)
Downstream point/station elevation =   920.000(Ft.)
Pipe length  =   187.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    27.864(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    27.864(CFS)
Normal flow depth in pipe =   22.88(In.)
Flow top width inside pipe =   25.53(In.)
Critical Depth =   21.59(In.)
Pipe flow velocity =      6.94(Ft/s)
Travel time through pipe =    0.45 min.
Time of concentration (TC) =    18.20 min.


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Process from Point/Station      133.000 to Point/Station      137.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     13.680(Ac.)
Runoff from this stream =     27.864(CFS)
Time of concentration =   18.20 min.
Rainfall intensity =     2.272(In/Hr)


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Process from Point/Station      134.000 to Point/Station      135.000
**** INITIAL AREA EVALUATION ****
```

```
Initial area flow distance =   893.000(Ft.)
Top (of initial area) elevation =   946.000(Ft.)
Bottom (of initial area) elevation =   937.000(Ft.)
Difference in elevation =     9.000(Ft.)
Slope =    0.01008  s(percent)=       1.01
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   14.816 min.
Rainfall intensity =      2.482(In/Hr) for a   100.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.660
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Initial subarea runoff =     11.287(CFS)
Total initial stream area =        6.890(Ac.)
Pervious area fraction = 0.500


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Process from Point/Station      135.000 to Point/Station      137.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------
Upstream point/station elevation =   927.000(Ft.)
Downstream point/station elevation =   920.000(Ft.)
Pipe length  =   128.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    11.287(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =    11.287(CFS)
Normal flow depth in pipe =    9.67(In.)
Flow top width inside pipe =   14.36(In.)
Critical depth could not be calculated.
Pipe flow velocity =     13.50(Ft/s)
Travel time through pipe =    0.16 min.
Time of concentration (TC) =    14.97 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      135.000 to Point/Station      137.000
**** CONFLUENCE OF MINOR STREAMS ****
------------------------------------------------------------------------
Along Main Stream number: 2 in normal stream number 2
Stream flow area =      6.890(Ac.)
Runoff from this stream =     11.287(CFS)
Time of concentration =   14.97 min.
Rainfall intensity =     2.470(In/Hr)


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Process from Point/Station      136.000 to Point/Station      137.000
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------
Initial area flow distance =   711.000(Ft.)
Top (of initial area) elevation =   937.000(Ft.)
Bottom (of initial area) elevation =   931.000(Ft.)
Difference in elevation =     6.000(Ft.)
Slope =    0.00844  s(percent)=       0.84
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.780 min.
Rainfall intensity =      2.845(In/Hr) for a   100.0 year storm
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COMMERCIAL subarea type
Runoff Coefficient = 0.862
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  39.20
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     16.116(CFS)
Total initial stream area =        6.570(Ac.)
Pervious area fraction = 0.100


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Process from Point/Station      136.000 to Point/Station      137.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 3
Stream flow area =      6.570(Ac.)
Runoff from this stream =     16.116(CFS)
Time of concentration =   10.78 min.
Rainfall intensity =     2.845(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       27.864     18.20                2.272
2       11.287     14.97                2.470
3       16.116     10.78                2.845
Largest stream flow has longer time of concentration
Qp =     27.864 + sum of
         Qb         Ia/Ib
         11.287 *    0.920 =     10.379
         Qb         Ia/Ib
         16.116 *    0.798 =     12.867
Qp =     51.110

Total of 3 streams to confluence:
Flow rates before confluence point:
      27.864      11.287      16.116
Area of streams before confluence:
       13.680        6.890        6.570
Results of confluence:
Total flow rate =     51.110(CFS)
Time of concentration =    18.196 min.
Effective stream area after confluence =     27.140(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      137.000 to Point/Station      142.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   920.000(Ft.)
Downstream point/station elevation =   917.000(Ft.)
Pipe length  =   579.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    51.110(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    51.110(CFS)
Normal flow depth in pipe =   32.25(In.)
Flow top width inside pipe =   21.99(In.)
Critical Depth =   27.90(In.)
```

```
Pipe flow velocity =      7.65(Ft/s)
Travel time through pipe =    1.26 min.
Time of concentration (TC) =    19.46 min.


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Process from Point/Station      137.000 to Point/Station      142.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     27.140(Ac.)
Runoff from this stream =     51.110(CFS)
Time of concentration =   19.46 min.
Rainfall intensity =     2.207(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      138.000 to Point/Station      139.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   700.000(Ft.)
Top (of initial area) elevation =  1002.000(Ft.)
Bottom (of initial area) elevation =   952.000(Ft.)
Difference in elevation =    50.000(Ft.)
Slope =    0.07143  s(percent)=       7.14
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.085 min.
Rainfall intensity =      3.062(In/Hr) for a   100.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.740
Decimal fraction soil group A = 0.500
Decimal fraction soil group B = 0.500
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  44.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Initial subarea runoff =     11.143(CFS)
Total initial stream area =        4.920(Ac.)
Pervious area fraction = 0.500


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Process from Point/Station      139.000 to Point/Station      140.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
Top of street segment elevation =   952.000(Ft.)
End of street segment elevation =   946.000(Ft.)
Length of street segment  =   520.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     20.030(CFS)
Depth of flow =   0.450(Ft.), Average velocity =   3.236(Ft/s)
```

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Note:  depth of flow exceeds top of street crown.
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  18.000(Ft.)
Flow velocity =   3.24(Ft/s)
Travel time =    2.68 min.     TC =   11.76  min.
 Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.723
Decimal fraction soil group A = 0.550
Decimal fraction soil group B = 0.450
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  42.80
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      2.740(In/Hr) for a   100.0 year storm
Subarea runoff =     17.606(CFS) for      8.890(Ac.)
Total runoff =     28.749(CFS)   Total area =      13.810(Ac.)
Street flow at end of street =     28.749(CFS)
Half street flow at end of street =     14.374(CFS)
Depth of flow =   0.492(Ft.), Average velocity =   3.736(Ft/s)
Note:  depth of flow exceeds top of street crown.
Flow width (from curb towards crown)=  18.000(Ft.)


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Process from Point/Station      140.000 to Point/Station      141.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   936.000(Ft.)
Downstream point/station elevation =   927.000(Ft.)
Pipe length  =   518.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    28.749(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    28.749(CFS)
Normal flow depth in pipe =   18.94(In.)
Flow top width inside pipe =   19.58(In.)
Critical Depth =   22.11(In.)
Pipe flow velocity =     10.81(Ft/s)
Travel time through pipe =    0.80 min.
Time of concentration (TC) =    12.56 min.


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Process from Point/Station      140.000 to Point/Station      141.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.764
Decimal fraction soil group A = 0.100
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  53.60
Pervious area fraction =  0.500; Impervious fraction =  0.500
Time of concentration =    12.56 min.
Rainfall intensity =      2.664(In/Hr) for a   100.0 year storm
Subarea runoff =     11.255(CFS) for      5.530(Ac.)
Total runoff =     40.004(CFS)   Total area =      19.340(Ac.)


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Process from Point/Station      141.000 to Point/Station      142.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
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Upstream point/station elevation =   927.000(Ft.)
Downstream point/station elevation =   917.000(Ft.)
Pipe length  =   120.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    40.004(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    40.004(CFS)
Normal flow depth in pipe =   15.21(In.)
Flow top width inside pipe =   18.77(In.)
Critical depth could not be calculated.
Pipe flow velocity =     21.44(Ft/s)
Travel time through pipe =    0.09 min.
Time of concentration (TC) =    12.66 min.


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Process from Point/Station      141.000 to Point/Station      142.000
**** CONFLUENCE OF MINOR STREAMS ****
------------------------------------------------------------------------
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     19.340(Ac.)
Runoff from this stream =     40.004(CFS)
Time of concentration =   12.66 min.
Rainfall intensity =     2.656(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       51.110     19.46                2.207
2       40.004     12.66                2.656
Largest stream flow has longer time of concentration
Qp =     51.110 + sum of
         Qb         Ia/Ib
         40.004 *    0.831 =     33.248
Qp =     84.359

Total of 2 streams to confluence:
Flow rates before confluence point:
      51.110      40.004
Area of streams before confluence:
       27.140       19.340
Results of confluence:
Total flow rate =     84.359(CFS)
Time of concentration =    19.458 min.
Effective stream area after confluence =     46.480(Ac.)


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Process from Point/Station      142.000 to Point/Station      148.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------
Upstream point/station elevation =   917.000(Ft.)
Downstream point/station elevation =   915.000(Ft.)
Pipe length  =   350.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    84.359(CFS)
Nearest computed pipe diameter  =     45.00(In.)
Calculated individual pipe flow  =    84.359(CFS)
Normal flow depth in pipe =   34.13(In.)
Flow top width inside pipe =   38.53(In.)
Critical Depth =   33.93(In.)
Pipe flow velocity =      9.39(Ft/s)
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Travel time through pipe =    0.62 min.
Time of concentration (TC) =    20.08 min.


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Process from Point/Station      142.000 to Point/Station      148.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     46.480(Ac.)
Runoff from this stream =     84.359(CFS)
Time of concentration =   20.08 min.
Rainfall intensity =     2.178(In/Hr)


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Process from Point/Station      143.000 to Point/Station      144.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   907.000(Ft.)
Top (of initial area) elevation =   960.000(Ft.)
Bottom (of initial area) elevation =   948.000(Ft.)
Difference in elevation =    12.000(Ft.)
Slope =    0.01323  s(percent)=       1.32
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   13.395 min.
Rainfall intensity =      2.592(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.783
Decimal fraction soil group A = 0.400
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  46.40
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =     14.988(CFS)
Total initial stream area =        7.390(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      144.000 to Point/Station      145.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
Top of street segment elevation =   948.000(Ft.)
End of street segment elevation =   943.000(Ft.)
Length of street segment  =   403.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     18.363(CFS)
Depth of flow =   0.438(Ft.), Average velocity =   3.198(Ft/s)
Streetflow hydraulics at midpoint of street travel:
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Halfstreet flow width =  17.947(Ft.)
Flow velocity =   3.20(Ft/s)
Travel time =    2.10 min.     TC =   15.49  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.731
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      2.434(In/Hr) for a   100.0 year storm
Subarea runoff =      6.633(CFS) for      3.730(Ac.)
Total runoff =     21.621(CFS)   Total area =      11.120(Ac.)
Street flow at end of street =     21.621(CFS)
Half street flow at end of street =     10.811(CFS)
Depth of flow =   0.454(Ft.), Average velocity =   3.409(Ft/s)
Note:  depth of flow exceeds top of street crown.
Flow width (from curb towards crown)=  18.000(Ft.)


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Process from Point/Station      145.000 to Point/Station      146.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   933.000(Ft.)
Downstream point/station elevation =   929.000(Ft.)
Pipe length  =   328.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    21.621(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    21.621(CFS)
Normal flow depth in pipe =   17.25(In.)
Flow top width inside pipe =   21.58(In.)
Critical Depth =   19.95(In.)
Pipe flow velocity =      8.95(Ft/s)
Travel time through pipe =    0.61 min.
Time of concentration (TC) =    16.11 min.


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Process from Point/Station      145.000 to Point/Station      146.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.784
Decimal fraction soil group A = 0.300
Decimal fraction soil group B = 0.700
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  48.80
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    16.11 min.
Rainfall intensity =      2.394(In/Hr) for a   100.0 year storm
Subarea runoff =     20.924(CFS) for     11.150(Ac.)
Total runoff =     42.545(CFS)   Total area =      22.270(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      146.000 to Point/Station      148.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   929.000(Ft.)
```

```
Downstream point/station elevation =   915.000(Ft.)
Pipe length  =   134.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    42.545(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    42.545(CFS)
Normal flow depth in pipe =   14.60(In.)
Flow top width inside pipe =   19.33(In.)
Critical depth could not be calculated.
Pipe flow velocity =     23.81(Ft/s)
Travel time through pipe =    0.09 min.
Time of concentration (TC) =    16.20 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      146.000 to Point/Station      148.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     22.270(Ac.)
Runoff from this stream =     42.545(CFS)
Time of concentration =   16.20 min.
Rainfall intensity =     2.388(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      147.000 to Point/Station      148.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   440.000(Ft.)
Top (of initial area) elevation =   938.000(Ft.)
Bottom (of initial area) elevation =   934.000(Ft.)
Difference in elevation =     4.000(Ft.)
Slope =    0.00909  s(percent)=       0.91
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.766 min.
Rainfall intensity =      3.110(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.864
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  39.20
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     11.689(CFS)
Total initial stream area =        4.350(Ac.)
Pervious area fraction = 0.100


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Process from Point/Station      147.000 to Point/Station      148.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 3
Stream flow area =      4.350(Ac.)
Runoff from this stream =     11.689(CFS)
Time of concentration =    8.77 min.
Rainfall intensity =     3.110(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)
```

```
1       84.359     20.08                2.178
2       42.545     16.20                2.388
3       11.689      8.77                3.110
Largest stream flow has longer time of concentration
Qp =     84.359 + sum of
         Qb         Ia/Ib
         42.545 *    0.912 =     38.793
         Qb         Ia/Ib
         11.689 *    0.700 =      8.185
Qp =    131.336

Total of 3 streams to confluence:
Flow rates before confluence point:
      84.359      42.545      11.689
Area of streams before confluence:
       46.480       22.270        4.350
Results of confluence:
Total flow rate =    131.336(CFS)
Time of concentration =    20.079 min.
Effective stream area after confluence =     73.100(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      148.000 to Point/Station      151.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   915.000(Ft.)
Downstream point/station elevation =   914.000(Ft.)
Pipe length  =   263.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   131.336(CFS)
Nearest computed pipe diameter  =     57.00(In.)
Calculated individual pipe flow  =   131.336(CFS)
Normal flow depth in pipe =   43.78(In.)
Flow top width inside pipe =   48.11(In.)
Critical Depth =   39.94(In.)
Pipe flow velocity =      8.98(Ft/s)
Travel time through pipe =    0.49 min.
Time of concentration (TC) =    20.57 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      148.000 to Point/Station      151.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     73.100(Ac.)
Runoff from this stream =    131.336(CFS)
Time of concentration =   20.57 min.
Rainfall intensity =     2.155(In/Hr)


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Process from Point/Station      149.000 to Point/Station      150.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   502.000(Ft.)
Top (of initial area) elevation =   983.000(Ft.)
Bottom (of initial area) elevation =   971.000(Ft.)
Difference in elevation =    12.000(Ft.)
Slope =    0.02390  s(percent)=       2.39
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.393 min.
```

```
Rainfall intensity =      3.019(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.826
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.800
Decimal fraction soil group C = 0.150
Decimal fraction soil group D = 0.050
RI index for soil(AMC 2)  =  58.90
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      9.025(CFS)
Total initial stream area =        3.620(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      150.000 to Point/Station      151.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =   971.000(Ft.)
End of street segment elevation =   935.000(Ft.)
Length of street segment  =   983.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     15.492(CFS)
Depth of flow =   0.361(Ft.), Average velocity =   4.635(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  13.454(Ft.)
Flow velocity =   4.64(Ft/s)
Travel time =    3.53 min.     TC =   12.93  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.800
Decimal fraction soil group A = 0.500
Decimal fraction soil group B = 0.050
Decimal fraction soil group C = 0.050
Decimal fraction soil group D = 0.400
RI index for soil(AMC 2)  =  52.25
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      2.631(In/Hr) for a   100.0 year storm
Subarea runoff =     12.783(CFS) for      6.070(Ac.)
Total runoff =     21.808(CFS)   Total area =       9.690(Ac.)
Street flow at end of street =     21.808(CFS)
Half street flow at end of street =     10.904(CFS)
Depth of flow =   0.396(Ft.), Average velocity =   5.027(Ft/s)
Flow width (from curb towards crown)=  15.477(Ft.)


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Process from Point/Station      150.000 to Point/Station      151.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
```

```
Stream flow area =      9.690(Ac.)
Runoff from this stream =     21.808(CFS)
Time of concentration =   12.93 min.
Rainfall intensity =     2.631(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1      131.336     20.57                2.155
2       21.808     12.93                2.631
Largest stream flow has longer time of concentration
Qp =    131.336 + sum of
         Qb         Ia/Ib
         21.808 *    0.819 =     17.861
Qp =    149.197

Total of 2 streams to confluence:
Flow rates before confluence point:
     131.336      21.808
Area of streams before confluence:
       73.100        9.690
Results of confluence:
Total flow rate =    149.197(CFS)
Time of concentration =    20.567 min.
Effective stream area after confluence =     82.790(Ac.)


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Process from Point/Station      151.000 to Point/Station      152.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   914.000(Ft.)
Downstream point/station elevation =   912.000(Ft.)
Pipe length  =   379.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   149.197(CFS)
Nearest computed pipe diameter  =     54.00(In.)
Calculated individual pipe flow  =   149.197(CFS)
Normal flow depth in pipe =   46.78(In.)
Flow top width inside pipe =   36.75(In.)
Critical Depth =   42.99(In.)
Pipe flow velocity =     10.19(Ft/s)
Travel time through pipe =    0.62 min.
Time of concentration (TC) =    21.19 min.


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Process from Point/Station      151.000 to Point/Station      152.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     82.790(Ac.)
Runoff from this stream =    149.197(CFS)
Time of concentration =   21.19 min.
Rainfall intensity =     2.128(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)
```

```
1      207.140     21.68            2.107
2      149.197     21.19            2.128
Largest stream flow has longer time of concentration
Qp =    207.140 + sum of
         Qb         Ia/Ib
        149.197 *    0.990 =    147.737
Qp =    354.877

Total of 2 main streams to confluence:
Flow rates before confluence point:
     207.140     149.197
Area of streams before confluence:
      131.190       82.790


Results of confluence:
Total flow rate =    354.877(CFS)
Time of concentration =    21.676 min.
Effective stream area after confluence  =    213.980(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      152.000 to Point/Station      153.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   912.000(Ft.)
Downstream point/station elevation =   908.000(Ft.)
Pipe length  =   212.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   354.877(CFS)
Nearest computed pipe diameter  =     60.00(In.)
Calculated individual pipe flow  =   354.877(CFS)
Normal flow depth in pipe =   48.75(In.)
Flow top width inside pipe =   46.84(In.)
Critical depth could not be calculated.
Pipe flow velocity =     20.77(Ft/s)
Travel time through pipe =    0.17 min.
Time of concentration (TC) =    21.85 min.


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Process from Point/Station      152.000 to Point/Station      153.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.506
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  44.90
Pervious area fraction =  1.000; Impervious fraction =  0.000
Time of concentration =    21.85 min.
Rainfall intensity =      2.100(In/Hr) for a   100.0 year storm
Subarea runoff =      8.094(CFS) for      7.620(Ac.)
Total runoff =    362.972(CFS)   Total area =     221.600(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      152.000 to Point/Station      153.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
```

Stream flow area = 221.600(Ac.)
Runoff from this stream = 362.972(CFS)
Time of concentration = 21.85 min.
Rainfall intensity = 2.100(In/Hr)
Summary of stream data:

Stream No.	Flow rate (CFS)	TC (min)	Rainfall Intensity (In/Hr)
1	362.972	21.85	2.100

Largest stream flow has longer time of concentration
Qp = 362.972 + sum of
Qp = 362.972

Total of 1 main streams to confluence:
Flow rates before confluence point:
362.972
Area of streams before confluence:
221.600

Results of confluence:
Total flow rate = 362.972(CFS)
Time of concentration = 21.847 min.
Effective stream area after confluence = 221.600(Ac.)
End of computations, total study area = 221.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.507
Area averaged RI index number = 46.0

APPENDIX B.2: AREA “A” – PROPOSED CONDITION 10 – YEAR RATIONAL TABLING CALCULATIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 06/25/15 File:A110PROP.out

TRACT NO. 36294
AREA A
10-YR - PROPOSED CONDITION
FN: A110PROP

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 10.0
Calculated rainfall intensity data:
1 hour intensity = 0.883(In/Hr)
Slope of intensity duration curve = 0.4300

++

Process from Point/Station 100.000 to Point/Station 101.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 961.000(Ft.)
Top (of initial area) elevation = 1110.000(Ft.)
Bottom (of initial area) elevation = 1100.000(Ft.)
Difference in elevation = 10.000(Ft.)
Slope = 0.01041 s(percent)= 1.04
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 15.160 min.
Rainfall intensity = 1.596(In/Hr) for a 10.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.612
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 32.00
Pervious area fraction = 0.500; Impervious fraction = 0.500
Initial subarea runoff = 4.816(CFS)
Total initial stream area = 4.930(Ac.)
Pervious area fraction = 0.500

```
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Process from Point/Station      101.000 to Point/Station      102.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =  1100.000(Ft.)
End of street segment elevation =  1096.000(Ft.)
Length of street segment  =   405.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =      8.210(CFS)
Depth of flow =   0.363(Ft.), Average velocity =   2.419(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  13.567(Ft.)
Flow velocity =   2.42(Ft/s)
Travel time =    2.79 min.     TC =   17.95  min.
 Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.605
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      1.484(In/Hr) for a    10.0 year storm
Subarea runoff =      6.640(CFS) for      7.400(Ac.)
Total runoff =     11.456(CFS)   Total area =      12.330(Ac.)
Street flow at end of street =     11.456(CFS)
Half street flow at end of street =      5.728(CFS)
Depth of flow =   0.397(Ft.), Average velocity =   2.618(Ft/s)
Flow width (from curb towards crown)=  15.550(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      102.000 to Point/Station      105.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1086.000(Ft.)
Downstream point/station elevation =  1052.000(Ft.)
Pipe length  =   726.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    11.456(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =    11.456(CFS)
Normal flow depth in pipe =   10.34(In.)
Flow top width inside pipe =   13.89(In.)
Critical depth could not be calculated.
Pipe flow velocity =     12.71(Ft/s)
Travel time through pipe =    0.95 min.
Time of concentration (TC) =    18.90 min.
```

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++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      102.000 to Point/Station      105.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     12.330(Ac.)
Runoff from this stream =     11.456(CFS)
Time of concentration =   18.90 min.
Rainfall intensity =     1.451(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      103.000 to Point/Station      104.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   997.000(Ft.)
Top (of initial area) elevation =  1093.000(Ft.)
Bottom (of initial area) elevation =  1081.000(Ft.)
Difference in elevation =    12.000(Ft.)
Slope =    0.01204  s(percent)=       1.20
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   14.943 min.
Rainfall intensity =      1.606(In/Hr) for a    10.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.613
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Initial subarea runoff =      4.467(CFS)
Total initial stream area =        4.540(Ac.)
Pervious area fraction = 0.500


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Process from Point/Station      104.000 to Point/Station      105.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
Top of street segment elevation =  1081.000(Ft.)
End of street segment elevation =  1062.000(Ft.)
Length of street segment  =   611.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     11.465(CFS)
Depth of flow =   0.341(Ft.), Average velocity =   4.057(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  12.272(Ft.)
Flow velocity =   4.06(Ft/s)
```

```
Travel time =    2.51 min.     TC =   17.45  min.
 Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.606
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      1.502(In/Hr) for a    10.0 year storm
Subarea runoff =     13.852(CFS) for     15.220(Ac.)
Total runoff =     18.319(CFS)   Total area =      19.760(Ac.)
Street flow at end of street =     18.319(CFS)
Half street flow at end of street =      9.159(CFS)
Depth of flow =   0.386(Ft.), Average velocity =   4.531(Ft/s)
Flow width (from curb towards crown)=  14.906(Ft.)


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Process from Point/Station      104.000 to Point/Station      105.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     19.760(Ac.)
Runoff from this stream =     18.319(CFS)
Time of concentration =   17.45 min.
Rainfall intensity =     1.502(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       11.456     18.90           1.451
2       18.319     17.45           1.502
Largest stream flow has longer or shorter time of concentration
Qp =     18.319 + sum of
         Qa          Tb/Ta
         11.456 *    0.923 =     10.578
Qp =     28.896

Total of 2 main streams to confluence:
Flow rates before confluence point:
      11.456      18.319
Area of streams before confluence:
       12.330       19.760


Results of confluence:
Total flow rate =     28.896(CFS)
Time of concentration =    17.453 min.
Effective stream area after confluence  =     32.090(Ac.)


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Process from Point/Station      105.000 to Point/Station      107.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1052.000(Ft.)
Downstream point/station elevation =  1048.000(Ft.)
Pipe length  =   376.00(Ft.)   Manning's N = 0.013
```

```
No. of pipes = 1  Required pipe flow  =    28.896(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    28.896(CFS)
Normal flow depth in pipe =   20.11(In.)
Flow top width inside pipe =   23.54(In.)
Critical Depth =   22.40(In.)
Pipe flow velocity =      9.10(Ft/s)
Travel time through pipe =    0.69 min.
Time of concentration (TC) =    18.14 min.


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Process from Point/Station      105.000 to Point/Station      107.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     32.090(Ac.)
Runoff from this stream =     28.896(CFS)
Time of concentration =   18.14 min.
Rainfall intensity =     1.477(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      106.000 to Point/Station      107.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   991.000(Ft.)
Top (of initial area) elevation =  1073.000(Ft.)
Bottom (of initial area) elevation =  1058.000(Ft.)
Difference in elevation =    15.000(Ft.)
Slope =    0.01514  s(percent)=       1.51
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   13.509 min.
Rainfall intensity =      1.677(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.702
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      8.925(CFS)
Total initial stream area =        7.580(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      106.000 to Point/Station      107.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      7.580(Ac.)
Runoff from this stream =      8.925(CFS)
Time of concentration =   13.51 min.
Rainfall intensity =     1.677(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)
```

```
1       28.896     18.14            1.477
2        8.925     13.51            1.677
Largest stream flow has longer time of concentration
Qp =     28.896 + sum of
         Qb         Ia/Ib
          8.925 *    0.881 =      7.862
Qp =     36.758

Total of 2 main streams to confluence:
Flow rates before confluence point:
      28.896       8.925
Area of streams before confluence:
       32.090        7.580


Results of confluence:
Total flow rate =     36.758(CFS)
Time of concentration =    18.142 min.
Effective stream area after confluence  =     39.670(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      107.000 to Point/Station      114.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1048.000(Ft.)
Downstream point/station elevation =  1034.000(Ft.)
Pipe length  =   285.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    36.758(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    36.758(CFS)
Normal flow depth in pipe =   15.26(In.)
Flow top width inside pipe =   23.10(In.)
Critical depth could not be calculated.
Pipe flow velocity =     17.43(Ft/s)
Travel time through pipe =    0.27 min.
Time of concentration (TC) =    18.41 min.


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Process from Point/Station      107.000 to Point/Station      114.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     39.670(Ac.)
Runoff from this stream =     36.758(CFS)
Time of concentration =   18.41 min.
Rainfall intensity =     1.468(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      108.000 to Point/Station      109.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   996.000(Ft.)
Top (of initial area) elevation =  1140.000(Ft.)
Bottom (of initial area) elevation =  1095.000(Ft.)
Difference in elevation =    45.000(Ft.)
Slope =    0.04518  s(percent)=       4.52
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```
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   15.581 min.
Rainfall intensity =      1.577(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.815
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
RI index for soil(AMC 2)  =  89.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      4.627(CFS)
Total initial stream area =        3.600(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      109.000 to Point/Station      112.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =   1095.000(Ft.)
End of natural channel elevation =   1043.000(Ft.)
Length of natural channel  =  1255.000(Ft.)
Estimated mean flow rate at midpoint of channel =     12.530(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   5.39(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0414
Corrected/adjusted channel slope =  0.0414
Travel time =    3.88 min.     TC =   19.46  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.788
Decimal fraction soil group A = 0.100
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.900
RI index for soil(AMC 2)  =  86.80
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.433(In/Hr) for a    10.0 year storm
Subarea runoff =     13.900(CFS) for     12.300(Ac.)
Total runoff =     18.527(CFS)   Total area =      15.900(Ac.)


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Process from Point/Station      109.000 to Point/Station      112.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     15.900(Ac.)
Runoff from this stream =     18.527(CFS)
Time of concentration =   19.46 min.
Rainfall intensity =     1.433(In/Hr)


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Process from Point/Station      110.000 to Point/Station      111.000
**** INITIAL AREA EVALUATION ****
_____________________________________________________________________
Initial area flow distance =   919.000(Ft.)
Top (of initial area) elevation =  1064.000(Ft.)
Bottom (of initial area) elevation =  1056.000(Ft.)
Difference in elevation =     8.000(Ft.)
Slope =    0.00871  s(percent)=       0.87
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   14.641 min.
Rainfall intensity =      1.620(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.700
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      8.318(CFS)
Total initial stream area =        7.340(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      111.000 to Point/Station      112.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________
Upstream point/station elevation =  1046.000(Ft.)
Downstream point/station elevation =  1037.000(Ft.)
Pipe length  =   206.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     8.318(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =     8.318(CFS)
Normal flow depth in pipe =    8.51(In.)
Flow top width inside pipe =   14.86(In.)
Critical Depth =   13.56(In.)
Pipe flow velocity =     11.57(Ft/s)
Travel time through pipe =    0.30 min.
Time of concentration (TC) =    14.94 min.


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Process from Point/Station      111.000 to Point/Station      112.000
**** CONFLUENCE OF MINOR STREAMS ****
_____________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =      7.340(Ac.)
Runoff from this stream =      8.318(CFS)
Time of concentration =   14.94 min.
Rainfall intensity =     1.606(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       18.527     19.46                1.433
2        8.318     14.94                1.606
Largest stream flow has longer time of concentration
Qp =     18.527 + sum of
         Qb         Ia/Ib
          8.318 *    0.892 =      7.424
```

```
Qp =     25.950

Total of 2 streams to confluence:
Flow rates before confluence point:
      18.527       8.318
Area of streams before confluence:
       15.900        7.340
Results of confluence:
Total flow rate =     25.950(CFS)
Time of concentration =    19.461 min.
Effective stream area after confluence =     23.240(Ac.)


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Process from Point/Station      112.000 to Point/Station      113.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1037.000(Ft.)
Downstream point/station elevation =  1036.000(Ft.)
Pipe length  =   282.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    25.950(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    25.950(CFS)
Normal flow depth in pipe =   26.81(In.)
Flow top width inside pipe =   18.49(In.)
Critical Depth =   20.84(In.)
Pipe flow velocity =      5.61(Ft/s)
Travel time through pipe =    0.84 min.
Time of concentration (TC) =    20.30 min.


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Process from Point/Station      112.000 to Point/Station      113.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.704
Decimal fraction soil group A = 0.850
Decimal fraction soil group B = 0.100
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.050
RI index for soil(AMC 2)  =  36.55
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    20.30 min.
Rainfall intensity =      1.408(In/Hr) for a    10.0 year storm
Subarea runoff =      4.222(CFS) for      4.260(Ac.)
Total runoff =     30.172(CFS)   Total area =      27.500(Ac.)


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Process from Point/Station      113.000 to Point/Station      114.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1036.000(Ft.)
Downstream point/station elevation =  1034.000(Ft.)
Pipe length  =   443.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    30.172(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    30.172(CFS)
Normal flow depth in pipe =   23.34(In.)
Flow top width inside pipe =   30.03(In.)
Critical Depth =   21.91(In.)
Pipe flow velocity =      6.71(Ft/s)
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Travel time through pipe =    1.10 min.
Time of concentration (TC) =    21.40 min.


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Process from Point/Station      113.000 to Point/Station      114.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     27.500(Ac.)
Runoff from this stream =     30.172(CFS)
Time of concentration =   21.40 min.
Rainfall intensity =     1.376(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       36.758     18.41            1.468
2       30.172     21.40            1.376
Largest stream flow has longer or shorter time of concentration
Qp =     36.758 + sum of
         Qa          Tb/Ta
         30.172 *    0.861 =     25.964
Qp =     62.722

Total of 2 main streams to confluence:
Flow rates before confluence point:
      36.758      30.172
Area of streams before confluence:
       39.670       27.500


Results of confluence:
Total flow rate =     62.722(CFS)
Time of concentration =    18.414 min.
Effective stream area after confluence  =     67.170(Ac.)


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Process from Point/Station      114.000 to Point/Station      117.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =  1034.000(Ft.)
Downstream point/station elevation =  1030.000(Ft.)
Pipe length  =   614.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    62.722(CFS)
Nearest computed pipe diameter  =     39.00(In.)
Calculated individual pipe flow  =    62.722(CFS)
Normal flow depth in pipe =   30.09(In.)
Flow top width inside pipe =   32.74(In.)
Critical Depth =   30.32(In.)
Pipe flow velocity =      9.14(Ft/s)
Travel time through pipe =    1.12 min.
Time of concentration (TC) =    19.53 min.


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Process from Point/Station      114.000 to Point/Station      117.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
```

```
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     67.170(Ac.)
Runoff from this stream =     62.722(CFS)
Time of concentration =   19.53 min.
Rainfall intensity =     1.431(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      115.000 to Point/Station      116.000
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------
Initial area flow distance =   925.000(Ft.)
Top (of initial area) elevation =  1105.000(Ft.)
Bottom (of initial area) elevation =  1054.000(Ft.)
Difference in elevation =    51.000(Ft.)
Slope =    0.05514  s(percent)=       5.51
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.148 min.
Rainfall intensity =      1.896(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.791
Decimal fraction soil group A = 0.200
Decimal fraction soil group B = 0.500
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.300
RI index for soil(AMC 2)  =  56.90
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      2.324(CFS)
Total initial stream area =        1.550(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      116.000 to Point/Station      117.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------
Top of street segment elevation =  1054.000(Ft.)
End of street segment elevation =  1040.000(Ft.)
Length of street segment  =  1142.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =      5.478(CFS)
Depth of flow =   0.318(Ft.), Average velocity =   2.392(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  10.912(Ft.)
Flow velocity =   2.39(Ft/s)
Travel time =    7.96 min.     TC =   18.10  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.693
```

```
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      1.479(In/Hr) for a    10.0 year storm
Subarea runoff =      6.117(CFS) for      5.970(Ac.)
Total runoff =      8.441(CFS)   Total area =       7.520(Ac.)
Street flow at end of street =      8.441(CFS)
Half street flow at end of street =      4.221(CFS)
Depth of flow =   0.356(Ft.), Average velocity =   2.644(Ft/s)
Flow width (from curb towards crown)=  13.122(Ft.)


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Process from Point/Station      116.000 to Point/Station      117.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      7.520(Ac.)
Runoff from this stream =      8.441(CFS)
Time of concentration =   18.10 min.
Rainfall intensity =     1.479(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       62.722     19.53           1.431
2        8.441     18.10           1.479
Largest stream flow has longer time of concentration
Qp =     62.722 + sum of
         Qb         Ia/Ib
          8.441 *    0.968 =      8.169
Qp =     70.891

Total of 2 main streams to confluence:
Flow rates before confluence point:
      62.722       8.441
Area of streams before confluence:
       67.170        7.520


Results of confluence:
Total flow rate =     70.891(CFS)
Time of concentration =    19.535 min.
Effective stream area after confluence  =     74.690(Ac.)


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Process from Point/Station      117.000 to Point/Station      123.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =  1030.000(Ft.)
Downstream point/station elevation =   984.000(Ft.)
Pipe length  =  1233.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    70.891(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    70.891(CFS)
Normal flow depth in pipe =   22.13(In.)
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Flow top width inside pipe =   26.40(In.)
Critical depth could not be calculated.
Pipe flow velocity =     18.25(Ft/s)
Travel time through pipe =    1.13 min.
Time of concentration (TC) =    20.66 min.


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Process from Point/Station      117.000 to Point/Station      123.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.689
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    20.66 min.
Rainfall intensity =      1.397(In/Hr) for a    10.0 year storm
Subarea runoff =      2.118(CFS) for      2.200(Ac.)
Total runoff =     73.009(CFS)   Total area =      76.890(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      117.000 to Point/Station      123.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     76.890(Ac.)
Runoff from this stream =     73.009(CFS)
Time of concentration =   20.66 min.
Rainfall intensity =     1.397(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      118.000 to Point/Station      119.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   578.000(Ft.)
Top (of initial area) elevation =  1016.000(Ft.)
Bottom (of initial area) elevation =  1012.000(Ft.)
Difference in elevation =     4.000(Ft.)
Slope =    0.00692  s(percent)=       0.69
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.733 min.
Rainfall intensity =      1.720(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.704
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      5.752(CFS)
Total initial stream area =        4.750(Ac.)
Pervious area fraction = 0.350
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Process from Point/Station      119.000 to Point/Station      120.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
Top of street segment elevation =  1012.000(Ft.)
End of street segment elevation =  1000.000(Ft.)
Length of street segment  =   648.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     15.126(CFS)
Depth of flow =   0.393(Ft.), Average velocity =   3.554(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  15.322(Ft.)
Flow velocity =   3.55(Ft/s)
Travel time =    3.04 min.     TC =   15.77  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.716
Decimal fraction soil group A = 0.800
Decimal fraction soil group B = 0.150
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.050
RI index for soil(AMC 2)  =  37.75
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      1.569(In/Hr) for a    10.0 year storm
Subarea runoff =     18.562(CFS) for     16.520(Ac.)
Total runoff =     24.314(CFS)   Total area =      21.270(Ac.)
Street flow at end of street =     24.314(CFS)
Half street flow at end of street =     12.157(CFS)
Depth of flow =   0.446(Ft.), Average velocity =   4.030(Ft/s)
Note:  depth of flow exceeds top of street crown.
Flow width (from curb towards crown)=  18.000(Ft.)


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Process from Point/Station      120.000 to Point/Station      122.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   990.000(Ft.)
Downstream point/station elevation =   986.000(Ft.)
Pipe length  =   356.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    24.314(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    24.314(CFS)
Normal flow depth in pipe =   19.97(In.)
Flow top width inside pipe =   17.94(In.)
Critical Depth =   20.93(In.)
Pipe flow velocity =      8.70(Ft/s)
Travel time through pipe =    0.68 min.
Time of concentration (TC) =    16.45 min.
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Process from Point/Station      120.000 to Point/Station      122.000
**** CONFLUENCE OF MINOR STREAMS ****
____________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     21.270(Ac.)
Runoff from this stream =     24.314(CFS)
Time of concentration =   16.45 min.
Rainfall intensity =     1.541(In/Hr)


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Process from Point/Station      118.000 to Point/Station      121.000
**** INITIAL AREA EVALUATION ****
____________________________________________________________________________
Initial area flow distance =   637.000(Ft.)
Top (of initial area) elevation =  1016.000(Ft.)
Bottom (of initial area) elevation =  1009.000(Ft.)
Difference in elevation =     7.000(Ft.)
Slope =    0.01099  s(percent)=       1.10
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.069 min.
Rainfall intensity =      1.760(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.706
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      5.602(CFS)
Total initial stream area =        4.510(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      121.000 to Point/Station      122.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
____________________________________________________________________________
Top of street segment elevation =  1009.000(Ft.)
End of street segment elevation =   999.000(Ft.)
Length of street segment  =   648.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =      8.835(CFS)
Depth of flow =   0.349(Ft.), Average velocity =   2.919(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  12.746(Ft.)
Flow velocity =   2.92(Ft/s)
Travel time =    3.70 min.     TC =   15.77  min.
 Adding area flow to street
```

```
CONDOMINIUM subarea type
Runoff Coefficient = 0.697
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      1.569(In/Hr) for a    10.0 year storm
Subarea runoff =      6.356(CFS) for      5.810(Ac.)
Total runoff =     11.959(CFS)   Total area =      10.320(Ac.)
Street flow at end of street =     11.959(CFS)
Half street flow at end of street =      5.979(CFS)
Depth of flow =   0.378(Ft.), Average velocity =   3.135(Ft/s)
Flow width (from curb towards crown)=  14.450(Ft.)


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Process from Point/Station      121.000 to Point/Station      122.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     10.320(Ac.)
Runoff from this stream =     11.959(CFS)
Time of concentration =   15.77 min.
Rainfall intensity =     1.569(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       24.314     16.45                 1.541
2       11.959     15.77                 1.569
Largest stream flow has longer time of concentration
Qp =     24.314 + sum of
         Qb         Ia/Ib
         11.959 *    0.982 =     11.742
Qp =     36.055

Total of 2 streams to confluence:
Flow rates before confluence point:
      24.314      11.959
Area of streams before confluence:
       21.270       10.320
Results of confluence:
Total flow rate =     36.055(CFS)
Time of concentration =    16.455 min.
Effective stream area after confluence =     31.590(Ac.)


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Process from Point/Station      122.000 to Point/Station      123.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   986.000(Ft.)
Downstream point/station elevation =   984.000(Ft.)
Pipe length  =   226.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    36.055(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    36.055(CFS)
Normal flow depth in pipe =   22.97(In.)
Flow top width inside pipe =   25.42(In.)
```

```
Critical Depth =   24.45(In.)
Pipe flow velocity =      8.93(Ft/s)
Travel time through pipe =    0.42 min.
Time of concentration (TC) =    16.88 min.


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Process from Point/Station      122.000 to Point/Station      123.000
**** CONFLUENCE OF MAIN STREAMS ****
____________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     31.590(Ac.)
Runoff from this stream =     36.055(CFS)
Time of concentration =   16.88 min.
Rainfall intensity =     1.524(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       73.009     20.66            1.397
2       36.055     16.88            1.524
Largest stream flow has longer time of concentration
Qp =     73.009 + sum of
         Qb         Ia/Ib
         36.055 *    0.917 =     33.051
Qp =    106.060

Total of 2 main streams to confluence:
Flow rates before confluence point:
      73.009      36.055
Area of streams before confluence:
       76.890       31.590


Results of confluence:
Total flow rate =    106.060(CFS)
Time of concentration =    20.661 min.
Effective stream area after confluence  =    108.480(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      123.000 to Point/Station      129.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
____________________________________________________________________________
Upstream point/station elevation =   984.000(Ft.)
Downstream point/station elevation =   950.000(Ft.)
Pipe length  =   719.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   106.060(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =   106.060(CFS)
Normal flow depth in pipe =   24.98(In.)
Flow top width inside pipe =   28.30(In.)
Critical depth could not be calculated.
Pipe flow velocity =     21.97(Ft/s)
Travel time through pipe =    0.55 min.
Time of concentration (TC) =    21.21 min.


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Process from Point/Station      123.000 to Point/Station      129.000
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**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.696
Decimal fraction soil group A = 0.900
Decimal fraction soil group B = 0.100
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  34.40
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    21.21 min.
Rainfall intensity =      1.381(In/Hr) for a    10.0 year storm
Subarea runoff =      1.327(CFS) for      1.380(Ac.)
Total runoff =    107.387(CFS)   Total area =     109.860(Ac.)


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Process from Point/Station      123.000 to Point/Station      129.000
**** CONFLUENCE OF MAIN STREAMS ****
_____________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =    109.860(Ac.)
Runoff from this stream =    107.387(CFS)
Time of concentration =   21.21 min.
Rainfall intensity =     1.381(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      124.000 to Point/Station      125.000
**** INITIAL AREA EVALUATION ****
_____________________________________________________________________________
Initial area flow distance =   894.000(Ft.)
Top (of initial area) elevation =  1003.000(Ft.)
Bottom (of initial area) elevation =   995.000(Ft.)
Difference in elevation =     8.000(Ft.)
Slope =    0.00895  s(percent)=       0.89
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   15.179 min.
Rainfall intensity =      1.595(In/Hr) for a    10.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.635
Decimal fraction soil group A = 0.800
Decimal fraction soil group B = 0.200
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  36.80
Pervious area fraction =  0.500; Impervious fraction =  0.500
Initial subarea runoff =      6.915(CFS)
Total initial stream area =        6.830(Ac.)
Pervious area fraction = 0.500


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Process from Point/Station      125.000 to Point/Station      126.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
Top of street segment elevation =   995.000(Ft.)
End of street segment elevation =   992.000(Ft.)
Length of street segment  =   348.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
```

```
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     11.094(CFS)
Depth of flow =   0.401(Ft.), Average velocity =   2.467(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  15.777(Ft.)
Flow velocity =   2.47(Ft/s)
Travel time =    2.35 min.     TC =   17.53  min.
 Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.715
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  56.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      1.499(In/Hr) for a    10.0 year storm
Subarea runoff =      8.478(CFS) for      7.910(Ac.)
Total runoff =     15.392(CFS)   Total area =      14.740(Ac.)
Street flow at end of street =     15.392(CFS)
Half street flow at end of street =      7.696(CFS)
Depth of flow =   0.438(Ft.), Average velocity =   2.670(Ft/s)
Flow width (from curb towards crown)=  17.987(Ft.)


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Process from Point/Station      126.000 to Point/Station      129.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
------------------------------------------------------------------------------
Upstream point/station elevation =   982.000(Ft.)
Downstream point/station elevation =   950.000(Ft.)
Pipe length  =   723.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    15.392(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =    15.392(CFS)
Normal flow depth in pipe =   11.06(In.)
Flow top width inside pipe =   17.52(In.)
Critical Depth =   16.97(In.)
Pipe flow velocity =     13.52(Ft/s)
Travel time through pipe =    0.89 min.
Time of concentration (TC) =    18.42 min.


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Process from Point/Station      126.000 to Point/Station      129.000
**** CONFLUENCE OF MAIN STREAMS ****
------------------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     14.740(Ac.)
Runoff from this stream =     15.392(CFS)
Time of concentration =   18.42 min.
Rainfall intensity =     1.468(In/Hr)
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Program is now starting with Main Stream No. 3


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Process from Point/Station      127.000 to Point/Station      128.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   661.000(Ft.)
Top (of initial area) elevation =   982.000(Ft.)
Bottom (of initial area) elevation =   976.000(Ft.)
Difference in elevation =     6.000(Ft.)
Slope =    0.00908  s(percent)=       0.91
TC = k(0.940)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   32.331 min.
Rainfall intensity =      1.152(In/Hr) for a    10.0 year storm
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.454
Decimal fraction soil group A = 0.300
Decimal fraction soil group B = 0.700
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  54.10
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      1.936(CFS)
Total initial stream area =        3.700(Ac.)
Pervious area fraction = 1.000


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Process from Point/Station      128.000 to Point/Station      129.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   966.000(Ft.)
Downstream point/station elevation =   950.000(Ft.)
Pipe length  =   120.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     1.936(CFS)
Nearest computed pipe diameter  =      6.00(In.)
Calculated individual pipe flow  =     1.936(CFS)
Normal flow depth in pipe =    4.65(In.)
Flow top width inside pipe =    5.02(In.)
Critical depth could not be calculated.
Pipe flow velocity =     11.87(Ft/s)
Travel time through pipe =    0.17 min.
Time of concentration (TC) =    32.50 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      128.000 to Point/Station      129.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 3
Stream flow area =      3.700(Ac.)
Runoff from this stream =      1.936(CFS)
Time of concentration =   32.50 min.
Rainfall intensity =     1.150(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1      107.387     21.21           1.381
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```
2       15.392     18.42            1.468
3        1.936     32.50            1.150
Largest stream flow has longer or shorter time of concentration
Qp =    107.387 + sum of
         Qb          Ia/Ib
         15.392 *    0.941 =     14.488
         Qa          Tb/Ta
          1.936 *    0.653 =      1.263
Qp =    123.138

Total of 3 main streams to confluence:
Flow rates before confluence point:
     107.387      15.392       1.936
Area of streams before confluence:
      109.860       14.740        3.700


Results of confluence:
Total flow rate =    123.138(CFS)
Time of concentration =    21.206 min.
Effective stream area after confluence  =    128.300(Ac.)


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Process from Point/Station      129.000 to Point/Station      130.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   950.000(Ft.)
Downstream point/station elevation =   931.000(Ft.)
Pipe length  =  1137.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   123.138(CFS)
Nearest computed pipe diameter  =     42.00(In.)
Calculated individual pipe flow  =   123.138(CFS)
Normal flow depth in pipe =   32.58(In.)
Flow top width inside pipe =   35.04(In.)
Critical Depth =   39.21(In.)
Pipe flow velocity =     15.38(Ft/s)
Travel time through pipe =    1.23 min.
Time of concentration (TC) =    22.44 min.


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Process from Point/Station      129.000 to Point/Station      130.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.717
Decimal fraction soil group A = 0.600
Decimal fraction soil group B = 0.400
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  41.60
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    22.44 min.
Rainfall intensity =      1.348(In/Hr) for a    10.0 year storm
Subarea runoff =      2.793(CFS) for      2.890(Ac.)
Total runoff =    125.932(CFS)   Total area =     131.190(Ac.)


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Process from Point/Station      130.000 to Point/Station      152.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
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Upstream point/station elevation =   931.000(Ft.)
Downstream point/station elevation =   912.000(Ft.)
Pipe length  =   149.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   125.932(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =   125.932(CFS)
Normal flow depth in pipe =   21.42(In.)
Flow top width inside pipe =   27.11(In.)
Critical depth could not be calculated.
Pipe flow velocity =     33.55(Ft/s)
Travel time through pipe =    0.07 min.
Time of concentration (TC) =    22.51 min.


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Process from Point/Station      130.000 to Point/Station      152.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =    131.190(Ac.)
Runoff from this stream =    125.932(CFS)
Time of concentration =   22.51 min.
Rainfall intensity =     1.346(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station      131.000 to Point/Station      132.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   909.000(Ft.)
Top (of initial area) elevation =  1100.000(Ft.)
Bottom (of initial area) elevation =   973.000(Ft.)
Difference in elevation =   127.000(Ft.)
Slope =    0.13971  s(percent)=      13.97
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.985 min.
Rainfall intensity =      1.765(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.815
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.100
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.900
RI index for soil(AMC 2)  =  87.90
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      6.664(CFS)
Total initial stream area =        4.630(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      132.000 to Point/Station      133.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =    973.000(Ft.)
End of natural channel elevation =    921.000(Ft.)
Length of natural channel  =  1789.000(Ft.)
Estimated mean flow rate at midpoint of channel =     13.177(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
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```
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   4.57(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0291
Corrected/adjusted channel slope =  0.0291
Travel time =    6.52 min.     TC =   18.50  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.795
Decimal fraction soil group A = 0.050
Decimal fraction soil group B = 0.050
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.900
RI index for soil(AMC 2)  =  87.35
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.465(In/Hr) for a    10.0 year storm
Subarea runoff =     10.541(CFS) for      9.050(Ac.)
Total runoff =     17.205(CFS)   Total area =      13.680(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      133.000 to Point/Station      137.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   921.000(Ft.)
Downstream point/station elevation =   920.000(Ft.)
Pipe length  =   187.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    17.205(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    17.205(CFS)
Normal flow depth in pipe =   20.67(In.)
Flow top width inside pipe =   16.59(In.)
Critical Depth =   17.94(In.)
Pipe flow velocity =      5.98(Ft/s)
Travel time through pipe =    0.52 min.
Time of concentration (TC) =    19.03 min.


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Process from Point/Station      133.000 to Point/Station      137.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     13.680(Ac.)
Runoff from this stream =     17.205(CFS)
Time of concentration =   19.03 min.
Rainfall intensity =     1.447(In/Hr)


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Process from Point/Station      134.000 to Point/Station      135.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   893.000(Ft.)
Top (of initial area) elevation =   946.000(Ft.)
Bottom (of initial area) elevation =   937.000(Ft.)
Difference in elevation =     9.000(Ft.)
Slope =    0.01008  s(percent)=       1.01
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
```

```
Initial area time of concentration =   14.816 min.
Rainfall intensity =      1.612(In/Hr) for a    10.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.613
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.500; Impervious fraction =  0.500
Initial subarea runoff =      6.809(CFS)
Total initial stream area =        6.890(Ac.)
Pervious area fraction = 0.500


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Process from Point/Station      135.000 to Point/Station      137.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   927.000(Ft.)
Downstream point/station elevation =   920.000(Ft.)
Pipe length  =   128.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.809(CFS)
Nearest computed pipe diameter  =     12.00(In.)
Calculated individual pipe flow  =     6.809(CFS)
Normal flow depth in pipe =    8.25(In.)
Flow top width inside pipe =   11.12(In.)
Critical depth could not be calculated.
Pipe flow velocity =     11.83(Ft/s)
Travel time through pipe =    0.18 min.
Time of concentration (TC) =    15.00 min.


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Process from Point/Station      135.000 to Point/Station      137.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =      6.890(Ac.)
Runoff from this stream =      6.809(CFS)
Time of concentration =   15.00 min.
Rainfall intensity =     1.603(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      136.000 to Point/Station      137.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   711.000(Ft.)
Top (of initial area) elevation =   937.000(Ft.)
Bottom (of initial area) elevation =   931.000(Ft.)
Difference in elevation =     6.000(Ft.)
Slope =    0.00844  s(percent)=       0.84
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.780 min.
Rainfall intensity =      1.848(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.852
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  39.20
```

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Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =     10.349(CFS)
Total initial stream area =        6.570(Ac.)
Pervious area fraction = 0.100


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Process from Point/Station      136.000 to Point/Station      137.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 3
Stream flow area =      6.570(Ac.)
Runoff from this stream =     10.349(CFS)
Time of concentration =   10.78 min.
Rainfall intensity =     1.848(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       17.205     19.03                1.447
2        6.809     15.00                1.603
3       10.349     10.78                1.848
Largest stream flow has longer time of concentration
Qp =     17.205 + sum of
         Qb         Ia/Ib
          6.809 *    0.903 =      6.146
         Qb         Ia/Ib
         10.349 *    0.783 =      8.106
Qp =     31.457

Total of 3 streams to confluence:
Flow rates before confluence point:
      17.205       6.809      10.349
Area of streams before confluence:
       13.680        6.890        6.570
Results of confluence:
Total flow rate =     31.457(CFS)
Time of concentration =    19.026 min.
Effective stream area after confluence =     27.140(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      137.000 to Point/Station      142.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   920.000(Ft.)
Downstream point/station elevation =   917.000(Ft.)
Pipe length  =   579.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    31.457(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    31.457(CFS)
Normal flow depth in pipe =   27.00(In.)
Flow top width inside pipe =   18.00(In.)
Critical Depth =   22.92(In.)
Pipe flow velocity =      6.76(Ft/s)
Travel time through pipe =    1.43 min.
Time of concentration (TC) =    20.45 min.


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Process from Point/Station      137.000 to Point/Station      142.000
```

**** CONFLUENCE OF MINOR STREAMS ****

Along Main Stream number: 2 in normal stream number 1
Stream flow area = 27.140(Ac.)
Runoff from this stream = 31.457(CFS)
Time of concentration = 20.45 min.
Rainfall intensity = 1.403(In/Hr)

++
Process from Point/Station 138.000 to Point/Station 139.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 700.000(Ft.)
Top (of initial area) elevation = 1002.000(Ft.)
Bottom (of initial area) elevation = 952.000(Ft.)
Difference in elevation = 50.000(Ft.)
Slope = 0.07143 s(percent)= 7.14
TC = k(0.390)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 9.085 min.
Rainfall intensity = 1.989(In/Hr) for a 10.0 year storm
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.693
Decimal fraction soil group A = 0.500
Decimal fraction soil group B = 0.500
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2) = 44.00
Pervious area fraction = 0.500; Impervious fraction = 0.500
Initial subarea runoff = 6.779(CFS)
Total initial stream area = 4.920(Ac.)
Pervious area fraction = 0.500

++
Process from Point/Station 139.000 to Point/Station 140.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****

Top of street segment elevation = 952.000(Ft.)
End of street segment elevation = 946.000(Ft.)
Length of street segment = 520.000(Ft.)
Height of curb above gutter flowline = 6.0(In.)
Width of half street (curb to crown) = 18.000(Ft.)
Distance from crown to crossfall grade break = 16.000(Ft.)
Slope from gutter to grade break (v/hz) = 0.083
Slope from grade break to crown (v/hz) = 0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line = 10.000(Ft.)
Slope from curb to property line (v/hz) = 0.021
Gutter width = 2.000(Ft.)
Gutter hike from flowline = 2.000(In.)
Manning's N in gutter = 0.0150
Manning's N from gutter to grade break = 0.0150
Manning's N from grade break to crown = 0.0150
Estimated mean flow rate at midpoint of street = 12.086(CFS)
Depth of flow = 0.394(Ft.), Average velocity = 2.813(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width = 15.398(Ft.)
Flow velocity = 2.81(Ft/s)
Travel time = 3.08 min. TC = 12.17 min.
Adding area flow to street
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.673

```
Decimal fraction soil group A = 0.550
Decimal fraction soil group B = 0.450
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  42.80
Pervious area fraction =  0.500; Impervious fraction =  0.500
Rainfall intensity =      1.754(In/Hr) for a    10.0 year storm
Subarea runoff =     10.499(CFS) for      8.890(Ac.)
Total runoff =     17.278(CFS)   Total area =      13.810(Ac.)
Street flow at end of street =     17.278(CFS)
Half street flow at end of street =      8.639(CFS)
Depth of flow =   0.435(Ft.), Average velocity =   3.066(Ft/s)
Flow width (from curb towards crown)=  17.773(Ft.)


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Process from Point/Station      140.000 to Point/Station      141.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   936.000(Ft.)
Downstream point/station elevation =   927.000(Ft.)
Pipe length  =   518.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    17.278(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    17.278(CFS)
Normal flow depth in pipe =   14.57(In.)
Flow top width inside pipe =   19.36(In.)
Critical Depth =   18.26(In.)
Pipe flow velocity =      9.70(Ft/s)
Travel time through pipe =    0.89 min.
Time of concentration (TC) =    13.06 min.


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Process from Point/Station      140.000 to Point/Station      141.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
SINGLE FAMILY (1/4 Acre Lot)
Runoff Coefficient = 0.718
Decimal fraction soil group A = 0.100
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  53.60
Pervious area fraction =  0.500; Impervious fraction =  0.500
Time of concentration =    13.06 min.
Rainfall intensity =      1.702(In/Hr) for a    10.0 year storm
Subarea runoff =      6.758(CFS) for      5.530(Ac.)
Total runoff =     24.036(CFS)   Total area =      19.340(Ac.)


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Process from Point/Station      141.000 to Point/Station      142.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   927.000(Ft.)
Downstream point/station elevation =   917.000(Ft.)
Pipe length  =   120.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    24.036(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =    24.036(CFS)
Normal flow depth in pipe =   12.09(In.)
Flow top width inside pipe =   16.90(In.)
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Critical depth could not be calculated.
Pipe flow velocity =     19.03(Ft/s)
Travel time through pipe =    0.11 min.
Time of concentration (TC) =    13.16 min.


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Process from Point/Station      141.000 to Point/Station      142.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     19.340(Ac.)
Runoff from this stream =     24.036(CFS)
Time of concentration =   13.16 min.
Rainfall intensity =     1.696(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       31.457     20.45                 1.403
2       24.036     13.16                 1.696
Largest stream flow has longer time of concentration
Qp =     31.457 + sum of
         Qb         Ia/Ib
         24.036 *    0.827 =     19.885
Qp =     51.342

Total of 2 streams to confluence:
Flow rates before confluence point:
      31.457      24.036
Area of streams before confluence:
       27.140       19.340
Results of confluence:
Total flow rate =     51.342(CFS)
Time of concentration =    20.453 min.
Effective stream area after confluence =     46.480(Ac.)


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Process from Point/Station      142.000 to Point/Station      148.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   917.000(Ft.)
Downstream point/station elevation =   915.000(Ft.)
Pipe length  =   350.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    51.342(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    51.342(CFS)
Normal flow depth in pipe =   30.14(In.)
Flow top width inside pipe =   26.58(In.)
Critical Depth =   27.98(In.)
Pipe flow velocity =      8.12(Ft/s)
Travel time through pipe =    0.72 min.
Time of concentration (TC) =    21.17 min.


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Process from Point/Station      142.000 to Point/Station      148.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
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Stream flow area =     46.480(Ac.)
Runoff from this stream =     51.342(CFS)
Time of concentration =   21.17 min.
Rainfall intensity =     1.382(In/Hr)


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Process from Point/Station      143.000 to Point/Station      144.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   907.000(Ft.)
Top (of initial area) elevation =   960.000(Ft.)
Bottom (of initial area) elevation =   948.000(Ft.)
Difference in elevation =    12.000(Ft.)
Slope =    0.01323  s(percent)=       1.32
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   13.395 min.
Rainfall intensity =      1.683(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.749
Decimal fraction soil group A = 0.400
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  46.40
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      9.322(CFS)
Total initial stream area =        7.390(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      144.000 to Point/Station      145.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =   948.000(Ft.)
End of street segment elevation =   943.000(Ft.)
Length of street segment  =   403.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =     11.442(CFS)
Depth of flow =   0.385(Ft.), Average velocity =   2.855(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  14.838(Ft.)
Flow velocity =   2.85(Ft/s)
Travel time =    2.35 min.     TC =   15.75  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.697
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
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Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      1.570(In/Hr) for a    10.0 year storm
Subarea runoff =      4.083(CFS) for      3.730(Ac.)
Total runoff =     13.405(CFS)   Total area =      11.120(Ac.)
Street flow at end of street =     13.405(CFS)
Half street flow at end of street =      6.703(CFS)
Depth of flow =   0.402(Ft.), Average velocity =   2.965(Ft/s)
Flow width (from curb towards crown)=  15.823(Ft.)


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Process from Point/Station      145.000 to Point/Station      146.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   933.000(Ft.)
Downstream point/station elevation =   929.000(Ft.)
Pipe length  =   328.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    13.405(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    13.405(CFS)
Normal flow depth in pipe =   13.78(In.)
Flow top width inside pipe =   19.95(In.)
Critical Depth =   16.36(In.)
Pipe flow velocity =      8.02(Ft/s)
Travel time through pipe =    0.68 min.
Time of concentration (TC) =    16.43 min.


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Process from Point/Station      145.000 to Point/Station      146.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.750
Decimal fraction soil group A = 0.300
Decimal fraction soil group B = 0.700
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  48.80
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    16.43 min.
Rainfall intensity =      1.542(In/Hr) for a    10.0 year storm
Subarea runoff =     12.894(CFS) for     11.150(Ac.)
Total runoff =     26.299(CFS)   Total area =      22.270(Ac.)


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Process from Point/Station      146.000 to Point/Station      148.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   929.000(Ft.)
Downstream point/station elevation =   915.000(Ft.)
Pipe length  =   134.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    26.299(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =    26.299(CFS)
Normal flow depth in pipe =   11.91(In.)
Flow top width inside pipe =   17.04(In.)
Critical depth could not be calculated.
Pipe flow velocity =     21.22(Ft/s)
Travel time through pipe =    0.11 min.
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Time of concentration (TC) =    16.53 min.


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Process from Point/Station      146.000 to Point/Station      148.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     22.270(Ac.)
Runoff from this stream =     26.299(CFS)
Time of concentration =   16.53 min.
Rainfall intensity =     1.537(In/Hr)


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Process from Point/Station      147.000 to Point/Station      148.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   440.000(Ft.)
Top (of initial area) elevation =   938.000(Ft.)
Bottom (of initial area) elevation =   934.000(Ft.)
Difference in elevation =     4.000(Ft.)
Slope =    0.00909  s(percent)=       0.91
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.766 min.
Rainfall intensity =      2.020(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  39.20
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      7.507(CFS)
Total initial stream area =        4.350(Ac.)
Pervious area fraction = 0.100


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Process from Point/Station      147.000 to Point/Station      148.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 3
Stream flow area =      4.350(Ac.)
Runoff from this stream =      7.507(CFS)
Time of concentration =    8.77 min.
Rainfall intensity =     2.020(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       51.342     21.17                1.382
2       26.299     16.53                1.537
3        7.507      8.77                2.020
Largest stream flow has longer time of concentration
Qp =     51.342 + sum of
         Qb         Ia/Ib
         26.299 *    0.899 =     23.648
         Qb         Ia/Ib
          7.507 *    0.684 =      5.138
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Qp =     80.128

Total of 3 streams to confluence:
Flow rates before confluence point:
      51.342      26.299       7.507
Area of streams before confluence:
       46.480       22.270        4.350
Results of confluence:
Total flow rate =     80.128(CFS)
Time of concentration =    21.171 min.
Effective stream area after confluence =     73.100(Ac.)


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Process from Point/Station      148.000 to Point/Station      151.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   915.000(Ft.)
Downstream point/station elevation =   914.000(Ft.)
Pipe length  =   263.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    80.128(CFS)
Nearest computed pipe diameter  =     48.00(In.)
Calculated individual pipe flow  =    80.128(CFS)
Normal flow depth in pipe =   35.77(In.)
Flow top width inside pipe =   41.84(In.)
Critical Depth =   32.51(In.)
Pipe flow velocity =      7.98(Ft/s)
Travel time through pipe =    0.55 min.
Time of concentration (TC) =    21.72 min.


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Process from Point/Station      148.000 to Point/Station      151.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     73.100(Ac.)
Runoff from this stream =     80.128(CFS)
Time of concentration =   21.72 min.
Rainfall intensity =     1.367(In/Hr)


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Process from Point/Station      149.000 to Point/Station      150.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   502.000(Ft.)
Top (of initial area) elevation =   983.000(Ft.)
Bottom (of initial area) elevation =   971.000(Ft.)
Difference in elevation =    12.000(Ft.)
Slope =    0.02390  s(percent)=       2.39
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.393 min.
Rainfall intensity =      1.961(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.799
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.800
Decimal fraction soil group C = 0.150
Decimal fraction soil group D = 0.050
RI index for soil(AMC 2)  =  58.90
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      5.668(CFS)
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Total initial stream area =        3.620(Ac.)
Pervious area fraction = 0.350


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Process from Point/Station      150.000 to Point/Station      151.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of street segment elevation =   971.000(Ft.)
End of street segment elevation =   935.000(Ft.)
Length of street segment  =   983.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  18.000(Ft.)
Distance from crown to crossfall grade break  =  16.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.083
Slope from grade break to crown (v/hz)  =   0.017
Street flow is on [2] side(s) of the street
Distance from curb to property line  =  10.000(Ft.)
Slope from curb to property line (v/hz) =   0.021
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =      9.651(CFS)
Depth of flow =   0.320(Ft.), Average velocity =   4.153(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  11.004(Ft.)
Flow velocity =   4.15(Ft/s)
Travel time =    3.94 min.     TC =   13.34  min.
 Adding area flow to street
CONDOMINIUM subarea type
Runoff Coefficient = 0.768
Decimal fraction soil group A = 0.500
Decimal fraction soil group B = 0.050
Decimal fraction soil group C = 0.050
Decimal fraction soil group D = 0.400
RI index for soil(AMC 2)  =  52.25
Pervious area fraction =  0.350; Impervious fraction =  0.650
Rainfall intensity =      1.686(In/Hr) for a    10.0 year storm
Subarea runoff =      7.859(CFS) for      6.070(Ac.)
Total runoff =     13.527(CFS)   Total area =       9.690(Ac.)
Street flow at end of street =     13.527(CFS)
Half street flow at end of street =      6.764(CFS)
Depth of flow =   0.349(Ft.), Average velocity =   4.490(Ft/s)
Flow width (from curb towards crown)=  12.713(Ft.)


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Process from Point/Station      150.000 to Point/Station      151.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =      9.690(Ac.)
Runoff from this stream =     13.527(CFS)
Time of concentration =   13.34 min.
Rainfall intensity =     1.686(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)
```

```
1       80.128     21.72                 1.367
2       13.527     13.34                 1.686
Largest stream flow has longer time of concentration
Qp =     80.128 + sum of
         Qb         Ia/Ib
         13.527 *    0.811 =     10.968
Qp =     91.096

Total of 2 streams to confluence:
Flow rates before confluence point:
      80.128      13.527
Area of streams before confluence:
       73.100        9.690
Results of confluence:
Total flow rate =     91.096(CFS)
Time of concentration =    21.720 min.
Effective stream area after confluence =     82.790(Ac.)


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Process from Point/Station      151.000 to Point/Station      152.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   914.000(Ft.)
Downstream point/station elevation =   912.000(Ft.)
Pipe length  =   379.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    91.096(CFS)
Nearest computed pipe diameter  =     45.00(In.)
Calculated individual pipe flow  =    91.096(CFS)
Normal flow depth in pipe =   38.63(In.)
Flow top width inside pipe =   31.38(In.)
Critical Depth =   35.19(In.)
Pipe flow velocity =      9.04(Ft/s)
Travel time through pipe =    0.70 min.
Time of concentration (TC) =    22.42 min.


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Process from Point/Station      151.000 to Point/Station      152.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =     82.790(Ac.)
Runoff from this stream =     91.096(CFS)
Time of concentration =   22.42 min.
Rainfall intensity =     1.349(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1      125.932     22.51           1.346
2       91.096     22.42           1.349
Largest stream flow has longer time of concentration
Qp =    125.932 + sum of
         Qb         Ia/Ib
         91.096 *    0.998 =     90.934
Qp =    216.865

Total of 2 main streams to confluence:
Flow rates before confluence point:
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```
     125.932      91.096
Area of streams before confluence:
      131.190       82.790


Results of confluence:
Total flow rate =    216.865(CFS)
Time of concentration =    22.512 min.
Effective stream area after confluence  =    213.980(Ac.)


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Process from Point/Station      152.000 to Point/Station      153.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   912.000(Ft.)
Downstream point/station elevation =   908.000(Ft.)
Pipe length  =   212.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   216.865(CFS)
Nearest computed pipe diameter  =     51.00(In.)
Calculated individual pipe flow  =   216.865(CFS)
Normal flow depth in pipe =   39.09(In.)
Flow top width inside pipe =   43.15(In.)
Critical depth could not be calculated.
Pipe flow velocity =     18.58(Ft/s)
Travel time through pipe =    0.19 min.
Time of concentration (TC) =    22.70 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      152.000 to Point/Station      153.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.405
Decimal fraction soil group A = 0.700
Decimal fraction soil group B = 0.300
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  44.90
Pervious area fraction =  1.000; Impervious fraction =  0.000
Time of concentration =    22.70 min.
Rainfall intensity =      1.341(In/Hr) for a    10.0 year storm
Subarea runoff =      4.144(CFS) for      7.620(Ac.)
Total runoff =    221.010(CFS)   Total area =     221.600(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      152.000 to Point/Station      153.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =    221.600(Ac.)
Runoff from this stream =    221.010(CFS)
Time of concentration =   22.70 min.
Rainfall intensity =     1.341(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)
```

```
1      221.010     22.70           1.341
Largest stream flow has longer time of concentration
Qp =    221.010 + sum of
Qp =    221.010

Total of 1 main streams to confluence:
Flow rates before confluence point:
     221.010
Area of streams before confluence:
      221.600


Results of confluence:
Total flow rate =    221.010(CFS)
Time of concentration =    22.702 min.
Effective stream area after confluence  =    221.600(Ac.)
End of computations, total study area =          221.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.507
Area averaged RI index number =  46.0
```

APPENDIX C: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA “B” (RATIONAL TABLING METHOD)

APPENDIX C.1: AREA “B” – EXISTING CONDITION
100 – YEAR RATIONAL TABLING CONDITIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 10/15/15 File:B1100EXIST.out

TRACT NO. 36294
AREA B
100-YR - EXISTING CONDITION
FN: B1100EXIST

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.360(In/Hr)
Slope of intensity duration curve = 0.4300

++

Process from Point/Station 200.000 to Point/Station 201.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 992.000(Ft.)
Top (of initial area) elevation = 1025.000(Ft.)
Bottom (of initial area) elevation = 974.000(Ft.)
Difference in elevation = 51.000(Ft.)
Slope = 0.05141 s(percent)= 5.14
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 15.159 min.
Rainfall intensity = 2.457(In/Hr) for a 100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.790
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.850
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.150
RI index for soil(AMC 2) = 79.65
Pervious area fraction = 1.000; Impervious fraction = 0.000
Initial subarea runoff = 5.982(CFS)
Total initial stream area = 3.080(Ac.)
Pervious area fraction = 1.000

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
----------------------------------------------------------------------------
Top of natural channel elevation =    974.000(Ft.)
End of natural channel elevation =    950.000(Ft.)
Length of natural channel  =   461.000(Ft.)
Estimated mean flow rate at midpoint of channel =     14.208(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   6.24(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0521
Corrected/adjusted channel slope =  0.0521
Travel time =    1.23 min.     TC =   16.39  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.784
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.100
RI index for soil(AMC 2)  =  79.10
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.376(In/Hr) for a   100.0 year storm
Subarea runoff =     15.775(CFS) for      8.470(Ac.)
Total runoff =     21.757(CFS)   Total area =      11.550(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** CONFLUENCE OF MAIN STREAMS ****
----------------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     11.550(Ac.)
Runoff from this stream =     21.757(CFS)
Time of concentration =   16.39 min.
Rainfall intensity =     2.376(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       21.757     16.39           2.376
Largest stream flow has longer time of concentration
Qp =     21.757 + sum of
Qp =     21.757

Total of 1 main streams to confluence:
Flow rates before confluence point:
      21.757
Area of streams before confluence:
       11.550
```

```
Results of confluence:
Total flow rate =     21.757(CFS)
Time of concentration =    16.390 min.
Effective stream area after confluence  =     11.550(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      203.000 to Point/Station      204.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   715.000(Ft.)
Top (of initial area) elevation =  1023.000(Ft.)
Bottom (of initial area) elevation =   971.000(Ft.)
Difference in elevation =    52.000(Ft.)
Slope =    0.07273  s(percent)=       7.27
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.407 min.
Rainfall intensity =      2.678(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.809
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.300
Decimal fraction soil group D = 0.100
RI index for soil(AMC 2)  =  81.50
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      8.317(CFS)
Total initial stream area =        3.840(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =    971.000(Ft.)
End of natural channel elevation =    945.000(Ft.)
Length of natural channel  =   709.000(Ft.)
Estimated mean flow rate at midpoint of channel =     12.789(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   5.10(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0367
Corrected/adjusted channel slope =  0.0367
Travel time =    2.32 min.     TC =   14.72  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.794
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.750
Decimal fraction soil group C = 0.250
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  80.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.488(In/Hr) for a   100.0 year storm
```

```
Subarea runoff =      8.156(CFS) for      4.130(Ac.)
Total runoff =     16.473(CFS)   Total area =       7.970(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      205.000 to Point/Station      206.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =    945.000(Ft.)
End of natural channel elevation =    931.000(Ft.)
Length of natural channel  =   379.000(Ft.)
Estimated mean flow rate at midpoint of channel =     21.495(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   5.87(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0369
Corrected/adjusted channel slope =  0.0369
Travel time =    1.08 min.     TC =   15.80  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.798
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.400
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  81.20
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      2.414(In/Hr) for a   100.0 year storm
Subarea runoff =      9.361(CFS) for      4.860(Ac.)
Total runoff =     25.834(CFS)   Total area =      12.830(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      205.000 to Point/Station      206.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     12.830(Ac.)
Runoff from this stream =     25.834(CFS)
Time of concentration =   15.80 min.
Rainfall intensity =     2.414(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       25.834     15.80           2.414
Largest stream flow has longer time of concentration
Qp =     25.834 + sum of
Qp =     25.834

Total of 1 main streams to confluence:
Flow rates before confluence point:
      25.834
```

Area of streams before confluence:
12.830

Results of confluence:
Total flow rate = 25.834(CFS)
Time of concentration = 15.800 min.
Effective stream area after confluence = 12.830(Ac.)
End of computations, total study area = 24.38 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number = 80.1

APPENDIX C.2: AREA “B” – EXISTING CONDITION
10 – YEAR RATIONAL TABLING CALCULATIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 10/15/15 File:B110EXIST.out

TRACT NO. 36294
AREA B
10-YR - EXISTING CONDITION
FN: B110EXIST

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 10.0
Calculated rainfall intensity data:
1 hour intensity = 0.883(In/Hr)
Slope of intensity duration curve = 0.4300

++

Process from Point/Station 200.000 to Point/Station 201.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 992.000(Ft.)
Top (of initial area) elevation = 1025.000(Ft.)
Bottom (of initial area) elevation = 974.000(Ft.)
Difference in elevation = 51.000(Ft.)
Slope = 0.05141 s(percent)= 5.14
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 15.159 min.
Rainfall intensity = 1.596(In/Hr) for a 10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.742
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.850
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.150
RI index for soil(AMC 2) = 79.65
Pervious area fraction = 1.000; Impervious fraction = 0.000
Initial subarea runoff = 3.646(CFS)
Total initial stream area = 3.080(Ac.)
Pervious area fraction = 1.000

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
------------------------------------------------------------------------
Top of natural channel elevation =    974.000(Ft.)
End of natural channel elevation =    950.000(Ft.)
Length of natural channel  =   461.000(Ft.)
Estimated mean flow rate at midpoint of channel =      8.658(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   5.50(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0521
Corrected/adjusted channel slope =  0.0521
Travel time =    1.40 min.     TC =   16.56  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.732
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.100
RI index for soil(AMC 2)  =  79.10
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.537(In/Hr) for a    10.0 year storm
Subarea runoff =      9.528(CFS) for      8.470(Ac.)
Total runoff =     13.174(CFS)   Total area =      11.550(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** CONFLUENCE OF MAIN STREAMS ****
------------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     11.550(Ac.)
Runoff from this stream =     13.174(CFS)
Time of concentration =   16.56 min.
Rainfall intensity =     1.537(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       13.174     16.56           1.537
Largest stream flow has longer time of concentration
Qp =     13.174 + sum of
Qp =     13.174

Total of 1 main streams to confluence:
Flow rates before confluence point:
      13.174
Area of streams before confluence:
       11.550
```

```
Results of confluence:
Total flow rate =     13.174(CFS)
Time of concentration =    16.556 min.
Effective stream area after confluence  =     11.550(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      203.000 to Point/Station      204.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   715.000(Ft.)
Top (of initial area) elevation =  1023.000(Ft.)
Bottom (of initial area) elevation =   971.000(Ft.)
Difference in elevation =    52.000(Ft.)
Slope =    0.07273  s(percent)=       7.27
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.407 min.
Rainfall intensity =      1.739(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.767
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.300
Decimal fraction soil group D = 0.100
RI index for soil(AMC 2)  =  81.50
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      5.121(CFS)
Total initial stream area =        3.840(Ac.)
Pervious area fraction = 1.000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =    971.000(Ft.)
End of natural channel elevation =    945.000(Ft.)
Length of natural channel  =   709.000(Ft.)
Estimated mean flow rate at midpoint of channel =      7.874(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   4.51(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0367
Corrected/adjusted channel slope =  0.0367
Travel time =    2.62 min.     TC =   15.03  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.745
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.750
Decimal fraction soil group C = 0.250
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  80.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.602(In/Hr) for a    10.0 year storm
```

```
Subarea runoff =      4.928(CFS) for      4.130(Ac.)
Total runoff =     10.049(CFS)   Total area =       7.970(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      205.000 to Point/Station      206.000
**** NATURAL CHANNEL TIME + SUBAREA FLOW ADDITION ****
________________________________________________________________________
Top of natural channel elevation =    945.000(Ft.)
End of natural channel elevation =    931.000(Ft.)
Length of natural channel  =   379.000(Ft.)
Estimated mean flow rate at midpoint of channel =     13.113(CFS)

Natural valley channel type used
L.A. County flood control district formula for channel velocity:
 Velocity(ft/s) = (7 + 8(q(English Units)^.352)(slope^0.5)
Velocity using mean channel flow =   5.15(Ft/s)

Correction to map slope used on extremely rugged channels with
drops and waterfalls (Plate D-6.2)
       Normal channel slope =  0.0369
Corrected/adjusted channel slope =  0.0369
Travel time =    1.23 min.     TC =   16.25  min.


 Adding area flow to channel
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.750
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.400
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  81.20
Pervious area fraction =  1.000; Impervious fraction =  0.000
Rainfall intensity =      1.549(In/Hr) for a    10.0 year storm
Subarea runoff =      5.648(CFS) for      4.860(Ac.)
Total runoff =     15.697(CFS)   Total area =      12.830(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      205.000 to Point/Station      206.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     12.830(Ac.)
Runoff from this stream =     15.697(CFS)
Time of concentration =   16.25 min.
Rainfall intensity =     1.549(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       15.697     16.25           1.549
Largest stream flow has longer time of concentration
Qp =     15.697 + sum of
Qp =     15.697

Total of 1 main streams to confluence:
Flow rates before confluence point:
      15.697
```

Area of streams before confluence:
12.830

Results of confluence:
Total flow rate = 15.697(CFS)
Time of concentration = 16.255 min.
Effective stream area after confluence = 12.830(Ac.)
End of computations, total study area = 24.38 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number = 80.1

APPENDIX D: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA “B” (RATIONAL TABLING METHOD)

APPENDIX D.1: AREA “B” – PROPOSED CONDITION
100 – YEAR RATIONAL TABLING CALCULATIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 06/23/15 File:B1100PROP.out

TRACT NO. 36294
AREA B
100-YR - PROPOSED CONDITION
FN: B1100PROP

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 100.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity = 1.360(In/Hr)
Slope of intensity duration curve = 0.4300

++

Process from Point/Station 200.000 to Point/Station 201.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 1000.000(Ft.)
Top (of initial area) elevation = 983.000(Ft.)
Bottom (of initial area) elevation = 975.000(Ft.)
Difference in elevation = 8.000(Ft.)
Slope = 0.00800 s(percent)= 0.80
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 15.402 min.
Rainfall intensity = 2.441(In/Hr) for a 100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.810
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.100
RI index for soil(AMC 2) = 57.90
Pervious area fraction = 0.350; Impervious fraction = 0.650
Initial subarea runoff = 16.496(CFS)
Total initial stream area = 8.340(Ac.)
Pervious area fraction = 0.350

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
----------------------------------------------------------------------
Upstream point/station elevation =   965.000(Ft.)
Downstream point/station elevation =   925.000(Ft.)
Pipe length  =   477.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    16.496(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =    16.496(CFS)
Normal flow depth in pipe =   10.95(In.)
Flow top width inside pipe =   13.32(In.)
Critical depth could not be calculated.
Pipe flow velocity =     17.21(Ft/s)
Travel time through pipe =    0.46 min.
Time of concentration (TC) =    15.86 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** CONFLUENCE OF MAIN STREAMS ****
----------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =      8.340(Ac.)
Runoff from this stream =     16.496(CFS)
Time of concentration =   15.86 min.
Rainfall intensity =     2.410(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      203.000 to Point/Station      204.000
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
Initial area flow distance =   726.000(Ft.)
Top (of initial area) elevation =   983.000(Ft.)
Bottom (of initial area) elevation =   976.000(Ft.)
Difference in elevation =     7.000(Ft.)
Slope =    0.00964  s(percent)=       0.96
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   13.054 min.
Rainfall intensity =      2.620(In/Hr) for a   100.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.813
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.100
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  57.30
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =     11.723(CFS)
Total initial stream area =        5.500(Ac.)
Pervious area fraction = 0.350


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
----------------------------------------------------------------------
Upstream point/station elevation =   966.000(Ft.)
Downstream point/station elevation =   925.000(Ft.)
```

```
Pipe length  =   384.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    11.723(CFS)
Nearest computed pipe diameter  =     15.00(In.)
Calculated individual pipe flow  =    11.723(CFS)
Normal flow depth in pipe =    7.99(In.)
Flow top width inside pipe =   14.97(In.)
Critical depth could not be calculated.
Pipe flow velocity =     17.65(Ft/s)
Travel time through pipe =    0.36 min.
Time of concentration (TC) =    13.42 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      5.500(Ac.)
Runoff from this stream =     11.723(CFS)
Time of concentration =   13.42 min.
Rainfall intensity =     2.590(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       16.496     15.86           2.410
2       11.723     13.42           2.590
Largest stream flow has longer time of concentration
Qp =     16.496 + sum of
         Qb         Ia/Ib
         11.723 *    0.930 =     10.908
Qp =     27.404

Total of 2 main streams to confluence:
Flow rates before confluence point:
      16.496      11.723
Area of streams before confluence:
        8.340        5.500


Results of confluence:
Total flow rate =     27.404(CFS)
Time of concentration =    15.864 min.
Effective stream area after confluence  =     13.840(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.702
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.400
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  66.20
Pervious area fraction =  1.000; Impervious fraction =  0.000
Time of concentration =    15.86 min.
Rainfall intensity =      2.410(In/Hr) for a   100.0 year storm
```

```
Subarea runoff =      8.675(CFS) for      5.130(Ac.)
Total runoff =     36.079(CFS)   Total area =      18.970(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     18.970(Ac.)
Runoff from this stream =     36.079(CFS)
Time of concentration =   15.86 min.
Rainfall intensity =     2.410(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       36.079     15.86           2.410
Largest stream flow has longer time of concentration
Qp =     36.079 + sum of
Qp =     36.079

Total of 1 main streams to confluence:
Flow rates before confluence point:
      36.079
Area of streams before confluence:
       18.970


Results of confluence:
Total flow rate =     36.079(CFS)
Time of concentration =    15.864 min.
Effective stream area after confluence  =     18.970(Ac.)
End of computations, total study area =           18.97 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.526
Area averaged RI index number =  60.0
```

APPENDIX D.2: AREA “B” – PROPOSED CONDITION 10 – YEAR RATIONAL TABLING CALCULATIONS

Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
Rational Hydrology Study Date: 06/23/15 File:B110PROP.out

TRACT NO. 36294
AREA B
10-YR - PROPOSED CONDITION
FN: B110PROP

********* Hydrology Study Control Information **********

English (in-lb) Units used in input data file

Program License Serial Number 6268

Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) = 10.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation = 0.550(In.)
100 year, 1 hour precipitation = 1.360(In.)

Storm event year = 10.0
Calculated rainfall intensity data:
1 hour intensity = 0.883(In/Hr)
Slope of intensity duration curve = 0.4300

++

Process from Point/Station 200.000 to Point/Station 201.000
**** INITIAL AREA EVALUATION ****

Initial area flow distance = 1000.000(Ft.)
Top (of initial area) elevation = 983.000(Ft.)
Bottom (of initial area) elevation = 975.000(Ft.)
Difference in elevation = 8.000(Ft.)
Slope = 0.00800 s(percent)= 0.80
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 15.402 min.
Rainfall intensity = 1.585(In/Hr) for a 10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.780
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.100
RI index for soil(AMC 2) = 57.90
Pervious area fraction = 0.350; Impervious fraction = 0.650
Initial subarea runoff = 10.317(CFS)
Total initial stream area = 8.340(Ac.)
Pervious area fraction = 0.350

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
----------------------------------------------------------------------
Upstream point/station elevation =   965.000(Ft.)
Downstream point/station elevation =   925.000(Ft.)
Pipe length  =   477.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    10.317(CFS)
Nearest computed pipe diameter  =     12.00(In.)
Calculated individual pipe flow  =    10.317(CFS)
Normal flow depth in pipe =   12.00(In.)
Flow top width inside pipe =    0.00(In.)
Critical depth could not be calculated.
Pipe flow velocity =     13.14(Ft/s)
Travel time through pipe =    0.61 min.
Time of concentration (TC) =    16.01 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      201.000 to Point/Station      202.000
**** CONFLUENCE OF MAIN STREAMS ****
----------------------------------------------------------------------
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =      8.340(Ac.)
Runoff from this stream =     10.317(CFS)
Time of concentration =   16.01 min.
Rainfall intensity =     1.559(In/Hr)
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      203.000 to Point/Station      204.000
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
Initial area flow distance =   726.000(Ft.)
Top (of initial area) elevation =   983.000(Ft.)
Bottom (of initial area) elevation =   976.000(Ft.)
Difference in elevation =     7.000(Ft.)
Slope =    0.00964  s(percent)=       0.96
TC = k(0.370)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   13.054 min.
Rainfall intensity =      1.702(In/Hr) for a    10.0 year storm
CONDOMINIUM subarea type
Runoff Coefficient = 0.784
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.900
Decimal fraction soil group C = 0.100
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  57.30
Pervious area fraction =  0.350; Impervious fraction =  0.650
Initial subarea runoff =      7.337(CFS)
Total initial stream area =        5.500(Ac.)
Pervious area fraction = 0.350


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
----------------------------------------------------------------------
Upstream point/station elevation =   966.000(Ft.)
Downstream point/station elevation =   925.000(Ft.)
```

```
Pipe length  =   384.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     7.337(CFS)
Nearest computed pipe diameter  =     12.00(In.)
Calculated individual pipe flow  =     7.337(CFS)
Normal flow depth in pipe =    6.91(In.)
Flow top width inside pipe =   11.86(In.)
Critical depth could not be calculated.
Pipe flow velocity =     15.67(Ft/s)
Travel time through pipe =    0.41 min.
Time of concentration (TC) =    13.46 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      5.500(Ac.)
Runoff from this stream =      7.337(CFS)
Time of concentration =   13.46 min.
Rainfall intensity =     1.679(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       10.317     16.01           1.559
2        7.337     13.46           1.679
Largest stream flow has longer time of concentration
Qp =     10.317 + sum of
         Qb         Ia/Ib
          7.337 *    0.928 =      6.811
Qp =     17.127

Total of 2 main streams to confluence:
Flow rates before confluence point:
      10.317       7.337
Area of streams before confluence:
        8.340        5.500


Results of confluence:
Total flow rate =     17.127(CFS)
Time of concentration =    16.007 min.
Effective stream area after confluence  =     13.840(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.626
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.600
Decimal fraction soil group C = 0.400
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  66.20
Pervious area fraction =  1.000; Impervious fraction =  0.000
Time of concentration =    16.01 min.
Rainfall intensity =      1.559(In/Hr) for a    10.0 year storm
```

```
Subarea runoff =      5.010(CFS) for      5.130(Ac.)
Total runoff =     22.137(CFS)   Total area =      18.970(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station      204.000 to Point/Station      205.000
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     18.970(Ac.)
Runoff from this stream =     22.137(CFS)
Time of concentration =   16.01 min.
Rainfall intensity =     1.559(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                 (In/Hr)


1       22.137     16.01           1.559
Largest stream flow has longer time of concentration
Qp =     22.137 + sum of
Qp =     22.137

Total of 1 main streams to confluence:
Flow rates before confluence point:
      22.137
Area of streams before confluence:
       18.970


Results of confluence:
Total flow rate =     22.137(CFS)
Time of concentration =    16.007 min.
Effective stream area after confluence  =     18.970(Ac.)
End of computations, total study area =           18.97 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.526
Area averaged RI index number =  60.0
```

APPENDIX E: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA “A” (HYDROGRAPH METHOD)

APPENDIX E.1: AREA “A” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 100–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/14/15 File: AEX24100.out

++

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - EXISTING CONDITION
100YR-24HR
FN: AEX24100

Drainage Area = 214.43(Ac.) = 0.335 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 214.43(Ac.) = 0.335 Sq. Mi.
Length along longest watercourse = 6828.00(Ft.)
Length along longest watercourse measured to centroid = 3171.00(Ft.)
Length along longest watercourse = 1.293 Mi.
Length along longest watercourse measured to centroid = 0.601 Mi.
Difference in elevation = 241.00(Ft.)
Slope along watercourse = 186.3620 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.283 Hr.
Lag time = 16.96 Min.
25% of lag time = 4.24 Min.
40% of lag time = 6.78 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	2.50	536.08

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	8.00	1715.44

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 8.000(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 7.997(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
214.430	72.60	0.000

Total Area Entered = 214.43(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
72.6	72.6	0.331	0.000	0.331	1.000	0.331
					Sum (F) =	0.331

Area averaged mean soil loss (F) (In/Hr) = 0.331
Minimum soil loss rate ((In/Hr)) = 0.166
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	29.486	2.834	6.124
2	0.167	58.973	10.300	22.259
3	0.250	88.459	18.070	39.050
4	0.333	117.946	20.029	43.284
5	0.417	147.432	13.105	28.320
6	0.500	176.919	7.582	16.385
7	0.583	206.405	4.827	10.431
8	0.667	235.892	3.751	8.106
9	0.750	265.378	3.018	6.522
10	0.833	294.865	2.528	5.464
11	0.917	324.351	2.027	4.381
12	1.000	353.838	1.771	3.826
13	1.083	383.324	1.476	3.189
14	1.167	412.811	1.264	2.732
15	1.250	442.297	1.000	2.161
16	1.333	471.784	0.927	2.004
17	1.417	501.270	0.886	1.916
18	1.500	530.757	0.757	1.635
19	1.583	560.243	0.642	1.387
20	1.667	589.730	0.556	1.201
21	1.750	619.216	0.506	1.093
22	1.833	648.703	0.420	0.908
23	1.917	678.189	0.359	0.776
24	2.000	707.676	0.295	0.637
25	2.083	737.162	0.295	0.637
26	2.167	766.649	0.295	0.637
27	2.250	796.135	0.295	0.637
28	2.333	825.622	0.186	0.402
			Sum = 100.000	Sum= 216.105

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.064	(0.587)	0.058	0.006
2	0.17	0.07	0.064	(0.585)	0.058	0.006
3	0.25	0.07	0.064	(0.583)	0.058	0.006
4	0.33	0.10	0.096	(0.580)	0.086	0.010
5	0.42	0.10	0.096	(0.578)	0.086	0.010
6	0.50	0.10	0.096	(0.576)	0.086	0.010
7	0.58	0.10	0.096	(0.574)	0.086	0.010
8	0.67	0.10	0.096	(0.571)	0.086	0.010
9	0.75	0.10	0.096	(0.569)	0.086	0.010
10	0.83	0.13	0.128	(0.567)	0.115	0.013
11	0.92	0.13	0.128	(0.565)	0.115	0.013
12	1.00	0.13	0.128	(0.562)	0.115	0.013
13	1.08	0.10	0.096	(0.560)	0.086	0.010
14	1.17	0.10	0.096	(0.558)	0.086	0.010
15	1.25	0.10	0.096	(0.556)	0.086	0.010
16	1.33	0.10	0.096	(0.554)	0.086	0.010
17	1.42	0.10	0.096	(0.551)	0.086	0.010
18	1.50	0.10	0.096	(0.549)	0.086	0.010
19	1.58	0.10	0.096	(0.547)	0.086	0.010
20	1.67	0.10	0.096	(0.545)	0.086	0.010
21	1.75	0.10	0.096	(0.543)	0.086	0.010
22	1.83	0.13	0.128	(0.540)	0.115	0.013
23	1.92	0.13	0.128	(0.538)	0.115	0.013
24	2.00	0.13	0.128	(0.536)	0.115	0.013
25	2.08	0.13	0.128	(0.534)	0.115	0.013
26	2.17	0.13	0.128	(0.532)	0.115	0.013
27	2.25	0.13	0.128	(0.530)	0.115	0.013
28	2.33	0.13	0.128	(0.527)	0.115	0.013
29	2.42	0.13	0.128	(0.525)	0.115	0.013
30	2.50	0.13	0.128	(0.523)	0.115	0.013
31	2.58	0.17	0.160	(0.521)	0.144	0.016
32	2.67	0.17	0.160	(0.519)	0.144	0.016
33	2.75	0.17	0.160	(0.517)	0.144	0.016
34	2.83	0.17	0.160	(0.515)	0.144	0.016
35	2.92	0.17	0.160	(0.512)	0.144	0.016
36	3.00	0.17	0.160	(0.510)	0.144	0.016
37	3.08	0.17	0.160	(0.508)	0.144	0.016
38	3.17	0.17	0.160	(0.506)	0.144	0.016
39	3.25	0.17	0.160	(0.504)	0.144	0.016
40	3.33	0.17	0.160	(0.502)	0.144	0.016
41	3.42	0.17	0.160	(0.500)	0.144	0.016
42	3.50	0.17	0.160	(0.498)	0.144	0.016
43	3.58	0.17	0.160	(0.496)	0.144	0.016
44	3.67	0.17	0.160	(0.494)	0.144	0.016
45	3.75	0.17	0.160	(0.491)	0.144	0.016
46	3.83	0.20	0.192	(0.489)	0.173	0.019
47	3.92	0.20	0.192	(0.487)	0.173	0.019
48	4.00	0.20	0.192	(0.485)	0.173	0.019
49	4.08	0.20	0.192	(0.483)	0.173	0.019
50	4.17	0.20	0.192	(0.481)	0.173	0.019
51	4.25	0.20	0.192	(0.479)	0.173	0.019
52	4.33	0.23	0.224	(0.477)	0.202	0.022
53	4.42	0.23	0.224	(0.475)	0.202	0.022
54	4.50	0.23	0.224	(0.473)	0.202	0.022
55	4.58	0.23	0.224	(0.471)	0.202	0.022
56	4.67	0.23	0.224	(0.469)	0.202	0.022
57	4.75	0.23	0.224	(0.467)	0.202	0.022
58	4.83	0.27	0.256	(0.465)	0.230	0.026
59	4.92	0.27	0.256	(0.463)	0.230	0.026
60	5.00	0.27	0.256	(0.461)	0.230	0.026

61	5.08	0.20	0.192	(0.459)	0.173	0.019
62	5.17	0.20	0.192	(0.457)	0.173	0.019
63	5.25	0.20	0.192	(0.455)	0.173	0.019
64	5.33	0.23	0.224	(0.453)	0.202	0.022
65	5.42	0.23	0.224	(0.451)	0.202	0.022
66	5.50	0.23	0.224	(0.449)	0.202	0.022
67	5.58	0.27	0.256	(0.447)	0.230	0.026
68	5.67	0.27	0.256	(0.445)	0.230	0.026
69	5.75	0.27	0.256	(0.443)	0.230	0.026
70	5.83	0.27	0.256	(0.441)	0.230	0.026
71	5.92	0.27	0.256	(0.439)	0.230	0.026
72	6.00	0.27	0.256	(0.437)	0.230	0.026
73	6.08	0.30	0.288	(0.435)	0.259	0.029
74	6.17	0.30	0.288	(0.433)	0.259	0.029
75	6.25	0.30	0.288	(0.431)	0.259	0.029
76	6.33	0.30	0.288	(0.429)	0.259	0.029
77	6.42	0.30	0.288	(0.428)	0.259	0.029
78	6.50	0.30	0.288	(0.426)	0.259	0.029
79	6.58	0.33	0.320	(0.424)	0.288	0.032
80	6.67	0.33	0.320	(0.422)	0.288	0.032
81	6.75	0.33	0.320	(0.420)	0.288	0.032
82	6.83	0.33	0.320	(0.418)	0.288	0.032
83	6.92	0.33	0.320	(0.416)	0.288	0.032
84	7.00	0.33	0.320	(0.414)	0.288	0.032
85	7.08	0.33	0.320	(0.412)	0.288	0.032
86	7.17	0.33	0.320	(0.410)	0.288	0.032
87	7.25	0.33	0.320	(0.409)	0.288	0.032
88	7.33	0.37	0.352	(0.407)	0.317	0.035
89	7.42	0.37	0.352	(0.405)	0.317	0.035
90	7.50	0.37	0.352	(0.403)	0.317	0.035
91	7.58	0.40	0.384	(0.401)	0.345	0.038
92	7.67	0.40	0.384	(0.399)	0.345	0.038
93	7.75	0.40	0.384	(0.397)	0.345	0.038
94	7.83	0.43	0.416	(0.396)	0.374	0.042
95	7.92	0.43	0.416	(0.394)	0.374	0.042
96	8.00	0.43	0.416	(0.392)	0.374	0.042
97	8.08	0.50	0.480	0.390	(0.432)	0.090
98	8.17	0.50	0.480	0.388	(0.432)	0.091
99	8.25	0.50	0.480	0.387	(0.432)	0.093
100	8.33	0.50	0.480	0.385	(0.432)	0.095
101	8.42	0.50	0.480	0.383	(0.432)	0.097
102	8.50	0.50	0.480	0.381	(0.432)	0.099
103	8.58	0.53	0.512	0.379	(0.461)	0.132
104	8.67	0.53	0.512	0.378	(0.461)	0.134
105	8.75	0.53	0.512	0.376	(0.461)	0.136
106	8.83	0.57	0.544	0.374	(0.489)	0.170
107	8.92	0.57	0.544	0.372	(0.489)	0.172
108	9.00	0.57	0.544	0.371	(0.489)	0.173
109	9.08	0.63	0.608	0.369	(0.547)	0.239
110	9.17	0.63	0.608	0.367	(0.547)	0.241
111	9.25	0.63	0.608	0.365	(0.547)	0.242
112	9.33	0.67	0.640	0.364	(0.576)	0.276
113	9.42	0.67	0.640	0.362	(0.576)	0.278
114	9.50	0.67	0.640	0.360	(0.576)	0.280
115	9.58	0.70	0.672	0.358	(0.605)	0.313
116	9.67	0.70	0.672	0.357	(0.605)	0.315
117	9.75	0.70	0.672	0.355	(0.605)	0.317
118	9.83	0.73	0.704	0.353	(0.633)	0.351
119	9.92	0.73	0.704	0.351	(0.633)	0.352
120	10.00	0.73	0.704	0.350	(0.633)	0.354
121	10.08	0.50	0.480	0.348	(0.432)	0.132
122	10.17	0.50	0.480	0.346	(0.432)	0.133
123	10.25	0.50	0.480	0.345	(0.432)	0.135

124	10.33	0.50	0.480	0.343	(	0.432)	0.137
125	10.42	0.50	0.480	0.341	(	0.432)	0.138
126	10.50	0.50	0.480	0.340	(	0.432)	0.140
127	10.58	0.67	0.640	0.338	(	0.576)	0.302
128	10.67	0.67	0.640	0.336	(	0.576)	0.303
129	10.75	0.67	0.640	0.335	(	0.576)	0.305
130	10.83	0.67	0.640	0.333	(	0.576)	0.307
131	10.92	0.67	0.640	0.331	(	0.576)	0.308
132	11.00	0.67	0.640	0.330	(	0.576)	0.310
133	11.08	0.63	0.608	0.328	(	0.547)	0.280
134	11.17	0.63	0.608	0.327	(	0.547)	0.281
135	11.25	0.63	0.608	0.325	(	0.547)	0.283
136	11.33	0.63	0.608	0.323	(	0.547)	0.284
137	11.42	0.63	0.608	0.322	(	0.547)	0.286
138	11.50	0.63	0.608	0.320	(	0.547)	0.288
139	11.58	0.57	0.544	0.319	(	0.489)	0.225
140	11.67	0.57	0.544	0.317	(	0.489)	0.227
141	11.75	0.57	0.544	0.315	(	0.489)	0.228
142	11.83	0.60	0.576	0.314	(	0.518)	0.262
143	11.92	0.60	0.576	0.312	(	0.518)	0.263
144	12.00	0.60	0.576	0.311	(	0.518)	0.265
145	12.08	0.83	0.800	0.309	(	0.720)	0.490
146	12.17	0.83	0.800	0.308	(	0.720)	0.492
147	12.25	0.83	0.800	0.306	(	0.720)	0.494
148	12.33	0.87	0.832	0.305	(	0.748)	0.527
149	12.42	0.87	0.832	0.303	(	0.748)	0.529
150	12.50	0.87	0.832	0.302	(	0.748)	0.530
151	12.58	0.93	0.896	0.300	(	0.806)	0.596
152	12.67	0.93	0.896	0.298	(	0.806)	0.597
153	12.75	0.93	0.896	0.297	(	0.806)	0.599
154	12.83	0.97	0.928	0.295	(	0.835)	0.632
155	12.92	0.97	0.928	0.294	(	0.835)	0.634
156	13.00	0.97	0.928	0.293	(	0.835)	0.635
157	13.08	1.13	1.088	0.291	(	0.979)	0.797
158	13.17	1.13	1.088	0.290	(	0.979)	0.798
159	13.25	1.13	1.088	0.288	(	0.979)	0.799
160	13.33	1.13	1.088	0.287	(	0.979)	0.801
161	13.42	1.13	1.088	0.285	(	0.979)	0.802
162	13.50	1.13	1.088	0.284	(	0.979)	0.804
163	13.58	0.77	0.736	0.282	(	0.662)	0.453
164	13.67	0.77	0.736	0.281	(	0.662)	0.455
165	13.75	0.77	0.736	0.279	(	0.662)	0.456
166	13.83	0.77	0.736	0.278	(	0.662)	0.458
167	13.92	0.77	0.736	0.277	(	0.662)	0.459
168	14.00	0.77	0.736	0.275	(	0.662)	0.461
169	14.08	0.90	0.864	0.274	(	0.777)	0.590
170	14.17	0.90	0.864	0.272	(	0.777)	0.591
171	14.25	0.90	0.864	0.271	(	0.777)	0.593
172	14.33	0.87	0.832	0.270	(	0.748)	0.562
173	14.42	0.87	0.832	0.268	(	0.748)	0.563
174	14.50	0.87	0.832	0.267	(	0.748)	0.565
175	14.58	0.87	0.832	0.265	(	0.748)	0.566
176	14.67	0.87	0.832	0.264	(	0.748)	0.568
177	14.75	0.87	0.832	0.263	(	0.748)	0.569
178	14.83	0.83	0.800	0.261	(	0.720)	0.538
179	14.92	0.83	0.800	0.260	(	0.720)	0.540
180	15.00	0.83	0.800	0.259	(	0.720)	0.541
181	15.08	0.80	0.768	0.257	(	0.691)	0.510
182	15.17	0.80	0.768	0.256	(	0.691)	0.512
183	15.25	0.80	0.768	0.255	(	0.691)	0.513
184	15.33	0.77	0.736	0.253	(	0.662)	0.482
185	15.42	0.77	0.736	0.252	(	0.662)	0.484
186	15.50	0.77	0.736	0.251	(	0.662)	0.485

187	15.58	0.63	0.608		0.250	(0.547)	0.358
188	15.67	0.63	0.608		0.248	(0.547)	0.359
189	15.75	0.63	0.608		0.247	(0.547)	0.361
190	15.83	0.63	0.608		0.246	(0.547)	0.362
191	15.92	0.63	0.608		0.244	(0.547)	0.363
192	16.00	0.63	0.608		0.243	(0.547)	0.365
193	16.08	0.13	0.128	(	0.242)	0.115	0.013
194	16.17	0.13	0.128	(	0.241)	0.115	0.013
195	16.25	0.13	0.128	(	0.240)	0.115	0.013
196	16.33	0.13	0.128	(	0.238)	0.115	0.013
197	16.42	0.13	0.128	(	0.237)	0.115	0.013
198	16.50	0.13	0.128	(	0.236)	0.115	0.013
199	16.58	0.10	0.096	(	0.235)	0.086	0.010
200	16.67	0.10	0.096	(	0.233)	0.086	0.010
201	16.75	0.10	0.096	(	0.232)	0.086	0.010
202	16.83	0.10	0.096	(	0.231)	0.086	0.010
203	16.92	0.10	0.096	(	0.230)	0.086	0.010
204	17.00	0.10	0.096	(	0.229)	0.086	0.010
205	17.08	0.17	0.160	(	0.228)	0.144	0.016
206	17.17	0.17	0.160	(	0.226)	0.144	0.016
207	17.25	0.17	0.160	(	0.225)	0.144	0.016
208	17.33	0.17	0.160	(	0.224)	0.144	0.016
209	17.42	0.17	0.160	(	0.223)	0.144	0.016
210	17.50	0.17	0.160	(	0.222)	0.144	0.016
211	17.58	0.17	0.160	(	0.221)	0.144	0.016
212	17.67	0.17	0.160	(	0.220)	0.144	0.016
213	17.75	0.17	0.160	(	0.219)	0.144	0.016
214	17.83	0.13	0.128	(	0.218)	0.115	0.013
215	17.92	0.13	0.128	(	0.217)	0.115	0.013
216	18.00	0.13	0.128	(	0.215)	0.115	0.013
217	18.08	0.13	0.128	(	0.214)	0.115	0.013
218	18.17	0.13	0.128	(	0.213)	0.115	0.013
219	18.25	0.13	0.128	(	0.212)	0.115	0.013
220	18.33	0.13	0.128	(	0.211)	0.115	0.013
221	18.42	0.13	0.128	(	0.210)	0.115	0.013
222	18.50	0.13	0.128	(	0.209)	0.115	0.013
223	18.58	0.10	0.096	(	0.208)	0.086	0.010
224	18.67	0.10	0.096	(	0.207)	0.086	0.010
225	18.75	0.10	0.096	(	0.206)	0.086	0.010
226	18.83	0.07	0.064	(	0.205)	0.058	0.006
227	18.92	0.07	0.064	(	0.204)	0.058	0.006
228	19.00	0.07	0.064	(	0.203)	0.058	0.006
229	19.08	0.10	0.096	(	0.202)	0.086	0.010
230	19.17	0.10	0.096	(	0.201)	0.086	0.010
231	19.25	0.10	0.096	(	0.200)	0.086	0.010
232	19.33	0.13	0.128	(	0.199)	0.115	0.013
233	19.42	0.13	0.128	(	0.199)	0.115	0.013
234	19.50	0.13	0.128	(	0.198)	0.115	0.013
235	19.58	0.10	0.096	(	0.197)	0.086	0.010
236	19.67	0.10	0.096	(	0.196)	0.086	0.010
237	19.75	0.10	0.096	(	0.195)	0.086	0.010
238	19.83	0.07	0.064	(	0.194)	0.058	0.006
239	19.92	0.07	0.064	(	0.193)	0.058	0.006
240	20.00	0.07	0.064	(	0.192)	0.058	0.006
241	20.08	0.10	0.096	(	0.191)	0.086	0.010
242	20.17	0.10	0.096	(	0.191)	0.086	0.010
243	20.25	0.10	0.096	(	0.190)	0.086	0.010
244	20.33	0.10	0.096	(	0.189)	0.086	0.010
245	20.42	0.10	0.096	(	0.188)	0.086	0.010
246	20.50	0.10	0.096	(	0.187)	0.086	0.010
247	20.58	0.10	0.096	(	0.187)	0.086	0.010
248	20.67	0.10	0.096	(	0.186)	0.086	0.010
249	20.75	0.10	0.096	(	0.185)	0.086	0.010

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250  20.83     0.07      0.064       (  0.184)       0.058        0.006
251  20.92     0.07      0.064       (  0.184)       0.058        0.006
252  21.00     0.07      0.064       (  0.183)       0.058        0.006
253  21.08     0.10      0.096       (  0.182)       0.086        0.010
254  21.17     0.10      0.096       (  0.181)       0.086        0.010
255  21.25     0.10      0.096       (  0.181)       0.086        0.010
256  21.33     0.07      0.064       (  0.180)       0.058        0.006
257  21.42     0.07      0.064       (  0.179)       0.058        0.006
258  21.50     0.07      0.064       (  0.179)       0.058        0.006
259  21.58     0.10      0.096       (  0.178)       0.086        0.010
260  21.67     0.10      0.096       (  0.177)       0.086        0.010
261  21.75     0.10      0.096       (  0.177)       0.086        0.010
262  21.83     0.07      0.064       (  0.176)       0.058        0.006
263  21.92     0.07      0.064       (  0.175)       0.058        0.006
264  22.00     0.07      0.064       (  0.175)       0.058        0.006
265  22.08     0.10      0.096       (  0.174)       0.086        0.010
266  22.17     0.10      0.096       (  0.174)       0.086        0.010
267  22.25     0.10      0.096       (  0.173)       0.086        0.010
268  22.33     0.07      0.064       (  0.173)       0.058        0.006
269  22.42     0.07      0.064       (  0.172)       0.058        0.006
270  22.50     0.07      0.064       (  0.172)       0.058        0.006
271  22.58     0.07      0.064       (  0.171)       0.058        0.006
272  22.67     0.07      0.064       (  0.171)       0.058        0.006
273  22.75     0.07      0.064       (  0.170)       0.058        0.006
274  22.83     0.07      0.064       (  0.170)       0.058        0.006
275  22.92     0.07      0.064       (  0.169)       0.058        0.006
276  23.00     0.07      0.064       (  0.169)       0.058        0.006
277  23.08     0.07      0.064       (  0.168)       0.058        0.006
278  23.17     0.07      0.064       (  0.168)       0.058        0.006
279  23.25     0.07      0.064       (  0.168)       0.058        0.006
280  23.33     0.07      0.064       (  0.167)       0.058        0.006
281  23.42     0.07      0.064       (  0.167)       0.058        0.006
282  23.50     0.07      0.064       (  0.167)       0.058        0.006
283  23.58     0.07      0.064       (  0.167)       0.058        0.006
284  23.67     0.07      0.064       (  0.166)       0.058        0.006
285  23.75     0.07      0.064       (  0.166)       0.058        0.006
286  23.83     0.07      0.064       (  0.166)       0.058        0.006
287  23.92     0.07      0.064       (  0.166)       0.058        0.006
288  24.00     0.07      0.064       (  0.166)       0.058        0.006
          (Loss Rate Not Used)
    Sum =     100.0                                  Sum =    40.0
      Flood volume = Effective rainfall      3.33(In)
       times area     214.4(Ac.)/[(In)/(Ft.)] =      59.5(Ac.Ft)
      Total soil loss =      4.66(In)
      Total soil loss =    83.348(Ac.Ft)
      Total rainfall =      8.00(In)
      Flood volume =     2593785.0 Cubic Feet
      Total soil loss =     3630654.3 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =    158.185(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
 ---------------------------------------------------------------------------
   0+ 5       0.0003      0.04  Q         |         |         |         |
   0+10       0.0015      0.18  Q         |         |         |         |
   0+15       0.0045      0.43  Q         |         |         |         |
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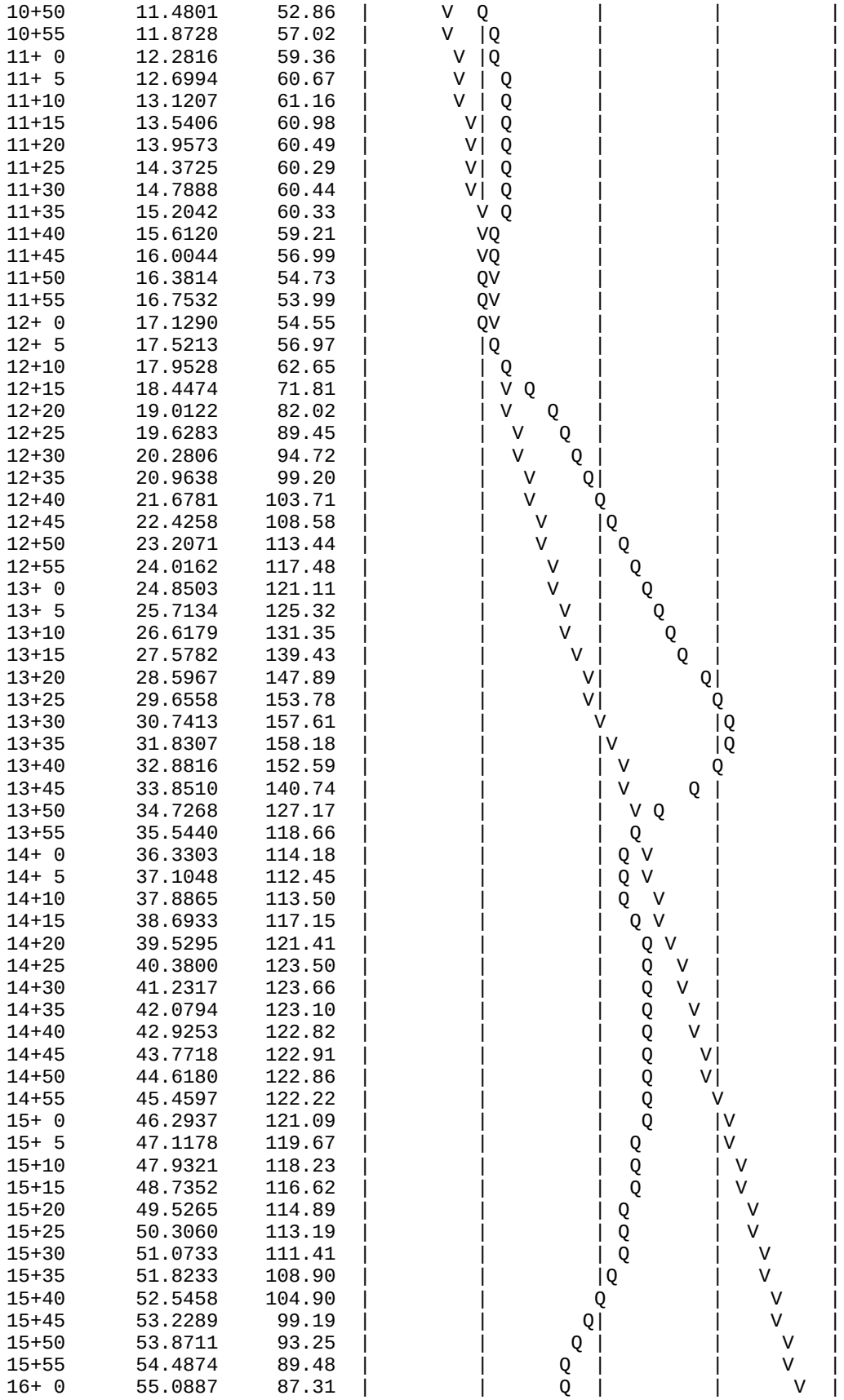
0+20	0.0095	0.73	Q	|	|	|	|
0+25	0.0163	0.98	Q	|	|	|	|
0+30	0.0246	1.21	Q	|	|	|	|
0+35	0.0344	1.42	Q	|	|	|	|
0+40	0.0451	1.56	Q	|	|	|	|
0+45	0.0565	1.65	Q	|	|	|	|
0+50	0.0685	1.74	Q	|	|	|	|
0+55	0.0813	1.87	Q	|	|	|	|
1+ 0	0.0953	2.04	Q	|	|	|	|
1+ 5	0.1104	2.19	Q	|	|	|	|
1+10	0.1259	2.24	Q	|	|	|	|
1+15	0.1410	2.20	Q	|	|	|	|
1+20	0.1556	2.12	Q	|	|	|	|
1+25	0.1699	2.07	Q	|	|	|	|
1+30	0.1840	2.06	Q	|	|	|	|
1+35	0.1982	2.06	Q	|	|	|	|
1+40	0.2124	2.06	Q	|	|	|	|
1+45	0.2266	2.06	Q	|	|	|	|
1+50	0.2409	2.08	Q	|	|	|	|
1+55	0.2558	2.16	Q	|	|	|	|
2+ 0	0.2715	2.29	Q	|	|	|	|
2+ 5	0.2883	2.43	Q	|	|	|	|
2+10	0.3057	2.52	Q	|	|	|	|
2+15	0.3234	2.58	Q	|	|	|	|
2+20	0.3414	2.62	Q	|	|	|	|
2+25	0.3596	2.64	Q	|	|	|	|
2+30	0.3780	2.66	Q	|	|	|	|
2+35	0.3966	2.70	Q	|	|	|	|
2+40	0.4157	2.78	Q	|	|	|	|
2+45	0.4358	2.92	Q	|	|	|	|
2+50	0.4570	3.07	Q	|	|	|	|
2+55	0.4788	3.17	Q	|	|	|	|
3+ 0	0.5010	3.23	Q	|	|	|	|
3+ 5	0.5235	3.26	Q	|	|	|	|
3+10	0.5462	3.29	Q	|	|	|	|
3+15	0.5690	3.32	Q	|	|	|	|
3+20	0.5920	3.34	Q	|	|	|	|
3+25	0.6151	3.36	Q	|	|	|	|
3+30	0.6384	3.37	Q	|	|	|	|
3+35	0.6617	3.39	Q	|	|	|	|
3+40	0.6851	3.40	Q	|	|	|	|
3+45	0.7085	3.41	Q	|	|	|	|
3+50	0.7322	3.43	Q	|	|	|	|
3+55	0.7564	3.51	Q	|	|	|	|
4+ 0	0.7815	3.65	Q	|	|	|	|
4+ 5	0.8076	3.79	Q	|	|	|	|
4+10	0.8344	3.88	Q	|	|	|	|
4+15	0.8615	3.94	Q	|	|	|	|
4+20	0.8890	4.00	Q	|	|	|	|
4+25	0.9172	4.10	Q	|	|	|	|
4+30	0.9465	4.24	Q	|	|	|	|
4+35	0.9768	4.40	Q	|	|	|	|
4+40	1.0078	4.51	Q	|	|	|	|
4+45	1.0393	4.58	Q	|	|	|	|
4+50	1.0713	4.64	Q	|	|	|	|
4+55	1.1040	4.75	Q	|	|	|	|
5+ 0	1.1377	4.90	Q	|	|	|	|
5+ 5	1.1723	5.02	VQ	|	|	|	|
5+10	1.2067	4.99	Q	|	|	|	|
5+15	1.2398	4.81	Q	|	|	|	|
5+20	1.2715	4.60	Q	|	|	|	|
5+25	1.3027	4.53	Q	|	|	|	|
5+30	1.3342	4.58	Q	|	|	|	|

5+35	1.3666	4.70	Q	|	|	|	|
5+40	1.3999	4.83	Q	|	|	|	|
5+45	1.4342	4.99	Q	|	|	|	|
5+50	1.4696	5.14	VQ	|	|	|	|
5+55	1.5057	5.24	|Q	|	|	|	|
6+ 0	1.5422	5.30	|Q	|	|	|	|
6+ 5	1.5792	5.37	|Q	|	|	|	|
6+10	1.6169	5.47	|Q	|	|	|	|
6+15	1.6556	5.62	|Q	|	|	|	|
6+20	1.6954	5.78	|Q	|	|	|	|
6+25	1.7359	5.89	|Q	|	|	|	|
6+30	1.7769	5.95	|Q	|	|	|	|
6+35	1.8183	6.02	|Q	|	|	|	|
6+40	1.8605	6.12	|Q	|	|	|	|
6+45	1.9037	6.28	|Q	|	|	|	|
6+50	1.9481	6.44	|Q	|	|	|	|
6+55	1.9932	6.55	|Q	|	|	|	|
7+ 0	2.0388	6.62	|Q	|	|	|	|
7+ 5	2.0848	6.67	|Q	|	|	|	|
7+10	2.1310	6.71	|Q	|	|	|	|
7+15	2.1774	6.74	|Q	|	|	|	|
7+20	2.2241	6.78	|Q	|	|	|	|
7+25	2.2715	6.88	|Q	|	|	|	|
7+30	2.3199	7.03	|Q	|	|	|	|
7+35	2.3695	7.20	|Q	|	|	|	|
7+40	2.4203	7.38	|Q	|	|	|	|
7+45	2.4724	7.57	|Q	|	|	|	|
7+50	2.5260	7.77	|Q	|	|	|	|
7+55	2.5808	7.97	|Q	|	|	|	|
8+ 0	2.6371	8.17	|Q	|	|	|	|
8+ 5	2.6968	8.66	|Q	|	|	|	|
8+10	2.7648	9.88	|Q	|	|	|	|
8+15	2.8468	11.90	|VQ	|	|	|	|
8+20	2.9444	14.17	|VQ	|	|	|	|
8+25	3.0530	15.78	| VQ	|	|	|	|
8+30	3.1692	16.86	| VQ	|	|	|	|
8+35	3.2923	17.88	| VQ	|	|	|	|
8+40	3.4252	19.31	| VQ	|	|	|	|
8+45	3.5713	21.21	| V Q	|	|	|	|
8+50	3.7325	23.40	| V Q	|	|	|	|
8+55	3.9086	25.58	| V Q	|	|	|	|
9+ 0	4.1007	27.89	| V Q	|	|	|	|
9+ 5	4.3109	30.51	| V Q	|	|	|	|
9+10	4.5423	33.60	| V Q	|	|	|	|
9+15	4.7992	37.30	| V Q	|	|	|	|
9+20	5.0832	41.24	| V Q |	|	|	|
9+25	5.3905	44.62	| V Q |	|	|	|
9+30	5.7190	47.70	| V Q|	|	|	|
9+35	6.0679	50.66	| V Q	|	|	|	|
9+40	6.4360	53.45	| V Q	|	|	|	|
9+45	6.8235	56.26	| V |Q	|	|	|	|
9+50	7.2305	59.10	| V |Q	|	|	|	|
9+55	7.6563	61.82	| V | Q	|	|	|	|
10+ 0	8.1010	64.57	| V | Q	|	|	|	|
10+ 5	8.5541	65.80	| V | Q	|	|	|	|
10+10	8.9866	62.79	| V | Q	|	|	|	|
10+15	9.3690	55.52	| V |Q	|	|	|	|
10+20	9.6929	47.03	| V Q|	|	|	|	|
10+25	9.9802	41.72	| V Q |	|	|	|	|
10+30	10.2487	38.98	| VQ |	|	|	|	|
10+35	10.5136	38.47	| Q |	|	|	|	|
10+40	10.7959	40.99	| VQ |	|	|	|	|
10+45	11.1160	46.49	| V Q|	|	|	|	|



16+ 5	55.6658	83.80	|	| Q	|	| V	|
16+10	56.1818	74.93	|	| Q	|	| V	|
16+15	56.5975	60.36	|	Q |	|	|	V |
16+20	56.9033	44.39	|	Q |	|	|	V |
16+25	57.1357	33.75	|	Q |	|	|	V |
16+30	57.3244	27.40	|	Q |	|	|	V |
16+35	57.4843	23.21	|	Q |	|	|	V |
16+40	57.6211	19.87	|	Q |	|	|	V |
16+45	57.7390	17.11	|	Q |	|	|	V |
16+50	57.8405	14.74	|	Q |	|	|	V |
16+55	57.9287	12.81	|	Q |	|	|	V |
17+ 0	58.0056	11.16	|	Q |	|	|	V |
17+ 5	58.0732	9.82	|	Q |	|	|	V |
17+10	58.1338	8.80	|	Q |	|	|	V |
17+15	58.1896	8.11	|	Q |	|	|	V |
17+20	58.2415	7.53	|	Q |	|	|	V |
17+25	58.2891	6.91	|	Q |	|	|	V |
17+30	58.3327	6.34	|	Q |	|	|	V |
17+35	58.3728	5.82	|	Q |	|	|	V |
17+40	58.4098	5.37	|	Q |	|	|	V |
17+45	58.4438	4.94	Q	|	|	|	V |
17+50	58.4754	4.58	Q	|	|	|	V |
17+55	58.5048	4.27	Q	|	|	|	V |
18+ 0	58.5319	3.94	Q	|	|	|	V |
18+ 5	58.5566	3.59	Q	|	|	|	V |
18+10	58.5793	3.29	Q	|	|	|	V |
18+15	58.6002	3.03	Q	|	|	|	V |
18+20	58.6199	2.86	Q	|	|	|	V |
18+25	58.6395	2.85	Q	|	|	|	V |
18+30	58.6590	2.83	Q	|	|	|	V |
18+35	58.6783	2.80	Q	|	|	|	V |
18+40	58.6971	2.72	Q	|	|	|	V |
18+45	58.7150	2.59	Q	|	|	|	V |
18+50	58.7317	2.43	Q	|	|	|	V |
18+55	58.7473	2.26	Q	|	|	|	V |
19+ 0	58.7616	2.08	Q	|	|	|	V |
19+ 5	58.7749	1.93	Q	|	|	|	V |
19+10	58.7878	1.88	Q	|	|	|	V |
19+15	58.8011	1.93	Q	|	|	|	V |
19+20	58.8152	2.04	Q	|	|	|	V |
19+25	58.8300	2.15	Q	|	|	|	V |
19+30	58.8458	2.30	Q	|	|	|	V |
19+35	58.8625	2.42	Q	|	|	|	V |
19+40	58.8793	2.44	Q	|	|	|	V |
19+45	58.8955	2.36	Q	|	|	|	V |
19+50	58.9110	2.24	Q	|	|	|	V |
19+55	58.9254	2.10	Q	|	|	|	V |
20+ 0	58.9388	1.94	Q	|	|	|	V |
20+ 5	58.9512	1.80	Q	|	|	|	V |
20+10	58.9634	1.77	Q	|	|	|	V |
20+15	58.9760	1.83	Q	|	|	|	V |
20+20	58.9893	1.93	Q	|	|	|	V |
20+25	59.0031	1.99	Q	|	|	|	V |
20+30	59.0169	2.02	Q	|	|	|	V |
20+35	59.0309	2.03	Q	|	|	|	V |
20+40	59.0449	2.04	Q	|	|	|	V |
20+45	59.0590	2.04	Q	|	|	|	V |
20+50	59.0730	2.03	Q	|	|	|	V |
20+55	59.0865	1.96	Q	|	|	|	V |
21+ 0	59.0991	1.84	Q	|	|	|	V |
21+ 5	59.1110	1.72	Q	|	|	|	V |
21+10	59.1227	1.71	Q	|	|	|	V |
21+15	59.1350	1.78	Q	|	|	|	V |

21+20	59.1479	1.87	Q	|	|	|	V|
21+25	59.1607	1.86	Q	|	|	|	V|
21+30	59.1729	1.77	Q	|	|	|	V|
21+35	59.1845	1.67	Q	|	|	|	V|
21+40	59.1959	1.66	Q	|	|	|	V|
21+45	59.2079	1.74	Q	|	|	|	V|
21+50	59.2206	1.84	Q	|	|	|	V|
21+55	59.2332	1.83	Q	|	|	|	V|
22+ 0	59.2452	1.75	Q	|	|	|	V|
22+ 5	59.2566	1.65	Q	|	|	|	V|
22+10	59.2679	1.65	Q	|	|	|	V|
22+15	59.2798	1.73	Q	|	|	|	V|
22+20	59.2924	1.83	Q	|	|	|	V|
22+25	59.3050	1.83	Q	|	|	|	V|
22+30	59.3170	1.74	Q	|	|	|	V|
22+35	59.3282	1.62	Q	|	|	|	V|
22+40	59.3388	1.55	Q	|	|	|	V|
22+45	59.3492	1.51	Q	|	|	|	V|
22+50	59.3595	1.49	Q	|	|	|	V|
22+55	59.3696	1.47	Q	|	|	|	V|
23+ 0	59.3796	1.45	Q	|	|	|	V|
23+ 5	59.3895	1.44	Q	|	|	|	V|
23+10	59.3994	1.43	Q	|	|	|	V|
23+15	59.4092	1.43	Q	|	|	|	V|
23+20	59.4190	1.42	Q	|	|	|	V|
23+25	59.4287	1.41	Q	|	|	|	V|
23+30	59.4384	1.41	Q	|	|	|	V|
23+35	59.4481	1.41	Q	|	|	|	V|
23+40	59.4578	1.40	Q	|	|	|	V|
23+45	59.4674	1.40	Q	|	|	|	V|
23+50	59.4771	1.40	Q	|	|	|	V|
23+55	59.4867	1.40	Q	|	|	|	V|
24+ 0	59.4963	1.39	Q	|	|	|	V|
24+ 5	59.5056	1.35	Q	|	|	|	V|
24+10	59.5139	1.21	Q	|	|	|	V|
24+15	59.5205	0.96	Q	|	|	|	V|
24+20	59.5252	0.68	Q	|	|	|	V|
24+25	59.5286	0.50	Q	|	|	|	V|
24+30	59.5313	0.39	Q	|	|	|	V|
24+35	59.5335	0.32	Q	|	|	|	V|
24+40	59.5353	0.27	Q	|	|	|	V|
24+45	59.5369	0.23	Q	|	|	|	V|
24+50	59.5382	0.19	Q	|	|	|	V|
24+55	59.5394	0.17	Q	|	|	|	V|
25+ 0	59.5403	0.14	Q	|	|	|	V|
25+ 5	59.5412	0.12	Q	|	|	|	V|
25+10	59.5419	0.10	Q	|	|	|	V|
25+15	59.5425	0.09	Q	|	|	|	V|
25+20	59.5430	0.08	Q	|	|	|	V|
25+25	59.5434	0.06	Q	|	|	|	V|
25+30	59.5438	0.05	Q	|	|	|	V|
25+35	59.5441	0.04	Q	|	|	|	V|
25+40	59.5444	0.04	Q	|	|	|	V|
25+45	59.5446	0.03	Q	|	|	|	V|
25+50	59.5447	0.02	Q	|	|	|	V|
25+55	59.5449	0.02	Q	|	|	|	V|
26+ 0	59.5450	0.01	Q	|	|	|	V|
26+ 5	59.5450	0.01	Q	|	|	|	V|
26+10	59.5451	0.01	Q	|	|	|	V|
26+15	59.5451	0.00	Q	|	|	|	V

APPENDIX E.2: AREA “A” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 10–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

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Study date 10/14/15 File: AEX2410.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - EXISTING CONDITION
10YR-24HR
FN: AEX2410

Drainage Area = 214.43(Ac.) = 0.335 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 214.43(Ac.) = 0.335 Sq. Mi.
Length along longest watercourse = 6828.00(Ft.)
Length along longest watercourse measured to centroid = 3171.00(Ft.)
Length along longest watercourse = 1.293 Mi.
Length along longest watercourse measured to centroid = 0.601 Mi.
Difference in elevation = 241.00(Ft.)
Slope along watercourse = 186.3620 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.283 Hr.
Lag time = 16.96 Min.
25% of lag time = 4.24 Min.
40% of lag time = 6.78 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	2.50	536.08

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	8.00	1715.44

STORM EVENT (YEAR) = 10.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 4.763(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 4.761(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
214.430	72.60	0.000

Total Area Entered = 214.43(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
72.6	72.6	0.331	0.000	0.331	1.000	0.331
					Sum (F) =	0.331

Area averaged mean soil loss (F) (In/Hr) = 0.331
Minimum soil loss rate ((In/Hr)) = 0.166
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	29.486	2.834	6.124
2	0.167	58.973	10.300	22.259
3	0.250	88.459	18.070	39.050
4	0.333	117.946	20.029	43.284
5	0.417	147.432	13.105	28.320
6	0.500	176.919	7.582	16.385
7	0.583	206.405	4.827	10.431
8	0.667	235.892	3.751	8.106
9	0.750	265.378	3.018	6.522
10	0.833	294.865	2.528	5.464
11	0.917	324.351	2.027	4.381
12	1.000	353.838	1.771	3.826
13	1.083	383.324	1.476	3.189
14	1.167	412.811	1.264	2.732
15	1.250	442.297	1.000	2.161
16	1.333	471.784	0.927	2.004
17	1.417	501.270	0.886	1.916
18	1.500	530.757	0.757	1.635
19	1.583	560.243	0.642	1.387
20	1.667	589.730	0.556	1.201
21	1.750	619.216	0.506	1.093
22	1.833	648.703	0.420	0.908
23	1.917	678.189	0.359	0.776
24	2.000	707.676	0.295	0.637
25	2.083	737.162	0.295	0.637
26	2.167	766.649	0.295	0.637
27	2.250	796.135	0.295	0.637
28	2.333	825.622	0.186	0.402
			Sum = 100.000	Sum= 216.105

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.038	(0.587)	0.034	0.004
2	0.17	0.07	0.038	(0.585)	0.034	0.004
3	0.25	0.07	0.038	(0.583)	0.034	0.004
4	0.33	0.10	0.057	(0.580)	0.051	0.006
5	0.42	0.10	0.057	(0.578)	0.051	0.006
6	0.50	0.10	0.057	(0.576)	0.051	0.006
7	0.58	0.10	0.057	(0.574)	0.051	0.006
8	0.67	0.10	0.057	(0.571)	0.051	0.006
9	0.75	0.10	0.057	(0.569)	0.051	0.006
10	0.83	0.13	0.076	(0.567)	0.069	0.008
11	0.92	0.13	0.076	(0.565)	0.069	0.008
12	1.00	0.13	0.076	(0.562)	0.069	0.008
13	1.08	0.10	0.057	(0.560)	0.051	0.006
14	1.17	0.10	0.057	(0.558)	0.051	0.006
15	1.25	0.10	0.057	(0.556)	0.051	0.006
16	1.33	0.10	0.057	(0.554)	0.051	0.006
17	1.42	0.10	0.057	(0.551)	0.051	0.006
18	1.50	0.10	0.057	(0.549)	0.051	0.006
19	1.58	0.10	0.057	(0.547)	0.051	0.006
20	1.67	0.10	0.057	(0.545)	0.051	0.006
21	1.75	0.10	0.057	(0.543)	0.051	0.006
22	1.83	0.13	0.076	(0.540)	0.069	0.008
23	1.92	0.13	0.076	(0.538)	0.069	0.008
24	2.00	0.13	0.076	(0.536)	0.069	0.008
25	2.08	0.13	0.076	(0.534)	0.069	0.008
26	2.17	0.13	0.076	(0.532)	0.069	0.008
27	2.25	0.13	0.076	(0.530)	0.069	0.008
28	2.33	0.13	0.076	(0.527)	0.069	0.008
29	2.42	0.13	0.076	(0.525)	0.069	0.008
30	2.50	0.13	0.076	(0.523)	0.069	0.008
31	2.58	0.17	0.095	(0.521)	0.086	0.010
32	2.67	0.17	0.095	(0.519)	0.086	0.010
33	2.75	0.17	0.095	(0.517)	0.086	0.010
34	2.83	0.17	0.095	(0.515)	0.086	0.010
35	2.92	0.17	0.095	(0.512)	0.086	0.010
36	3.00	0.17	0.095	(0.510)	0.086	0.010
37	3.08	0.17	0.095	(0.508)	0.086	0.010
38	3.17	0.17	0.095	(0.506)	0.086	0.010
39	3.25	0.17	0.095	(0.504)	0.086	0.010
40	3.33	0.17	0.095	(0.502)	0.086	0.010
41	3.42	0.17	0.095	(0.500)	0.086	0.010
42	3.50	0.17	0.095	(0.498)	0.086	0.010
43	3.58	0.17	0.095	(0.496)	0.086	0.010
44	3.67	0.17	0.095	(0.494)	0.086	0.010
45	3.75	0.17	0.095	(0.491)	0.086	0.010
46	3.83	0.20	0.114	(0.489)	0.103	0.011
47	3.92	0.20	0.114	(0.487)	0.103	0.011
48	4.00	0.20	0.114	(0.485)	0.103	0.011
49	4.08	0.20	0.114	(0.483)	0.103	0.011
50	4.17	0.20	0.114	(0.481)	0.103	0.011
51	4.25	0.20	0.114	(0.479)	0.103	0.011
52	4.33	0.23	0.133	(0.477)	0.120	0.013
53	4.42	0.23	0.133	(0.475)	0.120	0.013
54	4.50	0.23	0.133	(0.473)	0.120	0.013
55	4.58	0.23	0.133	(0.471)	0.120	0.013
56	4.67	0.23	0.133	(0.469)	0.120	0.013
57	4.75	0.23	0.133	(0.467)	0.120	0.013
58	4.83	0.27	0.152	(0.465)	0.137	0.015
59	4.92	0.27	0.152	(0.463)	0.137	0.015
60	5.00	0.27	0.152	(0.461)	0.137	0.015

61	5.08	0.20	0.114	(0.459)	0.103	0.011
62	5.17	0.20	0.114	(0.457)	0.103	0.011
63	5.25	0.20	0.114	(0.455)	0.103	0.011
64	5.33	0.23	0.133	(0.453)	0.120	0.013
65	5.42	0.23	0.133	(0.451)	0.120	0.013
66	5.50	0.23	0.133	(0.449)	0.120	0.013
67	5.58	0.27	0.152	(0.447)	0.137	0.015
68	5.67	0.27	0.152	(0.445)	0.137	0.015
69	5.75	0.27	0.152	(0.443)	0.137	0.015
70	5.83	0.27	0.152	(0.441)	0.137	0.015
71	5.92	0.27	0.152	(0.439)	0.137	0.015
72	6.00	0.27	0.152	(0.437)	0.137	0.015
73	6.08	0.30	0.171	(0.435)	0.154	0.017
74	6.17	0.30	0.171	(0.433)	0.154	0.017
75	6.25	0.30	0.171	(0.431)	0.154	0.017
76	6.33	0.30	0.171	(0.429)	0.154	0.017
77	6.42	0.30	0.171	(0.428)	0.154	0.017
78	6.50	0.30	0.171	(0.426)	0.154	0.017
79	6.58	0.33	0.190	(0.424)	0.171	0.019
80	6.67	0.33	0.190	(0.422)	0.171	0.019
81	6.75	0.33	0.190	(0.420)	0.171	0.019
82	6.83	0.33	0.190	(0.418)	0.171	0.019
83	6.92	0.33	0.190	(0.416)	0.171	0.019
84	7.00	0.33	0.190	(0.414)	0.171	0.019
85	7.08	0.33	0.190	(0.412)	0.171	0.019
86	7.17	0.33	0.190	(0.410)	0.171	0.019
87	7.25	0.33	0.190	(0.409)	0.171	0.019
88	7.33	0.37	0.209	(0.407)	0.189	0.021
89	7.42	0.37	0.209	(0.405)	0.189	0.021
90	7.50	0.37	0.209	(0.403)	0.189	0.021
91	7.58	0.40	0.229	(0.401)	0.206	0.023
92	7.67	0.40	0.229	(0.399)	0.206	0.023
93	7.75	0.40	0.229	(0.397)	0.206	0.023
94	7.83	0.43	0.248	(0.396)	0.223	0.025
95	7.92	0.43	0.248	(0.394)	0.223	0.025
96	8.00	0.43	0.248	(0.392)	0.223	0.025
97	8.08	0.50	0.286	(0.390)	0.257	0.029
98	8.17	0.50	0.286	(0.388)	0.257	0.029
99	8.25	0.50	0.286	(0.387)	0.257	0.029
100	8.33	0.50	0.286	(0.385)	0.257	0.029
101	8.42	0.50	0.286	(0.383)	0.257	0.029
102	8.50	0.50	0.286	(0.381)	0.257	0.029
103	8.58	0.53	0.305	(0.379)	0.274	0.030
104	8.67	0.53	0.305	(0.378)	0.274	0.030
105	8.75	0.53	0.305	(0.376)	0.274	0.030
106	8.83	0.57	0.324	(0.374)	0.291	0.032
107	8.92	0.57	0.324	(0.372)	0.291	0.032
108	9.00	0.57	0.324	(0.371)	0.291	0.032
109	9.08	0.63	0.362	(0.369)	0.326	0.036
110	9.17	0.63	0.362	(0.367)	0.326	0.036
111	9.25	0.63	0.362	(0.365)	0.326	0.036
112	9.33	0.67	0.381	(0.364)	0.343	0.038
113	9.42	0.67	0.381	(0.362)	0.343	0.038
114	9.50	0.67	0.381	(0.360)	0.343	0.038
115	9.58	0.70	0.400	0.358	(0.360)	0.042
116	9.67	0.70	0.400	0.357	(0.360)	0.043
117	9.75	0.70	0.400	0.355	(0.360)	0.045
118	9.83	0.73	0.419	0.353	(0.377)	0.066
119	9.92	0.73	0.419	0.351	(0.377)	0.067
120	10.00	0.73	0.419	0.350	(0.377)	0.069
121	10.08	0.50	0.286	(0.348)	0.257	0.029
122	10.17	0.50	0.286	(0.346)	0.257	0.029
123	10.25	0.50	0.286	(0.345)	0.257	0.029

124	10.33	0.50	0.286	(	0.343)		0.257	0.029
125	10.42	0.50	0.286	(	0.341)		0.257	0.029
126	10.50	0.50	0.286	(	0.340)		0.257	0.029
127	10.58	0.67	0.381		0.338	(	0.343)	0.043
128	10.67	0.67	0.381		0.336	(	0.343)	0.044
129	10.75	0.67	0.381		0.335	(	0.343)	0.046
130	10.83	0.67	0.381		0.333	(	0.343)	0.048
131	10.92	0.67	0.381		0.331	(	0.343)	0.049
132	11.00	0.67	0.381		0.330	(	0.343)	0.051
133	11.08	0.63	0.362	(	0.328)		0.326	0.036
134	11.17	0.63	0.362	(	0.327)		0.326	0.036
135	11.25	0.63	0.362		0.325	(	0.326)	0.037
136	11.33	0.63	0.362		0.323	(	0.326)	0.038
137	11.42	0.63	0.362		0.322	(	0.326)	0.040
138	11.50	0.63	0.362		0.320	(	0.326)	0.042
139	11.58	0.57	0.324	(	0.319)		0.291	0.032
140	11.67	0.57	0.324	(	0.317)		0.291	0.032
141	11.75	0.57	0.324	(	0.315)		0.291	0.032
142	11.83	0.60	0.343	(	0.314)		0.308	0.034
143	11.92	0.60	0.343	(	0.312)		0.308	0.034
144	12.00	0.60	0.343	(	0.311)		0.308	0.034
145	12.08	0.83	0.476		0.309	(	0.428)	0.167
146	12.17	0.83	0.476		0.308	(	0.428)	0.168
147	12.25	0.83	0.476		0.306	(	0.428)	0.170
148	12.33	0.87	0.495		0.305	(	0.446)	0.191
149	12.42	0.87	0.495		0.303	(	0.446)	0.192
150	12.50	0.87	0.495		0.302	(	0.446)	0.194
151	12.58	0.93	0.533		0.300	(	0.480)	0.233
152	12.67	0.93	0.533		0.298	(	0.480)	0.235
153	12.75	0.93	0.533		0.297	(	0.480)	0.236
154	12.83	0.97	0.552		0.295	(	0.497)	0.257
155	12.92	0.97	0.552		0.294	(	0.497)	0.258
156	13.00	0.97	0.552		0.293	(	0.497)	0.260
157	13.08	1.13	0.647		0.291	(	0.583)	0.356
158	13.17	1.13	0.647		0.290	(	0.583)	0.358
159	13.25	1.13	0.647		0.288	(	0.583)	0.359
160	13.33	1.13	0.647		0.287	(	0.583)	0.361
161	13.42	1.13	0.647		0.285	(	0.583)	0.362
162	13.50	1.13	0.647		0.284	(	0.583)	0.364
163	13.58	0.77	0.438		0.282	(	0.394)	0.156
164	13.67	0.77	0.438		0.281	(	0.394)	0.157
165	13.75	0.77	0.438		0.279	(	0.394)	0.159
166	13.83	0.77	0.438		0.278	(	0.394)	0.160
167	13.92	0.77	0.438		0.277	(	0.394)	0.161
168	14.00	0.77	0.438		0.275	(	0.394)	0.163
169	14.08	0.90	0.514		0.274	(	0.463)	0.240
170	14.17	0.90	0.514		0.272	(	0.463)	0.242
171	14.25	0.90	0.514		0.271	(	0.463)	0.243
172	14.33	0.87	0.495		0.270	(	0.446)	0.226
173	14.42	0.87	0.495		0.268	(	0.446)	0.227
174	14.50	0.87	0.495		0.267	(	0.446)	0.228
175	14.58	0.87	0.495		0.265	(	0.446)	0.230
176	14.67	0.87	0.495		0.264	(	0.446)	0.231
177	14.75	0.87	0.495		0.263	(	0.446)	0.232
178	14.83	0.83	0.476		0.261	(	0.428)	0.215
179	14.92	0.83	0.476		0.260	(	0.428)	0.216
180	15.00	0.83	0.476		0.259	(	0.428)	0.217
181	15.08	0.80	0.457		0.257	(	0.411)	0.200
182	15.17	0.80	0.457		0.256	(	0.411)	0.201
183	15.25	0.80	0.457		0.255	(	0.411)	0.202
184	15.33	0.77	0.438		0.253	(	0.394)	0.185
185	15.42	0.77	0.438		0.252	(	0.394)	0.186
186	15.50	0.77	0.438		0.251	(	0.394)	0.187

187	15.58	0.63	0.362		0.250	(	0.326)	0.112
188	15.67	0.63	0.362		0.248	(	0.326)	0.114
189	15.75	0.63	0.362		0.247	(	0.326)	0.115
190	15.83	0.63	0.362		0.246	(	0.326)	0.116
191	15.92	0.63	0.362		0.244	(	0.326)	0.117
192	16.00	0.63	0.362		0.243	(	0.326)	0.119
193	16.08	0.13	0.076	(	0.242)		0.069	0.008
194	16.17	0.13	0.076	(	0.241)		0.069	0.008
195	16.25	0.13	0.076	(	0.240)		0.069	0.008
196	16.33	0.13	0.076	(	0.238)		0.069	0.008
197	16.42	0.13	0.076	(	0.237)		0.069	0.008
198	16.50	0.13	0.076	(	0.236)		0.069	0.008
199	16.58	0.10	0.057	(	0.235)		0.051	0.006
200	16.67	0.10	0.057	(	0.233)		0.051	0.006
201	16.75	0.10	0.057	(	0.232)		0.051	0.006
202	16.83	0.10	0.057	(	0.231)		0.051	0.006
203	16.92	0.10	0.057	(	0.230)		0.051	0.006
204	17.00	0.10	0.057	(	0.229)		0.051	0.006
205	17.08	0.17	0.095	(	0.228)		0.086	0.010
206	17.17	0.17	0.095	(	0.226)		0.086	0.010
207	17.25	0.17	0.095	(	0.225)		0.086	0.010
208	17.33	0.17	0.095	(	0.224)		0.086	0.010
209	17.42	0.17	0.095	(	0.223)		0.086	0.010
210	17.50	0.17	0.095	(	0.222)		0.086	0.010
211	17.58	0.17	0.095	(	0.221)		0.086	0.010
212	17.67	0.17	0.095	(	0.220)		0.086	0.010
213	17.75	0.17	0.095	(	0.219)		0.086	0.010
214	17.83	0.13	0.076	(	0.218)		0.069	0.008
215	17.92	0.13	0.076	(	0.217)		0.069	0.008
216	18.00	0.13	0.076	(	0.215)		0.069	0.008
217	18.08	0.13	0.076	(	0.214)		0.069	0.008
218	18.17	0.13	0.076	(	0.213)		0.069	0.008
219	18.25	0.13	0.076	(	0.212)		0.069	0.008
220	18.33	0.13	0.076	(	0.211)		0.069	0.008
221	18.42	0.13	0.076	(	0.210)		0.069	0.008
222	18.50	0.13	0.076	(	0.209)		0.069	0.008
223	18.58	0.10	0.057	(	0.208)		0.051	0.006
224	18.67	0.10	0.057	(	0.207)		0.051	0.006
225	18.75	0.10	0.057	(	0.206)		0.051	0.006
226	18.83	0.07	0.038	(	0.205)		0.034	0.004
227	18.92	0.07	0.038	(	0.204)		0.034	0.004
228	19.00	0.07	0.038	(	0.203)		0.034	0.004
229	19.08	0.10	0.057	(	0.202)		0.051	0.006
230	19.17	0.10	0.057	(	0.201)		0.051	0.006
231	19.25	0.10	0.057	(	0.200)		0.051	0.006
232	19.33	0.13	0.076	(	0.199)		0.069	0.008
233	19.42	0.13	0.076	(	0.199)		0.069	0.008
234	19.50	0.13	0.076	(	0.198)		0.069	0.008
235	19.58	0.10	0.057	(	0.197)		0.051	0.006
236	19.67	0.10	0.057	(	0.196)		0.051	0.006
237	19.75	0.10	0.057	(	0.195)		0.051	0.006
238	19.83	0.07	0.038	(	0.194)		0.034	0.004
239	19.92	0.07	0.038	(	0.193)		0.034	0.004
240	20.00	0.07	0.038	(	0.192)		0.034	0.004
241	20.08	0.10	0.057	(	0.191)		0.051	0.006
242	20.17	0.10	0.057	(	0.191)		0.051	0.006
243	20.25	0.10	0.057	(	0.190)		0.051	0.006
244	20.33	0.10	0.057	(	0.189)		0.051	0.006
245	20.42	0.10	0.057	(	0.188)		0.051	0.006
246	20.50	0.10	0.057	(	0.187)		0.051	0.006
247	20.58	0.10	0.057	(	0.187)		0.051	0.006
248	20.67	0.10	0.057	(	0.186)		0.051	0.006
249	20.75	0.10	0.057	(	0.185)		0.051	0.006

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250  20.83     0.07      0.038       (  0.184)       0.034        0.004
251  20.92     0.07      0.038       (  0.184)       0.034        0.004
252  21.00     0.07      0.038       (  0.183)       0.034        0.004
253  21.08     0.10      0.057       (  0.182)       0.051        0.006
254  21.17     0.10      0.057       (  0.181)       0.051        0.006
255  21.25     0.10      0.057       (  0.181)       0.051        0.006
256  21.33     0.07      0.038       (  0.180)       0.034        0.004
257  21.42     0.07      0.038       (  0.179)       0.034        0.004
258  21.50     0.07      0.038       (  0.179)       0.034        0.004
259  21.58     0.10      0.057       (  0.178)       0.051        0.006
260  21.67     0.10      0.057       (  0.177)       0.051        0.006
261  21.75     0.10      0.057       (  0.177)       0.051        0.006
262  21.83     0.07      0.038       (  0.176)       0.034        0.004
263  21.92     0.07      0.038       (  0.175)       0.034        0.004
264  22.00     0.07      0.038       (  0.175)       0.034        0.004
265  22.08     0.10      0.057       (  0.174)       0.051        0.006
266  22.17     0.10      0.057       (  0.174)       0.051        0.006
267  22.25     0.10      0.057       (  0.173)       0.051        0.006
268  22.33     0.07      0.038       (  0.173)       0.034        0.004
269  22.42     0.07      0.038       (  0.172)       0.034        0.004
270  22.50     0.07      0.038       (  0.172)       0.034        0.004
271  22.58     0.07      0.038       (  0.171)       0.034        0.004
272  22.67     0.07      0.038       (  0.171)       0.034        0.004
273  22.75     0.07      0.038       (  0.170)       0.034        0.004
274  22.83     0.07      0.038       (  0.170)       0.034        0.004
275  22.92     0.07      0.038       (  0.169)       0.034        0.004
276  23.00     0.07      0.038       (  0.169)       0.034        0.004
277  23.08     0.07      0.038       (  0.168)       0.034        0.004
278  23.17     0.07      0.038       (  0.168)       0.034        0.004
279  23.25     0.07      0.038       (  0.168)       0.034        0.004
280  23.33     0.07      0.038       (  0.167)       0.034        0.004
281  23.42     0.07      0.038       (  0.167)       0.034        0.004
282  23.50     0.07      0.038       (  0.167)       0.034        0.004
283  23.58     0.07      0.038       (  0.167)       0.034        0.004
284  23.67     0.07      0.038       (  0.166)       0.034        0.004
285  23.75     0.07      0.038       (  0.166)       0.034        0.004
286  23.83     0.07      0.038       (  0.166)       0.034        0.004
287  23.92     0.07      0.038       (  0.166)       0.034        0.004
288  24.00     0.07      0.038       (  0.166)       0.034        0.004
           (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    13.8
      Flood volume = Effective rainfall      1.15(In)
       times area     214.4(Ac.)/[(In)/(Ft.)] =      20.5(Ac.Ft)
      Total soil loss =      3.61(In)
      Total soil loss =    64.530(Ac.Ft)
      Total rainfall =      4.76(In)
      Flood volume =      894756.6 Cubic Feet
      Total soil loss =     2810920.1 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     68.885(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       17.5      35.0      52.5      70.0
 ---------------------------------------------------------------------------
   0+ 5       0.0002      0.02  Q         |         |         |         |
   0+10       0.0009      0.11  Q         |         |         |         |
   0+15       0.0027      0.26  Q         |         |         |         |
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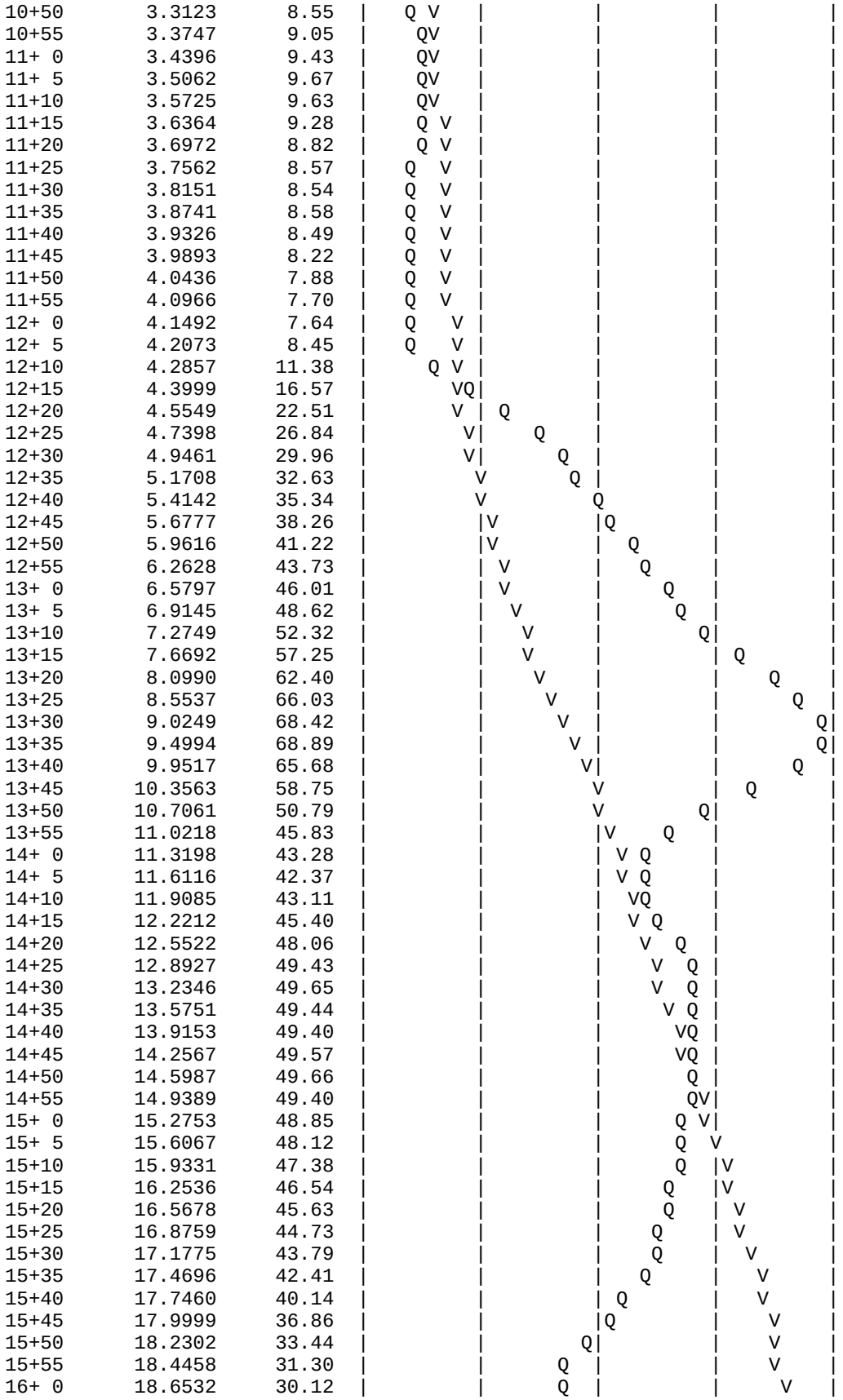
0+20	0.0057	0.43	Q	|	|	|	|
0+25	0.0097	0.58	Q	|	|	|	|
0+30	0.0146	0.72	Q	|	|	|	|
0+35	0.0205	0.84	Q	|	|	|	|
0+40	0.0268	0.93	Q	|	|	|	|
0+45	0.0336	0.98	Q	|	|	|	|
0+50	0.0408	1.04	Q	|	|	|	|
0+55	0.0484	1.11	Q	|	|	|	|
1+ 0	0.0568	1.21	Q	|	|	|	|
1+ 5	0.0657	1.31	Q	|	|	|	|
1+10	0.0749	1.34	Q	|	|	|	|
1+15	0.0840	1.31	Q	|	|	|	|
1+20	0.0926	1.26	Q	|	|	|	|
1+25	0.1011	1.23	Q	|	|	|	|
1+30	0.1096	1.22	Q	|	|	|	|
1+35	0.1180	1.22	Q	|	|	|	|
1+40	0.1264	1.23	Q	|	|	|	|
1+45	0.1349	1.23	Q	|	|	|	|
1+50	0.1434	1.24	Q	|	|	|	|
1+55	0.1523	1.29	Q	|	|	|	|
2+ 0	0.1617	1.36	Q	|	|	|	|
2+ 5	0.1716	1.45	Q	|	|	|	|
2+10	0.1820	1.50	Q	|	|	|	|
2+15	0.1925	1.54	Q	|	|	|	|
2+20	0.2033	1.56	Q	|	|	|	|
2+25	0.2141	1.57	Q	|	|	|	|
2+30	0.2250	1.59	Q	|	|	|	|
2+35	0.2361	1.61	Q	|	|	|	|
2+40	0.2475	1.66	Q	|	|	|	|
2+45	0.2595	1.74	Q	|	|	|	|
2+50	0.2721	1.83	VQ	|	|	|	|
2+55	0.2850	1.88	VQ	|	|	|	|
3+ 0	0.2983	1.92	VQ	|	|	|	|
3+ 5	0.3116	1.94	VQ	|	|	|	|
3+10	0.3252	1.96	VQ	|	|	|	|
3+15	0.3388	1.98	VQ	|	|	|	|
3+20	0.3525	1.99	VQ	|	|	|	|
3+25	0.3662	2.00	VQ	|	|	|	|
3+30	0.3800	2.01	VQ	|	|	|	|
3+35	0.3939	2.02	VQ	|	|	|	|
3+40	0.4079	2.02	VQ	|	|	|	|
3+45	0.4218	2.03	VQ	|	|	|	|
3+50	0.4359	2.04	VQ	|	|	|	|
3+55	0.4503	2.09	VQ	|	|	|	|
4+ 0	0.4653	2.17	VQ	|	|	|	|
4+ 5	0.4808	2.26	VQ	|	|	|	|
4+10	0.4967	2.31	VQ	|	|	|	|
4+15	0.5129	2.35	VQ	|	|	|	|
4+20	0.5293	2.38	|Q	|	|	|	|
4+25	0.5461	2.44	|Q	|	|	|	|
4+30	0.5635	2.53	|Q	|	|	|	|
4+35	0.5815	2.62	|Q	|	|	|	|
4+40	0.6000	2.68	|Q	|	|	|	|
4+45	0.6188	2.72	|Q	|	|	|	|
4+50	0.6378	2.76	|Q	|	|	|	|
4+55	0.6572	2.83	|Q	|	|	|	|
5+ 0	0.6773	2.92	|Q	|	|	|	|
5+ 5	0.6979	2.99	|Q	|	|	|	|
5+10	0.7184	2.97	|Q	|	|	|	|
5+15	0.7381	2.86	|Q	|	|	|	|
5+20	0.7570	2.74	|Q	|	|	|	|
5+25	0.7755	2.70	|Q	|	|	|	|
5+30	0.7943	2.73	|Q	|	|	|	|

5+35	0.8136	2.80	Q				
5+40	0.8334	2.88	Q				
5+45	0.8538	2.97	Q				
5+50	0.8749	3.06	Q				
5+55	0.8964	3.12	Q				
6+ 0	0.9182	3.16	Q				
6+ 5	0.9402	3.19	Q				
6+10	0.9626	3.26	Q				
6+15	0.9856	3.35	Q				
6+20	1.0093	3.44	Q				
6+25	1.0335	3.50	Q				
6+30	1.0579	3.54	Q				
6+35	1.0825	3.58	Q				
6+40	1.1076	3.65	Q				
6+45	1.1334	3.74	Q				
6+50	1.1598	3.83	Q				
6+55	1.1867	3.90	Q				
7+ 0	1.2138	3.94	Q				
7+ 5	1.2412	3.97	Q				
7+10	1.2687	3.99	Q				
7+15	1.2963	4.01	Q				
7+20	1.3241	4.04	Q				
7+25	1.3523	4.10	Q				
7+30	1.3811	4.18	Q				
7+35	1.4107	4.29	Q				
7+40	1.4409	4.39	Q				
7+45	1.4720	4.51	Q				
7+50	1.5038	4.63	Q				
7+55	1.5365	4.74	Q				
8+ 0	1.5700	4.87	QV				
8+ 5	1.6045	5.01	QV				
8+10	1.6401	5.17	QV				
8+15	1.6771	5.37	Q				
8+20	1.7155	5.58	Q				
8+25	1.7549	5.72	Q				
8+30	1.7949	5.80	Q				
8+35	1.8353	5.88	Q				
8+40	1.8764	5.97	Q				
8+45	1.9184	6.08	Q				
8+50	1.9611	6.21	Q				
8+55	2.0048	6.34	Q				
9+ 0	2.0493	6.47	Q				
9+ 5	2.0948	6.61	QV				
9+10	2.1416	6.78	QV				
9+15	2.1897	6.99	QV				
9+20	2.2394	7.21	Q				
9+25	2.2903	7.40	Q				
9+30	2.3424	7.56	Q				
9+35	2.3957	7.73	Q				
9+40	2.4503	7.93	Q				
9+45	2.5067	8.19	Q				
9+50	2.5661	8.63	Q				
9+55	2.6307	9.39	Q				
10+ 0	2.7028	10.46	Q				
10+ 5	2.7811	11.36	VQ				
10+10	2.8588	11.29	VQ				
10+15	2.9293	10.24	Q				
10+20	2.9902	8.84	Q				
10+25	3.0450	7.96	QV				
10+30	3.0967	7.50	Q V				
10+35	3.1472	7.34	Q V				
10+40	3.1987	7.48	Q V				
10+45	3.2534	7.94	Q V				



16+ 5	18.8512	28.75	|	Q |	|	V |
16+10	19.0286	25.76	|	Q |	|	V |
16+15	19.1732	21.01	|	Q |	|	V |
16+20	19.2822	15.81	|	Q |	|	V |
16+25	19.3669	12.31	|	Q |	|	V |
16+30	19.4370	10.17	|	Q |	|	V |
16+35	19.4971	8.73	|	Q |	|	V |
16+40	19.5492	7.56	|	Q |	|	V |
16+45	19.5946	6.58	|	Q |	|	V |
16+50	19.6340	5.72	|	Q |	|	V |
16+55	19.6686	5.02	|	Q |	|	V |
17+ 0	19.6990	4.42	|	Q |	|	V |
17+ 5	19.7263	3.95	|	Q |	|	V |
17+10	19.7512	3.62	|	Q |	|	V |
17+15	19.7748	3.43	|	Q |	|	V |
17+20	19.7975	3.29	|	Q |	|	V |
17+25	19.8189	3.12	|	Q |	|	V |
17+30	19.8392	2.94	|	Q |	|	V |
17+35	19.8583	2.77	|	Q |	|	V |
17+40	19.8763	2.62	|	Q |	|	V |
17+45	19.8934	2.48	|	Q |	|	V |
17+50	19.9096	2.36	|	Q |	|	V |
17+55	19.9251	2.25	|	Q |	|	V |
18+ 0	19.9397	2.12	|	Q |	|	V |
18+ 5	19.9533	1.97	|	Q |	|	V |
18+10	19.9661	1.86	|	Q |	|	V |
18+15	19.9782	1.76	|	Q |	|	V |
18+20	19.9900	1.70	Q	|	|	V |
18+25	20.0016	1.69	Q	|	|	V |
18+30	20.0133	1.69	Q	|	|	V |
18+35	20.0248	1.67	Q	|	|	V |
18+40	20.0359	1.62	Q	|	|	V|
18+45	20.0466	1.54	Q	|	|	V|
18+50	20.0565	1.45	Q	|	|	V|
18+55	20.0658	1.35	Q	|	|	V|
19+ 0	20.0743	1.24	Q	|	|	V|
19+ 5	20.0822	1.15	Q	|	|	V|
19+10	20.0900	1.12	Q	|	|	V|
19+15	20.0979	1.15	Q	|	|	V|
19+20	20.1062	1.21	Q	|	|	V|
19+25	20.1151	1.28	Q	|	|	V|
19+30	20.1245	1.37	Q	|	|	V|
19+35	20.1344	1.44	Q	|	|	V|
19+40	20.1444	1.45	Q	|	|	V|
19+45	20.1541	1.41	Q	|	|	V|
19+50	20.1632	1.33	Q	|	|	V|
19+55	20.1719	1.25	Q	|	|	V|
20+ 0	20.1798	1.16	Q	|	|	V|
20+ 5	20.1872	1.07	Q	|	|	V|
20+10	20.1945	1.05	Q	|	|	V|
20+15	20.2020	1.09	Q	|	|	V|
20+20	20.2099	1.15	Q	|	|	V|
20+25	20.2181	1.18	Q	|	|	V|
20+30	20.2263	1.20	Q	|	|	V|
20+35	20.2347	1.21	Q	|	|	V|
20+40	20.2430	1.21	Q	|	|	V|
20+45	20.2514	1.22	Q	|	|	V|
20+50	20.2597	1.21	Q	|	|	V|
20+55	20.2677	1.17	Q	|	|	V|
21+ 0	20.2753	1.09	Q	|	|	V|
21+ 5	20.2823	1.03	Q	|	|	V|
21+10	20.2893	1.02	Q	|	|	V|
21+15	20.2966	1.06	Q	|	|	V|

21+20	20.3043	1.11	Q	|	|	|	V|
21+25	20.3119	1.11	Q	|	|	|	V|
21+30	20.3192	1.06	Q	|	|	|	V|
21+35	20.3261	0.99	Q	|	|	|	V|
21+40	20.3329	0.99	Q	|	|	|	V|
21+45	20.3400	1.04	Q	|	|	|	V|
21+50	20.3476	1.09	Q	|	|	|	V|
21+55	20.3551	1.09	Q	|	|	|	V|
22+ 0	20.3622	1.04	Q	|	|	|	V|
22+ 5	20.3690	0.98	Q	|	|	|	V|
22+10	20.3758	0.98	Q	|	|	|	V|
22+15	20.3828	1.03	Q	|	|	|	V|
22+20	20.3903	1.09	Q	|	|	|	V|
22+25	20.3978	1.09	Q	|	|	|	V|
22+30	20.4050	1.04	Q	|	|	|	V|
22+35	20.4116	0.97	Q	|	|	|	V|
22+40	20.4180	0.92	Q	|	|	|	V|
22+45	20.4242	0.90	Q	|	|	|	V|
22+50	20.4303	0.88	Q	|	|	|	V|
22+55	20.4363	0.87	Q	|	|	|	V|
23+ 0	20.4422	0.87	Q	|	|	|	V|
23+ 5	20.4481	0.86	Q	|	|	|	V|
23+10	20.4540	0.85	Q	|	|	|	V|
23+15	20.4599	0.85	Q	|	|	|	V|
23+20	20.4657	0.85	Q	|	|	|	V|
23+25	20.4715	0.84	Q	|	|	|	V|
23+30	20.4773	0.84	Q	|	|	|	V|
23+35	20.4830	0.84	Q	|	|	|	V|
23+40	20.4888	0.84	Q	|	|	|	V|
23+45	20.4945	0.83	Q	|	|	|	V|
23+50	20.5003	0.83	Q	|	|	|	V|
23+55	20.5060	0.83	Q	|	|	|	V|
24+ 0	20.5117	0.83	Q	|	|	|	V|
24+ 5	20.5172	0.80	Q	|	|	|	V|
24+10	20.5222	0.72	Q	|	|	|	V|
24+15	20.5261	0.57	Q	|	|	|	V|
24+20	20.5289	0.40	Q	|	|	|	V|
24+25	20.5309	0.30	Q	|	|	|	V|
24+30	20.5325	0.23	Q	|	|	|	V|
24+35	20.5339	0.19	Q	|	|	|	V|
24+40	20.5350	0.16	Q	|	|	|	V|
24+45	20.5359	0.14	Q	|	|	|	V|
24+50	20.5367	0.11	Q	|	|	|	V|
24+55	20.5374	0.10	Q	|	|	|	V|
25+ 0	20.5379	0.08	Q	|	|	|	V|
25+ 5	20.5384	0.07	Q	|	|	|	V|
25+10	20.5389	0.06	Q	|	|	|	V|
25+15	20.5392	0.05	Q	|	|	|	V|
25+20	20.5395	0.05	Q	|	|	|	V|
25+25	20.5398	0.04	Q	|	|	|	V|
25+30	20.5400	0.03	Q	|	|	|	V|
25+35	20.5402	0.03	Q	|	|	|	V|
25+40	20.5403	0.02	Q	|	|	|	V|
25+45	20.5405	0.02	Q	|	|	|	V|
25+50	20.5406	0.01	Q	|	|	|	V|
25+55	20.5406	0.01	Q	|	|	|	V|
26+ 0	20.5407	0.01	Q	|	|	|	V|
26+ 5	20.5407	0.01	Q	|	|	|	V|
26+10	20.5408	0.00	Q	|	|	|	V|
26+15	20.5408	0.00	Q	|	|	|	V|

APPENDIX E.3: AREA “A” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 5–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/14/15 File: AEX245.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - EXISTING CONDITION
5YR-24HR
FN: AEX245

Drainage Area = 214.43(Ac.) = 0.335 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 214.43(Ac.) = 0.335 Sq. Mi.
Length along longest watercourse = 6828.00(Ft.)
Length along longest watercourse measured to centroid = 3171.00(Ft.)
Length along longest watercourse = 1.293 Mi.
Length along longest watercourse measured to centroid = 0.601 Mi.
Difference in elevation = 241.00(Ft.)
Slope along watercourse = 186.3620 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.283 Hr.
Lag time = 16.96 Min.
25% of lag time = 4.24 Min.
40% of lag time = 6.78 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	2.50	536.08

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	8.00	1715.44

STORM EVENT (YEAR) = 5.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 3.788(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 3.787(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
214.430	72.60	0.000

Total Area Entered = 214.43(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
72.6	54.1	0.530	0.000	0.530	1.000	0.530
					Sum (F) =	0.530

Area averaged mean soil loss (F) (In/Hr) = 0.530
Minimum soil loss rate ((In/Hr)) = 0.265
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	29.486	2.834	6.124
2	0.167	58.973	10.300	22.259
3	0.250	88.459	18.070	39.050
4	0.333	117.946	20.029	43.284
5	0.417	147.432	13.105	28.320
6	0.500	176.919	7.582	16.385
7	0.583	206.405	4.827	10.431
8	0.667	235.892	3.751	8.106
9	0.750	265.378	3.018	6.522
10	0.833	294.865	2.528	5.464
11	0.917	324.351	2.027	4.381
12	1.000	353.838	1.771	3.826
13	1.083	383.324	1.476	3.189
14	1.167	412.811	1.264	2.732
15	1.250	442.297	1.000	2.161
16	1.333	471.784	0.927	2.004
17	1.417	501.270	0.886	1.916
18	1.500	530.757	0.757	1.635
19	1.583	560.243	0.642	1.387
20	1.667	589.730	0.556	1.201
21	1.750	619.216	0.506	1.093
22	1.833	648.703	0.420	0.908
23	1.917	678.189	0.359	0.776
24	2.000	707.676	0.295	0.637
25	2.083	737.162	0.295	0.637
26	2.167	766.649	0.295	0.637
27	2.250	796.135	0.295	0.637
28	2.333	825.622	0.186	0.402
		Sum = 100.000	Sum=	216.105

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max		Low	Effective (In/Hr)
1	0.08	0.07	0.030	(0.939)		0.027	0.003
2	0.17	0.07	0.030	(0.936)		0.027	0.003
3	0.25	0.07	0.030	(0.932)		0.027	0.003
4	0.33	0.10	0.045	(0.928)		0.041	0.005
5	0.42	0.10	0.045	(0.925)		0.041	0.005
6	0.50	0.10	0.045	(0.921)		0.041	0.005
7	0.58	0.10	0.045	(0.918)		0.041	0.005
8	0.67	0.10	0.045	(0.914)		0.041	0.005
9	0.75	0.10	0.045	(0.910)		0.041	0.005
10	0.83	0.13	0.061	(0.907)		0.055	0.006
11	0.92	0.13	0.061	(0.903)		0.055	0.006
12	1.00	0.13	0.061	(0.900)		0.055	0.006
13	1.08	0.10	0.045	(0.896)		0.041	0.005
14	1.17	0.10	0.045	(0.893)		0.041	0.005
15	1.25	0.10	0.045	(0.889)		0.041	0.005
16	1.33	0.10	0.045	(0.886)		0.041	0.005
17	1.42	0.10	0.045	(0.882)		0.041	0.005
18	1.50	0.10	0.045	(0.878)		0.041	0.005
19	1.58	0.10	0.045	(0.875)		0.041	0.005
20	1.67	0.10	0.045	(0.871)		0.041	0.005
21	1.75	0.10	0.045	(0.868)		0.041	0.005
22	1.83	0.13	0.061	(0.864)		0.055	0.006
23	1.92	0.13	0.061	(0.861)		0.055	0.006
24	2.00	0.13	0.061	(0.857)		0.055	0.006
25	2.08	0.13	0.061	(0.854)		0.055	0.006
26	2.17	0.13	0.061	(0.851)		0.055	0.006
27	2.25	0.13	0.061	(0.847)		0.055	0.006
28	2.33	0.13	0.061	(0.844)		0.055	0.006
29	2.42	0.13	0.061	(0.840)		0.055	0.006
30	2.50	0.13	0.061	(0.837)		0.055	0.006
31	2.58	0.17	0.076	(0.833)		0.068	0.008
32	2.67	0.17	0.076	(0.830)		0.068	0.008
33	2.75	0.17	0.076	(0.827)		0.068	0.008
34	2.83	0.17	0.076	(0.823)		0.068	0.008
35	2.92	0.17	0.076	(0.820)		0.068	0.008
36	3.00	0.17	0.076	(0.816)		0.068	0.008
37	3.08	0.17	0.076	(0.813)		0.068	0.008
38	3.17	0.17	0.076	(0.810)		0.068	0.008
39	3.25	0.17	0.076	(0.806)		0.068	0.008
40	3.33	0.17	0.076	(0.803)		0.068	0.008
41	3.42	0.17	0.076	(0.800)		0.068	0.008
42	3.50	0.17	0.076	(0.796)		0.068	0.008
43	3.58	0.17	0.076	(0.793)		0.068	0.008
44	3.67	0.17	0.076	(0.790)		0.068	0.008
45	3.75	0.17	0.076	(0.786)		0.068	0.008
46	3.83	0.20	0.091	(0.783)		0.082	0.009
47	3.92	0.20	0.091	(0.780)		0.082	0.009
48	4.00	0.20	0.091	(0.776)		0.082	0.009
49	4.08	0.20	0.091	(0.773)		0.082	0.009
50	4.17	0.20	0.091	(0.770)		0.082	0.009
51	4.25	0.20	0.091	(0.766)		0.082	0.009
52	4.33	0.23	0.106	(0.763)		0.095	0.011
53	4.42	0.23	0.106	(0.760)		0.095	0.011
54	4.50	0.23	0.106	(0.757)		0.095	0.011
55	4.58	0.23	0.106	(0.753)		0.095	0.011
56	4.67	0.23	0.106	(0.750)		0.095	0.011
57	4.75	0.23	0.106	(0.747)		0.095	0.011
58	4.83	0.27	0.121	(0.744)		0.109	0.012
59	4.92	0.27	0.121	(0.740)		0.109	0.012
60	5.00	0.27	0.121	(0.737)		0.109	0.012

61	5.08	0.20	0.091	(0.734)	0.082	0.009
62	5.17	0.20	0.091	(0.731)	0.082	0.009
63	5.25	0.20	0.091	(0.728)	0.082	0.009
64	5.33	0.23	0.106	(0.725)	0.095	0.011
65	5.42	0.23	0.106	(0.721)	0.095	0.011
66	5.50	0.23	0.106	(0.718)	0.095	0.011
67	5.58	0.27	0.121	(0.715)	0.109	0.012
68	5.67	0.27	0.121	(0.712)	0.109	0.012
69	5.75	0.27	0.121	(0.709)	0.109	0.012
70	5.83	0.27	0.121	(0.706)	0.109	0.012
71	5.92	0.27	0.121	(0.702)	0.109	0.012
72	6.00	0.27	0.121	(0.699)	0.109	0.012
73	6.08	0.30	0.136	(0.696)	0.123	0.014
74	6.17	0.30	0.136	(0.693)	0.123	0.014
75	6.25	0.30	0.136	(0.690)	0.123	0.014
76	6.33	0.30	0.136	(0.687)	0.123	0.014
77	6.42	0.30	0.136	(0.684)	0.123	0.014
78	6.50	0.30	0.136	(0.681)	0.123	0.014
79	6.58	0.33	0.151	(0.678)	0.136	0.015
80	6.67	0.33	0.151	(0.675)	0.136	0.015
81	6.75	0.33	0.151	(0.672)	0.136	0.015
82	6.83	0.33	0.151	(0.669)	0.136	0.015
83	6.92	0.33	0.151	(0.666)	0.136	0.015
84	7.00	0.33	0.151	(0.663)	0.136	0.015
85	7.08	0.33	0.151	(0.660)	0.136	0.015
86	7.17	0.33	0.151	(0.657)	0.136	0.015
87	7.25	0.33	0.151	(0.654)	0.136	0.015
88	7.33	0.37	0.167	(0.651)	0.150	0.017
89	7.42	0.37	0.167	(0.648)	0.150	0.017
90	7.50	0.37	0.167	(0.645)	0.150	0.017
91	7.58	0.40	0.182	(0.642)	0.164	0.018
92	7.67	0.40	0.182	(0.639)	0.164	0.018
93	7.75	0.40	0.182	(0.636)	0.164	0.018
94	7.83	0.43	0.197	(0.633)	0.177	0.020
95	7.92	0.43	0.197	(0.630)	0.177	0.020
96	8.00	0.43	0.197	(0.627)	0.177	0.020
97	8.08	0.50	0.227	(0.624)	0.204	0.023
98	8.17	0.50	0.227	(0.621)	0.204	0.023
99	8.25	0.50	0.227	(0.618)	0.204	0.023
100	8.33	0.50	0.227	(0.615)	0.204	0.023
101	8.42	0.50	0.227	(0.613)	0.204	0.023
102	8.50	0.50	0.227	(0.610)	0.204	0.023
103	8.58	0.53	0.242	(0.607)	0.218	0.024
104	8.67	0.53	0.242	(0.604)	0.218	0.024
105	8.75	0.53	0.242	(0.601)	0.218	0.024
106	8.83	0.57	0.257	(0.598)	0.232	0.026
107	8.92	0.57	0.257	(0.595)	0.232	0.026
108	9.00	0.57	0.257	(0.593)	0.232	0.026
109	9.08	0.63	0.288	(0.590)	0.259	0.029
110	9.17	0.63	0.288	(0.587)	0.259	0.029
111	9.25	0.63	0.288	(0.584)	0.259	0.029
112	9.33	0.67	0.303	(0.581)	0.273	0.030
113	9.42	0.67	0.303	(0.579)	0.273	0.030
114	9.50	0.67	0.303	(0.576)	0.273	0.030
115	9.58	0.70	0.318	(0.573)	0.286	0.032
116	9.67	0.70	0.318	(0.570)	0.286	0.032
117	9.75	0.70	0.318	(0.568)	0.286	0.032
118	9.83	0.73	0.333	(0.565)	0.300	0.033
119	9.92	0.73	0.333	(0.562)	0.300	0.033
120	10.00	0.73	0.333	(0.560)	0.300	0.033
121	10.08	0.50	0.227	(0.557)	0.204	0.023
122	10.17	0.50	0.227	(0.554)	0.204	0.023
123	10.25	0.50	0.227	(0.551)	0.204	0.023

124	10.33	0.50	0.227	(0.549)	0.204	0.023
125	10.42	0.50	0.227	(0.546)	0.204	0.023
126	10.50	0.50	0.227	(0.543)	0.204	0.023
127	10.58	0.67	0.303	(0.541)	0.273	0.030
128	10.67	0.67	0.303	(0.538)	0.273	0.030
129	10.75	0.67	0.303	(0.535)	0.273	0.030
130	10.83	0.67	0.303	(0.533)	0.273	0.030
131	10.92	0.67	0.303	(0.530)	0.273	0.030
132	11.00	0.67	0.303	(0.528)	0.273	0.030
133	11.08	0.63	0.288	(0.525)	0.259	0.029
134	11.17	0.63	0.288	(0.522)	0.259	0.029
135	11.25	0.63	0.288	(0.520)	0.259	0.029
136	11.33	0.63	0.288	(0.517)	0.259	0.029
137	11.42	0.63	0.288	(0.515)	0.259	0.029
138	11.50	0.63	0.288	(0.512)	0.259	0.029
139	11.58	0.57	0.257	(0.510)	0.232	0.026
140	11.67	0.57	0.257	(0.507)	0.232	0.026
141	11.75	0.57	0.257	(0.505)	0.232	0.026
142	11.83	0.60	0.273	(0.502)	0.245	0.027
143	11.92	0.60	0.273	(0.500)	0.245	0.027
144	12.00	0.60	0.273	(0.497)	0.245	0.027
145	12.08	0.83	0.379	(0.495)	0.341	0.038
146	12.17	0.83	0.379	(0.492)	0.341	0.038
147	12.25	0.83	0.379	(0.490)	0.341	0.038
148	12.33	0.87	0.394	(0.487)	0.354	0.039
149	12.42	0.87	0.394	(0.485)	0.354	0.039
150	12.50	0.87	0.394	(0.482)	0.354	0.039
151	12.58	0.93	0.424	(0.480)	0.382	0.042
152	12.67	0.93	0.424	(0.477)	0.382	0.042
153	12.75	0.93	0.424	(0.475)	0.382	0.042
154	12.83	0.97	0.439	(0.473)	0.395	0.044
155	12.92	0.97	0.439	(0.470)	0.395	0.044
156	13.00	0.97	0.439	(0.468)	0.395	0.044
157	13.08	1.13	0.515	(0.466)	0.463	0.051
158	13.17	1.13	0.515	0.463	(0.463)	0.052
159	13.25	1.13	0.515	0.461	(0.463)	0.054
160	13.33	1.13	0.515	0.458	(0.463)	0.057
161	13.42	1.13	0.515	0.456	(0.463)	0.059
162	13.50	1.13	0.515	0.454	(0.463)	0.061
163	13.58	0.77	0.348	(0.452)	0.314	0.035
164	13.67	0.77	0.348	(0.449)	0.314	0.035
165	13.75	0.77	0.348	(0.447)	0.314	0.035
166	13.83	0.77	0.348	(0.445)	0.314	0.035
167	13.92	0.77	0.348	(0.442)	0.314	0.035
168	14.00	0.77	0.348	(0.440)	0.314	0.035
169	14.08	0.90	0.409	(0.438)	0.368	0.041
170	14.17	0.90	0.409	(0.436)	0.368	0.041
171	14.25	0.90	0.409	(0.433)	0.368	0.041
172	14.33	0.87	0.394	(0.431)	0.354	0.039
173	14.42	0.87	0.394	(0.429)	0.354	0.039
174	14.50	0.87	0.394	(0.427)	0.354	0.039
175	14.58	0.87	0.394	(0.425)	0.354	0.039
176	14.67	0.87	0.394	(0.422)	0.354	0.039
177	14.75	0.87	0.394	(0.420)	0.354	0.039
178	14.83	0.83	0.379	(0.418)	0.341	0.038
179	14.92	0.83	0.379	(0.416)	0.341	0.038
180	15.00	0.83	0.379	(0.414)	0.341	0.038
181	15.08	0.80	0.364	(0.412)	0.327	0.036
182	15.17	0.80	0.364	(0.410)	0.327	0.036
183	15.25	0.80	0.364	(0.407)	0.327	0.036
184	15.33	0.77	0.348	(0.405)	0.314	0.035
185	15.42	0.77	0.348	(0.403)	0.314	0.035
186	15.50	0.77	0.348	(0.401)	0.314	0.035

187	15.58	0.63	0.288	(0.399)	0.259	0.029
188	15.67	0.63	0.288	(0.397)	0.259	0.029
189	15.75	0.63	0.288	(0.395)	0.259	0.029
190	15.83	0.63	0.288	(0.393)	0.259	0.029
191	15.92	0.63	0.288	(0.391)	0.259	0.029
192	16.00	0.63	0.288	(0.389)	0.259	0.029
193	16.08	0.13	0.061	(0.387)	0.055	0.006
194	16.17	0.13	0.061	(0.385)	0.055	0.006
195	16.25	0.13	0.061	(0.383)	0.055	0.006
196	16.33	0.13	0.061	(0.381)	0.055	0.006
197	16.42	0.13	0.061	(0.379)	0.055	0.006
198	16.50	0.13	0.061	(0.377)	0.055	0.006
199	16.58	0.10	0.045	(0.375)	0.041	0.005
200	16.67	0.10	0.045	(0.373)	0.041	0.005
201	16.75	0.10	0.045	(0.372)	0.041	0.005
202	16.83	0.10	0.045	(0.370)	0.041	0.005
203	16.92	0.10	0.045	(0.368)	0.041	0.005
204	17.00	0.10	0.045	(0.366)	0.041	0.005
205	17.08	0.17	0.076	(0.364)	0.068	0.008
206	17.17	0.17	0.076	(0.362)	0.068	0.008
207	17.25	0.17	0.076	(0.360)	0.068	0.008
208	17.33	0.17	0.076	(0.359)	0.068	0.008
209	17.42	0.17	0.076	(0.357)	0.068	0.008
210	17.50	0.17	0.076	(0.355)	0.068	0.008
211	17.58	0.17	0.076	(0.353)	0.068	0.008
212	17.67	0.17	0.076	(0.352)	0.068	0.008
213	17.75	0.17	0.076	(0.350)	0.068	0.008
214	17.83	0.13	0.061	(0.348)	0.055	0.006
215	17.92	0.13	0.061	(0.346)	0.055	0.006
216	18.00	0.13	0.061	(0.345)	0.055	0.006
217	18.08	0.13	0.061	(0.343)	0.055	0.006
218	18.17	0.13	0.061	(0.341)	0.055	0.006
219	18.25	0.13	0.061	(0.340)	0.055	0.006
220	18.33	0.13	0.061	(0.338)	0.055	0.006
221	18.42	0.13	0.061	(0.336)	0.055	0.006
222	18.50	0.13	0.061	(0.335)	0.055	0.006
223	18.58	0.10	0.045	(0.333)	0.041	0.005
224	18.67	0.10	0.045	(0.331)	0.041	0.005
225	18.75	0.10	0.045	(0.330)	0.041	0.005
226	18.83	0.07	0.030	(0.328)	0.027	0.003
227	18.92	0.07	0.030	(0.327)	0.027	0.003
228	19.00	0.07	0.030	(0.325)	0.027	0.003
229	19.08	0.10	0.045	(0.324)	0.041	0.005
230	19.17	0.10	0.045	(0.322)	0.041	0.005
231	19.25	0.10	0.045	(0.321)	0.041	0.005
232	19.33	0.13	0.061	(0.319)	0.055	0.006
233	19.42	0.13	0.061	(0.318)	0.055	0.006
234	19.50	0.13	0.061	(0.316)	0.055	0.006
235	19.58	0.10	0.045	(0.315)	0.041	0.005
236	19.67	0.10	0.045	(0.313)	0.041	0.005
237	19.75	0.10	0.045	(0.312)	0.041	0.005
238	19.83	0.07	0.030	(0.310)	0.027	0.003
239	19.92	0.07	0.030	(0.309)	0.027	0.003
240	20.00	0.07	0.030	(0.308)	0.027	0.003
241	20.08	0.10	0.045	(0.306)	0.041	0.005
242	20.17	0.10	0.045	(0.305)	0.041	0.005
243	20.25	0.10	0.045	(0.304)	0.041	0.005
244	20.33	0.10	0.045	(0.302)	0.041	0.005
245	20.42	0.10	0.045	(0.301)	0.041	0.005
246	20.50	0.10	0.045	(0.300)	0.041	0.005
247	20.58	0.10	0.045	(0.298)	0.041	0.005
248	20.67	0.10	0.045	(0.297)	0.041	0.005
249	20.75	0.10	0.045	(0.296)	0.041	0.005

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250  20.83     0.07      0.030       (  0.295)       0.027        0.003
251  20.92     0.07      0.030       (  0.294)       0.027        0.003
252  21.00     0.07      0.030       (  0.292)       0.027        0.003
253  21.08     0.10      0.045       (  0.291)       0.041        0.005
254  21.17     0.10      0.045       (  0.290)       0.041        0.005
255  21.25     0.10      0.045       (  0.289)       0.041        0.005
256  21.33     0.07      0.030       (  0.288)       0.027        0.003
257  21.42     0.07      0.030       (  0.287)       0.027        0.003
258  21.50     0.07      0.030       (  0.286)       0.027        0.003
259  21.58     0.10      0.045       (  0.285)       0.041        0.005
260  21.67     0.10      0.045       (  0.284)       0.041        0.005
261  21.75     0.10      0.045       (  0.283)       0.041        0.005
262  21.83     0.07      0.030       (  0.282)       0.027        0.003
263  21.92     0.07      0.030       (  0.281)       0.027        0.003
264  22.00     0.07      0.030       (  0.280)       0.027        0.003
265  22.08     0.10      0.045       (  0.279)       0.041        0.005
266  22.17     0.10      0.045       (  0.278)       0.041        0.005
267  22.25     0.10      0.045       (  0.277)       0.041        0.005
268  22.33     0.07      0.030       (  0.276)       0.027        0.003
269  22.42     0.07      0.030       (  0.275)       0.027        0.003
270  22.50     0.07      0.030       (  0.275)       0.027        0.003
271  22.58     0.07      0.030       (  0.274)       0.027        0.003
272  22.67     0.07      0.030       (  0.273)       0.027        0.003
273  22.75     0.07      0.030       (  0.272)       0.027        0.003
274  22.83     0.07      0.030       (  0.271)       0.027        0.003
275  22.92     0.07      0.030       (  0.271)       0.027        0.003
276  23.00     0.07      0.030       (  0.270)       0.027        0.003
277  23.08     0.07      0.030       (  0.270)       0.027        0.003
278  23.17     0.07      0.030       (  0.269)       0.027        0.003
279  23.25     0.07      0.030       (  0.268)       0.027        0.003
280  23.33     0.07      0.030       (  0.268)       0.027        0.003
281  23.42     0.07      0.030       (  0.267)       0.027        0.003
282  23.50     0.07      0.030       (  0.267)       0.027        0.003
283  23.58     0.07      0.030       (  0.266)       0.027        0.003
284  23.67     0.07      0.030       (  0.266)       0.027        0.003
285  23.75     0.07      0.030       (  0.266)       0.027        0.003
286  23.83     0.07      0.030       (  0.265)       0.027        0.003
287  23.92     0.07      0.030       (  0.265)       0.027        0.003
288  24.00     0.07      0.030       (  0.265)       0.027        0.003
           (Loss Rate Not Used)
    Sum =     100.0                                    Sum =     4.6
      Flood volume = Effective rainfall      0.38(In)
       times area     214.4(Ac.)/[(In)/(Ft.)] =       6.8(Ac.Ft)
      Total soil loss =      3.41(In)
      Total soil loss =    60.860(Ac.Ft)
      Total rainfall =      3.79(In)
      Flood volume =      296371.3 Cubic Feet
      Total soil loss =     2651082.4 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =     11.259(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
 ---------------------------------------------------------------------------
   0+ 5       0.0001      0.02  Q         |         |         |         |
   0+10       0.0007      0.09  Q         |         |         |         |
   0+15       0.0021      0.20  Q         |         |         |         |
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0+20	0.0045	0.34	Q	|	|	|	|
0+25	0.0077	0.46	Q	|	|	|	|
0+30	0.0116	0.57	VQ	|	|	|	|
0+35	0.0163	0.67	VQ	|	|	|	|
0+40	0.0213	0.74	VQ	|	|	|	|
0+45	0.0267	0.78	VQ	|	|	|	|
0+50	0.0324	0.82	VQ	|	|	|	|
0+55	0.0385	0.88	VQ	|	|	|	|
1+ 0	0.0451	0.96	VQ	|	|	|	|
1+ 5	0.0523	1.04	V Q	|	|	|	|
1+10	0.0596	1.06	V Q	|	|	|	|
1+15	0.0668	1.04	V Q	|	|	|	|
1+20	0.0737	1.00	V Q	|	|	|	|
1+25	0.0804	0.98	VQ	|	|	|	|
1+30	0.0871	0.97	VQ	|	|	|	|
1+35	0.0938	0.97	VQ	|	|	|	|
1+40	0.1006	0.97	VQ	|	|	|	|
1+45	0.1073	0.98	VQ	|	|	|	|
1+50	0.1141	0.99	VQ	|	|	|	|
1+55	0.1211	1.02	V Q	|	|	|	|
2+ 0	0.1286	1.08	V Q	|	|	|	|
2+ 5	0.1365	1.15	V Q	|	|	|	|
2+10	0.1447	1.19	V Q	|	|	|	|
2+15	0.1531	1.22	V Q	|	|	|	|
2+20	0.1617	1.24	V Q	|	|	|	|
2+25	0.1703	1.25	|VQ	|	|	|	|
2+30	0.1790	1.26	|VQ	|	|	|	|
2+35	0.1878	1.28	|VQ	|	|	|	|
2+40	0.1969	1.32	|VQ	|	|	|	|
2+45	0.2064	1.38	|VQ	|	|	|	|
2+50	0.2164	1.45	|VQ	|	|	|	|
2+55	0.2267	1.50	|VQ	|	|	|	|
3+ 0	0.2372	1.53	|V Q	|	|	|	|
3+ 5	0.2479	1.55	|V Q	|	|	|	|
3+10	0.2586	1.56	|V Q	|	|	|	|
3+15	0.2694	1.57	|V Q	|	|	|	|
3+20	0.2803	1.58	|V Q	|	|	|	|
3+25	0.2913	1.59	|V Q	|	|	|	|
3+30	0.3023	1.60	|V Q	|	|	|	|
3+35	0.3133	1.60	|V Q	|	|	|	|
3+40	0.3244	1.61	|V Q	|	|	|	|
3+45	0.3355	1.61	|V Q	|	|	|	|
3+50	0.3467	1.63	| VQ	|	|	|	|
3+55	0.3582	1.66	| VQ	|	|	|	|
4+ 0	0.3701	1.73	| VQ	|	|	|	|
4+ 5	0.3824	1.79	| VQ	|	|	|	|
4+10	0.3951	1.84	| VQ	|	|	|	|
4+15	0.4079	1.87	| VQ	|	|	|	|
4+20	0.4210	1.89	| VQ	|	|	|	|
4+25	0.4343	1.94	| VQ	|	|	|	|
4+30	0.4482	2.01	| V Q	|	|	|	|
4+35	0.4625	2.08	| V Q	|	|	|	|
4+40	0.4772	2.14	| V Q	|	|	|	|
4+45	0.4922	2.17	| V Q	|	|	|	|
4+50	0.5073	2.20	| V Q	|	|	|	|
4+55	0.5228	2.25	| VQ	|	|	|	|
5+ 0	0.5387	2.32	| VQ	|	|	|	|
5+ 5	0.5551	2.38	| VQ	|	|	|	|
5+10	0.5714	2.36	| VQ	|	|	|	|
5+15	0.5871	2.28	| VQ	|	|	|	|
5+20	0.6021	2.18	| VQ	|	|	|	|
5+25	0.6169	2.14	| VQ	|	|	|	|
5+30	0.6318	2.17	| VQ	|	|	|	|

5+35	0.6471	2.23	VQ				
5+40	0.6629	2.29	VQ				
5+45	0.6791	2.36	VQ				
5+50	0.6959	2.43	Q				
5+55	0.7130	2.48	Q				
6+ 0	0.7303	2.51	VQ				
6+ 5	0.7478	2.54	VQ				
6+10	0.7656	2.59	VQ				
6+15	0.7840	2.66	VQ				
6+20	0.8028	2.74	VQ				
6+25	0.8220	2.79	VQ				
6+30	0.8414	2.82	VQ				
6+35	0.8610	2.85	Q				
6+40	0.8810	2.90	Q				
6+45	0.9015	2.97	Q				
6+50	0.9225	3.05	VQ				
6+55	0.9439	3.10	VQ				
7+ 0	0.9655	3.14	VQ				
7+ 5	0.9872	3.16	VQ				
7+10	1.0091	3.18	VQ				
7+15	1.0311	3.19	Q				
7+20	1.0532	3.21	Q				
7+25	1.0756	3.26	Q				
7+30	1.0985	3.33	Q				
7+35	1.1220	3.41	Q				
7+40	1.1461	3.49	Q				
7+45	1.1708	3.58	VQ				
7+50	1.1961	3.68	Q				
7+55	1.2221	3.77	Q				
8+ 0	1.2488	3.87	Q				
8+ 5	1.2762	3.98	Q				
8+10	1.3045	4.11	VQ				
8+15	1.3339	4.27	VQ				
8+20	1.3645	4.44	Q				
8+25	1.3958	4.55	VQ				
8+30	1.4276	4.62	VQ				
8+35	1.4598	4.67	VQ				
8+40	1.4925	4.75	VQ				
8+45	1.5258	4.84	VQ				
8+50	1.5599	4.94	Q				
8+55	1.5946	5.04	VQ				
9+ 0	1.6300	5.14	VQ				
9+ 5	1.6662	5.26	VQ				
9+10	1.7034	5.40	Q				
9+15	1.7417	5.56	VQ				
9+20	1.7812	5.74	VQ				
9+25	1.8217	5.88	VQ				
9+30	1.8631	6.02	V Q				
9+35	1.9055	6.14	VQ				
9+40	1.9486	6.26	VQ				
9+45	1.9925	6.38	VQ				
9+50	2.0373	6.50	VQ				
9+55	2.0828	6.61	VQ				
10+ 0	2.1291	6.73	VQ				
10+ 5	2.1757	6.77	VQ				
10+10	2.2213	6.61	Q				
10+15	2.2643	6.25	QV				
10+20	2.3044	5.83	Q V				
10+25	2.3427	5.56	Q V				
10+30	2.3800	5.41	Q V				
10+35	2.4170	5.37	Q V				
10+40	2.4547	5.47	Q V				
10+45	2.4940	5.72	Q V				

10+50	2.5354	6.00	|	| Q V |	|	|
10+55	2.5779	6.18	|	| Q V |	|	|
11+ 0	2.6211	6.27	|	| Q V |	|	|
11+ 5	2.6647	6.32	|	| Q V |	|	|
11+10	2.7082	6.33	|	| Q V |	|	|
11+15	2.7516	6.30	|	| Q V |	|	|
11+20	2.7947	6.26	|	| Q V |	|	|
11+25	2.8377	6.23	|	| Q V |	|	|
11+30	2.8805	6.23	|	| Q V |	|	|
11+35	2.9233	6.20	|	| Q V |	|	|
11+40	2.9655	6.13	|	| Q V |	|	|
11+45	3.0069	6.01	|	| Q V |	|	|
11+50	3.0475	5.89	|	|Q V |	|	|
11+55	3.0877	5.84	|	|Q V |	|	|
12+ 0	3.1280	5.85	|	|Q V |	|	|
12+ 5	3.1689	5.95	|	|Q V |	|	|
12+10	3.2116	6.20	|	| Q V |	|	|
12+15	3.2572	6.62	|	| Q V|	|	|
12+20	3.3059	7.08	|	| Q V|	|	|
12+25	3.3570	7.42	|	| Q V|	|	|
12+30	3.4098	7.65	|	| Q V	|	|
12+35	3.4638	7.85	|	| Q V	|	|
12+40	3.5192	8.05	|	| Q V	|	|
12+45	3.5761	8.26	|	| Q |V	|	|
12+50	3.6345	8.48	|	| Q |V	|	|
12+55	3.6941	8.65	|	| Q |V	|	|
13+ 0	3.7548	8.81	|	| Q | V	|	|
13+ 5	3.8167	8.99	|	| Q | V	|	|
13+10	3.8805	9.26	|	| Q | V	|	|
13+15	3.9470	9.65	|	| Q| V	|	|
13+20	4.0167	10.12	|	| Q V	|	|
13+25	4.0894	10.56	|	| |Q V	|	|
13+30	4.1651	10.99	|	| |Q V	|	|
13+35	4.2426	11.26	|	| | Q V	|	|
13+40	4.3188	11.06	|	| | Q V	|	|
13+45	4.3900	10.34	|	| Q V	|	|
13+50	4.4549	9.41	|	| Q | V	|	|
13+55	4.5156	8.82	|	| Q | V	|	|
14+ 0	4.5742	8.51	|	| Q | V	|	|
14+ 5	4.6319	8.37	|	| Q | V	|	|
14+10	4.6895	8.37	|	| Q | V	|	|
14+15	4.7482	8.51	|	| Q | V	|	|
14+20	4.8079	8.68	|	| Q | V	|	|
14+25	4.8682	8.75	|	| Q | V	|	|
14+30	4.9283	8.73	|	| Q | V	|	|
14+35	4.9880	8.68	|	| Q | V|	|	|
14+40	5.0476	8.64	|	| Q | V|	|	|
14+45	5.1070	8.63	|	| Q | V	|	|
14+50	5.1663	8.61	|	| Q | V	|	|
14+55	5.2252	8.56	|	| Q | V	|	|
15+ 0	5.2836	8.48	|	| Q | |V	|	|
15+ 5	5.3415	8.40	|	| Q | |V	|	|
15+10	5.3987	8.31	|	| Q | |V	|	|
15+15	5.4553	8.22	|	| Q | | V	|	|
15+20	5.5113	8.12	|	| Q | | V	|	|
15+25	5.5666	8.03	|	| Q | | V	|	|
15+30	5.6212	7.93	|	| Q | | V	|	|
15+35	5.6748	7.79	|	| Q | | V	|	|
15+40	5.7271	7.59	|	| Q | | V	|	|
15+45	5.7773	7.30	|	| Q | | V	|	|
15+50	5.8255	7.00	|	| Q | | V	|	|
15+55	5.8724	6.81	|	| Q | | V	|	|
16+ 0	5.9185	6.69	|	| Q | | V	|	|

16+ 5	5.9631	6.48	|	Q	|	|	V |
16+10	6.0038	5.91	|	Q	|	|	V |
16+15	6.0381	4.97	|	Q	|	|	V |
16+20	6.0653	3.95	|	Q	|	|	V |
16+25	6.0878	3.27	|	Q	|	|	V |
16+30	6.1075	2.86	|	Q	|	|	V |
16+35	6.1253	2.59	|	Q	|	|	V |
16+40	6.1415	2.35	|	Q	|	|	V |
16+45	6.1561	2.12	|	Q	|	|	V |
16+50	6.1694	1.92	|	Q	|	|	V |
16+55	6.1815	1.76	|	Q	|	|	V |
17+ 0	6.1927	1.64	|	Q	|	|	V |
17+ 5	6.2034	1.55	|	Q	|	|	V |
17+10	6.2140	1.54	|	Q	|	|	V |
17+15	6.2250	1.59	|	Q	|	|	V |
17+20	6.2364	1.66	|	Q	|	|	V |
17+25	6.2480	1.69	|	Q	|	|	V |
17+30	6.2597	1.69	|	Q	|	|	V |
17+35	6.2712	1.68	|	Q	|	|	V |
17+40	6.2828	1.67	|	Q	|	|	V |
17+45	6.2942	1.66	|	Q	|	|	V |
17+50	6.3055	1.64	|	Q	|	|	V |
17+55	6.3165	1.60	|	Q	|	|	V |
18+ 0	6.3270	1.53	|	Q	|	|	V |
18+ 5	6.3371	1.46	| Q	|	|	|	V |
18+10	6.3468	1.41	| Q	|	|	|	V |
18+15	6.3563	1.38	| Q	|	|	|	V |
18+20	6.3656	1.36	| Q	|	|	|	V |
18+25	6.3749	1.35	| Q	|	|	|	V |
18+30	6.3842	1.34	| Q	|	|	|	V |
18+35	6.3933	1.33	| Q	|	|	|	V |
18+40	6.4022	1.29	| Q	|	|	|	V |
18+45	6.4106	1.23	| Q	|	|	|	V |
18+50	6.4186	1.15	| Q	|	|	|	V |
18+55	6.4259	1.07	| Q	|	|	|	V |
19+ 0	6.4327	0.99	|Q	|	|	|	V |
19+ 5	6.4390	0.91	|Q	|	|	|	V |
19+10	6.4452	0.89	|Q	|	|	|	V |
19+15	6.4515	0.91	|Q	|	|	|	V |
19+20	6.4581	0.96	|Q	|	|	|	V |
19+25	6.4651	1.02	| Q	|	|	|	V |
19+30	6.4726	1.09	| Q	|	|	|	V |
19+35	6.4805	1.14	| Q	|	|	|	V |
19+40	6.4884	1.15	| Q	|	|	|	V |
19+45	6.4962	1.12	| Q	|	|	|	V |
19+50	6.5035	1.06	| Q	|	|	|	V |
19+55	6.5103	0.99	|Q	|	|	|	V |
20+ 0	6.5166	0.92	|Q	|	|	|	V |
20+ 5	6.5225	0.85	|Q	|	|	|	V |
20+10	6.5283	0.84	|Q	|	|	|	V |
20+15	6.5343	0.87	|Q	|	|	|	V |
20+20	6.5406	0.91	|Q	|	|	|	V |
20+25	6.5471	0.94	|Q	|	|	|	V |
20+30	6.5536	0.95	|Q	|	|	|	V |
20+35	6.5603	0.96	|Q	|	|	|	V |
20+40	6.5669	0.96	|Q	|	|	|	V |
20+45	6.5736	0.97	|Q	|	|	|	V |
20+50	6.5802	0.96	|Q	|	|	|	V |
20+55	6.5866	0.93	|Q	|	|	|	V |
21+ 0	6.5926	0.87	|Q	|	|	|	V |
21+ 5	6.5982	0.82	|Q	|	|	|	V |
21+10	6.6037	0.81	|Q	|	|	|	V |
21+15	6.6096	0.84	|Q	|	|	|	V |

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   21+20       6.6157      0.89  |Q        |         |         |       V |
   21+25       6.6217      0.88  |Q        |         |         |       V |
   21+30       6.6275      0.84  |Q        |         |         |       V |
   21+35       6.6330      0.79  |Q        |         |         |       V |
   21+40       6.6384      0.79  |Q        |         |         |        V|
   21+45       6.6441      0.83  |Q        |         |         |        V|
   21+50       6.6501      0.87  |Q        |         |         |        V|
   21+55       6.6560      0.87  |Q        |         |         |        V|
   22+ 0       6.6617      0.83  |Q        |         |         |        V|
   22+ 5       6.6671      0.78  |Q        |         |         |        V|
   22+10       6.6725      0.78  |Q        |         |         |        V|
   22+15       6.6781      0.82  |Q        |         |         |        V|
   22+20       6.6841      0.86  |Q        |         |         |        V|
   22+25       6.6900      0.87  |Q        |         |         |        V|
   22+30       6.6957      0.82  |Q        |         |         |        V|
   22+35       6.7010      0.77  |Q        |         |         |        V|
   22+40       6.7061      0.73  |Q        |         |         |        V|
   22+45       6.7110      0.71  |Q        |         |         |        V|
   22+50       6.7158      0.70  |Q        |         |         |        V|
   22+55       6.7206      0.69  |Q        |         |         |        V|
   23+ 0       6.7254      0.69  |Q        |         |         |        V|
   23+ 5       6.7301      0.68  |Q        |         |         |        V|
   23+10       6.7347      0.68  |Q        |         |         |        V|
   23+15       6.7394      0.68  |Q        |         |         |        V|
   23+20       6.7440      0.67  |Q        |         |         |        V|
   23+25       6.7486      0.67  |Q        |         |         |        V|
   23+30       6.7532      0.67  |Q        |         |         |        V|
   23+35       6.7578      0.67  |Q        |         |         |        V|
   23+40       6.7624      0.66  |Q        |         |         |        V|
   23+45       6.7670      0.66  |Q        |         |         |        V|
   23+50       6.7715      0.66  |Q        |         |         |        V|
   23+55       6.7761      0.66  |Q        |         |         |        V|
   24+ 0       6.7806      0.66  |Q        |         |         |        V|
   24+ 5       6.7850      0.64  |Q        |         |         |        V|
   24+10       6.7890      0.57  |Q        |         |         |        V|
   24+15       6.7921      0.45  Q         |         |         |        V|
   24+20       6.7943      0.32  Q         |         |         |        V|
   24+25       6.7959      0.24  Q         |         |         |        V|
   24+30       6.7972      0.18  Q         |         |         |        V|
   24+35       6.7982      0.15  Q         |         |         |        V|
   24+40       6.7991      0.13  Q         |         |         |        V|
   24+45       6.7999      0.11  Q         |         |         |        V|
   24+50       6.8005      0.09  Q         |         |         |        V|
   24+55       6.8010      0.08  Q         |         |         |        V|
   25+ 0       6.8015      0.07  Q         |         |         |        V|
   25+ 5       6.8019      0.06  Q         |         |         |        V|
   25+10       6.8022      0.05  Q         |         |         |        V|
   25+15       6.8025      0.04  Q         |         |         |        V|
   25+20       6.8028      0.04  Q         |         |         |        V|
   25+25       6.8030      0.03  Q         |         |         |        V|
   25+30       6.8031      0.03  Q         |         |         |        V|
   25+35       6.8033      0.02  Q         |         |         |        V|
   25+40       6.8034      0.02  Q         |         |         |        V|
   25+45       6.8035      0.01  Q         |         |         |        V|
   25+50       6.8036      0.01  Q         |         |         |        V|
   25+55       6.8036      0.01  Q         |         |         |        V|
   26+ 0       6.8037      0.01  Q         |         |         |        V|
   26+ 5       6.8037      0.01  Q         |         |         |        V|
   26+10       6.8037      0.00  Q         |         |         |        V|
   26+15       6.8037      0.00  Q         |         |         |         V
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APPENDIX E.4: AREA “A” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 2–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/14/15 File: AEX242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - EXISTING CONDITION
2YR-24HR
FN: AEX242

Drainage Area = 214.43(Ac.) = 0.335 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 214.43(Ac.) = 0.335 Sq. Mi.
Length along longest watercourse = 6828.00(Ft.)
Length along longest watercourse measured to centroid = 3171.00(Ft.)
Length along longest watercourse = 1.293 Mi.
Length along longest watercourse measured to centroid = 0.601 Mi.
Difference in elevation = 241.00(Ft.)
Slope along watercourse = 186.3620 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.283 Hr.
Lag time = 16.96 Min.
25% of lag time = 4.24 Min.
40% of lag time = 6.78 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	2.50	536.08

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
214.43	8.00	1715.44

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 2.500(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 2.499(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
214.430	72.60	0.000

Total Area Entered = 214.43(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
72.6	54.1	0.530	0.000	0.530	1.000	0.530
					Sum (F) =	0.530

Area averaged mean soil loss (F) (In/Hr) = 0.530
Minimum soil loss rate ((In/Hr)) = 0.265
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	29.486	2.834	6.124
2	0.167	58.973	10.300	22.259
3	0.250	88.459	18.070	39.050
4	0.333	117.946	20.029	43.284
5	0.417	147.432	13.105	28.320
6	0.500	176.919	7.582	16.385
7	0.583	206.405	4.827	10.431
8	0.667	235.892	3.751	8.106
9	0.750	265.378	3.018	6.522
10	0.833	294.865	2.528	5.464
11	0.917	324.351	2.027	4.381
12	1.000	353.838	1.771	3.826
13	1.083	383.324	1.476	3.189
14	1.167	412.811	1.264	2.732
15	1.250	442.297	1.000	2.161
16	1.333	471.784	0.927	2.004
17	1.417	501.270	0.886	1.916
18	1.500	530.757	0.757	1.635
19	1.583	560.243	0.642	1.387
20	1.667	589.730	0.556	1.201
21	1.750	619.216	0.506	1.093
22	1.833	648.703	0.420	0.908
23	1.917	678.189	0.359	0.776
24	2.000	707.676	0.295	0.637
25	2.083	737.162	0.295	0.637
26	2.167	766.649	0.295	0.637
27	2.250	796.135	0.295	0.637
28	2.333	825.622	0.186	0.402
			Sum = 100.000	Sum= 216.105

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max		Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.939)		0.018	0.002
2	0.17	0.07	0.020	(0.936)		0.018	0.002
3	0.25	0.07	0.020	(0.932)		0.018	0.002
4	0.33	0.10	0.030	(0.928)		0.027	0.003
5	0.42	0.10	0.030	(0.925)		0.027	0.003
6	0.50	0.10	0.030	(0.921)		0.027	0.003
7	0.58	0.10	0.030	(0.918)		0.027	0.003
8	0.67	0.10	0.030	(0.914)		0.027	0.003
9	0.75	0.10	0.030	(0.910)		0.027	0.003
10	0.83	0.13	0.040	(0.907)		0.036	0.004
11	0.92	0.13	0.040	(0.903)		0.036	0.004
12	1.00	0.13	0.040	(0.900)		0.036	0.004
13	1.08	0.10	0.030	(0.896)		0.027	0.003
14	1.17	0.10	0.030	(0.893)		0.027	0.003
15	1.25	0.10	0.030	(0.889)		0.027	0.003
16	1.33	0.10	0.030	(0.886)		0.027	0.003
17	1.42	0.10	0.030	(0.882)		0.027	0.003
18	1.50	0.10	0.030	(0.878)		0.027	0.003
19	1.58	0.10	0.030	(0.875)		0.027	0.003
20	1.67	0.10	0.030	(0.871)		0.027	0.003
21	1.75	0.10	0.030	(0.868)		0.027	0.003
22	1.83	0.13	0.040	(0.864)		0.036	0.004
23	1.92	0.13	0.040	(0.861)		0.036	0.004
24	2.00	0.13	0.040	(0.857)		0.036	0.004
25	2.08	0.13	0.040	(0.854)		0.036	0.004
26	2.17	0.13	0.040	(0.851)		0.036	0.004
27	2.25	0.13	0.040	(0.847)		0.036	0.004
28	2.33	0.13	0.040	(0.844)		0.036	0.004
29	2.42	0.13	0.040	(0.840)		0.036	0.004
30	2.50	0.13	0.040	(0.837)		0.036	0.004
31	2.58	0.17	0.050	(0.833)		0.045	0.005
32	2.67	0.17	0.050	(0.830)		0.045	0.005
33	2.75	0.17	0.050	(0.827)		0.045	0.005
34	2.83	0.17	0.050	(0.823)		0.045	0.005
35	2.92	0.17	0.050	(0.820)		0.045	0.005
36	3.00	0.17	0.050	(0.816)		0.045	0.005
37	3.08	0.17	0.050	(0.813)		0.045	0.005
38	3.17	0.17	0.050	(0.810)		0.045	0.005
39	3.25	0.17	0.050	(0.806)		0.045	0.005
40	3.33	0.17	0.050	(0.803)		0.045	0.005
41	3.42	0.17	0.050	(0.800)		0.045	0.005
42	3.50	0.17	0.050	(0.796)		0.045	0.005
43	3.58	0.17	0.050	(0.793)		0.045	0.005
44	3.67	0.17	0.050	(0.790)		0.045	0.005
45	3.75	0.17	0.050	(0.786)		0.045	0.005
46	3.83	0.20	0.060	(0.783)		0.054	0.006
47	3.92	0.20	0.060	(0.780)		0.054	0.006
48	4.00	0.20	0.060	(0.776)		0.054	0.006
49	4.08	0.20	0.060	(0.773)		0.054	0.006
50	4.17	0.20	0.060	(0.770)		0.054	0.006
51	4.25	0.20	0.060	(0.766)		0.054	0.006
52	4.33	0.23	0.070	(0.763)		0.063	0.007
53	4.42	0.23	0.070	(0.760)		0.063	0.007
54	4.50	0.23	0.070	(0.757)		0.063	0.007
55	4.58	0.23	0.070	(0.753)		0.063	0.007
56	4.67	0.23	0.070	(0.750)		0.063	0.007
57	4.75	0.23	0.070	(0.747)		0.063	0.007
58	4.83	0.27	0.080	(0.744)		0.072	0.008
59	4.92	0.27	0.080	(0.740)		0.072	0.008
60	5.00	0.27	0.080	(0.737)		0.072	0.008

61	5.08	0.20	0.060	(0.734)	0.054	0.006
62	5.17	0.20	0.060	(0.731)	0.054	0.006
63	5.25	0.20	0.060	(0.728)	0.054	0.006
64	5.33	0.23	0.070	(0.725)	0.063	0.007
65	5.42	0.23	0.070	(0.721)	0.063	0.007
66	5.50	0.23	0.070	(0.718)	0.063	0.007
67	5.58	0.27	0.080	(0.715)	0.072	0.008
68	5.67	0.27	0.080	(0.712)	0.072	0.008
69	5.75	0.27	0.080	(0.709)	0.072	0.008
70	5.83	0.27	0.080	(0.706)	0.072	0.008
71	5.92	0.27	0.080	(0.702)	0.072	0.008
72	6.00	0.27	0.080	(0.699)	0.072	0.008
73	6.08	0.30	0.090	(0.696)	0.081	0.009
74	6.17	0.30	0.090	(0.693)	0.081	0.009
75	6.25	0.30	0.090	(0.690)	0.081	0.009
76	6.33	0.30	0.090	(0.687)	0.081	0.009
77	6.42	0.30	0.090	(0.684)	0.081	0.009
78	6.50	0.30	0.090	(0.681)	0.081	0.009
79	6.58	0.33	0.100	(0.678)	0.090	0.010
80	6.67	0.33	0.100	(0.675)	0.090	0.010
81	6.75	0.33	0.100	(0.672)	0.090	0.010
82	6.83	0.33	0.100	(0.669)	0.090	0.010
83	6.92	0.33	0.100	(0.666)	0.090	0.010
84	7.00	0.33	0.100	(0.663)	0.090	0.010
85	7.08	0.33	0.100	(0.660)	0.090	0.010
86	7.17	0.33	0.100	(0.657)	0.090	0.010
87	7.25	0.33	0.100	(0.654)	0.090	0.010
88	7.33	0.37	0.110	(0.651)	0.099	0.011
89	7.42	0.37	0.110	(0.648)	0.099	0.011
90	7.50	0.37	0.110	(0.645)	0.099	0.011
91	7.58	0.40	0.120	(0.642)	0.108	0.012
92	7.67	0.40	0.120	(0.639)	0.108	0.012
93	7.75	0.40	0.120	(0.636)	0.108	0.012
94	7.83	0.43	0.130	(0.633)	0.117	0.013
95	7.92	0.43	0.130	(0.630)	0.117	0.013
96	8.00	0.43	0.130	(0.627)	0.117	0.013
97	8.08	0.50	0.150	(0.624)	0.135	0.015
98	8.17	0.50	0.150	(0.621)	0.135	0.015
99	8.25	0.50	0.150	(0.618)	0.135	0.015
100	8.33	0.50	0.150	(0.615)	0.135	0.015
101	8.42	0.50	0.150	(0.613)	0.135	0.015
102	8.50	0.50	0.150	(0.610)	0.135	0.015
103	8.58	0.53	0.160	(0.607)	0.144	0.016
104	8.67	0.53	0.160	(0.604)	0.144	0.016
105	8.75	0.53	0.160	(0.601)	0.144	0.016
106	8.83	0.57	0.170	(0.598)	0.153	0.017
107	8.92	0.57	0.170	(0.595)	0.153	0.017
108	9.00	0.57	0.170	(0.593)	0.153	0.017
109	9.08	0.63	0.190	(0.590)	0.171	0.019
110	9.17	0.63	0.190	(0.587)	0.171	0.019
111	9.25	0.63	0.190	(0.584)	0.171	0.019
112	9.33	0.67	0.200	(0.581)	0.180	0.020
113	9.42	0.67	0.200	(0.579)	0.180	0.020
114	9.50	0.67	0.200	(0.576)	0.180	0.020
115	9.58	0.70	0.210	(0.573)	0.189	0.021
116	9.67	0.70	0.210	(0.570)	0.189	0.021
117	9.75	0.70	0.210	(0.568)	0.189	0.021
118	9.83	0.73	0.220	(0.565)	0.198	0.022
119	9.92	0.73	0.220	(0.562)	0.198	0.022
120	10.00	0.73	0.220	(0.560)	0.198	0.022
121	10.08	0.50	0.150	(0.557)	0.135	0.015
122	10.17	0.50	0.150	(0.554)	0.135	0.015
123	10.25	0.50	0.150	(0.551)	0.135	0.015

124	10.33	0.50	0.150	(0.549)	0.135	0.015
125	10.42	0.50	0.150	(0.546)	0.135	0.015
126	10.50	0.50	0.150	(0.543)	0.135	0.015
127	10.58	0.67	0.200	(0.541)	0.180	0.020
128	10.67	0.67	0.200	(0.538)	0.180	0.020
129	10.75	0.67	0.200	(0.535)	0.180	0.020
130	10.83	0.67	0.200	(0.533)	0.180	0.020
131	10.92	0.67	0.200	(0.530)	0.180	0.020
132	11.00	0.67	0.200	(0.528)	0.180	0.020
133	11.08	0.63	0.190	(0.525)	0.171	0.019
134	11.17	0.63	0.190	(0.522)	0.171	0.019
135	11.25	0.63	0.190	(0.520)	0.171	0.019
136	11.33	0.63	0.190	(0.517)	0.171	0.019
137	11.42	0.63	0.190	(0.515)	0.171	0.019
138	11.50	0.63	0.190	(0.512)	0.171	0.019
139	11.58	0.57	0.170	(0.510)	0.153	0.017
140	11.67	0.57	0.170	(0.507)	0.153	0.017
141	11.75	0.57	0.170	(0.505)	0.153	0.017
142	11.83	0.60	0.180	(0.502)	0.162	0.018
143	11.92	0.60	0.180	(0.500)	0.162	0.018
144	12.00	0.60	0.180	(0.497)	0.162	0.018
145	12.08	0.83	0.250	(0.495)	0.225	0.025
146	12.17	0.83	0.250	(0.492)	0.225	0.025
147	12.25	0.83	0.250	(0.490)	0.225	0.025
148	12.33	0.87	0.260	(0.487)	0.234	0.026
149	12.42	0.87	0.260	(0.485)	0.234	0.026
150	12.50	0.87	0.260	(0.482)	0.234	0.026
151	12.58	0.93	0.280	(0.480)	0.252	0.028
152	12.67	0.93	0.280	(0.477)	0.252	0.028
153	12.75	0.93	0.280	(0.475)	0.252	0.028
154	12.83	0.97	0.290	(0.473)	0.261	0.029
155	12.92	0.97	0.290	(0.470)	0.261	0.029
156	13.00	0.97	0.290	(0.468)	0.261	0.029
157	13.08	1.13	0.340	(0.466)	0.306	0.034
158	13.17	1.13	0.340	(0.463)	0.306	0.034
159	13.25	1.13	0.340	(0.461)	0.306	0.034
160	13.33	1.13	0.340	(0.458)	0.306	0.034
161	13.42	1.13	0.340	(0.456)	0.306	0.034
162	13.50	1.13	0.340	(0.454)	0.306	0.034
163	13.58	0.77	0.230	(0.452)	0.207	0.023
164	13.67	0.77	0.230	(0.449)	0.207	0.023
165	13.75	0.77	0.230	(0.447)	0.207	0.023
166	13.83	0.77	0.230	(0.445)	0.207	0.023
167	13.92	0.77	0.230	(0.442)	0.207	0.023
168	14.00	0.77	0.230	(0.440)	0.207	0.023
169	14.08	0.90	0.270	(0.438)	0.243	0.027
170	14.17	0.90	0.270	(0.436)	0.243	0.027
171	14.25	0.90	0.270	(0.433)	0.243	0.027
172	14.33	0.87	0.260	(0.431)	0.234	0.026
173	14.42	0.87	0.260	(0.429)	0.234	0.026
174	14.50	0.87	0.260	(0.427)	0.234	0.026
175	14.58	0.87	0.260	(0.425)	0.234	0.026
176	14.67	0.87	0.260	(0.422)	0.234	0.026
177	14.75	0.87	0.260	(0.420)	0.234	0.026
178	14.83	0.83	0.250	(0.418)	0.225	0.025
179	14.92	0.83	0.250	(0.416)	0.225	0.025
180	15.00	0.83	0.250	(0.414)	0.225	0.025
181	15.08	0.80	0.240	(0.412)	0.216	0.024
182	15.17	0.80	0.240	(0.410)	0.216	0.024
183	15.25	0.80	0.240	(0.407)	0.216	0.024
184	15.33	0.77	0.230	(0.405)	0.207	0.023
185	15.42	0.77	0.230	(0.403)	0.207	0.023
186	15.50	0.77	0.230	(0.401)	0.207	0.023

187	15.58	0.63	0.190	(0.399)	0.171	0.019
188	15.67	0.63	0.190	(0.397)	0.171	0.019
189	15.75	0.63	0.190	(0.395)	0.171	0.019
190	15.83	0.63	0.190	(0.393)	0.171	0.019
191	15.92	0.63	0.190	(0.391)	0.171	0.019
192	16.00	0.63	0.190	(0.389)	0.171	0.019
193	16.08	0.13	0.040	(0.387)	0.036	0.004
194	16.17	0.13	0.040	(0.385)	0.036	0.004
195	16.25	0.13	0.040	(0.383)	0.036	0.004
196	16.33	0.13	0.040	(0.381)	0.036	0.004
197	16.42	0.13	0.040	(0.379)	0.036	0.004
198	16.50	0.13	0.040	(0.377)	0.036	0.004
199	16.58	0.10	0.030	(0.375)	0.027	0.003
200	16.67	0.10	0.030	(0.373)	0.027	0.003
201	16.75	0.10	0.030	(0.372)	0.027	0.003
202	16.83	0.10	0.030	(0.370)	0.027	0.003
203	16.92	0.10	0.030	(0.368)	0.027	0.003
204	17.00	0.10	0.030	(0.366)	0.027	0.003
205	17.08	0.17	0.050	(0.364)	0.045	0.005
206	17.17	0.17	0.050	(0.362)	0.045	0.005
207	17.25	0.17	0.050	(0.360)	0.045	0.005
208	17.33	0.17	0.050	(0.359)	0.045	0.005
209	17.42	0.17	0.050	(0.357)	0.045	0.005
210	17.50	0.17	0.050	(0.355)	0.045	0.005
211	17.58	0.17	0.050	(0.353)	0.045	0.005
212	17.67	0.17	0.050	(0.352)	0.045	0.005
213	17.75	0.17	0.050	(0.350)	0.045	0.005
214	17.83	0.13	0.040	(0.348)	0.036	0.004
215	17.92	0.13	0.040	(0.346)	0.036	0.004
216	18.00	0.13	0.040	(0.345)	0.036	0.004
217	18.08	0.13	0.040	(0.343)	0.036	0.004
218	18.17	0.13	0.040	(0.341)	0.036	0.004
219	18.25	0.13	0.040	(0.340)	0.036	0.004
220	18.33	0.13	0.040	(0.338)	0.036	0.004
221	18.42	0.13	0.040	(0.336)	0.036	0.004
222	18.50	0.13	0.040	(0.335)	0.036	0.004
223	18.58	0.10	0.030	(0.333)	0.027	0.003
224	18.67	0.10	0.030	(0.331)	0.027	0.003
225	18.75	0.10	0.030	(0.330)	0.027	0.003
226	18.83	0.07	0.020	(0.328)	0.018	0.002
227	18.92	0.07	0.020	(0.327)	0.018	0.002
228	19.00	0.07	0.020	(0.325)	0.018	0.002
229	19.08	0.10	0.030	(0.324)	0.027	0.003
230	19.17	0.10	0.030	(0.322)	0.027	0.003
231	19.25	0.10	0.030	(0.321)	0.027	0.003
232	19.33	0.13	0.040	(0.319)	0.036	0.004
233	19.42	0.13	0.040	(0.318)	0.036	0.004
234	19.50	0.13	0.040	(0.316)	0.036	0.004
235	19.58	0.10	0.030	(0.315)	0.027	0.003
236	19.67	0.10	0.030	(0.313)	0.027	0.003
237	19.75	0.10	0.030	(0.312)	0.027	0.003
238	19.83	0.07	0.020	(0.310)	0.018	0.002
239	19.92	0.07	0.020	(0.309)	0.018	0.002
240	20.00	0.07	0.020	(0.308)	0.018	0.002
241	20.08	0.10	0.030	(0.306)	0.027	0.003
242	20.17	0.10	0.030	(0.305)	0.027	0.003
243	20.25	0.10	0.030	(0.304)	0.027	0.003
244	20.33	0.10	0.030	(0.302)	0.027	0.003
245	20.42	0.10	0.030	(0.301)	0.027	0.003
246	20.50	0.10	0.030	(0.300)	0.027	0.003
247	20.58	0.10	0.030	(0.298)	0.027	0.003
248	20.67	0.10	0.030	(0.297)	0.027	0.003
249	20.75	0.10	0.030	(0.296)	0.027	0.003

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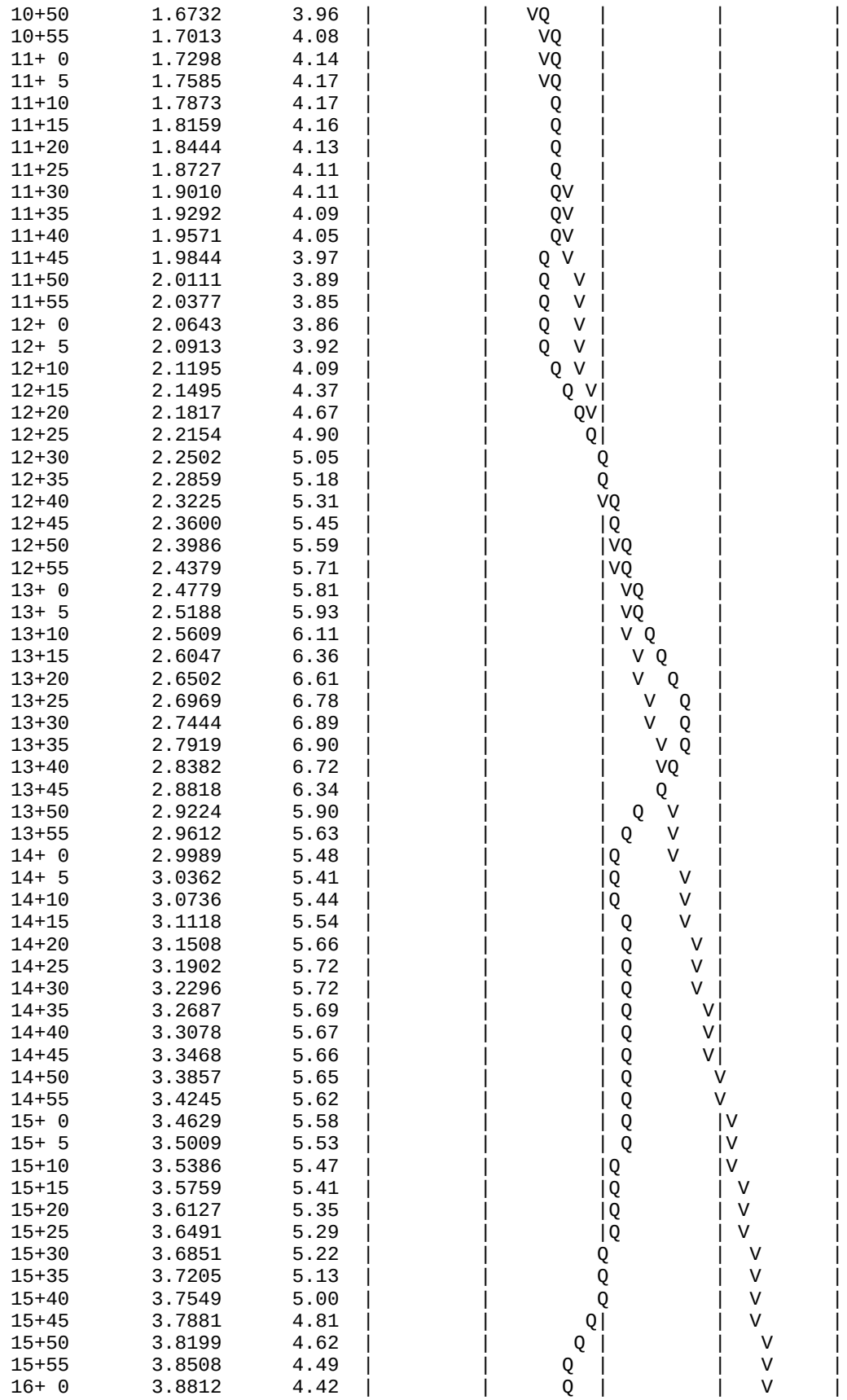
250  20.83     0.07      0.020       (  0.295)       0.018        0.002
251  20.92     0.07      0.020       (  0.294)       0.018        0.002
252  21.00     0.07      0.020       (  0.292)       0.018        0.002
253  21.08     0.10      0.030       (  0.291)       0.027        0.003
254  21.17     0.10      0.030       (  0.290)       0.027        0.003
255  21.25     0.10      0.030       (  0.289)       0.027        0.003
256  21.33     0.07      0.020       (  0.288)       0.018        0.002
257  21.42     0.07      0.020       (  0.287)       0.018        0.002
258  21.50     0.07      0.020       (  0.286)       0.018        0.002
259  21.58     0.10      0.030       (  0.285)       0.027        0.003
260  21.67     0.10      0.030       (  0.284)       0.027        0.003
261  21.75     0.10      0.030       (  0.283)       0.027        0.003
262  21.83     0.07      0.020       (  0.282)       0.018        0.002
263  21.92     0.07      0.020       (  0.281)       0.018        0.002
264  22.00     0.07      0.020       (  0.280)       0.018        0.002
265  22.08     0.10      0.030       (  0.279)       0.027        0.003
266  22.17     0.10      0.030       (  0.278)       0.027        0.003
267  22.25     0.10      0.030       (  0.277)       0.027        0.003
268  22.33     0.07      0.020       (  0.276)       0.018        0.002
269  22.42     0.07      0.020       (  0.275)       0.018        0.002
270  22.50     0.07      0.020       (  0.275)       0.018        0.002
271  22.58     0.07      0.020       (  0.274)       0.018        0.002
272  22.67     0.07      0.020       (  0.273)       0.018        0.002
273  22.75     0.07      0.020       (  0.272)       0.018        0.002
274  22.83     0.07      0.020       (  0.271)       0.018        0.002
275  22.92     0.07      0.020       (  0.271)       0.018        0.002
276  23.00     0.07      0.020       (  0.270)       0.018        0.002
277  23.08     0.07      0.020       (  0.270)       0.018        0.002
278  23.17     0.07      0.020       (  0.269)       0.018        0.002
279  23.25     0.07      0.020       (  0.268)       0.018        0.002
280  23.33     0.07      0.020       (  0.268)       0.018        0.002
281  23.42     0.07      0.020       (  0.267)       0.018        0.002
282  23.50     0.07      0.020       (  0.267)       0.018        0.002
283  23.58     0.07      0.020       (  0.266)       0.018        0.002
284  23.67     0.07      0.020       (  0.266)       0.018        0.002
285  23.75     0.07      0.020       (  0.266)       0.018        0.002
286  23.83     0.07      0.020       (  0.265)       0.018        0.002
287  23.92     0.07      0.020       (  0.265)       0.018        0.002
288  24.00     0.07      0.020       (  0.265)       0.018        0.002
          (Loss Rate Not Used)
    Sum =     100.0                                  Sum =     3.0
      Flood volume = Effective rainfall      0.25(In)
       times area     214.4(Ac.)/[(In)/(Ft.)] =       4.5(Ac.Ft)
      Total soil loss =      2.25(In)
      Total soil loss =    40.189(Ac.Ft)
      Total rainfall =      2.50(In)
      Flood volume =      194513.7 Cubic Feet
      Total soil loss =     1750623.5 Cubic Feet
      ---------------------------------------------------------------------
       Peak flow rate of this hydrograph =      6.901(CFS)
      ---------------------------------------------------------------------
      +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R    S T O R M
                     R u n o f f      H y d r o g r a p h
      ---------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ---------------------------------------------------------------------------
   0+ 5       0.0001      0.01  Q         |         |         |         |
   0+10       0.0005      0.06  Q         |         |         |         |
   0+15       0.0014      0.13  Q         |         |         |         |
```

```
0+20       0.0030      0.23  Q         |         |         |         |
0+25       0.0051      0.31  VQ        |         |         |         |
0+30       0.0077      0.38  VQ        |         |         |         |
0+35       0.0107      0.44  VQ        |         |         |         |
0+40       0.0141      0.49  VQ        |         |         |         |
0+45       0.0176      0.52  V Q       |         |         |         |
0+50       0.0214      0.54  V Q       |         |         |         |
0+55       0.0254      0.58  V Q       |         |         |         |
1+ 0       0.0298      0.64  V Q       |         |         |         |
1+ 5       0.0345      0.69  V Q       |         |         |         |
1+10       0.0393      0.70  V Q       |         |         |         |
1+15       0.0441      0.69  V Q       |         |         |         |
1+20       0.0486      0.66  V Q       |         |         |         |
1+25       0.0531      0.65  V Q       |         |         |         |
1+30       0.0575      0.64  V Q       |         |         |         |
1+35       0.0619      0.64  V Q       |         |         |         |
1+40       0.0664      0.64  V Q       |         |         |         |
1+45       0.0708      0.64  V Q       |         |         |         |
1+50       0.0753      0.65  V Q       |         |         |         |
1+55       0.0799      0.67  V Q       |         |         |         |
2+ 0       0.0849      0.71  V Q       |         |         |         |
2+ 5       0.0901      0.76  V  Q      |         |         |         |
2+10       0.0955      0.79  V  Q      |         |         |         |
2+15       0.1011      0.81  V  Q      |         |         |         |
2+20       0.1067      0.82  V  Q      |         |         |         |
2+25       0.1124      0.83  |V Q      |         |         |         |
2+30       0.1181      0.83  |V Q      |         |         |         |
2+35       0.1239      0.84  |V Q      |         |         |         |
2+40       0.1299      0.87  |V Q      |         |         |         |
2+45       0.1362      0.91  |V Q      |         |         |         |
2+50       0.1428      0.96  |V Q      |         |         |         |
2+55       0.1496      0.99  |V Q      |         |         |         |
3+ 0       0.1566      1.01  |V  Q     |         |         |         |
3+ 5       0.1636      1.02  |V  Q     |         |         |         |
3+10       0.1707      1.03  |V  Q     |         |         |         |
3+15       0.1778      1.04  |V  Q     |         |         |         |
3+20       0.1850      1.04  |V  Q     |         |         |         |
3+25       0.1922      1.05  |V  Q     |         |         |         |
3+30       0.1995      1.05  |V  Q     |         |         |         |
3+35       0.2068      1.06  |V  Q     |         |         |         |
3+40       0.2141      1.06  |V  Q     |         |         |         |
3+45       0.2214      1.06  |V  Q     |         |         |         |
3+50       0.2288      1.07  | V Q     |         |         |         |
3+55       0.2364      1.10  | V Q     |         |         |         |
4+ 0       0.2442      1.14  | V Q     |         |         |         |
4+ 5       0.2524      1.18  | V Q     |         |         |         |
4+10       0.2607      1.21  | V Q     |         |         |         |
4+15       0.2692      1.23  | V Q     |         |         |         |
4+20       0.2778      1.25  | V Q     |         |         |         |
4+25       0.2866      1.28  | V  Q    |         |         |         |
4+30       0.2958      1.33  | V  Q    |         |         |         |
4+35       0.3052      1.38  | V  Q    |         |         |         |
4+40       0.3149      1.41  | V  Q    |         |         |         |
4+45       0.3248      1.43  | V  Q    |         |         |         |
4+50       0.3348      1.45  | V  Q    |         |         |         |
4+55       0.3450      1.48  |  V Q    |         |         |         |
5+ 0       0.3555      1.53  |  V  Q   |         |         |         |
5+ 5       0.3663      1.57  |  V  Q   |         |         |         |
5+10       0.3771      1.56  |  V  Q   |         |         |         |
5+15       0.3874      1.50  |  V  Q   |         |         |         |
5+20       0.3973      1.44  |  V Q    |         |         |         |
5+25       0.4071      1.42  |  V Q    |         |         |         |
5+30       0.4169      1.43  |  V Q    |         |         |         |
```

5+35	0.4271	1.47	V Q			
5+40	0.4375	1.51	V Q			
5+45	0.4482	1.56	V Q			
5+50	0.4593	1.61	V Q			
5+55	0.4705	1.64	V Q			
6+ 0	0.4820	1.66	V Q			
6+ 5	0.4935	1.68	V Q			
6+10	0.5053	1.71	V Q			
6+15	0.5174	1.76	V Q			
6+20	0.5298	1.81	V Q			
6+25	0.5425	1.84	V Q			
6+30	0.5553	1.86	V Q			
6+35	0.5682	1.88	V Q			
6+40	0.5814	1.91	V Q			
6+45	0.5949	1.96	V Q			
6+50	0.6088	2.01	V Q			
6+55	0.6229	2.05	V Q			
7+ 0	0.6371	2.07	V Q			
7+ 5	0.6515	2.08	V Q			
7+10	0.6659	2.10	V Q			
7+15	0.6804	2.11	V Q			
7+20	0.6950	2.12	V Q			
7+25	0.7098	2.15	V Q			
7+30	0.7250	2.20	V Q			
7+35	0.7405	2.25	V Q			
7+40	0.7563	2.31	V Q			
7+45	0.7726	2.37	V Q			
7+50	0.7894	2.43	V Q			
7+55	0.8065	2.49	V Q			
8+ 0	0.8241	2.55	V Q			
8+ 5	0.8422	2.63	V Q			
8+10	0.8609	2.71	V Q			
8+15	0.8803	2.82	V Q			
8+20	0.9005	2.93	V Q			
8+25	0.9212	3.00	V Q			
8+30	0.9421	3.05	V Q			
8+35	0.9634	3.09	V Q			
8+40	0.9850	3.13	V Q			
8+45	1.0070	3.19	V Q			
8+50	1.0294	3.26	V Q			
8+55	1.0523	3.33	V Q			
9+ 0	1.0757	3.39	V Q			
9+ 5	1.0996	3.47	V Q			
9+10	1.1241	3.56	V Q			
9+15	1.1494	3.67	V Q			
9+20	1.1755	3.79	V Q			
9+25	1.2022	3.88	V Q			
9+30	1.2296	3.97	V Q			
9+35	1.2575	4.05	V Q			
9+40	1.2859	4.13	V Q			
9+45	1.3149	4.21	V Q			
9+50	1.3445	4.29	V Q			
9+55	1.3745	4.36	V Q			
10+ 0	1.4051	4.44	V Q			
10+ 5	1.4359	4.47	V Q			
10+10	1.4659	4.36	V Q			
10+15	1.4943	4.12	V Q			
10+20	1.5208	3.85	V Q			
10+25	1.5460	3.67	VQ			
10+30	1.5706	3.57	Q			
10+35	1.5950	3.54	Q			
10+40	1.6199	3.61	Q			
10+45	1.6459	3.77	VQ			



16+ 5	3.9107	4.27	|	Q |	|	V |
16+10	3.9375	3.90	|	Q |	|	V |
16+15	3.9601	3.28	|	Q |	|	V |
16+20	3.9781	2.61	|	Q |	|	V |
16+25	3.9929	2.16	|	Q |	|	V |
16+30	4.0059	1.89	|	Q |	|	V |
16+35	4.0177	1.71	|	Q |	|	V |
16+40	4.0284	1.55	|	Q |	|	V |
16+45	4.0380	1.40	|	Q |	|	V |
16+50	4.0468	1.27	|	Q |	|	V |
16+55	4.0548	1.16	|	Q |	|	V |
17+ 0	4.0622	1.08	|	Q |	|	V |
17+ 5	4.0693	1.03	|	Q |	|	V |
17+10	4.0762	1.01	|	Q |	|	V |
17+15	4.0835	1.05	|	Q |	|	V |
17+20	4.0910	1.09	|	Q |	|	V |
17+25	4.0987	1.11	|	Q |	|	V |
17+30	4.1064	1.12	|	Q |	|	V |
17+35	4.1140	1.11	|	Q |	|	V |
17+40	4.1216	1.10	|	Q |	|	V |
17+45	4.1291	1.09	|	Q |	|	V |
17+50	4.1366	1.08	|	Q |	|	V |
17+55	4.1438	1.05	|	Q |	|	V |
18+ 0	4.1508	1.01	|	Q |	|	V |
18+ 5	4.1575	0.96	| Q |	|	|	V |
18+10	4.1639	0.93	| Q |	|	|	V |
18+15	4.1701	0.91	| Q |	|	|	V |
18+20	4.1763	0.89	| Q |	|	|	V |
18+25	4.1824	0.89	| Q |	|	|	V |
18+30	4.1885	0.89	| Q |	|	|	V |
18+35	4.1946	0.88	| Q |	|	|	V |
18+40	4.2004	0.85	| Q |	|	|	V |
18+45	4.2060	0.81	| Q |	|	|	V |
18+50	4.2112	0.76	| Q |	|	|	V |
18+55	4.2161	0.71	| Q |	|	|	V |
19+ 0	4.2206	0.65	| Q |	|	|	V |
19+ 5	4.2247	0.60	| Q |	|	|	V |
19+10	4.2288	0.59	| Q |	|	|	V |
19+15	4.2329	0.60	| Q |	|	|	V |
19+20	4.2373	0.64	| Q |	|	|	V |
19+25	4.2420	0.67	| Q |	|	|	V |
19+30	4.2469	0.72	| Q |	|	|	V |
19+35	4.2521	0.76	| Q |	|	|	V |
19+40	4.2573	0.76	| Q |	|	|	V |
19+45	4.2624	0.74	| Q |	|	|	V |
19+50	4.2672	0.70	| Q |	|	|	V |
19+55	4.2718	0.66	| Q |	|	|	V |
20+ 0	4.2759	0.61	| Q |	|	|	V |
20+ 5	4.2798	0.56	| Q |	|	|	V |
20+10	4.2836	0.55	| Q |	|	|	V |
20+15	4.2876	0.57	| Q |	|	|	V |
20+20	4.2917	0.60	| Q |	|	|	V |
20+25	4.2960	0.62	| Q |	|	|	V |
20+30	4.3004	0.63	| Q |	|	|	V |
20+35	4.3047	0.63	| Q |	|	|	V |
20+40	4.3091	0.64	| Q |	|	|	V |
20+45	4.3135	0.64	| Q |	|	|	V |
20+50	4.3179	0.63	| Q |	|	|	V |
20+55	4.3221	0.61	| Q |	|	|	V |
21+ 0	4.3261	0.57	| Q |	|	|	V |
21+ 5	4.3298	0.54	| Q |	|	|	V |
21+10	4.3334	0.53	| Q |	|	|	V |
21+15	4.3373	0.56	| Q |	|	|	V |

21+20	4.3413	0.58	Q			V
21+25	4.3453	0.58	Q			V
21+30	4.3491	0.55	Q			V
21+35	4.3527	0.52	Q			V
21+40	4.3563	0.52	Q			V
21+45	4.3600	0.54	Q			V
21+50	4.3640	0.57	Q			V
21+55	4.3679	0.57	Q			V
22+ 0	4.3717	0.55	Q			V
22+ 5	4.3753	0.52	Q			V
22+10	4.3788	0.51	Q			V
22+15	4.3825	0.54	Q			V
22+20	4.3865	0.57	Q			V
22+25	4.3904	0.57	Q			V
22+30	4.3941	0.54	Q			V
22+35	4.3976	0.51	Q			V
22+40	4.4010	0.48	Q			V
22+45	4.4042	0.47	Q			V
22+50	4.4074	0.46	Q			V
22+55	4.4106	0.46	Q			V
23+ 0	4.4137	0.45	Q			V
23+ 5	4.4168	0.45	Q			V
23+10	4.4199	0.45	Q			V
23+15	4.4229	0.45	Q			V
23+20	4.4260	0.44	Q			V
23+25	4.4291	0.44	Q			V
23+30	4.4321	0.44	Q			V
23+35	4.4351	0.44	Q			V
23+40	4.4381	0.44	Q			V
23+45	4.4411	0.44	Q			V
23+50	4.4442	0.44	Q			V
23+55	4.4472	0.44	Q			V
24+ 0	4.4502	0.43	Q			V
24+ 5	4.4531	0.42	Q			V
24+10	4.4557	0.38	Q			V
24+15	4.4577	0.30	Q			V
24+20	4.4592	0.21	Q			V
24+25	4.4603	0.16	Q			V
24+30	4.4611	0.12	Q			V
24+35	4.4618	0.10	Q			V
24+40	4.4624	0.08	Q			V
24+45	4.4629	0.07	Q			V
24+50	4.4633	0.06	Q			V
24+55	4.4636	0.05	Q			V
25+ 0	4.4639	0.04	Q			V
25+ 5	4.4642	0.04	Q			V
25+10	4.4644	0.03	Q			V
25+15	4.4646	0.03	Q			V
25+20	4.4648	0.02	Q			V
25+25	4.4649	0.02	Q			V
25+30	4.4650	0.02	Q			V
25+35	4.4651	0.01	Q			V
25+40	4.4652	0.01	Q			V
25+45	4.4653	0.01	Q			V
25+50	4.4653	0.01	Q			V
25+55	4.4653	0.01	Q			V
26+ 0	4.4654	0.00	Q			V
26+ 5	4.4654	0.00	Q			V
26+10	4.4654	0.00	Q			V
26+15	4.4654	0.00	Q			V

APPENDIX F: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA “A” (HYDROGRAPH METHOD)

APPENDIX F.1: AREA “A” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS 100–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 06/25/15 File: APR24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - PROPOSED CONDITION
100YR-24HR
FN: APR24100

Drainage Area = 221.62(Ac.) = 0.346 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 221.62(Ac.) = 0.346 Sq. Mi.
Length along longest watercourse = 7031.00(Ft.)
Length along longest watercourse measured to centroid = 2250.00(Ft.)
Length along longest watercourse = 1.332 Mi.
Length along longest watercourse measured to centroid = 0.426 Mi.
Difference in elevation = 232.00(Ft.)
Slope along watercourse = 174.2227 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.109 Hr.
Lag time = 6.53 Min.
25% of lag time = 1.63 Min.
40% of lag time = 2.61 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	2.50	554.05

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	8.00	1772.96

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 8.000(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 7.997(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
221.620	46.00	0.490

Total Area Entered = 221.62(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
46.0	46.0	0.611	0.490	0.342	1.000	0.342
					Sum (F) =	0.342

Area averaged mean soil loss (F) (In/Hr) = 0.342
Minimum soil loss rate ((In/Hr)) = 0.171
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	76.530	12.346	27.574
2	0.167	153.060	43.124	96.318
3	0.250	229.590	20.980	46.860
4	0.333	306.120	8.485	18.950
5	0.417	382.650	5.117	11.429
6	0.500	459.180	3.293	7.355
7	0.583	535.710	2.312	5.164
8	0.667	612.241	1.666	3.720
9	0.750	688.771	1.145	2.558
10	0.833	765.301	0.803	1.793
11	0.917	841.831	0.730	1.630
		Sum = 100.000	Sum=	223.351

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max		Low	Effective (In/Hr)
1	0.08	0.07	0.064	(0.606)		0.033	0.031
2	0.17	0.07	0.064	(0.603)		0.033	0.031
3	0.25	0.07	0.064	(0.601)		0.033	0.031
4	0.33	0.10	0.096	(0.599)		0.049	0.047
5	0.42	0.10	0.096	(0.596)		0.049	0.047
6	0.50	0.10	0.096	(0.594)		0.049	0.047
7	0.58	0.10	0.096	(0.592)		0.049	0.047
8	0.67	0.10	0.096	(0.589)		0.049	0.047
9	0.75	0.10	0.096	(0.587)		0.049	0.047
10	0.83	0.13	0.128	(0.585)		0.065	0.063
11	0.92	0.13	0.128	(0.582)		0.065	0.063
12	1.00	0.13	0.128	(0.580)		0.065	0.063
13	1.08	0.10	0.096	(0.578)		0.049	0.047
14	1.17	0.10	0.096	(0.576)		0.049	0.047

15	1.25	0.10	0.096	(0.573)	0.049	0.047
16	1.33	0.10	0.096	(0.571)	0.049	0.047
17	1.42	0.10	0.096	(0.569)	0.049	0.047
18	1.50	0.10	0.096	(0.566)	0.049	0.047
19	1.58	0.10	0.096	(0.564)	0.049	0.047
20	1.67	0.10	0.096	(0.562)	0.049	0.047
21	1.75	0.10	0.096	(0.560)	0.049	0.047
22	1.83	0.13	0.128	(0.557)	0.065	0.063
23	1.92	0.13	0.128	(0.555)	0.065	0.063
24	2.00	0.13	0.128	(0.553)	0.065	0.063
25	2.08	0.13	0.128	(0.551)	0.065	0.063
26	2.17	0.13	0.128	(0.548)	0.065	0.063
27	2.25	0.13	0.128	(0.546)	0.065	0.063
28	2.33	0.13	0.128	(0.544)	0.065	0.063
29	2.42	0.13	0.128	(0.542)	0.065	0.063
30	2.50	0.13	0.128	(0.540)	0.065	0.063
31	2.58	0.17	0.160	(0.537)	0.082	0.078
32	2.67	0.17	0.160	(0.535)	0.082	0.078
33	2.75	0.17	0.160	(0.533)	0.082	0.078
34	2.83	0.17	0.160	(0.531)	0.082	0.078
35	2.92	0.17	0.160	(0.529)	0.082	0.078
36	3.00	0.17	0.160	(0.526)	0.082	0.078
37	3.08	0.17	0.160	(0.524)	0.082	0.078
38	3.17	0.17	0.160	(0.522)	0.082	0.078
39	3.25	0.17	0.160	(0.520)	0.082	0.078
40	3.33	0.17	0.160	(0.518)	0.082	0.078
41	3.42	0.17	0.160	(0.516)	0.082	0.078
42	3.50	0.17	0.160	(0.513)	0.082	0.078
43	3.58	0.17	0.160	(0.511)	0.082	0.078
44	3.67	0.17	0.160	(0.509)	0.082	0.078
45	3.75	0.17	0.160	(0.507)	0.082	0.078
46	3.83	0.20	0.192	(0.505)	0.098	0.094
47	3.92	0.20	0.192	(0.503)	0.098	0.094
48	4.00	0.20	0.192	(0.501)	0.098	0.094
49	4.08	0.20	0.192	(0.498)	0.098	0.094
50	4.17	0.20	0.192	(0.496)	0.098	0.094
51	4.25	0.20	0.192	(0.494)	0.098	0.094
52	4.33	0.23	0.224	(0.492)	0.114	0.110
53	4.42	0.23	0.224	(0.490)	0.114	0.110
54	4.50	0.23	0.224	(0.488)	0.114	0.110
55	4.58	0.23	0.224	(0.486)	0.114	0.110
56	4.67	0.23	0.224	(0.484)	0.114	0.110
57	4.75	0.23	0.224	(0.482)	0.114	0.110
58	4.83	0.27	0.256	(0.480)	0.131	0.125
59	4.92	0.27	0.256	(0.477)	0.131	0.125
60	5.00	0.27	0.256	(0.475)	0.131	0.125
61	5.08	0.20	0.192	(0.473)	0.098	0.094
62	5.17	0.20	0.192	(0.471)	0.098	0.094
63	5.25	0.20	0.192	(0.469)	0.098	0.094
64	5.33	0.23	0.224	(0.467)	0.114	0.110
65	5.42	0.23	0.224	(0.465)	0.114	0.110
66	5.50	0.23	0.224	(0.463)	0.114	0.110
67	5.58	0.27	0.256	(0.461)	0.131	0.125
68	5.67	0.27	0.256	(0.459)	0.131	0.125
69	5.75	0.27	0.256	(0.457)	0.131	0.125
70	5.83	0.27	0.256	(0.455)	0.131	0.125
71	5.92	0.27	0.256	(0.453)	0.131	0.125
72	6.00	0.27	0.256	(0.451)	0.131	0.125
73	6.08	0.30	0.288	(0.449)	0.147	0.141
74	6.17	0.30	0.288	(0.447)	0.147	0.141
75	6.25	0.30	0.288	(0.445)	0.147	0.141
76	6.33	0.30	0.288	(0.443)	0.147	0.141
77	6.42	0.30	0.288	(0.441)	0.147	0.141

78	6.50	0.30	0.288	(0.439)	0.147	0.141
79	6.58	0.33	0.320	(0.437)	0.163	0.157
80	6.67	0.33	0.320	(0.435)	0.163	0.157
81	6.75	0.33	0.320	(0.433)	0.163	0.157
82	6.83	0.33	0.320	(0.431)	0.163	0.157
83	6.92	0.33	0.320	(0.429)	0.163	0.157
84	7.00	0.33	0.320	(0.427)	0.163	0.157
85	7.08	0.33	0.320	(0.425)	0.163	0.157
86	7.17	0.33	0.320	(0.423)	0.163	0.157
87	7.25	0.33	0.320	(0.421)	0.163	0.157
88	7.33	0.37	0.352	(0.420)	0.179	0.172
89	7.42	0.37	0.352	(0.418)	0.179	0.172
90	7.50	0.37	0.352	(0.416)	0.179	0.172
91	7.58	0.40	0.384	(0.414)	0.196	0.188
92	7.67	0.40	0.384	(0.412)	0.196	0.188
93	7.75	0.40	0.384	(0.410)	0.196	0.188
94	7.83	0.43	0.416	(0.408)	0.212	0.204
95	7.92	0.43	0.416	(0.406)	0.212	0.204
96	8.00	0.43	0.416	(0.404)	0.212	0.204
97	8.08	0.50	0.480	(0.402)	0.245	0.235
98	8.17	0.50	0.480	(0.401)	0.245	0.235
99	8.25	0.50	0.480	(0.399)	0.245	0.235
100	8.33	0.50	0.480	(0.397)	0.245	0.235
101	8.42	0.50	0.480	(0.395)	0.245	0.235
102	8.50	0.50	0.480	(0.393)	0.245	0.235
103	8.58	0.53	0.512	(0.391)	0.261	0.251
104	8.67	0.53	0.512	(0.389)	0.261	0.251
105	8.75	0.53	0.512	(0.388)	0.261	0.251
106	8.83	0.57	0.544	(0.386)	0.277	0.266
107	8.92	0.57	0.544	(0.384)	0.277	0.266
108	9.00	0.57	0.544	(0.382)	0.277	0.266
109	9.08	0.63	0.608	(0.380)	0.310	0.298
110	9.17	0.63	0.608	(0.379)	0.310	0.298
111	9.25	0.63	0.608	(0.377)	0.310	0.298
112	9.33	0.67	0.640	(0.375)	0.326	0.313
113	9.42	0.67	0.640	(0.373)	0.326	0.313
114	9.50	0.67	0.640	(0.371)	0.326	0.313
115	9.58	0.70	0.672	(0.370)	0.343	0.329
116	9.67	0.70	0.672	(0.368)	0.343	0.329
117	9.75	0.70	0.672	(0.366)	0.343	0.329
118	9.83	0.73	0.704	(0.364)	0.359	0.345
119	9.92	0.73	0.704	(0.363)	0.359	0.345
120	10.00	0.73	0.704	(0.361)	0.359	0.345
121	10.08	0.50	0.480	(0.359)	0.245	0.235
122	10.17	0.50	0.480	(0.357)	0.245	0.235
123	10.25	0.50	0.480	(0.356)	0.245	0.235
124	10.33	0.50	0.480	(0.354)	0.245	0.235
125	10.42	0.50	0.480	(0.352)	0.245	0.235
126	10.50	0.50	0.480	(0.350)	0.245	0.235
127	10.58	0.67	0.640	(0.349)	0.326	0.313
128	10.67	0.67	0.640	(0.347)	0.326	0.313
129	10.75	0.67	0.640	(0.345)	0.326	0.313
130	10.83	0.67	0.640	(0.344)	0.326	0.313
131	10.92	0.67	0.640	(0.342)	0.326	0.313
132	11.00	0.67	0.640	(0.340)	0.326	0.313
133	11.08	0.63	0.608	(0.339)	0.310	0.298
134	11.17	0.63	0.608	(0.337)	0.310	0.298
135	11.25	0.63	0.608	(0.335)	0.310	0.298
136	11.33	0.63	0.608	(0.334)	0.310	0.298
137	11.42	0.63	0.608	(0.332)	0.310	0.298
138	11.50	0.63	0.608	(0.330)	0.310	0.298
139	11.58	0.57	0.544	(0.329)	0.277	0.266
140	11.67	0.57	0.544	(0.327)	0.277	0.266

141	11.75	0.57	0.544	(0.325)	0.277	0.266
142	11.83	0.60	0.576	(0.324)	0.294	0.282
143	11.92	0.60	0.576	(0.322)	0.294	0.282
144	12.00	0.60	0.576	(0.321)	0.294	0.282
145	12.08	0.83	0.800	0.319	(0.408)	0.481
146	12.17	0.83	0.800	0.317	(0.408)	0.482
147	12.25	0.83	0.800	0.316	(0.408)	0.484
148	12.33	0.87	0.832	0.314	(0.424)	0.517
149	12.42	0.87	0.832	0.313	(0.424)	0.519
150	12.50	0.87	0.832	0.311	(0.424)	0.521
151	12.58	0.93	0.896	0.309	(0.457)	0.586
152	12.67	0.93	0.896	0.308	(0.457)	0.588
153	12.75	0.93	0.896	0.306	(0.457)	0.589
154	12.83	0.97	0.928	0.305	(0.473)	0.623
155	12.92	0.97	0.928	0.303	(0.473)	0.624
156	13.00	0.97	0.928	0.302	(0.473)	0.626
157	13.08	1.13	1.088	0.300	(0.555)	0.787
158	13.17	1.13	1.088	0.299	(0.555)	0.789
159	13.25	1.13	1.088	0.297	(0.555)	0.790
160	13.33	1.13	1.088	0.296	(0.555)	0.792
161	13.42	1.13	1.088	0.294	(0.555)	0.793
162	13.50	1.13	1.088	0.293	(0.555)	0.795
163	13.58	0.77	0.736	0.291	(0.375)	0.445
164	13.67	0.77	0.736	0.290	(0.375)	0.446
165	13.75	0.77	0.736	0.288	(0.375)	0.447
166	13.83	0.77	0.736	0.287	(0.375)	0.449
167	13.92	0.77	0.736	0.285	(0.375)	0.450
168	14.00	0.77	0.736	0.284	(0.375)	0.452
169	14.08	0.90	0.864	0.282	(0.440)	0.581
170	14.17	0.90	0.864	0.281	(0.440)	0.583
171	14.25	0.90	0.864	0.279	(0.440)	0.584
172	14.33	0.87	0.832	0.278	(0.424)	0.554
173	14.42	0.87	0.832	0.277	(0.424)	0.555
174	14.50	0.87	0.832	0.275	(0.424)	0.556
175	14.58	0.87	0.832	0.274	(0.424)	0.558
176	14.67	0.87	0.832	0.272	(0.424)	0.559
177	14.75	0.87	0.832	0.271	(0.424)	0.561
178	14.83	0.83	0.800	0.270	(0.408)	0.530
179	14.92	0.83	0.800	0.268	(0.408)	0.531
180	15.00	0.83	0.800	0.267	(0.408)	0.533
181	15.08	0.80	0.768	0.265	(0.392)	0.502
182	15.17	0.80	0.768	0.264	(0.392)	0.504
183	15.25	0.80	0.768	0.263	(0.392)	0.505
184	15.33	0.77	0.736	0.261	(0.375)	0.474
185	15.42	0.77	0.736	0.260	(0.375)	0.476
186	15.50	0.77	0.736	0.259	(0.375)	0.477
187	15.58	0.63	0.608	0.257	(0.310)	0.350
188	15.67	0.63	0.608	0.256	(0.310)	0.352
189	15.75	0.63	0.608	0.255	(0.310)	0.353
190	15.83	0.63	0.608	0.253	(0.310)	0.354
191	15.92	0.63	0.608	0.252	(0.310)	0.356
192	16.00	0.63	0.608	0.251	(0.310)	0.357
193	16.08	0.13	0.128	(0.250)	0.065	0.063
194	16.17	0.13	0.128	(0.248)	0.065	0.063
195	16.25	0.13	0.128	(0.247)	0.065	0.063
196	16.33	0.13	0.128	(0.246)	0.065	0.063
197	16.42	0.13	0.128	(0.245)	0.065	0.063
198	16.50	0.13	0.128	(0.243)	0.065	0.063
199	16.58	0.10	0.096	(0.242)	0.049	0.047
200	16.67	0.10	0.096	(0.241)	0.049	0.047
201	16.75	0.10	0.096	(0.240)	0.049	0.047
202	16.83	0.10	0.096	(0.238)	0.049	0.047
203	16.92	0.10	0.096	(0.237)	0.049	0.047

204	17.00	0.10	0.096	(0.236)	0.049	0.047
205	17.08	0.17	0.160	(0.235)	0.082	0.078
206	17.17	0.17	0.160	(0.234)	0.082	0.078
207	17.25	0.17	0.160	(0.232)	0.082	0.078
208	17.33	0.17	0.160	(0.231)	0.082	0.078
209	17.42	0.17	0.160	(0.230)	0.082	0.078
210	17.50	0.17	0.160	(0.229)	0.082	0.078
211	17.58	0.17	0.160	(0.228)	0.082	0.078
212	17.67	0.17	0.160	(0.227)	0.082	0.078
213	17.75	0.17	0.160	(0.226)	0.082	0.078
214	17.83	0.13	0.128	(0.224)	0.065	0.063
215	17.92	0.13	0.128	(0.223)	0.065	0.063
216	18.00	0.13	0.128	(0.222)	0.065	0.063
217	18.08	0.13	0.128	(0.221)	0.065	0.063
218	18.17	0.13	0.128	(0.220)	0.065	0.063
219	18.25	0.13	0.128	(0.219)	0.065	0.063
220	18.33	0.13	0.128	(0.218)	0.065	0.063
221	18.42	0.13	0.128	(0.217)	0.065	0.063
222	18.50	0.13	0.128	(0.216)	0.065	0.063
223	18.58	0.10	0.096	(0.215)	0.049	0.047
224	18.67	0.10	0.096	(0.214)	0.049	0.047
225	18.75	0.10	0.096	(0.213)	0.049	0.047
226	18.83	0.07	0.064	(0.212)	0.033	0.031
227	18.92	0.07	0.064	(0.211)	0.033	0.031
228	19.00	0.07	0.064	(0.210)	0.033	0.031
229	19.08	0.10	0.096	(0.209)	0.049	0.047
230	19.17	0.10	0.096	(0.208)	0.049	0.047
231	19.25	0.10	0.096	(0.207)	0.049	0.047
232	19.33	0.13	0.128	(0.206)	0.065	0.063
233	19.42	0.13	0.128	(0.205)	0.065	0.063
234	19.50	0.13	0.128	(0.204)	0.065	0.063
235	19.58	0.10	0.096	(0.203)	0.049	0.047
236	19.67	0.10	0.096	(0.202)	0.049	0.047
237	19.75	0.10	0.096	(0.201)	0.049	0.047
238	19.83	0.07	0.064	(0.200)	0.033	0.031
239	19.92	0.07	0.064	(0.199)	0.033	0.031
240	20.00	0.07	0.064	(0.198)	0.033	0.031
241	20.08	0.10	0.096	(0.198)	0.049	0.047
242	20.17	0.10	0.096	(0.197)	0.049	0.047
243	20.25	0.10	0.096	(0.196)	0.049	0.047
244	20.33	0.10	0.096	(0.195)	0.049	0.047
245	20.42	0.10	0.096	(0.194)	0.049	0.047
246	20.50	0.10	0.096	(0.193)	0.049	0.047
247	20.58	0.10	0.096	(0.192)	0.049	0.047
248	20.67	0.10	0.096	(0.192)	0.049	0.047
249	20.75	0.10	0.096	(0.191)	0.049	0.047
250	20.83	0.07	0.064	(0.190)	0.033	0.031
251	20.92	0.07	0.064	(0.189)	0.033	0.031
252	21.00	0.07	0.064	(0.189)	0.033	0.031
253	21.08	0.10	0.096	(0.188)	0.049	0.047
254	21.17	0.10	0.096	(0.187)	0.049	0.047
255	21.25	0.10	0.096	(0.186)	0.049	0.047
256	21.33	0.07	0.064	(0.186)	0.033	0.031
257	21.42	0.07	0.064	(0.185)	0.033	0.031
258	21.50	0.07	0.064	(0.184)	0.033	0.031
259	21.58	0.10	0.096	(0.184)	0.049	0.047
260	21.67	0.10	0.096	(0.183)	0.049	0.047
261	21.75	0.10	0.096	(0.182)	0.049	0.047
262	21.83	0.07	0.064	(0.182)	0.033	0.031
263	21.92	0.07	0.064	(0.181)	0.033	0.031
264	22.00	0.07	0.064	(0.180)	0.033	0.031
265	22.08	0.10	0.096	(0.180)	0.049	0.047
266	22.17	0.10	0.096	(0.179)	0.049	0.047

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267  22.25     0.10      0.096       (  0.179)       0.049        0.047
268  22.33     0.07      0.064       (  0.178)       0.033        0.031
269  22.42     0.07      0.064       (  0.178)       0.033        0.031
270  22.50     0.07      0.064       (  0.177)       0.033        0.031
271  22.58     0.07      0.064       (  0.177)       0.033        0.031
272  22.67     0.07      0.064       (  0.176)       0.033        0.031
273  22.75     0.07      0.064       (  0.176)       0.033        0.031
274  22.83     0.07      0.064       (  0.175)       0.033        0.031
275  22.92     0.07      0.064       (  0.175)       0.033        0.031
276  23.00     0.07      0.064       (  0.174)       0.033        0.031
277  23.08     0.07      0.064       (  0.174)       0.033        0.031
278  23.17     0.07      0.064       (  0.173)       0.033        0.031
279  23.25     0.07      0.064       (  0.173)       0.033        0.031
280  23.33     0.07      0.064       (  0.173)       0.033        0.031
281  23.42     0.07      0.064       (  0.172)       0.033        0.031
282  23.50     0.07      0.064       (  0.172)       0.033        0.031
283  23.58     0.07      0.064       (  0.172)       0.033        0.031
284  23.67     0.07      0.064       (  0.172)       0.033        0.031
285  23.75     0.07      0.064       (  0.171)       0.033        0.031
286  23.83     0.07      0.064       (  0.171)       0.033        0.031
287  23.92     0.07      0.064       (  0.171)       0.033        0.031
288  24.00     0.07      0.064       (  0.171)       0.033        0.031
            (Loss Rate Not Used)
    Sum =     100.0                                  Sum =    53.5
     Flood volume = Effective rainfall      4.46(In)
      times area     221.6(Ac.)/[(In)/(Ft.)] =      82.4(Ac.Ft)
     Total soil loss =      3.54(In)
     Total soil loss =    65.321(Ac.Ft)
     Total rainfall =      8.00(In)
     Flood volume =     3587659.5 Cubic Feet
     Total soil loss =     2845399.6 Cubic Feet
     ------------------------------------------------------------------------
      Peak flow rate of this hydrograph =    174.482(CFS)
     ------------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         24 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     ------------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ------------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
 ---------------------------------------------------------------------------
   0+ 5       0.0060      0.86  Q         |         |         |         |
   0+10       0.0327      3.89  Q         |         |         |         |
   0+15       0.0696      5.36  VQ        |         |         |         |
   0+20       0.1136      6.38  VQ        |         |         |         |
   0+25       0.1704      8.25  VQ        |         |         |         |
   0+30       0.2338      9.22  VQ        |         |         |         |
   0+35       0.3005      9.68  VQ        |         |         |         |
   0+40       0.3692      9.97  VQ        |         |         |         |
   0+45       0.4392     10.17  V Q       |         |         |         |
   0+50       0.5131     10.74  V Q       |         |         |         |
   0+55       0.5982     12.36  V Q       |         |         |         |
   1+ 0       0.6887     13.13  V Q       |         |         |         |
   1+ 5       0.7784     13.02  V Q       |         |         |         |
   1+10       0.8591     11.72  V Q       |         |         |         |
   1+15       0.9355     11.10  V Q       |         |         |         |
   1+20       1.0104     10.88  V Q       |         |         |         |
   1+25       1.0846     10.76  V Q       |         |         |         |
   1+30       1.1582     10.69  V Q       |         |         |         |
   1+35       1.2314     10.63  V Q       |         |         |         |
   1+40       1.3044     10.60  V Q       |         |         |         |
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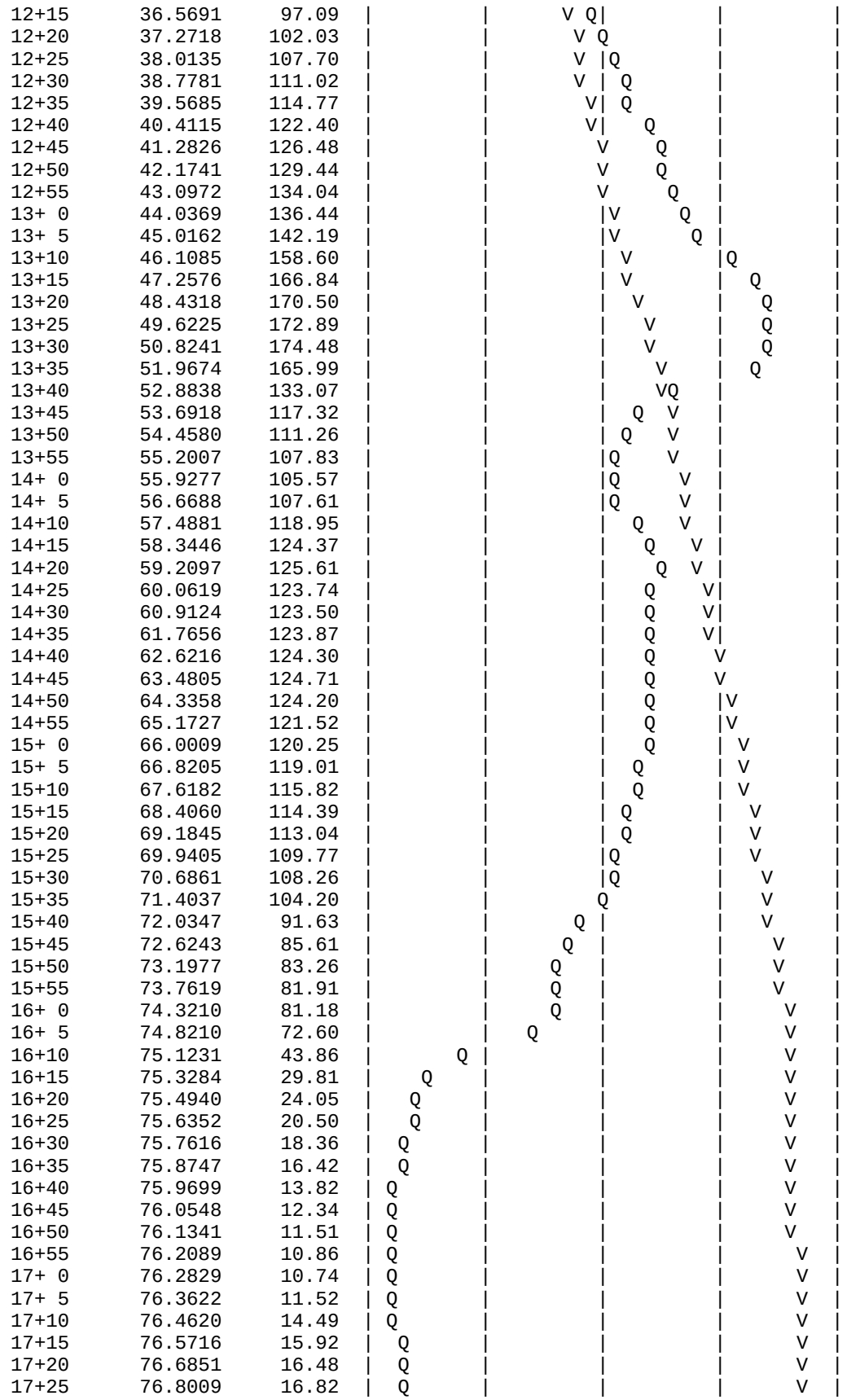
1+45	1.3771	10.56	V Q	|	|	|	|
1+50	1.4527	10.97	V Q	|	|	|	|
1+55	1.5384	12.45	V Q	|	|	|	|
2+ 0	1.6292	13.18	V Q	|	|	|	|
2+ 5	1.7221	13.48	V Q	|	|	|	|
2+10	1.8162	13.66	V Q	|	|	|	|
2+15	1.9110	13.78	V Q	|	|	|	|
2+20	2.0065	13.86	V Q	|	|	|	|
2+25	2.1023	13.92	|VQ	|	|	|	|
2+30	2.1984	13.96	|VQ	|	|	|	|
2+35	2.2977	14.42	|VQ	|	|	|	|
2+40	2.4076	15.95	|V Q	|	|	|	|
2+45	2.5225	16.69	|V Q	|	|	|	|
2+50	2.6395	16.98	|V Q	|	|	|	|
2+55	2.7577	17.16	|V Q	|	|	|	|
3+ 0	2.8767	17.28	|V Q	|	|	|	|
3+ 5	2.9963	17.36	|V Q	|	|	|	|
3+10	3.1162	17.42	|V Q	|	|	|	|
3+15	3.2365	17.46	|V Q	|	|	|	|
3+20	3.3569	17.49	|V Q	|	|	|	|
3+25	3.4775	17.51	|V Q	|	|	|	|
3+30	3.5981	17.51	|V Q	|	|	|	|
3+35	3.7187	17.51	|V Q	|	|	|	|
3+40	3.8393	17.51	|V Q	|	|	|	|
3+45	3.9599	17.51	|V Q	|	|	|	|
3+50	4.0835	17.94	|V Q	|	|	|	|
3+55	4.2175	19.46	| VQ	|	|	|	|
4+ 0	4.3565	20.19	| V Q	|	|	|	|
4+ 5	4.4976	20.49	| V Q	|	|	|	|
4+10	4.6400	20.67	| V Q	|	|	|	|
4+15	4.7831	20.78	| V Q	|	|	|	|
4+20	4.9298	21.29	| V Q	|	|	|	|
4+25	5.0872	22.86	| V Q	|	|	|	|
4+30	5.2500	23.64	| V Q	|	|	|	|
4+35	5.4151	23.96	| V Q	|	|	|	|
4+40	5.5815	24.17	| V Q	|	|	|	|
4+45	5.7488	24.28	| V Q	|	|	|	|
4+50	5.9195	24.80	| V Q	|	|	|	|
4+55	6.1011	26.37	| V Q	|	|	|	|
5+ 0	6.2880	27.14	| V Q	|	|	|	|
5+ 5	6.4712	26.60	| V Q	|	|	|	|
5+10	6.6351	23.79	| VQ	|	|	|	|
5+15	6.7895	22.43	| VQ	|	|	|	|
5+20	6.9435	22.35	| VQ	|	|	|	|
5+25	7.1057	23.56	| VQ	|	|	|	|
5+30	7.2717	24.10	| VQ	|	|	|	|
5+35	7.4419	24.70	| VQ	|	|	|	|
5+40	7.6230	26.30	| V Q	|	|	|	|
5+45	7.8094	27.07	| V Q	|	|	|	|
5+50	7.9980	27.39	| V Q	|	|	|	|
5+55	8.1880	27.58	| V Q	|	|	|	|
6+ 0	8.3790	27.73	| VQ	|	|	|	|
6+ 5	8.5737	28.27	| VQ	|	|	|	|
6+10	8.7794	29.87	| VQ	|	|	|	|
6+15	8.9904	30.64	| V Q	|	|	|	|
6+20	9.2037	30.97	| V Q	|	|	|	|
6+25	9.4184	31.17	| V Q	|	|	|	|
6+30	9.6339	31.29	| V Q	|	|	|	|
6+35	9.8529	31.80	| V Q	|	|	|	|
6+40	10.0828	33.37	| V Q	|	|	|	|
6+45	10.3179	34.15	| VQ	|	|	|	|
6+50	10.5553	34.47	| VQ	|	|	|	|
6+55	10.7942	34.68	| VQ	|	|	|	|

7+ 0	11.0338	34.79	VQ				
7+ 5	11.2739	34.87	VQ				
7+10	11.5145	34.93	VQ				
7+15	11.7553	34.97	VQ				
7+20	11.9994	35.43	V Q				
7+25	12.2540	36.97	V Q				
7+30	12.5136	37.70	VQ				
7+35	12.7783	38.43	VQ				
7+40	13.0546	40.12	V Q				
7+45	13.3368	40.97	V Q				
7+50	13.6245	41.78	V Q				
7+55	13.9243	43.53	V Q				
8+ 0	14.2303	44.42	V Q				
8+ 5	14.5449	45.69	V Q				
8+10	14.8822	48.98	V Q				
8+15	15.2307	50.60	V Q				
8+20	15.5840	51.30	V Q				
8+25	15.9404	51.75	V Q				
8+30	16.2987	52.02	V Q				
8+35	16.6612	52.64	V Q				
8+40	17.0351	54.29	V Q				
8+45	17.4146	55.11	V Q				
8+50	17.7996	55.89	V Q				
8+55	18.1965	57.63	V Q				
9+ 0	18.5993	58.48	V Q				
9+ 5	19.0106	59.73	V Q				
9+10	19.4444	62.98	V Q				
9+15	19.8894	64.61	V Q				
9+20	20.3422	65.75	V Q				
9+25	20.8084	67.70	V Q				
9+30	21.2816	68.70	V Q				
9+35	21.7611	69.62	V Q				
9+40	22.2532	71.46	V Q				
9+45	22.7517	72.39	V Q				
9+50	23.2562	73.25	V Q				
9+55	23.7731	75.05	V Q				
10+ 0	24.2961	75.94	V Q				
10+ 5	24.8011	73.32	V Q				
10+10	25.2350	63.01	Q				
10+15	25.6347	58.02	QV				
10+20	26.0207	56.05	QV				
10+25	26.3987	54.88	Q V				
10+30	26.7714	54.11	Q V				
10+35	27.1552	55.74	Q V				
10+40	27.5885	62.91	QV				
10+45	28.0451	66.30	Q				
10+50	28.5106	67.59	Q				
10+55	28.9810	68.31	QV				
11+ 0	29.4554	68.88	QV				
11+ 5	29.9296	68.86	QV				
11+10	30.3955	67.64	QV				
11+15	30.8576	67.10	QV				
11+20	31.3187	66.95	Q V				
11+25	31.7794	66.89	Q V				
11+30	32.2393	66.78	Q V				
11+35	32.6927	65.83	Q V				
11+40	33.1249	62.75	Q V				
11+45	33.5467	61.24	Q V				
11+50	33.9672	61.05	Q V				
11+55	34.3954	62.18	Q V				
12+ 0	34.8271	62.69	Q V				
12+ 5	35.2975	68.30	Q V				
12+10	35.9004	87.55	Q				



17+30	76.9183	17.05	Q			V
17+35	77.0369	17.21	Q			V
17+40	77.1562	17.32	Q			V
17+45	77.2760	17.40	Q			V
17+50	77.3933	17.03	Q			V
17+55	77.5005	15.57	Q			V
18+ 0	77.6027	14.83	Q			V
18+ 5	77.7028	14.54	Q			V
18+10	77.8017	14.36	Q			V
18+15	77.8998	14.24	Q			V
18+20	77.9973	14.16	Q			V
18+25	78.0945	14.10	Q			V
18+30	78.1913	14.06	Q			V
18+35	78.2850	13.60	Q			V
18+40	78.3681	12.07	Q			V
18+45	78.4462	11.33	Q			V
18+50	78.5192	10.60	Q			V
18+55	78.5806	8.91	Q			V
19+ 0	78.6361	8.06	Q			V
19+ 5	78.6920	8.12	Q			V
19+10	78.7567	9.39	Q			V
19+15	78.8253	9.97	Q			V
19+20	78.8983	10.59	Q			V
19+25	78.9823	12.20	Q			V
19+30	79.0718	13.01	Q			V
19+35	79.1608	12.92	Q			V
19+40	79.2409	11.62	Q			V
19+45	79.3170	11.05	Q			V
19+50	79.3887	10.42	Q			V
19+55	79.4495	8.82	Q			V
20+ 0	79.5046	8.01	Q			V
20+ 5	79.5604	8.09	Q			V
20+10	79.6250	9.39	Q			V
20+15	79.6937	9.97	Q			V
20+20	79.7637	10.16	Q			V
20+25	79.8343	10.25	Q			V
20+30	79.9054	10.33	Q			V
20+35	79.9769	10.38	Q			V
20+40	80.0486	10.41	Q			V
20+45	80.1206	10.45	Q			V
20+50	80.1898	10.05	Q			V
20+55	80.2488	8.56	Q			V
21+ 0	80.3027	7.83	Q			V
21+ 5	80.3576	7.96	Q			V
21+10	80.4216	9.30	Q			V
21+15	80.4899	9.92	Q			V
21+20	80.5567	9.70	Q			V
21+25	80.6139	8.31	Q			V
21+30	80.6666	7.65	Q			V
21+35	80.7206	7.84	Q			V
21+40	80.7840	9.20	Q			V
21+45	80.8519	9.86	Q			V
21+50	80.9185	9.67	Q			V
21+55	80.9757	8.31	Q			V
22+ 0	81.0284	7.65	Q			V
22+ 5	81.0824	7.84	Q			V
22+10	81.1458	9.20	Q			V
22+15	81.2137	9.86	Q			V
22+20	81.2803	9.67	Q			V
22+25	81.3376	8.31	Q			V
22+30	81.3903	7.65	Q			V
22+35	81.4413	7.41	Q			V
22+40	81.4913	7.26	Q			V

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   22+45      81.5407      7.18  |Q        |         |         |        V|
   22+50      81.5898      7.13  |Q        |         |         |        V|
   22+55      81.6387      7.10  |Q        |         |         |        V|
   23+ 0      81.6873      7.06  |Q        |         |         |        V|
   23+ 5      81.7358      7.03  |Q        |         |         |        V|
   23+10      81.7840      7.00  |Q        |         |         |        V|
   23+15      81.8323      7.00  |Q        |         |         |        V|
   23+20      81.8805      7.00  |Q        |         |         |        V|
   23+25      81.9287      7.00  |Q        |         |         |        V|
   23+30      81.9770      7.00  |Q        |         |         |        V|
   23+35      82.0252      7.00  |Q        |         |         |        V|
   23+40      82.0735      7.00  |Q        |         |         |        V|
   23+45      82.1217      7.00  |Q        |         |         |        V|
   23+50      82.1700      7.00  |Q        |         |         |        V|
   23+55      82.2182      7.00  |Q        |         |         |        V|
   24+ 0      82.2664      7.00  |Q        |         |         |        V|
   24+ 5      82.3087      6.14  |Q        |         |         |        V|
   24+10      82.3302      3.12  Q         |         |         |        V|
   24+15      82.3416      1.65  Q         |         |         |        V|
   24+20      82.3488      1.06  Q         |         |         |        V|
   24+25      82.3536      0.70  Q         |         |         |        V|
   24+30      82.3569      0.47  Q         |         |         |        V|
   24+35      82.3589      0.30  Q         |         |         |        V|
   24+40      82.3602      0.19  Q         |         |         |        V|
   24+45      82.3610      0.11  Q         |         |         |        V|
   24+50      82.3613      0.05  Q         |         |         |         V
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APPENDIX F.2: AREA “A” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS 10–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 06/25/15 File: APR2410.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - PROPOSED CONDITION
10YR-24HR
FN: APR2410

Drainage Area = 221.62(Ac.) = 0.346 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 221.62(Ac.) = 0.346 Sq. Mi.
Length along longest watercourse = 7031.00(Ft.)
Length along longest watercourse measured to centroid = 2250.00(Ft.)
Length along longest watercourse = 1.332 Mi.
Length along longest watercourse measured to centroid = 0.426 Mi.
Difference in elevation = 232.00(Ft.)
Slope along watercourse = 174.2227 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.109 Hr.
Lag time = 6.53 Min.
25% of lag time = 1.63 Min.
40% of lag time = 2.61 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	2.50	554.05

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	8.00	1772.96

STORM EVENT (YEAR) = 10.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 4.763(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 4.761(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
221.620	46.00	0.490

Total Area Entered = 221.62(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
46.0	46.0	0.611	0.490	0.342	1.000	0.342
					Sum (F) =	0.342

Area averaged mean soil loss (F) (In/Hr) = 0.342
Minimum soil loss rate ((In/Hr)) = 0.171
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	76.530	12.346	27.574
2	0.167	153.060	43.124	96.318
3	0.250	229.590	20.980	46.860
4	0.333	306.120	8.485	18.950
5	0.417	382.650	5.117	11.429
6	0.500	459.180	3.293	7.355
7	0.583	535.710	2.312	5.164
8	0.667	612.241	1.666	3.720
9	0.750	688.771	1.145	2.558
10	0.833	765.301	0.803	1.793
11	0.917	841.831	0.730	1.630
		Sum = 100.000	Sum=	223.351

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.038	(0.606)	0.019	0.019
2	0.17	0.07	0.038	(0.603)	0.019	0.019
3	0.25	0.07	0.038	(0.601)	0.019	0.019
4	0.33	0.10	0.057	(0.599)	0.029	0.028
5	0.42	0.10	0.057	(0.596)	0.029	0.028
6	0.50	0.10	0.057	(0.594)	0.029	0.028
7	0.58	0.10	0.057	(0.592)	0.029	0.028
8	0.67	0.10	0.057	(0.589)	0.029	0.028
9	0.75	0.10	0.057	(0.587)	0.029	0.028
10	0.83	0.13	0.076	(0.585)	0.039	0.037
11	0.92	0.13	0.076	(0.582)	0.039	0.037
12	1.00	0.13	0.076	(0.580)	0.039	0.037
13	1.08	0.10	0.057	(0.578)	0.029	0.028
14	1.17	0.10	0.057	(0.576)	0.029	0.028

15	1.25	0.10	0.057	(0.573)	0.029	0.028
16	1.33	0.10	0.057	(0.571)	0.029	0.028
17	1.42	0.10	0.057	(0.569)	0.029	0.028
18	1.50	0.10	0.057	(0.566)	0.029	0.028
19	1.58	0.10	0.057	(0.564)	0.029	0.028
20	1.67	0.10	0.057	(0.562)	0.029	0.028
21	1.75	0.10	0.057	(0.560)	0.029	0.028
22	1.83	0.13	0.076	(0.557)	0.039	0.037
23	1.92	0.13	0.076	(0.555)	0.039	0.037
24	2.00	0.13	0.076	(0.553)	0.039	0.037
25	2.08	0.13	0.076	(0.551)	0.039	0.037
26	2.17	0.13	0.076	(0.548)	0.039	0.037
27	2.25	0.13	0.076	(0.546)	0.039	0.037
28	2.33	0.13	0.076	(0.544)	0.039	0.037
29	2.42	0.13	0.076	(0.542)	0.039	0.037
30	2.50	0.13	0.076	(0.540)	0.039	0.037
31	2.58	0.17	0.095	(0.537)	0.049	0.047
32	2.67	0.17	0.095	(0.535)	0.049	0.047
33	2.75	0.17	0.095	(0.533)	0.049	0.047
34	2.83	0.17	0.095	(0.531)	0.049	0.047
35	2.92	0.17	0.095	(0.529)	0.049	0.047
36	3.00	0.17	0.095	(0.526)	0.049	0.047
37	3.08	0.17	0.095	(0.524)	0.049	0.047
38	3.17	0.17	0.095	(0.522)	0.049	0.047
39	3.25	0.17	0.095	(0.520)	0.049	0.047
40	3.33	0.17	0.095	(0.518)	0.049	0.047
41	3.42	0.17	0.095	(0.516)	0.049	0.047
42	3.50	0.17	0.095	(0.513)	0.049	0.047
43	3.58	0.17	0.095	(0.511)	0.049	0.047
44	3.67	0.17	0.095	(0.509)	0.049	0.047
45	3.75	0.17	0.095	(0.507)	0.049	0.047
46	3.83	0.20	0.114	(0.505)	0.058	0.056
47	3.92	0.20	0.114	(0.503)	0.058	0.056
48	4.00	0.20	0.114	(0.501)	0.058	0.056
49	4.08	0.20	0.114	(0.498)	0.058	0.056
50	4.17	0.20	0.114	(0.496)	0.058	0.056
51	4.25	0.20	0.114	(0.494)	0.058	0.056
52	4.33	0.23	0.133	(0.492)	0.068	0.065
53	4.42	0.23	0.133	(0.490)	0.068	0.065
54	4.50	0.23	0.133	(0.488)	0.068	0.065
55	4.58	0.23	0.133	(0.486)	0.068	0.065
56	4.67	0.23	0.133	(0.484)	0.068	0.065
57	4.75	0.23	0.133	(0.482)	0.068	0.065
58	4.83	0.27	0.152	(0.480)	0.078	0.075
59	4.92	0.27	0.152	(0.477)	0.078	0.075
60	5.00	0.27	0.152	(0.475)	0.078	0.075
61	5.08	0.20	0.114	(0.473)	0.058	0.056
62	5.17	0.20	0.114	(0.471)	0.058	0.056
63	5.25	0.20	0.114	(0.469)	0.058	0.056
64	5.33	0.23	0.133	(0.467)	0.068	0.065
65	5.42	0.23	0.133	(0.465)	0.068	0.065
66	5.50	0.23	0.133	(0.463)	0.068	0.065
67	5.58	0.27	0.152	(0.461)	0.078	0.075
68	5.67	0.27	0.152	(0.459)	0.078	0.075
69	5.75	0.27	0.152	(0.457)	0.078	0.075
70	5.83	0.27	0.152	(0.455)	0.078	0.075
71	5.92	0.27	0.152	(0.453)	0.078	0.075
72	6.00	0.27	0.152	(0.451)	0.078	0.075
73	6.08	0.30	0.171	(0.449)	0.087	0.084
74	6.17	0.30	0.171	(0.447)	0.087	0.084
75	6.25	0.30	0.171	(0.445)	0.087	0.084
76	6.33	0.30	0.171	(0.443)	0.087	0.084
77	6.42	0.30	0.171	(0.441)	0.087	0.084

78	6.50	0.30	0.171	(0.439)	0.087	0.084
79	6.58	0.33	0.190	(0.437)	0.097	0.093
80	6.67	0.33	0.190	(0.435)	0.097	0.093
81	6.75	0.33	0.190	(0.433)	0.097	0.093
82	6.83	0.33	0.190	(0.431)	0.097	0.093
83	6.92	0.33	0.190	(0.429)	0.097	0.093
84	7.00	0.33	0.190	(0.427)	0.097	0.093
85	7.08	0.33	0.190	(0.425)	0.097	0.093
86	7.17	0.33	0.190	(0.423)	0.097	0.093
87	7.25	0.33	0.190	(0.421)	0.097	0.093
88	7.33	0.37	0.209	(0.420)	0.107	0.103
89	7.42	0.37	0.209	(0.418)	0.107	0.103
90	7.50	0.37	0.209	(0.416)	0.107	0.103
91	7.58	0.40	0.229	(0.414)	0.117	0.112
92	7.67	0.40	0.229	(0.412)	0.117	0.112
93	7.75	0.40	0.229	(0.410)	0.117	0.112
94	7.83	0.43	0.248	(0.408)	0.126	0.121
95	7.92	0.43	0.248	(0.406)	0.126	0.121
96	8.00	0.43	0.248	(0.404)	0.126	0.121
97	8.08	0.50	0.286	(0.402)	0.146	0.140
98	8.17	0.50	0.286	(0.401)	0.146	0.140
99	8.25	0.50	0.286	(0.399)	0.146	0.140
100	8.33	0.50	0.286	(0.397)	0.146	0.140
101	8.42	0.50	0.286	(0.395)	0.146	0.140
102	8.50	0.50	0.286	(0.393)	0.146	0.140
103	8.58	0.53	0.305	(0.391)	0.155	0.149
104	8.67	0.53	0.305	(0.389)	0.155	0.149
105	8.75	0.53	0.305	(0.388)	0.155	0.149
106	8.83	0.57	0.324	(0.386)	0.165	0.159
107	8.92	0.57	0.324	(0.384)	0.165	0.159
108	9.00	0.57	0.324	(0.382)	0.165	0.159
109	9.08	0.63	0.362	(0.380)	0.185	0.177
110	9.17	0.63	0.362	(0.379)	0.185	0.177
111	9.25	0.63	0.362	(0.377)	0.185	0.177
112	9.33	0.67	0.381	(0.375)	0.194	0.187
113	9.42	0.67	0.381	(0.373)	0.194	0.187
114	9.50	0.67	0.381	(0.371)	0.194	0.187
115	9.58	0.70	0.400	(0.370)	0.204	0.196
116	9.67	0.70	0.400	(0.368)	0.204	0.196
117	9.75	0.70	0.400	(0.366)	0.204	0.196
118	9.83	0.73	0.419	(0.364)	0.214	0.205
119	9.92	0.73	0.419	(0.363)	0.214	0.205
120	10.00	0.73	0.419	(0.361)	0.214	0.205
121	10.08	0.50	0.286	(0.359)	0.146	0.140
122	10.17	0.50	0.286	(0.357)	0.146	0.140
123	10.25	0.50	0.286	(0.356)	0.146	0.140
124	10.33	0.50	0.286	(0.354)	0.146	0.140
125	10.42	0.50	0.286	(0.352)	0.146	0.140
126	10.50	0.50	0.286	(0.350)	0.146	0.140
127	10.58	0.67	0.381	(0.349)	0.194	0.187
128	10.67	0.67	0.381	(0.347)	0.194	0.187
129	10.75	0.67	0.381	(0.345)	0.194	0.187
130	10.83	0.67	0.381	(0.344)	0.194	0.187
131	10.92	0.67	0.381	(0.342)	0.194	0.187
132	11.00	0.67	0.381	(0.340)	0.194	0.187
133	11.08	0.63	0.362	(0.339)	0.185	0.177
134	11.17	0.63	0.362	(0.337)	0.185	0.177
135	11.25	0.63	0.362	(0.335)	0.185	0.177
136	11.33	0.63	0.362	(0.334)	0.185	0.177
137	11.42	0.63	0.362	(0.332)	0.185	0.177
138	11.50	0.63	0.362	(0.330)	0.185	0.177
139	11.58	0.57	0.324	(0.329)	0.165	0.159
140	11.67	0.57	0.324	(0.327)	0.165	0.159

141	11.75	0.57	0.324	(	0.325)	0.165	0.159
142	11.83	0.60	0.343	(	0.324)	0.175	0.168
143	11.92	0.60	0.343	(	0.322)	0.175	0.168
144	12.00	0.60	0.343	(	0.321)	0.175	0.168
145	12.08	0.83	0.476	(	0.319)	0.243	0.233
146	12.17	0.83	0.476	(	0.317)	0.243	0.233
147	12.25	0.83	0.476	(	0.316)	0.243	0.233
148	12.33	0.87	0.495	(	0.314)	0.253	0.243
149	12.42	0.87	0.495	(	0.313)	0.253	0.243
150	12.50	0.87	0.495	(	0.311)	0.253	0.243
151	12.58	0.93	0.533	(	0.309)	0.272	0.261
152	12.67	0.93	0.533	(	0.308)	0.272	0.261
153	12.75	0.93	0.533	(	0.306)	0.272	0.261
154	12.83	0.97	0.552	(	0.305)	0.282	0.271
155	12.92	0.97	0.552	(	0.303)	0.282	0.271
156	13.00	0.97	0.552	(	0.302)	0.282	0.271
157	13.08	1.13	0.647		0.300	(0.330)	0.347
158	13.17	1.13	0.647		0.299	(0.330)	0.349
159	13.25	1.13	0.647		0.297	(0.330)	0.350
160	13.33	1.13	0.647		0.296	(0.330)	0.352
161	13.42	1.13	0.647		0.294	(0.330)	0.353
162	13.50	1.13	0.647		0.293	(0.330)	0.355
163	13.58	0.77	0.438	(	0.291)	0.223	0.215
164	13.67	0.77	0.438	(	0.290)	0.223	0.215
165	13.75	0.77	0.438	(	0.288)	0.223	0.215
166	13.83	0.77	0.438	(	0.287)	0.223	0.215
167	13.92	0.77	0.438	(	0.285)	0.223	0.215
168	14.00	0.77	0.438	(	0.284)	0.223	0.215
169	14.08	0.90	0.514	(	0.282)	0.262	0.252
170	14.17	0.90	0.514	(	0.281)	0.262	0.252
171	14.25	0.90	0.514	(	0.279)	0.262	0.252
172	14.33	0.87	0.495	(	0.278)	0.253	0.243
173	14.42	0.87	0.495	(	0.277)	0.253	0.243
174	14.50	0.87	0.495	(	0.275)	0.253	0.243
175	14.58	0.87	0.495	(	0.274)	0.253	0.243
176	14.67	0.87	0.495	(	0.272)	0.253	0.243
177	14.75	0.87	0.495	(	0.271)	0.253	0.243
178	14.83	0.83	0.476	(	0.270)	0.243	0.233
179	14.92	0.83	0.476	(	0.268)	0.243	0.233
180	15.00	0.83	0.476	(	0.267)	0.243	0.233
181	15.08	0.80	0.457	(	0.265)	0.233	0.224
182	15.17	0.80	0.457	(	0.264)	0.233	0.224
183	15.25	0.80	0.457	(	0.263)	0.233	0.224
184	15.33	0.77	0.438	(	0.261)	0.223	0.215
185	15.42	0.77	0.438	(	0.260)	0.223	0.215
186	15.50	0.77	0.438	(	0.259)	0.223	0.215
187	15.58	0.63	0.362	(	0.257)	0.185	0.177
188	15.67	0.63	0.362	(	0.256)	0.185	0.177
189	15.75	0.63	0.362	(	0.255)	0.185	0.177
190	15.83	0.63	0.362	(	0.253)	0.185	0.177
191	15.92	0.63	0.362	(	0.252)	0.185	0.177
192	16.00	0.63	0.362	(	0.251)	0.185	0.177
193	16.08	0.13	0.076	(	0.250)	0.039	0.037
194	16.17	0.13	0.076	(	0.248)	0.039	0.037
195	16.25	0.13	0.076	(	0.247)	0.039	0.037
196	16.33	0.13	0.076	(	0.246)	0.039	0.037
197	16.42	0.13	0.076	(	0.245)	0.039	0.037
198	16.50	0.13	0.076	(	0.243)	0.039	0.037
199	16.58	0.10	0.057	(	0.242)	0.029	0.028
200	16.67	0.10	0.057	(	0.241)	0.029	0.028
201	16.75	0.10	0.057	(	0.240)	0.029	0.028
202	16.83	0.10	0.057	(	0.238)	0.029	0.028
203	16.92	0.10	0.057	(	0.237)	0.029	0.028

204	17.00	0.10	0.057	(0.236)	0.029	0.028
205	17.08	0.17	0.095	(0.235)	0.049	0.047
206	17.17	0.17	0.095	(0.234)	0.049	0.047
207	17.25	0.17	0.095	(0.232)	0.049	0.047
208	17.33	0.17	0.095	(0.231)	0.049	0.047
209	17.42	0.17	0.095	(0.230)	0.049	0.047
210	17.50	0.17	0.095	(0.229)	0.049	0.047
211	17.58	0.17	0.095	(0.228)	0.049	0.047
212	17.67	0.17	0.095	(0.227)	0.049	0.047
213	17.75	0.17	0.095	(0.226)	0.049	0.047
214	17.83	0.13	0.076	(0.224)	0.039	0.037
215	17.92	0.13	0.076	(0.223)	0.039	0.037
216	18.00	0.13	0.076	(0.222)	0.039	0.037
217	18.08	0.13	0.076	(0.221)	0.039	0.037
218	18.17	0.13	0.076	(0.220)	0.039	0.037
219	18.25	0.13	0.076	(0.219)	0.039	0.037
220	18.33	0.13	0.076	(0.218)	0.039	0.037
221	18.42	0.13	0.076	(0.217)	0.039	0.037
222	18.50	0.13	0.076	(0.216)	0.039	0.037
223	18.58	0.10	0.057	(0.215)	0.029	0.028
224	18.67	0.10	0.057	(0.214)	0.029	0.028
225	18.75	0.10	0.057	(0.213)	0.029	0.028
226	18.83	0.07	0.038	(0.212)	0.019	0.019
227	18.92	0.07	0.038	(0.211)	0.019	0.019
228	19.00	0.07	0.038	(0.210)	0.019	0.019
229	19.08	0.10	0.057	(0.209)	0.029	0.028
230	19.17	0.10	0.057	(0.208)	0.029	0.028
231	19.25	0.10	0.057	(0.207)	0.029	0.028
232	19.33	0.13	0.076	(0.206)	0.039	0.037
233	19.42	0.13	0.076	(0.205)	0.039	0.037
234	19.50	0.13	0.076	(0.204)	0.039	0.037
235	19.58	0.10	0.057	(0.203)	0.029	0.028
236	19.67	0.10	0.057	(0.202)	0.029	0.028
237	19.75	0.10	0.057	(0.201)	0.029	0.028
238	19.83	0.07	0.038	(0.200)	0.019	0.019
239	19.92	0.07	0.038	(0.199)	0.019	0.019
240	20.00	0.07	0.038	(0.198)	0.019	0.019
241	20.08	0.10	0.057	(0.198)	0.029	0.028
242	20.17	0.10	0.057	(0.197)	0.029	0.028
243	20.25	0.10	0.057	(0.196)	0.029	0.028
244	20.33	0.10	0.057	(0.195)	0.029	0.028
245	20.42	0.10	0.057	(0.194)	0.029	0.028
246	20.50	0.10	0.057	(0.193)	0.029	0.028
247	20.58	0.10	0.057	(0.192)	0.029	0.028
248	20.67	0.10	0.057	(0.192)	0.029	0.028
249	20.75	0.10	0.057	(0.191)	0.029	0.028
250	20.83	0.07	0.038	(0.190)	0.019	0.019
251	20.92	0.07	0.038	(0.189)	0.019	0.019
252	21.00	0.07	0.038	(0.189)	0.019	0.019
253	21.08	0.10	0.057	(0.188)	0.029	0.028
254	21.17	0.10	0.057	(0.187)	0.029	0.028
255	21.25	0.10	0.057	(0.186)	0.029	0.028
256	21.33	0.07	0.038	(0.186)	0.019	0.019
257	21.42	0.07	0.038	(0.185)	0.019	0.019
258	21.50	0.07	0.038	(0.184)	0.019	0.019
259	21.58	0.10	0.057	(0.184)	0.029	0.028
260	21.67	0.10	0.057	(0.183)	0.029	0.028
261	21.75	0.10	0.057	(0.182)	0.029	0.028
262	21.83	0.07	0.038	(0.182)	0.019	0.019
263	21.92	0.07	0.038	(0.181)	0.019	0.019
264	22.00	0.07	0.038	(0.180)	0.019	0.019
265	22.08	0.10	0.057	(0.180)	0.029	0.028
266	22.17	0.10	0.057	(0.179)	0.029	0.028

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267  22.25     0.10      0.057       (  0.179)       0.029        0.028
268  22.33     0.07      0.038       (  0.178)       0.019        0.019
269  22.42     0.07      0.038       (  0.178)       0.019        0.019
270  22.50     0.07      0.038       (  0.177)       0.019        0.019
271  22.58     0.07      0.038       (  0.177)       0.019        0.019
272  22.67     0.07      0.038       (  0.176)       0.019        0.019
273  22.75     0.07      0.038       (  0.176)       0.019        0.019
274  22.83     0.07      0.038       (  0.175)       0.019        0.019
275  22.92     0.07      0.038       (  0.175)       0.019        0.019
276  23.00     0.07      0.038       (  0.174)       0.019        0.019
277  23.08     0.07      0.038       (  0.174)       0.019        0.019
278  23.17     0.07      0.038       (  0.173)       0.019        0.019
279  23.25     0.07      0.038       (  0.173)       0.019        0.019
280  23.33     0.07      0.038       (  0.173)       0.019        0.019
281  23.42     0.07      0.038       (  0.172)       0.019        0.019
282  23.50     0.07      0.038       (  0.172)       0.019        0.019
283  23.58     0.07      0.038       (  0.172)       0.019        0.019
284  23.67     0.07      0.038       (  0.172)       0.019        0.019
285  23.75     0.07      0.038       (  0.171)       0.019        0.019
286  23.83     0.07      0.038       (  0.171)       0.019        0.019
287  23.92     0.07      0.038       (  0.171)       0.019        0.019
288  24.00     0.07      0.038       (  0.171)       0.019        0.019
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    28.2
     Flood volume = Effective rainfall      2.35(In)
      times area     221.6(Ac.)/[(In)/(Ft.)] =      43.4(Ac.Ft)
     Total soil loss =      2.41(In)
     Total soil loss =    44.528(Ac.Ft)
     Total rainfall =      4.76(In)
     Flood volume =     1890235.6 Cubic Feet
     Total soil loss =     1939641.5 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =     77.510(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       20.0      40.0      60.0      80.0
 ---------------------------------------------------------------------------
   0+ 5       0.0035      0.51  Q         |         |         |         |
   0+10       0.0195      2.31  VQ        |         |         |         |
   0+15       0.0414      3.19  VQ        |         |         |         |
   0+20       0.0676      3.80  VQ        |         |         |         |
   0+25       0.1014      4.91  V Q       |         |         |         |
   0+30       0.1392      5.49  V Q       |         |         |         |
   0+35       0.1789      5.76  V Q       |         |         |         |
   0+40       0.2198      5.94  V Q       |         |         |         |
   0+45       0.2615      6.05  V  Q      |         |         |         |
   0+50       0.3055      6.39  V  Q      |         |         |         |
   0+55       0.3561      7.36  V  Q      |         |         |         |
   1+ 0       0.4100      7.82  V  Q      |         |         |         |
   1+ 5       0.4634      7.75  V  Q      |         |         |         |
   1+10       0.5114      6.98  V  Q      |         |         |         |
   1+15       0.5569      6.61  V  Q      |         |         |         |
   1+20       0.6016      6.48  V  Q      |         |         |         |
   1+25       0.6457      6.41  V  Q      |         |         |         |
   1+30       0.6895      6.36  V  Q      |         |         |         |
   1+35       0.7331      6.33  V  Q      |         |         |         |
   1+40       0.7766      6.31  V  Q      |         |         |         |
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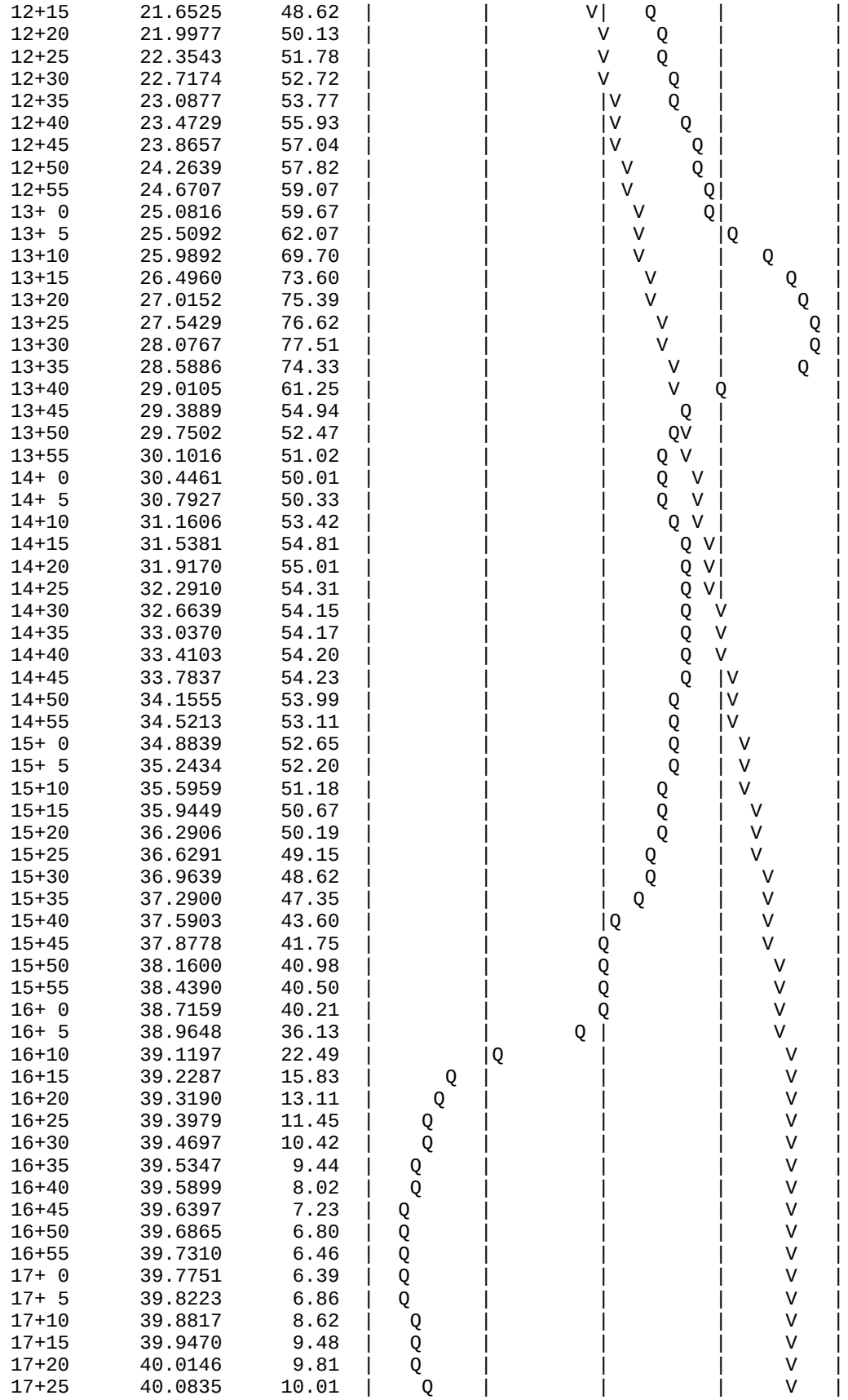
1+45	0.8199	6.29	V Q	|	|	|	|
1+50	0.8648	6.53	V Q	|	|	|	|
1+55	0.9159	7.41	V Q	|	|	|	|
2+ 0	0.9699	7.85	V Q	|	|	|	|
2+ 5	1.0252	8.03	V Q	|	|	|	|
2+10	1.0812	8.13	V Q	|	|	|	|
2+15	1.1377	8.20	|V Q	|	|	|	|
2+20	1.1945	8.25	|V Q	|	|	|	|
2+25	1.2516	8.28	|V Q	|	|	|	|
2+30	1.3088	8.31	|V Q	|	|	|	|
2+35	1.3679	8.58	|V Q	|	|	|	|
2+40	1.4333	9.50	|V Q	|	|	|	|
2+45	1.5018	9.93	|V Q	|	|	|	|
2+50	1.5714	10.11	|V Q	|	|	|	|
2+55	1.6418	10.22	|V Q	|	|	|	|
3+ 0	1.7126	10.29	|V Q	|	|	|	|
3+ 5	1.7838	10.34	|V Q	|	|	|	|
3+10	1.8552	10.37	|V Q	|	|	|	|
3+15	1.9268	10.39	|V Q	|	|	|	|
3+20	1.9985	10.41	|V Q	|	|	|	|
3+25	2.0703	10.43	|V Q	|	|	|	|
3+30	2.1421	10.43	|V Q	|	|	|	|
3+35	2.2139	10.43	| V Q	|	|	|	|
3+40	2.2857	10.43	| V Q	|	|	|	|
3+45	2.3575	10.43	| V Q	|	|	|	|
3+50	2.4311	10.68	| V Q	|	|	|	|
3+55	2.5109	11.58	| V Q	|	|	|	|
4+ 0	2.5936	12.02	| V Q	|	|	|	|
4+ 5	2.6776	12.20	| V Q	|	|	|	|
4+10	2.7624	12.30	| V Q	|	|	|	|
4+15	2.8476	12.37	| V Q	|	|	|	|
4+20	2.9349	12.68	| V Q	|	|	|	|
4+25	3.0286	13.61	| V Q	|	|	|	|
4+30	3.1256	14.07	| V Q	|	|	|	|
4+35	3.2238	14.27	| V Q	|	|	|	|
4+40	3.3229	14.39	| V Q	|	|	|	|
4+45	3.4225	14.46	| V Q	|	|	|	|
4+50	3.5242	14.76	| V Q	|	|	|	|
4+55	3.6323	15.70	| V Q	|	|	|	|
5+ 0	3.7435	16.16	| V Q	|	|	|	|
5+ 5	3.8526	15.84	| V Q	|	|	|	|
5+10	3.9501	14.16	| V Q	|	|	|	|
5+15	4.0421	13.35	| V Q	|	|	|	|
5+20	4.1337	13.31	| V Q	|	|	|	|
5+25	4.2303	14.03	| V Q	|	|	|	|
5+30	4.3292	14.35	| V Q	|	|	|	|
5+35	4.4305	14.71	| V Q	|	|	|	|
5+40	4.5383	15.66	| V Q	|	|	|	|
5+45	4.6493	16.12	| V Q	|	|	|	|
5+50	4.7616	16.31	| V Q	|	|	|	|
5+55	4.8747	16.42	| V Q	|	|	|	|
6+ 0	4.9884	16.51	| V Q	|	|	|	|
6+ 5	5.1043	16.83	| V Q	|	|	|	|
6+10	5.2268	17.78	| V Q	|	|	|	|
6+15	5.3524	18.24	| V Q|	|	|	|	|
6+20	5.4794	18.44	| V Q|	|	|	|	|
6+25	5.6072	18.56	| V Q|	|	|	|	|
6+30	5.7355	18.63	| V Q|	|	|	|	|
6+35	5.8659	18.93	| V Q|	|	|	|	|
6+40	6.0027	19.87	| V Q|	|	|	|	|
6+45	6.1427	20.33	| V Q	|	|	|	|
6+50	6.2840	20.52	| V Q	|	|	|	|
6+55	6.4262	20.64	| V Q	|	|	|	|

7+ 0	6.5689	20.71	V Q			
7+ 5	6.7119	20.76	V Q			
7+10	6.8551	20.80	V Q			
7+15	6.9985	20.82	V Q			
7+20	7.1437	21.09	V Q			
7+25	7.2953	22.01	V |Q			
7+30	7.4499	22.45	V |Q			
7+35	7.6075	22.88	V |Q			
7+40	7.7720	23.89	V |Q			
7+45	7.9400	24.39	V | Q			
7+50	8.1113	24.87	V | Q			
7+55	8.2898	25.92	V | Q			
8+ 0	8.4719	26.45	V | Q			
8+ 5	8.6592	27.20	V | Q			
8+10	8.8600	29.16	V | Q			
8+15	9.0675	30.12	V | Q			
8+20	9.2779	30.54	V | Q			
8+25	9.4900	30.81	V | Q			
8+30	9.7033	30.97	V | Q			
8+35	9.9191	31.34	V| Q			
8+40	10.1417	32.32	V| Q			
8+45	10.3677	32.81	V| Q			
8+50	10.5968	33.28	V| Q			
8+55	10.8332	34.31	V| Q			
9+ 0	11.0729	34.82	V Q			
9+ 5	11.3178	35.56	V Q			
9+10	11.5761	37.50	V Q			
9+15	11.8410	38.47	V Q|			
9+20	12.1106	39.14	|V Q|			
9+25	12.3881	40.30	|V Q			
9+30	12.6698	40.90	|V Q			
9+35	12.9553	41.45	|V Q			
9+40	13.2483	42.54	| V |Q			
9+45	13.5451	43.09	| V |Q			
9+50	13.8454	43.61	| V |Q			
9+55	14.1531	44.68	| V | Q			
10+ 0	14.4645	45.21	| V | Q			
10+ 5	14.7652	43.65	| V |Q			
10+10	15.0235	37.51	| V Q |			
10+15	15.2614	34.54	| V Q |			
10+20	15.4912	33.37	| V Q			
10+25	15.7163	32.67	| V Q			
10+30	15.9381	32.22	| V Q			
10+35	16.1667	33.18	| V Q			
10+40	16.4246	37.45	| V Q |			
10+45	16.6965	39.47	| V Q|			
10+50	16.9736	40.24	| V Q			
10+55	17.2536	40.67	| V Q			
11+ 0	17.5361	41.01	| V Q			
11+ 5	17.8184	40.99	| V Q			
11+10	18.0957	40.27	| V Q			
11+15	18.3709	39.95	| V Q|			
11+20	18.6453	39.86	| V Q|			
11+25	18.9196	39.83	| V Q|			
11+30	19.1934	39.76	| V Q|			
11+35	19.4634	39.19	| V Q|			
11+40	19.7207	37.36	| Q |			
11+45	19.9718	36.46	| Q |			
11+50	20.2221	36.35	| Q |			
11+55	20.4771	37.02	| Q |			
12+ 0	20.7341	37.32	| QV|			
12+ 5	21.0041	39.20	| Q|			
12+10	21.3177	45.53	| V| Q			



17+30	40.1534	10.15	| Q |	|	|	| V |
17+35	40.2239	10.24	| Q |	|	|	| V |
17+40	40.2950	10.31	| Q |	|	|	| V |
17+45	40.3663	10.36	| Q |	|	|	| V |
17+50	40.4362	10.14	| Q |	|	|	| V |
17+55	40.5000	9.27	| Q |	|	|	| V |
18+ 0	40.5608	8.83	| Q |	|	|	| V |
18+ 5	40.6204	8.65	| Q |	|	|	| V |
18+10	40.6793	8.55	| Q |	|	|	| V |
18+15	40.7377	8.48	| Q |	|	|	| V |
18+20	40.7958	8.43	| Q |	|	|	| V |
18+25	40.8536	8.40	| Q |	|	|	| V |
18+30	40.9113	8.37	| Q |	|	|	| V |
18+35	40.9670	8.10	| Q |	|	|	| V |
18+40	41.0165	7.18	| Q |	|	|	| V |
18+45	41.0630	6.75	| Q |	|	|	| V |
18+50	41.1064	6.31	| Q |	|	|	| V |
18+55	41.1430	5.31	| Q |	|	|	| V |
19+ 0	41.1760	4.80	| Q |	|	|	| V |
19+ 5	41.2093	4.83	| Q |	|	|	| V |
19+10	41.2478	5.59	| Q |	|	|	| V |
19+15	41.2887	5.94	| Q |	|	|	| V |
19+20	41.3321	6.30	| Q |	|	|	| V |
19+25	41.3821	7.26	| Q |	|	|	| V |
19+30	41.4355	7.74	| Q |	|	|	| V |
19+35	41.4884	7.69	| Q |	|	|	| V |
19+40	41.5361	6.92	| Q |	|	|	| V |
19+45	41.5814	6.58	| Q |	|	|	| V |
19+50	41.6241	6.21	| Q |	|	|	| V |
19+55	41.6603	5.25	| Q |	|	|	| V |
20+ 0	41.6931	4.77	| Q |	|	|	| V |
20+ 5	41.7263	4.82	| Q |	|	|	| V |
20+10	41.7648	5.59	| Q |	|	|	| V |
20+15	41.8057	5.94	| Q |	|	|	| V |
20+20	41.8473	6.05	| Q |	|	|	| V |
20+25	41.8894	6.10	| Q |	|	|	| V |
20+30	41.9317	6.15	| Q |	|	|	| V |
20+35	41.9743	6.18	| Q |	|	|	| V |
20+40	42.0170	6.20	| Q |	|	|	| V |
20+45	42.0598	6.22	| Q |	|	|	| V |
20+50	42.1010	5.98	| Q |	|	|	| V |
20+55	42.1362	5.10	| Q |	|	|	| V |
21+ 0	42.1683	4.66	| Q |	|	|	| V |
21+ 5	42.2009	4.74	| Q |	|	|	| V |
21+10	42.2390	5.53	| Q |	|	|	| V |
21+15	42.2797	5.90	| Q |	|	|	| V |
21+20	42.3195	5.77	| Q |	|	|	| V|
21+25	42.3535	4.95	| Q |	|	|	| V|
21+30	42.3849	4.55	| Q |	|	|	| V|
21+35	42.4170	4.67	| Q |	|	|	| V|
21+40	42.4548	5.48	| Q |	|	|	| V|
21+45	42.4952	5.87	| Q |	|	|	| V|
21+50	42.5349	5.76	| Q |	|	|	| V|
21+55	42.5689	4.95	| Q |	|	|	| V|
22+ 0	42.6003	4.55	| Q |	|	|	| V|
22+ 5	42.6324	4.67	| Q |	|	|	| V|
22+10	42.6702	5.48	| Q |	|	|	| V|
22+15	42.7106	5.87	| Q |	|	|	| V|
22+20	42.7503	5.76	| Q |	|	|	| V|
22+25	42.7843	4.95	| Q |	|	|	| V|
22+30	42.8157	4.55	| Q |	|	|	| V|
22+35	42.8461	4.41	| Q |	|	|	| V|
22+40	42.8758	4.32	| Q |	|	|	| V|

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   22+45      42.9053      4.28  | Q       |         |         |        V|
   22+50      42.9345      4.25  | Q       |         |         |        V|
   22+55      42.9636      4.23  | Q       |         |         |        V|
   23+ 0      42.9926      4.20  | Q       |         |         |        V|
   23+ 5      43.0214      4.19  | Q       |         |         |        V|
   23+10      43.0501      4.17  | Q       |         |         |        V|
   23+15      43.0789      4.17  | Q       |         |         |        V|
   23+20      43.1076      4.17  | Q       |         |         |        V|
   23+25      43.1363      4.17  | Q       |         |         |        V|
   23+30      43.1650      4.17  | Q       |         |         |        V|
   23+35      43.1937      4.17  | Q       |         |         |        V|
   23+40      43.2225      4.17  | Q       |         |         |        V|
   23+45      43.2512      4.17  | Q       |         |         |        V|
   23+50      43.2799      4.17  | Q       |         |         |        V|
   23+55      43.3086      4.17  | Q       |         |         |        V|
   24+ 0      43.3373      4.17  | Q       |         |         |        V|
   24+ 5      43.3625      3.66  |Q        |         |         |        V|
   24+10      43.3753      1.86  Q         |         |         |        V|
   24+15      43.3821      0.98  Q         |         |         |        V|
   24+20      43.3864      0.63  Q         |         |         |        V|
   24+25      43.3893      0.41  Q         |         |         |        V|
   24+30      43.3912      0.28  Q         |         |         |        V|
   24+35      43.3924      0.18  Q         |         |         |        V|
   24+40      43.3932      0.11  Q         |         |         |        V|
   24+45      43.3936      0.06  Q         |         |         |        V|
   24+50      43.3938      0.03  Q         |         |         |         V
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APPENDIX F.3: AREA “A” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS 5–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 06/25/15 File: APR245.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - PROPOSED CONDITION
5YR-24HR
FN: APR245

Drainage Area = 221.62(Ac.) = 0.346 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 221.62(Ac.) = 0.346 Sq. Mi.
Length along longest watercourse = 7031.00(Ft.)
Length along longest watercourse measured to centroid = 2250.00(Ft.)
Length along longest watercourse = 1.332 Mi.
Length along longest watercourse measured to centroid = 0.426 Mi.
Difference in elevation = 232.00(Ft.)
Slope along watercourse = 174.2227 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.109 Hr.
Lag time = 6.53 Min.
25% of lag time = 1.63 Min.
40% of lag time = 2.61 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	2.50	554.05

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	8.00	1772.96

STORM EVENT (YEAR) = 5.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 3.788(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 3.787(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
221.620	46.00	0.490

Total Area Entered = 221.62(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
46.0	27.0	0.784	0.490	0.438	1.000	0.438
					Sum (F) =	0.438

Area averaged mean soil loss (F) (In/Hr) = 0.438
Minimum soil loss rate ((In/Hr)) = 0.219
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	76.530	12.346	27.574
2	0.167	153.060	43.124	96.318
3	0.250	229.590	20.980	46.860
4	0.333	306.120	8.485	18.950
5	0.417	382.650	5.117	11.429
6	0.500	459.180	3.293	7.355
7	0.583	535.710	2.312	5.164
8	0.667	612.241	1.666	3.720
9	0.750	688.771	1.145	2.558
10	0.833	765.301	0.803	1.793
11	0.917	841.831	0.730	1.630
		Sum = 100.000	Sum=	223.351

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.030	(0.777)	0.015	0.015
2	0.17	0.07	0.030	(0.774)	0.015	0.015
3	0.25	0.07	0.030	(0.771)	0.015	0.015
4	0.33	0.10	0.045	(0.768)	0.023	0.022
5	0.42	0.10	0.045	(0.765)	0.023	0.022
6	0.50	0.10	0.045	(0.762)	0.023	0.022
7	0.58	0.10	0.045	(0.759)	0.023	0.022
8	0.67	0.10	0.045	(0.756)	0.023	0.022
9	0.75	0.10	0.045	(0.753)	0.023	0.022
10	0.83	0.13	0.061	(0.750)	0.031	0.030
11	0.92	0.13	0.061	(0.747)	0.031	0.030
12	1.00	0.13	0.061	(0.744)	0.031	0.030
13	1.08	0.10	0.045	(0.741)	0.023	0.022
14	1.17	0.10	0.045	(0.738)	0.023	0.022

15	1.25	0.10	0.045	(0.735)	0.023	0.022
16	1.33	0.10	0.045	(0.732)	0.023	0.022
17	1.42	0.10	0.045	(0.730)	0.023	0.022
18	1.50	0.10	0.045	(0.727)	0.023	0.022
19	1.58	0.10	0.045	(0.724)	0.023	0.022
20	1.67	0.10	0.045	(0.721)	0.023	0.022
21	1.75	0.10	0.045	(0.718)	0.023	0.022
22	1.83	0.13	0.061	(0.715)	0.031	0.030
23	1.92	0.13	0.061	(0.712)	0.031	0.030
24	2.00	0.13	0.061	(0.709)	0.031	0.030
25	2.08	0.13	0.061	(0.706)	0.031	0.030
26	2.17	0.13	0.061	(0.704)	0.031	0.030
27	2.25	0.13	0.061	(0.701)	0.031	0.030
28	2.33	0.13	0.061	(0.698)	0.031	0.030
29	2.42	0.13	0.061	(0.695)	0.031	0.030
30	2.50	0.13	0.061	(0.692)	0.031	0.030
31	2.58	0.17	0.076	(0.689)	0.039	0.037
32	2.67	0.17	0.076	(0.686)	0.039	0.037
33	2.75	0.17	0.076	(0.684)	0.039	0.037
34	2.83	0.17	0.076	(0.681)	0.039	0.037
35	2.92	0.17	0.076	(0.678)	0.039	0.037
36	3.00	0.17	0.076	(0.675)	0.039	0.037
37	3.08	0.17	0.076	(0.672)	0.039	0.037
38	3.17	0.17	0.076	(0.670)	0.039	0.037
39	3.25	0.17	0.076	(0.667)	0.039	0.037
40	3.33	0.17	0.076	(0.664)	0.039	0.037
41	3.42	0.17	0.076	(0.661)	0.039	0.037
42	3.50	0.17	0.076	(0.659)	0.039	0.037
43	3.58	0.17	0.076	(0.656)	0.039	0.037
44	3.67	0.17	0.076	(0.653)	0.039	0.037
45	3.75	0.17	0.076	(0.650)	0.039	0.037
46	3.83	0.20	0.091	(0.648)	0.046	0.045
47	3.92	0.20	0.091	(0.645)	0.046	0.045
48	4.00	0.20	0.091	(0.642)	0.046	0.045
49	4.08	0.20	0.091	(0.639)	0.046	0.045
50	4.17	0.20	0.091	(0.637)	0.046	0.045
51	4.25	0.20	0.091	(0.634)	0.046	0.045
52	4.33	0.23	0.106	(0.631)	0.054	0.052
53	4.42	0.23	0.106	(0.629)	0.054	0.052
54	4.50	0.23	0.106	(0.626)	0.054	0.052
55	4.58	0.23	0.106	(0.623)	0.054	0.052
56	4.67	0.23	0.106	(0.620)	0.054	0.052
57	4.75	0.23	0.106	(0.618)	0.054	0.052
58	4.83	0.27	0.121	(0.615)	0.062	0.059
59	4.92	0.27	0.121	(0.612)	0.062	0.059
60	5.00	0.27	0.121	(0.610)	0.062	0.059
61	5.08	0.20	0.091	(0.607)	0.046	0.045
62	5.17	0.20	0.091	(0.605)	0.046	0.045
63	5.25	0.20	0.091	(0.602)	0.046	0.045
64	5.33	0.23	0.106	(0.599)	0.054	0.052
65	5.42	0.23	0.106	(0.597)	0.054	0.052
66	5.50	0.23	0.106	(0.594)	0.054	0.052
67	5.58	0.27	0.121	(0.591)	0.062	0.059
68	5.67	0.27	0.121	(0.589)	0.062	0.059
69	5.75	0.27	0.121	(0.586)	0.062	0.059
70	5.83	0.27	0.121	(0.584)	0.062	0.059
71	5.92	0.27	0.121	(0.581)	0.062	0.059
72	6.00	0.27	0.121	(0.578)	0.062	0.059
73	6.08	0.30	0.136	(0.576)	0.070	0.067
74	6.17	0.30	0.136	(0.573)	0.070	0.067
75	6.25	0.30	0.136	(0.571)	0.070	0.067
76	6.33	0.30	0.136	(0.568)	0.070	0.067
77	6.42	0.30	0.136	(0.566)	0.070	0.067

78	6.50	0.30	0.136	(0.563)	0.070	0.067
79	6.58	0.33	0.151	(0.561)	0.077	0.074
80	6.67	0.33	0.151	(0.558)	0.077	0.074
81	6.75	0.33	0.151	(0.556)	0.077	0.074
82	6.83	0.33	0.151	(0.553)	0.077	0.074
83	6.92	0.33	0.151	(0.551)	0.077	0.074
84	7.00	0.33	0.151	(0.548)	0.077	0.074
85	7.08	0.33	0.151	(0.546)	0.077	0.074
86	7.17	0.33	0.151	(0.543)	0.077	0.074
87	7.25	0.33	0.151	(0.541)	0.077	0.074
88	7.33	0.37	0.167	(0.538)	0.085	0.082
89	7.42	0.37	0.167	(0.536)	0.085	0.082
90	7.50	0.37	0.167	(0.533)	0.085	0.082
91	7.58	0.40	0.182	(0.531)	0.093	0.089
92	7.67	0.40	0.182	(0.528)	0.093	0.089
93	7.75	0.40	0.182	(0.526)	0.093	0.089
94	7.83	0.43	0.197	(0.523)	0.100	0.096
95	7.92	0.43	0.197	(0.521)	0.100	0.096
96	8.00	0.43	0.197	(0.519)	0.100	0.096
97	8.08	0.50	0.227	(0.516)	0.116	0.111
98	8.17	0.50	0.227	(0.514)	0.116	0.111
99	8.25	0.50	0.227	(0.511)	0.116	0.111
100	8.33	0.50	0.227	(0.509)	0.116	0.111
101	8.42	0.50	0.227	(0.507)	0.116	0.111
102	8.50	0.50	0.227	(0.504)	0.116	0.111
103	8.58	0.53	0.242	(0.502)	0.124	0.119
104	8.67	0.53	0.242	(0.500)	0.124	0.119
105	8.75	0.53	0.242	(0.497)	0.124	0.119
106	8.83	0.57	0.257	(0.495)	0.131	0.126
107	8.92	0.57	0.257	(0.493)	0.131	0.126
108	9.00	0.57	0.257	(0.490)	0.131	0.126
109	9.08	0.63	0.288	(0.488)	0.147	0.141
110	9.17	0.63	0.288	(0.486)	0.147	0.141
111	9.25	0.63	0.288	(0.483)	0.147	0.141
112	9.33	0.67	0.303	(0.481)	0.154	0.148
113	9.42	0.67	0.303	(0.479)	0.154	0.148
114	9.50	0.67	0.303	(0.476)	0.154	0.148
115	9.58	0.70	0.318	(0.474)	0.162	0.156
116	9.67	0.70	0.318	(0.472)	0.162	0.156
117	9.75	0.70	0.318	(0.470)	0.162	0.156
118	9.83	0.73	0.333	(0.467)	0.170	0.163
119	9.92	0.73	0.333	(0.465)	0.170	0.163
120	10.00	0.73	0.333	(0.463)	0.170	0.163
121	10.08	0.50	0.227	(0.461)	0.116	0.111
122	10.17	0.50	0.227	(0.458)	0.116	0.111
123	10.25	0.50	0.227	(0.456)	0.116	0.111
124	10.33	0.50	0.227	(0.454)	0.116	0.111
125	10.42	0.50	0.227	(0.452)	0.116	0.111
126	10.50	0.50	0.227	(0.449)	0.116	0.111
127	10.58	0.67	0.303	(0.447)	0.154	0.148
128	10.67	0.67	0.303	(0.445)	0.154	0.148
129	10.75	0.67	0.303	(0.443)	0.154	0.148
130	10.83	0.67	0.303	(0.441)	0.154	0.148
131	10.92	0.67	0.303	(0.439)	0.154	0.148
132	11.00	0.67	0.303	(0.436)	0.154	0.148
133	11.08	0.63	0.288	(0.434)	0.147	0.141
134	11.17	0.63	0.288	(0.432)	0.147	0.141
135	11.25	0.63	0.288	(0.430)	0.147	0.141
136	11.33	0.63	0.288	(0.428)	0.147	0.141
137	11.42	0.63	0.288	(0.426)	0.147	0.141
138	11.50	0.63	0.288	(0.424)	0.147	0.141
139	11.58	0.57	0.257	(0.422)	0.131	0.126
140	11.67	0.57	0.257	(0.419)	0.131	0.126

141	11.75	0.57	0.257	(0.417)	0.131	0.126
142	11.83	0.60	0.273	(0.415)	0.139	0.134
143	11.92	0.60	0.273	(0.413)	0.139	0.134
144	12.00	0.60	0.273	(0.411)	0.139	0.134
145	12.08	0.83	0.379	(0.409)	0.193	0.186
146	12.17	0.83	0.379	(0.407)	0.193	0.186
147	12.25	0.83	0.379	(0.405)	0.193	0.186
148	12.33	0.87	0.394	(0.403)	0.201	0.193
149	12.42	0.87	0.394	(0.401)	0.201	0.193
150	12.50	0.87	0.394	(0.399)	0.201	0.193
151	12.58	0.93	0.424	(0.397)	0.216	0.208
152	12.67	0.93	0.424	(0.395)	0.216	0.208
153	12.75	0.93	0.424	(0.393)	0.216	0.208
154	12.83	0.97	0.439	(0.391)	0.224	0.215
155	12.92	0.97	0.439	(0.389)	0.224	0.215
156	13.00	0.97	0.439	(0.387)	0.224	0.215
157	13.08	1.13	0.515	(0.385)	0.263	0.252
158	13.17	1.13	0.515	(0.383)	0.263	0.252
159	13.25	1.13	0.515	(0.381)	0.263	0.252
160	13.33	1.13	0.515	(0.379)	0.263	0.252
161	13.42	1.13	0.515	(0.377)	0.263	0.252
162	13.50	1.13	0.515	(0.375)	0.263	0.252
163	13.58	0.77	0.348	(0.373)	0.178	0.171
164	13.67	0.77	0.348	(0.372)	0.178	0.171
165	13.75	0.77	0.348	(0.370)	0.178	0.171
166	13.83	0.77	0.348	(0.368)	0.178	0.171
167	13.92	0.77	0.348	(0.366)	0.178	0.171
168	14.00	0.77	0.348	(0.364)	0.178	0.171
169	14.08	0.90	0.409	(0.362)	0.209	0.200
170	14.17	0.90	0.409	(0.360)	0.209	0.200
171	14.25	0.90	0.409	(0.358)	0.209	0.200
172	14.33	0.87	0.394	(0.357)	0.201	0.193
173	14.42	0.87	0.394	(0.355)	0.201	0.193
174	14.50	0.87	0.394	(0.353)	0.201	0.193
175	14.58	0.87	0.394	(0.351)	0.201	0.193
176	14.67	0.87	0.394	(0.349)	0.201	0.193
177	14.75	0.87	0.394	(0.348)	0.201	0.193
178	14.83	0.83	0.379	(0.346)	0.193	0.186
179	14.92	0.83	0.379	(0.344)	0.193	0.186
180	15.00	0.83	0.379	(0.342)	0.193	0.186
181	15.08	0.80	0.364	(0.341)	0.185	0.178
182	15.17	0.80	0.364	(0.339)	0.185	0.178
183	15.25	0.80	0.364	(0.337)	0.185	0.178
184	15.33	0.77	0.348	(0.335)	0.178	0.171
185	15.42	0.77	0.348	(0.334)	0.178	0.171
186	15.50	0.77	0.348	(0.332)	0.178	0.171
187	15.58	0.63	0.288	(0.330)	0.147	0.141
188	15.67	0.63	0.288	(0.329)	0.147	0.141
189	15.75	0.63	0.288	(0.327)	0.147	0.141
190	15.83	0.63	0.288	(0.325)	0.147	0.141
191	15.92	0.63	0.288	(0.323)	0.147	0.141
192	16.00	0.63	0.288	(0.322)	0.147	0.141
193	16.08	0.13	0.061	(0.320)	0.031	0.030
194	16.17	0.13	0.061	(0.319)	0.031	0.030
195	16.25	0.13	0.061	(0.317)	0.031	0.030
196	16.33	0.13	0.061	(0.315)	0.031	0.030
197	16.42	0.13	0.061	(0.314)	0.031	0.030
198	16.50	0.13	0.061	(0.312)	0.031	0.030
199	16.58	0.10	0.045	(0.311)	0.023	0.022
200	16.67	0.10	0.045	(0.309)	0.023	0.022
201	16.75	0.10	0.045	(0.307)	0.023	0.022
202	16.83	0.10	0.045	(0.306)	0.023	0.022
203	16.92	0.10	0.045	(0.304)	0.023	0.022

204	17.00	0.10	0.045	(0.303)	0.023	0.022
205	17.08	0.17	0.076	(0.301)	0.039	0.037
206	17.17	0.17	0.076	(0.300)	0.039	0.037
207	17.25	0.17	0.076	(0.298)	0.039	0.037
208	17.33	0.17	0.076	(0.297)	0.039	0.037
209	17.42	0.17	0.076	(0.295)	0.039	0.037
210	17.50	0.17	0.076	(0.294)	0.039	0.037
211	17.58	0.17	0.076	(0.292)	0.039	0.037
212	17.67	0.17	0.076	(0.291)	0.039	0.037
213	17.75	0.17	0.076	(0.289)	0.039	0.037
214	17.83	0.13	0.061	(0.288)	0.031	0.030
215	17.92	0.13	0.061	(0.286)	0.031	0.030
216	18.00	0.13	0.061	(0.285)	0.031	0.030
217	18.08	0.13	0.061	(0.284)	0.031	0.030
218	18.17	0.13	0.061	(0.282)	0.031	0.030
219	18.25	0.13	0.061	(0.281)	0.031	0.030
220	18.33	0.13	0.061	(0.280)	0.031	0.030
221	18.42	0.13	0.061	(0.278)	0.031	0.030
222	18.50	0.13	0.061	(0.277)	0.031	0.030
223	18.58	0.10	0.045	(0.275)	0.023	0.022
224	18.67	0.10	0.045	(0.274)	0.023	0.022
225	18.75	0.10	0.045	(0.273)	0.023	0.022
226	18.83	0.07	0.030	(0.272)	0.015	0.015
227	18.92	0.07	0.030	(0.270)	0.015	0.015
228	19.00	0.07	0.030	(0.269)	0.015	0.015
229	19.08	0.10	0.045	(0.268)	0.023	0.022
230	19.17	0.10	0.045	(0.266)	0.023	0.022
231	19.25	0.10	0.045	(0.265)	0.023	0.022
232	19.33	0.13	0.061	(0.264)	0.031	0.030
233	19.42	0.13	0.061	(0.263)	0.031	0.030
234	19.50	0.13	0.061	(0.261)	0.031	0.030
235	19.58	0.10	0.045	(0.260)	0.023	0.022
236	19.67	0.10	0.045	(0.259)	0.023	0.022
237	19.75	0.10	0.045	(0.258)	0.023	0.022
238	19.83	0.07	0.030	(0.257)	0.015	0.015
239	19.92	0.07	0.030	(0.256)	0.015	0.015
240	20.00	0.07	0.030	(0.254)	0.015	0.015
241	20.08	0.10	0.045	(0.253)	0.023	0.022
242	20.17	0.10	0.045	(0.252)	0.023	0.022
243	20.25	0.10	0.045	(0.251)	0.023	0.022
244	20.33	0.10	0.045	(0.250)	0.023	0.022
245	20.42	0.10	0.045	(0.249)	0.023	0.022
246	20.50	0.10	0.045	(0.248)	0.023	0.022
247	20.58	0.10	0.045	(0.247)	0.023	0.022
248	20.67	0.10	0.045	(0.246)	0.023	0.022
249	20.75	0.10	0.045	(0.245)	0.023	0.022
250	20.83	0.07	0.030	(0.244)	0.015	0.015
251	20.92	0.07	0.030	(0.243)	0.015	0.015
252	21.00	0.07	0.030	(0.242)	0.015	0.015
253	21.08	0.10	0.045	(0.241)	0.023	0.022
254	21.17	0.10	0.045	(0.240)	0.023	0.022
255	21.25	0.10	0.045	(0.239)	0.023	0.022
256	21.33	0.07	0.030	(0.238)	0.015	0.015
257	21.42	0.07	0.030	(0.237)	0.015	0.015
258	21.50	0.07	0.030	(0.236)	0.015	0.015
259	21.58	0.10	0.045	(0.235)	0.023	0.022
260	21.67	0.10	0.045	(0.235)	0.023	0.022
261	21.75	0.10	0.045	(0.234)	0.023	0.022
262	21.83	0.07	0.030	(0.233)	0.015	0.015
263	21.92	0.07	0.030	(0.232)	0.015	0.015
264	22.00	0.07	0.030	(0.231)	0.015	0.015
265	22.08	0.10	0.045	(0.231)	0.023	0.022
266	22.17	0.10	0.045	(0.230)	0.023	0.022

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267  22.25     0.10      0.045       (  0.229)       0.023        0.022
268  22.33     0.07      0.030       (  0.228)       0.015        0.015
269  22.42     0.07      0.030       (  0.228)       0.015        0.015
270  22.50     0.07      0.030       (  0.227)       0.015        0.015
271  22.58     0.07      0.030       (  0.226)       0.015        0.015
272  22.67     0.07      0.030       (  0.226)       0.015        0.015
273  22.75     0.07      0.030       (  0.225)       0.015        0.015
274  22.83     0.07      0.030       (  0.225)       0.015        0.015
275  22.92     0.07      0.030       (  0.224)       0.015        0.015
276  23.00     0.07      0.030       (  0.223)       0.015        0.015
277  23.08     0.07      0.030       (  0.223)       0.015        0.015
278  23.17     0.07      0.030       (  0.222)       0.015        0.015
279  23.25     0.07      0.030       (  0.222)       0.015        0.015
280  23.33     0.07      0.030       (  0.222)       0.015        0.015
281  23.42     0.07      0.030       (  0.221)       0.015        0.015
282  23.50     0.07      0.030       (  0.221)       0.015        0.015
283  23.58     0.07      0.030       (  0.220)       0.015        0.015
284  23.67     0.07      0.030       (  0.220)       0.015        0.015
285  23.75     0.07      0.030       (  0.220)       0.015        0.015
286  23.83     0.07      0.030       (  0.219)       0.015        0.015
287  23.92     0.07      0.030       (  0.219)       0.015        0.015
288  24.00     0.07      0.030       (  0.219)       0.015        0.015
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    22.3
     Flood volume = Effective rainfall      1.86(In)
      times area     221.6(Ac.)/[(In)/(Ft.)] =      34.3(Ac.Ft)
     Total soil loss =      1.93(In)
     Total soil loss =    35.665(Ac.Ft)
     Total rainfall =      3.79(In)
     Flood volume =     1492658.2 Cubic Feet
     Total soil loss =     1553583.0 Cubic Feet
     ------------------------------------------------------------------------
      Peak flow rate of this hydrograph =     55.812(CFS)
     ------------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         24 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     ------------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ------------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       15.0      30.0      45.0      60.0
 ---------------------------------------------------------------------------
   0+ 5       0.0028      0.41  Q         |         |         |         |
   0+10       0.0155      1.84  VQ        |         |         |         |
   0+15       0.0330      2.54  VQ        |         |         |         |
   0+20       0.0538      3.02  V Q       |         |         |         |
   0+25       0.0807      3.91  V Q       |         |         |         |
   0+30       0.1107      4.36  V Q       |         |         |         |
   0+35       0.1423      4.58  V  Q      |         |         |         |
   0+40       0.1748      4.72  V  Q      |         |         |         |
   0+45       0.2080      4.81  V  Q      |         |         |         |
   0+50       0.2430      5.08  V  Q      |         |         |         |
   0+55       0.2833      5.85  V  Q      |         |         |         |
   1+ 0       0.3261      6.22  V   Q     |         |         |         |
   1+ 5       0.3686      6.17  V   Q     |         |         |         |
   1+10       0.4068      5.55  V  Q      |         |         |         |
   1+15       0.4430      5.26  V  Q      |         |         |         |
   1+20       0.4785      5.15  V  Q      |         |         |         |
   1+25       0.5136      5.10  V  Q      |         |         |         |
   1+30       0.5484      5.06  V  Q      |         |         |         |
   1+35       0.5831      5.04  V  Q      |         |         |         |
   1+40       0.6177      5.02  V  Q      |         |         |         |
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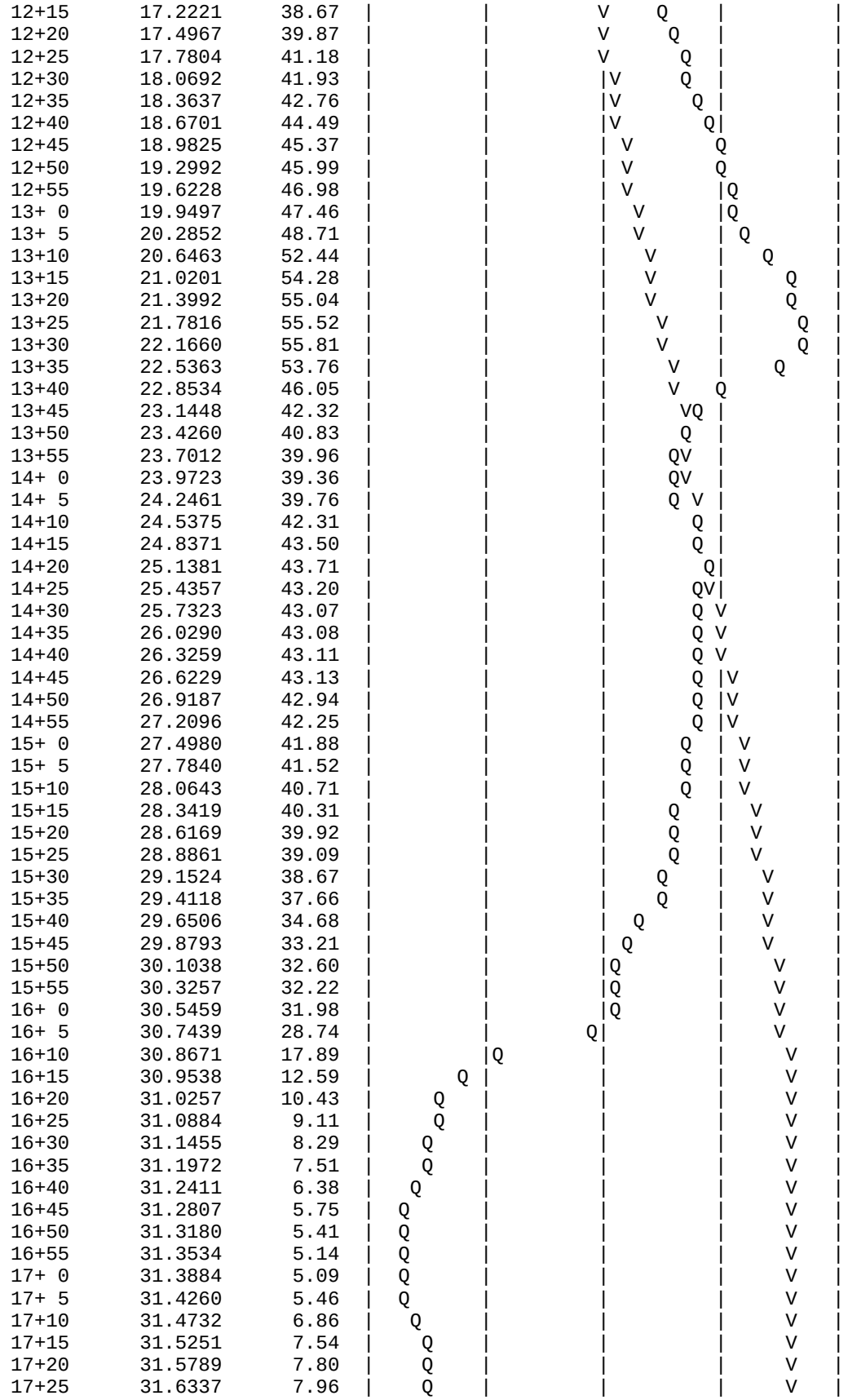
1+45	0.6521	5.00	V Q	|	|	|
1+50	0.6879	5.19	V Q	|	|	|
1+55	0.7285	5.90	V Q	|	|	|
2+ 0	0.7715	6.24	V Q	|	|	|
2+ 5	0.8154	6.38	V Q	|	|	|
2+10	0.8600	6.47	|V Q	|	|	|
2+15	0.9049	6.52	|V Q	|	|	|
2+20	0.9501	6.56	|V Q	|	|	|
2+25	0.9955	6.59	|V Q	|	|	|
2+30	1.0410	6.61	|V Q	|	|	|
2+35	1.0880	6.83	|V Q	|	|	|
2+40	1.1401	7.55	|V Q	|	|	|
2+45	1.1945	7.90	|V Q	|	|	|
2+50	1.2499	8.04	|V Q	|	|	|
2+55	1.3058	8.13	|V Q	|	|	|
3+ 0	1.3622	8.18	|V Q	|	|	|
3+ 5	1.4188	8.22	|V Q	|	|	|
3+10	1.4756	8.25	|V Q	|	|	|
3+15	1.5326	8.27	|V Q	|	|	|
3+20	1.5896	8.28	|V Q	|	|	|
3+25	1.6467	8.29	|V Q	|	|	|
3+30	1.7038	8.29	|V Q	|	|	|
3+35	1.7609	8.29	| V Q	|	|	|
3+40	1.8180	8.29	| V Q	|	|	|
3+45	1.8751	8.29	| V Q	|	|	|
3+50	1.9337	8.50	| V Q	|	|	|
3+55	1.9971	9.21	| V Q	|	|	|
4+ 0	2.0630	9.56	| V Q	|	|	|
4+ 5	2.1298	9.70	| V Q	|	|	|
4+10	2.1972	9.79	| V Q	|	|	|
4+15	2.2649	9.84	| V Q	|	|	|
4+20	2.3344	10.08	| V Q	|	|	|
4+25	2.4089	10.83	| V Q	|	|	|
4+30	2.4860	11.19	| V Q	|	|	|
4+35	2.5642	11.35	| V Q	|	|	|
4+40	2.6430	11.44	| V Q	|	|	|
4+45	2.7222	11.50	| V Q	|	|	|
4+50	2.8031	11.74	| V Q	|	|	|
4+55	2.8891	12.49	| V Q |			
5+ 0	2.9776	12.85	| V Q |			
5+ 5	3.0643	12.60	| V Q |			
5+10	3.1419	11.26	| V Q	|	|	|
5+15	3.2150	10.62	| V Q	|	|	|
5+20	3.2879	10.58	| V Q	|	|	|
5+25	3.3648	11.16	| V Q	|	|	|
5+30	3.4434	11.41	| V Q	|	|	|
5+35	3.5239	11.70	| V Q	|	|	|
5+40	3.6097	12.45	| V Q |			
5+45	3.6980	12.82	| V Q |			
5+50	3.7873	12.97	| V Q |			
5+55	3.8772	13.06	| V Q |			
6+ 0	3.9677	13.13	| V Q |			
6+ 5	4.0599	13.39	| V Q |			
6+10	4.1573	14.14	| V Q|			
6+15	4.2572	14.51	| V Q|			
6+20	4.3582	14.66	| V Q|			
6+25	4.4599	14.76	| V Q|			
6+30	4.5619	14.82	| V Q|			
6+35	4.6657	15.06	| V Q			
6+40	4.7745	15.80	| V Q			
6+45	4.8858	16.17	| V Q			
6+50	4.9983	16.32	| V Q			
6+55	5.1113	16.42	| V Q			

7+ 0	5.2248	16.47	V	Q			
7+ 5	5.3385	16.51	V	Q			
7+10	5.4525	16.54	V	Q			
7+15	5.5665	16.56	V	Q			
7+20	5.6820	16.78	V	Q			
7+25	5.8026	17.51	V	Q			
7+30	5.9256	17.85	V	Q			
7+35	6.0509	18.20	V	Q			
7+40	6.1817	19.00	V	Q			
7+45	6.3154	19.40	V	Q			
7+50	6.4516	19.78	V	Q			
7+55	6.5936	20.61	V	Q			
8+ 0	6.7384	21.03	V	Q			
8+ 5	6.8874	21.64	V	Q			
8+10	7.0472	23.19	V	Q			
8+15	7.2122	23.96	V	Q			
8+20	7.3795	24.29	V	Q			
8+25	7.5483	24.50	V	Q			
8+30	7.7179	24.63	V	Q			
8+35	7.8896	24.93	V	Q			
8+40	8.0666	25.71	V	Q			
8+45	8.2463	26.09	V	Q			
8+50	8.4286	26.47	V	Q			
8+55	8.6166	27.29	V	Q			
9+ 0	8.8073	27.69	V	Q			
9+ 5	9.0021	28.28	V	Q			
9+10	9.2075	29.83	V	Q			
9+15	9.4182	30.59	V	Q			
9+20	9.6326	31.13	V	Q			
9+25	9.8534	32.06	V	Q			
9+30	10.0774	32.53	V	Q			
9+35	10.3045	32.97	V	Q			
9+40	10.5375	33.84	V	Q			
9+45	10.7736	34.28	V	Q			
9+50	11.0125	34.69	V	Q			
9+55	11.2573	35.54	V	Q			
10+ 0	11.5049	35.96	V	Q			
10+ 5	11.7440	34.72	V	Q			
10+10	11.9495	29.84	V	Q			
10+15	12.1388	27.48	V	Q			
10+20	12.3216	26.54	V	Q			
10+25	12.5005	25.99	V	Q			
10+30	12.6770	25.62	V	Q			
10+35	12.8588	26.39	V	Q			
10+40	13.0640	29.79	V	Q			
10+45	13.2802	31.40	V	Q			
10+50	13.5006	32.01	V	Q			
10+55	13.7234	32.35	V	Q			
11+ 0	13.9480	32.62	V	Q			
11+ 5	14.1726	32.61	V	Q			
11+10	14.3931	32.03	V	Q			
11+15	14.6120	31.78	V	Q			
11+20	14.8303	31.70	V	Q			
11+25	15.0485	31.68	V	Q			
11+30	15.2662	31.62	V	Q			
11+35	15.4809	31.17	V	Q			
11+40	15.6856	29.72	V	Q			
11+45	15.8853	29.00	V	Q			
11+50	16.0844	28.91	V	Q			
11+55	16.2872	29.44	V	Q			
12+ 0	16.4917	29.68	V	Q			
12+ 5	16.7064	31.18	V	Q			
12+10	16.9558	36.22	V	Q			



17+30	31.6893	8.07	| Q |	|	|	| V |
17+35	31.7454	8.15	| Q |	|	|	| V |
17+40	31.8019	8.20	| Q |	|	|	| V |
17+45	31.8587	8.24	| Q |	|	|	| V |
17+50	31.9142	8.06	| Q |	|	|	| V |
17+55	31.9650	7.37	| Q |	|	|	| V |
18+ 0	32.0134	7.02	| Q |	|	|	| V |
18+ 5	32.0608	6.88	| Q |	|	|	| V |
18+10	32.1076	6.80	| Q |	|	|	| V |
18+15	32.1541	6.74	| Q |	|	|	| V |
18+20	32.2002	6.71	| Q |	|	|	| V |
18+25	32.2462	6.68	| Q |	|	|	| V |
18+30	32.2921	6.66	| Q |	|	|	| V |
18+35	32.3365	6.44	| Q |	|	|	| V |
18+40	32.3758	5.71	| Q |	|	|	| V |
18+45	32.4128	5.37	| Q |	|	|	| V |
18+50	32.4473	5.02	| Q |	|	|	| V |
18+55	32.4764	4.22	| Q |	|	|	| V |
19+ 0	32.5027	3.82	| Q |	|	|	| V |
19+ 5	32.5292	3.84	| Q |	|	|	| V |
19+10	32.5598	4.45	| Q |	|	|	| V |
19+15	32.5923	4.72	| Q |	|	|	| V |
19+20	32.6269	5.01	| Q |	|	|	| V |
19+25	32.6666	5.77	| Q |	|	|	| V |
19+30	32.7090	6.16	| Q |	|	|	| V |
19+35	32.7512	6.12	| Q |	|	|	| V |
19+40	32.7891	5.50	| Q |	|	|	| V |
19+45	32.8251	5.23	| Q |	|	|	| V |
19+50	32.8591	4.94	| Q |	|	|	| V |
19+55	32.8879	4.18	| Q |	|	|	| V |
20+ 0	32.9140	3.79	| Q |	|	|	| V |
20+ 5	32.9404	3.83	| Q |	|	|	| V |
20+10	32.9710	4.45	| Q |	|	|	| V |
20+15	33.0035	4.72	| Q |	|	|	| V |
20+20	33.0366	4.81	| Q |	|	|	| V |
20+25	33.0701	4.85	| Q |	|	|	| V |
20+30	33.1038	4.89	| Q |	|	|	| V |
20+35	33.1376	4.92	| Q |	|	|	| V |
20+40	33.1716	4.93	| Q |	|	|	| V |
20+45	33.2057	4.95	| Q |	|	|	| V |
20+50	33.2384	4.76	| Q |	|	|	| V |
20+55	33.2664	4.06	| Q |	|	|	| V |
21+ 0	33.2919	3.71	| Q |	|	|	| V |
21+ 5	33.3179	3.77	| Q |	|	|	| V |
21+10	33.3482	4.40	| Q |	|	|	| V |
21+15	33.3805	4.70	| Q |	|	|	| V |
21+20	33.4122	4.59	| Q |	|	|	| V|
21+25	33.4393	3.93	| Q |	|	|	| V|
21+30	33.4642	3.62	| Q |	|	|	| V|
21+35	33.4898	3.71	| Q |	|	|	| V|
21+40	33.5198	4.36	| Q |	|	|	| V|
21+45	33.5520	4.67	| Q |	|	|	| V|
21+50	33.5835	4.58	| Q |	|	|	| V|
21+55	33.6106	3.93	| Q |	|	|	| V|
22+ 0	33.6355	3.62	| Q |	|	|	| V|
22+ 5	33.6611	3.71	| Q |	|	|	| V|
22+10	33.6911	4.36	| Q |	|	|	| V|
22+15	33.7233	4.67	| Q |	|	|	| V|
22+20	33.7548	4.58	| Q |	|	|	| V|
22+25	33.7819	3.93	| Q |	|	|	| V|
22+30	33.8069	3.62	| Q |	|	|	| V|
22+35	33.8310	3.51	| Q |	|	|	| V|
22+40	33.8547	3.44	| Q |	|	|	| V|

22+45	33.8781	3.40	| Q	|	|	|	V|
22+50	33.9014	3.38	| Q	|	|	|	V|
22+55	33.9245	3.36	| Q	|	|	|	V|
23+ 0	33.9476	3.34	| Q	|	|	|	V|
23+ 5	33.9705	3.33	| Q	|	|	|	V|
23+10	33.9933	3.32	| Q	|	|	|	V|
23+15	34.0162	3.32	| Q	|	|	|	V|
23+20	34.0390	3.32	| Q	|	|	|	V|
23+25	34.0619	3.32	| Q	|	|	|	V|
23+30	34.0847	3.32	| Q	|	|	|	V|
23+35	34.1076	3.32	| Q	|	|	|	V|
23+40	34.1304	3.32	| Q	|	|	|	V|
23+45	34.1533	3.32	| Q	|	|	|	V|
23+50	34.1761	3.32	| Q	|	|	|	V|
23+55	34.1989	3.32	| Q	|	|	|	V|
24+ 0	34.2218	3.32	| Q	|	|	|	V|
24+ 5	34.2418	2.91	|Q	|	|	|	V|
24+10	34.2520	1.48	Q	|	|	|	V|
24+15	34.2574	0.78	Q	|	|	|	V|
24+20	34.2608	0.50	Q	|	|	|	V|
24+25	34.2631	0.33	Q	|	|	|	V|
24+30	34.2646	0.22	Q	|	|	|	V|
24+35	34.2656	0.14	Q	|	|	|	V|
24+40	34.2662	0.09	Q	|	|	|	V|
24+45	34.2666	0.05	Q	|	|	|	V|
24+50	34.2667	0.02	Q	|	|	|	V|

APPENDIX F.4: AREA “A” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS 2–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 06/25/15 File: APR242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA A - PROPOSED CONDITION
2YR-24HR
FN: APR242

Drainage Area = 221.62(Ac.) = 0.346 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 221.62(Ac.) = 0.346 Sq. Mi.
Length along longest watercourse = 7031.00(Ft.)
Length along longest watercourse measured to centroid = 2250.00(Ft.)
Length along longest watercourse = 1.332 Mi.
Length along longest watercourse measured to centroid = 0.426 Mi.
Difference in elevation = 232.00(Ft.)
Slope along watercourse = 174.2227 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.109 Hr.
Lag time = 6.53 Min.
25% of lag time = 1.63 Min.
40% of lag time = 2.61 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	2.50	554.05

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
221.62	8.00	1772.96

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 2.500(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 2.499(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
221.620	46.00	0.490

Total Area Entered = 221.62(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
46.0	27.0	0.784	0.490	0.438	1.000	0.438
					Sum (F) =	0.438

Area averaged mean soil loss (F) (In/Hr) = 0.438
Minimum soil loss rate ((In/Hr)) = 0.219
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.510

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	76.530	12.346	27.574
2	0.167	153.060	43.124	96.318
3	0.250	229.590	20.980	46.860
4	0.333	306.120	8.485	18.950
5	0.417	382.650	5.117	11.429
6	0.500	459.180	3.293	7.355
7	0.583	535.710	2.312	5.164
8	0.667	612.241	1.666	3.720
9	0.750	688.771	1.145	2.558
10	0.833	765.301	0.803	1.793
11	0.917	841.831	0.730	1.630
		Sum = 100.000	Sum=	223.351

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.777)	0.010	0.010
2	0.17	0.07	0.020	(0.774)	0.010	0.010
3	0.25	0.07	0.020	(0.771)	0.010	0.010
4	0.33	0.10	0.030	(0.768)	0.015	0.015
5	0.42	0.10	0.030	(0.765)	0.015	0.015
6	0.50	0.10	0.030	(0.762)	0.015	0.015
7	0.58	0.10	0.030	(0.759)	0.015	0.015
8	0.67	0.10	0.030	(0.756)	0.015	0.015
9	0.75	0.10	0.030	(0.753)	0.015	0.015
10	0.83	0.13	0.040	(0.750)	0.020	0.020
11	0.92	0.13	0.040	(0.747)	0.020	0.020
12	1.00	0.13	0.040	(0.744)	0.020	0.020
13	1.08	0.10	0.030	(0.741)	0.015	0.015
14	1.17	0.10	0.030	(0.738)	0.015	0.015

15	1.25	0.10	0.030	(0.735)	0.015	0.015
16	1.33	0.10	0.030	(0.732)	0.015	0.015
17	1.42	0.10	0.030	(0.730)	0.015	0.015
18	1.50	0.10	0.030	(0.727)	0.015	0.015
19	1.58	0.10	0.030	(0.724)	0.015	0.015
20	1.67	0.10	0.030	(0.721)	0.015	0.015
21	1.75	0.10	0.030	(0.718)	0.015	0.015
22	1.83	0.13	0.040	(0.715)	0.020	0.020
23	1.92	0.13	0.040	(0.712)	0.020	0.020
24	2.00	0.13	0.040	(0.709)	0.020	0.020
25	2.08	0.13	0.040	(0.706)	0.020	0.020
26	2.17	0.13	0.040	(0.704)	0.020	0.020
27	2.25	0.13	0.040	(0.701)	0.020	0.020
28	2.33	0.13	0.040	(0.698)	0.020	0.020
29	2.42	0.13	0.040	(0.695)	0.020	0.020
30	2.50	0.13	0.040	(0.692)	0.020	0.020
31	2.58	0.17	0.050	(0.689)	0.025	0.024
32	2.67	0.17	0.050	(0.686)	0.025	0.024
33	2.75	0.17	0.050	(0.684)	0.025	0.024
34	2.83	0.17	0.050	(0.681)	0.025	0.024
35	2.92	0.17	0.050	(0.678)	0.025	0.024
36	3.00	0.17	0.050	(0.675)	0.025	0.024
37	3.08	0.17	0.050	(0.672)	0.025	0.024
38	3.17	0.17	0.050	(0.670)	0.025	0.024
39	3.25	0.17	0.050	(0.667)	0.025	0.024
40	3.33	0.17	0.050	(0.664)	0.025	0.024
41	3.42	0.17	0.050	(0.661)	0.025	0.024
42	3.50	0.17	0.050	(0.659)	0.025	0.024
43	3.58	0.17	0.050	(0.656)	0.025	0.024
44	3.67	0.17	0.050	(0.653)	0.025	0.024
45	3.75	0.17	0.050	(0.650)	0.025	0.024
46	3.83	0.20	0.060	(0.648)	0.031	0.029
47	3.92	0.20	0.060	(0.645)	0.031	0.029
48	4.00	0.20	0.060	(0.642)	0.031	0.029
49	4.08	0.20	0.060	(0.639)	0.031	0.029
50	4.17	0.20	0.060	(0.637)	0.031	0.029
51	4.25	0.20	0.060	(0.634)	0.031	0.029
52	4.33	0.23	0.070	(0.631)	0.036	0.034
53	4.42	0.23	0.070	(0.629)	0.036	0.034
54	4.50	0.23	0.070	(0.626)	0.036	0.034
55	4.58	0.23	0.070	(0.623)	0.036	0.034
56	4.67	0.23	0.070	(0.620)	0.036	0.034
57	4.75	0.23	0.070	(0.618)	0.036	0.034
58	4.83	0.27	0.080	(0.615)	0.041	0.039
59	4.92	0.27	0.080	(0.612)	0.041	0.039
60	5.00	0.27	0.080	(0.610)	0.041	0.039
61	5.08	0.20	0.060	(0.607)	0.031	0.029
62	5.17	0.20	0.060	(0.605)	0.031	0.029
63	5.25	0.20	0.060	(0.602)	0.031	0.029
64	5.33	0.23	0.070	(0.599)	0.036	0.034
65	5.42	0.23	0.070	(0.597)	0.036	0.034
66	5.50	0.23	0.070	(0.594)	0.036	0.034
67	5.58	0.27	0.080	(0.591)	0.041	0.039
68	5.67	0.27	0.080	(0.589)	0.041	0.039
69	5.75	0.27	0.080	(0.586)	0.041	0.039
70	5.83	0.27	0.080	(0.584)	0.041	0.039
71	5.92	0.27	0.080	(0.581)	0.041	0.039
72	6.00	0.27	0.080	(0.578)	0.041	0.039
73	6.08	0.30	0.090	(0.576)	0.046	0.044
74	6.17	0.30	0.090	(0.573)	0.046	0.044
75	6.25	0.30	0.090	(0.571)	0.046	0.044
76	6.33	0.30	0.090	(0.568)	0.046	0.044
77	6.42	0.30	0.090	(0.566)	0.046	0.044

78	6.50	0.30	0.090	(0.563)	0.046	0.044
79	6.58	0.33	0.100	(0.561)	0.051	0.049
80	6.67	0.33	0.100	(0.558)	0.051	0.049
81	6.75	0.33	0.100	(0.556)	0.051	0.049
82	6.83	0.33	0.100	(0.553)	0.051	0.049
83	6.92	0.33	0.100	(0.551)	0.051	0.049
84	7.00	0.33	0.100	(0.548)	0.051	0.049
85	7.08	0.33	0.100	(0.546)	0.051	0.049
86	7.17	0.33	0.100	(0.543)	0.051	0.049
87	7.25	0.33	0.100	(0.541)	0.051	0.049
88	7.33	0.37	0.110	(0.538)	0.056	0.054
89	7.42	0.37	0.110	(0.536)	0.056	0.054
90	7.50	0.37	0.110	(0.533)	0.056	0.054
91	7.58	0.40	0.120	(0.531)	0.061	0.059
92	7.67	0.40	0.120	(0.528)	0.061	0.059
93	7.75	0.40	0.120	(0.526)	0.061	0.059
94	7.83	0.43	0.130	(0.523)	0.066	0.064
95	7.92	0.43	0.130	(0.521)	0.066	0.064
96	8.00	0.43	0.130	(0.519)	0.066	0.064
97	8.08	0.50	0.150	(0.516)	0.076	0.073
98	8.17	0.50	0.150	(0.514)	0.076	0.073
99	8.25	0.50	0.150	(0.511)	0.076	0.073
100	8.33	0.50	0.150	(0.509)	0.076	0.073
101	8.42	0.50	0.150	(0.507)	0.076	0.073
102	8.50	0.50	0.150	(0.504)	0.076	0.073
103	8.58	0.53	0.160	(0.502)	0.082	0.078
104	8.67	0.53	0.160	(0.500)	0.082	0.078
105	8.75	0.53	0.160	(0.497)	0.082	0.078
106	8.83	0.57	0.170	(0.495)	0.087	0.083
107	8.92	0.57	0.170	(0.493)	0.087	0.083
108	9.00	0.57	0.170	(0.490)	0.087	0.083
109	9.08	0.63	0.190	(0.488)	0.097	0.093
110	9.17	0.63	0.190	(0.486)	0.097	0.093
111	9.25	0.63	0.190	(0.483)	0.097	0.093
112	9.33	0.67	0.200	(0.481)	0.102	0.098
113	9.42	0.67	0.200	(0.479)	0.102	0.098
114	9.50	0.67	0.200	(0.476)	0.102	0.098
115	9.58	0.70	0.210	(0.474)	0.107	0.103
116	9.67	0.70	0.210	(0.472)	0.107	0.103
117	9.75	0.70	0.210	(0.470)	0.107	0.103
118	9.83	0.73	0.220	(0.467)	0.112	0.108
119	9.92	0.73	0.220	(0.465)	0.112	0.108
120	10.00	0.73	0.220	(0.463)	0.112	0.108
121	10.08	0.50	0.150	(0.461)	0.076	0.073
122	10.17	0.50	0.150	(0.458)	0.076	0.073
123	10.25	0.50	0.150	(0.456)	0.076	0.073
124	10.33	0.50	0.150	(0.454)	0.076	0.073
125	10.42	0.50	0.150	(0.452)	0.076	0.073
126	10.50	0.50	0.150	(0.449)	0.076	0.073
127	10.58	0.67	0.200	(0.447)	0.102	0.098
128	10.67	0.67	0.200	(0.445)	0.102	0.098
129	10.75	0.67	0.200	(0.443)	0.102	0.098
130	10.83	0.67	0.200	(0.441)	0.102	0.098
131	10.92	0.67	0.200	(0.439)	0.102	0.098
132	11.00	0.67	0.200	(0.436)	0.102	0.098
133	11.08	0.63	0.190	(0.434)	0.097	0.093
134	11.17	0.63	0.190	(0.432)	0.097	0.093
135	11.25	0.63	0.190	(0.430)	0.097	0.093
136	11.33	0.63	0.190	(0.428)	0.097	0.093
137	11.42	0.63	0.190	(0.426)	0.097	0.093
138	11.50	0.63	0.190	(0.424)	0.097	0.093
139	11.58	0.57	0.170	(0.422)	0.087	0.083
140	11.67	0.57	0.170	(0.419)	0.087	0.083

141	11.75	0.57	0.170	(0.417)	0.087	0.083
142	11.83	0.60	0.180	(0.415)	0.092	0.088
143	11.92	0.60	0.180	(0.413)	0.092	0.088
144	12.00	0.60	0.180	(0.411)	0.092	0.088
145	12.08	0.83	0.250	(0.409)	0.127	0.122
146	12.17	0.83	0.250	(0.407)	0.127	0.122
147	12.25	0.83	0.250	(0.405)	0.127	0.122
148	12.33	0.87	0.260	(0.403)	0.133	0.127
149	12.42	0.87	0.260	(0.401)	0.133	0.127
150	12.50	0.87	0.260	(0.399)	0.133	0.127
151	12.58	0.93	0.280	(0.397)	0.143	0.137
152	12.67	0.93	0.280	(0.395)	0.143	0.137
153	12.75	0.93	0.280	(0.393)	0.143	0.137
154	12.83	0.97	0.290	(0.391)	0.148	0.142
155	12.92	0.97	0.290	(0.389)	0.148	0.142
156	13.00	0.97	0.290	(0.387)	0.148	0.142
157	13.08	1.13	0.340	(0.385)	0.173	0.167
158	13.17	1.13	0.340	(0.383)	0.173	0.167
159	13.25	1.13	0.340	(0.381)	0.173	0.167
160	13.33	1.13	0.340	(0.379)	0.173	0.167
161	13.42	1.13	0.340	(0.377)	0.173	0.167
162	13.50	1.13	0.340	(0.375)	0.173	0.167
163	13.58	0.77	0.230	(0.373)	0.117	0.113
164	13.67	0.77	0.230	(0.372)	0.117	0.113
165	13.75	0.77	0.230	(0.370)	0.117	0.113
166	13.83	0.77	0.230	(0.368)	0.117	0.113
167	13.92	0.77	0.230	(0.366)	0.117	0.113
168	14.00	0.77	0.230	(0.364)	0.117	0.113
169	14.08	0.90	0.270	(0.362)	0.138	0.132
170	14.17	0.90	0.270	(0.360)	0.138	0.132
171	14.25	0.90	0.270	(0.358)	0.138	0.132
172	14.33	0.87	0.260	(0.357)	0.133	0.127
173	14.42	0.87	0.260	(0.355)	0.133	0.127
174	14.50	0.87	0.260	(0.353)	0.133	0.127
175	14.58	0.87	0.260	(0.351)	0.133	0.127
176	14.67	0.87	0.260	(0.349)	0.133	0.127
177	14.75	0.87	0.260	(0.348)	0.133	0.127
178	14.83	0.83	0.250	(0.346)	0.127	0.122
179	14.92	0.83	0.250	(0.344)	0.127	0.122
180	15.00	0.83	0.250	(0.342)	0.127	0.122
181	15.08	0.80	0.240	(0.341)	0.122	0.118
182	15.17	0.80	0.240	(0.339)	0.122	0.118
183	15.25	0.80	0.240	(0.337)	0.122	0.118
184	15.33	0.77	0.230	(0.335)	0.117	0.113
185	15.42	0.77	0.230	(0.334)	0.117	0.113
186	15.50	0.77	0.230	(0.332)	0.117	0.113
187	15.58	0.63	0.190	(0.330)	0.097	0.093
188	15.67	0.63	0.190	(0.329)	0.097	0.093
189	15.75	0.63	0.190	(0.327)	0.097	0.093
190	15.83	0.63	0.190	(0.325)	0.097	0.093
191	15.92	0.63	0.190	(0.323)	0.097	0.093
192	16.00	0.63	0.190	(0.322)	0.097	0.093
193	16.08	0.13	0.040	(0.320)	0.020	0.020
194	16.17	0.13	0.040	(0.319)	0.020	0.020
195	16.25	0.13	0.040	(0.317)	0.020	0.020
196	16.33	0.13	0.040	(0.315)	0.020	0.020
197	16.42	0.13	0.040	(0.314)	0.020	0.020
198	16.50	0.13	0.040	(0.312)	0.020	0.020
199	16.58	0.10	0.030	(0.311)	0.015	0.015
200	16.67	0.10	0.030	(0.309)	0.015	0.015
201	16.75	0.10	0.030	(0.307)	0.015	0.015
202	16.83	0.10	0.030	(0.306)	0.015	0.015
203	16.92	0.10	0.030	(0.304)	0.015	0.015

204	17.00	0.10	0.030	(0.303)	0.015	0.015
205	17.08	0.17	0.050	(0.301)	0.025	0.024
206	17.17	0.17	0.050	(0.300)	0.025	0.024
207	17.25	0.17	0.050	(0.298)	0.025	0.024
208	17.33	0.17	0.050	(0.297)	0.025	0.024
209	17.42	0.17	0.050	(0.295)	0.025	0.024
210	17.50	0.17	0.050	(0.294)	0.025	0.024
211	17.58	0.17	0.050	(0.292)	0.025	0.024
212	17.67	0.17	0.050	(0.291)	0.025	0.024
213	17.75	0.17	0.050	(0.289)	0.025	0.024
214	17.83	0.13	0.040	(0.288)	0.020	0.020
215	17.92	0.13	0.040	(0.286)	0.020	0.020
216	18.00	0.13	0.040	(0.285)	0.020	0.020
217	18.08	0.13	0.040	(0.284)	0.020	0.020
218	18.17	0.13	0.040	(0.282)	0.020	0.020
219	18.25	0.13	0.040	(0.281)	0.020	0.020
220	18.33	0.13	0.040	(0.280)	0.020	0.020
221	18.42	0.13	0.040	(0.278)	0.020	0.020
222	18.50	0.13	0.040	(0.277)	0.020	0.020
223	18.58	0.10	0.030	(0.275)	0.015	0.015
224	18.67	0.10	0.030	(0.274)	0.015	0.015
225	18.75	0.10	0.030	(0.273)	0.015	0.015
226	18.83	0.07	0.020	(0.272)	0.010	0.010
227	18.92	0.07	0.020	(0.270)	0.010	0.010
228	19.00	0.07	0.020	(0.269)	0.010	0.010
229	19.08	0.10	0.030	(0.268)	0.015	0.015
230	19.17	0.10	0.030	(0.266)	0.015	0.015
231	19.25	0.10	0.030	(0.265)	0.015	0.015
232	19.33	0.13	0.040	(0.264)	0.020	0.020
233	19.42	0.13	0.040	(0.263)	0.020	0.020
234	19.50	0.13	0.040	(0.261)	0.020	0.020
235	19.58	0.10	0.030	(0.260)	0.015	0.015
236	19.67	0.10	0.030	(0.259)	0.015	0.015
237	19.75	0.10	0.030	(0.258)	0.015	0.015
238	19.83	0.07	0.020	(0.257)	0.010	0.010
239	19.92	0.07	0.020	(0.256)	0.010	0.010
240	20.00	0.07	0.020	(0.254)	0.010	0.010
241	20.08	0.10	0.030	(0.253)	0.015	0.015
242	20.17	0.10	0.030	(0.252)	0.015	0.015
243	20.25	0.10	0.030	(0.251)	0.015	0.015
244	20.33	0.10	0.030	(0.250)	0.015	0.015
245	20.42	0.10	0.030	(0.249)	0.015	0.015
246	20.50	0.10	0.030	(0.248)	0.015	0.015
247	20.58	0.10	0.030	(0.247)	0.015	0.015
248	20.67	0.10	0.030	(0.246)	0.015	0.015
249	20.75	0.10	0.030	(0.245)	0.015	0.015
250	20.83	0.07	0.020	(0.244)	0.010	0.010
251	20.92	0.07	0.020	(0.243)	0.010	0.010
252	21.00	0.07	0.020	(0.242)	0.010	0.010
253	21.08	0.10	0.030	(0.241)	0.015	0.015
254	21.17	0.10	0.030	(0.240)	0.015	0.015
255	21.25	0.10	0.030	(0.239)	0.015	0.015
256	21.33	0.07	0.020	(0.238)	0.010	0.010
257	21.42	0.07	0.020	(0.237)	0.010	0.010
258	21.50	0.07	0.020	(0.236)	0.010	0.010
259	21.58	0.10	0.030	(0.235)	0.015	0.015
260	21.67	0.10	0.030	(0.235)	0.015	0.015
261	21.75	0.10	0.030	(0.234)	0.015	0.015
262	21.83	0.07	0.020	(0.233)	0.010	0.010
263	21.92	0.07	0.020	(0.232)	0.010	0.010
264	22.00	0.07	0.020	(0.231)	0.010	0.010
265	22.08	0.10	0.030	(0.231)	0.015	0.015
266	22.17	0.10	0.030	(0.230)	0.015	0.015

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267  22.25     0.10      0.030       (  0.229)       0.015        0.015
268  22.33     0.07      0.020       (  0.228)       0.010        0.010
269  22.42     0.07      0.020       (  0.228)       0.010        0.010
270  22.50     0.07      0.020       (  0.227)       0.010        0.010
271  22.58     0.07      0.020       (  0.226)       0.010        0.010
272  22.67     0.07      0.020       (  0.226)       0.010        0.010
273  22.75     0.07      0.020       (  0.225)       0.010        0.010
274  22.83     0.07      0.020       (  0.225)       0.010        0.010
275  22.92     0.07      0.020       (  0.224)       0.010        0.010
276  23.00     0.07      0.020       (  0.223)       0.010        0.010
277  23.08     0.07      0.020       (  0.223)       0.010        0.010
278  23.17     0.07      0.020       (  0.222)       0.010        0.010
279  23.25     0.07      0.020       (  0.222)       0.010        0.010
280  23.33     0.07      0.020       (  0.222)       0.010        0.010
281  23.42     0.07      0.020       (  0.221)       0.010        0.010
282  23.50     0.07      0.020       (  0.221)       0.010        0.010
283  23.58     0.07      0.020       (  0.220)       0.010        0.010
284  23.67     0.07      0.020       (  0.220)       0.010        0.010
285  23.75     0.07      0.020       (  0.220)       0.010        0.010
286  23.83     0.07      0.020       (  0.219)       0.010        0.010
287  23.92     0.07      0.020       (  0.219)       0.010        0.010
288  24.00     0.07      0.020       (  0.219)       0.010        0.010
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    14.7
     Flood volume = Effective rainfall      1.22(In)
      times area     221.6(Ac.)/[(In)/(Ft.)] =      22.6(Ac.Ft)
     Total soil loss =      1.27(In)
     Total soil loss =    23.537(Ac.Ft)
     Total rainfall =      2.50(In)
     Flood volume =      985062.2 Cubic Feet
     Total soil loss =     1025268.8 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =     36.832(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       10.0      20.0      30.0      40.0
 ---------------------------------------------------------------------
   0+ 5       0.0019      0.27  Q         |         |         |         |
   0+10       0.0102      1.21  VQ        |         |         |         |
   0+15       0.0217      1.67  VQ        |         |         |         |
   0+20       0.0355      1.99  VQ        |         |         |         |
   0+25       0.0532      2.58  V Q       |         |         |         |
   0+30       0.0731      2.88  V Q       |         |         |         |
   0+35       0.0939      3.02  V  Q      |         |         |         |
   0+40       0.1154      3.12  V  Q      |         |         |         |
   0+45       0.1372      3.18  V  Q      |         |         |         |
   0+50       0.1603      3.36  V  Q      |         |         |         |
   0+55       0.1869      3.86  V  Q      |         |         |         |
   1+ 0       0.2152      4.10  V   Q     |         |         |         |
   1+ 5       0.2432      4.07  V   Q     |         |         |         |
   1+10       0.2685      3.66  V  Q      |         |         |         |
   1+15       0.2923      3.47  V  Q      |         |         |         |
   1+20       0.3158      3.40  V  Q      |         |         |         |
   1+25       0.3389      3.36  V  Q      |         |         |         |
   1+30       0.3619      3.34  V  Q      |         |         |         |
   1+35       0.3848      3.32  V  Q      |         |         |         |
   1+40       0.4076      3.31  V  Q      |         |         |         |
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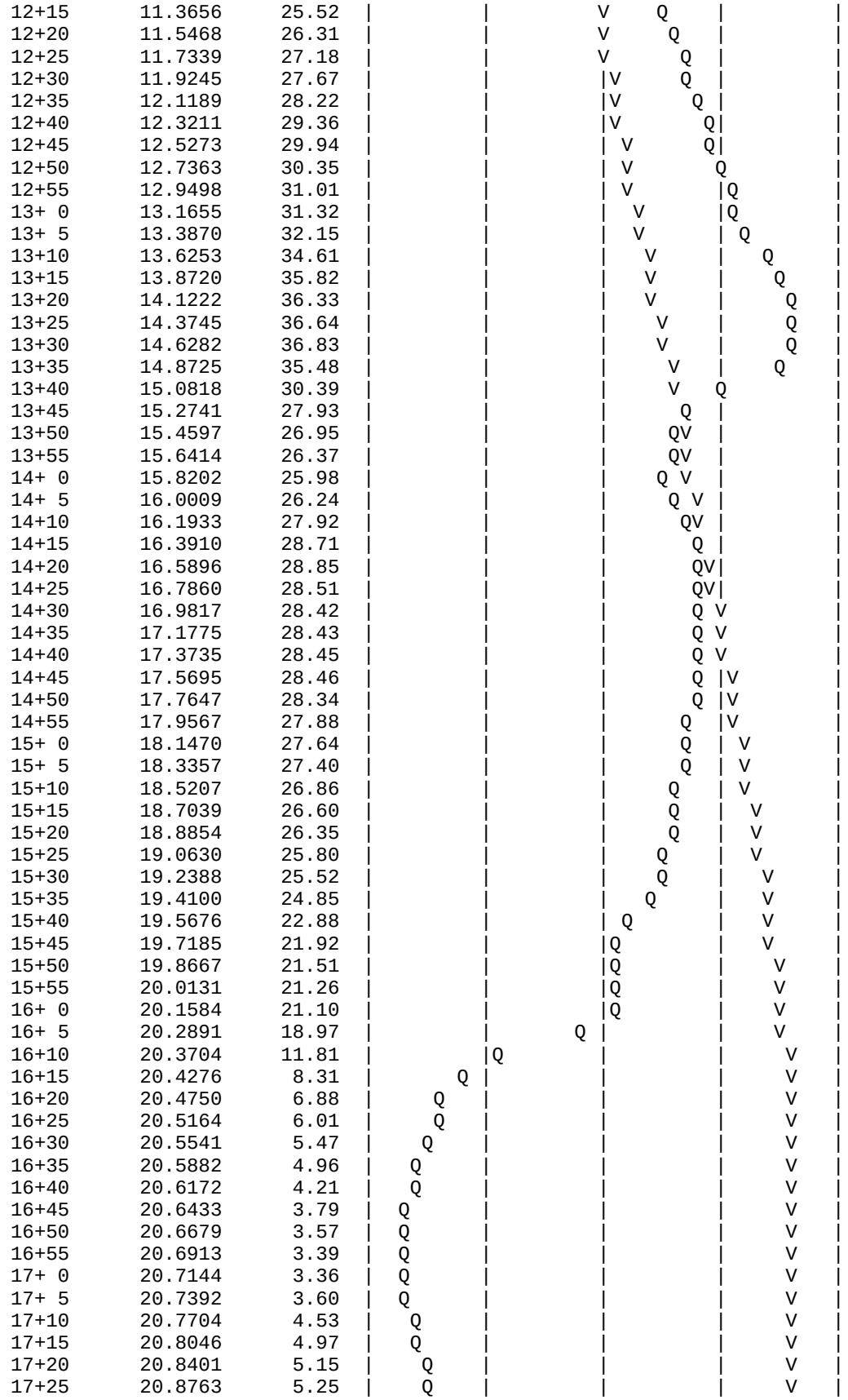
1+45	0.4304	3.30	V Q	|	|	|
1+50	0.4540	3.43	V Q	|	|	|
1+55	0.4808	3.89	V Q	|	|	|
2+ 0	0.5091	4.12	V Q	|	|	|
2+ 5	0.5381	4.21	V Q	|	|	|
2+10	0.5675	4.27	|V Q	|	|	|
2+15	0.5972	4.31	|V Q	|	|	|
2+20	0.6270	4.33	|V Q	|	|	|
2+25	0.6570	4.35	|V Q	|	|	|
2+30	0.6870	4.36	|V Q	|	|	|
2+35	0.7180	4.51	|V Q	|	|	|
2+40	0.7524	4.99	|V Q	|	|	|
2+45	0.7883	5.21	|V Q	|	|	|
2+50	0.8248	5.31	|V Q	|	|	|
2+55	0.8618	5.36	|V Q	|	|	|
3+ 0	0.8990	5.40	|V Q	|	|	|
3+ 5	0.9363	5.43	|V Q	|	|	|
3+10	0.9738	5.44	|V Q	|	|	|
3+15	1.0114	5.46	|V Q	|	|	|
3+20	1.0490	5.46	|V Q	|	|	|
3+25	1.0867	5.47	|V Q	|	|	|
3+30	1.1244	5.47	|V Q	|	|	|
3+35	1.1621	5.47	| V Q	|	|	|
3+40	1.1998	5.47	| V Q	|	|	|
3+45	1.2375	5.47	| V Q	|	|	|
3+50	1.2761	5.61	| V Q	|	|	|
3+55	1.3180	6.08	| V Q	|	|	|
4+ 0	1.3614	6.31	| V Q	|	|	|
4+ 5	1.4055	6.40	| V Q	|	|	|
4+10	1.4500	6.46	| V Q	|	|	|
4+15	1.4947	6.49	| V Q	|	|	|
4+20	1.5405	6.65	| V Q	|	|	|
4+25	1.5898	7.14	| V Q	|	|	|
4+30	1.6406	7.39	| V Q	|	|	|
4+35	1.6922	7.49	| V Q	|	|	|
4+40	1.7442	7.55	| V Q	|	|	|
4+45	1.7965	7.59	| V Q	|	|	|
4+50	1.8499	7.75	| V Q	|	|	|
4+55	1.9066	8.24	| V Q |			
5+ 0	1.9650	8.48	| V Q |			
5+ 5	2.0223	8.31	| V Q |			
5+10	2.0735	7.43	| V Q	|	|	|
5+15	2.1217	7.01	| V Q	|	|	|
5+20	2.1698	6.98	| V Q	|	|	|
5+25	2.2205	7.36	| V Q	|	|	|
5+30	2.2724	7.53	| V Q	|	|	|
5+35	2.3256	7.72	| V Q	|	|	|
5+40	2.3822	8.22	| V Q |			
5+45	2.4404	8.46	| V Q |			
5+50	2.4994	8.56	| V Q |			
5+55	2.5587	8.62	| V Q |			
6+ 0	2.6184	8.67	| V Q |			
6+ 5	2.6793	8.84	| V Q |			
6+10	2.7436	9.33	| V Q|			
6+15	2.8095	9.58	| V Q|			
6+20	2.8762	9.68	| V Q|			
6+25	2.9433	9.74	| V Q|			
6+30	3.0106	9.78	| V Q|			
6+35	3.0790	9.94	| V Q|			
6+40	3.1509	10.43	| V Q	|	|	|
6+45	3.2244	10.67	| V Q	|	|	|
6+50	3.2985	10.77	| V Q	|	|	|
6+55	3.3732	10.84	| V Q	|	|	|

7+ 0	3.4481	10.87	V Q			
7+ 5	3.5231	10.90	V Q			
7+10	3.5983	10.92	V Q			
7+15	3.6735	10.93	V Q			
7+20	3.7498	11.07	V |Q			
7+25	3.8294	11.55	V |Q			
7+30	3.9105	11.78	V |Q			
7+35	3.9932	12.01	V | Q			
7+40	4.0796	12.54	V | Q			
7+45	4.1677	12.80	V | Q			
7+50	4.2577	13.06	V | Q			
7+55	4.3514	13.60	V | Q			
8+ 0	4.4470	13.88	V | Q			
8+ 5	4.5453	14.28	V | Q			
8+10	4.6507	15.30	V | Q			
8+15	4.7596	15.81	V | Q			
8+20	4.8700	16.03	V | Q			
8+25	4.9814	16.17	V | Q			
8+30	5.0933	16.26	V| Q			
8+35	5.2066	16.45	V| Q			
8+40	5.3235	16.97	V| Q			
8+45	5.4421	17.22	V| Q			
8+50	5.5624	17.47	V| Q			
8+55	5.6864	18.01	V Q			
9+ 0	5.8123	18.28	V Q			
9+ 5	5.9408	18.66	V Q			
9+10	6.0764	19.68	V Q|			
9+15	6.2154	20.19	V Q			
9+20	6.3569	20.55	|V Q			
9+25	6.5026	21.16	|V |Q			
9+30	6.6505	21.47	|V |Q			
9+35	6.8003	21.76	| V |Q			
9+40	6.9541	22.33	| V | Q			
9+45	7.1099	22.62	| V | Q			
9+50	7.2676	22.89	| V | Q			
9+55	7.4291	23.45	| V | Q			
10+ 0	7.5925	23.73	| V | Q			
10+ 5	7.7503	22.91	| V | Q			
10+10	7.8860	19.69	| V Q|			
10+15	8.0108	18.13	| V Q |			
10+20	8.1315	17.52	| V Q |			
10+25	8.2496	17.15	| V Q |			
10+30	8.3661	16.91	| V Q |			
10+35	8.4860	17.42	| V Q |			
10+40	8.6214	19.66	| V Q|			
10+45	8.7641	20.72	| V Q			
10+50	8.9096	21.12	| V |Q			
10+55	9.0566	21.35	| V |Q			
11+ 0	9.2048	21.53	| V |Q			
11+ 5	9.3530	21.52	| V |Q			
11+10	9.4986	21.14	| V |Q			
11+15	9.6430	20.97	| V Q			
11+20	9.7871	20.92	| V Q			
11+25	9.9311	20.90	| V Q			
11+30	10.0748	20.87	| V Q			
11+35	10.2165	20.57	| V Q			
11+40	10.3515	19.61	| VQ|			
11+45	10.4833	19.14	| VQ|			
11+50	10.6147	19.08	| VQ|			
11+55	10.7486	19.43	| Q|			
12+ 0	10.8835	19.59	| Q|			
12+ 5	11.0252	20.58	| VQ			
12+10	11.1898	23.90	| V| Q			



17+30	20.9130	5.33		Q			V
17+35	20.9500	5.38		Q			V
17+40	20.9873	5.41		Q			V
17+45	21.0248	5.44		Q			V
17+50	21.0614	5.32		Q			V
17+55	21.0949	4.87		Q			V
18+ 0	21.1268	4.64		Q			V
18+ 5	21.1581	4.54		Q			V
18+10	21.1890	4.49		Q			V
18+15	21.2197	4.45		Q			V
18+20	21.2502	4.43		Q			V
18+25	21.2805	4.41		Q			V
18+30	21.3108	4.39		Q			V
18+35	21.3401	4.25		Q			V
18+40	21.3660	3.77		Q			V
18+45	21.3904	3.54		Q			V
18+50	21.4132	3.31		Q			V
18+55	21.4324	2.79	Q				V
19+ 0	21.4498	2.52	Q				V
19+ 5	21.4673	2.54	Q				V
19+10	21.4875	2.93	Q				V
19+15	21.5089	3.12		Q			V
19+20	21.5317	3.31		Q			V
19+25	21.5580	3.81		Q			V
19+30	21.5859	4.06		Q			V
19+35	21.6138	4.04		Q			V
19+40	21.6388	3.63		Q			V
19+45	21.6625	3.45		Q			V
19+50	21.6850	3.26		Q			V
19+55	21.7040	2.76	Q				V
20+ 0	21.7212	2.50	Q				V
20+ 5	21.7386	2.53	Q				V
20+10	21.7588	2.93	Q				V
20+15	21.7803	3.12		Q			V
20+20	21.8021	3.17		Q			V
20+25	21.8242	3.20		Q			V
20+30	21.8464	3.23		Q			V
20+35	21.8688	3.24		Q			V
20+40	21.8912	3.25		Q			V
20+45	21.9137	3.27		Q			V
20+50	21.9353	3.14		Q			V
20+55	21.9537	2.68	Q				V
21+ 0	21.9706	2.45	Q				V
21+ 5	21.9877	2.49	Q				V
21+10	22.0077	2.91	Q				V
21+15	22.0291	3.10		Q			V
21+20	22.0500	3.03		Q			V
21+25	22.0678	2.60	Q				V
21+30	22.0843	2.39	Q				V
21+35	22.1012	2.45	Q				V
21+40	22.1210	2.88	Q				V
21+45	22.1422	3.08		Q			V
21+50	22.1630	3.02		Q			V
21+55	22.1809	2.60	Q				V
22+ 0	22.1974	2.39	Q				V
22+ 5	22.2143	2.45	Q				V
22+10	22.2341	2.88	Q				V
22+15	22.2553	3.08		Q			V
22+20	22.2761	3.02		Q			V
22+25	22.2940	2.60	Q				V
22+30	22.3105	2.39	Q				V
22+35	22.3264	2.31	Q				V
22+40	22.3420	2.27	Q				V

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   22+45      22.3575      2.25  | Q       |         |         |        V|
   22+50      22.3728      2.23  | Q       |         |         |        V|
   22+55      22.3881      2.22  | Q       |         |         |        V|
   23+ 0      22.4033      2.21  | Q       |         |         |        V|
   23+ 5      22.4184      2.20  | Q       |         |         |        V|
   23+10      22.4335      2.19  | Q       |         |         |        V|
   23+15      22.4486      2.19  | Q       |         |         |        V|
   23+20      22.4637      2.19  | Q       |         |         |        V|
   23+25      22.4787      2.19  | Q       |         |         |        V|
   23+30      22.4938      2.19  | Q       |         |         |        V|
   23+35      22.5089      2.19  | Q       |         |         |        V|
   23+40      22.5240      2.19  | Q       |         |         |        V|
   23+45      22.5390      2.19  | Q       |         |         |        V|
   23+50      22.5541      2.19  | Q       |         |         |        V|
   23+55      22.5692      2.19  | Q       |         |         |        V|
   24+ 0      22.5843      2.19  | Q       |         |         |        V|
   24+ 5      22.5975      1.92  |Q        |         |         |        V|
   24+10      22.6042      0.97  Q         |         |         |        V|
   24+15      22.6077      0.52  Q         |         |         |        V|
   24+20      22.6100      0.33  Q         |         |         |        V|
   24+25      22.6115      0.22  Q         |         |         |        V|
   24+30      22.6125      0.15  Q         |         |         |        V|
   24+35      22.6132      0.10  Q         |         |         |        V|
   24+40      22.6136      0.06  Q         |         |         |        V|
   24+45      22.6138      0.03  Q         |         |         |        V|
   24+50      22.6139      0.02  Q         |         |         |        V|
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APPENDIX G: HYDROLOGY CALCULATIONS BASED ON EXISTING CONDITION FOR AREA “B” (HYDROGRAPH METHOD)

APPENDIX G.1: AREA “B” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 100–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/14/15 File: BEX24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - EXISTING CONDITION
100YR-24HR
FN: BEX24100

Drainage Area = 24.37(Ac.) = 0.038 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 24.37(Ac.) = 0.038 Sq. Mi.
Length along longest watercourse = 1802.00(Ft.)
Length along longest watercourse measured to centroid = 1103.00(Ft.)
Length along longest watercourse = 0.341 Mi.
Length along longest watercourse measured to centroid = 0.209 Mi.
Difference in elevation = 92.00(Ft.)
Slope along watercourse = 269.5671 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.106 Hr.
Lag time = 6.38 Min.
25% of lag time = 1.59 Min.
40% of lag time = 2.55 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	2.50	60.93

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	8.00	194.96

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 8.000(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 8.000(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
24.370	80.00	0.000

Total Area Entered = 24.37(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.0	80.0	0.244	0.000	0.244	1.000	0.244
					Sum (F) =	0.244

Area averaged mean soil loss (F) (In/Hr) = 0.244
Minimum soil loss rate ((In/Hr)) = 0.122
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	78.379	12.851	3.156
2	0.167	156.759	43.841	10.767
3	0.250	235.138	20.412	5.013
4	0.333	313.518	8.354	2.052
5	0.417	391.897	5.025	1.234
6	0.500	470.277	3.201	0.786
7	0.583	548.656	2.279	0.560
8	0.667	627.036	1.599	0.393
9	0.750	705.415	1.086	0.267
10	0.833	783.795	0.797	0.196
11	0.917	862.174	0.554	0.136
		Sum = 100.000	Sum=	24.560

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.064	(0.433)	0.058	0.006
2	0.17	0.07	0.064	(0.431)	0.058	0.006
3	0.25	0.07	0.064	(0.429)	0.058	0.006
4	0.33	0.10	0.096	(0.428)	0.086	0.010
5	0.42	0.10	0.096	(0.426)	0.086	0.010
6	0.50	0.10	0.096	(0.424)	0.086	0.010
7	0.58	0.10	0.096	(0.423)	0.086	0.010
8	0.67	0.10	0.096	(0.421)	0.086	0.010
9	0.75	0.10	0.096	(0.419)	0.086	0.010
10	0.83	0.13	0.128	(0.418)	0.115	0.013
11	0.92	0.13	0.128	(0.416)	0.115	0.013
12	1.00	0.13	0.128	(0.414)	0.115	0.013
13	1.08	0.10	0.096	(0.413)	0.086	0.010
14	1.17	0.10	0.096	(0.411)	0.086	0.010

15	1.25	0.10	0.096	(0.409)	0.086	0.010
16	1.33	0.10	0.096	(0.408)	0.086	0.010
17	1.42	0.10	0.096	(0.406)	0.086	0.010
18	1.50	0.10	0.096	(0.405)	0.086	0.010
19	1.58	0.10	0.096	(0.403)	0.086	0.010
20	1.67	0.10	0.096	(0.401)	0.086	0.010
21	1.75	0.10	0.096	(0.400)	0.086	0.010
22	1.83	0.13	0.128	(0.398)	0.115	0.013
23	1.92	0.13	0.128	(0.396)	0.115	0.013
24	2.00	0.13	0.128	(0.395)	0.115	0.013
25	2.08	0.13	0.128	(0.393)	0.115	0.013
26	2.17	0.13	0.128	(0.392)	0.115	0.013
27	2.25	0.13	0.128	(0.390)	0.115	0.013
28	2.33	0.13	0.128	(0.389)	0.115	0.013
29	2.42	0.13	0.128	(0.387)	0.115	0.013
30	2.50	0.13	0.128	(0.385)	0.115	0.013
31	2.58	0.17	0.160	(0.384)	0.144	0.016
32	2.67	0.17	0.160	(0.382)	0.144	0.016
33	2.75	0.17	0.160	(0.381)	0.144	0.016
34	2.83	0.17	0.160	(0.379)	0.144	0.016
35	2.92	0.17	0.160	(0.378)	0.144	0.016
36	3.00	0.17	0.160	(0.376)	0.144	0.016
37	3.08	0.17	0.160	(0.374)	0.144	0.016
38	3.17	0.17	0.160	(0.373)	0.144	0.016
39	3.25	0.17	0.160	(0.371)	0.144	0.016
40	3.33	0.17	0.160	(0.370)	0.144	0.016
41	3.42	0.17	0.160	(0.368)	0.144	0.016
42	3.50	0.17	0.160	(0.367)	0.144	0.016
43	3.58	0.17	0.160	(0.365)	0.144	0.016
44	3.67	0.17	0.160	(0.364)	0.144	0.016
45	3.75	0.17	0.160	(0.362)	0.144	0.016
46	3.83	0.20	0.192	(0.361)	0.173	0.019
47	3.92	0.20	0.192	(0.359)	0.173	0.019
48	4.00	0.20	0.192	(0.357)	0.173	0.019
49	4.08	0.20	0.192	(0.356)	0.173	0.019
50	4.17	0.20	0.192	(0.354)	0.173	0.019
51	4.25	0.20	0.192	(0.353)	0.173	0.019
52	4.33	0.23	0.224	(0.351)	0.202	0.022
53	4.42	0.23	0.224	(0.350)	0.202	0.022
54	4.50	0.23	0.224	(0.348)	0.202	0.022
55	4.58	0.23	0.224	(0.347)	0.202	0.022
56	4.67	0.23	0.224	(0.345)	0.202	0.022
57	4.75	0.23	0.224	(0.344)	0.202	0.022
58	4.83	0.27	0.256	(0.342)	0.230	0.026
59	4.92	0.27	0.256	(0.341)	0.230	0.026
60	5.00	0.27	0.256	(0.340)	0.230	0.026
61	5.08	0.20	0.192	(0.338)	0.173	0.019
62	5.17	0.20	0.192	(0.337)	0.173	0.019
63	5.25	0.20	0.192	(0.335)	0.173	0.019
64	5.33	0.23	0.224	(0.334)	0.202	0.022
65	5.42	0.23	0.224	(0.332)	0.202	0.022
66	5.50	0.23	0.224	(0.331)	0.202	0.022
67	5.58	0.27	0.256	(0.329)	0.230	0.026
68	5.67	0.27	0.256	(0.328)	0.230	0.026
69	5.75	0.27	0.256	(0.326)	0.230	0.026
70	5.83	0.27	0.256	(0.325)	0.230	0.026
71	5.92	0.27	0.256	(0.324)	0.230	0.026
72	6.00	0.27	0.256	(0.322)	0.230	0.026
73	6.08	0.30	0.288	(0.321)	0.259	0.029
74	6.17	0.30	0.288	(0.319)	0.259	0.029
75	6.25	0.30	0.288	(0.318)	0.259	0.029
76	6.33	0.30	0.288	(0.316)	0.259	0.029
77	6.42	0.30	0.288	(0.315)	0.259	0.029

78	6.50	0.30	0.288	(	0.314)		0.259		0.029
79	6.58	0.33	0.320	(	0.312)		0.288		0.032
80	6.67	0.33	0.320	(	0.311)		0.288		0.032
81	6.75	0.33	0.320	(	0.309)		0.288		0.032
82	6.83	0.33	0.320	(	0.308)		0.288		0.032
83	6.92	0.33	0.320	(	0.307)		0.288		0.032
84	7.00	0.33	0.320	(	0.305)		0.288		0.032
85	7.08	0.33	0.320	(	0.304)		0.288		0.032
86	7.17	0.33	0.320	(	0.302)		0.288		0.032
87	7.25	0.33	0.320	(	0.301)		0.288		0.032
88	7.33	0.37	0.352		0.300	(	0.317)		0.052
89	7.42	0.37	0.352		0.298	(	0.317)		0.054
90	7.50	0.37	0.352		0.297	(	0.317)		0.055
91	7.58	0.40	0.384		0.296	(	0.346)		0.088
92	7.67	0.40	0.384		0.294	(	0.346)		0.090
93	7.75	0.40	0.384		0.293	(	0.346)		0.091
94	7.83	0.43	0.416		0.291	(	0.374)		0.125
95	7.92	0.43	0.416		0.290	(	0.374)		0.126
96	8.00	0.43	0.416		0.289	(	0.374)		0.127
97	8.08	0.50	0.480		0.287	(	0.432)		0.193
98	8.17	0.50	0.480		0.286	(	0.432)		0.194
99	8.25	0.50	0.480		0.285	(	0.432)		0.195
100	8.33	0.50	0.480		0.283	(	0.432)		0.197
101	8.42	0.50	0.480		0.282	(	0.432)		0.198
102	8.50	0.50	0.480		0.281	(	0.432)		0.199
103	8.58	0.53	0.512		0.279	(	0.461)		0.233
104	8.67	0.53	0.512		0.278	(	0.461)		0.234
105	8.75	0.53	0.512		0.277	(	0.461)		0.235
106	8.83	0.57	0.544		0.276	(	0.490)		0.268
107	8.92	0.57	0.544		0.274	(	0.490)		0.270
108	9.00	0.57	0.544		0.273	(	0.490)		0.271
109	9.08	0.63	0.608		0.272	(	0.547)		0.336
110	9.17	0.63	0.608		0.270	(	0.547)		0.338
111	9.25	0.63	0.608		0.269	(	0.547)		0.339
112	9.33	0.67	0.640		0.268	(	0.576)		0.372
113	9.42	0.67	0.640		0.266	(	0.576)		0.373
114	9.50	0.67	0.640		0.265	(	0.576)		0.375
115	9.58	0.70	0.672		0.264	(	0.605)		0.408
116	9.67	0.70	0.672		0.263	(	0.605)		0.409
117	9.75	0.70	0.672		0.261	(	0.605)		0.411
118	9.83	0.73	0.704		0.260	(	0.634)		0.444
119	9.92	0.73	0.704		0.259	(	0.634)		0.445
120	10.00	0.73	0.704		0.258	(	0.634)		0.446
121	10.08	0.50	0.480		0.256	(	0.432)		0.224
122	10.17	0.50	0.480		0.255	(	0.432)		0.225
123	10.25	0.50	0.480		0.254	(	0.432)		0.226
124	10.33	0.50	0.480		0.253	(	0.432)		0.227
125	10.42	0.50	0.480		0.251	(	0.432)		0.229
126	10.50	0.50	0.480		0.250	(	0.432)		0.230
127	10.58	0.67	0.640		0.249	(	0.576)		0.391
128	10.67	0.67	0.640		0.248	(	0.576)		0.392
129	10.75	0.67	0.640		0.247	(	0.576)		0.393
130	10.83	0.67	0.640		0.245	(	0.576)		0.395
131	10.92	0.67	0.640		0.244	(	0.576)		0.396
132	11.00	0.67	0.640		0.243	(	0.576)		0.397
133	11.08	0.63	0.608		0.242	(	0.547)		0.366
134	11.17	0.63	0.608		0.241	(	0.547)		0.367
135	11.25	0.63	0.608		0.239	(	0.547)		0.369
136	11.33	0.63	0.608		0.238	(	0.547)		0.370
137	11.42	0.63	0.608		0.237	(	0.547)		0.371
138	11.50	0.63	0.608		0.236	(	0.547)		0.372
139	11.58	0.57	0.544		0.235	(	0.490)		0.309
140	11.67	0.57	0.544		0.234	(	0.490)		0.310

141	11.75	0.57	0.544	0.232	(0.490)	0.312
142	11.83	0.60	0.576	0.231	(0.518)	0.345
143	11.92	0.60	0.576	0.230	(0.518)	0.346
144	12.00	0.60	0.576	0.229	(0.518)	0.347
145	12.08	0.83	0.800	0.228	(0.720)	0.572
146	12.17	0.83	0.800	0.227	(0.720)	0.573
147	12.25	0.83	0.800	0.225	(0.720)	0.574
148	12.33	0.87	0.832	0.224	(0.749)	0.608
149	12.42	0.87	0.832	0.223	(0.749)	0.609
150	12.50	0.87	0.832	0.222	(0.749)	0.610
151	12.58	0.93	0.896	0.221	(0.806)	0.675
152	12.67	0.93	0.896	0.220	(0.806)	0.676
153	12.75	0.93	0.896	0.219	(0.806)	0.677
154	12.83	0.97	0.928	0.218	(0.835)	0.710
155	12.92	0.97	0.928	0.217	(0.835)	0.711
156	13.00	0.97	0.928	0.215	(0.835)	0.712
157	13.08	1.13	1.088	0.214	(0.979)	0.874
158	13.17	1.13	1.088	0.213	(0.979)	0.875
159	13.25	1.13	1.088	0.212	(0.979)	0.876
160	13.33	1.13	1.088	0.211	(0.979)	0.877
161	13.42	1.13	1.088	0.210	(0.979)	0.878
162	13.50	1.13	1.088	0.209	(0.979)	0.879
163	13.58	0.77	0.736	0.208	(0.662)	0.528
164	13.67	0.77	0.736	0.207	(0.662)	0.529
165	13.75	0.77	0.736	0.206	(0.662)	0.530
166	13.83	0.77	0.736	0.205	(0.662)	0.531
167	13.92	0.77	0.736	0.204	(0.662)	0.532
168	14.00	0.77	0.736	0.203	(0.662)	0.533
169	14.08	0.90	0.864	0.202	(0.778)	0.662
170	14.17	0.90	0.864	0.201	(0.778)	0.663
171	14.25	0.90	0.864	0.200	(0.778)	0.664
172	14.33	0.87	0.832	0.199	(0.749)	0.633
173	14.42	0.87	0.832	0.198	(0.749)	0.634
174	14.50	0.87	0.832	0.197	(0.749)	0.635
175	14.58	0.87	0.832	0.196	(0.749)	0.636
176	14.67	0.87	0.832	0.195	(0.749)	0.637
177	14.75	0.87	0.832	0.194	(0.749)	0.638
178	14.83	0.83	0.800	0.193	(0.720)	0.607
179	14.92	0.83	0.800	0.192	(0.720)	0.608
180	15.00	0.83	0.800	0.191	(0.720)	0.609
181	15.08	0.80	0.768	0.190	(0.691)	0.578
182	15.17	0.80	0.768	0.189	(0.691)	0.579
183	15.25	0.80	0.768	0.188	(0.691)	0.580
184	15.33	0.77	0.736	0.187	(0.662)	0.549
185	15.42	0.77	0.736	0.186	(0.662)	0.550
186	15.50	0.77	0.736	0.185	(0.662)	0.551
187	15.58	0.63	0.608	0.184	(0.547)	0.424
188	15.67	0.63	0.608	0.183	(0.547)	0.425
189	15.75	0.63	0.608	0.182	(0.547)	0.426
190	15.83	0.63	0.608	0.181	(0.547)	0.427
191	15.92	0.63	0.608	0.180	(0.547)	0.428
192	16.00	0.63	0.608	0.179	(0.547)	0.429
193	16.08	0.13	0.128	(0.178)	0.115	0.013
194	16.17	0.13	0.128	(0.177)	0.115	0.013
195	16.25	0.13	0.128	(0.176)	0.115	0.013
196	16.33	0.13	0.128	(0.176)	0.115	0.013
197	16.42	0.13	0.128	(0.175)	0.115	0.013
198	16.50	0.13	0.128	(0.174)	0.115	0.013
199	16.58	0.10	0.096	(0.173)	0.086	0.010
200	16.67	0.10	0.096	(0.172)	0.086	0.010
201	16.75	0.10	0.096	(0.171)	0.086	0.010
202	16.83	0.10	0.096	(0.170)	0.086	0.010
203	16.92	0.10	0.096	(0.169)	0.086	0.010

204	17.00	0.10	0.096	(0.169)	0.086	0.010
205	17.08	0.17	0.160	(0.168)	0.144	0.016
206	17.17	0.17	0.160	(0.167)	0.144	0.016
207	17.25	0.17	0.160	(0.166)	0.144	0.016
208	17.33	0.17	0.160	(0.165)	0.144	0.016
209	17.42	0.17	0.160	(0.164)	0.144	0.016
210	17.50	0.17	0.160	(0.164)	0.144	0.016
211	17.58	0.17	0.160	(0.163)	0.144	0.016
212	17.67	0.17	0.160	(0.162)	0.144	0.016
213	17.75	0.17	0.160	(0.161)	0.144	0.016
214	17.83	0.13	0.128	(0.160)	0.115	0.013
215	17.92	0.13	0.128	(0.159)	0.115	0.013
216	18.00	0.13	0.128	(0.159)	0.115	0.013
217	18.08	0.13	0.128	(0.158)	0.115	0.013
218	18.17	0.13	0.128	(0.157)	0.115	0.013
219	18.25	0.13	0.128	(0.156)	0.115	0.013
220	18.33	0.13	0.128	(0.156)	0.115	0.013
221	18.42	0.13	0.128	(0.155)	0.115	0.013
222	18.50	0.13	0.128	(0.154)	0.115	0.013
223	18.58	0.10	0.096	(0.153)	0.086	0.010
224	18.67	0.10	0.096	(0.153)	0.086	0.010
225	18.75	0.10	0.096	(0.152)	0.086	0.010
226	18.83	0.07	0.064	(0.151)	0.058	0.006
227	18.92	0.07	0.064	(0.150)	0.058	0.006
228	19.00	0.07	0.064	(0.150)	0.058	0.006
229	19.08	0.10	0.096	(0.149)	0.086	0.010
230	19.17	0.10	0.096	(0.148)	0.086	0.010
231	19.25	0.10	0.096	(0.148)	0.086	0.010
232	19.33	0.13	0.128	(0.147)	0.115	0.013
233	19.42	0.13	0.128	(0.146)	0.115	0.013
234	19.50	0.13	0.128	(0.146)	0.115	0.013
235	19.58	0.10	0.096	(0.145)	0.086	0.010
236	19.67	0.10	0.096	(0.144)	0.086	0.010
237	19.75	0.10	0.096	(0.144)	0.086	0.010
238	19.83	0.07	0.064	(0.143)	0.058	0.006
239	19.92	0.07	0.064	(0.142)	0.058	0.006
240	20.00	0.07	0.064	(0.142)	0.058	0.006
241	20.08	0.10	0.096	(0.141)	0.086	0.010
242	20.17	0.10	0.096	(0.140)	0.086	0.010
243	20.25	0.10	0.096	(0.140)	0.086	0.010
244	20.33	0.10	0.096	(0.139)	0.086	0.010
245	20.42	0.10	0.096	(0.139)	0.086	0.010
246	20.50	0.10	0.096	(0.138)	0.086	0.010
247	20.58	0.10	0.096	(0.137)	0.086	0.010
248	20.67	0.10	0.096	(0.137)	0.086	0.010
249	20.75	0.10	0.096	(0.136)	0.086	0.010
250	20.83	0.07	0.064	(0.136)	0.058	0.006
251	20.92	0.07	0.064	(0.135)	0.058	0.006
252	21.00	0.07	0.064	(0.135)	0.058	0.006
253	21.08	0.10	0.096	(0.134)	0.086	0.010
254	21.17	0.10	0.096	(0.134)	0.086	0.010
255	21.25	0.10	0.096	(0.133)	0.086	0.010
256	21.33	0.07	0.064	(0.133)	0.058	0.006
257	21.42	0.07	0.064	(0.132)	0.058	0.006
258	21.50	0.07	0.064	(0.132)	0.058	0.006
259	21.58	0.10	0.096	(0.131)	0.086	0.010
260	21.67	0.10	0.096	(0.131)	0.086	0.010
261	21.75	0.10	0.096	(0.130)	0.086	0.010
262	21.83	0.07	0.064	(0.130)	0.058	0.006
263	21.92	0.07	0.064	(0.129)	0.058	0.006
264	22.00	0.07	0.064	(0.129)	0.058	0.006
265	22.08	0.10	0.096	(0.128)	0.086	0.010
266	22.17	0.10	0.096	(0.128)	0.086	0.010

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267  22.25     0.10      0.096       (  0.128)       0.086        0.010
268  22.33     0.07      0.064       (  0.127)       0.058        0.006
269  22.42     0.07      0.064       (  0.127)       0.058        0.006
270  22.50     0.07      0.064       (  0.126)       0.058        0.006
271  22.58     0.07      0.064       (  0.126)       0.058        0.006
272  22.67     0.07      0.064       (  0.126)       0.058        0.006
273  22.75     0.07      0.064       (  0.125)       0.058        0.006
274  22.83     0.07      0.064       (  0.125)       0.058        0.006
275  22.92     0.07      0.064       (  0.125)       0.058        0.006
276  23.00     0.07      0.064       (  0.124)       0.058        0.006
277  23.08     0.07      0.064       (  0.124)       0.058        0.006
278  23.17     0.07      0.064       (  0.124)       0.058        0.006
279  23.25     0.07      0.064       (  0.124)       0.058        0.006
280  23.33     0.07      0.064       (  0.123)       0.058        0.006
281  23.42     0.07      0.064       (  0.123)       0.058        0.006
282  23.50     0.07      0.064       (  0.123)       0.058        0.006
283  23.58     0.07      0.064       (  0.123)       0.058        0.006
284  23.67     0.07      0.064       (  0.122)       0.058        0.006
285  23.75     0.07      0.064       (  0.122)       0.058        0.006
286  23.83     0.07      0.064       (  0.122)       0.058        0.006
287  23.92     0.07      0.064       (  0.122)       0.058        0.006
288  24.00     0.07      0.064       (  0.122)       0.058        0.006
            (Loss Rate Not Used)
    Sum =     100.0                                  Sum =    48.4
     Flood volume = Effective rainfall      4.03(In)
      times area      24.4(Ac.)/[(In)/(Ft.)] =       8.2(Ac.Ft)
     Total soil loss =      3.97(In)
     Total soil loss =     8.060(Ac.Ft)
     Total rainfall =      8.00(In)
     Flood volume =      356583.9 Cubic Feet
     Total soil loss =      351087.3 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =     21.289(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        7.5      15.0      22.5      30.0
 ------------------------------------------------------------------------
   0+ 5       0.0001      0.02  Q         |         |         |         |
   0+10       0.0008      0.09  Q         |         |         |         |
   0+15       0.0016      0.12  Q         |         |         |         |
   0+20       0.0026      0.14  Q         |         |         |         |
   0+25       0.0039      0.19  Q         |         |         |         |
   0+30       0.0053      0.21  Q         |         |         |         |
   0+35       0.0068      0.22  Q         |         |         |         |
   0+40       0.0084      0.22  Q         |         |         |         |
   0+45       0.0099      0.23  Q         |         |         |         |
   0+50       0.0116      0.24  Q         |         |         |         |
   0+55       0.0135      0.28  Q         |         |         |         |
   1+ 0       0.0155      0.30  Q         |         |         |         |
   1+ 5       0.0176      0.29  Q         |         |         |         |
   1+10       0.0194      0.26  Q         |         |         |         |
   1+15       0.0211      0.25  Q         |         |         |         |
   1+20       0.0228      0.24  Q         |         |         |         |
   1+25       0.0244      0.24  Q         |         |         |         |
   1+30       0.0261      0.24  Q         |         |         |         |
   1+35       0.0277      0.24  Q         |         |         |         |
   1+40       0.0294      0.24  Q         |         |         |         |
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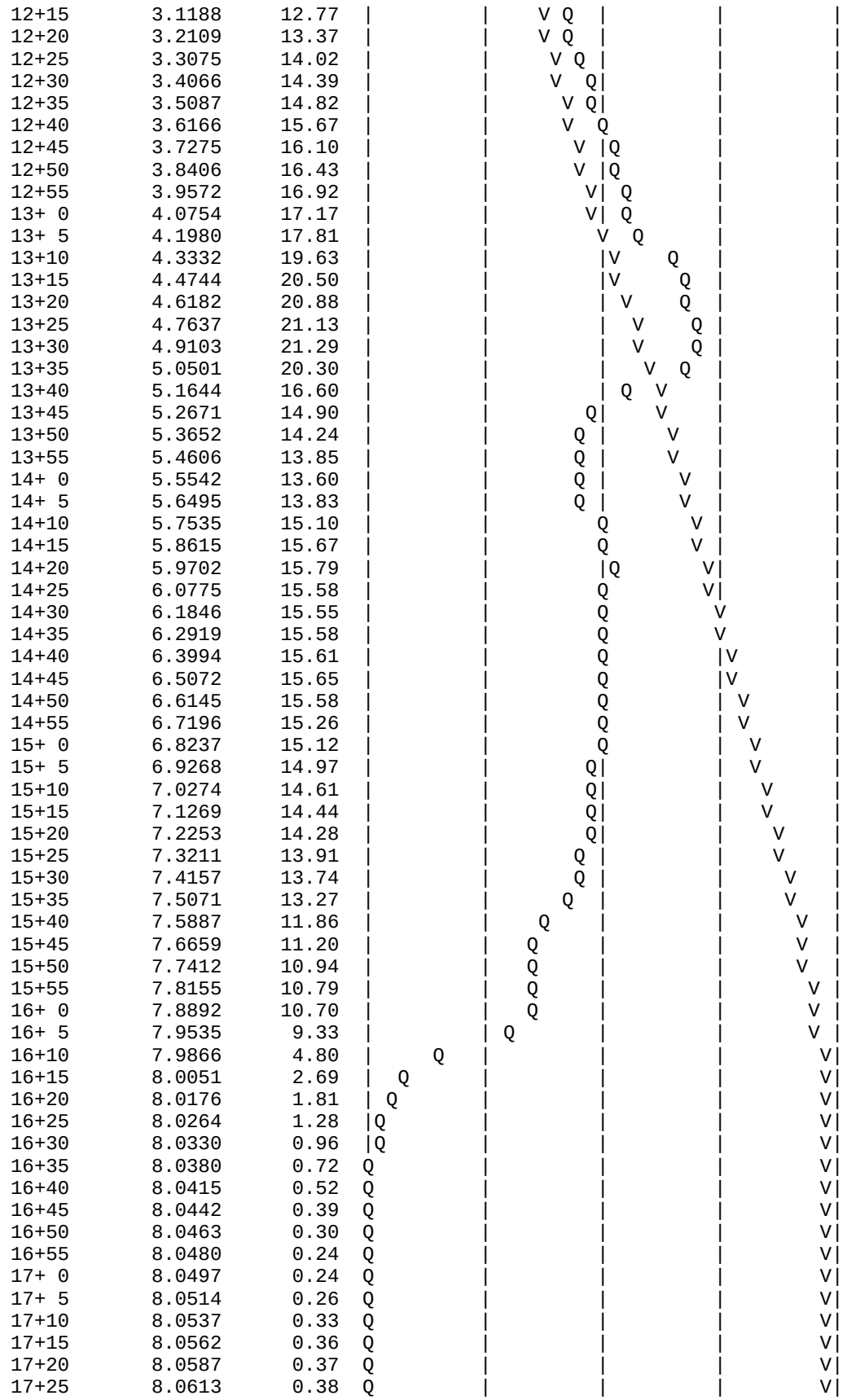
1+45	0.0310	0.24	Q				
1+50	0.0327	0.25	Q				
1+55	0.0346	0.28	Q				
2+ 0	0.0367	0.30	Q				
2+ 5	0.0388	0.30	Q				
2+10	0.0409	0.31	Q				
2+15	0.0430	0.31	Q				
2+20	0.0451	0.31	Q				
2+25	0.0473	0.31	Q				
2+30	0.0495	0.31	Q				
2+35	0.0517	0.32	Q				
2+40	0.0542	0.36	Q				
2+45	0.0567	0.38	Q				
2+50	0.0594	0.38	Q				
2+55	0.0620	0.39	Q				
3+ 0	0.0647	0.39	Q				
3+ 5	0.0674	0.39	Q				
3+10	0.0701	0.39	Q				
3+15	0.0728	0.39	Q				
3+20	0.0755	0.39	Q				
3+25	0.0782	0.39	Q				
3+30	0.0809	0.39	Q				
3+35	0.0836	0.39	Q				
3+40	0.0863	0.39	Q				
3+45	0.0890	0.39	Q				
3+50	0.0918	0.40	Q				
3+55	0.0948	0.44	Q				
4+ 0	0.0979	0.45	Q				
4+ 5	0.1011	0.46	Q				
4+10	0.1043	0.46	Q				
4+15	0.1075	0.47	Q				
4+20	0.1108	0.48	Q				
4+25	0.1144	0.51	Q				
4+30	0.1180	0.53	Q				
4+35	0.1217	0.54	Q				
4+40	0.1255	0.54	Q				
4+45	0.1292	0.55	Q				
4+50	0.1331	0.56	Q				
4+55	0.1372	0.59	Q				
5+ 0	0.1414	0.61	Q				
5+ 5	0.1455	0.60	Q				
5+10	0.1491	0.53	Q				
5+15	0.1526	0.50	Q				
5+20	0.1560	0.50	Q				
5+25	0.1597	0.53	Q				
5+30	0.1634	0.54	Q				
5+35	0.1672	0.55	Q				
5+40	0.1713	0.59	Q				
5+45	0.1755	0.61	Q				
5+50	0.1797	0.62	Q				
5+55	0.1840	0.62	Q				
6+ 0	0.1883	0.62	Q				
6+ 5	0.1927	0.64	Q				
6+10	0.1973	0.67	Q				
6+15	0.2020	0.69	Q				
6+20	0.2068	0.70	QV				
6+25	0.2117	0.70	QV				
6+30	0.2165	0.70	QV				
6+35	0.2214	0.71	QV				
6+40	0.2266	0.75	|Q				
6+45	0.2319	0.77	|Q				
6+50	0.2372	0.77	|Q				
6+55	0.2426	0.78	|Q				

7+ 0	0.2480	0.78	Q			
7+ 5	0.2533	0.78	Q			
7+10	0.2587	0.78	Q			
7+15	0.2642	0.79	Q			
7+20	0.2700	0.85	Q			
7+25	0.2774	1.07	Q			
7+30	0.2856	1.20	Q			
7+35	0.2950	1.36	Q			
7+40	0.3072	1.76	VQ			
7+45	0.3207	1.97	VQ			
7+50	0.3357	2.18	VQ			
7+55	0.3537	2.60	V Q			
8+ 0	0.3731	2.83	V Q			
8+ 5	0.3948	3.15	V Q			
8+10	0.4219	3.93	V Q			
8+15	0.4516	4.31	V Q			
8+20	0.4826	4.50	V Q			
8+25	0.5145	4.63	V Q			
8+30	0.5470	4.72	V Q			
8+35	0.5807	4.90	V Q			
8+40	0.6173	5.30	V Q			
8+45	0.6552	5.51	V Q			
8+50	0.6947	5.73	V Q			
8+55	0.7370	6.15	V Q			
9+ 0	0.7809	6.37	V Q			
9+ 5	0.8270	6.69	V Q			
9+10	0.8783	7.46	V Q			
9+15	0.9324	7.85	V Q			
9+20	0.9884	8.14	V Q			
9+25	1.0477	8.61	V Q			
9+30	1.1087	8.86	V Q			
9+35	1.1714	9.10	V Q			
9+40	1.2371	9.54	V Q			
9+45	1.3044	9.78	V Q			
9+50	1.3733	10.01	V Q			
9+55	1.4453	10.44	V Q			
10+ 0	1.5187	10.67	V Q			
10+ 5	1.5881	10.08	V Q			
10+10	1.6416	7.75	V Q			
10+15	1.6877	6.70	Q			
10+20	1.7310	6.29	Q			
10+25	1.7727	6.06	Q			
10+30	1.8135	5.92	QV			
10+35	1.8572	6.34	QV			
10+40	1.9124	8.01	VQ			
10+45	1.9729	8.78	V Q			
10+50	2.0355	9.10	V Q			
10+55	2.0995	9.29	V Q			
11+ 0	2.1646	9.45	V Q			
11+ 5	2.2298	9.47	V Q			
11+10	2.2933	9.22	VQ			
11+15	2.3561	9.13	VQ			
11+20	2.4190	9.12	VQ			
11+25	2.4819	9.13	Q			
11+30	2.5448	9.14	Q			
11+35	2.6064	8.95	QV			
11+40	2.6634	8.27	Q V			
11+45	2.7183	7.97	Q V			
11+50	2.7732	7.96	Q V			
11+55	2.8300	8.25	Q V			
12+ 0	2.8878	8.39	Q V			
12+ 5	2.9509	9.16	Q V			
12+10	3.0309	11.61	VQ			



17+30	8.0640	0.38	Q	|	|	|	V|
17+35	8.0666	0.39	Q	|	|	|	V|
17+40	8.0693	0.39	Q	|	|	|	V|
17+45	8.0720	0.39	Q	|	|	|	V|
17+50	8.0746	0.38	Q	|	|	|	V|
17+55	8.0770	0.35	Q	|	|	|	V|
18+ 0	8.0793	0.33	Q	|	|	|	V|
18+ 5	8.0816	0.33	Q	|	|	|	V|
18+10	8.0838	0.32	Q	|	|	|	V|
18+15	8.0860	0.32	Q	|	|	|	V|
18+20	8.0882	0.32	Q	|	|	|	V|
18+25	8.0903	0.32	Q	|	|	|	V|
18+30	8.0925	0.32	Q	|	|	|	V|
18+35	8.0946	0.30	Q	|	|	|	V|
18+40	8.0965	0.27	Q	|	|	|	V|
18+45	8.0982	0.25	Q	|	|	|	V|
18+50	8.0999	0.24	Q	|	|	|	V|
18+55	8.1012	0.20	Q	|	|	|	V|
19+ 0	8.1025	0.18	Q	|	|	|	V|
19+ 5	8.1037	0.18	Q	|	|	|	V|
19+10	8.1052	0.21	Q	|	|	|	V|
19+15	8.1067	0.22	Q	|	|	|	V|
19+20	8.1084	0.24	Q	|	|	|	V|
19+25	8.1103	0.27	Q	|	|	|	V|
19+30	8.1123	0.29	Q	|	|	|	V|
19+35	8.1143	0.29	Q	|	|	|	V|
19+40	8.1161	0.26	Q	|	|	|	V|
19+45	8.1178	0.25	Q	|	|	|	V|
19+50	8.1194	0.23	Q	|	|	|	V|
19+55	8.1207	0.20	Q	|	|	|	V|
20+ 0	8.1220	0.18	Q	|	|	|	V|
20+ 5	8.1232	0.18	Q	|	|	|	V|
20+10	8.1247	0.21	Q	|	|	|	V|
20+15	8.1262	0.22	Q	|	|	|	V|
20+20	8.1278	0.23	Q	|	|	|	V|
20+25	8.1294	0.23	Q	|	|	|	V|
20+30	8.1310	0.23	Q	|	|	|	V|
20+35	8.1326	0.23	Q	|	|	|	V|
20+40	8.1342	0.23	Q	|	|	|	V|
20+45	8.1358	0.23	Q	|	|	|	V|
20+50	8.1374	0.23	Q	|	|	|	V|
20+55	8.1387	0.19	Q	|	|	|	V|
21+ 0	8.1399	0.18	Q	|	|	|	V|
21+ 5	8.1411	0.18	Q	|	|	|	V|
21+10	8.1426	0.21	Q	|	|	|	V|
21+15	8.1441	0.22	Q	|	|	|	V|
21+20	8.1456	0.22	Q	|	|	|	V|
21+25	8.1469	0.19	Q	|	|	|	V|
21+30	8.1480	0.17	Q	|	|	|	V|
21+35	8.1493	0.18	Q	|	|	|	V|
21+40	8.1507	0.21	Q	|	|	|	V|
21+45	8.1522	0.22	Q	|	|	|	V|
21+50	8.1537	0.22	Q	|	|	|	V|
21+55	8.1550	0.19	Q	|	|	|	V|
22+ 0	8.1562	0.17	Q	|	|	|	V|
22+ 5	8.1574	0.18	Q	|	|	|	V|
22+10	8.1588	0.21	Q	|	|	|	V|
22+15	8.1603	0.22	Q	|	|	|	V|
22+20	8.1618	0.22	Q	|	|	|	V|
22+25	8.1631	0.19	Q	|	|	|	V|
22+30	8.1643	0.17	Q	|	|	|	V|
22+35	8.1654	0.17	Q	|	|	|	V|
22+40	8.1666	0.16	Q	|	|	|	V|

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   22+45       8.1677      0.16  Q         |         |         |         V|
   22+50       8.1688      0.16  Q         |         |         |         V|
   22+55       8.1699      0.16  Q         |         |         |         V|
   23+ 0       8.1710      0.16  Q         |         |         |         V|
   23+ 5       8.1720      0.16  Q         |         |         |         V|
   23+10       8.1731      0.16  Q         |         |         |         V|
   23+15       8.1742      0.16  Q         |         |         |         V|
   23+20       8.1753      0.16  Q         |         |         |         V|
   23+25       8.1764      0.16  Q         |         |         |         V|
   23+30       8.1775      0.16  Q         |         |         |         V|
   23+35       8.1785      0.16  Q         |         |         |         V|
   23+40       8.1796      0.16  Q         |         |         |         V|
   23+45       8.1807      0.16  Q         |         |         |         V|
   23+50       8.1818      0.16  Q         |         |         |         V|
   23+55       8.1829      0.16  Q         |         |         |         V|
   24+ 0       8.1840      0.16  Q         |         |         |         V|
   24+ 5       8.1849      0.14  Q         |         |         |         V|
   24+10       8.1854      0.07  Q         |         |         |         V|
   24+15       8.1856      0.04  Q         |         |         |         V|
   24+20       8.1858      0.02  Q         |         |         |         V|
   24+25       8.1859      0.01  Q         |         |         |         V|
   24+30       8.1859      0.01  Q         |         |         |         V|
   24+35       8.1860      0.01  Q         |         |         |         V|
   24+40       8.1860      0.00  Q         |         |         |         V|
   24+45       8.1860      0.00  Q         |         |         |         V|
   24+50       8.1860      0.00  Q         |         |         |         V|
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APPENDIX G.2: AREA “B” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 10–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

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Study date 10/14/15 File: BEX2410.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - EXISTING CONDITION
10YR-24HR
FN: BEX2410

Drainage Area = 24.37(Ac.) = 0.038 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 24.37(Ac.) = 0.038 Sq. Mi.
Length along longest watercourse = 1802.00(Ft.)
Length along longest watercourse measured to centroid = 1103.00(Ft.)
Length along longest watercourse = 0.341 Mi.
Length along longest watercourse measured to centroid = 0.209 Mi.
Difference in elevation = 92.00(Ft.)
Slope along watercourse = 269.5671 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.106 Hr.
Lag time = 6.38 Min.
25% of lag time = 1.59 Min.
40% of lag time = 2.55 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	2.50	60.93

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	8.00	194.96

STORM EVENT (YEAR) = 10.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 4.763(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 4.763(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
24.370	80.00	0.000

Total Area Entered = 24.37(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.0	80.0	0.244	0.000	0.244	1.000	0.244
					Sum (F) =	0.244

Area averaged mean soil loss (F) (In/Hr) = 0.244
Minimum soil loss rate ((In/Hr)) = 0.122
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	78.379	12.851	3.156
2	0.167	156.759	43.841	10.767
3	0.250	235.138	20.412	5.013
4	0.333	313.518	8.354	2.052
5	0.417	391.897	5.025	1.234
6	0.500	470.277	3.201	0.786
7	0.583	548.656	2.279	0.560
8	0.667	627.036	1.599	0.393
9	0.750	705.415	1.086	0.267
10	0.833	783.795	0.797	0.196
11	0.917	862.174	0.554	0.136
		Sum = 100.000	Sum=	24.560

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max		Low	Effective (In/Hr)
1	0.08	0.07	0.038	(0.433)	0.034	0.004
2	0.17	0.07	0.038	(0.431)	0.034	0.004
3	0.25	0.07	0.038	(0.429)	0.034	0.004
4	0.33	0.10	0.057	(0.428)	0.051	0.006
5	0.42	0.10	0.057	(0.426)	0.051	0.006
6	0.50	0.10	0.057	(0.424)	0.051	0.006
7	0.58	0.10	0.057	(0.423)	0.051	0.006
8	0.67	0.10	0.057	(0.421)	0.051	0.006
9	0.75	0.10	0.057	(0.419)	0.051	0.006
10	0.83	0.13	0.076	(0.418)	0.069	0.008
11	0.92	0.13	0.076	(0.416)	0.069	0.008
12	1.00	0.13	0.076	(0.414)	0.069	0.008
13	1.08	0.10	0.057	(0.413)	0.051	0.006
14	1.17	0.10	0.057	(0.411)	0.051	0.006

15	1.25	0.10	0.057	(0.409)	0.051	0.006
16	1.33	0.10	0.057	(0.408)	0.051	0.006
17	1.42	0.10	0.057	(0.406)	0.051	0.006
18	1.50	0.10	0.057	(0.405)	0.051	0.006
19	1.58	0.10	0.057	(0.403)	0.051	0.006
20	1.67	0.10	0.057	(0.401)	0.051	0.006
21	1.75	0.10	0.057	(0.400)	0.051	0.006
22	1.83	0.13	0.076	(0.398)	0.069	0.008
23	1.92	0.13	0.076	(0.396)	0.069	0.008
24	2.00	0.13	0.076	(0.395)	0.069	0.008
25	2.08	0.13	0.076	(0.393)	0.069	0.008
26	2.17	0.13	0.076	(0.392)	0.069	0.008
27	2.25	0.13	0.076	(0.390)	0.069	0.008
28	2.33	0.13	0.076	(0.389)	0.069	0.008
29	2.42	0.13	0.076	(0.387)	0.069	0.008
30	2.50	0.13	0.076	(0.385)	0.069	0.008
31	2.58	0.17	0.095	(0.384)	0.086	0.010
32	2.67	0.17	0.095	(0.382)	0.086	0.010
33	2.75	0.17	0.095	(0.381)	0.086	0.010
34	2.83	0.17	0.095	(0.379)	0.086	0.010
35	2.92	0.17	0.095	(0.378)	0.086	0.010
36	3.00	0.17	0.095	(0.376)	0.086	0.010
37	3.08	0.17	0.095	(0.374)	0.086	0.010
38	3.17	0.17	0.095	(0.373)	0.086	0.010
39	3.25	0.17	0.095	(0.371)	0.086	0.010
40	3.33	0.17	0.095	(0.370)	0.086	0.010
41	3.42	0.17	0.095	(0.368)	0.086	0.010
42	3.50	0.17	0.095	(0.367)	0.086	0.010
43	3.58	0.17	0.095	(0.365)	0.086	0.010
44	3.67	0.17	0.095	(0.364)	0.086	0.010
45	3.75	0.17	0.095	(0.362)	0.086	0.010
46	3.83	0.20	0.114	(0.361)	0.103	0.011
47	3.92	0.20	0.114	(0.359)	0.103	0.011
48	4.00	0.20	0.114	(0.357)	0.103	0.011
49	4.08	0.20	0.114	(0.356)	0.103	0.011
50	4.17	0.20	0.114	(0.354)	0.103	0.011
51	4.25	0.20	0.114	(0.353)	0.103	0.011
52	4.33	0.23	0.133	(0.351)	0.120	0.013
53	4.42	0.23	0.133	(0.350)	0.120	0.013
54	4.50	0.23	0.133	(0.348)	0.120	0.013
55	4.58	0.23	0.133	(0.347)	0.120	0.013
56	4.67	0.23	0.133	(0.345)	0.120	0.013
57	4.75	0.23	0.133	(0.344)	0.120	0.013
58	4.83	0.27	0.152	(0.342)	0.137	0.015
59	4.92	0.27	0.152	(0.341)	0.137	0.015
60	5.00	0.27	0.152	(0.340)	0.137	0.015
61	5.08	0.20	0.114	(0.338)	0.103	0.011
62	5.17	0.20	0.114	(0.337)	0.103	0.011
63	5.25	0.20	0.114	(0.335)	0.103	0.011
64	5.33	0.23	0.133	(0.334)	0.120	0.013
65	5.42	0.23	0.133	(0.332)	0.120	0.013
66	5.50	0.23	0.133	(0.331)	0.120	0.013
67	5.58	0.27	0.152	(0.329)	0.137	0.015
68	5.67	0.27	0.152	(0.328)	0.137	0.015
69	5.75	0.27	0.152	(0.326)	0.137	0.015
70	5.83	0.27	0.152	(0.325)	0.137	0.015
71	5.92	0.27	0.152	(0.324)	0.137	0.015
72	6.00	0.27	0.152	(0.322)	0.137	0.015
73	6.08	0.30	0.171	(0.321)	0.154	0.017
74	6.17	0.30	0.171	(0.319)	0.154	0.017
75	6.25	0.30	0.171	(0.318)	0.154	0.017
76	6.33	0.30	0.171	(0.316)	0.154	0.017
77	6.42	0.30	0.171	(0.315)	0.154	0.017

78	6.50	0.30	0.171	(	0.314)	0.154		0.017
79	6.58	0.33	0.191	(	0.312)	0.171		0.019
80	6.67	0.33	0.191	(	0.311)	0.171		0.019
81	6.75	0.33	0.191	(	0.309)	0.171		0.019
82	6.83	0.33	0.191	(	0.308)	0.171		0.019
83	6.92	0.33	0.191	(	0.307)	0.171		0.019
84	7.00	0.33	0.191	(	0.305)	0.171		0.019
85	7.08	0.33	0.191	(	0.304)	0.171		0.019
86	7.17	0.33	0.191	(	0.302)	0.171		0.019
87	7.25	0.33	0.191	(	0.301)	0.171		0.019
88	7.33	0.37	0.210	(	0.300)	0.189		0.021
89	7.42	0.37	0.210	(	0.298)	0.189		0.021
90	7.50	0.37	0.210	(	0.297)	0.189		0.021
91	7.58	0.40	0.229	(	0.296)	0.206		0.023
92	7.67	0.40	0.229	(	0.294)	0.206		0.023
93	7.75	0.40	0.229	(	0.293)	0.206		0.023
94	7.83	0.43	0.248	(	0.291)	0.223		0.025
95	7.92	0.43	0.248	(	0.290)	0.223		0.025
96	8.00	0.43	0.248	(	0.289)	0.223		0.025
97	8.08	0.50	0.286	(	0.287)	0.257		0.029
98	8.17	0.50	0.286	(	0.286)	0.257		0.029
99	8.25	0.50	0.286	(	0.285)	0.257		0.029
100	8.33	0.50	0.286	(	0.283)	0.257		0.029
101	8.42	0.50	0.286	(	0.282)	0.257		0.029
102	8.50	0.50	0.286	(	0.281)	0.257		0.029
103	8.58	0.53	0.305	(	0.279)	0.274		0.030
104	8.67	0.53	0.305	(	0.278)	0.274		0.030
105	8.75	0.53	0.305	(	0.277)	0.274		0.030
106	8.83	0.57	0.324		0.276	(	0.291)	0.048
107	8.92	0.57	0.324		0.274	(	0.291)	0.050
108	9.00	0.57	0.324		0.273	(	0.291)	0.051
109	9.08	0.63	0.362		0.272	(	0.326)	0.090
110	9.17	0.63	0.362		0.270	(	0.326)	0.092
111	9.25	0.63	0.362		0.269	(	0.326)	0.093
112	9.33	0.67	0.381		0.268	(	0.343)	0.113
113	9.42	0.67	0.381		0.266	(	0.343)	0.115
114	9.50	0.67	0.381		0.265	(	0.343)	0.116
115	9.58	0.70	0.400		0.264	(	0.360)	0.136
116	9.67	0.70	0.400		0.263	(	0.360)	0.137
117	9.75	0.70	0.400		0.261	(	0.360)	0.139
118	9.83	0.73	0.419		0.260	(	0.377)	0.159
119	9.92	0.73	0.419		0.259	(	0.377)	0.160
120	10.00	0.73	0.419		0.258	(	0.377)	0.161
121	10.08	0.50	0.286		0.256	(	0.257)	0.029
122	10.17	0.50	0.286		0.255	(	0.257)	0.031
123	10.25	0.50	0.286		0.254	(	0.257)	0.032
124	10.33	0.50	0.286		0.253	(	0.257)	0.033
125	10.42	0.50	0.286		0.251	(	0.257)	0.034
126	10.50	0.50	0.286		0.250	(	0.257)	0.036
127	10.58	0.67	0.381		0.249	(	0.343)	0.132
128	10.67	0.67	0.381		0.248	(	0.343)	0.133
129	10.75	0.67	0.381		0.247	(	0.343)	0.134
130	10.83	0.67	0.381		0.245	(	0.343)	0.136
131	10.92	0.67	0.381		0.244	(	0.343)	0.137
132	11.00	0.67	0.381		0.243	(	0.343)	0.138
133	11.08	0.63	0.362		0.242	(	0.326)	0.120
134	11.17	0.63	0.362		0.241	(	0.326)	0.121
135	11.25	0.63	0.362		0.239	(	0.326)	0.123
136	11.33	0.63	0.362		0.238	(	0.326)	0.124
137	11.42	0.63	0.362		0.237	(	0.326)	0.125
138	11.50	0.63	0.362		0.236	(	0.326)	0.126
139	11.58	0.57	0.324		0.235	(	0.291)	0.089
140	11.67	0.57	0.324		0.234	(	0.291)	0.090

141	11.75	0.57	0.324	0.232	(0.291)	0.091
142	11.83	0.60	0.343	0.231	(0.309)	0.112
143	11.92	0.60	0.343	0.230	(0.309)	0.113
144	12.00	0.60	0.343	0.229	(0.309)	0.114
145	12.08	0.83	0.476	0.228	(0.429)	0.248
146	12.17	0.83	0.476	0.227	(0.429)	0.250
147	12.25	0.83	0.476	0.225	(0.429)	0.251
148	12.33	0.87	0.495	0.224	(0.446)	0.271
149	12.42	0.87	0.495	0.223	(0.446)	0.272
150	12.50	0.87	0.495	0.222	(0.446)	0.273
151	12.58	0.93	0.533	0.221	(0.480)	0.312
152	12.67	0.93	0.533	0.220	(0.480)	0.314
153	12.75	0.93	0.533	0.219	(0.480)	0.315
154	12.83	0.97	0.552	0.218	(0.497)	0.335
155	12.92	0.97	0.552	0.217	(0.497)	0.336
156	13.00	0.97	0.552	0.215	(0.497)	0.337
157	13.08	1.13	0.648	0.214	(0.583)	0.433
158	13.17	1.13	0.648	0.213	(0.583)	0.434
159	13.25	1.13	0.648	0.212	(0.583)	0.435
160	13.33	1.13	0.648	0.211	(0.583)	0.437
161	13.42	1.13	0.648	0.210	(0.583)	0.438
162	13.50	1.13	0.648	0.209	(0.583)	0.439
163	13.58	0.77	0.438	0.208	(0.394)	0.230
164	13.67	0.77	0.438	0.207	(0.394)	0.231
165	13.75	0.77	0.438	0.206	(0.394)	0.232
166	13.83	0.77	0.438	0.205	(0.394)	0.233
167	13.92	0.77	0.438	0.204	(0.394)	0.234
168	14.00	0.77	0.438	0.203	(0.394)	0.235
169	14.08	0.90	0.514	0.202	(0.463)	0.313
170	14.17	0.90	0.514	0.201	(0.463)	0.314
171	14.25	0.90	0.514	0.200	(0.463)	0.315
172	14.33	0.87	0.495	0.199	(0.446)	0.297
173	14.42	0.87	0.495	0.198	(0.446)	0.298
174	14.50	0.87	0.495	0.197	(0.446)	0.299
175	14.58	0.87	0.495	0.196	(0.446)	0.300
176	14.67	0.87	0.495	0.195	(0.446)	0.301
177	14.75	0.87	0.495	0.194	(0.446)	0.302
178	14.83	0.83	0.476	0.193	(0.429)	0.284
179	14.92	0.83	0.476	0.192	(0.429)	0.285
180	15.00	0.83	0.476	0.191	(0.429)	0.286
181	15.08	0.80	0.457	0.190	(0.411)	0.268
182	15.17	0.80	0.457	0.189	(0.411)	0.269
183	15.25	0.80	0.457	0.188	(0.411)	0.270
184	15.33	0.77	0.438	0.187	(0.394)	0.251
185	15.42	0.77	0.438	0.186	(0.394)	0.252
186	15.50	0.77	0.438	0.185	(0.394)	0.253
187	15.58	0.63	0.362	0.184	(0.326)	0.178
188	15.67	0.63	0.362	0.183	(0.326)	0.179
189	15.75	0.63	0.362	0.182	(0.326)	0.180
190	15.83	0.63	0.362	0.181	(0.326)	0.181
191	15.92	0.63	0.362	0.180	(0.326)	0.182
192	16.00	0.63	0.362	0.179	(0.326)	0.183
193	16.08	0.13	0.076	(0.178)	0.069	0.008
194	16.17	0.13	0.076	(0.177)	0.069	0.008
195	16.25	0.13	0.076	(0.176)	0.069	0.008
196	16.33	0.13	0.076	(0.176)	0.069	0.008
197	16.42	0.13	0.076	(0.175)	0.069	0.008
198	16.50	0.13	0.076	(0.174)	0.069	0.008
199	16.58	0.10	0.057	(0.173)	0.051	0.006
200	16.67	0.10	0.057	(0.172)	0.051	0.006
201	16.75	0.10	0.057	(0.171)	0.051	0.006
202	16.83	0.10	0.057	(0.170)	0.051	0.006
203	16.92	0.10	0.057	(0.169)	0.051	0.006

204	17.00	0.10	0.057	(0.169)	0.051	0.006
205	17.08	0.17	0.095	(0.168)	0.086	0.010
206	17.17	0.17	0.095	(0.167)	0.086	0.010
207	17.25	0.17	0.095	(0.166)	0.086	0.010
208	17.33	0.17	0.095	(0.165)	0.086	0.010
209	17.42	0.17	0.095	(0.164)	0.086	0.010
210	17.50	0.17	0.095	(0.164)	0.086	0.010
211	17.58	0.17	0.095	(0.163)	0.086	0.010
212	17.67	0.17	0.095	(0.162)	0.086	0.010
213	17.75	0.17	0.095	(0.161)	0.086	0.010
214	17.83	0.13	0.076	(0.160)	0.069	0.008
215	17.92	0.13	0.076	(0.159)	0.069	0.008
216	18.00	0.13	0.076	(0.159)	0.069	0.008
217	18.08	0.13	0.076	(0.158)	0.069	0.008
218	18.17	0.13	0.076	(0.157)	0.069	0.008
219	18.25	0.13	0.076	(0.156)	0.069	0.008
220	18.33	0.13	0.076	(0.156)	0.069	0.008
221	18.42	0.13	0.076	(0.155)	0.069	0.008
222	18.50	0.13	0.076	(0.154)	0.069	0.008
223	18.58	0.10	0.057	(0.153)	0.051	0.006
224	18.67	0.10	0.057	(0.153)	0.051	0.006
225	18.75	0.10	0.057	(0.152)	0.051	0.006
226	18.83	0.07	0.038	(0.151)	0.034	0.004
227	18.92	0.07	0.038	(0.150)	0.034	0.004
228	19.00	0.07	0.038	(0.150)	0.034	0.004
229	19.08	0.10	0.057	(0.149)	0.051	0.006
230	19.17	0.10	0.057	(0.148)	0.051	0.006
231	19.25	0.10	0.057	(0.148)	0.051	0.006
232	19.33	0.13	0.076	(0.147)	0.069	0.008
233	19.42	0.13	0.076	(0.146)	0.069	0.008
234	19.50	0.13	0.076	(0.146)	0.069	0.008
235	19.58	0.10	0.057	(0.145)	0.051	0.006
236	19.67	0.10	0.057	(0.144)	0.051	0.006
237	19.75	0.10	0.057	(0.144)	0.051	0.006
238	19.83	0.07	0.038	(0.143)	0.034	0.004
239	19.92	0.07	0.038	(0.142)	0.034	0.004
240	20.00	0.07	0.038	(0.142)	0.034	0.004
241	20.08	0.10	0.057	(0.141)	0.051	0.006
242	20.17	0.10	0.057	(0.140)	0.051	0.006
243	20.25	0.10	0.057	(0.140)	0.051	0.006
244	20.33	0.10	0.057	(0.139)	0.051	0.006
245	20.42	0.10	0.057	(0.139)	0.051	0.006
246	20.50	0.10	0.057	(0.138)	0.051	0.006
247	20.58	0.10	0.057	(0.137)	0.051	0.006
248	20.67	0.10	0.057	(0.137)	0.051	0.006
249	20.75	0.10	0.057	(0.136)	0.051	0.006
250	20.83	0.07	0.038	(0.136)	0.034	0.004
251	20.92	0.07	0.038	(0.135)	0.034	0.004
252	21.00	0.07	0.038	(0.135)	0.034	0.004
253	21.08	0.10	0.057	(0.134)	0.051	0.006
254	21.17	0.10	0.057	(0.134)	0.051	0.006
255	21.25	0.10	0.057	(0.133)	0.051	0.006
256	21.33	0.07	0.038	(0.133)	0.034	0.004
257	21.42	0.07	0.038	(0.132)	0.034	0.004
258	21.50	0.07	0.038	(0.132)	0.034	0.004
259	21.58	0.10	0.057	(0.131)	0.051	0.006
260	21.67	0.10	0.057	(0.131)	0.051	0.006
261	21.75	0.10	0.057	(0.130)	0.051	0.006
262	21.83	0.07	0.038	(0.130)	0.034	0.004
263	21.92	0.07	0.038	(0.129)	0.034	0.004
264	22.00	0.07	0.038	(0.129)	0.034	0.004
265	22.08	0.10	0.057	(0.128)	0.051	0.006
266	22.17	0.10	0.057	(0.128)	0.051	0.006

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267  22.25     0.10      0.057       (  0.128)       0.051        0.006
268  22.33     0.07      0.038       (  0.127)       0.034        0.004
269  22.42     0.07      0.038       (  0.127)       0.034        0.004
270  22.50     0.07      0.038       (  0.126)       0.034        0.004
271  22.58     0.07      0.038       (  0.126)       0.034        0.004
272  22.67     0.07      0.038       (  0.126)       0.034        0.004
273  22.75     0.07      0.038       (  0.125)       0.034        0.004
274  22.83     0.07      0.038       (  0.125)       0.034        0.004
275  22.92     0.07      0.038       (  0.125)       0.034        0.004
276  23.00     0.07      0.038       (  0.124)       0.034        0.004
277  23.08     0.07      0.038       (  0.124)       0.034        0.004
278  23.17     0.07      0.038       (  0.124)       0.034        0.004
279  23.25     0.07      0.038       (  0.124)       0.034        0.004
280  23.33     0.07      0.038       (  0.123)       0.034        0.004
281  23.42     0.07      0.038       (  0.123)       0.034        0.004
282  23.50     0.07      0.038       (  0.123)       0.034        0.004
283  23.58     0.07      0.038       (  0.123)       0.034        0.004
284  23.67     0.07      0.038       (  0.122)       0.034        0.004
285  23.75     0.07      0.038       (  0.122)       0.034        0.004
286  23.83     0.07      0.038       (  0.122)       0.034        0.004
287  23.92     0.07      0.038       (  0.122)       0.034        0.004
288  24.00     0.07      0.038       (  0.122)       0.034        0.004
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    19.8
     Flood volume = Effective rainfall      1.65(In)
      times area      24.4(Ac.)/[(In)/(Ft.)] =       3.3(Ac.Ft)
     Total soil loss =      3.12(In)
     Total soil loss =     6.328(Ac.Ft)
     Total rainfall =      4.76(In)
     Flood volume =      145660.5 Cubic Feet
     Total soil loss =      275646.6 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =     10.576(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
 ---------------------------------------------------------------------
   0+ 5       0.0001      0.01  Q         |         |         |         |
   0+10       0.0004      0.05  Q         |         |         |         |
   0+15       0.0009      0.07  Q         |         |         |         |
   0+20       0.0015      0.09  Q         |         |         |         |
   0+25       0.0023      0.11  Q         |         |         |         |
   0+30       0.0032      0.12  Q         |         |         |         |
   0+35       0.0041      0.13  Q         |         |         |         |
   0+40       0.0050      0.13  Q         |         |         |         |
   0+45       0.0059      0.14  Q         |         |         |         |
   0+50       0.0069      0.14  Q         |         |         |         |
   0+55       0.0080      0.17  Q         |         |         |         |
   1+ 0       0.0093      0.18  Q         |         |         |         |
   1+ 5       0.0105      0.17  Q         |         |         |         |
   1+10       0.0115      0.16  Q         |         |         |         |
   1+15       0.0126      0.15  Q         |         |         |         |
   1+20       0.0136      0.15  Q         |         |         |         |
   1+25       0.0145      0.14  Q         |         |         |         |
   1+30       0.0155      0.14  Q         |         |         |         |
   1+35       0.0165      0.14  Q         |         |         |         |
   1+40       0.0175      0.14  Q         |         |         |         |
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1+45	0.0185	0.14	Q				
1+50	0.0195	0.15	Q				
1+55	0.0206	0.17	Q				
2+ 0	0.0218	0.18	Q				
2+ 5	0.0231	0.18	Q				
2+10	0.0243	0.18	Q				
2+15	0.0256	0.18	Q				
2+20	0.0269	0.19	Q				
2+25	0.0282	0.19	Q				
2+30	0.0294	0.19	Q				
2+35	0.0308	0.19	Q				
2+40	0.0322	0.21	Q				
2+45	0.0338	0.22	Q				
2+50	0.0353	0.23	Q				
2+55	0.0369	0.23	Q				
3+ 0	0.0385	0.23	Q				
3+ 5	0.0401	0.23	Q				
3+10	0.0417	0.23	Q				
3+15	0.0433	0.23	Q				
3+20	0.0449	0.23	Q				
3+25	0.0466	0.23	Q				
3+30	0.0482	0.23	Q				
3+35	0.0498	0.23	Q				
3+40	0.0514	0.23	Q				
3+45	0.0530	0.23	Q				
3+50	0.0547	0.24	Q				
3+55	0.0564	0.26	Q				
4+ 0	0.0583	0.27	Q				
4+ 5	0.0602	0.27	Q				
4+10	0.0621	0.28	Q				
4+15	0.0640	0.28	Q				
4+20	0.0660	0.28	Q				
4+25	0.0681	0.31	Q				
4+30	0.0703	0.32	Q				
4+35	0.0725	0.32	Q				
4+40	0.0747	0.32	Q				
4+45	0.0769	0.32	Q				
4+50	0.0792	0.33	Q				
4+55	0.0817	0.35	Q				
5+ 0	0.0842	0.36	QV				
5+ 5	0.0866	0.36	QV				
5+10	0.0888	0.32	QV				
5+15	0.0908	0.30	QV				
5+20	0.0929	0.30	QV				
5+25	0.0951	0.32	QV				
5+30	0.0973	0.32	QV				
5+35	0.0996	0.33	QV				
5+40	0.1020	0.35	QV				
5+45	0.1045	0.36	QV				
5+50	0.1070	0.37	QV				
5+55	0.1095	0.37	QV				
6+ 0	0.1121	0.37	QV				
6+ 5	0.1147	0.38	QV				
6+10	0.1175	0.40	QV				
6+15	0.1203	0.41	QV				
6+20	0.1231	0.41	QV				
6+25	0.1260	0.42	QV				
6+30	0.1289	0.42	QV				
6+35	0.1318	0.43	QV				
6+40	0.1349	0.45	QV				
6+45	0.1380	0.46	QV				
6+50	0.1412	0.46	QV				
6+55	0.1444	0.46	QV				

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 7+ 0       0.1476      0.47  QV        |         |         |         |
 7+ 5       0.1508      0.47  QV        |         |         |         |
 7+10       0.1540      0.47  QV        |         |         |         |
 7+15       0.1573      0.47  QV        |         |         |         |
 7+20       0.1605      0.47  QV        |         |         |         |
 7+25       0.1639      0.49  QV        |         |         |         |
 7+30       0.1674      0.50  |QV        |         |         |         |
 7+35       0.1709      0.51  |QV        |         |         |         |
 7+40       0.1746      0.54  |QV        |         |         |         |
 7+45       0.1784      0.55  |QV        |         |         |         |
 7+50       0.1823      0.56  |QV        |         |         |         |
 7+55       0.1863      0.58  |QV        |         |         |         |
 8+ 0       0.1904      0.59  |QV        |         |         |         |
 8+ 5       0.1946      0.61  |QV        |         |         |         |
 8+10       0.1991      0.66  |QV        |         |         |         |
 8+15       0.2038      0.68  |QV        |         |         |         |
 8+20       0.2085      0.69  |QV        |         |         |         |
 8+25       0.2133      0.69  |QV        |         |         |         |
 8+30       0.2181      0.70  |QV        |         |         |         |
 8+35       0.2229      0.70  |QV        |         |         |         |
 8+40       0.2279      0.73  |QV        |         |         |         |
 8+45       0.2330      0.74  |QV        |         |         |         |
 8+50       0.2385      0.80  |QV        |         |         |         |
 8+55       0.2453      1.00  |QV        |         |         |         |
 9+ 0       0.2530      1.11  | QV       |         |         |         |
 9+ 5       0.2618      1.29  | QV       |         |         |         |
 9+10       0.2739      1.75  |  Q       |         |         |         |
 9+15       0.2876      1.98  |  Q       |         |         |         |
 9+20       0.3024      2.16  |  VQ      |         |         |         |
 9+25       0.3193      2.45  |  VQ      |         |         |         |
 9+30       0.3373      2.61  |   VQ     |         |         |         |
 9+35       0.3564      2.77  |   VQ     |         |         |         |
 9+40       0.3774      3.05  |   V Q    |         |         |         |
 9+45       0.3994      3.20  |   V Q    |         |         |         |
 9+50       0.4224      3.35  |    VQ    |         |         |         |
 9+55       0.4473      3.62  |    V Q   |         |         |         |
10+ 0       0.4733      3.76  |    V Q   |         |         |         |
10+ 5       0.4969      3.43  |    VQ    |         |         |         |
10+10       0.5110      2.06  |   Q V    |         |         |         |
10+15       0.5209      1.44  | Q   V    |         |         |         |
10+20       0.5293      1.21  | Q   V    |         |         |         |
10+25       0.5367      1.08  | Q   V    |         |         |         |
10+30       0.5437      1.01  | Q   V    |         |         |         |
10+35       0.5525      1.27  | Q   V    |         |         |         |
10+40       0.5682      2.28  |   Q V    |         |         |         |
10+45       0.5872      2.75  |    Q V   |         |         |         |
10+50       0.6075      2.95  |    Q V   |         |         |         |
10+55       0.6287      3.08  |     QV   |         |         |         |
11+ 0       0.6507      3.19  |     QV   |         |         |         |
11+ 5       0.6728      3.21  |     Q V  |         |         |         |
11+10       0.6939      3.07  |     Q V  |         |         |         |
11+15       0.7148      3.03  |     Q V  |         |         |         |
11+20       0.7357      3.04  |     Q V  |         |         |         |
11+25       0.7568      3.06  |     Q  V|         |         |         |
11+30       0.7780      3.07  |     Q  V|         |         |         |
11+35       0.7984      2.97  |    Q   V|         |         |         |
11+40       0.8162      2.58  |    Q   V|         |         |         |
11+45       0.8328      2.41  |   Q    V|         |         |         |
11+50       0.8495      2.42  |   Q     V         |         |         |
11+55       0.8674      2.60  |    Q    V         |         |         |
12+ 0       0.8860      2.70  |    Q    V         |         |         |
12+ 5       0.9078      3.17  |     Q   V         |         |         |
12+10       0.9398      4.64  |        Q|V        |         |         |
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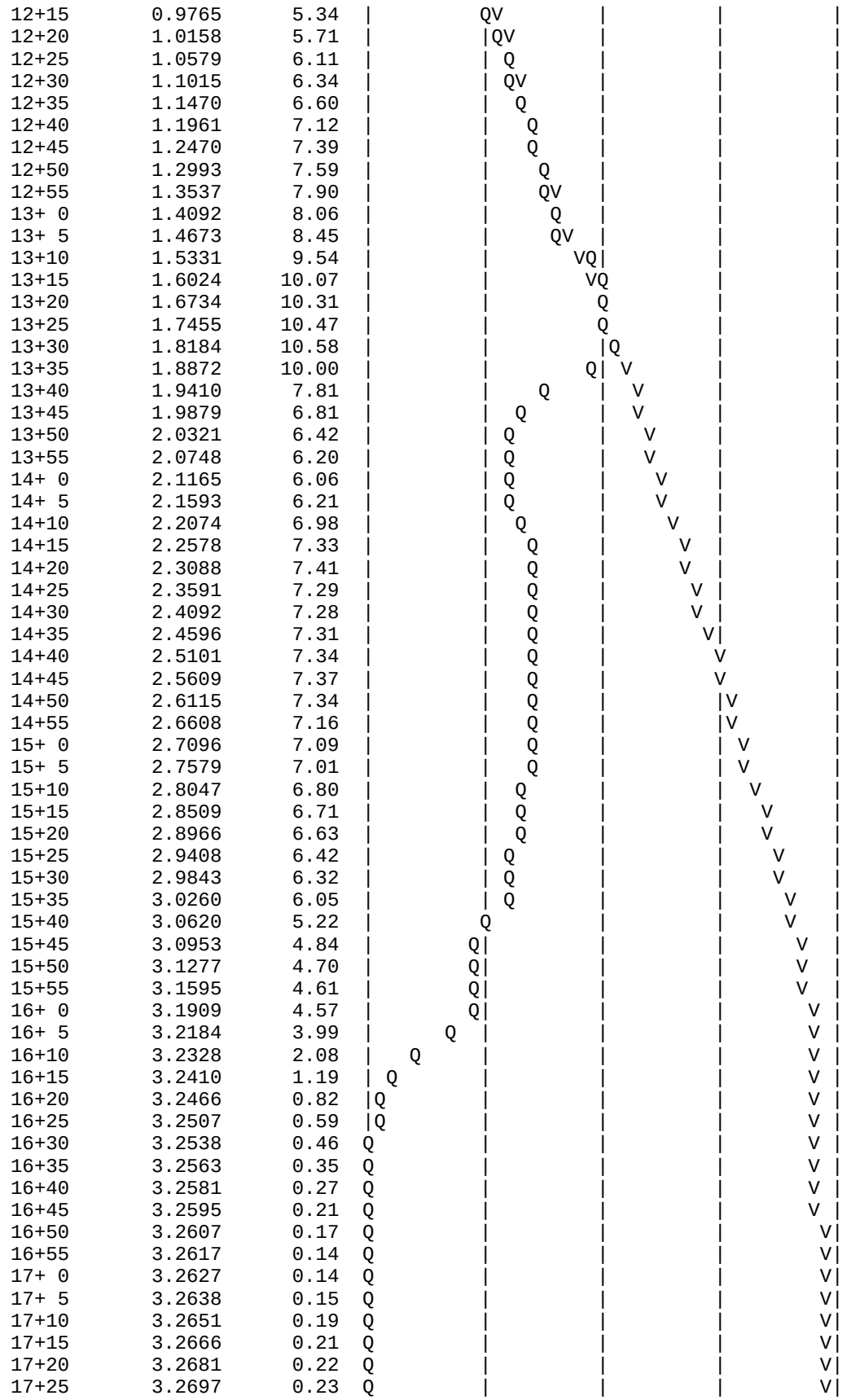

17+30	3.2712	0.23	Q	|	|	|	V|
17+35	3.2728	0.23	Q	|	|	|	V|
17+40	3.2744	0.23	Q	|	|	|	V|
17+45	3.2760	0.23	Q	|	|	|	V|
17+50	3.2776	0.23	Q	|	|	|	V|
17+55	3.2790	0.21	Q	|	|	|	V|
18+ 0	3.2804	0.20	Q	|	|	|	V|
18+ 5	3.2817	0.19	Q	|	|	|	V|
18+10	3.2830	0.19	Q	|	|	|	V|
18+15	3.2843	0.19	Q	|	|	|	V|
18+20	3.2856	0.19	Q	|	|	|	V|
18+25	3.2869	0.19	Q	|	|	|	V|
18+30	3.2882	0.19	Q	|	|	|	V|
18+35	3.2895	0.18	Q	|	|	|	V|
18+40	3.2906	0.16	Q	|	|	|	V|
18+45	3.2916	0.15	Q	|	|	|	V|
18+50	3.2926	0.14	Q	|	|	|	V|
18+55	3.2934	0.12	Q	|	|	|	V|
19+ 0	3.2942	0.11	Q	|	|	|	V|
19+ 5	3.2949	0.11	Q	|	|	|	V|
19+10	3.2958	0.13	Q	|	|	|	V|
19+15	3.2967	0.13	Q	|	|	|	V|
19+20	3.2977	0.14	Q	|	|	|	V|
19+25	3.2988	0.16	Q	|	|	|	V|
19+30	3.3000	0.17	Q	|	|	|	V|
19+35	3.3012	0.17	Q	|	|	|	V|
19+40	3.3022	0.16	Q	|	|	|	V|
19+45	3.3033	0.15	Q	|	|	|	V|
19+50	3.3042	0.14	Q	|	|	|	V|
19+55	3.3050	0.12	Q	|	|	|	V|
20+ 0	3.3058	0.11	Q	|	|	|	V|
20+ 5	3.3065	0.11	Q	|	|	|	V|
20+10	3.3074	0.13	Q	|	|	|	V|
20+15	3.3083	0.13	Q	|	|	|	V|
20+20	3.3092	0.14	Q	|	|	|	V|
20+25	3.3102	0.14	Q	|	|	|	V|
20+30	3.3111	0.14	Q	|	|	|	V|
20+35	3.3121	0.14	Q	|	|	|	V|
20+40	3.3130	0.14	Q	|	|	|	V|
20+45	3.3140	0.14	Q	|	|	|	V|
20+50	3.3149	0.13	Q	|	|	|	V|
20+55	3.3157	0.11	Q	|	|	|	V|
21+ 0	3.3164	0.10	Q	|	|	|	V|
21+ 5	3.3172	0.11	Q	|	|	|	V|
21+10	3.3180	0.12	Q	|	|	|	V|
21+15	3.3189	0.13	Q	|	|	|	V|
21+20	3.3198	0.13	Q	|	|	|	V|
21+25	3.3206	0.11	Q	|	|	|	V|
21+30	3.3213	0.10	Q	|	|	|	V|
21+35	3.3220	0.10	Q	|	|	|	V|
21+40	3.3229	0.12	Q	|	|	|	V|
21+45	3.3238	0.13	Q	|	|	|	V|
21+50	3.3247	0.13	Q	|	|	|	V|
21+55	3.3254	0.11	Q	|	|	|	V|
22+ 0	3.3261	0.10	Q	|	|	|	V|
22+ 5	3.3268	0.10	Q	|	|	|	V|
22+10	3.3277	0.12	Q	|	|	|	V|
22+15	3.3286	0.13	Q	|	|	|	V|
22+20	3.3295	0.13	Q	|	|	|	V|
22+25	3.3303	0.11	Q	|	|	|	V|
22+30	3.3310	0.10	Q	|	|	|	V|
22+35	3.3316	0.10	Q	|	|	|	V|
22+40	3.3323	0.10	Q	|	|	|	V|

22+45	3.3330	0.10	Q	|	|	|	V|
22+50	3.3336	0.10	Q	|	|	|	V|
22+55	3.3343	0.09	Q	|	|	|	V|
23+ 0	3.3349	0.09	Q	|	|	|	V|
23+ 5	3.3356	0.09	Q	|	|	|	V|
23+10	3.3362	0.09	Q	|	|	|	V|
23+15	3.3369	0.09	Q	|	|	|	V|
23+20	3.3375	0.09	Q	|	|	|	V|
23+25	3.3382	0.09	Q	|	|	|	V|
23+30	3.3388	0.09	Q	|	|	|	V|
23+35	3.3394	0.09	Q	|	|	|	V|
23+40	3.3401	0.09	Q	|	|	|	V|
23+45	3.3407	0.09	Q	|	|	|	V|
23+50	3.3414	0.09	Q	|	|	|	V|
23+55	3.3420	0.09	Q	|	|	|	V|
24+ 0	3.3427	0.09	Q	|	|	|	V|
24+ 5	3.3432	0.08	Q	|	|	|	V|
24+10	3.3435	0.04	Q	|	|	|	V|
24+15	3.3437	0.02	Q	|	|	|	V|
24+20	3.3437	0.01	Q	|	|	|	V|
24+25	3.3438	0.01	Q	|	|	|	V|
24+30	3.3439	0.01	Q	|	|	|	V|
24+35	3.3439	0.00	Q	|	|	|	V|
24+40	3.3439	0.00	Q	|	|	|	V|
24+45	3.3439	0.00	Q	|	|	|	V|
24+50	3.3439	0.00	Q	|	|	|	V|

APPENDIX G.3: AREA “B” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 5–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/14/15 File: BEX245.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - EXISTING CONDITION
5YR-24HR
FN: BEX245

Drainage Area = 24.37(Ac.) = 0.038 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 24.37(Ac.) = 0.038 Sq. Mi.
Length along longest watercourse = 1802.00(Ft.)
Length along longest watercourse measured to centroid = 1103.00(Ft.)
Length along longest watercourse = 0.341 Mi.
Length along longest watercourse measured to centroid = 0.209 Mi.
Difference in elevation = 92.00(Ft.)
Slope along watercourse = 269.5671 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.106 Hr.
Lag time = 6.38 Min.
25% of lag time = 1.59 Min.
40% of lag time = 2.55 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	2.50	60.93

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	8.00	194.96

STORM EVENT (YEAR) = 5.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 3.788(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 3.788(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
24.370	80.00	0.000

Total Area Entered = 24.37(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.0	63.0	0.438	0.000	0.438	1.000	0.438
					Sum (F) =	0.438

Area averaged mean soil loss (F) (In/Hr) = 0.438
Minimum soil loss rate ((In/Hr)) = 0.219
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	78.379	12.851	3.156
2	0.167	156.759	43.841	10.767
3	0.250	235.138	20.412	5.013
4	0.333	313.518	8.354	2.052
5	0.417	391.897	5.025	1.234
6	0.500	470.277	3.201	0.786
7	0.583	548.656	2.279	0.560
8	0.667	627.036	1.599	0.393
9	0.750	705.415	1.086	0.267
10	0.833	783.795	0.797	0.196
11	0.917	862.174	0.554	0.136
		Sum = 100.000	Sum=	24.560

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.030	(0.776)	0.027	0.003
2	0.17	0.07	0.030	(0.773)	0.027	0.003
3	0.25	0.07	0.030	(0.770)	0.027	0.003
4	0.33	0.10	0.045	(0.767)	0.041	0.005
5	0.42	0.10	0.045	(0.764)	0.041	0.005
6	0.50	0.10	0.045	(0.761)	0.041	0.005
7	0.58	0.10	0.045	(0.758)	0.041	0.005
8	0.67	0.10	0.045	(0.755)	0.041	0.005
9	0.75	0.10	0.045	(0.752)	0.041	0.005
10	0.83	0.13	0.061	(0.749)	0.055	0.006
11	0.92	0.13	0.061	(0.746)	0.055	0.006
12	1.00	0.13	0.061	(0.743)	0.055	0.006
13	1.08	0.10	0.045	(0.740)	0.041	0.005
14	1.17	0.10	0.045	(0.737)	0.041	0.005

15	1.25	0.10	0.045	(0.734)	0.041	0.005
16	1.33	0.10	0.045	(0.731)	0.041	0.005
17	1.42	0.10	0.045	(0.728)	0.041	0.005
18	1.50	0.10	0.045	(0.726)	0.041	0.005
19	1.58	0.10	0.045	(0.723)	0.041	0.005
20	1.67	0.10	0.045	(0.720)	0.041	0.005
21	1.75	0.10	0.045	(0.717)	0.041	0.005
22	1.83	0.13	0.061	(0.714)	0.055	0.006
23	1.92	0.13	0.061	(0.711)	0.055	0.006
24	2.00	0.13	0.061	(0.708)	0.055	0.006
25	2.08	0.13	0.061	(0.705)	0.055	0.006
26	2.17	0.13	0.061	(0.702)	0.055	0.006
27	2.25	0.13	0.061	(0.700)	0.055	0.006
28	2.33	0.13	0.061	(0.697)	0.055	0.006
29	2.42	0.13	0.061	(0.694)	0.055	0.006
30	2.50	0.13	0.061	(0.691)	0.055	0.006
31	2.58	0.17	0.076	(0.688)	0.068	0.008
32	2.67	0.17	0.076	(0.685)	0.068	0.008
33	2.75	0.17	0.076	(0.683)	0.068	0.008
34	2.83	0.17	0.076	(0.680)	0.068	0.008
35	2.92	0.17	0.076	(0.677)	0.068	0.008
36	3.00	0.17	0.076	(0.674)	0.068	0.008
37	3.08	0.17	0.076	(0.671)	0.068	0.008
38	3.17	0.17	0.076	(0.669)	0.068	0.008
39	3.25	0.17	0.076	(0.666)	0.068	0.008
40	3.33	0.17	0.076	(0.663)	0.068	0.008
41	3.42	0.17	0.076	(0.660)	0.068	0.008
42	3.50	0.17	0.076	(0.658)	0.068	0.008
43	3.58	0.17	0.076	(0.655)	0.068	0.008
44	3.67	0.17	0.076	(0.652)	0.068	0.008
45	3.75	0.17	0.076	(0.649)	0.068	0.008
46	3.83	0.20	0.091	(0.647)	0.082	0.009
47	3.92	0.20	0.091	(0.644)	0.082	0.009
48	4.00	0.20	0.091	(0.641)	0.082	0.009
49	4.08	0.20	0.091	(0.638)	0.082	0.009
50	4.17	0.20	0.091	(0.636)	0.082	0.009
51	4.25	0.20	0.091	(0.633)	0.082	0.009
52	4.33	0.23	0.106	(0.630)	0.095	0.011
53	4.42	0.23	0.106	(0.628)	0.095	0.011
54	4.50	0.23	0.106	(0.625)	0.095	0.011
55	4.58	0.23	0.106	(0.622)	0.095	0.011
56	4.67	0.23	0.106	(0.620)	0.095	0.011
57	4.75	0.23	0.106	(0.617)	0.095	0.011
58	4.83	0.27	0.121	(0.614)	0.109	0.012
59	4.92	0.27	0.121	(0.612)	0.109	0.012
60	5.00	0.27	0.121	(0.609)	0.109	0.012
61	5.08	0.20	0.091	(0.606)	0.082	0.009
62	5.17	0.20	0.091	(0.604)	0.082	0.009
63	5.25	0.20	0.091	(0.601)	0.082	0.009
64	5.33	0.23	0.106	(0.598)	0.095	0.011
65	5.42	0.23	0.106	(0.596)	0.095	0.011
66	5.50	0.23	0.106	(0.593)	0.095	0.011
67	5.58	0.27	0.121	(0.591)	0.109	0.012
68	5.67	0.27	0.121	(0.588)	0.109	0.012
69	5.75	0.27	0.121	(0.585)	0.109	0.012
70	5.83	0.27	0.121	(0.583)	0.109	0.012
71	5.92	0.27	0.121	(0.580)	0.109	0.012
72	6.00	0.27	0.121	(0.578)	0.109	0.012
73	6.08	0.30	0.136	(0.575)	0.123	0.014
74	6.17	0.30	0.136	(0.572)	0.123	0.014
75	6.25	0.30	0.136	(0.570)	0.123	0.014
76	6.33	0.30	0.136	(0.567)	0.123	0.014
77	6.42	0.30	0.136	(0.565)	0.123	0.014

78	6.50	0.30	0.136	(0.562)	0.123	0.014
79	6.58	0.33	0.152	(0.560)	0.136	0.015
80	6.67	0.33	0.152	(0.557)	0.136	0.015
81	6.75	0.33	0.152	(0.555)	0.136	0.015
82	6.83	0.33	0.152	(0.552)	0.136	0.015
83	6.92	0.33	0.152	(0.550)	0.136	0.015
84	7.00	0.33	0.152	(0.547)	0.136	0.015
85	7.08	0.33	0.152	(0.545)	0.136	0.015
86	7.17	0.33	0.152	(0.542)	0.136	0.015
87	7.25	0.33	0.152	(0.540)	0.136	0.015
88	7.33	0.37	0.167	(0.537)	0.150	0.017
89	7.42	0.37	0.167	(0.535)	0.150	0.017
90	7.50	0.37	0.167	(0.532)	0.150	0.017
91	7.58	0.40	0.182	(0.530)	0.164	0.018
92	7.67	0.40	0.182	(0.528)	0.164	0.018
93	7.75	0.40	0.182	(0.525)	0.164	0.018
94	7.83	0.43	0.197	(0.523)	0.177	0.020
95	7.92	0.43	0.197	(0.520)	0.177	0.020
96	8.00	0.43	0.197	(0.518)	0.177	0.020
97	8.08	0.50	0.227	(0.515)	0.205	0.023
98	8.17	0.50	0.227	(0.513)	0.205	0.023
99	8.25	0.50	0.227	(0.511)	0.205	0.023
100	8.33	0.50	0.227	(0.508)	0.205	0.023
101	8.42	0.50	0.227	(0.506)	0.205	0.023
102	8.50	0.50	0.227	(0.504)	0.205	0.023
103	8.58	0.53	0.242	(0.501)	0.218	0.024
104	8.67	0.53	0.242	(0.499)	0.218	0.024
105	8.75	0.53	0.242	(0.496)	0.218	0.024
106	8.83	0.57	0.258	(0.494)	0.232	0.026
107	8.92	0.57	0.258	(0.492)	0.232	0.026
108	9.00	0.57	0.258	(0.489)	0.232	0.026
109	9.08	0.63	0.288	(0.487)	0.259	0.029
110	9.17	0.63	0.288	(0.485)	0.259	0.029
111	9.25	0.63	0.288	(0.483)	0.259	0.029
112	9.33	0.67	0.303	(0.480)	0.273	0.030
113	9.42	0.67	0.303	(0.478)	0.273	0.030
114	9.50	0.67	0.303	(0.476)	0.273	0.030
115	9.58	0.70	0.318	(0.473)	0.286	0.032
116	9.67	0.70	0.318	(0.471)	0.286	0.032
117	9.75	0.70	0.318	(0.469)	0.286	0.032
118	9.83	0.73	0.333	(0.467)	0.300	0.033
119	9.92	0.73	0.333	(0.464)	0.300	0.033
120	10.00	0.73	0.333	(0.462)	0.300	0.033
121	10.08	0.50	0.227	(0.460)	0.205	0.023
122	10.17	0.50	0.227	(0.458)	0.205	0.023
123	10.25	0.50	0.227	(0.455)	0.205	0.023
124	10.33	0.50	0.227	(0.453)	0.205	0.023
125	10.42	0.50	0.227	(0.451)	0.205	0.023
126	10.50	0.50	0.227	(0.449)	0.205	0.023
127	10.58	0.67	0.303	(0.447)	0.273	0.030
128	10.67	0.67	0.303	(0.444)	0.273	0.030
129	10.75	0.67	0.303	(0.442)	0.273	0.030
130	10.83	0.67	0.303	(0.440)	0.273	0.030
131	10.92	0.67	0.303	(0.438)	0.273	0.030
132	11.00	0.67	0.303	(0.436)	0.273	0.030
133	11.08	0.63	0.288	(0.434)	0.259	0.029
134	11.17	0.63	0.288	(0.431)	0.259	0.029
135	11.25	0.63	0.288	(0.429)	0.259	0.029
136	11.33	0.63	0.288	(0.427)	0.259	0.029
137	11.42	0.63	0.288	(0.425)	0.259	0.029
138	11.50	0.63	0.288	(0.423)	0.259	0.029
139	11.58	0.57	0.258	(0.421)	0.232	0.026
140	11.67	0.57	0.258	(0.419)	0.232	0.026

141	11.75	0.57	0.258	(	0.417)		0.232		0.026
142	11.83	0.60	0.273	(	0.415)		0.245		0.027
143	11.92	0.60	0.273	(	0.413)		0.245		0.027
144	12.00	0.60	0.273	(	0.411)		0.245		0.027
145	12.08	0.83	0.379	(	0.408)		0.341		0.038
146	12.17	0.83	0.379	(	0.406)		0.341		0.038
147	12.25	0.83	0.379	(	0.404)		0.341		0.038
148	12.33	0.87	0.394	(	0.402)		0.355		0.039
149	12.42	0.87	0.394	(	0.400)		0.355		0.039
150	12.50	0.87	0.394	(	0.398)		0.355		0.039
151	12.58	0.93	0.424	(	0.396)		0.382		0.042
152	12.67	0.93	0.424	(	0.394)		0.382		0.042
153	12.75	0.93	0.424	(	0.392)		0.382		0.042
154	12.83	0.97	0.439		0.390	(	0.395)		0.049
155	12.92	0.97	0.439		0.388	(	0.395)		0.051
156	13.00	0.97	0.439		0.386	(	0.395)		0.053
157	13.08	1.13	0.515		0.384	(	0.464)		0.131
158	13.17	1.13	0.515		0.383	(	0.464)		0.133
159	13.25	1.13	0.515		0.381	(	0.464)		0.135
160	13.33	1.13	0.515		0.379	(	0.464)		0.137
161	13.42	1.13	0.515		0.377	(	0.464)		0.138
162	13.50	1.13	0.515		0.375	(	0.464)		0.140
163	13.58	0.77	0.349	(	0.373)		0.314		0.035
164	13.67	0.77	0.349	(	0.371)		0.314		0.035
165	13.75	0.77	0.349	(	0.369)		0.314		0.035
166	13.83	0.77	0.349	(	0.367)		0.314		0.035
167	13.92	0.77	0.349	(	0.365)		0.314		0.035
168	14.00	0.77	0.349	(	0.363)		0.314		0.035
169	14.08	0.90	0.409		0.362	(	0.368)		0.047
170	14.17	0.90	0.409		0.360	(	0.368)		0.049
171	14.25	0.90	0.409		0.358	(	0.368)		0.051
172	14.33	0.87	0.394	(	0.356)		0.355		0.039
173	14.42	0.87	0.394		0.354	(	0.355)		0.040
174	14.50	0.87	0.394		0.352	(	0.355)		0.041
175	14.58	0.87	0.394		0.351	(	0.355)		0.043
176	14.67	0.87	0.394		0.349	(	0.355)		0.045
177	14.75	0.87	0.394		0.347	(	0.355)		0.047
178	14.83	0.83	0.379	(	0.345)		0.341		0.038
179	14.92	0.83	0.379	(	0.344)		0.341		0.038
180	15.00	0.83	0.379	(	0.342)		0.341		0.038
181	15.08	0.80	0.364	(	0.340)		0.327		0.036
182	15.17	0.80	0.364	(	0.338)		0.327		0.036
183	15.25	0.80	0.364	(	0.337)		0.327		0.036
184	15.33	0.77	0.349	(	0.335)		0.314		0.035
185	15.42	0.77	0.349	(	0.333)		0.314		0.035
186	15.50	0.77	0.349	(	0.331)		0.314		0.035
187	15.58	0.63	0.288	(	0.330)		0.259		0.029
188	15.67	0.63	0.288	(	0.328)		0.259		0.029
189	15.75	0.63	0.288	(	0.326)		0.259		0.029
190	15.83	0.63	0.288	(	0.325)		0.259		0.029
191	15.92	0.63	0.288	(	0.323)		0.259		0.029
192	16.00	0.63	0.288	(	0.321)		0.259		0.029
193	16.08	0.13	0.061	(	0.320)		0.055		0.006
194	16.17	0.13	0.061	(	0.318)		0.055		0.006
195	16.25	0.13	0.061	(	0.316)		0.055		0.006
196	16.33	0.13	0.061	(	0.315)		0.055		0.006
197	16.42	0.13	0.061	(	0.313)		0.055		0.006
198	16.50	0.13	0.061	(	0.312)		0.055		0.006
199	16.58	0.10	0.045	(	0.310)		0.041		0.005
200	16.67	0.10	0.045	(	0.308)		0.041		0.005
201	16.75	0.10	0.045	(	0.307)		0.041		0.005
202	16.83	0.10	0.045	(	0.305)		0.041		0.005
203	16.92	0.10	0.045	(	0.304)		0.041		0.005

204	17.00	0.10	0.045	(0.302)	0.041	0.005
205	17.08	0.17	0.076	(0.301)	0.068	0.008
206	17.17	0.17	0.076	(0.299)	0.068	0.008
207	17.25	0.17	0.076	(0.298)	0.068	0.008
208	17.33	0.17	0.076	(0.296)	0.068	0.008
209	17.42	0.17	0.076	(0.295)	0.068	0.008
210	17.50	0.17	0.076	(0.293)	0.068	0.008
211	17.58	0.17	0.076	(0.292)	0.068	0.008
212	17.67	0.17	0.076	(0.290)	0.068	0.008
213	17.75	0.17	0.076	(0.289)	0.068	0.008
214	17.83	0.13	0.061	(0.287)	0.055	0.006
215	17.92	0.13	0.061	(0.286)	0.055	0.006
216	18.00	0.13	0.061	(0.285)	0.055	0.006
217	18.08	0.13	0.061	(0.283)	0.055	0.006
218	18.17	0.13	0.061	(0.282)	0.055	0.006
219	18.25	0.13	0.061	(0.280)	0.055	0.006
220	18.33	0.13	0.061	(0.279)	0.055	0.006
221	18.42	0.13	0.061	(0.278)	0.055	0.006
222	18.50	0.13	0.061	(0.276)	0.055	0.006
223	18.58	0.10	0.045	(0.275)	0.041	0.005
224	18.67	0.10	0.045	(0.274)	0.041	0.005
225	18.75	0.10	0.045	(0.272)	0.041	0.005
226	18.83	0.07	0.030	(0.271)	0.027	0.003
227	18.92	0.07	0.030	(0.270)	0.027	0.003
228	19.00	0.07	0.030	(0.269)	0.027	0.003
229	19.08	0.10	0.045	(0.267)	0.041	0.005
230	19.17	0.10	0.045	(0.266)	0.041	0.005
231	19.25	0.10	0.045	(0.265)	0.041	0.005
232	19.33	0.13	0.061	(0.264)	0.055	0.006
233	19.42	0.13	0.061	(0.262)	0.055	0.006
234	19.50	0.13	0.061	(0.261)	0.055	0.006
235	19.58	0.10	0.045	(0.260)	0.041	0.005
236	19.67	0.10	0.045	(0.259)	0.041	0.005
237	19.75	0.10	0.045	(0.258)	0.041	0.005
238	19.83	0.07	0.030	(0.256)	0.027	0.003
239	19.92	0.07	0.030	(0.255)	0.027	0.003
240	20.00	0.07	0.030	(0.254)	0.027	0.003
241	20.08	0.10	0.045	(0.253)	0.041	0.005
242	20.17	0.10	0.045	(0.252)	0.041	0.005
243	20.25	0.10	0.045	(0.251)	0.041	0.005
244	20.33	0.10	0.045	(0.250)	0.041	0.005
245	20.42	0.10	0.045	(0.249)	0.041	0.005
246	20.50	0.10	0.045	(0.248)	0.041	0.005
247	20.58	0.10	0.045	(0.247)	0.041	0.005
248	20.67	0.10	0.045	(0.245)	0.041	0.005
249	20.75	0.10	0.045	(0.244)	0.041	0.005
250	20.83	0.07	0.030	(0.243)	0.027	0.003
251	20.92	0.07	0.030	(0.242)	0.027	0.003
252	21.00	0.07	0.030	(0.242)	0.027	0.003
253	21.08	0.10	0.045	(0.241)	0.041	0.005
254	21.17	0.10	0.045	(0.240)	0.041	0.005
255	21.25	0.10	0.045	(0.239)	0.041	0.005
256	21.33	0.07	0.030	(0.238)	0.027	0.003
257	21.42	0.07	0.030	(0.237)	0.027	0.003
258	21.50	0.07	0.030	(0.236)	0.027	0.003
259	21.58	0.10	0.045	(0.235)	0.041	0.005
260	21.67	0.10	0.045	(0.234)	0.041	0.005
261	21.75	0.10	0.045	(0.233)	0.041	0.005
262	21.83	0.07	0.030	(0.233)	0.027	0.003
263	21.92	0.07	0.030	(0.232)	0.027	0.003
264	22.00	0.07	0.030	(0.231)	0.027	0.003
265	22.08	0.10	0.045	(0.230)	0.041	0.005
266	22.17	0.10	0.045	(0.230)	0.041	0.005

```
267  22.25     0.10      0.045       (  0.229)       0.041        0.005
268  22.33     0.07      0.030       (  0.228)       0.027        0.003
269  22.42     0.07      0.030       (  0.227)       0.027        0.003
270  22.50     0.07      0.030       (  0.227)       0.027        0.003
271  22.58     0.07      0.030       (  0.226)       0.027        0.003
272  22.67     0.07      0.030       (  0.225)       0.027        0.003
273  22.75     0.07      0.030       (  0.225)       0.027        0.003
274  22.83     0.07      0.030       (  0.224)       0.027        0.003
275  22.92     0.07      0.030       (  0.224)       0.027        0.003
276  23.00     0.07      0.030       (  0.223)       0.027        0.003
277  23.08     0.07      0.030       (  0.223)       0.027        0.003
278  23.17     0.07      0.030       (  0.222)       0.027        0.003
279  23.25     0.07      0.030       (  0.222)       0.027        0.003
280  23.33     0.07      0.030       (  0.221)       0.027        0.003
281  23.42     0.07      0.030       (  0.221)       0.027        0.003
282  23.50     0.07      0.030       (  0.220)       0.027        0.003
283  23.58     0.07      0.030       (  0.220)       0.027        0.003
284  23.67     0.07      0.030       (  0.220)       0.027        0.003
285  23.75     0.07      0.030       (  0.219)       0.027        0.003
286  23.83     0.07      0.030       (  0.219)       0.027        0.003
287  23.92     0.07      0.030       (  0.219)       0.027        0.003
288  24.00     0.07      0.030       (  0.219)       0.027        0.003
            (Loss Rate Not Used)
    Sum =     100.0                                  Sum =     5.1
     Flood volume = Effective rainfall      0.43(In)
      times area      24.4(Ac.)/[(In)/(Ft.)] =       0.9(Ac.Ft)
     Total soil loss =      3.36(In)
     Total soil loss =     6.827(Ac.Ft)
     Total rainfall =      3.79(In)
     Flood volume =       37712.2 Cubic Feet
     Total soil loss =      297390.7 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =      3.239(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ------------------------------------------------------------------------
   0+ 5       0.0001      0.01  Q         |         |         |         |
   0+10       0.0004      0.04  Q         |         |         |         |
   0+15       0.0008      0.06  Q         |         |         |         |
   0+20       0.0012      0.07  Q         |         |         |         |
   0+25       0.0018      0.09  Q         |         |         |         |
   0+30       0.0025      0.10  Q         |         |         |         |
   0+35       0.0032      0.10  Q         |         |         |         |
   0+40       0.0040      0.11  Q         |         |         |         |
   0+45       0.0047      0.11  Q         |         |         |         |
   0+50       0.0055      0.11  Q         |         |         |         |
   0+55       0.0064      0.13  Q         |         |         |         |
   1+ 0       0.0074      0.14  Q         |         |         |         |
   1+ 5       0.0083      0.14  Q         |         |         |         |
   1+10       0.0092      0.12  Q         |         |         |         |
   1+15       0.0100      0.12  Q         |         |         |         |
   1+20       0.0108      0.12  Q         |         |         |         |
   1+25       0.0116      0.11  Q         |         |         |         |
   1+30       0.0123      0.11  Q         |         |         |         |
   1+35       0.0131      0.11  Q         |         |         |         |
   1+40       0.0139      0.11  Q         |         |         |         |
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1+45	0.0147	0.11	Q	|	|	|	|
1+50	0.0155	0.12	Q	|	|	|	|
1+55	0.0164	0.13	Q	|	|	|	|
2+ 0	0.0174	0.14	Q	|	|	|	|
2+ 5	0.0183	0.14	Q	|	|	|	|
2+10	0.0194	0.15	Q	|	|	|	|
2+15	0.0204	0.15	Q	|	|	|	|
2+20	0.0214	0.15	Q	|	|	|	|
2+25	0.0224	0.15	QV	|	|	|	|
2+30	0.0234	0.15	QV	|	|	|	|
2+35	0.0245	0.15	QV	|	|	|	|
2+40	0.0256	0.17	QV	|	|	|	|
2+45	0.0269	0.18	QV	|	|	|	|
2+50	0.0281	0.18	QV	|	|	|	|
2+55	0.0294	0.18	QV	|	|	|	|
3+ 0	0.0306	0.18	QV	|	|	|	|
3+ 5	0.0319	0.18	QV	|	|	|	|
3+10	0.0332	0.19	QV	|	|	|	|
3+15	0.0345	0.19	QV	|	|	|	|
3+20	0.0357	0.19	QV	|	|	|	|
3+25	0.0370	0.19	QV	|	|	|	|
3+30	0.0383	0.19	QV	|	|	|	|
3+35	0.0396	0.19	QV	|	|	|	|
3+40	0.0409	0.19	QV	|	|	|	|
3+45	0.0422	0.19	QV	|	|	|	|
3+50	0.0435	0.19	Q V	|	|	|	|
3+55	0.0449	0.21	Q V	|	|	|	|
4+ 0	0.0464	0.21	Q V	|	|	|	|
4+ 5	0.0479	0.22	Q V	|	|	|	|
4+10	0.0494	0.22	Q V	|	|	|	|
4+15	0.0509	0.22	Q V	|	|	|	|
4+20	0.0525	0.23	Q V	|	|	|	|
4+25	0.0542	0.24	Q V	|	|	|	|
4+30	0.0559	0.25	|QV	|	|	|	|
4+35	0.0576	0.26	|QV	|	|	|	|
4+40	0.0594	0.26	|QV	|	|	|	|
4+45	0.0612	0.26	|QV	|	|	|	|
4+50	0.0630	0.26	|QV	|	|	|	|
4+55	0.0649	0.28	|Q V	|	|	|	|
5+ 0	0.0669	0.29	|Q V	|	|	|	|
5+ 5	0.0689	0.28	|Q V	|	|	|	|
5+10	0.0706	0.25	|Q V	|	|	|	|
5+15	0.0723	0.24	Q V	|	|	|	|
5+20	0.0739	0.24	Q V	|	|	|	|
5+25	0.0756	0.25	|Q V	|	|	|	|
5+30	0.0774	0.26	|Q V	|	|	|	|
5+35	0.0792	0.26	|Q V	|	|	|	|
5+40	0.0811	0.28	|Q V	|	|	|	|
5+45	0.0831	0.29	|Q V	|	|	|	|
5+50	0.0851	0.29	|Q V	|	|	|	|
5+55	0.0871	0.29	|Q V	|	|	|	|
6+ 0	0.0892	0.30	|Q V	|	|	|	|
6+ 5	0.0912	0.30	|Q V	|	|	|	|
6+10	0.0934	0.32	|Q V	|	|	|	|
6+15	0.0957	0.33	|Q V	|	|	|	|
6+20	0.0979	0.33	|Q V	|	|	|	|
6+25	0.1002	0.33	|Q V	|	|	|	|
6+30	0.1025	0.33	|Q V	|	|	|	|
6+35	0.1048	0.34	|Q V	|	|	|	|
6+40	0.1073	0.36	|Q V	|	|	|	|
6+45	0.1098	0.36	|Q V	|	|	|	|
6+50	0.1123	0.37	|Q V	|	|	|	|
6+55	0.1149	0.37	|Q V	|	|	|	|

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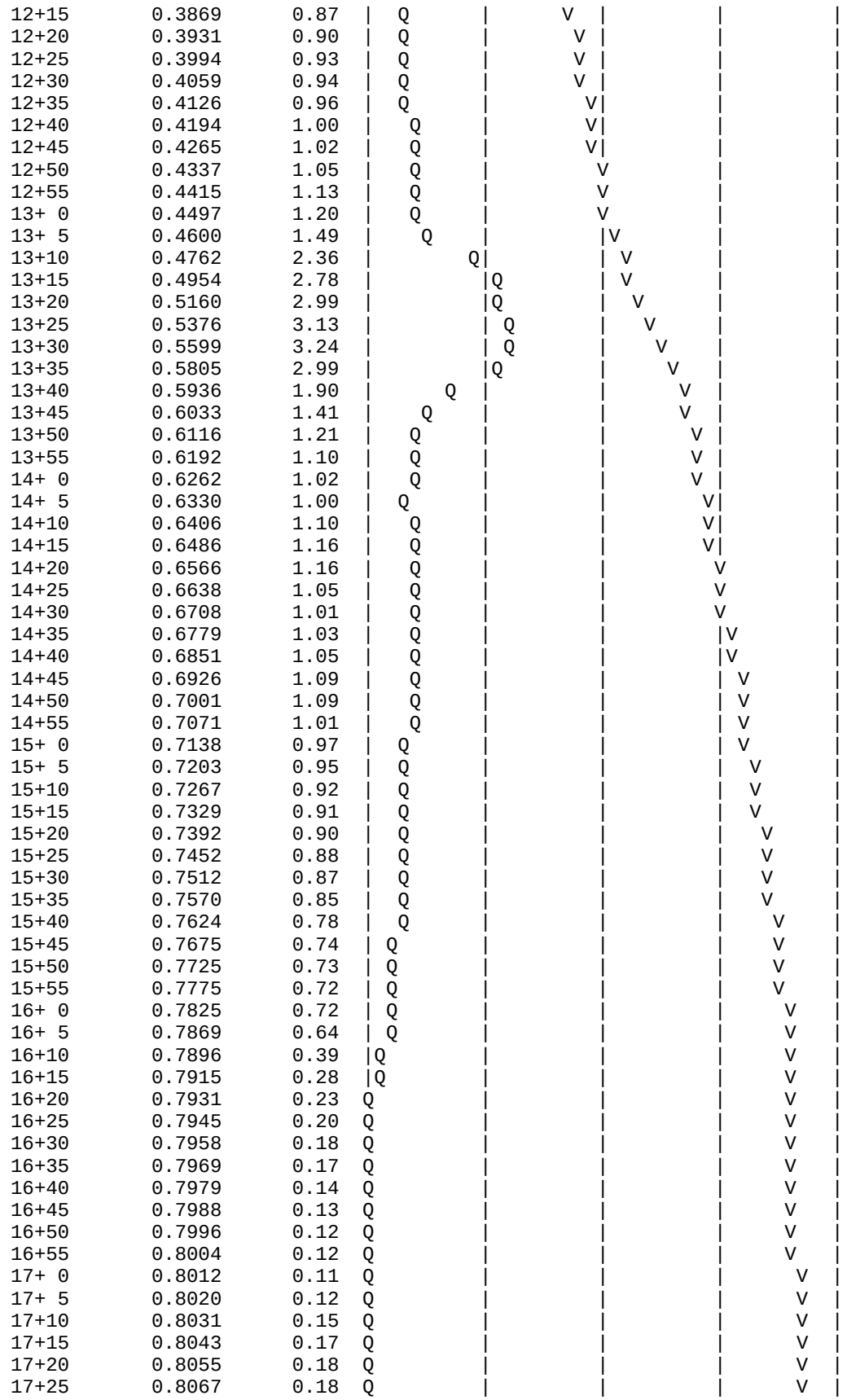
 7+ 0       0.1174      0.37  |Q   V    |          |          |          |
 7+ 5       0.1200      0.37  |Q   V    |          |          |          |
 7+10       0.1225      0.37  |Q   V    |          |          |          |
 7+15       0.1251      0.37  |Q   V    |          |          |          |
 7+20       0.1277      0.38  |Q   V    |          |          |          |
 7+25       0.1304      0.39  |Q    V   |          |          |          |
 7+30       0.1332      0.40  |Q    V   |          |          |          |
 7+35       0.1360      0.41  |Q    V   |          |          |          |
 7+40       0.1389      0.43  |Q    V   |          |          |          |
 7+45       0.1419      0.44  |Q    V   |          |          |          |
 7+50       0.1450      0.44  |Q    V   |          |          |          |
 7+55       0.1482      0.46  |Q    V   |          |          |          |
 8+ 0       0.1514      0.47  |Q    V   |          |          |          |
 8+ 5       0.1548      0.49  |Q     V  |          |          |          |
 8+10       0.1584      0.52  | Q    V  |          |          |          |
 8+15       0.1621      0.54  | Q    V  |          |          |          |
 8+20       0.1658      0.55  | Q    V  |          |          |          |
 8+25       0.1696      0.55  | Q    V  |          |          |          |
 8+30       0.1734      0.55  | Q     V |          |          |          |
 8+35       0.1773      0.56  | Q     V |          |          |          |
 8+40       0.1813      0.58  | Q     V |          |          |          |
 8+45       0.1853      0.59  | Q     V |          |          |          |
 8+50       0.1894      0.59  | Q     V |          |          |          |
 8+55       0.1936      0.61  | Q     V |          |          |          |
 9+ 0       0.1979      0.62  | Q      V|          |          |          |
 9+ 5       0.2023      0.64  | Q      V|          |          |          |
 9+10       0.2069      0.67  | Q      V|          |          |          |
 9+15       0.2116      0.69  | Q      V|          |          |          |
 9+20       0.2165      0.70  | Q       V          |          |          |
 9+25       0.2214      0.72  | Q       V          |          |          |
 9+30       0.2265      0.73  | Q       V          |          |          |
 9+35       0.2316      0.74  | Q       V          |          |          |
 9+40       0.2368      0.76  |  Q      V          |          |          |
 9+45       0.2421      0.77  |  Q      |V         |          |          |
 9+50       0.2475      0.78  |  Q      |V         |          |          |
 9+55       0.2530      0.80  |  Q      |V         |          |          |
10+ 0       0.2585      0.81  |  Q      |V         |          |          |
10+ 5       0.2639      0.78  |  Q      | V        |          |          |
10+10       0.2685      0.67  | Q       | V        |          |          |
10+15       0.2727      0.62  | Q       | V        |          |          |
10+20       0.2768      0.59  | Q       | V        |          |          |
10+25       0.2808      0.58  | Q       | V        |          |          |
10+30       0.2848      0.57  | Q       |  V       |          |          |
10+35       0.2889      0.59  | Q       |  V       |          |          |
10+40       0.2935      0.67  | Q       |  V       |          |          |
10+45       0.2984      0.71  | Q       |  V       |          |          |
10+50       0.3033      0.72  | Q       |   V      |          |          |
10+55       0.3083      0.73  | Q       |   V      |          |          |
11+ 0       0.3134      0.73  | Q       |   V      |          |          |
11+ 5       0.3184      0.73  | Q       |   V      |          |          |
11+10       0.3234      0.72  | Q       |   V      |          |          |
11+15       0.3283      0.71  | Q       |    V     |          |          |
11+20       0.3332      0.71  | Q       |    V     |          |          |
11+25       0.3381      0.71  | Q       |    V     |          |          |
11+30       0.3430      0.71  | Q       |    V     |          |          |
11+35       0.3478      0.70  | Q       |     V    |          |          |
11+40       0.3524      0.67  | Q       |     V    |          |          |
11+45       0.3568      0.65  | Q       |     V    |          |          |
11+50       0.3613      0.65  | Q       |     V    |          |          |
11+55       0.3659      0.66  | Q       |     V    |          |          |
12+ 0       0.3704      0.67  | Q       |      V   |          |          |
12+ 5       0.3753      0.70  | Q       |      V   |          |          |
12+10       0.3809      0.82  |  Q      |      V   |          |          |
```



17+30	0.8079	0.18	Q	|	|	|	V |
17+35	0.8092	0.18	Q	|	|	|	V |
17+40	0.8105	0.18	Q	|	|	|	V |
17+45	0.8117	0.19	Q	|	|	|	V |
17+50	0.8130	0.18	Q	|	|	|	V |
17+55	0.8141	0.17	Q	|	|	|	V |
18+ 0	0.8152	0.16	Q	|	|	|	V |
18+ 5	0.8163	0.15	Q	|	|	|	V |
18+10	0.8173	0.15	Q	|	|	|	V |
18+15	0.8184	0.15	Q	|	|	|	V |
18+20	0.8194	0.15	Q	|	|	|	V |
18+25	0.8204	0.15	Q	|	|	|	V |
18+30	0.8215	0.15	Q	|	|	|	V |
18+35	0.8225	0.14	Q	|	|	|	V |
18+40	0.8233	0.13	Q	|	|	|	V |
18+45	0.8242	0.12	Q	|	|	|	V |
18+50	0.8249	0.11	Q	|	|	|	V |
18+55	0.8256	0.09	Q	|	|	|	V |
19+ 0	0.8262	0.09	Q	|	|	|	V |
19+ 5	0.8268	0.09	Q	|	|	|	V |
19+10	0.8275	0.10	Q	|	|	|	V |
19+15	0.8282	0.11	Q	|	|	|	V |
19+20	0.8290	0.11	Q	|	|	|	V |
19+25	0.8299	0.13	Q	|	|	|	V |
19+30	0.8308	0.14	Q	|	|	|	V |
19+35	0.8318	0.14	Q	|	|	|	V |
19+40	0.8326	0.12	Q	|	|	|	V |
19+45	0.8334	0.12	Q	|	|	|	V |
19+50	0.8342	0.11	Q	|	|	|	V |
19+55	0.8348	0.09	Q	|	|	|	V |
20+ 0	0.8354	0.08	Q	|	|	|	V |
20+ 5	0.8360	0.09	Q	|	|	|	V |
20+10	0.8367	0.10	Q	|	|	|	V |
20+15	0.8374	0.11	Q	|	|	|	V |
20+20	0.8382	0.11	Q	|	|	|	V |
20+25	0.8389	0.11	Q	|	|	|	V |
20+30	0.8397	0.11	Q	|	|	|	V |
20+35	0.8404	0.11	Q	|	|	|	V |
20+40	0.8412	0.11	Q	|	|	|	V |
20+45	0.8420	0.11	Q	|	|	|	V |
20+50	0.8427	0.11	Q	|	|	|	V |
20+55	0.8433	0.09	Q	|	|	|	V |
21+ 0	0.8439	0.08	Q	|	|	|	V |
21+ 5	0.8445	0.08	Q	|	|	|	V|
21+10	0.8452	0.10	Q	|	|	|	V|
21+15	0.8459	0.11	Q	|	|	|	V|
21+20	0.8466	0.10	Q	|	|	|	V|
21+25	0.8472	0.09	Q	|	|	|	V|
21+30	0.8478	0.08	Q	|	|	|	V|
21+35	0.8483	0.08	Q	|	|	|	V|
21+40	0.8490	0.10	Q	|	|	|	V|
21+45	0.8497	0.11	Q	|	|	|	V|
21+50	0.8504	0.10	Q	|	|	|	V|
21+55	0.8511	0.09	Q	|	|	|	V|
22+ 0	0.8516	0.08	Q	|	|	|	V|
22+ 5	0.8522	0.08	Q	|	|	|	V|
22+10	0.8529	0.10	Q	|	|	|	V|
22+15	0.8536	0.11	Q	|	|	|	V|
22+20	0.8543	0.10	Q	|	|	|	V|
22+25	0.8549	0.09	Q	|	|	|	V|
22+30	0.8555	0.08	Q	|	|	|	V|
22+35	0.8560	0.08	Q	|	|	|	V|
22+40	0.8565	0.08	Q	|	|	|	V|

22+45	0.8571	0.08	Q	|	|	|	V|
22+50	0.8576	0.08	Q	|	|	|	V|
22+55	0.8581	0.08	Q	|	|	|	V|
23+ 0	0.8586	0.07	Q	|	|	|	V|
23+ 5	0.8591	0.07	Q	|	|	|	V|
23+10	0.8596	0.07	Q	|	|	|	V|
23+15	0.8602	0.07	Q	|	|	|	V|
23+20	0.8607	0.07	Q	|	|	|	V|
23+25	0.8612	0.07	Q	|	|	|	V|
23+30	0.8617	0.07	Q	|	|	|	V|
23+35	0.8622	0.07	Q	|	|	|	V|
23+40	0.8627	0.07	Q	|	|	|	V|
23+45	0.8632	0.07	Q	|	|	|	V|
23+50	0.8637	0.07	Q	|	|	|	V|
23+55	0.8643	0.07	Q	|	|	|	V|
24+ 0	0.8648	0.07	Q	|	|	|	V|
24+ 5	0.8652	0.06	Q	|	|	|	V|
24+10	0.8654	0.03	Q	|	|	|	V|
24+15	0.8656	0.02	Q	|	|	|	V|
24+20	0.8656	0.01	Q	|	|	|	V|
24+25	0.8657	0.01	Q	|	|	|	V|
24+30	0.8657	0.00	Q	|	|	|	V|
24+35	0.8657	0.00	Q	|	|	|	V|
24+40	0.8657	0.00	Q	|	|	|	V|
24+45	0.8657	0.00	Q	|	|	|	V|
24+50	0.8658	0.00	Q	|	|	|	V|

APPENDIX G.4: AREA “B” – EXISTING CONDITION HYDROGRAPH CALCULATIONS 2–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 10/14/15 File: BEX242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - EXISTING CONDITION
2YR-24HR
FN: BEX242

Drainage Area = 24.37(Ac.) = 0.038 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 24.37(Ac.) = 0.038 Sq. Mi.
Length along longest watercourse = 1802.00(Ft.)
Length along longest watercourse measured to centroid = 1103.00(Ft.)
Length along longest watercourse = 0.341 Mi.
Length along longest watercourse measured to centroid = 0.209 Mi.
Difference in elevation = 92.00(Ft.)
Slope along watercourse = 269.5671 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.106 Hr.
Lag time = 6.38 Min.
25% of lag time = 1.59 Min.
40% of lag time = 2.55 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	2.50	60.93

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
24.37	8.00	194.96

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 2.500(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 2.500(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
24.370	80.00	0.000

Total Area Entered = 24.37(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.0	63.0	0.438	0.000	0.438	1.000	0.438
					Sum (F) =	0.438

Area averaged mean soil loss (F) (In/Hr) = 0.438
Minimum soil loss rate ((In/Hr)) = 0.219
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.900

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	78.379	12.851	3.156
2	0.167	156.759	43.841	10.767
3	0.250	235.138	20.412	5.013
4	0.333	313.518	8.354	2.052
5	0.417	391.897	5.025	1.234
6	0.500	470.277	3.201	0.786
7	0.583	548.656	2.279	0.560
8	0.667	627.036	1.599	0.393
9	0.750	705.415	1.086	0.267
10	0.833	783.795	0.797	0.196
11	0.917	862.174	0.554	0.136
		Sum = 100.000	Sum=	24.560

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.776)	0.018	0.002
2	0.17	0.07	0.020	(0.773)	0.018	0.002
3	0.25	0.07	0.020	(0.770)	0.018	0.002
4	0.33	0.10	0.030	(0.767)	0.027	0.003
5	0.42	0.10	0.030	(0.764)	0.027	0.003
6	0.50	0.10	0.030	(0.761)	0.027	0.003
7	0.58	0.10	0.030	(0.758)	0.027	0.003
8	0.67	0.10	0.030	(0.755)	0.027	0.003
9	0.75	0.10	0.030	(0.752)	0.027	0.003
10	0.83	0.13	0.040	(0.749)	0.036	0.004
11	0.92	0.13	0.040	(0.746)	0.036	0.004
12	1.00	0.13	0.040	(0.743)	0.036	0.004
13	1.08	0.10	0.030	(0.740)	0.027	0.003
14	1.17	0.10	0.030	(0.737)	0.027	0.003

15	1.25	0.10	0.030	(0.734)	0.027	0.003
16	1.33	0.10	0.030	(0.731)	0.027	0.003
17	1.42	0.10	0.030	(0.728)	0.027	0.003
18	1.50	0.10	0.030	(0.726)	0.027	0.003
19	1.58	0.10	0.030	(0.723)	0.027	0.003
20	1.67	0.10	0.030	(0.720)	0.027	0.003
21	1.75	0.10	0.030	(0.717)	0.027	0.003
22	1.83	0.13	0.040	(0.714)	0.036	0.004
23	1.92	0.13	0.040	(0.711)	0.036	0.004
24	2.00	0.13	0.040	(0.708)	0.036	0.004
25	2.08	0.13	0.040	(0.705)	0.036	0.004
26	2.17	0.13	0.040	(0.702)	0.036	0.004
27	2.25	0.13	0.040	(0.700)	0.036	0.004
28	2.33	0.13	0.040	(0.697)	0.036	0.004
29	2.42	0.13	0.040	(0.694)	0.036	0.004
30	2.50	0.13	0.040	(0.691)	0.036	0.004
31	2.58	0.17	0.050	(0.688)	0.045	0.005
32	2.67	0.17	0.050	(0.685)	0.045	0.005
33	2.75	0.17	0.050	(0.683)	0.045	0.005
34	2.83	0.17	0.050	(0.680)	0.045	0.005
35	2.92	0.17	0.050	(0.677)	0.045	0.005
36	3.00	0.17	0.050	(0.674)	0.045	0.005
37	3.08	0.17	0.050	(0.671)	0.045	0.005
38	3.17	0.17	0.050	(0.669)	0.045	0.005
39	3.25	0.17	0.050	(0.666)	0.045	0.005
40	3.33	0.17	0.050	(0.663)	0.045	0.005
41	3.42	0.17	0.050	(0.660)	0.045	0.005
42	3.50	0.17	0.050	(0.658)	0.045	0.005
43	3.58	0.17	0.050	(0.655)	0.045	0.005
44	3.67	0.17	0.050	(0.652)	0.045	0.005
45	3.75	0.17	0.050	(0.649)	0.045	0.005
46	3.83	0.20	0.060	(0.647)	0.054	0.006
47	3.92	0.20	0.060	(0.644)	0.054	0.006
48	4.00	0.20	0.060	(0.641)	0.054	0.006
49	4.08	0.20	0.060	(0.638)	0.054	0.006
50	4.17	0.20	0.060	(0.636)	0.054	0.006
51	4.25	0.20	0.060	(0.633)	0.054	0.006
52	4.33	0.23	0.070	(0.630)	0.063	0.007
53	4.42	0.23	0.070	(0.628)	0.063	0.007
54	4.50	0.23	0.070	(0.625)	0.063	0.007
55	4.58	0.23	0.070	(0.622)	0.063	0.007
56	4.67	0.23	0.070	(0.620)	0.063	0.007
57	4.75	0.23	0.070	(0.617)	0.063	0.007
58	4.83	0.27	0.080	(0.614)	0.072	0.008
59	4.92	0.27	0.080	(0.612)	0.072	0.008
60	5.00	0.27	0.080	(0.609)	0.072	0.008
61	5.08	0.20	0.060	(0.606)	0.054	0.006
62	5.17	0.20	0.060	(0.604)	0.054	0.006
63	5.25	0.20	0.060	(0.601)	0.054	0.006
64	5.33	0.23	0.070	(0.598)	0.063	0.007
65	5.42	0.23	0.070	(0.596)	0.063	0.007
66	5.50	0.23	0.070	(0.593)	0.063	0.007
67	5.58	0.27	0.080	(0.591)	0.072	0.008
68	5.67	0.27	0.080	(0.588)	0.072	0.008
69	5.75	0.27	0.080	(0.585)	0.072	0.008
70	5.83	0.27	0.080	(0.583)	0.072	0.008
71	5.92	0.27	0.080	(0.580)	0.072	0.008
72	6.00	0.27	0.080	(0.578)	0.072	0.008
73	6.08	0.30	0.090	(0.575)	0.081	0.009
74	6.17	0.30	0.090	(0.572)	0.081	0.009
75	6.25	0.30	0.090	(0.570)	0.081	0.009
76	6.33	0.30	0.090	(0.567)	0.081	0.009
77	6.42	0.30	0.090	(0.565)	0.081	0.009

78	6.50	0.30	0.090	(0.562)	0.081	0.009
79	6.58	0.33	0.100	(0.560)	0.090	0.010
80	6.67	0.33	0.100	(0.557)	0.090	0.010
81	6.75	0.33	0.100	(0.555)	0.090	0.010
82	6.83	0.33	0.100	(0.552)	0.090	0.010
83	6.92	0.33	0.100	(0.550)	0.090	0.010
84	7.00	0.33	0.100	(0.547)	0.090	0.010
85	7.08	0.33	0.100	(0.545)	0.090	0.010
86	7.17	0.33	0.100	(0.542)	0.090	0.010
87	7.25	0.33	0.100	(0.540)	0.090	0.010
88	7.33	0.37	0.110	(0.537)	0.099	0.011
89	7.42	0.37	0.110	(0.535)	0.099	0.011
90	7.50	0.37	0.110	(0.532)	0.099	0.011
91	7.58	0.40	0.120	(0.530)	0.108	0.012
92	7.67	0.40	0.120	(0.528)	0.108	0.012
93	7.75	0.40	0.120	(0.525)	0.108	0.012
94	7.83	0.43	0.130	(0.523)	0.117	0.013
95	7.92	0.43	0.130	(0.520)	0.117	0.013
96	8.00	0.43	0.130	(0.518)	0.117	0.013
97	8.08	0.50	0.150	(0.515)	0.135	0.015
98	8.17	0.50	0.150	(0.513)	0.135	0.015
99	8.25	0.50	0.150	(0.511)	0.135	0.015
100	8.33	0.50	0.150	(0.508)	0.135	0.015
101	8.42	0.50	0.150	(0.506)	0.135	0.015
102	8.50	0.50	0.150	(0.504)	0.135	0.015
103	8.58	0.53	0.160	(0.501)	0.144	0.016
104	8.67	0.53	0.160	(0.499)	0.144	0.016
105	8.75	0.53	0.160	(0.496)	0.144	0.016
106	8.83	0.57	0.170	(0.494)	0.153	0.017
107	8.92	0.57	0.170	(0.492)	0.153	0.017
108	9.00	0.57	0.170	(0.489)	0.153	0.017
109	9.08	0.63	0.190	(0.487)	0.171	0.019
110	9.17	0.63	0.190	(0.485)	0.171	0.019
111	9.25	0.63	0.190	(0.483)	0.171	0.019
112	9.33	0.67	0.200	(0.480)	0.180	0.020
113	9.42	0.67	0.200	(0.478)	0.180	0.020
114	9.50	0.67	0.200	(0.476)	0.180	0.020
115	9.58	0.70	0.210	(0.473)	0.189	0.021
116	9.67	0.70	0.210	(0.471)	0.189	0.021
117	9.75	0.70	0.210	(0.469)	0.189	0.021
118	9.83	0.73	0.220	(0.467)	0.198	0.022
119	9.92	0.73	0.220	(0.464)	0.198	0.022
120	10.00	0.73	0.220	(0.462)	0.198	0.022
121	10.08	0.50	0.150	(0.460)	0.135	0.015
122	10.17	0.50	0.150	(0.458)	0.135	0.015
123	10.25	0.50	0.150	(0.455)	0.135	0.015
124	10.33	0.50	0.150	(0.453)	0.135	0.015
125	10.42	0.50	0.150	(0.451)	0.135	0.015
126	10.50	0.50	0.150	(0.449)	0.135	0.015
127	10.58	0.67	0.200	(0.447)	0.180	0.020
128	10.67	0.67	0.200	(0.444)	0.180	0.020
129	10.75	0.67	0.200	(0.442)	0.180	0.020
130	10.83	0.67	0.200	(0.440)	0.180	0.020
131	10.92	0.67	0.200	(0.438)	0.180	0.020
132	11.00	0.67	0.200	(0.436)	0.180	0.020
133	11.08	0.63	0.190	(0.434)	0.171	0.019
134	11.17	0.63	0.190	(0.431)	0.171	0.019
135	11.25	0.63	0.190	(0.429)	0.171	0.019
136	11.33	0.63	0.190	(0.427)	0.171	0.019
137	11.42	0.63	0.190	(0.425)	0.171	0.019
138	11.50	0.63	0.190	(0.423)	0.171	0.019
139	11.58	0.57	0.170	(0.421)	0.153	0.017
140	11.67	0.57	0.170	(0.419)	0.153	0.017

141	11.75	0.57	0.170	(0.417)	0.153	0.017
142	11.83	0.60	0.180	(0.415)	0.162	0.018
143	11.92	0.60	0.180	(0.413)	0.162	0.018
144	12.00	0.60	0.180	(0.411)	0.162	0.018
145	12.08	0.83	0.250	(0.408)	0.225	0.025
146	12.17	0.83	0.250	(0.406)	0.225	0.025
147	12.25	0.83	0.250	(0.404)	0.225	0.025
148	12.33	0.87	0.260	(0.402)	0.234	0.026
149	12.42	0.87	0.260	(0.400)	0.234	0.026
150	12.50	0.87	0.260	(0.398)	0.234	0.026
151	12.58	0.93	0.280	(0.396)	0.252	0.028
152	12.67	0.93	0.280	(0.394)	0.252	0.028
153	12.75	0.93	0.280	(0.392)	0.252	0.028
154	12.83	0.97	0.290	(0.390)	0.261	0.029
155	12.92	0.97	0.290	(0.388)	0.261	0.029
156	13.00	0.97	0.290	(0.386)	0.261	0.029
157	13.08	1.13	0.340	(0.384)	0.306	0.034
158	13.17	1.13	0.340	(0.383)	0.306	0.034
159	13.25	1.13	0.340	(0.381)	0.306	0.034
160	13.33	1.13	0.340	(0.379)	0.306	0.034
161	13.42	1.13	0.340	(0.377)	0.306	0.034
162	13.50	1.13	0.340	(0.375)	0.306	0.034
163	13.58	0.77	0.230	(0.373)	0.207	0.023
164	13.67	0.77	0.230	(0.371)	0.207	0.023
165	13.75	0.77	0.230	(0.369)	0.207	0.023
166	13.83	0.77	0.230	(0.367)	0.207	0.023
167	13.92	0.77	0.230	(0.365)	0.207	0.023
168	14.00	0.77	0.230	(0.363)	0.207	0.023
169	14.08	0.90	0.270	(0.362)	0.243	0.027
170	14.17	0.90	0.270	(0.360)	0.243	0.027
171	14.25	0.90	0.270	(0.358)	0.243	0.027
172	14.33	0.87	0.260	(0.356)	0.234	0.026
173	14.42	0.87	0.260	(0.354)	0.234	0.026
174	14.50	0.87	0.260	(0.352)	0.234	0.026
175	14.58	0.87	0.260	(0.351)	0.234	0.026
176	14.67	0.87	0.260	(0.349)	0.234	0.026
177	14.75	0.87	0.260	(0.347)	0.234	0.026
178	14.83	0.83	0.250	(0.345)	0.225	0.025
179	14.92	0.83	0.250	(0.344)	0.225	0.025
180	15.00	0.83	0.250	(0.342)	0.225	0.025
181	15.08	0.80	0.240	(0.340)	0.216	0.024
182	15.17	0.80	0.240	(0.338)	0.216	0.024
183	15.25	0.80	0.240	(0.337)	0.216	0.024
184	15.33	0.77	0.230	(0.335)	0.207	0.023
185	15.42	0.77	0.230	(0.333)	0.207	0.023
186	15.50	0.77	0.230	(0.331)	0.207	0.023
187	15.58	0.63	0.190	(0.330)	0.171	0.019
188	15.67	0.63	0.190	(0.328)	0.171	0.019
189	15.75	0.63	0.190	(0.326)	0.171	0.019
190	15.83	0.63	0.190	(0.325)	0.171	0.019
191	15.92	0.63	0.190	(0.323)	0.171	0.019
192	16.00	0.63	0.190	(0.321)	0.171	0.019
193	16.08	0.13	0.040	(0.320)	0.036	0.004
194	16.17	0.13	0.040	(0.318)	0.036	0.004
195	16.25	0.13	0.040	(0.316)	0.036	0.004
196	16.33	0.13	0.040	(0.315)	0.036	0.004
197	16.42	0.13	0.040	(0.313)	0.036	0.004
198	16.50	0.13	0.040	(0.312)	0.036	0.004
199	16.58	0.10	0.030	(0.310)	0.027	0.003
200	16.67	0.10	0.030	(0.308)	0.027	0.003
201	16.75	0.10	0.030	(0.307)	0.027	0.003
202	16.83	0.10	0.030	(0.305)	0.027	0.003
203	16.92	0.10	0.030	(0.304)	0.027	0.003

204	17.00	0.10	0.030	(0.302)	0.027	0.003
205	17.08	0.17	0.050	(0.301)	0.045	0.005
206	17.17	0.17	0.050	(0.299)	0.045	0.005
207	17.25	0.17	0.050	(0.298)	0.045	0.005
208	17.33	0.17	0.050	(0.296)	0.045	0.005
209	17.42	0.17	0.050	(0.295)	0.045	0.005
210	17.50	0.17	0.050	(0.293)	0.045	0.005
211	17.58	0.17	0.050	(0.292)	0.045	0.005
212	17.67	0.17	0.050	(0.290)	0.045	0.005
213	17.75	0.17	0.050	(0.289)	0.045	0.005
214	17.83	0.13	0.040	(0.287)	0.036	0.004
215	17.92	0.13	0.040	(0.286)	0.036	0.004
216	18.00	0.13	0.040	(0.285)	0.036	0.004
217	18.08	0.13	0.040	(0.283)	0.036	0.004
218	18.17	0.13	0.040	(0.282)	0.036	0.004
219	18.25	0.13	0.040	(0.280)	0.036	0.004
220	18.33	0.13	0.040	(0.279)	0.036	0.004
221	18.42	0.13	0.040	(0.278)	0.036	0.004
222	18.50	0.13	0.040	(0.276)	0.036	0.004
223	18.58	0.10	0.030	(0.275)	0.027	0.003
224	18.67	0.10	0.030	(0.274)	0.027	0.003
225	18.75	0.10	0.030	(0.272)	0.027	0.003
226	18.83	0.07	0.020	(0.271)	0.018	0.002
227	18.92	0.07	0.020	(0.270)	0.018	0.002
228	19.00	0.07	0.020	(0.269)	0.018	0.002
229	19.08	0.10	0.030	(0.267)	0.027	0.003
230	19.17	0.10	0.030	(0.266)	0.027	0.003
231	19.25	0.10	0.030	(0.265)	0.027	0.003
232	19.33	0.13	0.040	(0.264)	0.036	0.004
233	19.42	0.13	0.040	(0.262)	0.036	0.004
234	19.50	0.13	0.040	(0.261)	0.036	0.004
235	19.58	0.10	0.030	(0.260)	0.027	0.003
236	19.67	0.10	0.030	(0.259)	0.027	0.003
237	19.75	0.10	0.030	(0.258)	0.027	0.003
238	19.83	0.07	0.020	(0.256)	0.018	0.002
239	19.92	0.07	0.020	(0.255)	0.018	0.002
240	20.00	0.07	0.020	(0.254)	0.018	0.002
241	20.08	0.10	0.030	(0.253)	0.027	0.003
242	20.17	0.10	0.030	(0.252)	0.027	0.003
243	20.25	0.10	0.030	(0.251)	0.027	0.003
244	20.33	0.10	0.030	(0.250)	0.027	0.003
245	20.42	0.10	0.030	(0.249)	0.027	0.003
246	20.50	0.10	0.030	(0.248)	0.027	0.003
247	20.58	0.10	0.030	(0.247)	0.027	0.003
248	20.67	0.10	0.030	(0.245)	0.027	0.003
249	20.75	0.10	0.030	(0.244)	0.027	0.003
250	20.83	0.07	0.020	(0.243)	0.018	0.002
251	20.92	0.07	0.020	(0.242)	0.018	0.002
252	21.00	0.07	0.020	(0.242)	0.018	0.002
253	21.08	0.10	0.030	(0.241)	0.027	0.003
254	21.17	0.10	0.030	(0.240)	0.027	0.003
255	21.25	0.10	0.030	(0.239)	0.027	0.003
256	21.33	0.07	0.020	(0.238)	0.018	0.002
257	21.42	0.07	0.020	(0.237)	0.018	0.002
258	21.50	0.07	0.020	(0.236)	0.018	0.002
259	21.58	0.10	0.030	(0.235)	0.027	0.003
260	21.67	0.10	0.030	(0.234)	0.027	0.003
261	21.75	0.10	0.030	(0.233)	0.027	0.003
262	21.83	0.07	0.020	(0.233)	0.018	0.002
263	21.92	0.07	0.020	(0.232)	0.018	0.002
264	22.00	0.07	0.020	(0.231)	0.018	0.002
265	22.08	0.10	0.030	(0.230)	0.027	0.003
266	22.17	0.10	0.030	(0.230)	0.027	0.003

```
267  22.25     0.10      0.030       (  0.229)       0.027        0.003
268  22.33     0.07      0.020       (  0.228)       0.018        0.002
269  22.42     0.07      0.020       (  0.227)       0.018        0.002
270  22.50     0.07      0.020       (  0.227)       0.018        0.002
271  22.58     0.07      0.020       (  0.226)       0.018        0.002
272  22.67     0.07      0.020       (  0.225)       0.018        0.002
273  22.75     0.07      0.020       (  0.225)       0.018        0.002
274  22.83     0.07      0.020       (  0.224)       0.018        0.002
275  22.92     0.07      0.020       (  0.224)       0.018        0.002
276  23.00     0.07      0.020       (  0.223)       0.018        0.002
277  23.08     0.07      0.020       (  0.223)       0.018        0.002
278  23.17     0.07      0.020       (  0.222)       0.018        0.002
279  23.25     0.07      0.020       (  0.222)       0.018        0.002
280  23.33     0.07      0.020       (  0.221)       0.018        0.002
281  23.42     0.07      0.020       (  0.221)       0.018        0.002
282  23.50     0.07      0.020       (  0.220)       0.018        0.002
283  23.58     0.07      0.020       (  0.220)       0.018        0.002
284  23.67     0.07      0.020       (  0.220)       0.018        0.002
285  23.75     0.07      0.020       (  0.219)       0.018        0.002
286  23.83     0.07      0.020       (  0.219)       0.018        0.002
287  23.92     0.07      0.020       (  0.219)       0.018        0.002
288  24.00     0.07      0.020       (  0.219)       0.018        0.002
            (Loss Rate Not Used)
    Sum =     100.0                                  Sum =     3.0
     Flood volume = Effective rainfall      0.25(In)
      times area      24.4(Ac.)/[(In)/(Ft.)] =       0.5(Ac.Ft)
     Total soil loss =      2.25(In)
     Total soil loss =     4.569(Ac.Ft)
     Total rainfall =      2.50(In)
     Flood volume =       22114.7 Cubic Feet
     Total soil loss =      199032.5 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =      0.827(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ------------------------------------------------------------------------
   0+ 5       0.0000      0.01  Q         |         |         |         |
   0+10       0.0002      0.03  Q         |         |         |         |
   0+15       0.0005      0.04  Q         |         |         |         |
   0+20       0.0008      0.05  Q         |         |         |         |
   0+25       0.0012      0.06  Q         |         |         |         |
   0+30       0.0017      0.06  Q         |         |         |         |
   0+35       0.0021      0.07  Q         |         |         |         |
   0+40       0.0026      0.07  Q         |         |         |         |
   0+45       0.0031      0.07  Q         |         |         |         |
   0+50       0.0036      0.08  Q         |         |         |         |
   0+55       0.0042      0.09  Q         |         |         |         |
   1+ 0       0.0049      0.09  Q         |         |         |         |
   1+ 5       0.0055      0.09  Q         |         |         |         |
   1+10       0.0061      0.08  Q         |         |         |         |
   1+15       0.0066      0.08  Q         |         |         |         |
   1+20       0.0071      0.08  Q         |         |         |         |
   1+25       0.0076      0.08  Q         |         |         |         |
   1+30       0.0081      0.07  Q         |         |         |         |
   1+35       0.0087      0.07  Q         |         |         |         |
   1+40       0.0092      0.07  Q         |         |         |         |
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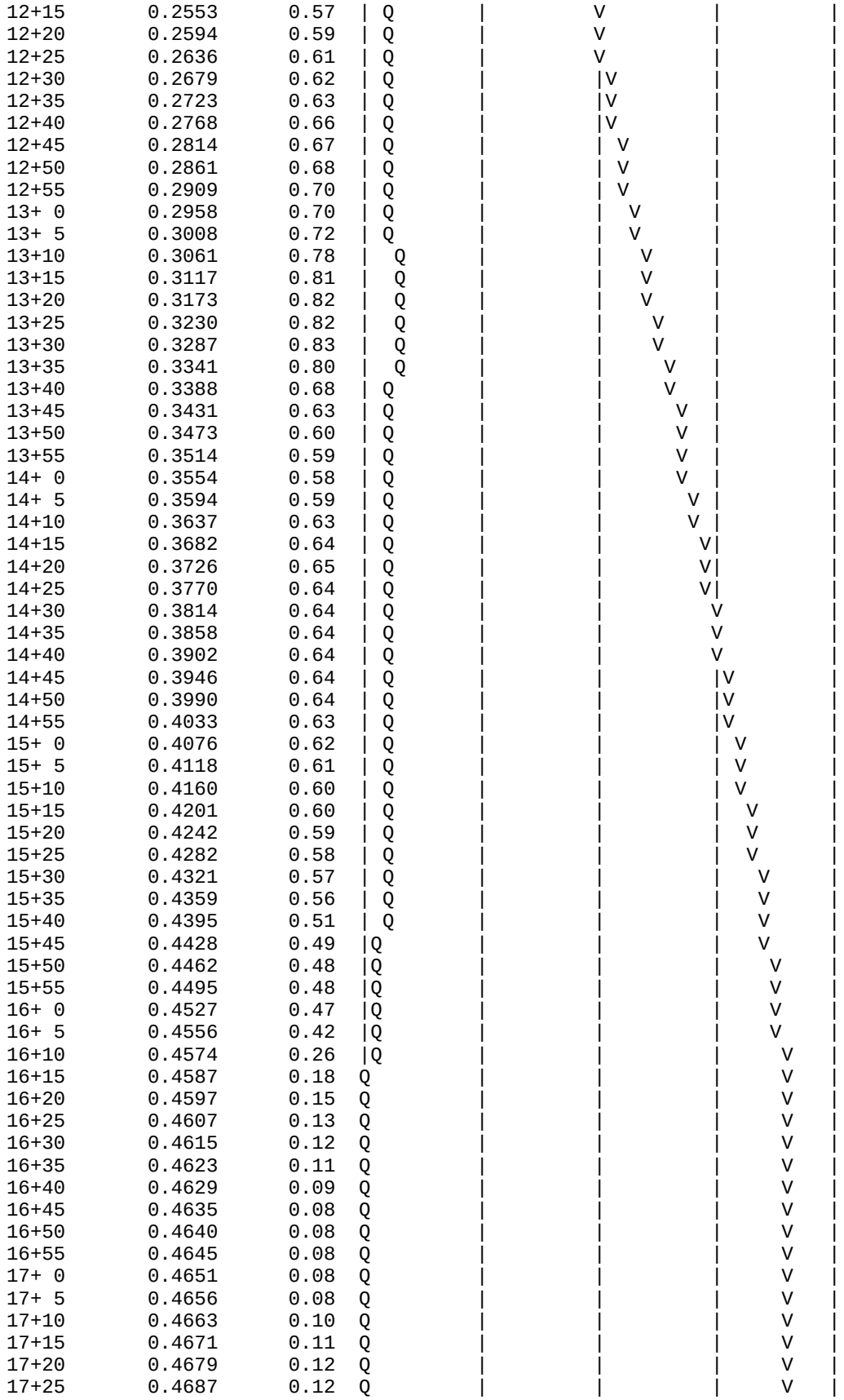
1+45	0.0097	0.07	Q	|	|	|	|
1+50	0.0102	0.08	Q	|	|	|	|
1+55	0.0108	0.09	Q	|	|	|	|
2+ 0	0.0115	0.09	Q	|	|	|	|
2+ 5	0.0121	0.09	Q	|	|	|	|
2+10	0.0128	0.10	QV	|	|	|	|
2+15	0.0134	0.10	QV	|	|	|	|
2+20	0.0141	0.10	QV	|	|	|	|
2+25	0.0148	0.10	QV	|	|	|	|
2+30	0.0155	0.10	QV	|	|	|	|
2+35	0.0162	0.10	QV	|	|	|	|
2+40	0.0169	0.11	QV	|	|	|	|
2+45	0.0177	0.12	QV	|	|	|	|
2+50	0.0186	0.12	QV	|	|	|	|
2+55	0.0194	0.12	QV	|	|	|	|
3+ 0	0.0202	0.12	QV	|	|	|	|
3+ 5	0.0211	0.12	QV	|	|	|	|
3+10	0.0219	0.12	QV	|	|	|	|
3+15	0.0227	0.12	QV	|	|	|	|
3+20	0.0236	0.12	QV	|	|	|	|
3+25	0.0244	0.12	QV	|	|	|	|
3+30	0.0253	0.12	QV	|	|	|	|
3+35	0.0261	0.12	Q V	|	|	|	|
3+40	0.0270	0.12	Q V	|	|	|	|
3+45	0.0278	0.12	Q V	|	|	|	|
3+50	0.0287	0.13	Q V	|	|	|	|
3+55	0.0296	0.14	Q V	|	|	|	|
4+ 0	0.0306	0.14	Q V	|	|	|	|
4+ 5	0.0316	0.14	Q V	|	|	|	|
4+10	0.0326	0.15	Q V	|	|	|	|
4+15	0.0336	0.15	Q V	|	|	|	|
4+20	0.0346	0.15	Q V	|	|	|	|
4+25	0.0357	0.16	Q V	|	|	|	|
4+30	0.0369	0.17	Q V	|	|	|	|
4+35	0.0380	0.17	Q V	|	|	|	|
4+40	0.0392	0.17	Q V	|	|	|	|
4+45	0.0404	0.17	Q V	|	|	|	|
4+50	0.0416	0.17	Q V	|	|	|	|
4+55	0.0429	0.19	Q V	|	|	|	|
5+ 0	0.0442	0.19	Q V	|	|	|	|
5+ 5	0.0455	0.19	Q V	|	|	|	|
5+10	0.0466	0.17	Q V	|	|	|	|
5+15	0.0477	0.16	Q V	|	|	|	|
5+20	0.0488	0.16	Q V	|	|	|	|
5+25	0.0499	0.17	Q V	|	|	|	|
5+30	0.0511	0.17	Q V	|	|	|	|
5+35	0.0523	0.17	Q V	|	|	|	|
5+40	0.0535	0.18	Q V	|	|	|	|
5+45	0.0548	0.19	Q V	|	|	|	|
5+50	0.0562	0.19	Q V	|	|	|	|
5+55	0.0575	0.19	Q V	|	|	|	|
6+ 0	0.0588	0.19	Q V	|	|	|	|
6+ 5	0.0602	0.20	Q V	|	|	|	|
6+10	0.0617	0.21	Q V	|	|	|	|
6+15	0.0631	0.22	Q V	|	|	|	|
6+20	0.0646	0.22	Q V	|	|	|	|
6+25	0.0661	0.22	Q V	|	|	|	|
6+30	0.0677	0.22	Q V	|	|	|	|
6+35	0.0692	0.22	Q V	|	|	|	|
6+40	0.0708	0.23	Q V	|	|	|	|
6+45	0.0725	0.24	Q V	|	|	|	|
6+50	0.0741	0.24	Q V	|	|	|	|
6+55	0.0758	0.24	Q V	|	|	|	|

7+ 0	0.0775	0.24	Q	V	|	|	|
7+ 5	0.0792	0.24	Q	V	|	|	|
7+10	0.0809	0.25	Q	V	|	|	|
7+15	0.0825	0.25	Q	V	|	|	|
7+20	0.0843	0.25	Q	V	|	|	|
7+25	0.0860	0.26	|Q	V	|	|	|
7+30	0.0879	0.26	|Q	V	|	|	|
7+35	0.0897	0.27	|Q	V	|	|	|
7+40	0.0917	0.28	|Q	V	|	|	|
7+45	0.0937	0.29	|Q	V	|	|	|
7+50	0.0957	0.29	|Q	V	|	|	|
7+55	0.0978	0.31	|Q	V	|	|	|
8+ 0	0.0999	0.31	|Q	V	|	|	|
8+ 5	0.1021	0.32	|Q	V	|	|	|
8+10	0.1045	0.34	|Q	V	|	|	|
8+15	0.1070	0.36	|Q	V	|	|	|
8+20	0.1094	0.36	|Q	V	|	|	|
8+25	0.1119	0.36	|Q	V	|	|	|
8+30	0.1145	0.37	|Q	V	|	|	|
8+35	0.1170	0.37	|Q	V	|	|	|
8+40	0.1196	0.38	|Q	V	|	|	|
8+45	0.1223	0.39	|Q	V	|	|	|
8+50	0.1250	0.39	|Q	V	|	|	|
8+55	0.1278	0.40	|Q	V	|	|	|
9+ 0	0.1306	0.41	|Q	V	|	|	|
9+ 5	0.1335	0.42	|Q	V	|	|	|
9+10	0.1365	0.44	|Q	V	|	|	|
9+15	0.1397	0.45	|Q	|V	|	|	|
9+20	0.1429	0.46	|Q	|V	|	|	|
9+25	0.1461	0.48	|Q	|V	|	|	|
9+30	0.1495	0.48	|Q	|V	|	|	|
9+35	0.1528	0.49	|Q	| V	|	|	|
9+40	0.1563	0.50	| Q	| V	|	|	|
9+45	0.1598	0.51	| Q	| V	|	|	|
9+50	0.1633	0.51	| Q	| V	|	|	|
9+55	0.1669	0.53	| Q	| V	|	|	|
10+ 0	0.1706	0.53	| Q	| V	|	|	|
10+ 5	0.1742	0.51	| Q	| V	|	|	|
10+10	0.1772	0.44	|Q	| V	|	|	|
10+15	0.1800	0.41	|Q	| V	|	|	|
10+20	0.1827	0.39	|Q	| V	|	|	|
10+25	0.1853	0.38	|Q	| V	|	|	|
10+30	0.1879	0.38	|Q	| V	|	|	|
10+35	0.1906	0.39	|Q	| V	|	|	|
10+40	0.1937	0.44	|Q	| V	|	|	|
10+45	0.1969	0.47	|Q	| V	|	|	|
10+50	0.2002	0.47	|Q	| V	|	|	|
10+55	0.2035	0.48	|Q	| V	|	|	|
11+ 0	0.2068	0.48	|Q	| V	|	|	|
11+ 5	0.2101	0.48	|Q	| V	|	|	|
11+10	0.2134	0.47	|Q	| V	|	|	|
11+15	0.2166	0.47	|Q	| V	|	|	|
11+20	0.2199	0.47	|Q	| V	|	|	|
11+25	0.2231	0.47	|Q	| V	|	|	|
11+30	0.2263	0.47	|Q	| V	|	|	|
11+35	0.2295	0.46	|Q	| V	|	|	|
11+40	0.2325	0.44	|Q	| V	|	|	|
11+45	0.2355	0.43	|Q	| V	|	|	|
11+50	0.2384	0.43	|Q	| V	|	|	|
11+55	0.2414	0.44	|Q	| V	|	|	|
12+ 0	0.2445	0.44	|Q	| V	|	|	|
12+ 5	0.2477	0.46	|Q	| V	|	|	|
12+10	0.2514	0.54	| Q	| V	|	|	|



17+30	0.4695	0.12	Q	|	|	|	V |
17+35	0.4704	0.12	Q	|	|	|	V |
17+40	0.4712	0.12	Q	|	|	|	V |
17+45	0.4720	0.12	Q	|	|	|	V |
17+50	0.4729	0.12	Q	|	|	|	V |
17+55	0.4736	0.11	Q	|	|	|	V |
18+ 0	0.4743	0.10	Q	|	|	|	V |
18+ 5	0.4750	0.10	Q	|	|	|	V |
18+10	0.4757	0.10	Q	|	|	|	V |
18+15	0.4764	0.10	Q	|	|	|	V |
18+20	0.4771	0.10	Q	|	|	|	V |
18+25	0.4778	0.10	Q	|	|	|	V |
18+30	0.4785	0.10	Q	|	|	|	V |
18+35	0.4791	0.10	Q	|	|	|	V |
18+40	0.4797	0.08	Q	|	|	|	V |
18+45	0.4802	0.08	Q	|	|	|	V |
18+50	0.4808	0.07	Q	|	|	|	V |
18+55	0.4812	0.06	Q	|	|	|	V |
19+ 0	0.4816	0.06	Q	|	|	|	V |
19+ 5	0.4820	0.06	Q	|	|	|	V |
19+10	0.4824	0.07	Q	|	|	|	V |
19+15	0.4829	0.07	Q	|	|	|	V |
19+20	0.4834	0.07	Q	|	|	|	V |
19+25	0.4840	0.09	Q	|	|	|	V |
19+30	0.4846	0.09	Q	|	|	|	V |
19+35	0.4853	0.09	Q	|	|	|	V |
19+40	0.4858	0.08	Q	|	|	|	V |
19+45	0.4864	0.08	Q	|	|	|	V |
19+50	0.4869	0.07	Q	|	|	|	V |
19+55	0.4873	0.06	Q	|	|	|	V |
20+ 0	0.4877	0.06	Q	|	|	|	V |
20+ 5	0.4881	0.06	Q	|	|	|	V |
20+10	0.4885	0.07	Q	|	|	|	V |
20+15	0.4890	0.07	Q	|	|	|	V |
20+20	0.4895	0.07	Q	|	|	|	V |
20+25	0.4900	0.07	Q	|	|	|	V |
20+30	0.4905	0.07	Q	|	|	|	V |
20+35	0.4910	0.07	Q	|	|	|	V |
20+40	0.4915	0.07	Q	|	|	|	V |
20+45	0.4920	0.07	Q	|	|	|	V |
20+50	0.4925	0.07	Q	|	|	|	V |
20+55	0.4929	0.06	Q	|	|	|	V |
21+ 0	0.4933	0.05	Q	|	|	|	V |
21+ 5	0.4936	0.06	Q	|	|	|	V |
21+10	0.4941	0.07	Q	|	|	|	V |
21+15	0.4946	0.07	Q	|	|	|	V |
21+20	0.4950	0.07	Q	|	|	|	V|
21+25	0.4954	0.06	Q	|	|	|	V|
21+30	0.4958	0.05	Q	|	|	|	V|
21+35	0.4962	0.06	Q	|	|	|	V|
21+40	0.4966	0.06	Q	|	|	|	V|
21+45	0.4971	0.07	Q	|	|	|	V|
21+50	0.4976	0.07	Q	|	|	|	V|
21+55	0.4980	0.06	Q	|	|	|	V|
22+ 0	0.4984	0.05	Q	|	|	|	V|
22+ 5	0.4987	0.06	Q	|	|	|	V|
22+10	0.4992	0.06	Q	|	|	|	V|
22+15	0.4997	0.07	Q	|	|	|	V|
22+20	0.5001	0.07	Q	|	|	|	V|
22+25	0.5005	0.06	Q	|	|	|	V|
22+30	0.5009	0.05	Q	|	|	|	V|
22+35	0.5012	0.05	Q	|	|	|	V|
22+40	0.5016	0.05	Q	|	|	|	V|

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   22+45       0.5019      0.05  Q         |         |         |         V|
   22+50       0.5023      0.05  Q         |         |         |         V|
   22+55       0.5026      0.05  Q         |         |         |         V|
   23+ 0       0.5030      0.05  Q         |         |         |         V|
   23+ 5       0.5033      0.05  Q         |         |         |         V|
   23+10       0.5036      0.05  Q         |         |         |         V|
   23+15       0.5040      0.05  Q         |         |         |         V|
   23+20       0.5043      0.05  Q         |         |         |         V|
   23+25       0.5047      0.05  Q         |         |         |         V|
   23+30       0.5050      0.05  Q         |         |         |         V|
   23+35       0.5053      0.05  Q         |         |         |         V|
   23+40       0.5057      0.05  Q         |         |         |         V|
   23+45       0.5060      0.05  Q         |         |         |         V|
   23+50       0.5064      0.05  Q         |         |         |         V|
   23+55       0.5067      0.05  Q         |         |         |         V|
   24+ 0       0.5070      0.05  Q         |         |         |         V|
   24+ 5       0.5073      0.04  Q         |         |         |         V|
   24+10       0.5075      0.02  Q         |         |         |         V|
   24+15       0.5076      0.01  Q         |         |         |         V|
   24+20       0.5076      0.01  Q         |         |         |         V|
   24+25       0.5076      0.00  Q         |         |         |         V|
   24+30       0.5077      0.00  Q         |         |         |         V|
   24+35       0.5077      0.00  Q         |         |         |         V|
   24+40       0.5077      0.00  Q         |         |         |         V|
   24+45       0.5077      0.00  Q         |         |         |         V|
   24+50       0.5077      0.00  Q         |         |         |          V
-------------------------------------------------------------------------
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APPENDIX H: HYDROLOGY CALCULATIONS BASED ON PROPOSED CONDITION FOR AREA “B” (HYDROGRAPH METHOD)

APPENDIX H.1: AREA “B” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS
100–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

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Study date 06/24/15 File: BPR24100.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - PROPOSED CONDITION
100YR-24HR
FN: BPR24100

Drainage Area = 18.97(Ac.) = 0.030 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 18.97(Ac.) = 0.030 Sq. Mi.
Length along longest watercourse = 1479.00(Ft.)
Length along longest watercourse measured to centroid = 969.00(Ft.)
Length along longest watercourse = 0.280 Mi.
Length along longest watercourse measured to centroid = 0.184 Mi.
Difference in elevation = 58.00(Ft.)
Slope along watercourse = 207.0588 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.042 Hr.
Lag time = 2.54 Min.
25% of lag time = 0.63 Min.
40% of lag time = 1.02 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	2.50	47.42

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	8.00	151.76

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 8.000(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 8.000(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
18.970	60.00	0.470

Total Area Entered = 18.97(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
60.0	60.0	0.470	0.470	0.271	1.000	0.271
					Sum (F) =	0.271

Area averaged mean soil loss (F) (In/Hr) = 0.271
Minimum soil loss rate ((In/Hr)) = 0.136
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.520

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	196.963	42.871	8.196
2	0.167	393.926	43.580	8.332
3	0.250	590.889	8.919	1.705
4	0.333	787.852	3.487	0.667
5	0.417	984.816	1.143	0.218
		Sum = 100.000	Sum=	19.118

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max		Low	Effective (In/Hr)
1	0.08	0.07	0.064	(0.481)		0.033	0.031
2	0.17	0.07	0.064	(0.479)		0.033	0.031
3	0.25	0.07	0.064	(0.477)		0.033	0.031
4	0.33	0.10	0.096	(0.475)		0.050	0.046
5	0.42	0.10	0.096	(0.473)		0.050	0.046
6	0.50	0.10	0.096	(0.471)		0.050	0.046
7	0.58	0.10	0.096	(0.470)		0.050	0.046
8	0.67	0.10	0.096	(0.468)		0.050	0.046
9	0.75	0.10	0.096	(0.466)		0.050	0.046
10	0.83	0.13	0.128	(0.464)		0.067	0.061
11	0.92	0.13	0.128	(0.462)		0.067	0.061
12	1.00	0.13	0.128	(0.460)		0.067	0.061
13	1.08	0.10	0.096	(0.459)		0.050	0.046
14	1.17	0.10	0.096	(0.457)		0.050	0.046
15	1.25	0.10	0.096	(0.455)		0.050	0.046
16	1.33	0.10	0.096	(0.453)		0.050	0.046
17	1.42	0.10	0.096	(0.451)		0.050	0.046
18	1.50	0.10	0.096	(0.450)		0.050	0.046
19	1.58	0.10	0.096	(0.448)		0.050	0.046
20	1.67	0.10	0.096	(0.446)		0.050	0.046

21	1.75	0.10	0.096	(0.444)	0.050	0.046
22	1.83	0.13	0.128	(0.442)	0.067	0.061
23	1.92	0.13	0.128	(0.441)	0.067	0.061
24	2.00	0.13	0.128	(0.439)	0.067	0.061
25	2.08	0.13	0.128	(0.437)	0.067	0.061
26	2.17	0.13	0.128	(0.435)	0.067	0.061
27	2.25	0.13	0.128	(0.434)	0.067	0.061
28	2.33	0.13	0.128	(0.432)	0.067	0.061
29	2.42	0.13	0.128	(0.430)	0.067	0.061
30	2.50	0.13	0.128	(0.428)	0.067	0.061
31	2.58	0.17	0.160	(0.427)	0.083	0.077
32	2.67	0.17	0.160	(0.425)	0.083	0.077
33	2.75	0.17	0.160	(0.423)	0.083	0.077
34	2.83	0.17	0.160	(0.421)	0.083	0.077
35	2.92	0.17	0.160	(0.420)	0.083	0.077
36	3.00	0.17	0.160	(0.418)	0.083	0.077
37	3.08	0.17	0.160	(0.416)	0.083	0.077
38	3.17	0.17	0.160	(0.414)	0.083	0.077
39	3.25	0.17	0.160	(0.413)	0.083	0.077
40	3.33	0.17	0.160	(0.411)	0.083	0.077
41	3.42	0.17	0.160	(0.409)	0.083	0.077
42	3.50	0.17	0.160	(0.408)	0.083	0.077
43	3.58	0.17	0.160	(0.406)	0.083	0.077
44	3.67	0.17	0.160	(0.404)	0.083	0.077
45	3.75	0.17	0.160	(0.402)	0.083	0.077
46	3.83	0.20	0.192	(0.401)	0.100	0.092
47	3.92	0.20	0.192	(0.399)	0.100	0.092
48	4.00	0.20	0.192	(0.397)	0.100	0.092
49	4.08	0.20	0.192	(0.396)	0.100	0.092
50	4.17	0.20	0.192	(0.394)	0.100	0.092
51	4.25	0.20	0.192	(0.392)	0.100	0.092
52	4.33	0.23	0.224	(0.391)	0.116	0.108
53	4.42	0.23	0.224	(0.389)	0.116	0.108
54	4.50	0.23	0.224	(0.387)	0.116	0.108
55	4.58	0.23	0.224	(0.386)	0.116	0.108
56	4.67	0.23	0.224	(0.384)	0.116	0.108
57	4.75	0.23	0.224	(0.382)	0.116	0.108
58	4.83	0.27	0.256	(0.381)	0.133	0.123
59	4.92	0.27	0.256	(0.379)	0.133	0.123
60	5.00	0.27	0.256	(0.377)	0.133	0.123
61	5.08	0.20	0.192	(0.376)	0.100	0.092
62	5.17	0.20	0.192	(0.374)	0.100	0.092
63	5.25	0.20	0.192	(0.372)	0.100	0.092
64	5.33	0.23	0.224	(0.371)	0.116	0.108
65	5.42	0.23	0.224	(0.369)	0.116	0.108
66	5.50	0.23	0.224	(0.368)	0.116	0.108
67	5.58	0.27	0.256	(0.366)	0.133	0.123
68	5.67	0.27	0.256	(0.364)	0.133	0.123
69	5.75	0.27	0.256	(0.363)	0.133	0.123
70	5.83	0.27	0.256	(0.361)	0.133	0.123
71	5.92	0.27	0.256	(0.360)	0.133	0.123
72	6.00	0.27	0.256	(0.358)	0.133	0.123
73	6.08	0.30	0.288	(0.356)	0.150	0.138
74	6.17	0.30	0.288	(0.355)	0.150	0.138
75	6.25	0.30	0.288	(0.353)	0.150	0.138
76	6.33	0.30	0.288	(0.352)	0.150	0.138
77	6.42	0.30	0.288	(0.350)	0.150	0.138
78	6.50	0.30	0.288	(0.348)	0.150	0.138
79	6.58	0.33	0.320	(0.347)	0.166	0.154
80	6.67	0.33	0.320	(0.345)	0.166	0.154
81	6.75	0.33	0.320	(0.344)	0.166	0.154
82	6.83	0.33	0.320	(0.342)	0.166	0.154
83	6.92	0.33	0.320	(0.341)	0.166	0.154

84	7.00	0.33	0.320	(	0.339)	0.166		0.154
85	7.08	0.33	0.320	(	0.338)	0.166		0.154
86	7.17	0.33	0.320	(	0.336)	0.166		0.154
87	7.25	0.33	0.320	(	0.335)	0.166		0.154
88	7.33	0.37	0.352	(	0.333)	0.183		0.169
89	7.42	0.37	0.352	(	0.331)	0.183		0.169
90	7.50	0.37	0.352	(	0.330)	0.183		0.169
91	7.58	0.40	0.384	(	0.328)	0.200		0.184
92	7.67	0.40	0.384	(	0.327)	0.200		0.184
93	7.75	0.40	0.384	(	0.325)	0.200		0.184
94	7.83	0.43	0.416	(	0.324)	0.216		0.200
95	7.92	0.43	0.416	(	0.322)	0.216		0.200
96	8.00	0.43	0.416	(	0.321)	0.216		0.200
97	8.08	0.50	0.480	(	0.319)	0.250		0.230
98	8.17	0.50	0.480	(	0.318)	0.250		0.230
99	8.25	0.50	0.480	(	0.316)	0.250		0.230
100	8.33	0.50	0.480	(	0.315)	0.250		0.230
101	8.42	0.50	0.480	(	0.314)	0.250		0.230
102	8.50	0.50	0.480	(	0.312)	0.250		0.230
103	8.58	0.53	0.512	(	0.311)	0.266		0.246
104	8.67	0.53	0.512	(	0.309)	0.266		0.246
105	8.75	0.53	0.512	(	0.308)	0.266		0.246
106	8.83	0.57	0.544	(	0.306)	0.283		0.261
107	8.92	0.57	0.544	(	0.305)	0.283		0.261
108	9.00	0.57	0.544	(	0.303)	0.283		0.261
109	9.08	0.63	0.608		0.302	(0.316)		0.306
110	9.17	0.63	0.608		0.300	(0.316)		0.308
111	9.25	0.63	0.608		0.299	(0.316)		0.309
112	9.33	0.67	0.640		0.298	(0.333)		0.342
113	9.42	0.67	0.640		0.296	(0.333)		0.344
114	9.50	0.67	0.640		0.295	(0.333)		0.345
115	9.58	0.70	0.672		0.293	(0.349)		0.379
116	9.67	0.70	0.672		0.292	(0.349)		0.380
117	9.75	0.70	0.672		0.291	(0.349)		0.381
118	9.83	0.73	0.704		0.289	(0.366)		0.415
119	9.92	0.73	0.704		0.288	(0.366)		0.416
120	10.00	0.73	0.704		0.286	(0.366)		0.418
121	10.08	0.50	0.480	(	0.285)	0.250		0.230
122	10.17	0.50	0.480	(	0.284)	0.250		0.230
123	10.25	0.50	0.480	(	0.282)	0.250		0.230
124	10.33	0.50	0.480	(	0.281)	0.250		0.230
125	10.42	0.50	0.480	(	0.279)	0.250		0.230
126	10.50	0.50	0.480	(	0.278)	0.250		0.230
127	10.58	0.67	0.640		0.277	(0.333)		0.363
128	10.67	0.67	0.640		0.275	(0.333)		0.365
129	10.75	0.67	0.640		0.274	(0.333)		0.366
130	10.83	0.67	0.640		0.273	(0.333)		0.367
131	10.92	0.67	0.640		0.271	(0.333)		0.369
132	11.00	0.67	0.640		0.270	(0.333)		0.370
133	11.08	0.63	0.608		0.269	(0.316)		0.339
134	11.17	0.63	0.608		0.267	(0.316)		0.341
135	11.25	0.63	0.608		0.266	(0.316)		0.342
136	11.33	0.63	0.608		0.265	(0.316)		0.343
137	11.42	0.63	0.608		0.263	(0.316)		0.345
138	11.50	0.63	0.608		0.262	(0.316)		0.346
139	11.58	0.57	0.544		0.261	(0.283)		0.283
140	11.67	0.57	0.544		0.260	(0.283)		0.284
141	11.75	0.57	0.544		0.258	(0.283)		0.286
142	11.83	0.60	0.576		0.257	(0.300)		0.319
143	11.92	0.60	0.576		0.256	(0.300)		0.320
144	12.00	0.60	0.576		0.254	(0.300)		0.322
145	12.08	0.83	0.800		0.253	(0.416)		0.547
146	12.17	0.83	0.800		0.252	(0.416)		0.548

147	12.25	0.83	0.800		0.251	(0.416)	0.549
148	12.33	0.87	0.832		0.249	(0.433)	0.583
149	12.42	0.87	0.832		0.248	(0.433)	0.584
150	12.50	0.87	0.832		0.247	(0.433)	0.585
151	12.58	0.93	0.896		0.246	(0.466)	0.650
152	12.67	0.93	0.896		0.244	(0.466)	0.652
153	12.75	0.93	0.896		0.243	(0.466)	0.653
154	12.83	0.97	0.928		0.242	(0.483)	0.686
155	12.92	0.97	0.928		0.241	(0.483)	0.687
156	13.00	0.97	0.928		0.239	(0.483)	0.688
157	13.08	1.13	1.088		0.238	(0.566)	0.850
158	13.17	1.13	1.088		0.237	(0.566)	0.851
159	13.25	1.13	1.088		0.236	(0.566)	0.852
160	13.33	1.13	1.088		0.235	(0.566)	0.853
161	13.42	1.13	1.088		0.233	(0.566)	0.854
162	13.50	1.13	1.088		0.232	(0.566)	0.856
163	13.58	0.77	0.736		0.231	(0.383)	0.505
164	13.67	0.77	0.736		0.230	(0.383)	0.506
165	13.75	0.77	0.736		0.229	(0.383)	0.507
166	13.83	0.77	0.736		0.228	(0.383)	0.508
167	13.92	0.77	0.736		0.226	(0.383)	0.510
168	14.00	0.77	0.736		0.225	(0.383)	0.511
169	14.08	0.90	0.864		0.224	(0.449)	0.640
170	14.17	0.90	0.864		0.223	(0.449)	0.641
171	14.25	0.90	0.864		0.222	(0.449)	0.642
172	14.33	0.87	0.832		0.221	(0.433)	0.611
173	14.42	0.87	0.832		0.220	(0.433)	0.612
174	14.50	0.87	0.832		0.218	(0.433)	0.614
175	14.58	0.87	0.832		0.217	(0.433)	0.615
176	14.67	0.87	0.832		0.216	(0.433)	0.616
177	14.75	0.87	0.832		0.215	(0.433)	0.617
178	14.83	0.83	0.800		0.214	(0.416)	0.586
179	14.92	0.83	0.800		0.213	(0.416)	0.587
180	15.00	0.83	0.800		0.212	(0.416)	0.588
181	15.08	0.80	0.768		0.211	(0.399)	0.557
182	15.17	0.80	0.768		0.210	(0.399)	0.558
183	15.25	0.80	0.768		0.209	(0.399)	0.559
184	15.33	0.77	0.736		0.207	(0.383)	0.528
185	15.42	0.77	0.736		0.206	(0.383)	0.530
186	15.50	0.77	0.736		0.205	(0.383)	0.531
187	15.58	0.63	0.608		0.204	(0.316)	0.404
188	15.67	0.63	0.608		0.203	(0.316)	0.405
189	15.75	0.63	0.608		0.202	(0.316)	0.406
190	15.83	0.63	0.608		0.201	(0.316)	0.407
191	15.92	0.63	0.608		0.200	(0.316)	0.408
192	16.00	0.63	0.608		0.199	(0.316)	0.409
193	16.08	0.13	0.128	(	0.198)	0.067	0.061
194	16.17	0.13	0.128	(	0.197)	0.067	0.061
195	16.25	0.13	0.128	(	0.196)	0.067	0.061
196	16.33	0.13	0.128	(	0.195)	0.067	0.061
197	16.42	0.13	0.128	(	0.194)	0.067	0.061
198	16.50	0.13	0.128	(	0.193)	0.067	0.061
199	16.58	0.10	0.096	(	0.192)	0.050	0.046
200	16.67	0.10	0.096	(	0.191)	0.050	0.046
201	16.75	0.10	0.096	(	0.190)	0.050	0.046
202	16.83	0.10	0.096	(	0.189)	0.050	0.046
203	16.92	0.10	0.096	(	0.188)	0.050	0.046
204	17.00	0.10	0.096	(	0.187)	0.050	0.046
205	17.08	0.17	0.160	(	0.186)	0.083	0.077
206	17.17	0.17	0.160	(	0.185)	0.083	0.077
207	17.25	0.17	0.160	(	0.185)	0.083	0.077
208	17.33	0.17	0.160	(	0.184)	0.083	0.077
209	17.42	0.17	0.160	(	0.183)	0.083	0.077

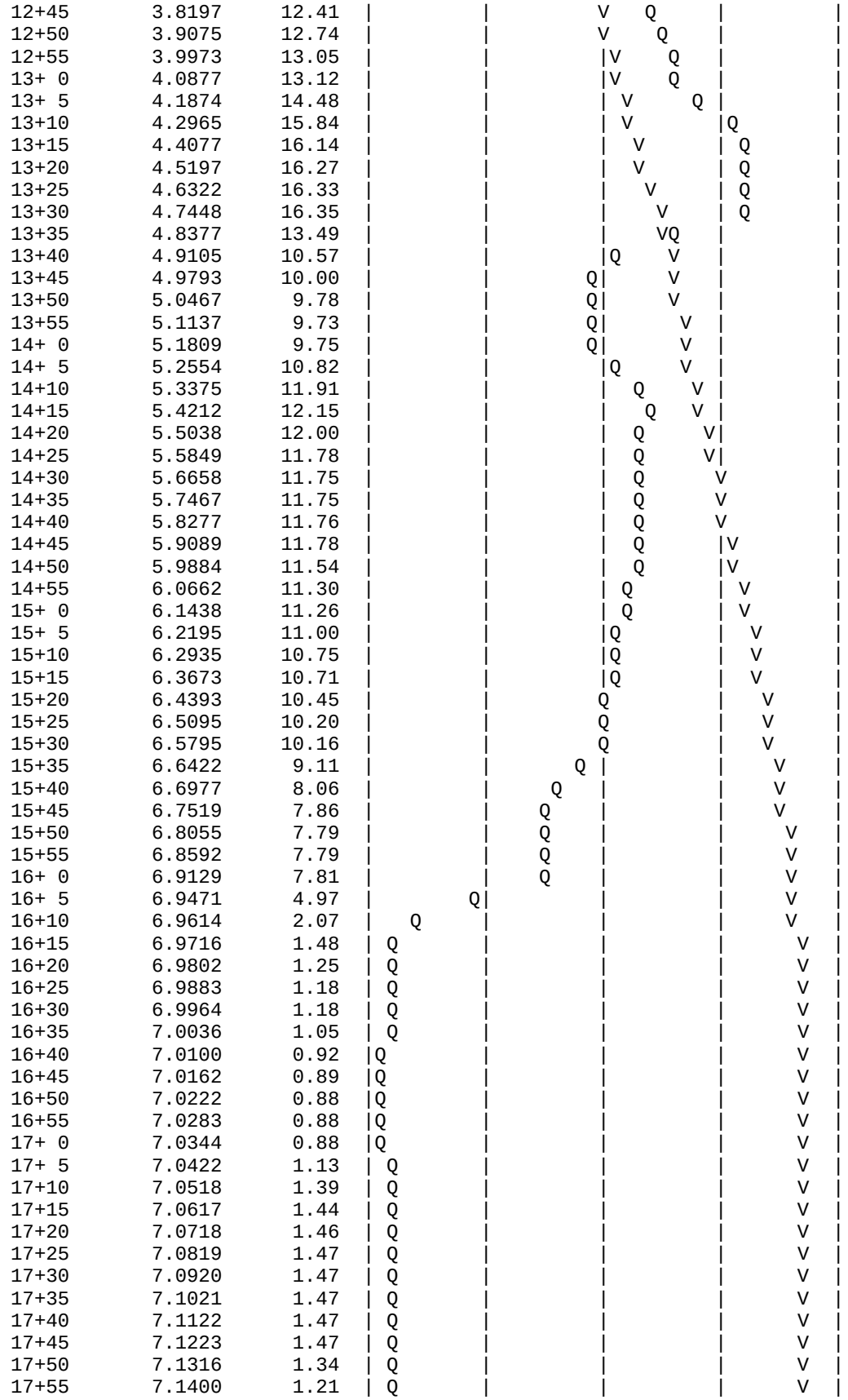
210	17.50	0.17	0.160	(0.182)	0.083	0.077
211	17.58	0.17	0.160	(0.181)	0.083	0.077
212	17.67	0.17	0.160	(0.180)	0.083	0.077
213	17.75	0.17	0.160	(0.179)	0.083	0.077
214	17.83	0.13	0.128	(0.178)	0.067	0.061
215	17.92	0.13	0.128	(0.177)	0.067	0.061
216	18.00	0.13	0.128	(0.176)	0.067	0.061
217	18.08	0.13	0.128	(0.176)	0.067	0.061
218	18.17	0.13	0.128	(0.175)	0.067	0.061
219	18.25	0.13	0.128	(0.174)	0.067	0.061
220	18.33	0.13	0.128	(0.173)	0.067	0.061
221	18.42	0.13	0.128	(0.172)	0.067	0.061
222	18.50	0.13	0.128	(0.171)	0.067	0.061
223	18.58	0.10	0.096	(0.170)	0.050	0.046
224	18.67	0.10	0.096	(0.170)	0.050	0.046
225	18.75	0.10	0.096	(0.169)	0.050	0.046
226	18.83	0.07	0.064	(0.168)	0.033	0.031
227	18.92	0.07	0.064	(0.167)	0.033	0.031
228	19.00	0.07	0.064	(0.166)	0.033	0.031
229	19.08	0.10	0.096	(0.166)	0.050	0.046
230	19.17	0.10	0.096	(0.165)	0.050	0.046
231	19.25	0.10	0.096	(0.164)	0.050	0.046
232	19.33	0.13	0.128	(0.163)	0.067	0.061
233	19.42	0.13	0.128	(0.163)	0.067	0.061
234	19.50	0.13	0.128	(0.162)	0.067	0.061
235	19.58	0.10	0.096	(0.161)	0.050	0.046
236	19.67	0.10	0.096	(0.160)	0.050	0.046
237	19.75	0.10	0.096	(0.160)	0.050	0.046
238	19.83	0.07	0.064	(0.159)	0.033	0.031
239	19.92	0.07	0.064	(0.158)	0.033	0.031
240	20.00	0.07	0.064	(0.157)	0.033	0.031
241	20.08	0.10	0.096	(0.157)	0.050	0.046
242	20.17	0.10	0.096	(0.156)	0.050	0.046
243	20.25	0.10	0.096	(0.155)	0.050	0.046
244	20.33	0.10	0.096	(0.155)	0.050	0.046
245	20.42	0.10	0.096	(0.154)	0.050	0.046
246	20.50	0.10	0.096	(0.153)	0.050	0.046
247	20.58	0.10	0.096	(0.153)	0.050	0.046
248	20.67	0.10	0.096	(0.152)	0.050	0.046
249	20.75	0.10	0.096	(0.152)	0.050	0.046
250	20.83	0.07	0.064	(0.151)	0.033	0.031
251	20.92	0.07	0.064	(0.150)	0.033	0.031
252	21.00	0.07	0.064	(0.150)	0.033	0.031
253	21.08	0.10	0.096	(0.149)	0.050	0.046
254	21.17	0.10	0.096	(0.148)	0.050	0.046
255	21.25	0.10	0.096	(0.148)	0.050	0.046
256	21.33	0.07	0.064	(0.147)	0.033	0.031
257	21.42	0.07	0.064	(0.147)	0.033	0.031
258	21.50	0.07	0.064	(0.146)	0.033	0.031
259	21.58	0.10	0.096	(0.146)	0.050	0.046
260	21.67	0.10	0.096	(0.145)	0.050	0.046
261	21.75	0.10	0.096	(0.145)	0.050	0.046
262	21.83	0.07	0.064	(0.144)	0.033	0.031
263	21.92	0.07	0.064	(0.144)	0.033	0.031
264	22.00	0.07	0.064	(0.143)	0.033	0.031
265	22.08	0.10	0.096	(0.143)	0.050	0.046
266	22.17	0.10	0.096	(0.142)	0.050	0.046
267	22.25	0.10	0.096	(0.142)	0.050	0.046
268	22.33	0.07	0.064	(0.141)	0.033	0.031
269	22.42	0.07	0.064	(0.141)	0.033	0.031
270	22.50	0.07	0.064	(0.141)	0.033	0.031
271	22.58	0.07	0.064	(0.140)	0.033	0.031
272	22.67	0.07	0.064	(0.140)	0.033	0.031

```
273  22.75     0.07      0.064       (  0.139)       0.033        0.031
274  22.83     0.07      0.064       (  0.139)       0.033        0.031
275  22.92     0.07      0.064       (  0.139)       0.033        0.031
276  23.00     0.07      0.064       (  0.138)       0.033        0.031
277  23.08     0.07      0.064       (  0.138)       0.033        0.031
278  23.17     0.07      0.064       (  0.138)       0.033        0.031
279  23.25     0.07      0.064       (  0.137)       0.033        0.031
280  23.33     0.07      0.064       (  0.137)       0.033        0.031
281  23.42     0.07      0.064       (  0.137)       0.033        0.031
282  23.50     0.07      0.064       (  0.137)       0.033        0.031
283  23.58     0.07      0.064       (  0.136)       0.033        0.031
284  23.67     0.07      0.064       (  0.136)       0.033        0.031
285  23.75     0.07      0.064       (  0.136)       0.033        0.031
286  23.83     0.07      0.064       (  0.136)       0.033        0.031
287  23.92     0.07      0.064       (  0.136)       0.033        0.031
288  24.00     0.07      0.064       (  0.136)       0.033        0.031
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    57.2
     Flood volume = Effective rainfall      4.77(In)
      times area      19.0(Ac.)/[(In)/(Ft.)] =       7.5(Ac.Ft)
     Total soil loss =      3.23(In)
     Total soil loss =     5.109(Ac.Ft)
     Total rainfall =      8.00(In)
     Flood volume =      328302.2 Cubic Feet
     Total soil loss =      222566.2 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =     16.350(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         24 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        5.0      10.0      15.0      20.0
 ------------------------------------------------------------------------
   0+ 5       0.0017      0.25  Q         |         |         |         |
   0+10       0.0052      0.51  VQ        |         |         |         |
   0+15       0.0091      0.56  VQ        |         |         |         |
   0+20       0.0140      0.71  VQ        |         |         |         |
   0+25       0.0198      0.84  VQ        |         |         |         |
   0+30       0.0257      0.87  VQ        |         |         |         |
   0+35       0.0318      0.88  VQ        |         |         |         |
   0+40       0.0379      0.88  VQ        |         |         |         |
   0+45       0.0439      0.88  VQ        |         |         |         |
   0+50       0.0509      1.01  V Q       |         |         |         |
   0+55       0.0587      1.14  V Q       |         |         |         |
   1+ 0       0.0667      1.16  V Q       |         |         |         |
   1+ 5       0.0739      1.05  V Q       |         |         |         |
   1+10       0.0802      0.92  VQ        |         |         |         |
   1+15       0.0864      0.89  VQ        |         |         |         |
   1+20       0.0925      0.88  VQ        |         |         |         |
   1+25       0.0986      0.88  VQ        |         |         |         |
   1+30       0.1046      0.88  VQ        |         |         |         |
   1+35       0.1107      0.88  VQ        |         |         |         |
   1+40       0.1168      0.88  VQ        |         |         |         |
   1+45       0.1228      0.88  VQ        |         |         |         |
   1+50       0.1298      1.01  V Q       |         |         |         |
   1+55       0.1376      1.14  V Q       |         |         |         |
   2+ 0       0.1456      1.16  V Q       |         |         |         |
   2+ 5       0.1537      1.17  V Q       |         |         |         |
   2+10       0.1618      1.18  V Q       |         |         |         |
```

2+15	0.1698	1.18	V Q				
2+20	0.1779	1.18	V Q				
2+25	0.1860	1.18	V Q				
2+30	0.1941	1.18	VQ				
2+35	0.2031	1.30	VQ				
2+40	0.2129	1.43	VQ				
2+45	0.2230	1.46	VQ				
2+50	0.2330	1.47	VQ				
2+55	0.2432	1.47	VQ				
3+ 0	0.2533	1.47	VQ				
3+ 5	0.2634	1.47	VQ				
3+10	0.2735	1.47	VQ				
3+15	0.2836	1.47	VQ				
3+20	0.2938	1.47	VQ				
3+25	0.3039	1.47	VQ				
3+30	0.3140	1.47	VQ				
3+35	0.3241	1.47	VQ				
3+40	0.3342	1.47	VQ				
3+45	0.3443	1.47	VQ				
3+50	0.3553	1.59	V Q				
3+55	0.3672	1.72	V Q				
4+ 0	0.3792	1.75	VQ				
4+ 5	0.3914	1.76	VQ				
4+10	0.4035	1.76	VQ				
4+15	0.4156	1.76	VQ				
4+20	0.4286	1.89	VQ				
4+25	0.4425	2.02	V Q				
4+30	0.4566	2.04	V Q				
4+35	0.4707	2.05	V Q				
4+40	0.4849	2.06	V Q				
4+45	0.4991	2.06	V Q				
4+50	0.5141	2.18	V Q				
4+55	0.5300	2.31	V Q				
5+ 0	0.5461	2.34	V Q				
5+ 5	0.5605	2.10	V Q				
5+10	0.5732	1.84	Q				
5+15	0.5855	1.79	Q				
5+20	0.5986	1.90	Q				
5+25	0.6125	2.02	VQ				
5+30	0.6266	2.04	VQ				
5+35	0.6416	2.18	VQ				
5+40	0.6575	2.31	VQ				
5+45	0.6736	2.34	VQ				
5+50	0.6897	2.35	VQ				
5+55	0.7059	2.35	VQ				
6+ 0	0.7221	2.35	VQ				
6+ 5	0.7392	2.48	VQ				
6+10	0.7571	2.60	VQ				
6+15	0.7752	2.63	VQ				
6+20	0.7934	2.64	VQ				
6+25	0.8116	2.64	VQ				
6+30	0.8298	2.64	VQ				
6+35	0.8489	2.77	VQ				
6+40	0.8689	2.90	VQ				
6+45	0.8890	2.92	VQ				
6+50	0.9092	2.93	VQ				
6+55	0.9295	2.94	VQ				
7+ 0	0.9497	2.94	Q				
7+ 5	0.9699	2.94	Q				
7+10	0.9902	2.94	Q				
7+15	1.0104	2.94	Q				
7+20	1.0315	3.06	VQ				
7+25	1.0535	3.19	VQ				

7+30	1.0756	3.22	VQ			
7+35	1.0987	3.35	VQ			
7+40	1.1227	3.49	VQ			
7+45	1.1469	3.51	VQ			
7+50	1.1721	3.65	VQ			
7+55	1.1981	3.78	VQ			
8+ 0	1.2243	3.81	VQ			
8+ 5	1.2523	4.07	V Q			
8+10	1.2821	4.33	V Q			
8+15	1.3123	4.38	V Q			
8+20	1.3426	4.40	VQ			
8+25	1.3729	4.41	VQ			
8+30	1.4033	4.41	VQ			
8+35	1.4345	4.53	V Q			
8+40	1.4666	4.66	V Q			
8+45	1.4989	4.69	V Q			
8+50	1.5321	4.82	VQ			
8+55	1.5662	4.95	VQ			
9+ 0	1.6005	4.98	VQ			
9+ 5	1.6374	5.36	V Q			
9+10	1.6770	5.75	V Q			
9+15	1.7173	5.85	V Q			
9+20	1.7598	6.17	V Q			
9+25	1.8044	6.47	V Q			
9+30	1.8495	6.55	V Q			
9+35	1.8968	6.86	V Q			
9+40	1.9462	7.17	V Q			
9+45	1.9961	7.25	V Q			
9+50	2.0481	7.56	V Q			
9+55	2.1022	7.86	V Q			
10+ 0	2.1569	7.94	V Q			
10+ 5	2.2013	6.44	VQ			
10+10	2.2349	4.89	Q V			
10+15	2.2664	4.57	Q V			
10+20	2.2971	4.45	Q V			
10+25	2.3274	4.41	Q V			
10+30	2.3578	4.41	Q V			
10+35	2.3956	5.50	Q V			
10+40	2.4412	6.61	VQ			
10+45	2.4884	6.86	Q			
10+50	2.5365	6.98	Q			
10+55	2.5849	7.03	VQ			
11+ 0	2.6335	7.06	VQ			
11+ 5	2.6805	6.82	QV			
11+10	2.7258	6.58	QV			
11+15	2.7709	6.55	QV			
11+20	2.8160	6.55	QV			
11+25	2.8613	6.57	Q V			
11+30	2.9067	6.60	Q V			
11+35	2.9487	6.10	Q V			
11+40	2.9871	5.59	Q V			
11+45	3.0250	5.50	Q V			
11+50	3.0646	5.75	Q V			
11+55	3.1061	6.02	Q V			
12+ 0	3.1482	6.10	Q V			
12+ 5	3.2032	7.99	Q V			
12+10	3.2712	9.88	V Q			
12+15	3.3421	10.29	V Q			
12+20	3.4160	10.73	V Q			
12+25	3.4922	11.07	V Q			
12+30	3.5690	11.15	V Q			
12+35	3.6496	11.72	V Q			
12+40	3.7342	12.28	V Q			



18+ 0	7.1481	1.19	Q				V
18+ 5	7.1563	1.18	Q				V
18+10	7.1644	1.18	Q				V
18+15	7.1725	1.18	Q				V
18+20	7.1805	1.18	Q				V
18+25	7.1886	1.18	Q				V
18+30	7.1967	1.18	Q				V
18+35	7.2040	1.05	Q				V
18+40	7.2103	0.92	Q				V
18+45	7.2165	0.89	Q				V
18+50	7.2217	0.76	Q				V
18+55	7.2260	0.63	Q				V
19+ 0	7.2302	0.60	Q				V
19+ 5	7.2351	0.72	Q				V
19+10	7.2409	0.84	Q				V
19+15	7.2469	0.87	Q				V
19+20	7.2538	1.00	Q				V
19+25	7.2616	1.14	Q				V
19+30	7.2696	1.16	Q				V
19+35	7.2768	1.05	Q				V
19+40	7.2831	0.92	Q				V
19+45	7.2893	0.89	Q				V
19+50	7.2945	0.76	Q				V
19+55	7.2989	0.63	Q				V
20+ 0	7.3030	0.60	Q				V
20+ 5	7.3079	0.72	Q				V
20+10	7.3137	0.84	Q				V
20+15	7.3197	0.87	Q				V
20+20	7.3258	0.88	Q				V
20+25	7.3318	0.88	Q				V
20+30	7.3379	0.88	Q				V
20+35	7.3440	0.88	Q				V
20+40	7.3500	0.88	Q				V
20+45	7.3561	0.88	Q				V
20+50	7.3613	0.76	Q				V
20+55	7.3656	0.63	Q				V
21+ 0	7.3698	0.60	Q				V
21+ 5	7.3747	0.72	Q				V
21+10	7.3805	0.84	Q				V
21+15	7.3865	0.87	Q				V
21+20	7.3917	0.75	Q				V
21+25	7.3960	0.63	Q				V
21+30	7.4001	0.60	Q				V
21+35	7.4051	0.72	Q				V
21+40	7.4109	0.84	Q				V
21+45	7.4168	0.87	Q				V
21+50	7.4220	0.75	Q				V
21+55	7.4263	0.63	Q				V
22+ 0	7.4305	0.60	Q				V
22+ 5	7.4354	0.72	Q				V
22+10	7.4412	0.84	Q				V
22+15	7.4472	0.87	Q				V
22+20	7.4524	0.75	Q				V
22+25	7.4567	0.63	Q				V
22+30	7.4608	0.60	Q				V
22+35	7.4649	0.59	Q				V
22+40	7.4689	0.59	Q				V
22+45	7.4730	0.59	Q				V
22+50	7.4770	0.59	Q				V
22+55	7.4811	0.59	Q				V
23+ 0	7.4851	0.59	Q				V
23+ 5	7.4892	0.59	Q				V
23+10	7.4932	0.59	Q				V

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   23+15       7.4973      0.59  |Q        |         |         |        V|
   23+20       7.5013      0.59  |Q        |         |         |        V|
   23+25       7.5054      0.59  |Q        |         |         |        V|
   23+30       7.5094      0.59  |Q        |         |         |        V|
   23+35       7.5135      0.59  |Q        |         |         |        V|
   23+40       7.5175      0.59  |Q        |         |         |        V|
   23+45       7.5215      0.59  |Q        |         |         |        V|
   23+50       7.5256      0.59  |Q        |         |         |        V|
   23+55       7.5296      0.59  |Q        |         |         |        V|
   24+ 0       7.5337      0.59  |Q        |         |         |        V|
   24+ 5       7.5360      0.34  Q         |         |         |        V|
   24+10       7.5365      0.08  Q         |         |         |        V|
   24+15       7.5367      0.03  Q         |         |         |        V|
   24+20       7.5368      0.01  Q         |         |         |         V
-------------------------------------------------------------------------
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APPENDIX H.2: AREA “B” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS 10–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 06/24/15 File: BPR2410.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - PROPOSED CONDITION
10YR-24HR
FN: BPR2410

Drainage Area = 18.97(Ac.) = 0.030 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 18.97(Ac.) = 0.030 Sq. Mi.
Length along longest watercourse = 1479.00(Ft.)
Length along longest watercourse measured to centroid = 969.00(Ft.)
Length along longest watercourse = 0.280 Mi.
Length along longest watercourse measured to centroid = 0.184 Mi.
Difference in elevation = 58.00(Ft.)
Slope along watercourse = 207.0588 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.042 Hr.
Lag time = 2.54 Min.
25% of lag time = 0.63 Min.
40% of lag time = 1.02 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	2.50	47.42

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	8.00	151.76

STORM EVENT (YEAR) = 10.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 4.763(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 4.763(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
18.970	60.00	0.470

Total Area Entered = 18.97(Ac.)

RI AMC2	RI AMC-2	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
60.0	60.0	0.470	0.470	0.271	1.000	0.271
					Sum (F) =	0.271

Area averaged mean soil loss (F) (In/Hr) = 0.271
Minimum soil loss rate ((In/Hr)) = 0.136
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.520

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	196.963	42.871	8.196
2	0.167	393.926	43.580	8.332
3	0.250	590.889	8.919	1.705
4	0.333	787.852	3.487	0.667
5	0.417	984.816	1.143	0.218
		Sum = 100.000	Sum=	19.118

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.038	(0.481)	0.020	0.018
2	0.17	0.07	0.038	(0.479)	0.020	0.018
3	0.25	0.07	0.038	(0.477)	0.020	0.018
4	0.33	0.10	0.057	(0.475)	0.030	0.027
5	0.42	0.10	0.057	(0.473)	0.030	0.027
6	0.50	0.10	0.057	(0.471)	0.030	0.027
7	0.58	0.10	0.057	(0.470)	0.030	0.027
8	0.67	0.10	0.057	(0.468)	0.030	0.027
9	0.75	0.10	0.057	(0.466)	0.030	0.027
10	0.83	0.13	0.076	(0.464)	0.040	0.037
11	0.92	0.13	0.076	(0.462)	0.040	0.037
12	1.00	0.13	0.076	(0.460)	0.040	0.037
13	1.08	0.10	0.057	(0.459)	0.030	0.027
14	1.17	0.10	0.057	(0.457)	0.030	0.027
15	1.25	0.10	0.057	(0.455)	0.030	0.027
16	1.33	0.10	0.057	(0.453)	0.030	0.027
17	1.42	0.10	0.057	(0.451)	0.030	0.027
18	1.50	0.10	0.057	(0.450)	0.030	0.027
19	1.58	0.10	0.057	(0.448)	0.030	0.027
20	1.67	0.10	0.057	(0.446)	0.030	0.027

21	1.75	0.10	0.057	(0.444)	0.030	0.027
22	1.83	0.13	0.076	(0.442)	0.040	0.037
23	1.92	0.13	0.076	(0.441)	0.040	0.037
24	2.00	0.13	0.076	(0.439)	0.040	0.037
25	2.08	0.13	0.076	(0.437)	0.040	0.037
26	2.17	0.13	0.076	(0.435)	0.040	0.037
27	2.25	0.13	0.076	(0.434)	0.040	0.037
28	2.33	0.13	0.076	(0.432)	0.040	0.037
29	2.42	0.13	0.076	(0.430)	0.040	0.037
30	2.50	0.13	0.076	(0.428)	0.040	0.037
31	2.58	0.17	0.095	(0.427)	0.050	0.046
32	2.67	0.17	0.095	(0.425)	0.050	0.046
33	2.75	0.17	0.095	(0.423)	0.050	0.046
34	2.83	0.17	0.095	(0.421)	0.050	0.046
35	2.92	0.17	0.095	(0.420)	0.050	0.046
36	3.00	0.17	0.095	(0.418)	0.050	0.046
37	3.08	0.17	0.095	(0.416)	0.050	0.046
38	3.17	0.17	0.095	(0.414)	0.050	0.046
39	3.25	0.17	0.095	(0.413)	0.050	0.046
40	3.33	0.17	0.095	(0.411)	0.050	0.046
41	3.42	0.17	0.095	(0.409)	0.050	0.046
42	3.50	0.17	0.095	(0.408)	0.050	0.046
43	3.58	0.17	0.095	(0.406)	0.050	0.046
44	3.67	0.17	0.095	(0.404)	0.050	0.046
45	3.75	0.17	0.095	(0.402)	0.050	0.046
46	3.83	0.20	0.114	(0.401)	0.059	0.055
47	3.92	0.20	0.114	(0.399)	0.059	0.055
48	4.00	0.20	0.114	(0.397)	0.059	0.055
49	4.08	0.20	0.114	(0.396)	0.059	0.055
50	4.17	0.20	0.114	(0.394)	0.059	0.055
51	4.25	0.20	0.114	(0.392)	0.059	0.055
52	4.33	0.23	0.133	(0.391)	0.069	0.064
53	4.42	0.23	0.133	(0.389)	0.069	0.064
54	4.50	0.23	0.133	(0.387)	0.069	0.064
55	4.58	0.23	0.133	(0.386)	0.069	0.064
56	4.67	0.23	0.133	(0.384)	0.069	0.064
57	4.75	0.23	0.133	(0.382)	0.069	0.064
58	4.83	0.27	0.152	(0.381)	0.079	0.073
59	4.92	0.27	0.152	(0.379)	0.079	0.073
60	5.00	0.27	0.152	(0.377)	0.079	0.073
61	5.08	0.20	0.114	(0.376)	0.059	0.055
62	5.17	0.20	0.114	(0.374)	0.059	0.055
63	5.25	0.20	0.114	(0.372)	0.059	0.055
64	5.33	0.23	0.133	(0.371)	0.069	0.064
65	5.42	0.23	0.133	(0.369)	0.069	0.064
66	5.50	0.23	0.133	(0.368)	0.069	0.064
67	5.58	0.27	0.152	(0.366)	0.079	0.073
68	5.67	0.27	0.152	(0.364)	0.079	0.073
69	5.75	0.27	0.152	(0.363)	0.079	0.073
70	5.83	0.27	0.152	(0.361)	0.079	0.073
71	5.92	0.27	0.152	(0.360)	0.079	0.073
72	6.00	0.27	0.152	(0.358)	0.079	0.073
73	6.08	0.30	0.171	(0.356)	0.089	0.082
74	6.17	0.30	0.171	(0.355)	0.089	0.082
75	6.25	0.30	0.171	(0.353)	0.089	0.082
76	6.33	0.30	0.171	(0.352)	0.089	0.082
77	6.42	0.30	0.171	(0.350)	0.089	0.082
78	6.50	0.30	0.171	(0.348)	0.089	0.082
79	6.58	0.33	0.191	(0.347)	0.099	0.091
80	6.67	0.33	0.191	(0.345)	0.099	0.091
81	6.75	0.33	0.191	(0.344)	0.099	0.091
82	6.83	0.33	0.191	(0.342)	0.099	0.091
83	6.92	0.33	0.191	(0.341)	0.099	0.091

84	7.00	0.33	0.191	(	0.339)	0.099	0.091
85	7.08	0.33	0.191	(	0.338)	0.099	0.091
86	7.17	0.33	0.191	(	0.336)	0.099	0.091
87	7.25	0.33	0.191	(	0.335)	0.099	0.091
88	7.33	0.37	0.210	(	0.333)	0.109	0.101
89	7.42	0.37	0.210	(	0.331)	0.109	0.101
90	7.50	0.37	0.210	(	0.330)	0.109	0.101
91	7.58	0.40	0.229	(	0.328)	0.119	0.110
92	7.67	0.40	0.229	(	0.327)	0.119	0.110
93	7.75	0.40	0.229	(	0.325)	0.119	0.110
94	7.83	0.43	0.248	(	0.324)	0.129	0.119
95	7.92	0.43	0.248	(	0.322)	0.129	0.119
96	8.00	0.43	0.248	(	0.321)	0.129	0.119
97	8.08	0.50	0.286	(	0.319)	0.149	0.137
98	8.17	0.50	0.286	(	0.318)	0.149	0.137
99	8.25	0.50	0.286	(	0.316)	0.149	0.137
100	8.33	0.50	0.286	(	0.315)	0.149	0.137
101	8.42	0.50	0.286	(	0.314)	0.149	0.137
102	8.50	0.50	0.286	(	0.312)	0.149	0.137
103	8.58	0.53	0.305	(	0.311)	0.158	0.146
104	8.67	0.53	0.305	(	0.309)	0.158	0.146
105	8.75	0.53	0.305	(	0.308)	0.158	0.146
106	8.83	0.57	0.324	(	0.306)	0.168	0.155
107	8.92	0.57	0.324	(	0.305)	0.168	0.155
108	9.00	0.57	0.324	(	0.303)	0.168	0.155
109	9.08	0.63	0.362	(	0.302)	0.188	0.174
110	9.17	0.63	0.362	(	0.300)	0.188	0.174
111	9.25	0.63	0.362	(	0.299)	0.188	0.174
112	9.33	0.67	0.381	(	0.298)	0.198	0.183
113	9.42	0.67	0.381	(	0.296)	0.198	0.183
114	9.50	0.67	0.381	(	0.295)	0.198	0.183
115	9.58	0.70	0.400	(	0.293)	0.208	0.192
116	9.67	0.70	0.400	(	0.292)	0.208	0.192
117	9.75	0.70	0.400	(	0.291)	0.208	0.192
118	9.83	0.73	0.419	(	0.289)	0.218	0.201
119	9.92	0.73	0.419	(	0.288)	0.218	0.201
120	10.00	0.73	0.419	(	0.286)	0.218	0.201
121	10.08	0.50	0.286	(	0.285)	0.149	0.137
122	10.17	0.50	0.286	(	0.284)	0.149	0.137
123	10.25	0.50	0.286	(	0.282)	0.149	0.137
124	10.33	0.50	0.286	(	0.281)	0.149	0.137
125	10.42	0.50	0.286	(	0.279)	0.149	0.137
126	10.50	0.50	0.286	(	0.278)	0.149	0.137
127	10.58	0.67	0.381	(	0.277)	0.198	0.183
128	10.67	0.67	0.381	(	0.275)	0.198	0.183
129	10.75	0.67	0.381	(	0.274)	0.198	0.183
130	10.83	0.67	0.381	(	0.273)	0.198	0.183
131	10.92	0.67	0.381	(	0.271)	0.198	0.183
132	11.00	0.67	0.381	(	0.270)	0.198	0.183
133	11.08	0.63	0.362	(	0.269)	0.188	0.174
134	11.17	0.63	0.362	(	0.267)	0.188	0.174
135	11.25	0.63	0.362	(	0.266)	0.188	0.174
136	11.33	0.63	0.362	(	0.265)	0.188	0.174
137	11.42	0.63	0.362	(	0.263)	0.188	0.174
138	11.50	0.63	0.362	(	0.262)	0.188	0.174
139	11.58	0.57	0.324	(	0.261)	0.168	0.155
140	11.67	0.57	0.324	(	0.260)	0.168	0.155
141	11.75	0.57	0.324	(	0.258)	0.168	0.155
142	11.83	0.60	0.343	(	0.257)	0.178	0.165
143	11.92	0.60	0.343	(	0.256)	0.178	0.165
144	12.00	0.60	0.343	(	0.254)	0.178	0.165
145	12.08	0.83	0.476	(	0.253)	0.248	0.229
146	12.17	0.83	0.476	(	0.252)	0.248	0.229

147	12.25	0.83	0.476	(	0.251)	0.248	0.229
148	12.33	0.87	0.495		0.249	(0.258)	0.246
149	12.42	0.87	0.495		0.248	(0.258)	0.247
150	12.50	0.87	0.495		0.247	(0.258)	0.248
151	12.58	0.93	0.533		0.246	(0.277)	0.288
152	12.67	0.93	0.533		0.244	(0.277)	0.289
153	12.75	0.93	0.533		0.243	(0.277)	0.290
154	12.83	0.97	0.552		0.242	(0.287)	0.311
155	12.92	0.97	0.552		0.241	(0.287)	0.312
156	13.00	0.97	0.552		0.239	(0.287)	0.313
157	13.08	1.13	0.648		0.238	(0.337)	0.409
158	13.17	1.13	0.648		0.237	(0.337)	0.411
159	13.25	1.13	0.648		0.236	(0.337)	0.412
160	13.33	1.13	0.648		0.235	(0.337)	0.413
161	13.42	1.13	0.648		0.233	(0.337)	0.414
162	13.50	1.13	0.648		0.232	(0.337)	0.415
163	13.58	0.77	0.438	(	0.231)	0.228	0.210
164	13.67	0.77	0.438	(	0.230)	0.228	0.210
165	13.75	0.77	0.438	(	0.229)	0.228	0.210
166	13.83	0.77	0.438		0.228	(0.228)	0.211
167	13.92	0.77	0.438		0.226	(0.228)	0.212
168	14.00	0.77	0.438		0.225	(0.228)	0.213
169	14.08	0.90	0.514		0.224	(0.267)	0.290
170	14.17	0.90	0.514		0.223	(0.267)	0.291
171	14.25	0.90	0.514		0.222	(0.267)	0.293
172	14.33	0.87	0.495		0.221	(0.258)	0.275
173	14.42	0.87	0.495		0.220	(0.258)	0.276
174	14.50	0.87	0.495		0.218	(0.258)	0.277
175	14.58	0.87	0.495		0.217	(0.258)	0.278
176	14.67	0.87	0.495		0.216	(0.258)	0.279
177	14.75	0.87	0.495		0.215	(0.258)	0.280
178	14.83	0.83	0.476		0.214	(0.248)	0.262
179	14.92	0.83	0.476		0.213	(0.248)	0.263
180	15.00	0.83	0.476		0.212	(0.248)	0.264
181	15.08	0.80	0.457		0.211	(0.238)	0.246
182	15.17	0.80	0.457		0.210	(0.238)	0.248
183	15.25	0.80	0.457		0.209	(0.238)	0.249
184	15.33	0.77	0.438		0.207	(0.228)	0.231
185	15.42	0.77	0.438		0.206	(0.228)	0.232
186	15.50	0.77	0.438		0.205	(0.228)	0.233
187	15.58	0.63	0.362	(	0.204)	0.188	0.174
188	15.67	0.63	0.362	(	0.203)	0.188	0.174
189	15.75	0.63	0.362	(	0.202)	0.188	0.174
190	15.83	0.63	0.362	(	0.201)	0.188	0.174
191	15.92	0.63	0.362	(	0.200)	0.188	0.174
192	16.00	0.63	0.362	(	0.199)	0.188	0.174
193	16.08	0.13	0.076	(	0.198)	0.040	0.037
194	16.17	0.13	0.076	(	0.197)	0.040	0.037
195	16.25	0.13	0.076	(	0.196)	0.040	0.037
196	16.33	0.13	0.076	(	0.195)	0.040	0.037
197	16.42	0.13	0.076	(	0.194)	0.040	0.037
198	16.50	0.13	0.076	(	0.193)	0.040	0.037
199	16.58	0.10	0.057	(	0.192)	0.030	0.027
200	16.67	0.10	0.057	(	0.191)	0.030	0.027
201	16.75	0.10	0.057	(	0.190)	0.030	0.027
202	16.83	0.10	0.057	(	0.189)	0.030	0.027
203	16.92	0.10	0.057	(	0.188)	0.030	0.027
204	17.00	0.10	0.057	(	0.187)	0.030	0.027
205	17.08	0.17	0.095	(	0.186)	0.050	0.046
206	17.17	0.17	0.095	(	0.185)	0.050	0.046
207	17.25	0.17	0.095	(	0.185)	0.050	0.046
208	17.33	0.17	0.095	(	0.184)	0.050	0.046
209	17.42	0.17	0.095	(	0.183)	0.050	0.046

210	17.50	0.17	0.095	(0.182)	0.050	0.046
211	17.58	0.17	0.095	(0.181)	0.050	0.046
212	17.67	0.17	0.095	(0.180)	0.050	0.046
213	17.75	0.17	0.095	(0.179)	0.050	0.046
214	17.83	0.13	0.076	(0.178)	0.040	0.037
215	17.92	0.13	0.076	(0.177)	0.040	0.037
216	18.00	0.13	0.076	(0.176)	0.040	0.037
217	18.08	0.13	0.076	(0.176)	0.040	0.037
218	18.17	0.13	0.076	(0.175)	0.040	0.037
219	18.25	0.13	0.076	(0.174)	0.040	0.037
220	18.33	0.13	0.076	(0.173)	0.040	0.037
221	18.42	0.13	0.076	(0.172)	0.040	0.037
222	18.50	0.13	0.076	(0.171)	0.040	0.037
223	18.58	0.10	0.057	(0.170)	0.030	0.027
224	18.67	0.10	0.057	(0.170)	0.030	0.027
225	18.75	0.10	0.057	(0.169)	0.030	0.027
226	18.83	0.07	0.038	(0.168)	0.020	0.018
227	18.92	0.07	0.038	(0.167)	0.020	0.018
228	19.00	0.07	0.038	(0.166)	0.020	0.018
229	19.08	0.10	0.057	(0.166)	0.030	0.027
230	19.17	0.10	0.057	(0.165)	0.030	0.027
231	19.25	0.10	0.057	(0.164)	0.030	0.027
232	19.33	0.13	0.076	(0.163)	0.040	0.037
233	19.42	0.13	0.076	(0.163)	0.040	0.037
234	19.50	0.13	0.076	(0.162)	0.040	0.037
235	19.58	0.10	0.057	(0.161)	0.030	0.027
236	19.67	0.10	0.057	(0.160)	0.030	0.027
237	19.75	0.10	0.057	(0.160)	0.030	0.027
238	19.83	0.07	0.038	(0.159)	0.020	0.018
239	19.92	0.07	0.038	(0.158)	0.020	0.018
240	20.00	0.07	0.038	(0.157)	0.020	0.018
241	20.08	0.10	0.057	(0.157)	0.030	0.027
242	20.17	0.10	0.057	(0.156)	0.030	0.027
243	20.25	0.10	0.057	(0.155)	0.030	0.027
244	20.33	0.10	0.057	(0.155)	0.030	0.027
245	20.42	0.10	0.057	(0.154)	0.030	0.027
246	20.50	0.10	0.057	(0.153)	0.030	0.027
247	20.58	0.10	0.057	(0.153)	0.030	0.027
248	20.67	0.10	0.057	(0.152)	0.030	0.027
249	20.75	0.10	0.057	(0.152)	0.030	0.027
250	20.83	0.07	0.038	(0.151)	0.020	0.018
251	20.92	0.07	0.038	(0.150)	0.020	0.018
252	21.00	0.07	0.038	(0.150)	0.020	0.018
253	21.08	0.10	0.057	(0.149)	0.030	0.027
254	21.17	0.10	0.057	(0.148)	0.030	0.027
255	21.25	0.10	0.057	(0.148)	0.030	0.027
256	21.33	0.07	0.038	(0.147)	0.020	0.018
257	21.42	0.07	0.038	(0.147)	0.020	0.018
258	21.50	0.07	0.038	(0.146)	0.020	0.018
259	21.58	0.10	0.057	(0.146)	0.030	0.027
260	21.67	0.10	0.057	(0.145)	0.030	0.027
261	21.75	0.10	0.057	(0.145)	0.030	0.027
262	21.83	0.07	0.038	(0.144)	0.020	0.018
263	21.92	0.07	0.038	(0.144)	0.020	0.018
264	22.00	0.07	0.038	(0.143)	0.020	0.018
265	22.08	0.10	0.057	(0.143)	0.030	0.027
266	22.17	0.10	0.057	(0.142)	0.030	0.027
267	22.25	0.10	0.057	(0.142)	0.030	0.027
268	22.33	0.07	0.038	(0.141)	0.020	0.018
269	22.42	0.07	0.038	(0.141)	0.020	0.018
270	22.50	0.07	0.038	(0.141)	0.020	0.018
271	22.58	0.07	0.038	(0.140)	0.020	0.018
272	22.67	0.07	0.038	(0.140)	0.020	0.018

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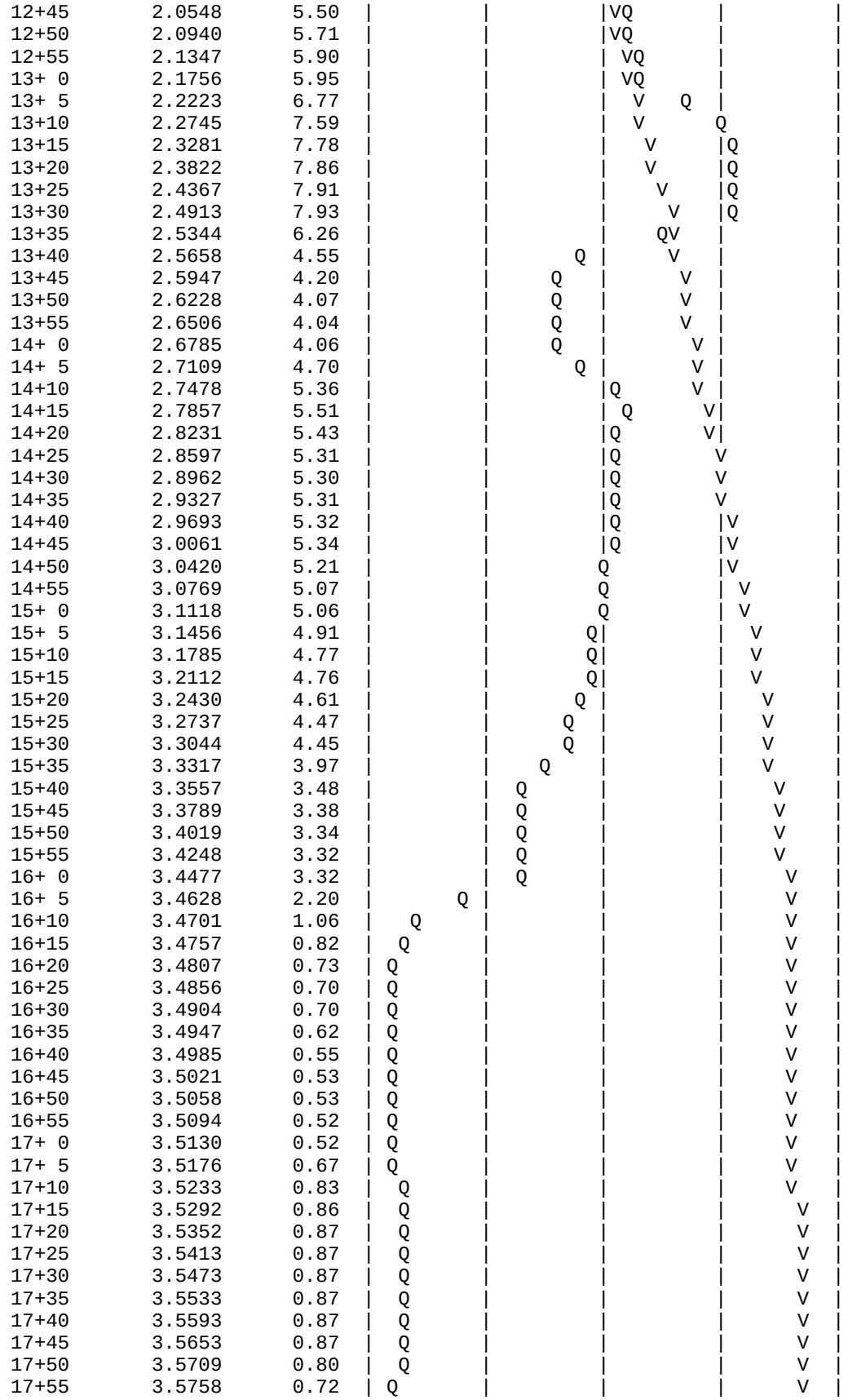
273  22.75     0.07      0.038       (  0.139)       0.020        0.018
274  22.83     0.07      0.038       (  0.139)       0.020        0.018
275  22.92     0.07      0.038       (  0.139)       0.020        0.018
276  23.00     0.07      0.038       (  0.138)       0.020        0.018
277  23.08     0.07      0.038       (  0.138)       0.020        0.018
278  23.17     0.07      0.038       (  0.138)       0.020        0.018
279  23.25     0.07      0.038       (  0.137)       0.020        0.018
280  23.33     0.07      0.038       (  0.137)       0.020        0.018
281  23.42     0.07      0.038       (  0.137)       0.020        0.018
282  23.50     0.07      0.038       (  0.137)       0.020        0.018
283  23.58     0.07      0.038       (  0.136)       0.020        0.018
284  23.67     0.07      0.038       (  0.136)       0.020        0.018
285  23.75     0.07      0.038       (  0.136)       0.020        0.018
286  23.83     0.07      0.038       (  0.136)       0.020        0.018
287  23.92     0.07      0.038       (  0.136)       0.020        0.018
288  24.00     0.07      0.038       (  0.136)       0.020        0.018
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    28.9
     Flood volume = Effective rainfall      2.41(In)
      times area      19.0(Ac.)/[(In)/(Ft.)] =       3.8(Ac.Ft)
     Total soil loss =      2.35(In)
     Total soil loss =     3.717(Ac.Ft)
     Total rainfall =      4.76(In)
     Flood volume =      166054.2 Cubic Feet
     Total soil loss =      161901.5 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =      7.929(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ------------------------------------------------------------------------
   0+ 5       0.0010      0.15  Q         |         |         |         |
   0+10       0.0031      0.30  VQ        |         |         |         |
   0+15       0.0054      0.33  VQ        |         |         |         |
   0+20       0.0083      0.42  VQ        |         |         |         |
   0+25       0.0118      0.50  V Q       |         |         |         |
   0+30       0.0153      0.52  V Q       |         |         |         |
   0+35       0.0189      0.52  V Q       |         |         |         |
   0+40       0.0225      0.52  V Q       |         |         |         |
   0+45       0.0261      0.52  V Q       |         |         |         |
   0+50       0.0303      0.60  V Q       |         |         |         |
   0+55       0.0349      0.68  V Q       |         |         |         |
   1+ 0       0.0397      0.69  V Q       |         |         |         |
   1+ 5       0.0440      0.62  V Q       |         |         |         |
   1+10       0.0478      0.55  V Q       |         |         |         |
   1+15       0.0514      0.53  V Q       |         |         |         |
   1+20       0.0551      0.53  V Q       |         |         |         |
   1+25       0.0587      0.52  V Q       |         |         |         |
   1+30       0.0623      0.52  V Q       |         |         |         |
   1+35       0.0659      0.52  V Q       |         |         |         |
   1+40       0.0695      0.52  V Q       |         |         |         |
   1+45       0.0731      0.52  V Q       |         |         |         |
   1+50       0.0773      0.60  V Q       |         |         |         |
   1+55       0.0819      0.68  V Q       |         |         |         |
   2+ 0       0.0867      0.69  V Q       |         |         |         |
   2+ 5       0.0915      0.70  V Q       |         |         |         |
   2+10       0.0963      0.70  |VQ       |         |         |         |
```

2+15	0.1011	0.70	VQ				
2+20	0.1059	0.70	VQ				
2+25	0.1108	0.70	VQ				
2+30	0.1156	0.70	VQ				
2+35	0.1209	0.77	V Q				
2+40	0.1268	0.85	V Q				
2+45	0.1327	0.87	V Q				
2+50	0.1387	0.87	V Q				
2+55	0.1448	0.87	V Q				
3+ 0	0.1508	0.87	V Q				
3+ 5	0.1568	0.87	V Q				
3+10	0.1628	0.87	V Q				
3+15	0.1689	0.87	V Q				
3+20	0.1749	0.87	V Q				
3+25	0.1809	0.87	V Q				
3+30	0.1869	0.87	V Q				
3+35	0.1930	0.87	VQ				
3+40	0.1990	0.87	VQ				
3+45	0.2050	0.87	VQ				
3+50	0.2115	0.95	VQ				
3+55	0.2186	1.03	V Q				
4+ 0	0.2258	1.04	V Q				
4+ 5	0.2330	1.05	V Q				
4+10	0.2402	1.05	V Q				
4+15	0.2474	1.05	V Q				
4+20	0.2552	1.12	V Q				
4+25	0.2635	1.20	V Q				
4+30	0.2718	1.22	V Q				
4+35	0.2803	1.22	V Q				
4+40	0.2887	1.22	VQ				
4+45	0.2971	1.22	VQ				
4+50	0.3061	1.30	V Q				
4+55	0.3155	1.38	V Q				
5+ 0	0.3251	1.39	V Q				
5+ 5	0.3337	1.25	VQ				
5+10	0.3413	1.10	VQ				
5+15	0.3486	1.07	VQ				
5+20	0.3564	1.13	VQ				
5+25	0.3646	1.20	VQ				
5+30	0.3730	1.22	VQ				
5+35	0.3820	1.30	VQ				
5+40	0.3914	1.38	VQ				
5+45	0.4010	1.39	VQ				
5+50	0.4106	1.40	VQ				
5+55	0.4203	1.40	VQ				
6+ 0	0.4299	1.40	VQ				
6+ 5	0.4401	1.47	VQ				
6+10	0.4507	1.55	V Q				
6+15	0.4615	1.57	V Q				
6+20	0.4724	1.57	V Q				
6+25	0.4832	1.57	VQ				
6+30	0.4940	1.57	VQ				
6+35	0.5054	1.65	VQ				
6+40	0.5173	1.73	VQ				
6+45	0.5293	1.74	VQ				
6+50	0.5413	1.75	VQ				
6+55	0.5533	1.75	VQ				
7+ 0	0.5654	1.75	VQ				
7+ 5	0.5774	1.75	Q				
7+10	0.5895	1.75	Q				
7+15	0.6015	1.75	Q				
7+20	0.6141	1.82	VQ				
7+25	0.6272	1.90	VQ				

7+30	0.6404	1.92	VQ				
7+35	0.6541	2.00	VQ				
7+40	0.6684	2.08	VQ				
7+45	0.6828	2.09	VQ				
7+50	0.6978	2.17	VQ				
7+55	0.7133	2.25	V Q				
8+ 0	0.7289	2.27	V Q				
8+ 5	0.7456	2.42	V Q				
8+10	0.7633	2.58	V Q				
8+15	0.7813	2.61	V Q				
8+20	0.7993	2.62	V Q				
8+25	0.8174	2.62	V Q				
8+30	0.8354	2.62	V Q				
8+35	0.8540	2.70	V Q				
8+40	0.8731	2.77	V|Q				
8+45	0.8924	2.79	V|Q				
8+50	0.9121	2.87	V|Q				
8+55	0.9324	2.95	V|Q				
9+ 0	0.9529	2.97	V|Q				
9+ 5	0.9744	3.12	V Q				
9+10	0.9969	3.28	V Q				
9+15	1.0197	3.31	V Q				
9+20	1.0431	3.39	V Q				
9+25	1.0670	3.47	|V Q				
9+30	1.0910	3.49	|V Q				
9+35	1.1156	3.57	|V Q				
9+40	1.1408	3.65	|V Q				
9+45	1.1660	3.67	| V Q				
9+50	1.1918	3.75	| V Q				
9+55	1.2182	3.82	| V Q				
10+ 0	1.2446	3.84	| V Q				
10+ 5	1.2675	3.32	| Q				
10+10	1.2867	2.79	|Q V				
10+15	1.3051	2.68	Q V				
10+20	1.3233	2.64	Q V				
10+25	1.3414	2.62	Q V				
10+30	1.3594	2.62	Q V				
10+35	1.3801	3.00	|Q V				
10+40	1.4034	3.38	| QV				
10+45	1.4272	3.46	| QV				
10+50	1.4512	3.49	| Q V				
10+55	1.4753	3.50	| Q V				
11+ 0	1.4994	3.50	| Q V				
11+ 5	1.5230	3.42	| Q V				
11+10	1.5460	3.35	| Q V				
11+15	1.5690	3.33	| Q V				
11+20	1.5919	3.33	| Q V				
11+25	1.6148	3.32	| Q V				
11+30	1.6376	3.32	| Q V				
11+35	1.6595	3.17	| Q V				
11+40	1.6803	3.02	| Q V				
11+45	1.7009	2.99	|Q V				
11+50	1.7219	3.05	| Q V				
11+55	1.7434	3.12	| Q V				
12+ 0	1.7651	3.14	| Q V				
12+ 5	1.7903	3.67	| Q V				
12+10	1.8193	4.21	| Q V|				
12+15	1.8490	4.32	| Q V|				
12+20	1.8800	4.50	| QV|				
12+25	1.9122	4.67	| Q V				
12+30	1.9447	4.72	| Q V				
12+35	1.9796	5.07	| Q				
12+40	2.0169	5.41	| |Q				



18+ 0	3.5807	0.71	Q				V
18+ 5	3.5855	0.70	Q				V
18+10	3.5904	0.70	Q				V
18+15	3.5952	0.70	Q				V
18+20	3.6000	0.70	Q				V
18+25	3.6048	0.70	Q				V
18+30	3.6096	0.70	Q				V
18+35	3.6139	0.62	Q				V
18+40	3.6177	0.55	Q				V
18+45	3.6214	0.53	Q				V
18+50	3.6245	0.45	Q				V
18+55	3.6271	0.37	Q				V
19+ 0	3.6295	0.36	Q				V
19+ 5	3.6325	0.43	Q				V
19+10	3.6359	0.50	Q				V
19+15	3.6395	0.52	Q				V
19+20	3.6436	0.60	Q				V
19+25	3.6483	0.68	Q				V
19+30	3.6530	0.69	Q				V
19+35	3.6573	0.62	Q				V
19+40	3.6611	0.55	Q				V
19+45	3.6648	0.53	Q				V
19+50	3.6679	0.45	Q				V
19+55	3.6704	0.37	Q				V
20+ 0	3.6729	0.36	Q				V
20+ 5	3.6758	0.43	Q				V
20+10	3.6793	0.50	Q				V
20+15	3.6828	0.52	Q				V
20+20	3.6864	0.52	Q				V
20+25	3.6901	0.52	Q				V
20+30	3.6937	0.52	Q				V
20+35	3.6973	0.52	Q				V
20+40	3.7009	0.52	Q				V
20+45	3.7045	0.52	Q				V
20+50	3.7076	0.45	Q				V
20+55	3.7102	0.37	Q				V
21+ 0	3.7127	0.36	Q				V
21+ 5	3.7156	0.43	Q				V
21+10	3.7190	0.50	Q				V
21+15	3.7226	0.52	Q				V
21+20	3.7257	0.45	Q				V
21+25	3.7283	0.37	Q				V
21+30	3.7307	0.36	Q				V
21+35	3.7337	0.43	Q				V
21+40	3.7371	0.50	Q				V
21+45	3.7407	0.52	Q				V
21+50	3.7438	0.45	Q				V
21+55	3.7463	0.37	Q				V
22+ 0	3.7488	0.36	Q				V
22+ 5	3.7517	0.43	Q				V
22+10	3.7552	0.50	Q				V
22+15	3.7587	0.52	Q				V
22+20	3.7618	0.45	Q				V
22+25	3.7644	0.37	Q				V
22+30	3.7669	0.36	Q				V
22+35	3.7693	0.35	Q				V
22+40	3.7717	0.35	Q				V
22+45	3.7741	0.35	Q				V
22+50	3.7765	0.35	Q				V
22+55	3.7789	0.35	Q				V
23+ 0	3.7813	0.35	Q				V
23+ 5	3.7837	0.35	Q				V
23+10	3.7861	0.35	Q				V

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   23+15       3.7886      0.35  |Q        |         |         |        V|
   23+20       3.7910      0.35  |Q        |         |         |        V|
   23+25       3.7934      0.35  |Q        |         |         |        V|
   23+30       3.7958      0.35  |Q        |         |         |        V|
   23+35       3.7982      0.35  |Q        |         |         |        V|
   23+40       3.8006      0.35  |Q        |         |         |        V|
   23+45       3.8030      0.35  |Q        |         |         |        V|
   23+50       3.8054      0.35  |Q        |         |         |        V|
   23+55       3.8078      0.35  |Q        |         |         |        V|
   24+ 0       3.8102      0.35  |Q        |         |         |        V|
   24+ 5       3.8116      0.20  Q         |         |         |        V|
   24+10       3.8119      0.05  Q         |         |         |        V|
   24+15       3.8121      0.02  Q         |         |         |        V|
   24+20       3.8121      0.00  Q         |         |         |         V
-------------------------------------------------------------------------
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APPENDIX H.3: AREA “B” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS 5–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 06/24/15 File: BPR245.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - PROPOSED CONDITION
5YR-24HR
FN: BPR245

Drainage Area = 18.97(Ac.) = 0.030 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 18.97(Ac.) = 0.030 Sq. Mi.
Length along longest watercourse = 1479.00(Ft.)
Length along longest watercourse measured to centroid = 969.00(Ft.)
Length along longest watercourse = 0.280 Mi.
Length along longest watercourse measured to centroid = 0.184 Mi.
Difference in elevation = 58.00(Ft.)
Slope along watercourse = 207.0588 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.042 Hr.
Lag time = 2.54 Min.
25% of lag time = 0.63 Min.
40% of lag time = 1.02 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	2.50	47.42

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	8.00	151.76

STORM EVENT (YEAR) = 5.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 3.788(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 3.788(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
18.970	60.00	0.470

Total Area Entered = 18.97(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
60.0	40.0	0.670	0.470	0.387	1.000	0.387
					Sum (F) =	0.387

Area averaged mean soil loss (F) (In/Hr) = 0.387
Minimum soil loss rate ((In/Hr)) = 0.193
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.520

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	196.963	42.871	8.196
2	0.167	393.926	43.580	8.332
3	0.250	590.889	8.919	1.705
4	0.333	787.852	3.487	0.667
5	0.417	984.816	1.143	0.218
		Sum = 100.000	Sum=	19.118

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.030	(0.685)	0.016	0.015
2	0.17	0.07	0.030	(0.683)	0.016	0.015
3	0.25	0.07	0.030	(0.680)	0.016	0.015
4	0.33	0.10	0.045	(0.677)	0.024	0.022
5	0.42	0.10	0.045	(0.675)	0.024	0.022
6	0.50	0.10	0.045	(0.672)	0.024	0.022
7	0.58	0.10	0.045	(0.669)	0.024	0.022
8	0.67	0.10	0.045	(0.667)	0.024	0.022
9	0.75	0.10	0.045	(0.664)	0.024	0.022
10	0.83	0.13	0.061	(0.662)	0.032	0.029
11	0.92	0.13	0.061	(0.659)	0.032	0.029
12	1.00	0.13	0.061	(0.656)	0.032	0.029
13	1.08	0.10	0.045	(0.654)	0.024	0.022
14	1.17	0.10	0.045	(0.651)	0.024	0.022
15	1.25	0.10	0.045	(0.649)	0.024	0.022
16	1.33	0.10	0.045	(0.646)	0.024	0.022
17	1.42	0.10	0.045	(0.644)	0.024	0.022
18	1.50	0.10	0.045	(0.641)	0.024	0.022
19	1.58	0.10	0.045	(0.638)	0.024	0.022
20	1.67	0.10	0.045	(0.636)	0.024	0.022

21	1.75	0.10	0.045	(0.633)	0.024	0.022
22	1.83	0.13	0.061	(0.631)	0.032	0.029
23	1.92	0.13	0.061	(0.628)	0.032	0.029
24	2.00	0.13	0.061	(0.626)	0.032	0.029
25	2.08	0.13	0.061	(0.623)	0.032	0.029
26	2.17	0.13	0.061	(0.621)	0.032	0.029
27	2.25	0.13	0.061	(0.618)	0.032	0.029
28	2.33	0.13	0.061	(0.616)	0.032	0.029
29	2.42	0.13	0.061	(0.613)	0.032	0.029
30	2.50	0.13	0.061	(0.611)	0.032	0.029
31	2.58	0.17	0.076	(0.608)	0.039	0.036
32	2.67	0.17	0.076	(0.606)	0.039	0.036
33	2.75	0.17	0.076	(0.603)	0.039	0.036
34	2.83	0.17	0.076	(0.601)	0.039	0.036
35	2.92	0.17	0.076	(0.598)	0.039	0.036
36	3.00	0.17	0.076	(0.596)	0.039	0.036
37	3.08	0.17	0.076	(0.593)	0.039	0.036
38	3.17	0.17	0.076	(0.591)	0.039	0.036
39	3.25	0.17	0.076	(0.588)	0.039	0.036
40	3.33	0.17	0.076	(0.586)	0.039	0.036
41	3.42	0.17	0.076	(0.583)	0.039	0.036
42	3.50	0.17	0.076	(0.581)	0.039	0.036
43	3.58	0.17	0.076	(0.578)	0.039	0.036
44	3.67	0.17	0.076	(0.576)	0.039	0.036
45	3.75	0.17	0.076	(0.574)	0.039	0.036
46	3.83	0.20	0.091	(0.571)	0.047	0.044
47	3.92	0.20	0.091	(0.569)	0.047	0.044
48	4.00	0.20	0.091	(0.566)	0.047	0.044
49	4.08	0.20	0.091	(0.564)	0.047	0.044
50	4.17	0.20	0.091	(0.562)	0.047	0.044
51	4.25	0.20	0.091	(0.559)	0.047	0.044
52	4.33	0.23	0.106	(0.557)	0.055	0.051
53	4.42	0.23	0.106	(0.554)	0.055	0.051
54	4.50	0.23	0.106	(0.552)	0.055	0.051
55	4.58	0.23	0.106	(0.550)	0.055	0.051
56	4.67	0.23	0.106	(0.547)	0.055	0.051
57	4.75	0.23	0.106	(0.545)	0.055	0.051
58	4.83	0.27	0.121	(0.543)	0.063	0.058
59	4.92	0.27	0.121	(0.540)	0.063	0.058
60	5.00	0.27	0.121	(0.538)	0.063	0.058
61	5.08	0.20	0.091	(0.536)	0.047	0.044
62	5.17	0.20	0.091	(0.533)	0.047	0.044
63	5.25	0.20	0.091	(0.531)	0.047	0.044
64	5.33	0.23	0.106	(0.529)	0.055	0.051
65	5.42	0.23	0.106	(0.526)	0.055	0.051
66	5.50	0.23	0.106	(0.524)	0.055	0.051
67	5.58	0.27	0.121	(0.522)	0.063	0.058
68	5.67	0.27	0.121	(0.519)	0.063	0.058
69	5.75	0.27	0.121	(0.517)	0.063	0.058
70	5.83	0.27	0.121	(0.515)	0.063	0.058
71	5.92	0.27	0.121	(0.513)	0.063	0.058
72	6.00	0.27	0.121	(0.510)	0.063	0.058
73	6.08	0.30	0.136	(0.508)	0.071	0.065
74	6.17	0.30	0.136	(0.506)	0.071	0.065
75	6.25	0.30	0.136	(0.504)	0.071	0.065
76	6.33	0.30	0.136	(0.501)	0.071	0.065
77	6.42	0.30	0.136	(0.499)	0.071	0.065
78	6.50	0.30	0.136	(0.497)	0.071	0.065
79	6.58	0.33	0.152	(0.495)	0.079	0.073
80	6.67	0.33	0.152	(0.492)	0.079	0.073
81	6.75	0.33	0.152	(0.490)	0.079	0.073
82	6.83	0.33	0.152	(0.488)	0.079	0.073
83	6.92	0.33	0.152	(0.486)	0.079	0.073

84	7.00	0.33	0.152	(0.483)	0.079	0.073
85	7.08	0.33	0.152	(0.481)	0.079	0.073
86	7.17	0.33	0.152	(0.479)	0.079	0.073
87	7.25	0.33	0.152	(0.477)	0.079	0.073
88	7.33	0.37	0.167	(0.475)	0.087	0.080
89	7.42	0.37	0.167	(0.473)	0.087	0.080
90	7.50	0.37	0.167	(0.470)	0.087	0.080
91	7.58	0.40	0.182	(0.468)	0.095	0.087
92	7.67	0.40	0.182	(0.466)	0.095	0.087
93	7.75	0.40	0.182	(0.464)	0.095	0.087
94	7.83	0.43	0.197	(0.462)	0.102	0.095
95	7.92	0.43	0.197	(0.460)	0.102	0.095
96	8.00	0.43	0.197	(0.458)	0.102	0.095
97	8.08	0.50	0.227	(0.455)	0.118	0.109
98	8.17	0.50	0.227	(0.453)	0.118	0.109
99	8.25	0.50	0.227	(0.451)	0.118	0.109
100	8.33	0.50	0.227	(0.449)	0.118	0.109
101	8.42	0.50	0.227	(0.447)	0.118	0.109
102	8.50	0.50	0.227	(0.445)	0.118	0.109
103	8.58	0.53	0.242	(0.443)	0.126	0.116
104	8.67	0.53	0.242	(0.441)	0.126	0.116
105	8.75	0.53	0.242	(0.439)	0.126	0.116
106	8.83	0.57	0.258	(0.437)	0.134	0.124
107	8.92	0.57	0.258	(0.434)	0.134	0.124
108	9.00	0.57	0.258	(0.432)	0.134	0.124
109	9.08	0.63	0.288	(0.430)	0.150	0.138
110	9.17	0.63	0.288	(0.428)	0.150	0.138
111	9.25	0.63	0.288	(0.426)	0.150	0.138
112	9.33	0.67	0.303	(0.424)	0.158	0.145
113	9.42	0.67	0.303	(0.422)	0.158	0.145
114	9.50	0.67	0.303	(0.420)	0.158	0.145
115	9.58	0.70	0.318	(0.418)	0.165	0.153
116	9.67	0.70	0.318	(0.416)	0.165	0.153
117	9.75	0.70	0.318	(0.414)	0.165	0.153
118	9.83	0.73	0.333	(0.412)	0.173	0.160
119	9.92	0.73	0.333	(0.410)	0.173	0.160
120	10.00	0.73	0.333	(0.408)	0.173	0.160
121	10.08	0.50	0.227	(0.406)	0.118	0.109
122	10.17	0.50	0.227	(0.404)	0.118	0.109
123	10.25	0.50	0.227	(0.402)	0.118	0.109
124	10.33	0.50	0.227	(0.400)	0.118	0.109
125	10.42	0.50	0.227	(0.398)	0.118	0.109
126	10.50	0.50	0.227	(0.396)	0.118	0.109
127	10.58	0.67	0.303	(0.395)	0.158	0.145
128	10.67	0.67	0.303	(0.393)	0.158	0.145
129	10.75	0.67	0.303	(0.391)	0.158	0.145
130	10.83	0.67	0.303	(0.389)	0.158	0.145
131	10.92	0.67	0.303	(0.387)	0.158	0.145
132	11.00	0.67	0.303	(0.385)	0.158	0.145
133	11.08	0.63	0.288	(0.383)	0.150	0.138
134	11.17	0.63	0.288	(0.381)	0.150	0.138
135	11.25	0.63	0.288	(0.379)	0.150	0.138
136	11.33	0.63	0.288	(0.377)	0.150	0.138
137	11.42	0.63	0.288	(0.376)	0.150	0.138
138	11.50	0.63	0.288	(0.374)	0.150	0.138
139	11.58	0.57	0.258	(0.372)	0.134	0.124
140	11.67	0.57	0.258	(0.370)	0.134	0.124
141	11.75	0.57	0.258	(0.368)	0.134	0.124
142	11.83	0.60	0.273	(0.366)	0.142	0.131
143	11.92	0.60	0.273	(0.365)	0.142	0.131
144	12.00	0.60	0.273	(0.363)	0.142	0.131
145	12.08	0.83	0.379	(0.361)	0.197	0.182
146	12.17	0.83	0.379	(0.359)	0.197	0.182

147	12.25	0.83	0.379	(0.357)	0.197	0.182
148	12.33	0.87	0.394	(0.355)	0.205	0.189
149	12.42	0.87	0.394	(0.354)	0.205	0.189
150	12.50	0.87	0.394	(0.352)	0.205	0.189
151	12.58	0.93	0.424	(0.350)	0.221	0.204
152	12.67	0.93	0.424	(0.348)	0.221	0.204
153	12.75	0.93	0.424	(0.347)	0.221	0.204
154	12.83	0.97	0.439	(0.345)	0.228	0.211
155	12.92	0.97	0.439	(0.343)	0.228	0.211
156	13.00	0.97	0.439	(0.341)	0.228	0.211
157	13.08	1.13	0.515	(0.340)	0.268	0.247
158	13.17	1.13	0.515	(0.338)	0.268	0.247
159	13.25	1.13	0.515	(0.336)	0.268	0.247
160	13.33	1.13	0.515	(0.335)	0.268	0.247
161	13.42	1.13	0.515	(0.333)	0.268	0.247
162	13.50	1.13	0.515	(0.331)	0.268	0.247
163	13.58	0.77	0.349	(0.329)	0.181	0.167
164	13.67	0.77	0.349	(0.328)	0.181	0.167
165	13.75	0.77	0.349	(0.326)	0.181	0.167
166	13.83	0.77	0.349	(0.324)	0.181	0.167
167	13.92	0.77	0.349	(0.323)	0.181	0.167
168	14.00	0.77	0.349	(0.321)	0.181	0.167
169	14.08	0.90	0.409	(0.319)	0.213	0.196
170	14.17	0.90	0.409	(0.318)	0.213	0.196
171	14.25	0.90	0.409	(0.316)	0.213	0.196
172	14.33	0.87	0.394	(0.315)	0.205	0.189
173	14.42	0.87	0.394	(0.313)	0.205	0.189
174	14.50	0.87	0.394	(0.311)	0.205	0.189
175	14.58	0.87	0.394	(0.310)	0.205	0.189
176	14.67	0.87	0.394	(0.308)	0.205	0.189
177	14.75	0.87	0.394	(0.307)	0.205	0.189
178	14.83	0.83	0.379	(0.305)	0.197	0.182
179	14.92	0.83	0.379	(0.303)	0.197	0.182
180	15.00	0.83	0.379	(0.302)	0.197	0.182
181	15.08	0.80	0.364	(0.300)	0.189	0.175
182	15.17	0.80	0.364	(0.299)	0.189	0.175
183	15.25	0.80	0.364	(0.297)	0.189	0.175
184	15.33	0.77	0.349	(0.296)	0.181	0.167
185	15.42	0.77	0.349	(0.294)	0.181	0.167
186	15.50	0.77	0.349	(0.293)	0.181	0.167
187	15.58	0.63	0.288	(0.291)	0.150	0.138
188	15.67	0.63	0.288	(0.290)	0.150	0.138
189	15.75	0.63	0.288	(0.288)	0.150	0.138
190	15.83	0.63	0.288	(0.287)	0.150	0.138
191	15.92	0.63	0.288	(0.285)	0.150	0.138
192	16.00	0.63	0.288	(0.284)	0.150	0.138
193	16.08	0.13	0.061	(0.282)	0.032	0.029
194	16.17	0.13	0.061	(0.281)	0.032	0.029
195	16.25	0.13	0.061	(0.280)	0.032	0.029
196	16.33	0.13	0.061	(0.278)	0.032	0.029
197	16.42	0.13	0.061	(0.277)	0.032	0.029
198	16.50	0.13	0.061	(0.275)	0.032	0.029
199	16.58	0.10	0.045	(0.274)	0.024	0.022
200	16.67	0.10	0.045	(0.273)	0.024	0.022
201	16.75	0.10	0.045	(0.271)	0.024	0.022
202	16.83	0.10	0.045	(0.270)	0.024	0.022
203	16.92	0.10	0.045	(0.268)	0.024	0.022
204	17.00	0.10	0.045	(0.267)	0.024	0.022
205	17.08	0.17	0.076	(0.266)	0.039	0.036
206	17.17	0.17	0.076	(0.264)	0.039	0.036
207	17.25	0.17	0.076	(0.263)	0.039	0.036
208	17.33	0.17	0.076	(0.262)	0.039	0.036
209	17.42	0.17	0.076	(0.260)	0.039	0.036

210	17.50	0.17	0.076	(0.259)	0.039	0.036
211	17.58	0.17	0.076	(0.258)	0.039	0.036
212	17.67	0.17	0.076	(0.257)	0.039	0.036
213	17.75	0.17	0.076	(0.255)	0.039	0.036
214	17.83	0.13	0.061	(0.254)	0.032	0.029
215	17.92	0.13	0.061	(0.253)	0.032	0.029
216	18.00	0.13	0.061	(0.251)	0.032	0.029
217	18.08	0.13	0.061	(0.250)	0.032	0.029
218	18.17	0.13	0.061	(0.249)	0.032	0.029
219	18.25	0.13	0.061	(0.248)	0.032	0.029
220	18.33	0.13	0.061	(0.247)	0.032	0.029
221	18.42	0.13	0.061	(0.245)	0.032	0.029
222	18.50	0.13	0.061	(0.244)	0.032	0.029
223	18.58	0.10	0.045	(0.243)	0.024	0.022
224	18.67	0.10	0.045	(0.242)	0.024	0.022
225	18.75	0.10	0.045	(0.241)	0.024	0.022
226	18.83	0.07	0.030	(0.240)	0.016	0.015
227	18.92	0.07	0.030	(0.238)	0.016	0.015
228	19.00	0.07	0.030	(0.237)	0.016	0.015
229	19.08	0.10	0.045	(0.236)	0.024	0.022
230	19.17	0.10	0.045	(0.235)	0.024	0.022
231	19.25	0.10	0.045	(0.234)	0.024	0.022
232	19.33	0.13	0.061	(0.233)	0.032	0.029
233	19.42	0.13	0.061	(0.232)	0.032	0.029
234	19.50	0.13	0.061	(0.231)	0.032	0.029
235	19.58	0.10	0.045	(0.230)	0.024	0.022
236	19.67	0.10	0.045	(0.229)	0.024	0.022
237	19.75	0.10	0.045	(0.228)	0.024	0.022
238	19.83	0.07	0.030	(0.226)	0.016	0.015
239	19.92	0.07	0.030	(0.225)	0.016	0.015
240	20.00	0.07	0.030	(0.224)	0.016	0.015
241	20.08	0.10	0.045	(0.223)	0.024	0.022
242	20.17	0.10	0.045	(0.223)	0.024	0.022
243	20.25	0.10	0.045	(0.222)	0.024	0.022
244	20.33	0.10	0.045	(0.221)	0.024	0.022
245	20.42	0.10	0.045	(0.220)	0.024	0.022
246	20.50	0.10	0.045	(0.219)	0.024	0.022
247	20.58	0.10	0.045	(0.218)	0.024	0.022
248	20.67	0.10	0.045	(0.217)	0.024	0.022
249	20.75	0.10	0.045	(0.216)	0.024	0.022
250	20.83	0.07	0.030	(0.215)	0.016	0.015
251	20.92	0.07	0.030	(0.214)	0.016	0.015
252	21.00	0.07	0.030	(0.213)	0.016	0.015
253	21.08	0.10	0.045	(0.213)	0.024	0.022
254	21.17	0.10	0.045	(0.212)	0.024	0.022
255	21.25	0.10	0.045	(0.211)	0.024	0.022
256	21.33	0.07	0.030	(0.210)	0.016	0.015
257	21.42	0.07	0.030	(0.209)	0.016	0.015
258	21.50	0.07	0.030	(0.208)	0.016	0.015
259	21.58	0.10	0.045	(0.208)	0.024	0.022
260	21.67	0.10	0.045	(0.207)	0.024	0.022
261	21.75	0.10	0.045	(0.206)	0.024	0.022
262	21.83	0.07	0.030	(0.206)	0.016	0.015
263	21.92	0.07	0.030	(0.205)	0.016	0.015
264	22.00	0.07	0.030	(0.204)	0.016	0.015
265	22.08	0.10	0.045	(0.203)	0.024	0.022
266	22.17	0.10	0.045	(0.203)	0.024	0.022
267	22.25	0.10	0.045	(0.202)	0.024	0.022
268	22.33	0.07	0.030	(0.202)	0.016	0.015
269	22.42	0.07	0.030	(0.201)	0.016	0.015
270	22.50	0.07	0.030	(0.200)	0.016	0.015
271	22.58	0.07	0.030	(0.200)	0.016	0.015
272	22.67	0.07	0.030	(0.199)	0.016	0.015

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273  22.75     0.07      0.030       (  0.199)       0.016        0.015
274  22.83     0.07      0.030       (  0.198)       0.016        0.015
275  22.92     0.07      0.030       (  0.198)       0.016        0.015
276  23.00     0.07      0.030       (  0.197)       0.016        0.015
277  23.08     0.07      0.030       (  0.197)       0.016        0.015
278  23.17     0.07      0.030       (  0.196)       0.016        0.015
279  23.25     0.07      0.030       (  0.196)       0.016        0.015
280  23.33     0.07      0.030       (  0.195)       0.016        0.015
281  23.42     0.07      0.030       (  0.195)       0.016        0.015
282  23.50     0.07      0.030       (  0.195)       0.016        0.015
283  23.58     0.07      0.030       (  0.194)       0.016        0.015
284  23.67     0.07      0.030       (  0.194)       0.016        0.015
285  23.75     0.07      0.030       (  0.194)       0.016        0.015
286  23.83     0.07      0.030       (  0.194)       0.016        0.015
287  23.92     0.07      0.030       (  0.193)       0.016        0.015
288  24.00     0.07      0.030       (  0.193)       0.016        0.015
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    21.8
     Flood volume = Effective rainfall      1.82(In)
      times area      19.0(Ac.)/[(In)/(Ft.)] =       2.9(Ac.Ft)
     Total soil loss =      1.97(In)
     Total soil loss =     3.114(Ac.Ft)
     Total rainfall =      3.79(In)
     Flood volume =      125209.1 Cubic Feet
     Total soil loss =      135643.2 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =      4.730(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                   R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ------------------------------------------------------------------------
   0+ 5       0.0008      0.12  Q         |         |         |         |
   0+10       0.0025      0.24  Q         |         |         |         |
   0+15       0.0043      0.27  VQ        |         |         |         |
   0+20       0.0066      0.33  VQ        |         |         |         |
   0+25       0.0094      0.40  VQ        |         |         |         |
   0+30       0.0122      0.41  VQ        |         |         |         |
   0+35       0.0150      0.42  VQ        |         |         |         |
   0+40       0.0179      0.42  VQ        |         |         |         |
   0+45       0.0208      0.42  VQ        |         |         |         |
   0+50       0.0241      0.48  VQ        |         |         |         |
   0+55       0.0278      0.54  V Q       |         |         |         |
   1+ 0       0.0316      0.55  V Q       |         |         |         |
   1+ 5       0.0350      0.50  VQ        |         |         |         |
   1+10       0.0380      0.44  VQ        |         |         |         |
   1+15       0.0409      0.42  VQ        |         |         |         |
   1+20       0.0438      0.42  VQ        |         |         |         |
   1+25       0.0467      0.42  VQ        |         |         |         |
   1+30       0.0495      0.42  VQ        |         |         |         |
   1+35       0.0524      0.42  VQ        |         |         |         |
   1+40       0.0553      0.42  VQ        |         |         |         |
   1+45       0.0582      0.42  VQ        |         |         |         |
   1+50       0.0615      0.48  VQ        |         |         |         |
   1+55       0.0652      0.54  V Q       |         |         |         |
   2+ 0       0.0689      0.55  V Q       |         |         |         |
   2+ 5       0.0728      0.55  |VQ       |         |         |         |
   2+10       0.0766      0.56  |VQ       |         |         |         |
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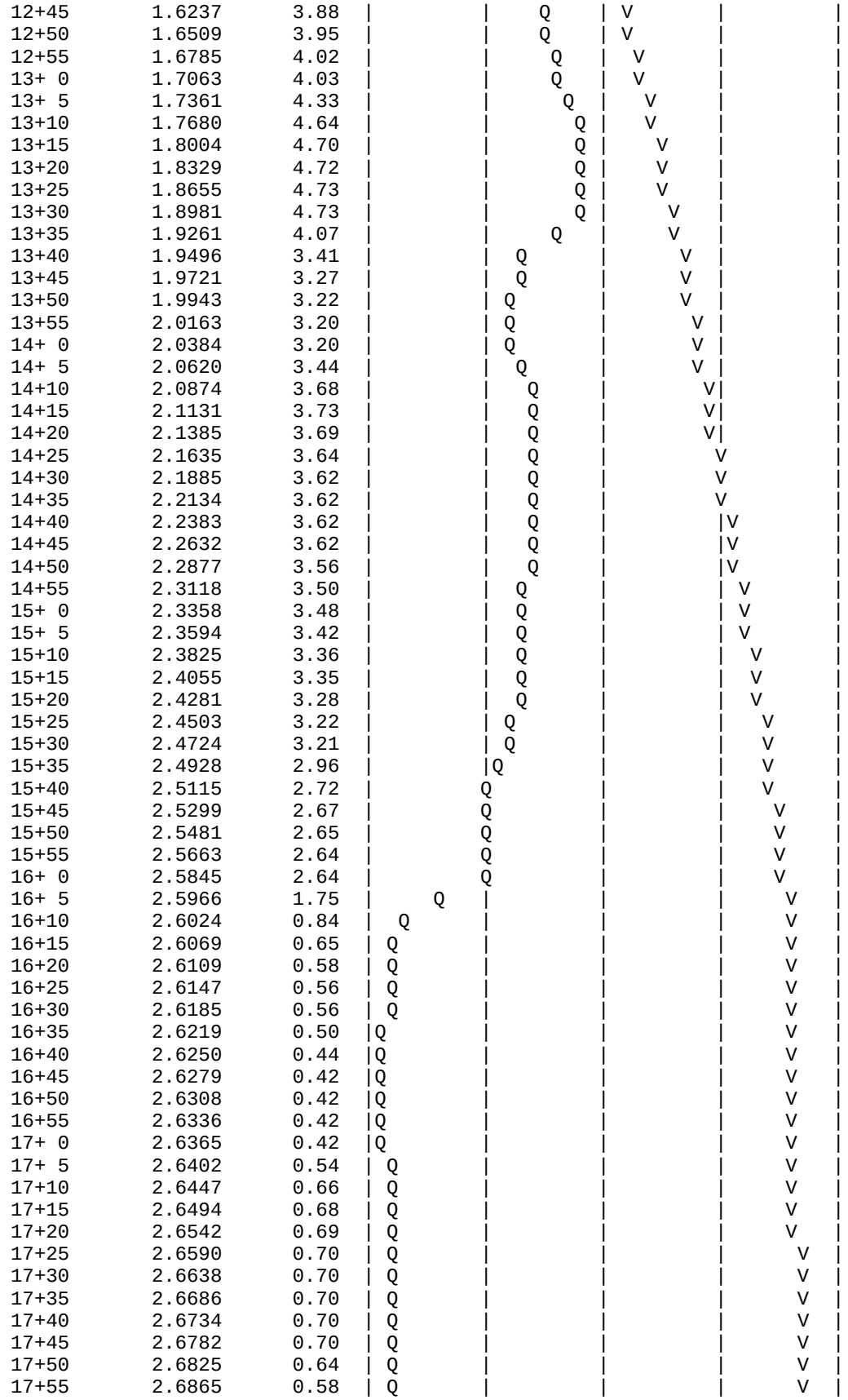
2+15	0.0804	0.56	VQ				
2+20	0.0843	0.56	VQ				
2+25	0.0881	0.56	VQ				
2+30	0.0919	0.56	VQ				
2+35	0.0962	0.62	VQ				
2+40	0.1008	0.68	VQ				
2+45	0.1056	0.69	VQ				
2+50	0.1104	0.69	VQ				
2+55	0.1151	0.70	VQ				
3+ 0	0.1199	0.70	VQ				
3+ 5	0.1247	0.70	VQ				
3+10	0.1295	0.70	VQ				
3+15	0.1343	0.70	VQ				
3+20	0.1391	0.70	VQ				
3+25	0.1439	0.70	Q				
3+30	0.1487	0.70	Q				
3+35	0.1535	0.70	Q				
3+40	0.1583	0.70	Q				
3+45	0.1631	0.70	Q				
3+50	0.1683	0.76	VQ				
3+55	0.1739	0.82	VQ				
4+ 0	0.1796	0.83	VQ				
4+ 5	0.1853	0.83	VQ				
4+10	0.1911	0.83	VQ				
4+15	0.1968	0.83	VQ				
4+20	0.2030	0.89	VQ				
4+25	0.2096	0.95	VQ				
4+30	0.2162	0.97	Q				
4+35	0.2229	0.97	Q				
4+40	0.2296	0.97	Q				
4+45	0.2363	0.97	Q				
4+50	0.2434	1.03	VQ				
4+55	0.2510	1.09	VQ				
5+ 0	0.2586	1.11	VQ				
5+ 5	0.2654	0.99	Q				
5+10	0.2714	0.87	Q				
5+15	0.2773	0.85	Q				
5+20	0.2835	0.90	Q				
5+25	0.2900	0.95	QV				
5+30	0.2967	0.97	QV				
5+35	0.3038	1.03	Q				
5+40	0.3113	1.09	Q				
5+45	0.3190	1.11	Q				
5+50	0.3266	1.11	Q				
5+55	0.3343	1.11	Q				
6+ 0	0.3419	1.11	Q				
6+ 5	0.3500	1.17	Q				
6+10	0.3585	1.23	Q				
6+15	0.3671	1.25	QV				
6+20	0.3757	1.25	Q				
6+25	0.3843	1.25	Q				
6+30	0.3929	1.25	Q				
6+35	0.4020	1.31	Q				
6+40	0.4114	1.37	Q				
6+45	0.4210	1.38	Q				
6+50	0.4305	1.39	Q				
6+55	0.4401	1.39	QV				
7+ 0	0.4497	1.39	QV				
7+ 5	0.4593	1.39	QV				
7+10	0.4689	1.39	QV				
7+15	0.4784	1.39	QV				
7+20	0.4884	1.45	QV				
7+25	0.4989	1.51	Q				

7+30	0.5093	1.52	QV				
7+35	0.5203	1.59	QV				
7+40	0.5317	1.65	QV				
7+45	0.5431	1.66	QV				
7+50	0.5550	1.73	QV				
7+55	0.5673	1.79	Q				
8+ 0	0.5797	1.80	QV				
8+ 5	0.5930	1.93	QV				
8+10	0.6071	2.05	Q				
8+15	0.6214	2.07	Q				
8+20	0.6358	2.08	Q				
8+25	0.6501	2.09	QV				
8+30	0.6645	2.09	QV				
8+35	0.6793	2.15	QV				
8+40	0.6945	2.21	QV				
8+45	0.7098	2.22	QV				
8+50	0.7255	2.28	QV				
8+55	0.7417	2.35	QV				
9+ 0	0.7579	2.36	QV				
9+ 5	0.7750	2.48	QV				
9+10	0.7929	2.61	QV				
9+15	0.8111	2.63	QV				
9+20	0.8297	2.70	QV				
9+25	0.8487	2.76	Q				
9+30	0.8678	2.78	QV				
9+35	0.8874	2.84	QV				
9+40	0.9074	2.90	QV				
9+45	0.9274	2.92	QV				
9+50	0.9480	2.98	Q V				
9+55	0.9689	3.04	QV				
10+ 0	0.9899	3.05	QV				
10+ 5	1.0081	2.64	Q V				
10+10	1.0234	2.22	Q V				
10+15	1.0381	2.13	Q V				
10+20	1.0525	2.10	Q V				
10+25	1.0669	2.09	Q V				
10+30	1.0813	2.09	Q V				
10+35	1.0977	2.39	Q V				
10+40	1.1162	2.69	Q V				
10+45	1.1352	2.75	Q V				
10+50	1.1543	2.77	Q V				
10+55	1.1734	2.78	Q V				
11+ 0	1.1926	2.78	Q V				
11+ 5	1.2114	2.72	Q V				
11+10	1.2297	2.66	Q V				
11+15	1.2479	2.65	Q V				
11+20	1.2662	2.64	Q V				
11+25	1.2844	2.64	Q V				
11+30	1.3026	2.64	Q V				
11+35	1.3199	2.52	Q V				
11+40	1.3365	2.40	Q V				
11+45	1.3529	2.38	Q V				
11+50	1.3696	2.43	Q V				
11+55	1.3867	2.49	Q V				
12+ 0	1.4039	2.50	Q V				
12+ 5	1.4240	2.92	Q V				
12+10	1.4471	3.35	Q V				
12+15	1.4707	3.43	Q V				
12+20	1.4950	3.53	Q V				
12+25	1.5198	3.60	Q V				
12+30	1.5446	3.61	Q V				
12+35	1.5704	3.73	Q V				
12+40	1.5969	3.86	Q V				



18+ 0	2.6904	0.56	| Q	|	|	|	V |
18+ 5	2.6942	0.56	| Q	|	|	|	V |
18+10	2.6981	0.56	| Q	|	|	|	V |
18+15	2.7019	0.56	| Q	|	|	|	V |
18+20	2.7057	0.56	| Q	|	|	|	V |
18+25	2.7096	0.56	| Q	|	|	|	V |
18+30	2.7134	0.56	| Q	|	|	|	V |
18+35	2.7168	0.50	|Q	|	|	|	V |
18+40	2.7198	0.44	|Q	|	|	|	V |
18+45	2.7227	0.42	|Q	|	|	|	V |
18+50	2.7252	0.36	|Q	|	|	|	V |
18+55	2.7272	0.30	|Q	|	|	|	V |
19+ 0	2.7292	0.28	|Q	|	|	|	V |
19+ 5	2.7315	0.34	|Q	|	|	|	V |
19+10	2.7343	0.40	|Q	|	|	|	V |
19+15	2.7371	0.41	|Q	|	|	|	V |
19+20	2.7404	0.48	|Q	|	|	|	V |
19+25	2.7441	0.54	| Q	|	|	|	V |
19+30	2.7479	0.55	| Q	|	|	|	V |
19+35	2.7513	0.50	|Q	|	|	|	V |
19+40	2.7543	0.44	|Q	|	|	|	V |
19+45	2.7572	0.42	|Q	|	|	|	V |
19+50	2.7597	0.36	|Q	|	|	|	V |
19+55	2.7617	0.30	|Q	|	|	|	V |
20+ 0	2.7637	0.28	|Q	|	|	|	V |
20+ 5	2.7660	0.34	|Q	|	|	|	V |
20+10	2.7688	0.40	|Q	|	|	|	V |
20+15	2.7716	0.41	|Q	|	|	|	V |
20+20	2.7745	0.42	|Q	|	|	|	V |
20+25	2.7774	0.42	|Q	|	|	|	V |
20+30	2.7802	0.42	|Q	|	|	|	V |
20+35	2.7831	0.42	|Q	|	|	|	V |
20+40	2.7860	0.42	|Q	|	|	|	V |
20+45	2.7888	0.42	|Q	|	|	|	V |
20+50	2.7913	0.36	|Q	|	|	|	V |
20+55	2.7934	0.30	|Q	|	|	|	V |
21+ 0	2.7953	0.28	|Q	|	|	|	V |
21+ 5	2.7977	0.34	|Q	|	|	|	V |
21+10	2.8004	0.40	|Q	|	|	|	V |
21+15	2.8032	0.41	|Q	|	|	|	V|
21+20	2.8057	0.36	|Q	|	|	|	V|
21+25	2.8077	0.30	|Q	|	|	|	V|
21+30	2.8097	0.28	|Q	|	|	|	V|
21+35	2.8120	0.34	|Q	|	|	|	V|
21+40	2.8148	0.40	|Q	|	|	|	V|
21+45	2.8176	0.41	|Q	|	|	|	V|
21+50	2.8201	0.36	|Q	|	|	|	V|
21+55	2.8221	0.30	|Q	|	|	|	V|
22+ 0	2.8241	0.28	|Q	|	|	|	V|
22+ 5	2.8264	0.34	|Q	|	|	|	V|
22+10	2.8291	0.40	|Q	|	|	|	V|
22+15	2.8320	0.41	|Q	|	|	|	V|
22+20	2.8344	0.36	|Q	|	|	|	V|
22+25	2.8365	0.30	|Q	|	|	|	V|
22+30	2.8384	0.28	|Q	|	|	|	V|
22+35	2.8404	0.28	|Q	|	|	|	V|
22+40	2.8423	0.28	|Q	|	|	|	V|
22+45	2.8442	0.28	|Q	|	|	|	V|
22+50	2.8461	0.28	|Q	|	|	|	V|
22+55	2.8480	0.28	|Q	|	|	|	V|
23+ 0	2.8499	0.28	|Q	|	|	|	V|
23+ 5	2.8519	0.28	|Q	|	|	|	V|
23+10	2.8538	0.28	|Q	|	|	|	V|

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   23+15       2.8557      0.28  |Q        |         |         |        V|
   23+20       2.8576      0.28  |Q        |         |         |        V|
   23+25       2.8595      0.28  |Q        |         |         |        V|
   23+30       2.8614      0.28  |Q        |         |         |        V|
   23+35       2.8634      0.28  |Q        |         |         |        V|
   23+40       2.8653      0.28  |Q        |         |         |        V|
   23+45       2.8672      0.28  |Q        |         |         |        V|
   23+50       2.8691      0.28  |Q        |         |         |        V|
   23+55       2.8710      0.28  |Q        |         |         |        V|
   24+ 0       2.8729      0.28  |Q        |         |         |        V|
   24+ 5       2.8740      0.16  Q         |         |         |        V|
   24+10       2.8743      0.04  Q         |         |         |        V|
   24+15       2.8744      0.01  Q         |         |         |        V|
   24+20       2.8744      0.00  Q         |         |         |        V|
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APPENDIX H.4: AREA “B” – PROPOSED CONDITION HYDROGRAPH CALCULATIONS 2–YEAR/24–HOUR

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
Study date 06/24/15 File: BPR242.out

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Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6268

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

TRACT NO. 36294
AREA B - PROPOSED CONDITION
2YR-24HR
FN: BPR242

Drainage Area = 18.97(Ac.) = 0.030 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 18.97(Ac.) = 0.030 Sq. Mi.
Length along longest watercourse = 1479.00(Ft.)
Length along longest watercourse measured to centroid = 969.00(Ft.)
Length along longest watercourse = 0.280 Mi.
Length along longest watercourse measured to centroid = 0.184 Mi.
Difference in elevation = 58.00(Ft.)
Slope along watercourse = 207.0588 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.042 Hr.
Lag time = 2.54 Min.
25% of lag time = 0.63 Min.
40% of lag time = 1.02 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	2.50	47.42

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
18.97	8.00	151.76

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 2.500(In)
Area Averaged 100-Year Rainfall = 8.000(In)

Point rain (area averaged) = 2.500(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 2.500(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
18.970	60.00	0.470

Total Area Entered = 18.97(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
60.0	40.0	0.670	0.470	0.387	1.000	0.387
					Sum (F) =	0.387

Area averaged mean soil loss (F) (In/Hr) = 0.387
Minimum soil loss rate ((In/Hr)) = 0.193
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.520

U n i t H y d r o g r a p h
VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	196.963	42.871	8.196
2	0.167	393.926	43.580	8.332
3	0.250	590.889	8.919	1.705
4	0.333	787.852	3.487	0.667
5	0.417	984.816	1.143	0.218
		Sum = 100.000	Sum=	19.118

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit	Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max	Low	Effective (In/Hr)
1	0.08	0.07	0.020	(0.685)	0.010	0.010
2	0.17	0.07	0.020	(0.683)	0.010	0.010
3	0.25	0.07	0.020	(0.680)	0.010	0.010
4	0.33	0.10	0.030	(0.677)	0.016	0.014
5	0.42	0.10	0.030	(0.675)	0.016	0.014
6	0.50	0.10	0.030	(0.672)	0.016	0.014
7	0.58	0.10	0.030	(0.669)	0.016	0.014
8	0.67	0.10	0.030	(0.667)	0.016	0.014
9	0.75	0.10	0.030	(0.664)	0.016	0.014
10	0.83	0.13	0.040	(0.662)	0.021	0.019
11	0.92	0.13	0.040	(0.659)	0.021	0.019
12	1.00	0.13	0.040	(0.656)	0.021	0.019
13	1.08	0.10	0.030	(0.654)	0.016	0.014
14	1.17	0.10	0.030	(0.651)	0.016	0.014
15	1.25	0.10	0.030	(0.649)	0.016	0.014
16	1.33	0.10	0.030	(0.646)	0.016	0.014
17	1.42	0.10	0.030	(0.644)	0.016	0.014
18	1.50	0.10	0.030	(0.641)	0.016	0.014
19	1.58	0.10	0.030	(0.638)	0.016	0.014
20	1.67	0.10	0.030	(0.636)	0.016	0.014

21	1.75	0.10	0.030	(0.633)	0.016	0.014
22	1.83	0.13	0.040	(0.631)	0.021	0.019
23	1.92	0.13	0.040	(0.628)	0.021	0.019
24	2.00	0.13	0.040	(0.626)	0.021	0.019
25	2.08	0.13	0.040	(0.623)	0.021	0.019
26	2.17	0.13	0.040	(0.621)	0.021	0.019
27	2.25	0.13	0.040	(0.618)	0.021	0.019
28	2.33	0.13	0.040	(0.616)	0.021	0.019
29	2.42	0.13	0.040	(0.613)	0.021	0.019
30	2.50	0.13	0.040	(0.611)	0.021	0.019
31	2.58	0.17	0.050	(0.608)	0.026	0.024
32	2.67	0.17	0.050	(0.606)	0.026	0.024
33	2.75	0.17	0.050	(0.603)	0.026	0.024
34	2.83	0.17	0.050	(0.601)	0.026	0.024
35	2.92	0.17	0.050	(0.598)	0.026	0.024
36	3.00	0.17	0.050	(0.596)	0.026	0.024
37	3.08	0.17	0.050	(0.593)	0.026	0.024
38	3.17	0.17	0.050	(0.591)	0.026	0.024
39	3.25	0.17	0.050	(0.588)	0.026	0.024
40	3.33	0.17	0.050	(0.586)	0.026	0.024
41	3.42	0.17	0.050	(0.583)	0.026	0.024
42	3.50	0.17	0.050	(0.581)	0.026	0.024
43	3.58	0.17	0.050	(0.578)	0.026	0.024
44	3.67	0.17	0.050	(0.576)	0.026	0.024
45	3.75	0.17	0.050	(0.574)	0.026	0.024
46	3.83	0.20	0.060	(0.571)	0.031	0.029
47	3.92	0.20	0.060	(0.569)	0.031	0.029
48	4.00	0.20	0.060	(0.566)	0.031	0.029
49	4.08	0.20	0.060	(0.564)	0.031	0.029
50	4.17	0.20	0.060	(0.562)	0.031	0.029
51	4.25	0.20	0.060	(0.559)	0.031	0.029
52	4.33	0.23	0.070	(0.557)	0.036	0.034
53	4.42	0.23	0.070	(0.554)	0.036	0.034
54	4.50	0.23	0.070	(0.552)	0.036	0.034
55	4.58	0.23	0.070	(0.550)	0.036	0.034
56	4.67	0.23	0.070	(0.547)	0.036	0.034
57	4.75	0.23	0.070	(0.545)	0.036	0.034
58	4.83	0.27	0.080	(0.543)	0.042	0.038
59	4.92	0.27	0.080	(0.540)	0.042	0.038
60	5.00	0.27	0.080	(0.538)	0.042	0.038
61	5.08	0.20	0.060	(0.536)	0.031	0.029
62	5.17	0.20	0.060	(0.533)	0.031	0.029
63	5.25	0.20	0.060	(0.531)	0.031	0.029
64	5.33	0.23	0.070	(0.529)	0.036	0.034
65	5.42	0.23	0.070	(0.526)	0.036	0.034
66	5.50	0.23	0.070	(0.524)	0.036	0.034
67	5.58	0.27	0.080	(0.522)	0.042	0.038
68	5.67	0.27	0.080	(0.519)	0.042	0.038
69	5.75	0.27	0.080	(0.517)	0.042	0.038
70	5.83	0.27	0.080	(0.515)	0.042	0.038
71	5.92	0.27	0.080	(0.513)	0.042	0.038
72	6.00	0.27	0.080	(0.510)	0.042	0.038
73	6.08	0.30	0.090	(0.508)	0.047	0.043
74	6.17	0.30	0.090	(0.506)	0.047	0.043
75	6.25	0.30	0.090	(0.504)	0.047	0.043
76	6.33	0.30	0.090	(0.501)	0.047	0.043
77	6.42	0.30	0.090	(0.499)	0.047	0.043
78	6.50	0.30	0.090	(0.497)	0.047	0.043
79	6.58	0.33	0.100	(0.495)	0.052	0.048
80	6.67	0.33	0.100	(0.492)	0.052	0.048
81	6.75	0.33	0.100	(0.490)	0.052	0.048
82	6.83	0.33	0.100	(0.488)	0.052	0.048
83	6.92	0.33	0.100	(0.486)	0.052	0.048

84	7.00	0.33	0.100	(0.483)	0.052	0.048
85	7.08	0.33	0.100	(0.481)	0.052	0.048
86	7.17	0.33	0.100	(0.479)	0.052	0.048
87	7.25	0.33	0.100	(0.477)	0.052	0.048
88	7.33	0.37	0.110	(0.475)	0.057	0.053
89	7.42	0.37	0.110	(0.473)	0.057	0.053
90	7.50	0.37	0.110	(0.470)	0.057	0.053
91	7.58	0.40	0.120	(0.468)	0.062	0.058
92	7.67	0.40	0.120	(0.466)	0.062	0.058
93	7.75	0.40	0.120	(0.464)	0.062	0.058
94	7.83	0.43	0.130	(0.462)	0.068	0.062
95	7.92	0.43	0.130	(0.460)	0.068	0.062
96	8.00	0.43	0.130	(0.458)	0.068	0.062
97	8.08	0.50	0.150	(0.455)	0.078	0.072
98	8.17	0.50	0.150	(0.453)	0.078	0.072
99	8.25	0.50	0.150	(0.451)	0.078	0.072
100	8.33	0.50	0.150	(0.449)	0.078	0.072
101	8.42	0.50	0.150	(0.447)	0.078	0.072
102	8.50	0.50	0.150	(0.445)	0.078	0.072
103	8.58	0.53	0.160	(0.443)	0.083	0.077
104	8.67	0.53	0.160	(0.441)	0.083	0.077
105	8.75	0.53	0.160	(0.439)	0.083	0.077
106	8.83	0.57	0.170	(0.437)	0.088	0.082
107	8.92	0.57	0.170	(0.434)	0.088	0.082
108	9.00	0.57	0.170	(0.432)	0.088	0.082
109	9.08	0.63	0.190	(0.430)	0.099	0.091
110	9.17	0.63	0.190	(0.428)	0.099	0.091
111	9.25	0.63	0.190	(0.426)	0.099	0.091
112	9.33	0.67	0.200	(0.424)	0.104	0.096
113	9.42	0.67	0.200	(0.422)	0.104	0.096
114	9.50	0.67	0.200	(0.420)	0.104	0.096
115	9.58	0.70	0.210	(0.418)	0.109	0.101
116	9.67	0.70	0.210	(0.416)	0.109	0.101
117	9.75	0.70	0.210	(0.414)	0.109	0.101
118	9.83	0.73	0.220	(0.412)	0.114	0.106
119	9.92	0.73	0.220	(0.410)	0.114	0.106
120	10.00	0.73	0.220	(0.408)	0.114	0.106
121	10.08	0.50	0.150	(0.406)	0.078	0.072
122	10.17	0.50	0.150	(0.404)	0.078	0.072
123	10.25	0.50	0.150	(0.402)	0.078	0.072
124	10.33	0.50	0.150	(0.400)	0.078	0.072
125	10.42	0.50	0.150	(0.398)	0.078	0.072
126	10.50	0.50	0.150	(0.396)	0.078	0.072
127	10.58	0.67	0.200	(0.395)	0.104	0.096
128	10.67	0.67	0.200	(0.393)	0.104	0.096
129	10.75	0.67	0.200	(0.391)	0.104	0.096
130	10.83	0.67	0.200	(0.389)	0.104	0.096
131	10.92	0.67	0.200	(0.387)	0.104	0.096
132	11.00	0.67	0.200	(0.385)	0.104	0.096
133	11.08	0.63	0.190	(0.383)	0.099	0.091
134	11.17	0.63	0.190	(0.381)	0.099	0.091
135	11.25	0.63	0.190	(0.379)	0.099	0.091
136	11.33	0.63	0.190	(0.377)	0.099	0.091
137	11.42	0.63	0.190	(0.376)	0.099	0.091
138	11.50	0.63	0.190	(0.374)	0.099	0.091
139	11.58	0.57	0.170	(0.372)	0.088	0.082
140	11.67	0.57	0.170	(0.370)	0.088	0.082
141	11.75	0.57	0.170	(0.368)	0.088	0.082
142	11.83	0.60	0.180	(0.366)	0.094	0.086
143	11.92	0.60	0.180	(0.365)	0.094	0.086
144	12.00	0.60	0.180	(0.363)	0.094	0.086
145	12.08	0.83	0.250	(0.361)	0.130	0.120
146	12.17	0.83	0.250	(0.359)	0.130	0.120

147	12.25	0.83	0.250	(0.357)	0.130	0.120
148	12.33	0.87	0.260	(0.355)	0.135	0.125
149	12.42	0.87	0.260	(0.354)	0.135	0.125
150	12.50	0.87	0.260	(0.352)	0.135	0.125
151	12.58	0.93	0.280	(0.350)	0.146	0.134
152	12.67	0.93	0.280	(0.348)	0.146	0.134
153	12.75	0.93	0.280	(0.347)	0.146	0.134
154	12.83	0.97	0.290	(0.345)	0.151	0.139
155	12.92	0.97	0.290	(0.343)	0.151	0.139
156	13.00	0.97	0.290	(0.341)	0.151	0.139
157	13.08	1.13	0.340	(0.340)	0.177	0.163
158	13.17	1.13	0.340	(0.338)	0.177	0.163
159	13.25	1.13	0.340	(0.336)	0.177	0.163
160	13.33	1.13	0.340	(0.335)	0.177	0.163
161	13.42	1.13	0.340	(0.333)	0.177	0.163
162	13.50	1.13	0.340	(0.331)	0.177	0.163
163	13.58	0.77	0.230	(0.329)	0.120	0.110
164	13.67	0.77	0.230	(0.328)	0.120	0.110
165	13.75	0.77	0.230	(0.326)	0.120	0.110
166	13.83	0.77	0.230	(0.324)	0.120	0.110
167	13.92	0.77	0.230	(0.323)	0.120	0.110
168	14.00	0.77	0.230	(0.321)	0.120	0.110
169	14.08	0.90	0.270	(0.319)	0.140	0.130
170	14.17	0.90	0.270	(0.318)	0.140	0.130
171	14.25	0.90	0.270	(0.316)	0.140	0.130
172	14.33	0.87	0.260	(0.315)	0.135	0.125
173	14.42	0.87	0.260	(0.313)	0.135	0.125
174	14.50	0.87	0.260	(0.311)	0.135	0.125
175	14.58	0.87	0.260	(0.310)	0.135	0.125
176	14.67	0.87	0.260	(0.308)	0.135	0.125
177	14.75	0.87	0.260	(0.307)	0.135	0.125
178	14.83	0.83	0.250	(0.305)	0.130	0.120
179	14.92	0.83	0.250	(0.303)	0.130	0.120
180	15.00	0.83	0.250	(0.302)	0.130	0.120
181	15.08	0.80	0.240	(0.300)	0.125	0.115
182	15.17	0.80	0.240	(0.299)	0.125	0.115
183	15.25	0.80	0.240	(0.297)	0.125	0.115
184	15.33	0.77	0.230	(0.296)	0.120	0.110
185	15.42	0.77	0.230	(0.294)	0.120	0.110
186	15.50	0.77	0.230	(0.293)	0.120	0.110
187	15.58	0.63	0.190	(0.291)	0.099	0.091
188	15.67	0.63	0.190	(0.290)	0.099	0.091
189	15.75	0.63	0.190	(0.288)	0.099	0.091
190	15.83	0.63	0.190	(0.287)	0.099	0.091
191	15.92	0.63	0.190	(0.285)	0.099	0.091
192	16.00	0.63	0.190	(0.284)	0.099	0.091
193	16.08	0.13	0.040	(0.282)	0.021	0.019
194	16.17	0.13	0.040	(0.281)	0.021	0.019
195	16.25	0.13	0.040	(0.280)	0.021	0.019
196	16.33	0.13	0.040	(0.278)	0.021	0.019
197	16.42	0.13	0.040	(0.277)	0.021	0.019
198	16.50	0.13	0.040	(0.275)	0.021	0.019
199	16.58	0.10	0.030	(0.274)	0.016	0.014
200	16.67	0.10	0.030	(0.273)	0.016	0.014
201	16.75	0.10	0.030	(0.271)	0.016	0.014
202	16.83	0.10	0.030	(0.270)	0.016	0.014
203	16.92	0.10	0.030	(0.268)	0.016	0.014
204	17.00	0.10	0.030	(0.267)	0.016	0.014
205	17.08	0.17	0.050	(0.266)	0.026	0.024
206	17.17	0.17	0.050	(0.264)	0.026	0.024
207	17.25	0.17	0.050	(0.263)	0.026	0.024
208	17.33	0.17	0.050	(0.262)	0.026	0.024
209	17.42	0.17	0.050	(0.260)	0.026	0.024

210	17.50	0.17	0.050	(0.259)	0.026	0.024
211	17.58	0.17	0.050	(0.258)	0.026	0.024
212	17.67	0.17	0.050	(0.257)	0.026	0.024
213	17.75	0.17	0.050	(0.255)	0.026	0.024
214	17.83	0.13	0.040	(0.254)	0.021	0.019
215	17.92	0.13	0.040	(0.253)	0.021	0.019
216	18.00	0.13	0.040	(0.251)	0.021	0.019
217	18.08	0.13	0.040	(0.250)	0.021	0.019
218	18.17	0.13	0.040	(0.249)	0.021	0.019
219	18.25	0.13	0.040	(0.248)	0.021	0.019
220	18.33	0.13	0.040	(0.247)	0.021	0.019
221	18.42	0.13	0.040	(0.245)	0.021	0.019
222	18.50	0.13	0.040	(0.244)	0.021	0.019
223	18.58	0.10	0.030	(0.243)	0.016	0.014
224	18.67	0.10	0.030	(0.242)	0.016	0.014
225	18.75	0.10	0.030	(0.241)	0.016	0.014
226	18.83	0.07	0.020	(0.240)	0.010	0.010
227	18.92	0.07	0.020	(0.238)	0.010	0.010
228	19.00	0.07	0.020	(0.237)	0.010	0.010
229	19.08	0.10	0.030	(0.236)	0.016	0.014
230	19.17	0.10	0.030	(0.235)	0.016	0.014
231	19.25	0.10	0.030	(0.234)	0.016	0.014
232	19.33	0.13	0.040	(0.233)	0.021	0.019
233	19.42	0.13	0.040	(0.232)	0.021	0.019
234	19.50	0.13	0.040	(0.231)	0.021	0.019
235	19.58	0.10	0.030	(0.230)	0.016	0.014
236	19.67	0.10	0.030	(0.229)	0.016	0.014
237	19.75	0.10	0.030	(0.228)	0.016	0.014
238	19.83	0.07	0.020	(0.226)	0.010	0.010
239	19.92	0.07	0.020	(0.225)	0.010	0.010
240	20.00	0.07	0.020	(0.224)	0.010	0.010
241	20.08	0.10	0.030	(0.223)	0.016	0.014
242	20.17	0.10	0.030	(0.223)	0.016	0.014
243	20.25	0.10	0.030	(0.222)	0.016	0.014
244	20.33	0.10	0.030	(0.221)	0.016	0.014
245	20.42	0.10	0.030	(0.220)	0.016	0.014
246	20.50	0.10	0.030	(0.219)	0.016	0.014
247	20.58	0.10	0.030	(0.218)	0.016	0.014
248	20.67	0.10	0.030	(0.217)	0.016	0.014
249	20.75	0.10	0.030	(0.216)	0.016	0.014
250	20.83	0.07	0.020	(0.215)	0.010	0.010
251	20.92	0.07	0.020	(0.214)	0.010	0.010
252	21.00	0.07	0.020	(0.213)	0.010	0.010
253	21.08	0.10	0.030	(0.213)	0.016	0.014
254	21.17	0.10	0.030	(0.212)	0.016	0.014
255	21.25	0.10	0.030	(0.211)	0.016	0.014
256	21.33	0.07	0.020	(0.210)	0.010	0.010
257	21.42	0.07	0.020	(0.209)	0.010	0.010
258	21.50	0.07	0.020	(0.208)	0.010	0.010
259	21.58	0.10	0.030	(0.208)	0.016	0.014
260	21.67	0.10	0.030	(0.207)	0.016	0.014
261	21.75	0.10	0.030	(0.206)	0.016	0.014
262	21.83	0.07	0.020	(0.206)	0.010	0.010
263	21.92	0.07	0.020	(0.205)	0.010	0.010
264	22.00	0.07	0.020	(0.204)	0.010	0.010
265	22.08	0.10	0.030	(0.203)	0.016	0.014
266	22.17	0.10	0.030	(0.203)	0.016	0.014
267	22.25	0.10	0.030	(0.202)	0.016	0.014
268	22.33	0.07	0.020	(0.202)	0.010	0.010
269	22.42	0.07	0.020	(0.201)	0.010	0.010
270	22.50	0.07	0.020	(0.200)	0.010	0.010
271	22.58	0.07	0.020	(0.200)	0.010	0.010
272	22.67	0.07	0.020	(0.199)	0.010	0.010

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273  22.75     0.07      0.020       (  0.199)       0.010        0.010
274  22.83     0.07      0.020       (  0.198)       0.010        0.010
275  22.92     0.07      0.020       (  0.198)       0.010        0.010
276  23.00     0.07      0.020       (  0.197)       0.010        0.010
277  23.08     0.07      0.020       (  0.197)       0.010        0.010
278  23.17     0.07      0.020       (  0.196)       0.010        0.010
279  23.25     0.07      0.020       (  0.196)       0.010        0.010
280  23.33     0.07      0.020       (  0.195)       0.010        0.010
281  23.42     0.07      0.020       (  0.195)       0.010        0.010
282  23.50     0.07      0.020       (  0.195)       0.010        0.010
283  23.58     0.07      0.020       (  0.194)       0.010        0.010
284  23.67     0.07      0.020       (  0.194)       0.010        0.010
285  23.75     0.07      0.020       (  0.194)       0.010        0.010
286  23.83     0.07      0.020       (  0.194)       0.010        0.010
287  23.92     0.07      0.020       (  0.193)       0.010        0.010
288  24.00     0.07      0.020       (  0.193)       0.010        0.010
            (Loss Rate Not Used)
    Sum =     100.0                                    Sum =    14.4
     Flood volume = Effective rainfall      1.20(In)
      times area      19.0(Ac.)/[(In)/(Ft.)] =       1.9(Ac.Ft)
     Total soil loss =      1.30(In)
     Total soil loss =     2.055(Ac.Ft)
     Total rainfall =      2.50(In)
     Flood volume =       82630.3 Cubic Feet
     Total soil loss =       89516.1 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =      3.122(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                        24 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0        2.5       5.0       7.5      10.0
 ------------------------------------------------------------------------
   0+ 5       0.0005      0.08  Q         |         |         |         |
   0+10       0.0016      0.16  Q         |         |         |         |
   0+15       0.0028      0.18  Q         |         |         |         |
   0+20       0.0044      0.22  Q         |         |         |         |
   0+25       0.0062      0.26  VQ        |         |         |         |
   0+30       0.0080      0.27  VQ        |         |         |         |
   0+35       0.0099      0.27  VQ        |         |         |         |
   0+40       0.0118      0.28  VQ        |         |         |         |
   0+45       0.0137      0.28  VQ        |         |         |         |
   0+50       0.0159      0.31  VQ        |         |         |         |
   0+55       0.0183      0.35  VQ        |         |         |         |
   1+ 0       0.0208      0.36  VQ        |         |         |         |
   1+ 5       0.0231      0.33  VQ        |         |         |         |
   1+10       0.0251      0.29  VQ        |         |         |         |
   1+15       0.0270      0.28  VQ        |         |         |         |
   1+20       0.0289      0.28  VQ        |         |         |         |
   1+25       0.0308      0.28  VQ        |         |         |         |
   1+30       0.0327      0.28  VQ        |         |         |         |
   1+35       0.0346      0.28  VQ        |         |         |         |
   1+40       0.0365      0.28  VQ        |         |         |         |
   1+45       0.0384      0.28  VQ        |         |         |         |
   1+50       0.0406      0.31  VQ        |         |         |         |
   1+55       0.0430      0.35  VQ        |         |         |         |
   2+ 0       0.0455      0.36  VQ        |         |         |         |
   2+ 5       0.0480      0.37  |Q        |         |         |         |
   2+10       0.0505      0.37  |Q        |         |         |         |
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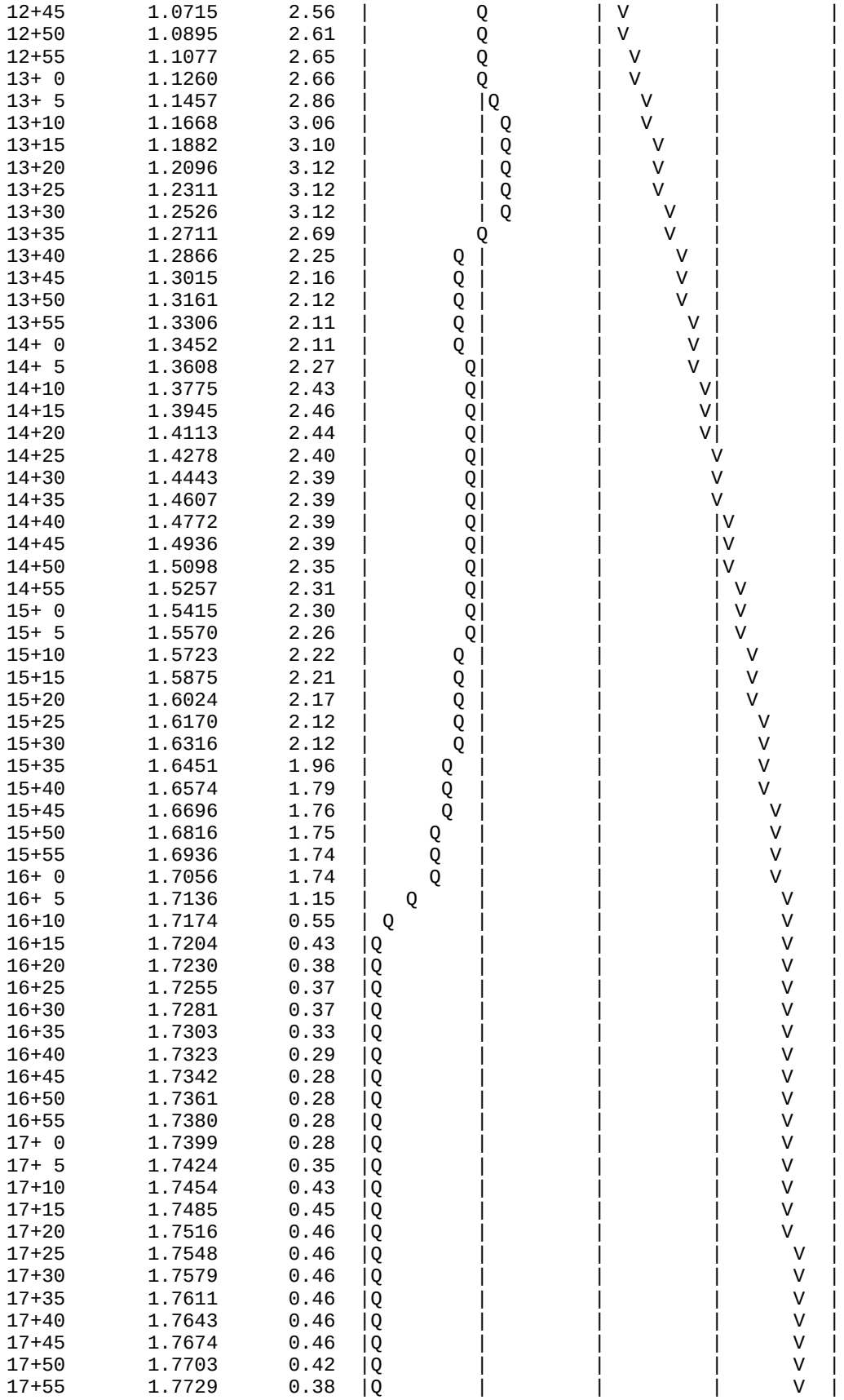
2+15	0.0531	0.37	Q				
2+20	0.0556	0.37	Q				
2+25	0.0581	0.37	Q				
2+30	0.0607	0.37	Q				
2+35	0.0635	0.41	Q				
2+40	0.0665	0.45	Q				
2+45	0.0697	0.45	Q				
2+50	0.0728	0.46	Q				
2+55	0.0760	0.46	Q				
3+ 0	0.0792	0.46	Q				
3+ 5	0.0823	0.46	Q				
3+10	0.0855	0.46	Q				
3+15	0.0886	0.46	Q				
3+20	0.0918	0.46	Q				
3+25	0.0950	0.46	QV				
3+30	0.0981	0.46	QV				
3+35	0.1013	0.46	QV				
3+40	0.1044	0.46	QV				
3+45	0.1076	0.46	QV				
3+50	0.1110	0.50	QV				
3+55	0.1147	0.54	Q				
4+ 0	0.1185	0.55	Q				
4+ 5	0.1223	0.55	Q				
4+10	0.1261	0.55	Q				
4+15	0.1299	0.55	Q				
4+20	0.1339	0.59	Q				
4+25	0.1383	0.63	Q				
4+30	0.1427	0.64	QV				
4+35	0.1471	0.64	QV				
4+40	0.1515	0.64	QV				
4+45	0.1560	0.64	QV				
4+50	0.1607	0.68	QV				
4+55	0.1656	0.72	QV				
5+ 0	0.1707	0.73	QV				
5+ 5	0.1752	0.65	QV				
5+10	0.1791	0.58	QV				
5+15	0.1830	0.56	QV				
5+20	0.1871	0.59	QV				
5+25	0.1914	0.63	Q V				
5+30	0.1958	0.64	Q V				
5+35	0.2005	0.68	Q V				
5+40	0.2055	0.72	Q V				
5+45	0.2105	0.73	Q V				
5+50	0.2155	0.73	Q V				
5+55	0.2206	0.73	Q V				
6+ 0	0.2257	0.73	Q V				
6+ 5	0.2310	0.77	QV				
6+10	0.2366	0.81	QV				
6+15	0.2423	0.82	Q V				
6+20	0.2479	0.83	Q V				
6+25	0.2536	0.83	Q V				
6+30	0.2593	0.83	Q V				
6+35	0.2653	0.87	Q V				
6+40	0.2715	0.91	Q V				
6+45	0.2778	0.91	Q V				
6+50	0.2841	0.92	Q V				
6+55	0.2905	0.92	Q V				
7+ 0	0.2968	0.92	Q V				
7+ 5	0.3031	0.92	Q V				
7+10	0.3094	0.92	Q V				
7+15	0.3157	0.92	Q V				
7+20	0.3223	0.96	Q V				
7+25	0.3292	1.00	Q V				

7+30	0.3361	1.01	Q V				
7+35	0.3434	1.05	Q V				
7+40	0.3509	1.09	Q V				
7+45	0.3584	1.10	Q V				
7+50	0.3663	1.14	Q V				
7+55	0.3744	1.18	Q V				
8+ 0	0.3826	1.19	Q V				
8+ 5	0.3913	1.27	Q V				
8+10	0.4007	1.35	Q V				
8+15	0.4101	1.37	Q V				
8+20	0.4196	1.38	Q V				
8+25	0.4290	1.38	Q V				
8+30	0.4385	1.38	Q V				
8+35	0.4483	1.42	Q V				
8+40	0.4583	1.46	Q V				
8+45	0.4684	1.46	Q V				
8+50	0.4788	1.51	Q V				
8+55	0.4894	1.55	Q V				
9+ 0	0.5002	1.56	Q V				
9+ 5	0.5115	1.64	Q V				
9+10	0.5233	1.72	Q V				
9+15	0.5352	1.74	Q V				
9+20	0.5475	1.78	Q V				
9+25	0.5601	1.82	Q V				
9+30	0.5727	1.83	Q V				
9+35	0.5856	1.87	Q V				
9+40	0.5988	1.92	Q V				
9+45	0.6120	1.92	Q V				
9+50	0.6256	1.97	Q V				
9+55	0.6394	2.01	Q V				
10+ 0	0.6533	2.02	Q V				
10+ 5	0.6653	1.74	Q V				
10+10	0.6754	1.46	Q V				
10+15	0.6851	1.41	Q V				
10+20	0.6946	1.38	Q V				
10+25	0.7041	1.38	Q V				
10+30	0.7136	1.38	Q V				
10+35	0.7244	1.57	Q V				
10+40	0.7366	1.77	Q V				
10+45	0.7491	1.81	Q V				
10+50	0.7618	1.83	Q V				
10+55	0.7744	1.84	Q V				
11+ 0	0.7870	1.84	Q V				
11+ 5	0.7994	1.80	Q V				
11+10	0.8115	1.76	Q V				
11+15	0.8236	1.75	Q V				
11+20	0.8356	1.75	Q V				
11+25	0.8476	1.74	Q V				
11+30	0.8596	1.74	Q V				
11+35	0.8711	1.67	Q V				
11+40	0.8820	1.59	Q V				
11+45	0.8928	1.57	Q V				
11+50	0.9038	1.60	Q V				
11+55	0.9151	1.64	Q V				
12+ 0	0.9265	1.65	Q V				
12+ 5	0.9398	1.93	Q V				
12+10	0.9550	2.21	Q V				
12+15	0.9706	2.27	Q V				
12+20	0.9866	2.33	Q V				
12+25	1.0030	2.37	Q V				
12+30	1.0194	2.38	Q V				
12+35	1.0363	2.46	Q V				
12+40	1.0539	2.55	Q V				



18+ 0	1.7755	0.37	|Q	|	|	|	V |
18+ 5	1.7780	0.37	|Q	|	|	|	V |
18+10	1.7805	0.37	|Q	|	|	|	V |
18+15	1.7831	0.37	|Q	|	|	|	V |
18+20	1.7856	0.37	|Q	|	|	|	V |
18+25	1.7881	0.37	|Q	|	|	|	V |
18+30	1.7907	0.37	|Q	|	|	|	V |
18+35	1.7929	0.33	|Q	|	|	|	V |
18+40	1.7949	0.29	|Q	|	|	|	V |
18+45	1.7968	0.28	|Q	|	|	|	V |
18+50	1.7985	0.24	Q	|	|	|	V |
18+55	1.7998	0.20	Q	|	|	|	V |
19+ 0	1.8011	0.19	Q	|	|	|	V |
19+ 5	1.8027	0.22	Q	|	|	|	V |
19+10	1.8045	0.26	|Q	|	|	|	V |
19+15	1.8063	0.27	|Q	|	|	|	V |
19+20	1.8085	0.31	|Q	|	|	|	V |
19+25	1.8109	0.35	|Q	|	|	|	V |
19+30	1.8134	0.36	|Q	|	|	|	V |
19+35	1.8157	0.33	|Q	|	|	|	V |
19+40	1.8177	0.29	|Q	|	|	|	V |
19+45	1.8196	0.28	|Q	|	|	|	V |
19+50	1.8212	0.24	Q	|	|	|	V |
19+55	1.8226	0.20	Q	|	|	|	V |
20+ 0	1.8239	0.19	Q	|	|	|	V |
20+ 5	1.8254	0.22	Q	|	|	|	V |
20+10	1.8272	0.26	|Q	|	|	|	V |
20+15	1.8291	0.27	|Q	|	|	|	V |
20+20	1.8310	0.27	|Q	|	|	|	V |
20+25	1.8329	0.28	|Q	|	|	|	V |
20+30	1.8348	0.28	|Q	|	|	|	V |
20+35	1.8367	0.28	|Q	|	|	|	V |
20+40	1.8386	0.28	|Q	|	|	|	V |
20+45	1.8405	0.28	|Q	|	|	|	V |
20+50	1.8421	0.24	Q	|	|	|	V |
20+55	1.8434	0.20	Q	|	|	|	V |
21+ 0	1.8447	0.19	Q	|	|	|	V |
21+ 5	1.8463	0.22	Q	|	|	|	V |
21+10	1.8481	0.26	|Q	|	|	|	V |
21+15	1.8500	0.27	|Q	|	|	|	V|
21+20	1.8516	0.24	Q	|	|	|	V|
21+25	1.8529	0.20	Q	|	|	|	V|
21+30	1.8542	0.19	Q	|	|	|	V|
21+35	1.8558	0.22	Q	|	|	|	V|
21+40	1.8576	0.26	|Q	|	|	|	V|
21+45	1.8594	0.27	|Q	|	|	|	V|
21+50	1.8611	0.24	Q	|	|	|	V|
21+55	1.8624	0.20	Q	|	|	|	V|
22+ 0	1.8637	0.19	Q	|	|	|	V|
22+ 5	1.8653	0.22	Q	|	|	|	V|
22+10	1.8671	0.26	|Q	|	|	|	V|
22+15	1.8689	0.27	|Q	|	|	|	V|
22+20	1.8705	0.24	Q	|	|	|	V|
22+25	1.8719	0.20	Q	|	|	|	V|
22+30	1.8732	0.19	Q	|	|	|	V|
22+35	1.8745	0.18	Q	|	|	|	V|
22+40	1.8757	0.18	Q	|	|	|	V|
22+45	1.8770	0.18	Q	|	|	|	V|
22+50	1.8783	0.18	Q	|	|	|	V|
22+55	1.8795	0.18	Q	|	|	|	V|
23+ 0	1.8808	0.18	Q	|	|	|	V|
23+ 5	1.8821	0.18	Q	|	|	|	V|
23+10	1.8833	0.18	Q	|	|	|	V|

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   23+15       1.8846      0.18  Q         |         |         |        V|
   23+20       1.8858      0.18  Q         |         |         |        V|
   23+25       1.8871      0.18  Q         |         |         |        V|
   23+30       1.8884      0.18  Q         |         |         |        V|
   23+35       1.8896      0.18  Q         |         |         |        V|
   23+40       1.8909      0.18  Q         |         |         |        V|
   23+45       1.8922      0.18  Q         |         |         |        V|
   23+50       1.8934      0.18  Q         |         |         |        V|
   23+55       1.8947      0.18  Q         |         |         |        V|
   24+ 0       1.8960      0.18  Q         |         |         |        V|
   24+ 5       1.8967      0.10  Q         |         |         |        V|
   24+10       1.8969      0.02  Q         |         |         |        V|
   24+15       1.8969      0.01  Q         |         |         |        V|
   24+20       1.8969      0.00  Q         |         |         |         V
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APPENDIX I: BASIN ROUTING CALCULATIONS FOR DETENTION BASIN “A”

APPENDIX I.1: BASIN “A” 100 – YEAR BASIN ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/26/15

TRACT NO. 36294
BASIN A
100YR-24HR
FN: BASINA10024

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: APR24100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 298
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 174.482 (CFS)
Total volume = 82.361 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 298
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
1.000	3.700	0.320	3.699	3.701
2.000	7.260	0.730	7.257	7.263
3.000	10.970	1.680	10.964	10.976
4.000	14.830	3.750	14.817	14.843
5.000	18.840	6.600	18.817	18.863
6.000	23.010	8.310	22.981	23.039

7.000	27.330	9.700	27.297	27.363
8.000	31.820	69.480	31.581	32.059
9.000	36.470	153.260	35.942	36.998
10.000	40.880	229.980	40.088	41.672
12.000	51.430	1331.420	46.845	56.015

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0	43.6	87.24	130.86	174.48	Depth (Ft.)
0.083	0.86	0.00	0.003	O	|	|	|	|	0.00
0.167	3.89	0.00	0.019	O	|	|	|	|	0.01
0.250	5.36	0.00	0.051	O	|	|	|	|	0.01
0.333	6.38	0.01	0.092	OI	|	|	|	|	0.02
0.417	8.25	0.01	0.142	OI	|	|	|	|	0.04
0.500	9.22	0.02	0.202	OI	|	|	|	|	0.05
0.583	9.68	0.02	0.267	OI	|	|	|	|	0.07
0.667	9.97	0.03	0.334	OI	|	|	|	|	0.09
0.750	10.17	0.03	0.403	OI	|	|	|	|	0.11
0.833	10.74	0.04	0.475	OI	|	|	|	|	0.13
0.917	12.36	0.05	0.554	O I	|	|	|	|	0.15
1.000	13.13	0.06	0.642	O I	|	|	|	|	0.17
1.083	13.02	0.06	0.731	O I	|	|	|	|	0.20
1.167	11.72	0.07	0.816	O I	|	|	|	|	0.22
1.250	11.10	0.08	0.894	O I	|	|	|	|	0.24
1.333	10.88	0.08	0.969	OI	|	|	|	|	0.26
1.417	10.76	0.09	1.043	OI	|	|	|	|	0.28
1.500	10.69	0.10	1.116	OI	|	|	|	|	0.30
1.583	10.63	0.10	1.189	OI	|	|	|	|	0.32
1.667	10.60	0.11	1.262	OI	|	|	|	|	0.34
1.750	10.56	0.12	1.334	OI	|	|	|	|	0.36
1.833	10.97	0.12	1.407	O I	|	|	|	|	0.38
1.917	12.45	0.13	1.487	O I	|	|	|	|	0.40
2.000	13.18	0.14	1.574	O I	|	|	|	|	0.43
2.083	13.48	0.14	1.665	O I	|	|	|	|	0.45
2.167	13.66	0.15	1.757	O I	|	|	|	|	0.47
2.250	13.78	0.16	1.851	O I	|	|	|	|	0.50
2.333	13.86	0.17	1.945	O I	|	|	|	|	0.53
2.417	13.92	0.18	2.039	O I	|	|	|	|	0.55
2.500	13.96	0.18	2.134	O I	|	|	|	|	0.58
2.583	14.42	0.19	2.230	O I	|	|	|	|	0.60
2.667	15.95	0.20	2.334	O I	|	|	|	|	0.63
2.750	16.69	0.21	2.445	O I	|	|	|	|	0.66
2.833	16.98	0.22	2.559	O I	|	|	|	|	0.69
2.917	17.16	0.23	2.675	O I	|	|	|	|	0.72
3.000	17.28	0.24	2.792	O I	|	|	|	|	0.75
3.083	17.36	0.25	2.910	O I	|	|	|	|	0.79
3.167	17.42	0.26	3.028	O I	|	|	|	|	0.82
3.250	17.46	0.27	3.146	O I	|	|	|	|	0.85
3.333	17.49	0.28	3.264	O I	|	|	|	|	0.88
3.417	17.51	0.29	3.383	O I	|	|	|	|	0.91
3.500	17.51	0.30	3.502	O I	|	|	|	|	0.95
3.583	17.51	0.31	3.620	O I	|	|	|	|	0.98
3.667	17.51	0.32	3.738	O I	|	|	|	|	1.01
3.750	17.51	0.34	3.857	O I	|	|	|	|	1.04
3.833	17.94	0.35	3.976	O I	|	|	|	|	1.08
3.917	19.46	0.37	4.103	O I	|	|	|	|	1.11
4.000	20.19	0.38	4.237	O I	|	|	|	|	1.15
4.083	20.49	0.40	4.374	O I	|	|	|	|	1.19
4.167	20.67	0.41	4.513	O I	|	|	|	|	1.23

4.250	20.78	0.43	4.653	O	I	|	|	|	|	1.27
4.333	21.29	0.45	4.795	O	I	|	|	|	|	1.31
4.417	22.86	0.46	4.944	O	I	|	|	|	|	1.35
4.500	23.64	0.48	5.101	O	I	|	|	|	|	1.39
4.583	23.96	0.50	5.261	O	I	|	|	|	|	1.44
4.667	24.17	0.52	5.423	O	I	|	|	|	|	1.48
4.750	24.28	0.54	5.587	O	I	|	|	|	|	1.53
4.833	24.80	0.56	5.752	O	I	|	|	|	|	1.58
4.917	26.37	0.58	5.924	O	I	|	|	|	|	1.62
5.000	27.14	0.60	6.104	O	I	|	|	|	|	1.68
5.083	26.60	0.62	6.285	O	I	|	|	|	|	1.73
5.167	23.79	0.64	6.454	O	I	|	|	|	|	1.77
5.250	22.43	0.66	6.609	O	I	|	|	|	|	1.82
5.333	22.35	0.67	6.759	O	I	|	|	|	|	1.86
5.417	23.56	0.69	6.912	O	I	|	|	|	|	1.90
5.500	24.10	0.71	7.071	O	I	|	|	|	|	1.95
5.583	24.70	0.73	7.235	O	I	|	|	|	|	1.99
5.667	26.30	0.77	7.405	O	I	|	|	|	|	2.04
5.750	27.07	0.81	7.583	O	I	|	|	|	|	2.09
5.833	27.39	0.86	7.765	O	I	|	|	|	|	2.14
5.917	27.58	0.91	7.948	O	I	|	|	|	|	2.19
6.000	27.73	0.95	8.132	O	I	|	|	|	|	2.24
6.083	28.27	1.00	8.318	O	I	|	|	|	|	2.29
6.167	29.87	1.05	8.512	O	I	|	|	|	|	2.34
6.250	30.64	1.10	8.713	O	I	|	|	|	|	2.39
6.333	30.97	1.15	8.917	O	I	|	|	|	|	2.45
6.417	31.17	1.21	9.123	O	I	|	|	|	|	2.50
6.500	31.29	1.26	9.329	O	I	|	|	|	|	2.56
6.583	31.80	1.31	9.538	O	I	|	|	|	|	2.61
6.667	33.37	1.37	9.753	O	I	|	|	|	|	2.67
6.750	34.15	1.43	9.976	O	I	|	|	|	|	2.73
6.833	34.47	1.48	10.202	O	I	|	|	|	|	2.79
6.917	34.68	1.54	10.430	O	I	|	|	|	|	2.85
7.000	34.79	1.60	10.658	O	I	|	|	|	|	2.92
7.083	34.87	1.66	10.887	O	I	|	|	|	|	2.98
7.167	34.93	1.76	11.116	O	I	|	|	|	|	3.04
7.250	34.97	1.88	11.344	O	I	|	|	|	|	3.10
7.333	35.43	2.00	11.573	O	I	|	|	|	|	3.16
7.417	36.97	2.13	11.808	O	I	|	|	|	|	3.22
7.500	37.70	2.26	12.050	O	I	|	|	|	|	3.28
7.583	38.43	2.39	12.296	O	I	|	|	|	|	3.34
7.667	40.12	2.53	12.550	O	I	|	|	|	|	3.41
7.750	40.97	2.67	12.811	O	I	|	|	|	|	3.48
7.833	41.78	2.81	13.077	O	I	|	|	|	|	3.55
7.917	43.53	2.96	13.351	O	I	|	|	|	|	3.62
8.000	44.42	3.11	13.633	O	I	|	|	|	|	3.69
8.083	45.69	3.26	13.921	O	I	|	|	|	|	3.76
8.167	48.98	3.43	14.224	O	I	|	|	|	|	3.84
8.250	50.60	3.60	14.543	O	I	|	|	|	|	3.93
8.333	51.30	3.78	14.868	O	I	|	|	|	|	4.01
8.417	51.75	4.01	15.197	O	I	|	|	|	|	4.09
8.500	52.02	4.24	15.525	O	I	|	|	|	|	4.17
8.583	52.64	4.48	15.856	O	I	|	|	|	|	4.26
8.667	54.29	4.72	16.192	O	I	|	|	|	|	4.34
8.750	55.11	4.96	16.536	O	I	|	|	|	|	4.43
8.833	55.89	5.21	16.883	O	I	|	|	|	|	4.51
8.917	57.63	5.46	17.237	O	I	|	|	|	|	4.60
9.000	58.48	5.72	17.598	O	I	|	|	|	|	4.69
9.083	59.73	5.98	17.965	O	I	|	|	|	|	4.78
9.167	62.98	6.25	18.346	O	I	|	|	|	|	4.88
9.250	64.61	6.53	18.741	O	I	|	|	|	|	4.98
9.333	65.75	6.72	19.144	O	I	|	|	|	|	5.07
9.417	67.70	6.89	19.557	O	I	|	|	|	|	5.17

9.500	68.70	7.07	19.979	O	I			5.27
9.583	69.62	7.24	20.406	O	I			5.38
9.667	71.46	7.42	20.841	O	I			5.48
9.750	72.39	7.60	21.285	O	I			5.59
9.833	73.25	7.79	21.733	O	I			5.69
9.917	75.05	7.97	22.189	O	I			5.80
10.000	75.94	8.16	22.654	O	I			5.91
10.083	73.32	8.34	23.111	O	I			6.02
10.167	63.01	8.47	23.523	O	I			6.12
10.250	58.02	8.59	23.881	O	I			6.20
10.333	56.05	8.70	24.214	O	I			6.28
10.417	54.88	8.80	24.536	O	I			6.35
10.500	54.11	8.90	24.850	O	I			6.43
10.583	55.74	9.00	25.167	O	I			6.50
10.667	62.91	9.12	25.513	O	I			6.58
10.750	66.30	9.24	25.895	O	I			6.67
10.833	67.59	9.37	26.291	O	I			6.76
10.917	68.31	9.50	26.695	O	I			6.85
11.000	68.88	9.63	27.101	O	I			6.95
11.083	68.86	11.98	27.501	O	I			7.04
11.167	67.64	16.91	27.872	O	I			7.12
11.250	67.10	21.33	28.204	O	I			7.19
11.333	66.95	25.34	28.505	O	I			7.26
11.417	66.89	28.99	28.779	O	I			7.32
11.500	66.78	32.30	29.028	O	I			7.38
11.583	65.83	35.29	29.252	O	I			7.43
11.667	62.75	37.83	29.443	O	I			7.47
11.750	61.24	39.95	29.602	O	I			7.51
11.833	61.05	41.81	29.742	O	I			7.54
11.917	62.18	43.54	29.872	O	I			7.57
12.000	62.69	45.20	29.996	O	I			7.59
12.083	68.30	46.98	30.130	O	I			7.62
12.167	87.55	49.69	30.334	O	I			7.67
12.250	97.09	53.43	30.614	O	I			7.73
12.333	102.03	57.47	30.918	O	I			7.80
12.417	107.70	61.63	31.230	O	I			7.87
12.500	111.02	65.81	31.545	O	I			7.94
12.583	114.77	70.09	31.854	O	I			8.01
12.667	122.40	75.76	32.169	O	I			8.07
12.750	126.48	81.45	32.484	O	I			8.14
12.833	129.44	86.88	32.786	O	I			8.21
12.917	134.04	92.12	33.077	O	I			8.27
13.000	136.44	97.16	33.356	O	I			8.33
13.083	142.19	102.09	33.630	O	I			8.39
13.167	158.60	107.73	33.943	O	I			8.46
13.250	166.84	114.16	34.300	O	I			8.53
13.333	170.50	120.53	34.653	O	I			8.61
13.417	172.89	126.50	34.985	O	I			8.68
13.500	174.48	132.02	35.291	O	I			8.75
13.583	165.99	136.48	35.539	O	I			8.80
13.667	133.07	138.01	35.623	O	I			8.82
13.750	117.32	136.51	35.540	O	I			8.80
13.833	111.26	133.91	35.396	O	I			8.77
13.917	107.83	131.07	35.238	O	I			8.74
14.000	105.57	128.22	35.080	O	I			8.70
14.083	107.61	125.69	34.940	O	I			8.67
14.167	118.95	124.24	34.859	O	I			8.65
14.250	124.37	123.94	34.843	O	I			8.65
14.333	125.61	124.06	34.850	O	I			8.65
14.417	123.74	124.13	34.853	O	I			8.65
14.500	123.50	124.07	34.850	O	I			8.65
14.583	123.87	124.03	34.848	O	I			8.65
14.667	124.30	124.04	34.848	O	I			8.65

14.750	124.71	124.09	34.851	|	|	| O |	|	8.65
14.833	124.20	124.13	34.853	|	|	| O |	|	8.65
14.917	121.52	123.98	34.845	|	|	| O |	|	8.65
15.000	120.25	123.62	34.825	|	|	| O |	|	8.65
15.083	119.01	123.16	34.799	|	|	| IO |	|	8.64
15.167	115.82	122.48	34.762	|	|	| IO |	|	8.63
15.250	114.39	121.62	34.714	|	|	| I O |	|	8.62
15.333	113.04	120.70	34.663	|	|	| I O |	|	8.61
15.417	109.77	119.61	34.602	|	|	| IO |	|	8.60
15.500	108.26	118.37	34.534	|	|	| I O |	|	8.58
15.583	104.20	116.96	34.455	|	|	| I O |	|	8.57
15.667	91.63	114.73	34.332	|	|	I O |	|	8.54
15.750	85.61	111.68	34.162	|	|	I| O |	|	8.50
15.833	83.26	108.50	33.986	|	|	I| O |	|	8.47
15.917	81.91	105.47	33.817	|	|	I| O |	|	8.43
16.000	81.18	102.67	33.662	|	|	I | O |	|	8.40
16.083	72.60	99.66	33.495	|	|	I | O |	|	8.36
16.167	43.86	94.82	33.227	|	I |	|O |	|	8.30
16.250	29.81	88.05	32.850	| I |	|	O |	|	8.22
16.333	24.05	80.91	32.454	| I |	|	O |	|	8.14
16.417	20.50	74.06	32.074	| I |	|	O |	|	8.05
16.500	18.36	68.12	31.718	| I |	|	O |	|	7.98
16.583	16.42	63.68	31.384	| I |	|	O |	|	7.90
16.667	13.82	59.42	31.064	| I |	| O |	|	|	7.83
16.750	12.34	55.36	30.759	| I |	| O |	|	|	7.76
16.833	11.51	51.55	30.473	| I |	|O |	|	|	7.70
16.917	10.86	48.01	30.207	|I |	O |	|	|	7.64
17.000	10.74	44.75	29.962	|I |	O |	|	|	7.59
17.083	11.52	41.80	29.741	| I |	O|	|	|	7.54
17.167	14.49	39.28	29.551	| I |	O|	|	|	7.49
17.250	15.92	37.16	29.393	| I |	O |	|	|	7.46
17.333	16.48	35.33	29.255	| I |	O |	|	|	7.43
17.417	16.82	33.69	29.132	| I |	O |	|	|	7.40
17.500	17.05	32.22	29.021	| I |	O |	|	|	7.38
17.583	17.21	30.90	28.922	| I |	O |	|	|	7.35
17.667	17.32	29.70	28.832	| I |	O |	|	|	7.33
17.750	17.40	28.62	28.751	| I |	O |	|	|	7.32
17.833	17.03	27.62	28.676	| I |	O |	|	|	7.30
17.917	15.57	26.63	28.601	| I |	O |	|	|	7.28
18.000	14.83	25.63	28.526	| I |	O |	|	|	7.27
18.083	14.54	24.67	28.454	| I |	O |	|	|	7.25
18.167	14.36	23.77	28.387	| I |	O |	|	|	7.24
18.250	14.24	22.94	28.324	| I |	O |	|	|	7.22
18.333	14.16	22.17	28.267	| I |	O |	|	|	7.21
18.417	14.10	21.47	28.214	| IO |	|	|	|	7.20
18.500	14.06	20.82	28.165	| IO |	|	|	|	7.19
18.583	13.60	20.21	28.119	| IO |	|	|	|	7.18
18.667	12.07	19.56	28.071	| IO |	|	|	|	7.16
18.750	11.33	18.87	28.019	| IO |	|	|	|	7.15
18.833	10.60	18.18	27.967	|I O |	|	|	|	7.14
18.917	8.91	17.44	27.911	|I O |	|	|	|	7.13
19.000	8.06	16.66	27.852	|I O |	|	|	|	7.12
19.083	8.12	15.91	27.796	|IO |	|	|	|	7.10
19.167	9.39	15.28	27.749	|IO |	|	|	|	7.09
19.250	9.97	14.79	27.712	|IO |	|	|	|	7.09
19.333	10.59	14.39	27.682	|IO |	|	|	|	7.08
19.417	12.20	14.13	27.663	| O |	|	|	|	7.07
19.500	13.01	14.00	27.653	| O |	|	|	|	7.07
19.583	12.92	13.90	27.646	| O |	|	|	|	7.07
19.667	11.62	13.76	27.635	| O |	|	|	|	7.07
19.750	11.05	13.55	27.619	| O |	|	|	|	7.06
19.833	10.42	13.30	27.601	|IO |	|	|	|	7.06
19.917	8.82	12.98	27.576	|IO |	|	|	|	7.05

20.000	8.01	12.58	27.546	IO					7.05
20.083	8.09	12.18	27.516	IO					7.04
20.167	9.39	11.88	27.494	IO					7.04
20.250	9.97	11.69	27.479	IO					7.03
20.333	10.16	11.55	27.469	IO					7.03
20.417	10.25	11.43	27.460	IO					7.03
20.500	10.33	11.33	27.452	IO					7.03
20.583	10.38	11.24	27.446	IO					7.03
20.667	10.41	11.17	27.440	IO					7.02
20.750	10.45	11.10	27.435	IO					7.02
20.833	10.05	11.03	27.430	IO					7.02
20.917	8.56	10.88	27.419	O					7.02
21.000	7.83	10.64	27.401	O					7.02
21.083	7.96	10.40	27.383	O					7.01
21.167	9.30	10.25	27.371	O					7.01
21.250	9.92	10.19	27.367	O					7.01
21.333	9.70	10.16	27.364	O					7.01
21.417	8.31	10.06	27.357	O					7.01
21.500	7.65	9.87	27.343	O					7.00
21.583	7.84	9.70	27.329	O					7.00
21.667	9.20	9.70	27.321	O					7.00
21.750	9.86	9.70	27.320	O					7.00
21.833	9.67	9.70	27.320	O					7.00
21.917	8.31	9.70	27.315	O					7.00
22.000	7.65	9.69	27.304	O					6.99
22.083	7.84	9.69	27.290	O					6.99
22.167	9.20	9.68	27.282	O					6.99
22.250	9.86	9.68	27.281	O					6.99
22.333	9.67	9.68	27.282	O					6.99
22.417	8.31	9.68	27.277	O					6.99
22.500	7.65	9.68	27.265	O					6.99
22.583	7.41	9.67	27.250	O					6.98
22.667	7.26	9.67	27.234	O					6.98
22.750	7.18	9.66	27.217	O					6.97
22.833	7.13	9.66	27.200	O					6.97
22.917	7.10	9.65	27.183	O					6.97
23.000	7.06	9.65	27.165	O					6.96
23.083	7.03	9.64	27.147	O					6.96
23.167	7.00	9.64	27.129	O					6.95
23.250	7.00	9.63	27.111	O					6.95
23.333	7.00	9.62	27.093	O					6.95
23.417	7.00	9.62	27.075	O					6.94
23.500	7.00	9.61	27.057	O					6.94
23.583	7.00	9.61	27.039	O					6.93
23.667	7.00	9.60	27.021	O					6.93
23.750	7.00	9.59	27.003	O					6.92
23.833	7.00	9.59	26.985	O					6.92
23.917	7.00	9.58	26.968	O					6.92
24.000	7.00	9.58	26.950	O					6.91
24.083	6.14	9.57	26.929	O					6.91
24.167	3.12	9.56	26.895	IO					6.90
24.250	1.65	9.54	26.846	IO					6.89
24.333	1.06	9.53	26.790	IO					6.87
24.417	0.70	9.51	26.730	IO					6.86
24.500	0.47	9.49	26.669	IO					6.85
24.583	0.30	9.47	26.606	IO					6.83
24.667	0.19	9.45	26.543	IO					6.82
24.750	0.11	9.43	26.479	IO					6.80
24.833	0.05	9.41	26.414	IO					6.79
24.917	0.00	9.38	26.350	IO					6.77
25.000	0.00	9.36	26.285	IO					6.76
25.083	0.00	9.34	26.221	IO					6.74
25.167	0.00	9.32	26.157	IO					6.73

25.250	0.00	9.30	26.092	IO				6.71
25.333	0.00	9.28	26.028	IO				6.70
25.417	0.00	9.26	25.965	IO				6.68
25.500	0.00	9.24	25.901	IO				6.67
25.583	0.00	9.22	25.837	IO				6.65
25.667	0.00	9.20	25.774	IO				6.64
25.750	0.00	9.18	25.711	IO				6.63
25.833	0.00	9.16	25.647	IO				6.61
25.917	0.00	9.14	25.584	IO				6.60
26.000	0.00	9.12	25.522	IO				6.58
26.083	0.00	9.10	25.459	IO				6.57
26.167	0.00	9.08	25.396	IO				6.55
26.250	0.00	9.06	25.334	IO				6.54
26.333	0.00	9.04	25.271	IO				6.52
26.417	0.00	9.02	25.209	IO				6.51
26.500	0.00	9.00	25.147	IO				6.49
26.583	0.00	8.98	25.085	IO				6.48
26.667	0.00	8.96	25.024	IO				6.47
26.750	0.00	8.94	24.962	IO				6.45
26.833	0.00	8.92	24.900	IO				6.44
26.917	0.00	8.90	24.839	IO				6.42
27.000	0.00	8.88	24.778	IO				6.41
27.083	0.00	8.86	24.717	IO				6.40
27.167	0.00	8.84	24.656	IO				6.38
27.250	0.00	8.82	24.595	IO				6.37
27.333	0.00	8.80	24.534	IO				6.35
27.417	0.00	8.78	24.474	IO				6.34
27.500	0.00	8.76	24.413	IO				6.32
27.583	0.00	8.74	24.353	IO				6.31
27.667	0.00	8.72	24.293	IO				6.30
27.750	0.00	8.70	24.233	IO				6.28
27.833	0.00	8.68	24.173	IO				6.27
27.917	0.00	8.67	24.113	IO				6.26
28.000	0.00	8.65	24.054	IO				6.24
28.083	0.00	8.63	23.994	IO				6.23
28.167	0.00	8.61	23.935	IO				6.21
28.250	0.00	8.59	23.876	IO				6.20
28.333	0.00	8.57	23.817	IO				6.19
28.417	0.00	8.55	23.758	IO				6.17
28.500	0.00	8.53	23.699	IO				6.16
28.583	0.00	8.51	23.640	IO				6.15
28.667	0.00	8.49	23.582	IO				6.13
28.750	0.00	8.48	23.523	IO				6.12
28.833	0.00	8.46	23.465	IO				6.11
28.917	0.00	8.44	23.407	IO				6.09
29.000	0.00	8.42	23.349	IO				6.08
29.083	0.00	8.40	23.291	IO				6.06
29.167	0.00	8.38	23.233	IO				6.05
29.250	0.00	8.36	23.175	IO				6.04
29.333	0.00	8.34	23.118	IO				6.02
29.417	0.00	8.33	23.060	IO				6.01
29.500	0.00	8.31	23.003	IO				6.00
29.583	0.00	8.28	22.946	IO				5.98
29.667	0.00	8.26	22.889	IO				5.97
29.750	0.00	8.24	22.832	IO				5.96
29.833	0.00	8.21	22.776	IO				5.94
29.917	0.00	8.19	22.719	IO				5.93
30.000	0.00	8.17	22.663	IO				5.92
30.083	0.00	8.14	22.607	IO				5.90
30.167	0.00	8.12	22.551	IO				5.89
30.250	0.00	8.10	22.495	IO				5.88
30.333	0.00	8.08	22.439	IO				5.86
30.417	0.00	8.05	22.383	IO				5.85

30.500	0.00	8.03	22.328	IO				5.84
30.583	0.00	8.01	22.273	IO				5.82
30.667	0.00	7.99	22.218	IO				5.81
30.750	0.00	7.96	22.163	IO				5.80
30.833	0.00	7.94	22.108	IO				5.78
30.917	0.00	7.92	22.053	IO				5.77
31.000	0.00	7.90	21.999	IO				5.76
31.083	0.00	7.87	21.945	IO				5.74
31.167	0.00	7.85	21.891	IO				5.73
31.250	0.00	7.83	21.837	IO				5.72
31.333	0.00	7.81	21.783	IO				5.71
31.417	0.00	7.78	21.729	IO				5.69
31.500	0.00	7.76	21.676	IO				5.68
31.583	0.00	7.74	21.622	IO				5.67
31.667	0.00	7.72	21.569	IO				5.65
31.750	0.00	7.70	21.516	IO				5.64
31.833	0.00	7.68	21.463	IO				5.63
31.917	0.00	7.65	21.410	IO				5.62
32.000	0.00	7.63	21.357	IO				5.60
32.083	0.00	7.61	21.305	IO				5.59
32.167	0.00	7.59	21.253	IO				5.58
32.250	0.00	7.57	21.200	IO				5.57
32.333	0.00	7.55	21.148	IO				5.55
32.417	0.00	7.53	21.096	IO				5.54
32.500	0.00	7.50	21.045	IO				5.53
32.583	0.00	7.48	20.993	IO				5.52
32.667	0.00	7.46	20.942	IO				5.50
32.750	0.00	7.44	20.890	IO				5.49
32.833	0.00	7.42	20.839	IO				5.48
32.917	0.00	7.40	20.788	IO				5.47
33.000	0.00	7.38	20.737	IO				5.45
33.083	0.00	7.36	20.686	IO				5.44
33.167	0.00	7.34	20.636	IO				5.43
33.250	0.00	7.32	20.585	IO				5.42
33.333	0.00	7.30	20.535	IO				5.41
33.417	0.00	7.27	20.485	IO				5.39
33.500	0.00	7.25	20.435	IO				5.38
33.583	0.00	7.23	20.385	IO				5.37
33.667	0.00	7.21	20.335	IO				5.36
33.750	0.00	7.19	20.286	IO				5.35
33.833	0.00	7.17	20.236	IO				5.33
33.917	0.00	7.15	20.187	IO				5.32
34.000	0.00	7.13	20.138	IO				5.31
34.083	0.00	7.11	20.089	IO				5.30
34.167	0.00	7.09	20.040	IO				5.29
34.250	0.00	7.07	19.991	IO				5.28
34.333	0.00	7.05	19.942	IO				5.26
34.417	0.00	7.03	19.894	IO				5.25
34.500	0.00	7.01	19.845	IO				5.24
34.583	0.00	6.99	19.797	IO				5.23
34.667	0.00	6.97	19.749	IO				5.22
34.750	0.00	6.95	19.701	IO				5.21
34.833	0.00	6.93	19.653	IO				5.20
34.917	0.00	6.91	19.606	IO				5.18
35.000	0.00	6.89	19.558	IO				5.17
35.083	0.00	6.88	19.511	IO				5.16
35.167	0.00	6.86	19.463	IO				5.15
35.250	0.00	6.84	19.416	IO				5.14
35.333	0.00	6.82	19.369	IO				5.13
35.417	0.00	6.80	19.322	IO				5.12
35.500	0.00	6.78	19.276	IO				5.10
35.583	0.00	6.76	19.229	IO				5.09
35.667	0.00	6.74	19.183	IO				5.08

35.750	0.00	6.72	19.136	IO				5.07
35.833	0.00	6.70	19.090	IO				5.06
35.917	0.00	6.68	19.044	IO				5.05
36.000	0.00	6.66	18.998	IO				5.04
36.083	0.00	6.65	18.952	IO				5.03
36.167	0.00	6.63	18.906	IO				5.02
36.250	0.00	6.61	18.861	IO				5.00
36.333	0.00	6.58	18.815	IO				4.99
36.417	0.00	6.55	18.770	IO				4.98
36.500	0.00	6.52	18.725	IO				4.97
36.583	0.00	6.49	18.680	IO				4.96
36.667	0.00	6.45	18.636	IO				4.95
36.750	0.00	6.42	18.591	IO				4.94
36.833	0.00	6.39	18.547	IO				4.93
36.917	0.00	6.36	18.503	IO				4.92
37.000	0.00	6.33	18.460	IO				4.91
37.083	0.00	6.30	18.416	IO				4.89
37.167	0.00	6.27	18.373	IO				4.88
37.250	0.00	6.24	18.330	IO				4.87
37.333	0.00	6.21	18.287	IO				4.86
37.417	0.00	6.18	18.244	IO				4.85
37.500	0.00	6.15	18.202	IO				4.84
37.583	0.00	6.12	18.160	IO				4.83
37.667	0.00	6.09	18.118	IO				4.82
37.750	0.00	6.06	18.076	IO				4.81
37.833	0.00	6.03	18.034	IO				4.80
37.917	0.00	6.00	17.993	IO				4.79
38.000	0.00	5.97	17.952	IO				4.78
38.083	0.00	5.94	17.911	IO				4.77
38.167	0.00	5.91	17.870	IO				4.76
38.250	0.00	5.88	17.829	IO				4.75
38.333	0.00	5.85	17.789	IO				4.74
38.417	0.00	5.82	17.749	IO				4.73
38.500	0.00	5.80	17.709	IO				4.72
38.583	0.00	5.77	17.669	IO				4.71
38.667	0.00	5.74	17.629	IO				4.70
38.750	0.00	5.71	17.590	IO				4.69
38.833	0.00	5.68	17.550	IO				4.68
38.917	0.00	5.66	17.511	IO				4.67
39.000	0.00	5.63	17.473	IO				4.66
39.083	0.00	5.60	17.434	IO				4.65
39.167	0.00	5.57	17.395	IO				4.64
39.250	0.00	5.55	17.357	IO				4.63
39.333	0.00	5.52	17.319	IO				4.62
39.417	0.00	5.49	17.281	IO				4.61
39.500	0.00	5.47	17.243	IO				4.60
39.583	0.00	5.44	17.206	O				4.59
39.667	0.00	5.41	17.168	O				4.58
39.750	0.00	5.39	17.131	O				4.57
39.833	0.00	5.36	17.094	O				4.56
39.917	0.00	5.33	17.057	O				4.56
40.000	0.00	5.31	17.021	O				4.55
40.083	0.00	5.28	16.984	O				4.54
40.167	0.00	5.26	16.948	O				4.53
40.250	0.00	5.23	16.912	O				4.52
40.333	0.00	5.20	16.876	O				4.51
40.417	0.00	5.18	16.840	O				4.50
40.500	0.00	5.15	16.805	O				4.49
40.583	0.00	5.13	16.769	O				4.48
40.667	0.00	5.10	16.734	O				4.47
40.750	0.00	5.08	16.699	O				4.47
40.833	0.00	5.05	16.664	O				4.46
40.917	0.00	5.03	16.629	O				4.45

41.000	0.00	5.00	16.595	O					4.44
41.083	0.00	4.98	16.560	O					4.43
41.167	0.00	4.96	16.526	O					4.42
41.250	0.00	4.93	16.492	O					4.41
41.333	0.00	4.91	16.458	O					4.41
41.417	0.00	4.88	16.425	O					4.40
41.500	0.00	4.86	16.391	O					4.39
41.583	0.00	4.84	16.358	O					4.38
41.667	0.00	4.81	16.324	O					4.37
41.750	0.00	4.79	16.291	O					4.36
41.833	0.00	4.77	16.259	O					4.36
41.917	0.00	4.74	16.226	O					4.35
42.000	0.00	4.72	16.193	O					4.34
42.083	0.00	4.70	16.161	O					4.33
42.167	0.00	4.67	16.129	O					4.32
42.250	0.00	4.65	16.096	O					4.32
42.333	0.00	4.63	16.064	O					4.31
42.417	0.00	4.60	16.033	O					4.30
42.500	0.00	4.58	16.001	O					4.29
42.583	0.00	4.56	15.970	O					4.28
42.667	0.00	4.54	15.938	O					4.28
42.750	0.00	4.52	15.907	O					4.27
42.833	0.00	4.49	15.876	O					4.26
42.917	0.00	4.47	15.845	O					4.25
43.000	0.00	4.45	15.814	O					4.25
43.083	0.00	4.43	15.784	O					4.24
43.167	0.00	4.41	15.753	O					4.23
43.250	0.00	4.38	15.723	O					4.22
43.333	0.00	4.36	15.693	O					4.22
43.417	0.00	4.34	15.663	O					4.21
43.500	0.00	4.32	15.633	O					4.20
43.583	0.00	4.30	15.604	O					4.19
43.667	0.00	4.28	15.574	O					4.19
43.750	0.00	4.26	15.545	O					4.18
43.833	0.00	4.24	15.515	O					4.17
43.917	0.00	4.22	15.486	O					4.16
44.000	0.00	4.20	15.457	O					4.16
44.083	0.00	4.18	15.428	O					4.15
44.167	0.00	4.15	15.400	O					4.14
44.250	0.00	4.13	15.371	O					4.13
44.333	0.00	4.11	15.343	O					4.13
44.417	0.00	4.09	15.315	O					4.12
44.500	0.00	4.07	15.286	O					4.11
44.583	0.00	4.05	15.258	O					4.11
44.667	0.00	4.03	15.231	O					4.10
44.750	0.00	4.01	15.203	O					4.09
44.833	0.00	4.00	15.175	O					4.09
44.917	0.00	3.98	15.148	O					4.08
45.000	0.00	3.96	15.121	O					4.07
45.083	0.00	3.94	15.093	O					4.07
45.167	0.00	3.92	15.066	O					4.06
45.250	0.00	3.90	15.039	O					4.05
45.333	0.00	3.88	15.013	O					4.05
45.417	0.00	3.86	14.986	O					4.04
45.500	0.00	3.84	14.959	O					4.03
45.583	0.00	3.82	14.933	O					4.03
45.667	0.00	3.80	14.907	O					4.02
45.750	0.00	3.79	14.881	O					4.01
45.833	0.00	3.77	14.855	O					4.01
45.917	0.00	3.75	14.829	O					4.00
46.000	0.00	3.74	14.803	O					3.99
46.083	0.00	3.72	14.777	O					3.99
46.167	0.00	3.71	14.752	O					3.98

46.250	0.00	3.69	14.726	O	|	|	|	|	3.97
46.333	0.00	3.68	14.701	O	|	|	|	|	3.97
46.417	0.00	3.67	14.675	O	|	|	|	|	3.96
46.500	0.00	3.65	14.650	O	|	|	|	|	3.95
46.583	0.00	3.64	14.625	O	|	|	|	|	3.95
46.667	0.00	3.63	14.600	O	|	|	|	|	3.94
46.750	0.00	3.61	14.575	O	|	|	|	|	3.93
46.833	0.00	3.60	14.550	O	|	|	|	|	3.93
46.917	0.00	3.59	14.526	O	|	|	|	|	3.92
47.000	0.00	3.57	14.501	O	|	|	|	|	3.91
47.083	0.00	3.56	14.476	O	|	|	|	|	3.91
47.167	0.00	3.55	14.452	O	|	|	|	|	3.90
47.250	0.00	3.53	14.428	O	|	|	|	|	3.90
47.333	0.00	3.52	14.403	O	|	|	|	|	3.89
47.417	0.00	3.51	14.379	O	|	|	|	|	3.88
47.500	0.00	3.50	14.355	O	|	|	|	|	3.88
47.583	0.00	3.48	14.331	O	|	|	|	|	3.87
47.667	0.00	3.47	14.307	O	|	|	|	|	3.86
47.750	0.00	3.46	14.283	O	|	|	|	|	3.86
47.833	0.00	3.44	14.259	O	|	|	|	|	3.85
47.917	0.00	3.43	14.236	O	|	|	|	|	3.85
48.000	0.00	3.42	14.212	O	|	|	|	|	3.84
48.083	0.00	3.41	14.189	O	|	|	|	|	3.83
48.167	0.00	3.39	14.165	O	|	|	|	|	3.83
48.250	0.00	3.38	14.142	O	|	|	|	|	3.82
48.333	0.00	3.37	14.119	O	|	|	|	|	3.82
48.417	0.00	3.36	14.095	O	|	|	|	|	3.81
48.500	0.00	3.34	14.072	O	|	|	|	|	3.80
48.583	0.00	3.33	14.049	O	|	|	|	|	3.80
48.667	0.00	3.32	14.026	O	|	|	|	|	3.79
48.750	0.00	3.31	14.004	O	|	|	|	|	3.79
48.833	0.00	3.29	13.981	O	|	|	|	|	3.78
48.917	0.00	3.28	13.958	O	|	|	|	|	3.77
49.000	0.00	3.27	13.936	O	|	|	|	|	3.77
49.083	0.00	3.26	13.913	O	|	|	|	|	3.76
49.167	0.00	3.25	13.891	O	|	|	|	|	3.76
49.250	0.00	3.23	13.869	O	|	|	|	|	3.75
49.333	0.00	3.22	13.846	O	|	|	|	|	3.75
49.417	0.00	3.21	13.824	O	|	|	|	|	3.74
49.500	0.00	3.20	13.802	O	|	|	|	|	3.73
49.583	0.00	3.19	13.780	O	|	|	|	|	3.73
49.667	0.00	3.18	13.758	O	|	|	|	|	3.72
49.750	0.00	3.16	13.736	O	|	|	|	|	3.72
49.833	0.00	3.15	13.715	O	|	|	|	|	3.71
49.917	0.00	3.14	13.693	O	|	|	|	|	3.71
50.000	0.00	3.13	13.671	O	|	|	|	|	3.70
50.083	0.00	3.12	13.650	O	|	|	|	|	3.69
50.167	0.00	3.11	13.628	O	|	|	|	|	3.69
50.250	0.00	3.09	13.607	O	|	|	|	|	3.68
50.333	0.00	3.08	13.586	O	|	|	|	|	3.68
50.417	0.00	3.07	13.565	O	|	|	|	|	3.67
50.500	0.00	3.06	13.543	O	|	|	|	|	3.67
50.583	0.00	3.05	13.522	O	|	|	|	|	3.66
50.667	0.00	3.04	13.501	O	|	|	|	|	3.66
50.750	0.00	3.03	13.481	O	|	|	|	|	3.65
50.833	0.00	3.02	13.460	O	|	|	|	|	3.65
50.917	0.00	3.00	13.439	O	|	|	|	|	3.64
51.000	0.00	2.99	13.418	O	|	|	|	|	3.63
51.083	0.00	2.98	13.398	O	|	|	|	|	3.63
51.167	0.00	2.97	13.377	O	|	|	|	|	3.62
51.250	0.00	2.96	13.357	O	|	|	|	|	3.62
51.333	0.00	2.95	13.337	O	|	|	|	|	3.61
51.417	0.00	2.94	13.316	O	|	|	|	|	3.61

51.500	0.00	2.93	13.296	O	|	|	|	|	3.60
51.583	0.00	2.92	13.276	O	|	|	|	|	3.60
51.667	0.00	2.91	13.256	O	|	|	|	|	3.59
51.750	0.00	2.90	13.236	O	|	|	|	|	3.59
51.833	0.00	2.88	13.216	O	|	|	|	|	3.58
51.917	0.00	2.87	13.196	O	|	|	|	|	3.58
52.000	0.00	2.86	13.176	O	|	|	|	|	3.57
52.083	0.00	2.85	13.157	O	|	|	|	|	3.57
52.167	0.00	2.84	13.137	O	|	|	|	|	3.56
52.250	0.00	2.83	13.118	O	|	|	|	|	3.56
52.333	0.00	2.82	13.098	O	|	|	|	|	3.55
52.417	0.00	2.81	13.079	O	|	|	|	|	3.55
52.500	0.00	2.80	13.059	O	|	|	|	|	3.54
52.583	0.00	2.79	13.040	O	|	|	|	|	3.54
52.667	0.00	2.78	13.021	O	|	|	|	|	3.53
52.750	0.00	2.77	13.002	O	|	|	|	|	3.53
52.833	0.00	2.76	12.983	O	|	|	|	|	3.52
52.917	0.00	2.75	12.964	O	|	|	|	|	3.52
53.000	0.00	2.74	12.945	O	|	|	|	|	3.51
53.083	0.00	2.73	12.926	O	|	|	|	|	3.51
53.167	0.00	2.72	12.907	O	|	|	|	|	3.50
53.250	0.00	2.71	12.889	O	|	|	|	|	3.50
53.333	0.00	2.70	12.870	O	|	|	|	|	3.49
53.417	0.00	2.69	12.852	O	|	|	|	|	3.49
53.500	0.00	2.68	12.833	O	|	|	|	|	3.48
53.583	0.00	2.67	12.815	O	|	|	|	|	3.48
53.667	0.00	2.66	12.796	O	|	|	|	|	3.47
53.750	0.00	2.65	12.778	O	|	|	|	|	3.47
53.833	0.00	2.64	12.760	O	|	|	|	|	3.46
53.917	0.00	2.63	12.742	O	|	|	|	|	3.46
54.000	0.00	2.62	12.724	O	|	|	|	|	3.45
54.083	0.00	2.61	12.706	O	|	|	|	|	3.45
54.167	0.00	2.60	12.688	O	|	|	|	|	3.44
54.250	0.00	2.59	12.670	O	|	|	|	|	3.44
54.333	0.00	2.58	12.652	O	|	|	|	|	3.44
54.417	0.00	2.57	12.634	O	|	|	|	|	3.43
54.500	0.00	2.56	12.616	O	|	|	|	|	3.43
54.583	0.00	2.55	12.599	O	|	|	|	|	3.42
54.667	0.00	2.54	12.581	O	|	|	|	|	3.42
54.750	0.00	2.53	12.564	O	|	|	|	|	3.41
54.833	0.00	2.53	12.546	O	|	|	|	|	3.41
54.917	0.00	2.52	12.529	O	|	|	|	|	3.40
55.000	0.00	2.51	12.512	O	|	|	|	|	3.40
55.083	0.00	2.50	12.494	O	|	|	|	|	3.39
55.167	0.00	2.49	12.477	O	|	|	|	|	3.39
55.250	0.00	2.48	12.460	O	|	|	|	|	3.39
55.333	0.00	2.47	12.443	O	|	|	|	|	3.38
55.417	0.00	2.46	12.426	O	|	|	|	|	3.38
55.500	0.00	2.45	12.409	O	|	|	|	|	3.37
55.583	0.00	2.44	12.392	O	|	|	|	|	3.37
55.667	0.00	2.43	12.376	O	|	|	|	|	3.36
55.750	0.00	2.42	12.359	O	|	|	|	|	3.36
55.833	0.00	2.42	12.342	O	|	|	|	|	3.36
55.917	0.00	2.41	12.326	O	|	|	|	|	3.35
56.000	0.00	2.40	12.309	O	|	|	|	|	3.35
56.083	0.00	2.39	12.293	O	|	|	|	|	3.34
56.167	0.00	2.38	12.276	O	|	|	|	|	3.34
56.250	0.00	2.37	12.260	O	|	|	|	|	3.33
56.333	0.00	2.36	12.243	O	|	|	|	|	3.33
56.417	0.00	2.35	12.227	O	|	|	|	|	3.33
56.500	0.00	2.35	12.211	O	|	|	|	|	3.32
56.583	0.00	2.34	12.195	O	|	|	|	|	3.32
56.667	0.00	2.33	12.179	O	|	|	|	|	3.31

56.750	0.00	2.32	12.163	O	|	|	|	|	3.31
56.833	0.00	2.31	12.147	O	|	|	|	|	3.30
56.917	0.00	2.30	12.131	O	|	|	|	|	3.30
57.000	0.00	2.29	12.115	O	|	|	|	|	3.30
57.083	0.00	2.29	12.099	O	|	|	|	|	3.29
57.167	0.00	2.28	12.084	O	|	|	|	|	3.29
57.250	0.00	2.27	12.068	O	|	|	|	|	3.28
57.333	0.00	2.26	12.052	O	|	|	|	|	3.28
57.417	0.00	2.25	12.037	O	|	|	|	|	3.28
57.500	0.00	2.24	12.021	O	|	|	|	|	3.27
57.583	0.00	2.24	12.006	O	|	|	|	|	3.27
57.667	0.00	2.23	11.991	O	|	|	|	|	3.26
57.750	0.00	2.22	11.975	O	|	|	|	|	3.26
57.833	0.00	2.21	11.960	O	|	|	|	|	3.26
57.917	0.00	2.20	11.945	O	|	|	|	|	3.25
58.000	0.00	2.19	11.930	O	|	|	|	|	3.25
58.083	0.00	2.19	11.915	O	|	|	|	|	3.24
58.167	0.00	2.18	11.900	O	|	|	|	|	3.24
58.250	0.00	2.17	11.885	O	|	|	|	|	3.24
58.333	0.00	2.16	11.870	O	|	|	|	|	3.23
58.417	0.00	2.15	11.855	O	|	|	|	|	3.23
58.500	0.00	2.15	11.840	O	|	|	|	|	3.23
58.583	0.00	2.14	11.825	O	|	|	|	|	3.22
58.667	0.00	2.13	11.811	O	|	|	|	|	3.22
58.750	0.00	2.12	11.796	O	|	|	|	|	3.21
58.833	0.00	2.12	11.781	O	|	|	|	|	3.21
58.917	0.00	2.11	11.767	O	|	|	|	|	3.21
59.000	0.00	2.10	11.752	O	|	|	|	|	3.20
59.083	0.00	2.09	11.738	O	|	|	|	|	3.20
59.167	0.00	2.08	11.724	O	|	|	|	|	3.20
59.250	0.00	2.08	11.709	O	|	|	|	|	3.19
59.333	0.00	2.07	11.695	O	|	|	|	|	3.19
59.417	0.00	2.06	11.681	O	|	|	|	|	3.18
59.500	0.00	2.05	11.667	O	|	|	|	|	3.18
59.583	0.00	2.05	11.652	O	|	|	|	|	3.18
59.667	0.00	2.04	11.638	O	|	|	|	|	3.17
59.750	0.00	2.03	11.624	O	|	|	|	|	3.17
59.833	0.00	2.02	11.610	O	|	|	|	|	3.17
59.917	0.00	2.02	11.596	O	|	|	|	|	3.16
60.000	0.00	2.01	11.583	O	|	|	|	|	3.16
60.083	0.00	2.00	11.569	O	|	|	|	|	3.16
60.167	0.00	1.99	11.555	O	|	|	|	|	3.15
60.250	0.00	1.99	11.541	O	|	|	|	|	3.15
60.333	0.00	1.98	11.528	O	|	|	|	|	3.14
60.417	0.00	1.97	11.514	O	|	|	|	|	3.14
60.500	0.00	1.96	11.501	O	|	|	|	|	3.14
60.583	0.00	1.96	11.487	O	|	|	|	|	3.13
60.667	0.00	1.95	11.474	O	|	|	|	|	3.13
60.750	0.00	1.94	11.460	O	|	|	|	|	3.13
60.833	0.00	1.94	11.447	O	|	|	|	|	3.12
60.917	0.00	1.93	11.433	O	|	|	|	|	3.12
61.000	0.00	1.92	11.420	O	|	|	|	|	3.12
61.083	0.00	1.91	11.407	O	|	|	|	|	3.11
61.167	0.00	1.91	11.394	O	|	|	|	|	3.11
61.250	0.00	1.90	11.381	O	|	|	|	|	3.11
61.333	0.00	1.89	11.368	O	|	|	|	|	3.10
61.417	0.00	1.89	11.355	O	|	|	|	|	3.10
61.500	0.00	1.88	11.342	O	|	|	|	|	3.10
61.583	0.00	1.87	11.329	O	|	|	|	|	3.09
61.667	0.00	1.87	11.316	O	|	|	|	|	3.09
61.750	0.00	1.86	11.303	O	|	|	|	|	3.09
61.833	0.00	1.85	11.290	O	|	|	|	|	3.08
61.917	0.00	1.84	11.278	O	|	|	|	|	3.08

62.000	0.00	1.84	11.265	O	|	|	|	|	3.08
62.083	0.00	1.83	11.252	O	|	|	|	|	3.07
62.167	0.00	1.82	11.240	O	|	|	|	|	3.07
62.250	0.00	1.82	11.227	O	|	|	|	|	3.07
62.333	0.00	1.81	11.215	O	|	|	|	|	3.06
62.417	0.00	1.80	11.202	O	|	|	|	|	3.06
62.500	0.00	1.80	11.190	O	|	|	|	|	3.06
62.583	0.00	1.79	11.177	O	|	|	|	|	3.05
62.667	0.00	1.78	11.165	O	|	|	|	|	3.05
62.750	0.00	1.78	11.153	O	|	|	|	|	3.05
62.833	0.00	1.77	11.141	O	|	|	|	|	3.04
62.917	0.00	1.76	11.128	O	|	|	|	|	3.04
63.000	0.00	1.76	11.116	O	|	|	|	|	3.04
63.083	0.00	1.75	11.104	O	|	|	|	|	3.03
63.167	0.00	1.75	11.092	O	|	|	|	|	3.03
63.250	0.00	1.74	11.080	O	|	|	|	|	3.03
63.333	0.00	1.73	11.068	O	|	|	|	|	3.03
63.417	0.00	1.73	11.056	O	|	|	|	|	3.02
63.500	0.00	1.72	11.044	O	|	|	|	|	3.02
63.583	0.00	1.71	11.033	O	|	|	|	|	3.02
63.667	0.00	1.71	11.021	O	|	|	|	|	3.01
63.750	0.00	1.70	11.009	O	|	|	|	|	3.01
63.833	0.00	1.69	10.997	O	|	|	|	|	3.01
63.917	0.00	1.69	10.986	O	|	|	|	|	3.00
64.000	0.00	1.68	10.974	O	|	|	|	|	3.00
64.083	0.00	1.68	10.963	O	|	|	|	|	3.00
64.167	0.00	1.68	10.951	O	|	|	|	|	2.99
64.250	0.00	1.67	10.940	O	|	|	|	|	2.99
64.333	0.00	1.67	10.928	O	|	|	|	|	2.99
64.417	0.00	1.67	10.917	O	|	|	|	|	2.99
64.500	0.00	1.66	10.905	O	|	|	|	|	2.98
64.583	0.00	1.66	10.894	O	|	|	|	|	2.98
64.667	0.00	1.66	10.882	O	|	|	|	|	2.98
64.750	0.00	1.65	10.871	O	|	|	|	|	2.97
64.833	0.00	1.65	10.859	O	|	|	|	|	2.97
64.917	0.00	1.65	10.848	O	|	|	|	|	2.97
65.000	0.00	1.65	10.837	O	|	|	|	|	2.96
65.083	0.00	1.64	10.825	O	|	|	|	|	2.96
65.167	0.00	1.64	10.814	O	|	|	|	|	2.96
65.250	0.00	1.64	10.803	O	|	|	|	|	2.95
65.333	0.00	1.63	10.791	O	|	|	|	|	2.95
65.417	0.00	1.63	10.780	O	|	|	|	|	2.95
65.500	0.00	1.63	10.769	O	|	|	|	|	2.95
65.583	0.00	1.63	10.758	O	|	|	|	|	2.94
65.667	0.00	1.62	10.747	O	|	|	|	|	2.94
65.750	0.00	1.62	10.735	O	|	|	|	|	2.94
65.833	0.00	1.62	10.724	O	|	|	|	|	2.93
65.917	0.00	1.61	10.713	O	|	|	|	|	2.93
66.000	0.00	1.61	10.702	O	|	|	|	|	2.93
66.083	0.00	1.61	10.691	O	|	|	|	|	2.92
66.167	0.00	1.61	10.680	O	|	|	|	|	2.92
66.250	0.00	1.60	10.669	O	|	|	|	|	2.92
66.333	0.00	1.60	10.658	O	|	|	|	|	2.92
66.417	0.00	1.60	10.647	O	|	|	|	|	2.91
66.500	0.00	1.59	10.636	O	|	|	|	|	2.91
66.583	0.00	1.59	10.625	O	|	|	|	|	2.91
66.667	0.00	1.59	10.614	O	|	|	|	|	2.90
66.750	0.00	1.59	10.603	O	|	|	|	|	2.90
66.833	0.00	1.58	10.592	O	|	|	|	|	2.90
66.917	0.00	1.58	10.581	O	|	|	|	|	2.90
67.000	0.00	1.58	10.570	O	|	|	|	|	2.89
67.083	0.00	1.57	10.559	O	|	|	|	|	2.89
67.167	0.00	1.57	10.549	O	|	|	|	|	2.89

67.250	0.00	1.57	10.538	O	|	|	|	|	2.88
67.333	0.00	1.57	10.527	O	|	|	|	|	2.88
67.417	0.00	1.56	10.516	O	|	|	|	|	2.88
67.500	0.00	1.56	10.505	O	|	|	|	|	2.87
67.583	0.00	1.56	10.495	O	|	|	|	|	2.87
67.667	0.00	1.56	10.484	O	|	|	|	|	2.87
67.750	0.00	1.55	10.473	O	|	|	|	|	2.87
67.833	0.00	1.55	10.463	O	|	|	|	|	2.86
67.917	0.00	1.55	10.452	O	|	|	|	|	2.86
68.000	0.00	1.54	10.441	O	|	|	|	|	2.86
68.083	0.00	1.54	10.431	O	|	|	|	|	2.85
68.167	0.00	1.54	10.420	O	|	|	|	|	2.85
68.250	0.00	1.54	10.409	O	|	|	|	|	2.85
68.333	0.00	1.53	10.399	O	|	|	|	|	2.85
68.417	0.00	1.53	10.388	O	|	|	|	|	2.84
68.500	0.00	1.53	10.378	O	|	|	|	|	2.84
68.583	0.00	1.53	10.367	O	|	|	|	|	2.84
68.667	0.00	1.52	10.357	O	|	|	|	|	2.83
68.750	0.00	1.52	10.346	O	|	|	|	|	2.83
68.833	0.00	1.52	10.336	O	|	|	|	|	2.83
68.917	0.00	1.51	10.325	O	|	|	|	|	2.83
69.000	0.00	1.51	10.315	O	|	|	|	|	2.82
69.083	0.00	1.51	10.305	O	|	|	|	|	2.82
69.167	0.00	1.51	10.294	O	|	|	|	|	2.82
69.250	0.00	1.50	10.284	O	|	|	|	|	2.82
69.333	0.00	1.50	10.273	O	|	|	|	|	2.81
69.417	0.00	1.50	10.263	O	|	|	|	|	2.81
69.500	0.00	1.50	10.253	O	|	|	|	|	2.81
69.583	0.00	1.49	10.243	O	|	|	|	|	2.80
69.667	0.00	1.49	10.232	O	|	|	|	|	2.80
69.750	0.00	1.49	10.222	O	|	|	|	|	2.80
69.833	0.00	1.49	10.212	O	|	|	|	|	2.80
69.917	0.00	1.48	10.202	O	|	|	|	|	2.79
70.000	0.00	1.48	10.191	O	|	|	|	|	2.79
70.083	0.00	1.48	10.181	O	|	|	|	|	2.79
70.167	0.00	1.48	10.171	O	|	|	|	|	2.78
70.250	0.00	1.47	10.161	O	|	|	|	|	2.78
70.333	0.00	1.47	10.151	O	|	|	|	|	2.78
70.417	0.00	1.47	10.141	O	|	|	|	|	2.78
70.500	0.00	1.47	10.130	O	|	|	|	|	2.77
70.583	0.00	1.46	10.120	O	|	|	|	|	2.77
70.667	0.00	1.46	10.110	O	|	|	|	|	2.77
70.750	0.00	1.46	10.100	O	|	|	|	|	2.77
70.833	0.00	1.45	10.090	O	|	|	|	|	2.76
70.917	0.00	1.45	10.080	O	|	|	|	|	2.76
71.000	0.00	1.45	10.070	O	|	|	|	|	2.76
71.083	0.00	1.45	10.060	O	|	|	|	|	2.75
71.167	0.00	1.44	10.050	O	|	|	|	|	2.75
71.250	0.00	1.44	10.040	O	|	|	|	|	2.75
71.333	0.00	1.44	10.030	O	|	|	|	|	2.75
71.417	0.00	1.44	10.021	O	|	|	|	|	2.74
71.500	0.00	1.43	10.011	O	|	|	|	|	2.74
71.583	0.00	1.43	10.001	O	|	|	|	|	2.74
71.667	0.00	1.43	9.991	O	|	|	|	|	2.74
71.750	0.00	1.43	9.981	O	|	|	|	|	2.73
71.833	0.00	1.42	9.971	O	|	|	|	|	2.73
71.917	0.00	1.42	9.961	O	|	|	|	|	2.73
72.000	0.00	1.42	9.952	O	|	|	|	|	2.73
72.083	0.00	1.42	9.942	O	|	|	|	|	2.72
72.167	0.00	1.41	9.932	O	|	|	|	|	2.72
72.250	0.00	1.41	9.922	O	|	|	|	|	2.72
72.333	0.00	1.41	9.913	O	|	|	|	|	2.72
72.417	0.00	1.41	9.903	O	|	|	|	|	2.71

72.500	0.00	1.40	9.893	O	|	|	|	|	2.71
72.583	0.00	1.40	9.884	O	|	|	|	|	2.71
72.667	0.00	1.40	9.874	O	|	|	|	|	2.70
72.750	0.00	1.40	9.864	O	|	|	|	|	2.70
72.833	0.00	1.39	9.855	O	|	|	|	|	2.70
72.917	0.00	1.39	9.845	O	|	|	|	|	2.70
73.000	0.00	1.39	9.836	O	|	|	|	|	2.69
73.083	0.00	1.39	9.826	O	|	|	|	|	2.69
73.167	0.00	1.38	9.817	O	|	|	|	|	2.69
73.250	0.00	1.38	9.807	O	|	|	|	|	2.69
73.333	0.00	1.38	9.797	O	|	|	|	|	2.68
73.417	0.00	1.38	9.788	O	|	|	|	|	2.68
73.500	0.00	1.37	9.779	O	|	|	|	|	2.68
73.583	0.00	1.37	9.769	O	|	|	|	|	2.68
73.667	0.00	1.37	9.760	O	|	|	|	|	2.67
73.750	0.00	1.37	9.750	O	|	|	|	|	2.67
73.833	0.00	1.37	9.741	O	|	|	|	|	2.67
73.917	0.00	1.36	9.731	O	|	|	|	|	2.67
74.000	0.00	1.36	9.722	O	|	|	|	|	2.66
74.083	0.00	1.36	9.713	O	|	|	|	|	2.66
74.167	0.00	1.36	9.703	O	|	|	|	|	2.66
74.250	0.00	1.35	9.694	O	|	|	|	|	2.66
74.333	0.00	1.35	9.685	O	|	|	|	|	2.65
74.417	0.00	1.35	9.675	O	|	|	|	|	2.65
74.500	0.00	1.35	9.666	O	|	|	|	|	2.65
74.583	0.00	1.34	9.657	O	|	|	|	|	2.65
74.667	0.00	1.34	9.648	O	|	|	|	|	2.64
74.750	0.00	1.34	9.638	O	|	|	|	|	2.64
74.833	0.00	1.34	9.629	O	|	|	|	|	2.64
74.917	0.00	1.33	9.620	O	|	|	|	|	2.64
75.000	0.00	1.33	9.611	O	|	|	|	|	2.63
75.083	0.00	1.33	9.602	O	|	|	|	|	2.63
75.167	0.00	1.33	9.592	O	|	|	|	|	2.63
75.250	0.00	1.32	9.583	O	|	|	|	|	2.63
75.333	0.00	1.32	9.574	O	|	|	|	|	2.62
75.417	0.00	1.32	9.565	O	|	|	|	|	2.62
75.500	0.00	1.32	9.556	O	|	|	|	|	2.62
75.583	0.00	1.32	9.547	O	|	|	|	|	2.62
75.667	0.00	1.31	9.538	O	|	|	|	|	2.61
75.750	0.00	1.31	9.529	O	|	|	|	|	2.61
75.833	0.00	1.31	9.520	O	|	|	|	|	2.61
75.917	0.00	1.31	9.511	O	|	|	|	|	2.61
76.000	0.00	1.30	9.502	O	|	|	|	|	2.60
76.083	0.00	1.30	9.493	O	|	|	|	|	2.60
76.167	0.00	1.30	9.484	O	|	|	|	|	2.60
76.250	0.00	1.30	9.475	O	|	|	|	|	2.60
76.333	0.00	1.29	9.466	O	|	|	|	|	2.59
76.417	0.00	1.29	9.457	O	|	|	|	|	2.59
76.500	0.00	1.29	9.448	O	|	|	|	|	2.59
76.583	0.00	1.29	9.439	O	|	|	|	|	2.59
76.667	0.00	1.29	9.430	O	|	|	|	|	2.59
76.750	0.00	1.28	9.422	O	|	|	|	|	2.58
76.833	0.00	1.28	9.413	O	|	|	|	|	2.58
76.917	0.00	1.28	9.404	O	|	|	|	|	2.58
77.000	0.00	1.28	9.395	O	|	|	|	|	2.58
77.083	0.00	1.27	9.386	O	|	|	|	|	2.57
77.167	0.00	1.27	9.378	O	|	|	|	|	2.57
77.250	0.00	1.27	9.369	O	|	|	|	|	2.57
77.333	0.00	1.27	9.360	O	|	|	|	|	2.57
77.417	0.00	1.27	9.351	O	|	|	|	|	2.56
77.500	0.00	1.26	9.343	O	|	|	|	|	2.56
77.583	0.00	1.26	9.334	O	|	|	|	|	2.56
77.667	0.00	1.26	9.325	O	|	|	|	|	2.56

77.750	0.00	1.26	9.317	O	|	|	|	|	2.55
77.833	0.00	1.25	9.308	O	|	|	|	|	2.55
77.917	0.00	1.25	9.299	O	|	|	|	|	2.55
78.000	0.00	1.25	9.291	O	|	|	|	|	2.55
78.083	0.00	1.25	9.282	O	|	|	|	|	2.55
78.167	0.00	1.25	9.274	O	|	|	|	|	2.54
78.250	0.00	1.24	9.265	O	|	|	|	|	2.54
78.333	0.00	1.24	9.256	O	|	|	|	|	2.54
78.417	0.00	1.24	9.248	O	|	|	|	|	2.54
78.500	0.00	1.24	9.239	O	|	|	|	|	2.53
78.583	0.00	1.23	9.231	O	|	|	|	|	2.53
78.667	0.00	1.23	9.222	O	|	|	|	|	2.53
78.750	0.00	1.23	9.214	O	|	|	|	|	2.53
78.833	0.00	1.23	9.205	O	|	|	|	|	2.52
78.917	0.00	1.23	9.197	O	|	|	|	|	2.52
79.000	0.00	1.22	9.189	O	|	|	|	|	2.52
79.083	0.00	1.22	9.180	O	|	|	|	|	2.52
79.167	0.00	1.22	9.172	O	|	|	|	|	2.52
79.250	0.00	1.22	9.163	O	|	|	|	|	2.51
79.333	0.00	1.22	9.155	O	|	|	|	|	2.51
79.417	0.00	1.21	9.147	O	|	|	|	|	2.51
79.500	0.00	1.21	9.138	O	|	|	|	|	2.51
79.583	0.00	1.21	9.130	O	|	|	|	|	2.50
79.667	0.00	1.21	9.122	O	|	|	|	|	2.50
79.750	0.00	1.20	9.113	O	|	|	|	|	2.50
79.833	0.00	1.20	9.105	O	|	|	|	|	2.50
79.917	0.00	1.20	9.097	O	|	|	|	|	2.50
80.000	0.00	1.20	9.088	O	|	|	|	|	2.49
80.083	0.00	1.20	9.080	O	|	|	|	|	2.49
80.167	0.00	1.19	9.072	O	|	|	|	|	2.49
80.250	0.00	1.19	9.064	O	|	|	|	|	2.49
80.333	0.00	1.19	9.056	O	|	|	|	|	2.48
80.417	0.00	1.19	9.047	O	|	|	|	|	2.48
80.500	0.00	1.19	9.039	O	|	|	|	|	2.48
80.583	0.00	1.18	9.031	O	|	|	|	|	2.48
80.667	0.00	1.18	9.023	O	|	|	|	|	2.48
80.750	0.00	1.18	9.015	O	|	|	|	|	2.47
80.833	0.00	1.18	9.007	O	|	|	|	|	2.47
80.917	0.00	1.18	8.999	O	|	|	|	|	2.47
81.000	0.00	1.17	8.990	O	|	|	|	|	2.47
81.083	0.00	1.17	8.982	O	|	|	|	|	2.46
81.167	0.00	1.17	8.974	O	|	|	|	|	2.46
81.250	0.00	1.17	8.966	O	|	|	|	|	2.46
81.333	0.00	1.16	8.958	O	|	|	|	|	2.46
81.417	0.00	1.16	8.950	O	|	|	|	|	2.46
81.500	0.00	1.16	8.942	O	|	|	|	|	2.45
81.583	0.00	1.16	8.934	O	|	|	|	|	2.45
81.667	0.00	1.16	8.926	O	|	|	|	|	2.45
81.750	0.00	1.15	8.918	O	|	|	|	|	2.45
81.833	0.00	1.15	8.910	O	|	|	|	|	2.44
81.917	0.00	1.15	8.902	O	|	|	|	|	2.44
82.000	0.00	1.15	8.895	O	|	|	|	|	2.44
82.083	0.00	1.15	8.887	O	|	|	|	|	2.44
82.167	0.00	1.14	8.879	O	|	|	|	|	2.44
82.250	0.00	1.14	8.871	O	|	|	|	|	2.43
82.333	0.00	1.14	8.863	O	|	|	|	|	2.43
82.417	0.00	1.14	8.855	O	|	|	|	|	2.43
82.500	0.00	1.14	8.847	O	|	|	|	|	2.43
82.583	0.00	1.13	8.840	O	|	|	|	|	2.43
82.667	0.00	1.13	8.832	O	|	|	|	|	2.42
82.750	0.00	1.13	8.824	O	|	|	|	|	2.42
82.833	0.00	1.13	8.816	O	|	|	|	|	2.42
82.917	0.00	1.13	8.808	O	|	|	|	|	2.42

83.000	0.00	1.12	8.801	O	|	|	|	|	2.42
83.083	0.00	1.12	8.793	O	|	|	|	|	2.41
83.167	0.00	1.12	8.785	O	|	|	|	|	2.41
83.250	0.00	1.12	8.777	O	|	|	|	|	2.41
83.333	0.00	1.12	8.770	O	|	|	|	|	2.41
83.417	0.00	1.11	8.762	O	|	|	|	|	2.40
83.500	0.00	1.11	8.754	O	|	|	|	|	2.40
83.583	0.00	1.11	8.747	O	|	|	|	|	2.40
83.667	0.00	1.11	8.739	O	|	|	|	|	2.40
83.750	0.00	1.11	8.731	O	|	|	|	|	2.40
83.833	0.00	1.10	8.724	O	|	|	|	|	2.39
83.917	0.00	1.10	8.716	O	|	|	|	|	2.39
84.000	0.00	1.10	8.709	O	|	|	|	|	2.39
84.083	0.00	1.10	8.701	O	|	|	|	|	2.39
84.167	0.00	1.10	8.694	O	|	|	|	|	2.39
84.250	0.00	1.10	8.686	O	|	|	|	|	2.38
84.333	0.00	1.09	8.678	O	|	|	|	|	2.38
84.417	0.00	1.09	8.671	O	|	|	|	|	2.38
84.500	0.00	1.09	8.663	O	|	|	|	|	2.38
84.583	0.00	1.09	8.656	O	|	|	|	|	2.38
84.667	0.00	1.09	8.648	O	|	|	|	|	2.37
84.750	0.00	1.08	8.641	O	|	|	|	|	2.37
84.833	0.00	1.08	8.634	O	|	|	|	|	2.37
84.917	0.00	1.08	8.626	O	|	|	|	|	2.37
85.000	0.00	1.08	8.619	O	|	|	|	|	2.37
85.083	0.00	1.08	8.611	O	|	|	|	|	2.36
85.167	0.00	1.07	8.604	O	|	|	|	|	2.36
85.250	0.00	1.07	8.596	O	|	|	|	|	2.36
85.333	0.00	1.07	8.589	O	|	|	|	|	2.36
85.417	0.00	1.07	8.582	O	|	|	|	|	2.36
85.500	0.00	1.07	8.574	O	|	|	|	|	2.35
85.583	0.00	1.06	8.567	O	|	|	|	|	2.35
85.667	0.00	1.06	8.560	O	|	|	|	|	2.35
85.750	0.00	1.06	8.552	O	|	|	|	|	2.35
85.833	0.00	1.06	8.545	O	|	|	|	|	2.35
85.917	0.00	1.06	8.538	O	|	|	|	|	2.34
86.000	0.00	1.06	8.531	O	|	|	|	|	2.34
86.083	0.00	1.05	8.523	O	|	|	|	|	2.34
86.167	0.00	1.05	8.516	O	|	|	|	|	2.34
86.250	0.00	1.05	8.509	O	|	|	|	|	2.34
86.333	0.00	1.05	8.502	O	|	|	|	|	2.33
86.417	0.00	1.05	8.494	O	|	|	|	|	2.33
86.500	0.00	1.04	8.487	O	|	|	|	|	2.33
86.583	0.00	1.04	8.480	O	|	|	|	|	2.33
86.667	0.00	1.04	8.473	O	|	|	|	|	2.33
86.750	0.00	1.04	8.466	O	|	|	|	|	2.32
86.833	0.00	1.04	8.458	O	|	|	|	|	2.32
86.917	0.00	1.04	8.451	O	|	|	|	|	2.32
87.000	0.00	1.03	8.444	O	|	|	|	|	2.32
87.083	0.00	1.03	8.437	O	|	|	|	|	2.32
87.167	0.00	1.03	8.430	O	|	|	|	|	2.32
87.250	0.00	1.03	8.423	O	|	|	|	|	2.31
87.333	0.00	1.03	8.416	O	|	|	|	|	2.31
87.417	0.00	1.02	8.409	O	|	|	|	|	2.31
87.500	0.00	1.02	8.402	O	|	|	|	|	2.31
87.583	0.00	1.02	8.395	O	|	|	|	|	2.31
87.667	0.00	1.02	8.388	O	|	|	|	|	2.30
87.750	0.00	1.02	8.381	O	|	|	|	|	2.30
87.833	0.00	1.02	8.374	O	|	|	|	|	2.30
87.917	0.00	1.01	8.367	O	|	|	|	|	2.30
88.000	0.00	1.01	8.360	O	|	|	|	|	2.30
88.083	0.00	1.01	8.353	O	|	|	|	|	2.29
88.167	0.00	1.01	8.346	O	|	|	|	|	2.29

88.250	0.00	1.01	8.339	O	|	|	|	|	2.29
88.333	0.00	1.00	8.332	O	|	|	|	|	2.29
88.417	0.00	1.00	8.325	O	|	|	|	|	2.29
88.500	0.00	1.00	8.318	O	|	|	|	|	2.29
88.583	0.00	1.00	8.311	O	|	|	|	|	2.28
88.667	0.00	1.00	8.304	O	|	|	|	|	2.28
88.750	0.00	1.00	8.297	O	|	|	|	|	2.28
88.833	0.00	0.99	8.291	O	|	|	|	|	2.28
88.917	0.00	0.99	8.284	O	|	|	|	|	2.28
89.000	0.00	0.99	8.277	O	|	|	|	|	2.27
89.083	0.00	0.99	8.270	O	|	|	|	|	2.27
89.167	0.00	0.99	8.263	O	|	|	|	|	2.27
89.250	0.00	0.99	8.257	O	|	|	|	|	2.27
89.333	0.00	0.98	8.250	O	|	|	|	|	2.27
89.417	0.00	0.98	8.243	O	|	|	|	|	2.26
89.500	0.00	0.98	8.236	O	|	|	|	|	2.26
89.583	0.00	0.98	8.230	O	|	|	|	|	2.26
89.667	0.00	0.98	8.223	O	|	|	|	|	2.26
89.750	0.00	0.97	8.216	O	|	|	|	|	2.26
89.833	0.00	0.97	8.209	O	|	|	|	|	2.26
89.917	0.00	0.97	8.203	O	|	|	|	|	2.25
90.000	0.00	0.97	8.196	O	|	|	|	|	2.25
90.083	0.00	0.97	8.189	O	|	|	|	|	2.25
90.167	0.00	0.97	8.183	O	|	|	|	|	2.25
90.250	0.00	0.96	8.176	O	|	|	|	|	2.25
90.333	0.00	0.96	8.169	O	|	|	|	|	2.25
90.417	0.00	0.96	8.163	O	|	|	|	|	2.24
90.500	0.00	0.96	8.156	O	|	|	|	|	2.24
90.583	0.00	0.96	8.150	O	|	|	|	|	2.24
90.667	0.00	0.96	8.143	O	|	|	|	|	2.24
90.750	0.00	0.95	8.136	O	|	|	|	|	2.24
90.833	0.00	0.95	8.130	O	|	|	|	|	2.23
90.917	0.00	0.95	8.123	O	|	|	|	|	2.23
91.000	0.00	0.95	8.117	O	|	|	|	|	2.23
91.083	0.00	0.95	8.110	O	|	|	|	|	2.23
91.167	0.00	0.95	8.104	O	|	|	|	|	2.23
91.250	0.00	0.94	8.097	O	|	|	|	|	2.23
91.333	0.00	0.94	8.091	O	|	|	|	|	2.22
91.417	0.00	0.94	8.084	O	|	|	|	|	2.22
91.500	0.00	0.94	8.078	O	|	|	|	|	2.22
91.583	0.00	0.94	8.071	O	|	|	|	|	2.22
91.667	0.00	0.94	8.065	O	|	|	|	|	2.22
91.750	0.00	0.93	8.058	O	|	|	|	|	2.22
91.833	0.00	0.93	8.052	O	|	|	|	|	2.21
91.917	0.00	0.93	8.045	O	|	|	|	|	2.21
92.000	0.00	0.93	8.039	O	|	|	|	|	2.21
92.083	0.00	0.93	8.033	O	|	|	|	|	2.21
92.167	0.00	0.93	8.026	O	|	|	|	|	2.21
92.250	0.00	0.92	8.020	O	|	|	|	|	2.20
92.333	0.00	0.92	8.014	O	|	|	|	|	2.20
92.417	0.00	0.92	8.007	O	|	|	|	|	2.20
92.500	0.00	0.92	8.001	O	|	|	|	|	2.20
92.583	0.00	0.92	7.995	O	|	|	|	|	2.20
92.667	0.00	0.92	7.988	O	|	|	|	|	2.20
92.750	0.00	0.91	7.982	O	|	|	|	|	2.19
92.833	0.00	0.91	7.976	O	|	|	|	|	2.19
92.917	0.00	0.91	7.969	O	|	|	|	|	2.19
93.000	0.00	0.91	7.963	O	|	|	|	|	2.19
93.083	0.00	0.91	7.957	O	|	|	|	|	2.19
93.167	0.00	0.91	7.951	O	|	|	|	|	2.19
93.250	0.00	0.91	7.944	O	|	|	|	|	2.18
93.333	0.00	0.90	7.938	O	|	|	|	|	2.18
93.417	0.00	0.90	7.932	O	|	|	|	|	2.18

93.500	0.00	0.90	7.926	O					2.18
93.583	0.00	0.90	7.919	O					2.18
93.667	0.00	0.90	7.913	O					2.18
93.750	0.00	0.90	7.907	O					2.17
93.833	0.00	0.89	7.901	O					2.17
93.917	0.00	0.89	7.895	O					2.17
94.000	0.00	0.89	7.889	O					2.17
94.083	0.00	0.89	7.882	O					2.17
94.167	0.00	0.89	7.876	O					2.17
94.250	0.00	0.89	7.870	O					2.16
94.333	0.00	0.88	7.864	O					2.16
94.417	0.00	0.88	7.858	O					2.16
94.500	0.00	0.88	7.852	O					2.16
94.583	0.00	0.88	7.846	O					2.16
94.667	0.00	0.88	7.840	O					2.16
94.750	0.00	0.88	7.834	O					2.15
94.833	0.00	0.88	7.828	O					2.15
94.917	0.00	0.87	7.822	O					2.15
95.000	0.00	0.87	7.816	O					2.15
95.083	0.00	0.87	7.810	O					2.15
95.167	0.00	0.87	7.804	O					2.15
95.250	0.00	0.87	7.798	O					2.14
95.333	0.00	0.87	7.792	O					2.14
95.417	0.00	0.86	7.786	O					2.14
95.500	0.00	0.86	7.780	O					2.14
95.583	0.00	0.86	7.774	O					2.14
95.667	0.00	0.86	7.768	O					2.14
95.750	0.00	0.86	7.762	O					2.14
95.833	0.00	0.86	7.756	O					2.13
95.917	0.00	0.86	7.750	O					2.13
96.000	0.00	0.85	7.744	O					2.13
96.083	0.00	0.85	7.739	O					2.13
96.167	0.00	0.85	7.733	O					2.13
96.250	0.00	0.85	7.727	O					2.13
96.333	0.00	0.85	7.721	O					2.12
96.417	0.00	0.85	7.715	O					2.12
96.500	0.00	0.85	7.709	O					2.12
96.583	0.00	0.84	7.704	O					2.12
96.667	0.00	0.84	7.698	O					2.12
96.750	0.00	0.84	7.692	O					2.12
96.833	0.00	0.84	7.686	O					2.11
96.917	0.00	0.84	7.680	O					2.11
97.000	0.00	0.84	7.675	O					2.11
97.083	0.00	0.83	7.669	O					2.11
97.167	0.00	0.83	7.663	O					2.11
97.250	0.00	0.83	7.657	O					2.11
97.333	0.00	0.83	7.652	O					2.11
97.417	0.00	0.83	7.646	O					2.10
97.500	0.00	0.83	7.640	O					2.10
97.583	0.00	0.83	7.635	O					2.10
97.667	0.00	0.82	7.629	O					2.10
97.750	0.00	0.82	7.623	O					2.10
97.833	0.00	0.82	7.618	O					2.10
97.917	0.00	0.82	7.612	O					2.09
98.000	0.00	0.82	7.606	O					2.09
98.083	0.00	0.82	7.601	O					2.09
98.167	0.00	0.82	7.595	O					2.09
98.250	0.00	0.81	7.589	O					2.09
98.333	0.00	0.81	7.584	O					2.09
98.417	0.00	0.81	7.578	O					2.09
98.500	0.00	0.81	7.573	O					2.08
98.583	0.00	0.81	7.567	O					2.08
98.667	0.00	0.81	7.561	O					2.08

98.750	0.00	0.81	7.556	O					2.08
98.833	0.00	0.80	7.550	O					2.08
98.917	0.00	0.80	7.545	O					2.08
99.000	0.00	0.80	7.539	O					2.08
99.083	0.00	0.80	7.534	O					2.07
99.167	0.00	0.80	7.528	O					2.07
99.250	0.00	0.80	7.523	O					2.07
99.333	0.00	0.80	7.517	O					2.07
99.417	0.00	0.79	7.512	O					2.07
99.500	0.00	0.79	7.506	O					2.07
99.583	0.00	0.79	7.501	O					2.06
99.667	0.00	0.79	7.495	O					2.06
99.750	0.00	0.79	7.490	O					2.06
99.833	0.00	0.79	7.485	O					2.06
99.917	0.00	0.79	7.479	O					2.06
100.000	0.00	0.78	7.474	O					2.06
100.083	0.00	0.78	7.468	O					2.06
100.167	0.00	0.78	7.463	O					2.05
100.250	0.00	0.78	7.458	O					2.05
100.333	0.00	0.78	7.452	O					2.05
100.417	0.00	0.78	7.447	O					2.05
100.500	0.00	0.78	7.441	O					2.05
100.583	0.00	0.78	7.436	O					2.05
100.667	0.00	0.77	7.431	O					2.05
100.750	0.00	0.77	7.425	O					2.04
100.833	0.00	0.77	7.420	O					2.04
100.917	0.00	0.77	7.415	O					2.04
101.000	0.00	0.77	7.410	O					2.04
101.083	0.00	0.77	7.404	O					2.04
101.167	0.00	0.77	7.399	O					2.04
101.250	0.00	0.76	7.394	O					2.04
101.333	0.00	0.76	7.388	O					2.03
101.417	0.00	0.76	7.383	O					2.03
101.500	0.00	0.76	7.378	O					2.03
101.583	0.00	0.76	7.373	O					2.03
101.667	0.00	0.76	7.368	O					2.03
101.750	0.00	0.76	7.362	O					2.03
101.833	0.00	0.75	7.357	O					2.03
101.917	0.00	0.75	7.352	O					2.02
102.000	0.00	0.75	7.347	O					2.02
102.083	0.00	0.75	7.342	O					2.02
102.167	0.00	0.75	7.336	O					2.02
102.250	0.00	0.75	7.331	O					2.02
102.333	0.00	0.75	7.326	O					2.02
102.417	0.00	0.75	7.321	O					2.02
102.500	0.00	0.74	7.316	O					2.02
102.583	0.00	0.74	7.311	O					2.01
102.667	0.00	0.74	7.306	O					2.01
102.750	0.00	0.74	7.300	O					2.01
102.833	0.00	0.74	7.295	O					2.01
102.917	0.00	0.74	7.290	O					2.01
103.000	0.00	0.74	7.285	O					2.01
103.083	0.00	0.74	7.280	O					2.01
103.167	0.00	0.73	7.275	O					2.00
103.250	0.00	0.73	7.270	O					2.00
103.333	0.00	0.73	7.265	O					2.00
103.417	0.00	0.73	7.260	O					2.00
103.500	0.00	0.73	7.255	O					2.00
103.583	0.00	0.73	7.250	O					2.00
103.667	0.00	0.73	7.245	O					2.00
103.750	0.00	0.73	7.240	O					1.99
103.833	0.00	0.73	7.235	O					1.99
103.917	0.00	0.73	7.230	O					1.99

104.000	0.00	0.73	7.225	O	|	|	|	|	1.99
104.083	0.00	0.73	7.220	O	|	|	|	|	1.99
104.167	0.00	0.72	7.215	O	|	|	|	|	1.99
104.250	0.00	0.72	7.210	O	|	|	|	|	1.99
104.333	0.00	0.72	7.205	O	|	|	|	|	1.98
104.417	0.00	0.72	7.200	O	|	|	|	|	1.98
104.500	0.00	0.72	7.195	O	|	|	|	|	1.98
104.583	0.00	0.72	7.190	O	|	|	|	|	1.98
104.667	0.00	0.72	7.185	O	|	|	|	|	1.98
104.750	0.00	0.72	7.180	O	|	|	|	|	1.98
104.833	0.00	0.72	7.175	O	|	|	|	|	1.98
104.917	0.00	0.72	7.170	O	|	|	|	|	1.97
105.000	0.00	0.72	7.165	O	|	|	|	|	1.97
105.083	0.00	0.72	7.160	O	|	|	|	|	1.97
105.167	0.00	0.72	7.155	O	|	|	|	|	1.97
105.250	0.00	0.72	7.150	O	|	|	|	|	1.97
105.333	0.00	0.72	7.145	O	|	|	|	|	1.97
105.417	0.00	0.72	7.140	O	|	|	|	|	1.97
105.500	0.00	0.72	7.136	O	|	|	|	|	1.97
105.583	0.00	0.72	7.131	O	|	|	|	|	1.96
105.667	0.00	0.71	7.126	O	|	|	|	|	1.96
105.750	0.00	0.71	7.121	O	|	|	|	|	1.96
105.833	0.00	0.71	7.116	O	|	|	|	|	1.96
105.917	0.00	0.71	7.111	O	|	|	|	|	1.96
106.000	0.00	0.71	7.106	O	|	|	|	|	1.96
106.083	0.00	0.71	7.101	O	|	|	|	|	1.96
106.167	0.00	0.71	7.096	O	|	|	|	|	1.95
106.250	0.00	0.71	7.091	O	|	|	|	|	1.95
106.333	0.00	0.71	7.086	O	|	|	|	|	1.95
106.417	0.00	0.71	7.082	O	|	|	|	|	1.95
106.500	0.00	0.71	7.077	O	|	|	|	|	1.95
106.583	0.00	0.71	7.072	O	|	|	|	|	1.95
106.667	0.00	0.71	7.067	O	|	|	|	|	1.95
106.750	0.00	0.71	7.062	O	|	|	|	|	1.94
106.833	0.00	0.71	7.057	O	|	|	|	|	1.94
106.917	0.00	0.71	7.052	O	|	|	|	|	1.94
107.000	0.00	0.71	7.047	O	|	|	|	|	1.94
107.083	0.00	0.70	7.043	O	|	|	|	|	1.94
107.167	0.00	0.70	7.038	O	|	|	|	|	1.94
107.250	0.00	0.70	7.033	O	|	|	|	|	1.94
107.333	0.00	0.70	7.028	O	|	|	|	|	1.93
107.417	0.00	0.70	7.023	O	|	|	|	|	1.93
107.500	0.00	0.70	7.018	O	|	|	|	|	1.93
107.583	0.00	0.70	7.014	O	|	|	|	|	1.93
107.667	0.00	0.70	7.009	O	|	|	|	|	1.93
107.750	0.00	0.70	7.004	O	|	|	|	|	1.93
107.833	0.00	0.70	6.999	O	|	|	|	|	1.93
107.917	0.00	0.70	6.994	O	|	|	|	|	1.93
108.000	0.00	0.70	6.989	O	|	|	|	|	1.92
108.083	0.00	0.70	6.985	O	|	|	|	|	1.92
108.167	0.00	0.70	6.980	O	|	|	|	|	1.92
108.250	0.00	0.70	6.975	O	|	|	|	|	1.92
108.333	0.00	0.70	6.970	O	|	|	|	|	1.92
108.417	0.00	0.70	6.965	O	|	|	|	|	1.92
108.500	0.00	0.70	6.961	O	|	|	|	|	1.92
108.583	0.00	0.69	6.956	O	|	|	|	|	1.91
108.667	0.00	0.69	6.951	O	|	|	|	|	1.91
108.750	0.00	0.69	6.946	O	|	|	|	|	1.91
108.833	0.00	0.69	6.941	O	|	|	|	|	1.91
108.917	0.00	0.69	6.937	O	|	|	|	|	1.91
109.000	0.00	0.69	6.932	O	|	|	|	|	1.91
109.083	0.00	0.69	6.927	O	|	|	|	|	1.91
109.167	0.00	0.69	6.922	O	|	|	|	|	1.91

109.250	0.00	0.69	6.918	O	|	|	|	|	1.90
109.333	0.00	0.69	6.913	O	|	|	|	|	1.90
109.417	0.00	0.69	6.908	O	|	|	|	|	1.90
109.500	0.00	0.69	6.903	O	|	|	|	|	1.90
109.583	0.00	0.69	6.899	O	|	|	|	|	1.90
109.667	0.00	0.69	6.894	O	|	|	|	|	1.90
109.750	0.00	0.69	6.889	O	|	|	|	|	1.90
109.833	0.00	0.69	6.884	O	|	|	|	|	1.89
109.917	0.00	0.69	6.880	O	|	|	|	|	1.89
110.000	0.00	0.69	6.875	O	|	|	|	|	1.89
110.083	0.00	0.69	6.870	O	|	|	|	|	1.89
110.167	0.00	0.68	6.866	O	|	|	|	|	1.89
110.250	0.00	0.68	6.861	O	|	|	|	|	1.89
110.333	0.00	0.68	6.856	O	|	|	|	|	1.89
110.417	0.00	0.68	6.851	O	|	|	|	|	1.89
110.500	0.00	0.68	6.847	O	|	|	|	|	1.88
110.583	0.00	0.68	6.842	O	|	|	|	|	1.88
110.667	0.00	0.68	6.837	O	|	|	|	|	1.88
110.750	0.00	0.68	6.833	O	|	|	|	|	1.88
110.833	0.00	0.68	6.828	O	|	|	|	|	1.88
110.917	0.00	0.68	6.823	O	|	|	|	|	1.88
111.000	0.00	0.68	6.819	O	|	|	|	|	1.88
111.083	0.00	0.68	6.814	O	|	|	|	|	1.87
111.167	0.00	0.68	6.809	O	|	|	|	|	1.87
111.250	0.00	0.68	6.805	O	|	|	|	|	1.87
111.333	0.00	0.68	6.800	O	|	|	|	|	1.87
111.417	0.00	0.68	6.795	O	|	|	|	|	1.87
111.500	0.00	0.68	6.791	O	|	|	|	|	1.87
111.583	0.00	0.68	6.786	O	|	|	|	|	1.87
111.667	0.00	0.67	6.781	O	|	|	|	|	1.87
111.750	0.00	0.67	6.777	O	|	|	|	|	1.86
111.833	0.00	0.67	6.772	O	|	|	|	|	1.86
111.917	0.00	0.67	6.767	O	|	|	|	|	1.86
112.000	0.00	0.67	6.763	O	|	|	|	|	1.86
112.083	0.00	0.67	6.758	O	|	|	|	|	1.86
112.167	0.00	0.67	6.753	O	|	|	|	|	1.86
112.250	0.00	0.67	6.749	O	|	|	|	|	1.86
112.333	0.00	0.67	6.744	O	|	|	|	|	1.86
112.417	0.00	0.67	6.740	O	|	|	|	|	1.85
112.500	0.00	0.67	6.735	O	|	|	|	|	1.85
112.583	0.00	0.67	6.730	O	|	|	|	|	1.85
112.667	0.00	0.67	6.726	O	|	|	|	|	1.85
112.750	0.00	0.67	6.721	O	|	|	|	|	1.85
112.833	0.00	0.67	6.717	O	|	|	|	|	1.85
112.917	0.00	0.67	6.712	O	|	|	|	|	1.85
113.000	0.00	0.67	6.707	O	|	|	|	|	1.84
113.083	0.00	0.67	6.703	O	|	|	|	|	1.84
113.167	0.00	0.67	6.698	O	|	|	|	|	1.84
113.250	0.00	0.66	6.694	O	|	|	|	|	1.84
113.333	0.00	0.66	6.689	O	|	|	|	|	1.84
113.417	0.00	0.66	6.684	O	|	|	|	|	1.84
113.500	0.00	0.66	6.680	O	|	|	|	|	1.84
113.583	0.00	0.66	6.675	O	|	|	|	|	1.84
113.667	0.00	0.66	6.671	O	|	|	|	|	1.83
113.750	0.00	0.66	6.666	O	|	|	|	|	1.83
113.833	0.00	0.66	6.662	O	|	|	|	|	1.83
113.917	0.00	0.66	6.657	O	|	|	|	|	1.83
114.000	0.00	0.66	6.653	O	|	|	|	|	1.83
114.083	0.00	0.66	6.648	O	|	|	|	|	1.83
114.167	0.00	0.66	6.643	O	|	|	|	|	1.83
114.250	0.00	0.66	6.639	O	|	|	|	|	1.83
114.333	0.00	0.66	6.634	O	|	|	|	|	1.82
114.417	0.00	0.66	6.630	O	|	|	|	|	1.82

114.500	0.00	0.66	6.625	O	|	|	|	|	1.82
114.583	0.00	0.66	6.621	O	|	|	|	|	1.82
114.667	0.00	0.66	6.616	O	|	|	|	|	1.82
114.750	0.00	0.66	6.612	O	|	|	|	|	1.82
114.833	0.00	0.65	6.607	O	|	|	|	|	1.82
114.917	0.00	0.65	6.603	O	|	|	|	|	1.82
115.000	0.00	0.65	6.598	O	|	|	|	|	1.81
115.083	0.00	0.65	6.594	O	|	|	|	|	1.81
115.167	0.00	0.65	6.589	O	|	|	|	|	1.81
115.250	0.00	0.65	6.585	O	|	|	|	|	1.81
115.333	0.00	0.65	6.580	O	|	|	|	|	1.81
115.417	0.00	0.65	6.576	O	|	|	|	|	1.81
115.500	0.00	0.65	6.571	O	|	|	|	|	1.81
115.583	0.00	0.65	6.567	O	|	|	|	|	1.81
115.667	0.00	0.65	6.562	O	|	|	|	|	1.80
115.750	0.00	0.65	6.558	O	|	|	|	|	1.80
115.833	0.00	0.65	6.553	O	|	|	|	|	1.80
115.917	0.00	0.65	6.549	O	|	|	|	|	1.80
116.000	0.00	0.65	6.545	O	|	|	|	|	1.80
116.083	0.00	0.65	6.540	O	|	|	|	|	1.80
116.167	0.00	0.65	6.536	O	|	|	|	|	1.80
116.250	0.00	0.65	6.531	O	|	|	|	|	1.80
116.333	0.00	0.65	6.527	O	|	|	|	|	1.79
116.417	0.00	0.65	6.522	O	|	|	|	|	1.79
116.500	0.00	0.64	6.518	O	|	|	|	|	1.79
116.583	0.00	0.64	6.513	O	|	|	|	|	1.79
116.667	0.00	0.64	6.509	O	|	|	|	|	1.79
116.750	0.00	0.64	6.505	O	|	|	|	|	1.79
116.833	0.00	0.64	6.500	O	|	|	|	|	1.79
116.917	0.00	0.64	6.496	O	|	|	|	|	1.79
117.000	0.00	0.64	6.491	O	|	|	|	|	1.78
117.083	0.00	0.64	6.487	O	|	|	|	|	1.78
117.167	0.00	0.64	6.482	O	|	|	|	|	1.78
117.250	0.00	0.64	6.478	O	|	|	|	|	1.78
117.333	0.00	0.64	6.474	O	|	|	|	|	1.78
117.417	0.00	0.64	6.469	O	|	|	|	|	1.78
117.500	0.00	0.64	6.465	O	|	|	|	|	1.78
117.583	0.00	0.64	6.460	O	|	|	|	|	1.78
117.667	0.00	0.64	6.456	O	|	|	|	|	1.77
117.750	0.00	0.64	6.452	O	|	|	|	|	1.77
117.833	0.00	0.64	6.447	O	|	|	|	|	1.77
117.917	0.00	0.64	6.443	O	|	|	|	|	1.77
118.000	0.00	0.64	6.438	O	|	|	|	|	1.77
118.083	0.00	0.63	6.434	O	|	|	|	|	1.77
118.167	0.00	0.63	6.430	O	|	|	|	|	1.77
118.250	0.00	0.63	6.425	O	|	|	|	|	1.77
118.333	0.00	0.63	6.421	O	|	|	|	|	1.76
118.417	0.00	0.63	6.417	O	|	|	|	|	1.76
118.500	0.00	0.63	6.412	O	|	|	|	|	1.76
118.583	0.00	0.63	6.408	O	|	|	|	|	1.76
118.667	0.00	0.63	6.404	O	|	|	|	|	1.76
118.750	0.00	0.63	6.399	O	|	|	|	|	1.76
118.833	0.00	0.63	6.395	O	|	|	|	|	1.76
118.917	0.00	0.63	6.391	O	|	|	|	|	1.76
119.000	0.00	0.63	6.386	O	|	|	|	|	1.75
119.083	0.00	0.63	6.382	O	|	|	|	|	1.75
119.167	0.00	0.63	6.378	O	|	|	|	|	1.75
119.250	0.00	0.63	6.373	O	|	|	|	|	1.75
119.333	0.00	0.63	6.369	O	|	|	|	|	1.75
119.417	0.00	0.63	6.365	O	|	|	|	|	1.75
119.500	0.00	0.63	6.360	O	|	|	|	|	1.75
119.583	0.00	0.63	6.356	O	|	|	|	|	1.75
119.667	0.00	0.63	6.352	O	|	|	|	|	1.74

119.750	0.00	0.62	6.347	O	|	|	|	|	1.74
119.833	0.00	0.62	6.343	O	|	|	|	|	1.74
119.917	0.00	0.62	6.339	O	|	|	|	|	1.74
120.000	0.00	0.62	6.334	O	|	|	|	|	1.74
120.083	0.00	0.62	6.330	O	|	|	|	|	1.74
120.167	0.00	0.62	6.326	O	|	|	|	|	1.74
120.250	0.00	0.62	6.322	O	|	|	|	|	1.74
120.333	0.00	0.62	6.317	O	|	|	|	|	1.74
120.417	0.00	0.62	6.313	O	|	|	|	|	1.73
120.500	0.00	0.62	6.309	O	|	|	|	|	1.73
120.583	0.00	0.62	6.304	O	|	|	|	|	1.73
120.667	0.00	0.62	6.300	O	|	|	|	|	1.73
120.750	0.00	0.62	6.296	O	|	|	|	|	1.73
120.833	0.00	0.62	6.292	O	|	|	|	|	1.73
120.917	0.00	0.62	6.287	O	|	|	|	|	1.73
121.000	0.00	0.62	6.283	O	|	|	|	|	1.73
121.083	0.00	0.62	6.279	O	|	|	|	|	1.72
121.167	0.00	0.62	6.275	O	|	|	|	|	1.72
121.250	0.00	0.62	6.270	O	|	|	|	|	1.72
121.333	0.00	0.62	6.266	O	|	|	|	|	1.72
121.417	0.00	0.62	6.262	O	|	|	|	|	1.72
121.500	0.00	0.61	6.258	O	|	|	|	|	1.72
121.583	0.00	0.61	6.253	O	|	|	|	|	1.72
121.667	0.00	0.61	6.249	O	|	|	|	|	1.72
121.750	0.00	0.61	6.245	O	|	|	|	|	1.71
121.833	0.00	0.61	6.241	O	|	|	|	|	1.71
121.917	0.00	0.61	6.237	O	|	|	|	|	1.71
122.000	0.00	0.61	6.232	O	|	|	|	|	1.71
122.083	0.00	0.61	6.228	O	|	|	|	|	1.71
122.167	0.00	0.61	6.224	O	|	|	|	|	1.71
122.250	0.00	0.61	6.220	O	|	|	|	|	1.71
122.333	0.00	0.61	6.216	O	|	|	|	|	1.71
122.417	0.00	0.61	6.211	O	|	|	|	|	1.71
122.500	0.00	0.61	6.207	O	|	|	|	|	1.70
122.583	0.00	0.61	6.203	O	|	|	|	|	1.70
122.667	0.00	0.61	6.199	O	|	|	|	|	1.70
122.750	0.00	0.61	6.195	O	|	|	|	|	1.70
122.833	0.00	0.61	6.190	O	|	|	|	|	1.70
122.917	0.00	0.61	6.186	O	|	|	|	|	1.70
123.000	0.00	0.61	6.182	O	|	|	|	|	1.70
123.083	0.00	0.61	6.178	O	|	|	|	|	1.70
123.167	0.00	0.60	6.174	O	|	|	|	|	1.69
123.250	0.00	0.60	6.170	O	|	|	|	|	1.69
123.333	0.00	0.60	6.165	O	|	|	|	|	1.69
123.417	0.00	0.60	6.161	O	|	|	|	|	1.69
123.500	0.00	0.60	6.157	O	|	|	|	|	1.69
123.583	0.00	0.60	6.153	O	|	|	|	|	1.69
123.667	0.00	0.60	6.149	O	|	|	|	|	1.69
123.750	0.00	0.60	6.145	O	|	|	|	|	1.69
123.833	0.00	0.60	6.141	O	|	|	|	|	1.69
123.917	0.00	0.60	6.136	O	|	|	|	|	1.68
124.000	0.00	0.60	6.132	O	|	|	|	|	1.68
124.083	0.00	0.60	6.128	O	|	|	|	|	1.68
124.167	0.00	0.60	6.124	O	|	|	|	|	1.68
124.250	0.00	0.60	6.120	O	|	|	|	|	1.68
124.333	0.00	0.60	6.116	O	|	|	|	|	1.68
124.417	0.00	0.60	6.112	O	|	|	|	|	1.68
124.500	0.00	0.60	6.107	O	|	|	|	|	1.68
124.583	0.00	0.60	6.103	O	|	|	|	|	1.68
124.667	0.00	0.60	6.099	O	|	|	|	|	1.67
124.750	0.00	0.60	6.095	O	|	|	|	|	1.67
124.833	0.00	0.60	6.091	O	|	|	|	|	1.67
124.917	0.00	0.59	6.087	O	|	|	|	|	1.67

125.000	0.00	0.59	6.083	O	|	|	|	|	1.67
125.083	0.00	0.59	6.079	O	|	|	|	|	1.67
125.167	0.00	0.59	6.075	O	|	|	|	|	1.67
125.250	0.00	0.59	6.071	O	|	|	|	|	1.67
125.333	0.00	0.59	6.067	O	|	|	|	|	1.66
125.417	0.00	0.59	6.062	O	|	|	|	|	1.66
125.500	0.00	0.59	6.058	O	|	|	|	|	1.66
125.583	0.00	0.59	6.054	O	|	|	|	|	1.66
125.667	0.00	0.59	6.050	O	|	|	|	|	1.66
125.750	0.00	0.59	6.046	O	|	|	|	|	1.66
125.833	0.00	0.59	6.042	O	|	|	|	|	1.66
125.917	0.00	0.59	6.038	O	|	|	|	|	1.66
126.000	0.00	0.59	6.034	O	|	|	|	|	1.66
126.083	0.00	0.59	6.030	O	|	|	|	|	1.65
126.167	0.00	0.59	6.026	O	|	|	|	|	1.65
126.250	0.00	0.59	6.022	O	|	|	|	|	1.65
126.333	0.00	0.59	6.018	O	|	|	|	|	1.65
126.417	0.00	0.59	6.014	O	|	|	|	|	1.65
126.500	0.00	0.59	6.010	O	|	|	|	|	1.65
126.583	0.00	0.59	6.006	O	|	|	|	|	1.65
126.667	0.00	0.59	6.002	O	|	|	|	|	1.65
126.750	0.00	0.58	5.998	O	|	|	|	|	1.65
126.833	0.00	0.58	5.994	O	|	|	|	|	1.64
126.917	0.00	0.58	5.990	O	|	|	|	|	1.64
127.000	0.00	0.58	5.986	O	|	|	|	|	1.64
127.083	0.00	0.58	5.982	O	|	|	|	|	1.64
127.167	0.00	0.58	5.978	O	|	|	|	|	1.64
127.250	0.00	0.58	5.974	O	|	|	|	|	1.64
127.333	0.00	0.58	5.970	O	|	|	|	|	1.64
127.417	0.00	0.58	5.966	O	|	|	|	|	1.64
127.500	0.00	0.58	5.962	O	|	|	|	|	1.64
127.583	0.00	0.58	5.958	O	|	|	|	|	1.63
127.667	0.00	0.58	5.954	O	|	|	|	|	1.63
127.750	0.00	0.58	5.950	O	|	|	|	|	1.63
127.833	0.00	0.58	5.946	O	|	|	|	|	1.63
127.917	0.00	0.58	5.942	O	|	|	|	|	1.63
128.000	0.00	0.58	5.938	O	|	|	|	|	1.63
128.083	0.00	0.58	5.934	O	|	|	|	|	1.63
128.167	0.00	0.58	5.930	O	|	|	|	|	1.63
128.250	0.00	0.58	5.926	O	|	|	|	|	1.63
128.333	0.00	0.58	5.922	O	|	|	|	|	1.62
128.417	0.00	0.58	5.918	O	|	|	|	|	1.62
128.500	0.00	0.57	5.914	O	|	|	|	|	1.62
128.583	0.00	0.57	5.910	O	|	|	|	|	1.62
128.667	0.00	0.57	5.906	O	|	|	|	|	1.62
128.750	0.00	0.57	5.902	O	|	|	|	|	1.62
128.833	0.00	0.57	5.898	O	|	|	|	|	1.62
128.917	0.00	0.57	5.894	O	|	|	|	|	1.62
129.000	0.00	0.57	5.890	O	|	|	|	|	1.62
129.083	0.00	0.57	5.886	O	|	|	|	|	1.61
129.167	0.00	0.57	5.882	O	|	|	|	|	1.61
129.250	0.00	0.57	5.878	O	|	|	|	|	1.61
129.333	0.00	0.57	5.874	O	|	|	|	|	1.61
129.417	0.00	0.57	5.870	O	|	|	|	|	1.61
129.500	0.00	0.57	5.866	O	|	|	|	|	1.61
129.583	0.00	0.57	5.863	O	|	|	|	|	1.61
129.667	0.00	0.57	5.859	O	|	|	|	|	1.61
129.750	0.00	0.57	5.855	O	|	|	|	|	1.61
129.833	0.00	0.57	5.851	O	|	|	|	|	1.60
129.917	0.00	0.57	5.847	O	|	|	|	|	1.60
130.000	0.00	0.57	5.843	O	|	|	|	|	1.60
130.083	0.00	0.57	5.839	O	|	|	|	|	1.60
130.167	0.00	0.57	5.835	O	|	|	|	|	1.60

130.250	0.00	0.57	5.831	O	|	|	|	|	1.60
130.333	0.00	0.57	5.827	O	|	|	|	|	1.60
130.417	0.00	0.56	5.824	O	|	|	|	|	1.60
130.500	0.00	0.56	5.820	O	|	|	|	|	1.60
130.583	0.00	0.56	5.816	O	|	|	|	|	1.59
130.667	0.00	0.56	5.812	O	|	|	|	|	1.59
130.750	0.00	0.56	5.808	O	|	|	|	|	1.59
130.833	0.00	0.56	5.804	O	|	|	|	|	1.59
130.917	0.00	0.56	5.800	O	|	|	|	|	1.59
131.000	0.00	0.56	5.796	O	|	|	|	|	1.59
131.083	0.00	0.56	5.793	O	|	|	|	|	1.59
131.167	0.00	0.56	5.789	O	|	|	|	|	1.59
131.250	0.00	0.56	5.785	O	|	|	|	|	1.59
131.333	0.00	0.56	5.781	O	|	|	|	|	1.58
131.417	0.00	0.56	5.777	O	|	|	|	|	1.58
131.500	0.00	0.56	5.773	O	|	|	|	|	1.58
131.583	0.00	0.56	5.769	O	|	|	|	|	1.58
131.667	0.00	0.56	5.766	O	|	|	|	|	1.58
131.750	0.00	0.56	5.762	O	|	|	|	|	1.58
131.833	0.00	0.56	5.758	O	|	|	|	|	1.58
131.917	0.00	0.56	5.754	O	|	|	|	|	1.58
132.000	0.00	0.56	5.750	O	|	|	|	|	1.58
132.083	0.00	0.56	5.746	O	|	|	|	|	1.57
132.167	0.00	0.56	5.743	O	|	|	|	|	1.57
132.250	0.00	0.55	5.739	O	|	|	|	|	1.57
132.333	0.00	0.55	5.735	O	|	|	|	|	1.57
132.417	0.00	0.55	5.731	O	|	|	|	|	1.57
132.500	0.00	0.55	5.727	O	|	|	|	|	1.57
132.583	0.00	0.55	5.723	O	|	|	|	|	1.57
132.667	0.00	0.55	5.720	O	|	|	|	|	1.57
132.750	0.00	0.55	5.716	O	|	|	|	|	1.57
132.833	0.00	0.55	5.712	O	|	|	|	|	1.57
132.917	0.00	0.55	5.708	O	|	|	|	|	1.56
133.000	0.00	0.55	5.704	O	|	|	|	|	1.56
133.083	0.00	0.55	5.701	O	|	|	|	|	1.56
133.167	0.00	0.55	5.697	O	|	|	|	|	1.56
133.250	0.00	0.55	5.693	O	|	|	|	|	1.56
133.333	0.00	0.55	5.689	O	|	|	|	|	1.56
133.417	0.00	0.55	5.686	O	|	|	|	|	1.56
133.500	0.00	0.55	5.682	O	|	|	|	|	1.56
133.583	0.00	0.55	5.678	O	|	|	|	|	1.56
133.667	0.00	0.55	5.674	O	|	|	|	|	1.55
133.750	0.00	0.55	5.670	O	|	|	|	|	1.55
133.833	0.00	0.55	5.667	O	|	|	|	|	1.55
133.917	0.00	0.55	5.663	O	|	|	|	|	1.55
134.000	0.00	0.55	5.659	O	|	|	|	|	1.55
134.083	0.00	0.55	5.655	O	|	|	|	|	1.55
134.167	0.00	0.54	5.652	O	|	|	|	|	1.55
134.250	0.00	0.54	5.648	O	|	|	|	|	1.55
134.333	0.00	0.54	5.644	O	|	|	|	|	1.55
134.417	0.00	0.54	5.640	O	|	|	|	|	1.55
134.500	0.00	0.54	5.637	O	|	|	|	|	1.54
134.583	0.00	0.54	5.633	O	|	|	|	|	1.54
134.667	0.00	0.54	5.629	O	|	|	|	|	1.54
134.750	0.00	0.54	5.625	O	|	|	|	|	1.54
134.833	0.00	0.54	5.622	O	|	|	|	|	1.54
134.917	0.00	0.54	5.618	O	|	|	|	|	1.54
135.000	0.00	0.54	5.614	O	|	|	|	|	1.54
135.083	0.00	0.54	5.611	O	|	|	|	|	1.54
135.167	0.00	0.54	5.607	O	|	|	|	|	1.54
135.250	0.00	0.54	5.603	O	|	|	|	|	1.53
135.333	0.00	0.54	5.599	O	|	|	|	|	1.53
135.417	0.00	0.54	5.596	O	|	|	|	|	1.53

135.500	0.00	0.54	5.592	O	|	|	|	|	1.53
135.583	0.00	0.54	5.588	O	|	|	|	|	1.53
135.667	0.00	0.54	5.585	O	|	|	|	|	1.53
135.750	0.00	0.54	5.581	O	|	|	|	|	1.53
135.833	0.00	0.54	5.577	O	|	|	|	|	1.53
135.917	0.00	0.54	5.573	O	|	|	|	|	1.53
136.000	0.00	0.54	5.570	O	|	|	|	|	1.53
136.083	0.00	0.53	5.566	O	|	|	|	|	1.52
136.167	0.00	0.53	5.562	O	|	|	|	|	1.52
136.250	0.00	0.53	5.559	O	|	|	|	|	1.52
136.333	0.00	0.53	5.555	O	|	|	|	|	1.52
136.417	0.00	0.53	5.551	O	|	|	|	|	1.52
136.500	0.00	0.53	5.548	O	|	|	|	|	1.52
136.583	0.00	0.53	5.544	O	|	|	|	|	1.52
136.667	0.00	0.53	5.540	O	|	|	|	|	1.52
136.750	0.00	0.53	5.537	O	|	|	|	|	1.52
136.833	0.00	0.53	5.533	O	|	|	|	|	1.51
136.917	0.00	0.53	5.529	O	|	|	|	|	1.51
137.000	0.00	0.53	5.526	O	|	|	|	|	1.51
137.083	0.00	0.53	5.522	O	|	|	|	|	1.51
137.167	0.00	0.53	5.518	O	|	|	|	|	1.51
137.250	0.00	0.53	5.515	O	|	|	|	|	1.51
137.333	0.00	0.53	5.511	O	|	|	|	|	1.51
137.417	0.00	0.53	5.508	O	|	|	|	|	1.51
137.500	0.00	0.53	5.504	O	|	|	|	|	1.51
137.583	0.00	0.53	5.500	O	|	|	|	|	1.51
137.667	0.00	0.53	5.497	O	|	|	|	|	1.50
137.750	0.00	0.53	5.493	O	|	|	|	|	1.50
137.833	0.00	0.53	5.489	O	|	|	|	|	1.50
137.917	0.00	0.53	5.486	O	|	|	|	|	1.50
138.000	0.00	0.53	5.482	O	|	|	|	|	1.50
138.083	0.00	0.52	5.479	O	|	|	|	|	1.50
138.167	0.00	0.52	5.475	O	|	|	|	|	1.50
138.250	0.00	0.52	5.471	O	|	|	|	|	1.50
138.333	0.00	0.52	5.468	O	|	|	|	|	1.50
138.417	0.00	0.52	5.464	O	|	|	|	|	1.50
138.500	0.00	0.52	5.461	O	|	|	|	|	1.49
138.583	0.00	0.52	5.457	O	|	|	|	|	1.49
138.667	0.00	0.52	5.453	O	|	|	|	|	1.49
138.750	0.00	0.52	5.450	O	|	|	|	|	1.49
138.833	0.00	0.52	5.446	O	|	|	|	|	1.49
138.917	0.00	0.52	5.443	O	|	|	|	|	1.49
139.000	0.00	0.52	5.439	O	|	|	|	|	1.49
139.083	0.00	0.52	5.435	O	|	|	|	|	1.49
139.167	0.00	0.52	5.432	O	|	|	|	|	1.49
139.250	0.00	0.52	5.428	O	|	|	|	|	1.49
139.333	0.00	0.52	5.425	O	|	|	|	|	1.48
139.417	0.00	0.52	5.421	O	|	|	|	|	1.48
139.500	0.00	0.52	5.418	O	|	|	|	|	1.48
139.583	0.00	0.52	5.414	O	|	|	|	|	1.48
139.667	0.00	0.52	5.410	O	|	|	|	|	1.48
139.750	0.00	0.52	5.407	O	|	|	|	|	1.48
139.833	0.00	0.52	5.403	O	|	|	|	|	1.48
139.917	0.00	0.52	5.400	O	|	|	|	|	1.48
140.000	0.00	0.52	5.396	O	|	|	|	|	1.48
140.083	0.00	0.51	5.393	O	|	|	|	|	1.48
140.167	0.00	0.51	5.389	O	|	|	|	|	1.47
140.250	0.00	0.51	5.386	O	|	|	|	|	1.47
140.333	0.00	0.51	5.382	O	|	|	|	|	1.47
140.417	0.00	0.51	5.378	O	|	|	|	|	1.47
140.500	0.00	0.51	5.375	O	|	|	|	|	1.47
140.583	0.00	0.51	5.371	O	|	|	|	|	1.47
140.667	0.00	0.51	5.368	O	|	|	|	|	1.47

140.750	0.00	0.51	5.364	O	|	|	|	|	1.47
140.833	0.00	0.51	5.361	O	|	|	|	|	1.47
140.917	0.00	0.51	5.357	O	|	|	|	|	1.47
141.000	0.00	0.51	5.354	O	|	|	|	|	1.46
141.083	0.00	0.51	5.350	O	|	|	|	|	1.46
141.167	0.00	0.51	5.347	O	|	|	|	|	1.46
141.250	0.00	0.51	5.343	O	|	|	|	|	1.46
141.333	0.00	0.51	5.340	O	|	|	|	|	1.46
141.417	0.00	0.51	5.336	O	|	|	|	|	1.46
141.500	0.00	0.51	5.333	O	|	|	|	|	1.46
141.583	0.00	0.51	5.329	O	|	|	|	|	1.46
141.667	0.00	0.51	5.326	O	|	|	|	|	1.46
141.750	0.00	0.51	5.322	O	|	|	|	|	1.46
141.833	0.00	0.51	5.319	O	|	|	|	|	1.45
141.917	0.00	0.51	5.315	O	|	|	|	|	1.45
142.000	0.00	0.51	5.312	O	|	|	|	|	1.45
142.083	0.00	0.51	5.308	O	|	|	|	|	1.45
142.167	0.00	0.50	5.305	O	|	|	|	|	1.45
142.250	0.00	0.50	5.301	O	|	|	|	|	1.45
142.333	0.00	0.50	5.298	O	|	|	|	|	1.45
142.417	0.00	0.50	5.294	O	|	|	|	|	1.45
142.500	0.00	0.50	5.291	O	|	|	|	|	1.45
142.583	0.00	0.50	5.287	O	|	|	|	|	1.45
142.667	0.00	0.50	5.284	O	|	|	|	|	1.44
142.750	0.00	0.50	5.281	O	|	|	|	|	1.44
142.833	0.00	0.50	5.277	O	|	|	|	|	1.44
142.917	0.00	0.50	5.274	O	|	|	|	|	1.44
143.000	0.00	0.50	5.270	O	|	|	|	|	1.44
143.083	0.00	0.50	5.267	O	|	|	|	|	1.44
143.167	0.00	0.50	5.263	O	|	|	|	|	1.44
143.250	0.00	0.50	5.260	O	|	|	|	|	1.44
143.333	0.00	0.50	5.256	O	|	|	|	|	1.44
143.417	0.00	0.50	5.253	O	|	|	|	|	1.44
143.500	0.00	0.50	5.250	O	|	|	|	|	1.44
143.583	0.00	0.50	5.246	O	|	|	|	|	1.43
143.667	0.00	0.50	5.243	O	|	|	|	|	1.43
143.750	0.00	0.50	5.239	O	|	|	|	|	1.43
143.833	0.00	0.50	5.236	O	|	|	|	|	1.43
143.917	0.00	0.50	5.232	O	|	|	|	|	1.43
144.000	0.00	0.50	5.229	O	|	|	|	|	1.43
144.083	0.00	0.50	5.226	O	|	|	|	|	1.43
144.167	0.00	0.50	5.222	O	|	|	|	|	1.43
144.250	0.00	0.49	5.219	O	|	|	|	|	1.43
144.333	0.00	0.49	5.215	O	|	|	|	|	1.43
144.417	0.00	0.49	5.212	O	|	|	|	|	1.42
144.500	0.00	0.49	5.209	O	|	|	|	|	1.42
144.583	0.00	0.49	5.205	O	|	|	|	|	1.42
144.667	0.00	0.49	5.202	O	|	|	|	|	1.42
144.750	0.00	0.49	5.198	O	|	|	|	|	1.42
144.833	0.00	0.49	5.195	O	|	|	|	|	1.42
144.917	0.00	0.49	5.192	O	|	|	|	|	1.42
145.000	0.00	0.49	5.188	O	|	|	|	|	1.42
145.083	0.00	0.49	5.185	O	|	|	|	|	1.42
145.167	0.00	0.49	5.181	O	|	|	|	|	1.42
145.250	0.00	0.49	5.178	O	|	|	|	|	1.42
145.333	0.00	0.49	5.175	O	|	|	|	|	1.41
145.417	0.00	0.49	5.171	O	|	|	|	|	1.41
145.500	0.00	0.49	5.168	O	|	|	|	|	1.41
145.583	0.00	0.49	5.165	O	|	|	|	|	1.41
145.667	0.00	0.49	5.161	O	|	|	|	|	1.41
145.750	0.00	0.49	5.158	O	|	|	|	|	1.41
145.833	0.00	0.49	5.154	O	|	|	|	|	1.41
145.917	0.00	0.49	5.151	O	|	|	|	|	1.41

146.000	0.00	0.49	5.148	O	|	|	|	|	1.41
146.083	0.00	0.49	5.144	O	|	|	|	|	1.41
146.167	0.00	0.49	5.141	O	|	|	|	|	1.40
146.250	0.00	0.49	5.138	O	|	|	|	|	1.40
146.333	0.00	0.49	5.134	O	|	|	|	|	1.40
146.417	0.00	0.48	5.131	O	|	|	|	|	1.40
146.500	0.00	0.48	5.128	O	|	|	|	|	1.40
146.583	0.00	0.48	5.124	O	|	|	|	|	1.40
146.667	0.00	0.48	5.121	O	|	|	|	|	1.40
146.750	0.00	0.48	5.118	O	|	|	|	|	1.40
146.833	0.00	0.48	5.114	O	|	|	|	|	1.40
146.917	0.00	0.48	5.111	O	|	|	|	|	1.40
147.000	0.00	0.48	5.108	O	|	|	|	|	1.40
147.083	0.00	0.48	5.104	O	|	|	|	|	1.39
147.167	0.00	0.48	5.101	O	|	|	|	|	1.39
147.250	0.00	0.48	5.098	O	|	|	|	|	1.39
147.333	0.00	0.48	5.094	O	|	|	|	|	1.39
147.417	0.00	0.48	5.091	O	|	|	|	|	1.39
147.500	0.00	0.48	5.088	O	|	|	|	|	1.39
147.583	0.00	0.48	5.085	O	|	|	|	|	1.39
147.667	0.00	0.48	5.081	O	|	|	|	|	1.39
147.750	0.00	0.48	5.078	O	|	|	|	|	1.39
147.833	0.00	0.48	5.075	O	|	|	|	|	1.39
147.917	0.00	0.48	5.071	O	|	|	|	|	1.39
148.000	0.00	0.48	5.068	O	|	|	|	|	1.38
148.083	0.00	0.48	5.065	O	|	|	|	|	1.38
148.167	0.00	0.48	5.062	O	|	|	|	|	1.38
148.250	0.00	0.48	5.058	O	|	|	|	|	1.38
148.333	0.00	0.48	5.055	O	|	|	|	|	1.38
148.417	0.00	0.48	5.052	O	|	|	|	|	1.38
148.500	0.00	0.48	5.048	O	|	|	|	|	1.38
148.583	0.00	0.47	5.045	O	|	|	|	|	1.38
148.667	0.00	0.47	5.042	O	|	|	|	|	1.38
148.750	0.00	0.47	5.039	O	|	|	|	|	1.38
148.833	0.00	0.47	5.035	O	|	|	|	|	1.38
148.917	0.00	0.47	5.032	O	|	|	|	|	1.37
149.000	0.00	0.47	5.029	O	|	|	|	|	1.37
149.083	0.00	0.47	5.026	O	|	|	|	|	1.37
149.167	0.00	0.47	5.022	O	|	|	|	|	1.37
149.250	0.00	0.47	5.019	O	|	|	|	|	1.37
149.333	0.00	0.47	5.016	O	|	|	|	|	1.37
149.417	0.00	0.47	5.013	O	|	|	|	|	1.37
149.500	0.00	0.47	5.009	O	|	|	|	|	1.37
149.583	0.00	0.47	5.006	O	|	|	|	|	1.37
149.667	0.00	0.47	5.003	O	|	|	|	|	1.37
149.750	0.00	0.47	5.000	O	|	|	|	|	1.37
149.833	0.00	0.47	4.996	O	|	|	|	|	1.36
149.917	0.00	0.47	4.993	O	|	|	|	|	1.36
150.000	0.00	0.47	4.990	O	|	|	|	|	1.36
150.083	0.00	0.47	4.987	O	|	|	|	|	1.36
150.167	0.00	0.47	4.983	O	|	|	|	|	1.36
150.250	0.00	0.47	4.980	O	|	|	|	|	1.36
150.333	0.00	0.47	4.977	O	|	|	|	|	1.36
150.417	0.00	0.47	4.974	O	|	|	|	|	1.36
150.500	0.00	0.47	4.971	O	|	|	|	|	1.36
150.583	0.00	0.47	4.967	O	|	|	|	|	1.36
150.667	0.00	0.47	4.964	O	|	|	|	|	1.36
150.750	0.00	0.47	4.961	O	|	|	|	|	1.35
150.833	0.00	0.46	4.958	O	|	|	|	|	1.35
150.917	0.00	0.46	4.955	O	|	|	|	|	1.35
151.000	0.00	0.46	4.951	O	|	|	|	|	1.35
151.083	0.00	0.46	4.948	O	|	|	|	|	1.35
151.167	0.00	0.46	4.945	O	|	|	|	|	1.35

151.250	0.00	0.46	4.942	O	|	|	|	|	1.35
151.333	0.00	0.46	4.939	O	|	|	|	|	1.35
151.417	0.00	0.46	4.935	O	|	|	|	|	1.35
151.500	0.00	0.46	4.932	O	|	|	|	|	1.35
151.583	0.00	0.46	4.929	O	|	|	|	|	1.35
151.667	0.00	0.46	4.926	O	|	|	|	|	1.34
151.750	0.00	0.46	4.923	O	|	|	|	|	1.34
151.833	0.00	0.46	4.920	O	|	|	|	|	1.34
151.917	0.00	0.46	4.916	O	|	|	|	|	1.34
152.000	0.00	0.46	4.913	O	|	|	|	|	1.34
152.083	0.00	0.46	4.910	O	|	|	|	|	1.34
152.167	0.00	0.46	4.907	O	|	|	|	|	1.34
152.250	0.00	0.46	4.904	O	|	|	|	|	1.34
152.333	0.00	0.46	4.901	O	|	|	|	|	1.34
152.417	0.00	0.46	4.897	O	|	|	|	|	1.34
152.500	0.00	0.46	4.894	O	|	|	|	|	1.34
152.583	0.00	0.46	4.891	O	|	|	|	|	1.33
152.667	0.00	0.46	4.888	O	|	|	|	|	1.33
152.750	0.00	0.46	4.885	O	|	|	|	|	1.33
152.833	0.00	0.46	4.882	O	|	|	|	|	1.33
152.917	0.00	0.46	4.879	O	|	|	|	|	1.33
153.000	0.00	0.46	4.875	O	|	|	|	|	1.33
153.083	0.00	0.46	4.872	O	|	|	|	|	1.33
153.167	0.00	0.45	4.869	O	|	|	|	|	1.33
153.250	0.00	0.45	4.866	O	|	|	|	|	1.33
153.333	0.00	0.45	4.863	O	|	|	|	|	1.33
153.417	0.00	0.45	4.860	O	|	|	|	|	1.33
153.500	0.00	0.45	4.857	O	|	|	|	|	1.32
153.583	0.00	0.45	4.853	O	|	|	|	|	1.32
153.667	0.00	0.45	4.850	O	|	|	|	|	1.32
153.750	0.00	0.45	4.847	O	|	|	|	|	1.32
153.833	0.00	0.45	4.844	O	|	|	|	|	1.32
153.917	0.00	0.45	4.841	O	|	|	|	|	1.32
154.000	0.00	0.45	4.838	O	|	|	|	|	1.32
154.083	0.00	0.45	4.835	O	|	|	|	|	1.32
154.167	0.00	0.45	4.832	O	|	|	|	|	1.32
154.250	0.00	0.45	4.829	O	|	|	|	|	1.32
154.333	0.00	0.45	4.826	O	|	|	|	|	1.32
154.417	0.00	0.45	4.822	O	|	|	|	|	1.32
154.500	0.00	0.45	4.819	O	|	|	|	|	1.31
154.583	0.00	0.45	4.816	O	|	|	|	|	1.31
154.667	0.00	0.45	4.813	O	|	|	|	|	1.31
154.750	0.00	0.45	4.810	O	|	|	|	|	1.31
154.833	0.00	0.45	4.807	O	|	|	|	|	1.31
154.917	0.00	0.45	4.804	O	|	|	|	|	1.31
155.000	0.00	0.45	4.801	O	|	|	|	|	1.31
155.083	0.00	0.45	4.798	O	|	|	|	|	1.31
155.167	0.00	0.45	4.795	O	|	|	|	|	1.31
155.250	0.00	0.45	4.792	O	|	|	|	|	1.31
155.333	0.00	0.45	4.789	O	|	|	|	|	1.31
155.417	0.00	0.45	4.785	O	|	|	|	|	1.30
155.500	0.00	0.44	4.782	O	|	|	|	|	1.30
155.583	0.00	0.44	4.779	O	|	|	|	|	1.30
155.667	0.00	0.44	4.776	O	|	|	|	|	1.30
155.750	0.00	0.44	4.773	O	|	|	|	|	1.30
155.833	0.00	0.44	4.770	O	|	|	|	|	1.30
155.917	0.00	0.44	4.767	O	|	|	|	|	1.30
156.000	0.00	0.44	4.764	O	|	|	|	|	1.30
156.083	0.00	0.44	4.761	O	|	|	|	|	1.30
156.167	0.00	0.44	4.758	O	|	|	|	|	1.30
156.250	0.00	0.44	4.755	O	|	|	|	|	1.30
156.333	0.00	0.44	4.752	O	|	|	|	|	1.30
156.417	0.00	0.44	4.749	O	|	|	|	|	1.29

156.500	0.00	0.44	4.746	O	|	|	|	|	1.29
156.583	0.00	0.44	4.743	O	|	|	|	|	1.29
156.667	0.00	0.44	4.740	O	|	|	|	|	1.29
156.750	0.00	0.44	4.737	O	|	|	|	|	1.29
156.833	0.00	0.44	4.734	O	|	|	|	|	1.29
156.917	0.00	0.44	4.731	O	|	|	|	|	1.29
157.000	0.00	0.44	4.728	O	|	|	|	|	1.29
157.083	0.00	0.44	4.725	O	|	|	|	|	1.29
157.167	0.00	0.44	4.722	O	|	|	|	|	1.29
157.250	0.00	0.44	4.719	O	|	|	|	|	1.29
157.333	0.00	0.44	4.716	O	|	|	|	|	1.29
157.417	0.00	0.44	4.713	O	|	|	|	|	1.28
157.500	0.00	0.44	4.710	O	|	|	|	|	1.28
157.583	0.00	0.44	4.707	O	|	|	|	|	1.28
157.667	0.00	0.44	4.704	O	|	|	|	|	1.28
157.750	0.00	0.44	4.701	O	|	|	|	|	1.28
157.833	0.00	0.43	4.698	O	|	|	|	|	1.28
157.917	0.00	0.43	4.695	O	|	|	|	|	1.28
158.000	0.00	0.43	4.692	O	|	|	|	|	1.28
158.083	0.00	0.43	4.689	O	|	|	|	|	1.28
158.167	0.00	0.43	4.686	O	|	|	|	|	1.28
158.250	0.00	0.43	4.683	O	|	|	|	|	1.28
158.333	0.00	0.43	4.680	O	|	|	|	|	1.28
158.417	0.00	0.43	4.677	O	|	|	|	|	1.27
158.500	0.00	0.43	4.674	O	|	|	|	|	1.27
158.583	0.00	0.43	4.671	O	|	|	|	|	1.27
158.667	0.00	0.43	4.668	O	|	|	|	|	1.27
158.750	0.00	0.43	4.665	O	|	|	|	|	1.27
158.833	0.00	0.43	4.662	O	|	|	|	|	1.27
158.917	0.00	0.43	4.659	O	|	|	|	|	1.27
159.000	0.00	0.43	4.656	O	|	|	|	|	1.27
159.083	0.00	0.43	4.653	O	|	|	|	|	1.27
159.167	0.00	0.43	4.650	O	|	|	|	|	1.27
159.250	0.00	0.43	4.647	O	|	|	|	|	1.27
159.333	0.00	0.43	4.644	O	|	|	|	|	1.27
159.417	0.00	0.43	4.641	O	|	|	|	|	1.26
159.500	0.00	0.43	4.638	O	|	|	|	|	1.26
159.583	0.00	0.43	4.635	O	|	|	|	|	1.26
159.667	0.00	0.43	4.632	O	|	|	|	|	1.26
159.750	0.00	0.43	4.629	O	|	|	|	|	1.26
159.833	0.00	0.43	4.626	O	|	|	|	|	1.26
159.917	0.00	0.43	4.623	O	|	|	|	|	1.26
160.000	0.00	0.43	4.621	O	|	|	|	|	1.26
160.083	0.00	0.43	4.618	O	|	|	|	|	1.26
160.167	0.00	0.43	4.615	O	|	|	|	|	1.26
160.250	0.00	0.43	4.612	O	|	|	|	|	1.26
160.333	0.00	0.42	4.609	O	|	|	|	|	1.26
160.417	0.00	0.42	4.606	O	|	|	|	|	1.25
160.500	0.00	0.42	4.603	O	|	|	|	|	1.25
160.583	0.00	0.42	4.600	O	|	|	|	|	1.25
160.667	0.00	0.42	4.597	O	|	|	|	|	1.25
160.750	0.00	0.42	4.594	O	|	|	|	|	1.25
160.833	0.00	0.42	4.591	O	|	|	|	|	1.25
160.917	0.00	0.42	4.588	O	|	|	|	|	1.25
161.000	0.00	0.42	4.585	O	|	|	|	|	1.25
161.083	0.00	0.42	4.583	O	|	|	|	|	1.25
161.167	0.00	0.42	4.580	O	|	|	|	|	1.25
161.250	0.00	0.42	4.577	O	|	|	|	|	1.25
161.333	0.00	0.42	4.574	O	|	|	|	|	1.25
161.417	0.00	0.42	4.571	O	|	|	|	|	1.24
161.500	0.00	0.42	4.568	O	|	|	|	|	1.24
161.583	0.00	0.42	4.565	O	|	|	|	|	1.24
161.667	0.00	0.42	4.562	O	|	|	|	|	1.24

161.750	0.00	0.42	4.559	O	|	|	|	|	1.24
161.833	0.00	0.42	4.557	O	|	|	|	|	1.24
161.917	0.00	0.42	4.554	O	|	|	|	|	1.24
162.000	0.00	0.42	4.551	O	|	|	|	|	1.24
162.083	0.00	0.42	4.548	O	|	|	|	|	1.24
162.167	0.00	0.42	4.545	O	|	|	|	|	1.24
162.250	0.00	0.42	4.542	O	|	|	|	|	1.24
162.333	0.00	0.42	4.539	O	|	|	|	|	1.24
162.417	0.00	0.42	4.536	O	|	|	|	|	1.23
162.500	0.00	0.42	4.534	O	|	|	|	|	1.23
162.583	0.00	0.42	4.531	O	|	|	|	|	1.23
162.667	0.00	0.42	4.528	O	|	|	|	|	1.23
162.750	0.00	0.42	4.525	O	|	|	|	|	1.23
162.833	0.00	0.41	4.522	O	|	|	|	|	1.23
162.917	0.00	0.41	4.519	O	|	|	|	|	1.23
163.000	0.00	0.41	4.516	O	|	|	|	|	1.23
163.083	0.00	0.41	4.514	O	|	|	|	|	1.23
163.167	0.00	0.41	4.511	O	|	|	|	|	1.23
163.250	0.00	0.41	4.508	O	|	|	|	|	1.23
163.333	0.00	0.41	4.505	O	|	|	|	|	1.23
163.417	0.00	0.41	4.502	O	|	|	|	|	1.23
163.500	0.00	0.41	4.499	O	|	|	|	|	1.22
163.583	0.00	0.41	4.496	O	|	|	|	|	1.22
163.667	0.00	0.41	4.494	O	|	|	|	|	1.22
163.750	0.00	0.41	4.491	O	|	|	|	|	1.22
163.833	0.00	0.41	4.488	O	|	|	|	|	1.22
163.917	0.00	0.41	4.485	O	|	|	|	|	1.22
164.000	0.00	0.41	4.482	O	|	|	|	|	1.22
164.083	0.00	0.41	4.480	O	|	|	|	|	1.22
164.167	0.00	0.41	4.477	O	|	|	|	|	1.22
164.250	0.00	0.41	4.474	O	|	|	|	|	1.22
164.333	0.00	0.41	4.471	O	|	|	|	|	1.22
164.417	0.00	0.41	4.468	O	|	|	|	|	1.22
164.500	0.00	0.41	4.465	O	|	|	|	|	1.22
164.583	0.00	0.41	4.463	O	|	|	|	|	1.21
164.667	0.00	0.41	4.460	O	|	|	|	|	1.21
164.750	0.00	0.41	4.457	O	|	|	|	|	1.21
164.833	0.00	0.41	4.454	O	|	|	|	|	1.21
164.917	0.00	0.41	4.451	O	|	|	|	|	1.21
165.000	0.00	0.41	4.449	O	|	|	|	|	1.21
165.083	0.00	0.41	4.446	O	|	|	|	|	1.21
165.167	0.00	0.41	4.443	O	|	|	|	|	1.21
165.250	0.00	0.41	4.440	O	|	|	|	|	1.21
165.333	0.00	0.40	4.437	O	|	|	|	|	1.21
165.417	0.00	0.40	4.435	O	|	|	|	|	1.21
165.500	0.00	0.40	4.432	O	|	|	|	|	1.21
165.583	0.00	0.40	4.429	O	|	|	|	|	1.20
165.667	0.00	0.40	4.426	O	|	|	|	|	1.20
165.750	0.00	0.40	4.424	O	|	|	|	|	1.20
165.833	0.00	0.40	4.421	O	|	|	|	|	1.20
165.917	0.00	0.40	4.418	O	|	|	|	|	1.20
166.000	0.00	0.40	4.415	O	|	|	|	|	1.20
166.083	0.00	0.40	4.412	O	|	|	|	|	1.20
166.167	0.00	0.40	4.410	O	|	|	|	|	1.20
166.250	0.00	0.40	4.407	O	|	|	|	|	1.20
166.333	0.00	0.40	4.404	O	|	|	|	|	1.20
166.417	0.00	0.40	4.401	O	|	|	|	|	1.20
166.500	0.00	0.40	4.399	O	|	|	|	|	1.20
166.583	0.00	0.40	4.396	O	|	|	|	|	1.20
166.667	0.00	0.40	4.393	O	|	|	|	|	1.19
166.750	0.00	0.40	4.390	O	|	|	|	|	1.19
166.833	0.00	0.40	4.388	O	|	|	|	|	1.19
166.917	0.00	0.40	4.385	O	|	|	|	|	1.19

167.000	0.00	0.40	4.382	O	|	|	|	|	1.19
167.083	0.00	0.40	4.379	O	|	|	|	|	1.19
167.167	0.00	0.40	4.377	O	|	|	|	|	1.19
167.250	0.00	0.40	4.374	O	|	|	|	|	1.19
167.333	0.00	0.40	4.371	O	|	|	|	|	1.19
167.417	0.00	0.40	4.368	O	|	|	|	|	1.19
167.500	0.00	0.40	4.366	O	|	|	|	|	1.19
167.583	0.00	0.40	4.363	O	|	|	|	|	1.19
167.667	0.00	0.40	4.360	O	|	|	|	|	1.19
167.750	0.00	0.40	4.357	O	|	|	|	|	1.18
167.833	0.00	0.40	4.355	O	|	|	|	|	1.18
167.917	0.00	0.40	4.352	O	|	|	|	|	1.18
168.000	0.00	0.39	4.349	O	|	|	|	|	1.18
168.083	0.00	0.39	4.347	O	|	|	|	|	1.18
168.167	0.00	0.39	4.344	O	|	|	|	|	1.18
168.250	0.00	0.39	4.341	O	|	|	|	|	1.18
168.333	0.00	0.39	4.338	O	|	|	|	|	1.18
168.417	0.00	0.39	4.336	O	|	|	|	|	1.18
168.500	0.00	0.39	4.333	O	|	|	|	|	1.18
168.583	0.00	0.39	4.330	O	|	|	|	|	1.18
168.667	0.00	0.39	4.328	O	|	|	|	|	1.18
168.750	0.00	0.39	4.325	O	|	|	|	|	1.18
168.833	0.00	0.39	4.322	O	|	|	|	|	1.17
168.917	0.00	0.39	4.320	O	|	|	|	|	1.17
169.000	0.00	0.39	4.317	O	|	|	|	|	1.17
169.083	0.00	0.39	4.314	O	|	|	|	|	1.17
169.167	0.00	0.39	4.311	O	|	|	|	|	1.17
169.250	0.00	0.39	4.309	O	|	|	|	|	1.17
169.333	0.00	0.39	4.306	O	|	|	|	|	1.17
169.417	0.00	0.39	4.303	O	|	|	|	|	1.17
169.500	0.00	0.39	4.301	O	|	|	|	|	1.17
169.583	0.00	0.39	4.298	O	|	|	|	|	1.17
169.667	0.00	0.39	4.295	O	|	|	|	|	1.17
169.750	0.00	0.39	4.293	O	|	|	|	|	1.17
169.833	0.00	0.39	4.290	O	|	|	|	|	1.17
169.917	0.00	0.39	4.287	O	|	|	|	|	1.16
170.000	0.00	0.39	4.285	O	|	|	|	|	1.16
170.083	0.00	0.39	4.282	O	|	|	|	|	1.16
170.167	0.00	0.39	4.279	O	|	|	|	|	1.16
170.250	0.00	0.39	4.277	O	|	|	|	|	1.16
170.333	0.00	0.39	4.274	O	|	|	|	|	1.16
170.417	0.00	0.39	4.271	O	|	|	|	|	1.16
170.500	0.00	0.39	4.269	O	|	|	|	|	1.16
170.583	0.00	0.39	4.266	O	|	|	|	|	1.16
170.667	0.00	0.38	4.263	O	|	|	|	|	1.16
170.750	0.00	0.38	4.261	O	|	|	|	|	1.16
170.833	0.00	0.38	4.258	O	|	|	|	|	1.16
170.917	0.00	0.38	4.255	O	|	|	|	|	1.16
171.000	0.00	0.38	4.253	O	|	|	|	|	1.16
171.083	0.00	0.38	4.250	O	|	|	|	|	1.15
171.167	0.00	0.38	4.248	O	|	|	|	|	1.15
171.250	0.00	0.38	4.245	O	|	|	|	|	1.15
171.333	0.00	0.38	4.242	O	|	|	|	|	1.15
171.417	0.00	0.38	4.240	O	|	|	|	|	1.15
171.500	0.00	0.38	4.237	O	|	|	|	|	1.15
171.583	0.00	0.38	4.234	O	|	|	|	|	1.15
171.667	0.00	0.38	4.232	O	|	|	|	|	1.15
171.750	0.00	0.38	4.229	O	|	|	|	|	1.15
171.833	0.00	0.38	4.227	O	|	|	|	|	1.15
171.917	0.00	0.38	4.224	O	|	|	|	|	1.15
172.000	0.00	0.38	4.221	O	|	|	|	|	1.15
172.083	0.00	0.38	4.219	O	|	|	|	|	1.15
172.167	0.00	0.38	4.216	O	|	|	|	|	1.14

172.250	0.00	0.38	4.213	O	|	|	|	|	1.14
172.333	0.00	0.38	4.211	O	|	|	|	|	1.14
172.417	0.00	0.38	4.208	O	|	|	|	|	1.14
172.500	0.00	0.38	4.206	O	|	|	|	|	1.14
172.583	0.00	0.38	4.203	O	|	|	|	|	1.14
172.667	0.00	0.38	4.200	O	|	|	|	|	1.14
172.750	0.00	0.38	4.198	O	|	|	|	|	1.14
172.833	0.00	0.38	4.195	O	|	|	|	|	1.14
172.917	0.00	0.38	4.193	O	|	|	|	|	1.14
173.000	0.00	0.38	4.190	O	|	|	|	|	1.14
173.083	0.00	0.38	4.187	O	|	|	|	|	1.14
173.167	0.00	0.38	4.185	O	|	|	|	|	1.14
173.250	0.00	0.38	4.182	O	|	|	|	|	1.14
173.333	0.00	0.38	4.180	O	|	|	|	|	1.13
173.417	0.00	0.37	4.177	O	|	|	|	|	1.13
173.500	0.00	0.37	4.174	O	|	|	|	|	1.13
173.583	0.00	0.37	4.172	O	|	|	|	|	1.13
173.667	0.00	0.37	4.169	O	|	|	|	|	1.13
173.750	0.00	0.37	4.167	O	|	|	|	|	1.13
173.833	0.00	0.37	4.164	O	|	|	|	|	1.13
173.917	0.00	0.37	4.162	O	|	|	|	|	1.13
174.000	0.00	0.37	4.159	O	|	|	|	|	1.13
174.083	0.00	0.37	4.156	O	|	|	|	|	1.13
174.167	0.00	0.37	4.154	O	|	|	|	|	1.13
174.250	0.00	0.37	4.151	O	|	|	|	|	1.13
174.333	0.00	0.37	4.149	O	|	|	|	|	1.13
174.417	0.00	0.37	4.146	O	|	|	|	|	1.13
174.500	0.00	0.37	4.144	O	|	|	|	|	1.12
174.583	0.00	0.37	4.141	O	|	|	|	|	1.12
174.667	0.00	0.37	4.139	O	|	|	|	|	1.12
174.750	0.00	0.37	4.136	O	|	|	|	|	1.12
174.833	0.00	0.37	4.133	O	|	|	|	|	1.12
174.917	0.00	0.37	4.131	O	|	|	|	|	1.12
175.000	0.00	0.37	4.128	O	|	|	|	|	1.12
175.083	0.00	0.37	4.126	O	|	|	|	|	1.12
175.167	0.00	0.37	4.123	O	|	|	|	|	1.12
175.250	0.00	0.37	4.121	O	|	|	|	|	1.12
175.333	0.00	0.37	4.118	O	|	|	|	|	1.12
175.417	0.00	0.37	4.116	O	|	|	|	|	1.12
175.500	0.00	0.37	4.113	O	|	|	|	|	1.12
175.583	0.00	0.37	4.111	O	|	|	|	|	1.12
175.667	0.00	0.37	4.108	O	|	|	|	|	1.11
175.750	0.00	0.37	4.106	O	|	|	|	|	1.11
175.833	0.00	0.37	4.103	O	|	|	|	|	1.11
175.917	0.00	0.37	4.101	O	|	|	|	|	1.11
176.000	0.00	0.37	4.098	O	|	|	|	|	1.11
176.083	0.00	0.37	4.095	O	|	|	|	|	1.11
176.167	0.00	0.37	4.093	O	|	|	|	|	1.11
176.250	0.00	0.36	4.090	O	|	|	|	|	1.11
176.333	0.00	0.36	4.088	O	|	|	|	|	1.11
176.417	0.00	0.36	4.085	O	|	|	|	|	1.11
176.500	0.00	0.36	4.083	O	|	|	|	|	1.11
176.583	0.00	0.36	4.080	O	|	|	|	|	1.11
176.667	0.00	0.36	4.078	O	|	|	|	|	1.11
176.750	0.00	0.36	4.075	O	|	|	|	|	1.11
176.833	0.00	0.36	4.073	O	|	|	|	|	1.10
176.917	0.00	0.36	4.070	O	|	|	|	|	1.10
177.000	0.00	0.36	4.068	O	|	|	|	|	1.10
177.083	0.00	0.36	4.065	O	|	|	|	|	1.10
177.167	0.00	0.36	4.063	O	|	|	|	|	1.10
177.250	0.00	0.36	4.060	O	|	|	|	|	1.10
177.333	0.00	0.36	4.058	O	|	|	|	|	1.10
177.417	0.00	0.36	4.055	O	|	|	|	|	1.10

177.500	0.00	0.36	4.053	O	|	|	|	|	1.10
177.583	0.00	0.36	4.050	O	|	|	|	|	1.10
177.667	0.00	0.36	4.048	O	|	|	|	|	1.10
177.750	0.00	0.36	4.046	O	|	|	|	|	1.10
177.833	0.00	0.36	4.043	O	|	|	|	|	1.10
177.917	0.00	0.36	4.041	O	|	|	|	|	1.10
178.000	0.00	0.36	4.038	O	|	|	|	|	1.09
178.083	0.00	0.36	4.036	O	|	|	|	|	1.09
178.167	0.00	0.36	4.033	O	|	|	|	|	1.09
178.250	0.00	0.36	4.031	O	|	|	|	|	1.09
178.333	0.00	0.36	4.028	O	|	|	|	|	1.09
178.417	0.00	0.36	4.026	O	|	|	|	|	1.09
178.500	0.00	0.36	4.023	O	|	|	|	|	1.09
178.583	0.00	0.36	4.021	O	|	|	|	|	1.09
178.667	0.00	0.36	4.018	O	|	|	|	|	1.09
178.750	0.00	0.36	4.016	O	|	|	|	|	1.09
178.833	0.00	0.36	4.013	O	|	|	|	|	1.09
178.917	0.00	0.36	4.011	O	|	|	|	|	1.09
179.000	0.00	0.36	4.009	O	|	|	|	|	1.09
179.083	0.00	0.36	4.006	O	|	|	|	|	1.09
179.167	0.00	0.35	4.004	O	|	|	|	|	1.09
179.250	0.00	0.35	4.001	O	|	|	|	|	1.08
179.333	0.00	0.35	3.999	O	|	|	|	|	1.08
179.417	0.00	0.35	3.996	O	|	|	|	|	1.08
179.500	0.00	0.35	3.994	O	|	|	|	|	1.08
179.583	0.00	0.35	3.991	O	|	|	|	|	1.08
179.667	0.00	0.35	3.989	O	|	|	|	|	1.08
179.750	0.00	0.35	3.987	O	|	|	|	|	1.08
179.833	0.00	0.35	3.984	O	|	|	|	|	1.08
179.917	0.00	0.35	3.982	O	|	|	|	|	1.08
180.000	0.00	0.35	3.979	O	|	|	|	|	1.08
180.083	0.00	0.35	3.977	O	|	|	|	|	1.08
180.167	0.00	0.35	3.974	O	|	|	|	|	1.08
180.250	0.00	0.35	3.972	O	|	|	|	|	1.08
180.333	0.00	0.35	3.970	O	|	|	|	|	1.08
180.417	0.00	0.35	3.967	O	|	|	|	|	1.08
180.500	0.00	0.35	3.965	O	|	|	|	|	1.07
180.583	0.00	0.35	3.962	O	|	|	|	|	1.07
180.667	0.00	0.35	3.960	O	|	|	|	|	1.07
180.750	0.00	0.35	3.958	O	|	|	|	|	1.07
180.833	0.00	0.35	3.955	O	|	|	|	|	1.07
180.917	0.00	0.35	3.953	O	|	|	|	|	1.07
181.000	0.00	0.35	3.950	O	|	|	|	|	1.07
181.083	0.00	0.35	3.948	O	|	|	|	|	1.07
181.167	0.00	0.35	3.946	O	|	|	|	|	1.07
181.250	0.00	0.35	3.943	O	|	|	|	|	1.07
181.333	0.00	0.35	3.941	O	|	|	|	|	1.07
181.417	0.00	0.35	3.938	O	|	|	|	|	1.07
181.500	0.00	0.35	3.936	O	|	|	|	|	1.07
181.583	0.00	0.35	3.934	O	|	|	|	|	1.07
181.667	0.00	0.35	3.931	O	|	|	|	|	1.06
181.750	0.00	0.35	3.929	O	|	|	|	|	1.06
181.833	0.00	0.35	3.926	O	|	|	|	|	1.06
181.917	0.00	0.35	3.924	O	|	|	|	|	1.06
182.000	0.00	0.35	3.922	O	|	|	|	|	1.06
182.083	0.00	0.35	3.919	O	|	|	|	|	1.06
182.167	0.00	0.34	3.917	O	|	|	|	|	1.06
182.250	0.00	0.34	3.915	O	|	|	|	|	1.06
182.333	0.00	0.34	3.912	O	|	|	|	|	1.06
182.417	0.00	0.34	3.910	O	|	|	|	|	1.06
182.500	0.00	0.34	3.907	O	|	|	|	|	1.06
182.583	0.00	0.34	3.905	O	|	|	|	|	1.06
182.667	0.00	0.34	3.903	O	|	|	|	|	1.06

182.750	0.00	0.34	3.900	O	|	|	|	|	1.06
182.833	0.00	0.34	3.898	O	|	|	|	|	1.06
182.917	0.00	0.34	3.896	O	|	|	|	|	1.05
183.000	0.00	0.34	3.893	O	|	|	|	|	1.05
183.083	0.00	0.34	3.891	O	|	|	|	|	1.05
183.167	0.00	0.34	3.889	O	|	|	|	|	1.05
183.250	0.00	0.34	3.886	O	|	|	|	|	1.05
183.333	0.00	0.34	3.884	O	|	|	|	|	1.05
183.417	0.00	0.34	3.881	O	|	|	|	|	1.05
183.500	0.00	0.34	3.879	O	|	|	|	|	1.05
183.583	0.00	0.34	3.877	O	|	|	|	|	1.05
183.667	0.00	0.34	3.874	O	|	|	|	|	1.05
183.750	0.00	0.34	3.872	O	|	|	|	|	1.05
183.833	0.00	0.34	3.870	O	|	|	|	|	1.05
183.917	0.00	0.34	3.867	O	|	|	|	|	1.05
184.000	0.00	0.34	3.865	O	|	|	|	|	1.05
184.083	0.00	0.34	3.863	O	|	|	|	|	1.05
184.167	0.00	0.34	3.860	O	|	|	|	|	1.05
184.250	0.00	0.34	3.858	O	|	|	|	|	1.04
184.333	0.00	0.34	3.856	O	|	|	|	|	1.04
184.417	0.00	0.34	3.853	O	|	|	|	|	1.04
184.500	0.00	0.34	3.851	O	|	|	|	|	1.04
184.583	0.00	0.34	3.849	O	|	|	|	|	1.04
184.667	0.00	0.34	3.846	O	|	|	|	|	1.04
184.750	0.00	0.34	3.844	O	|	|	|	|	1.04
184.833	0.00	0.34	3.842	O	|	|	|	|	1.04
184.917	0.00	0.34	3.840	O	|	|	|	|	1.04
185.000	0.00	0.34	3.837	O	|	|	|	|	1.04
185.083	0.00	0.34	3.835	O	|	|	|	|	1.04
185.167	0.00	0.34	3.833	O	|	|	|	|	1.04
185.250	0.00	0.34	3.830	O	|	|	|	|	1.04
185.333	0.00	0.33	3.828	O	|	|	|	|	1.04
185.417	0.00	0.33	3.826	O	|	|	|	|	1.04
185.500	0.00	0.33	3.823	O	|	|	|	|	1.03
185.583	0.00	0.33	3.821	O	|	|	|	|	1.03
185.667	0.00	0.33	3.819	O	|	|	|	|	1.03
185.750	0.00	0.33	3.816	O	|	|	|	|	1.03
185.833	0.00	0.33	3.814	O	|	|	|	|	1.03
185.917	0.00	0.33	3.812	O	|	|	|	|	1.03
186.000	0.00	0.33	3.810	O	|	|	|	|	1.03
186.083	0.00	0.33	3.807	O	|	|	|	|	1.03
186.167	0.00	0.33	3.805	O	|	|	|	|	1.03
186.250	0.00	0.33	3.803	O	|	|	|	|	1.03
186.333	0.00	0.33	3.800	O	|	|	|	|	1.03
186.417	0.00	0.33	3.798	O	|	|	|	|	1.03
186.500	0.00	0.33	3.796	O	|	|	|	|	1.03
186.583	0.00	0.33	3.794	O	|	|	|	|	1.03
186.667	0.00	0.33	3.791	O	|	|	|	|	1.03
186.750	0.00	0.33	3.789	O	|	|	|	|	1.03
186.833	0.00	0.33	3.787	O	|	|	|	|	1.02
186.917	0.00	0.33	3.785	O	|	|	|	|	1.02
187.000	0.00	0.33	3.782	O	|	|	|	|	1.02
187.083	0.00	0.33	3.780	O	|	|	|	|	1.02
187.167	0.00	0.33	3.778	O	|	|	|	|	1.02
187.250	0.00	0.33	3.775	O	|	|	|	|	1.02
187.333	0.00	0.33	3.773	O	|	|	|	|	1.02
187.417	0.00	0.33	3.771	O	|	|	|	|	1.02
187.500	0.00	0.33	3.769	O	|	|	|	|	1.02
187.583	0.00	0.33	3.766	O	|	|	|	|	1.02
187.667	0.00	0.33	3.764	O	|	|	|	|	1.02
187.750	0.00	0.33	3.762	O	|	|	|	|	1.02
187.833	0.00	0.33	3.760	O	|	|	|	|	1.02
187.917	0.00	0.33	3.757	O	|	|	|	|	1.02

188.000	0.00	0.33	3.755	O	|	|	|	|	1.02
188.083	0.00	0.33	3.753	O	|	|	|	|	1.01
188.167	0.00	0.33	3.751	O	|	|	|	|	1.01
188.250	0.00	0.33	3.748	O	|	|	|	|	1.01
188.333	0.00	0.33	3.746	O	|	|	|	|	1.01
188.417	0.00	0.33	3.744	O	|	|	|	|	1.01
188.500	0.00	0.32	3.742	O	|	|	|	|	1.01
188.583	0.00	0.32	3.739	O	|	|	|	|	1.01
188.667	0.00	0.32	3.737	O	|	|	|	|	1.01
188.750	0.00	0.32	3.735	O	|	|	|	|	1.01
188.833	0.00	0.32	3.733	O	|	|	|	|	1.01
188.917	0.00	0.32	3.731	O	|	|	|	|	1.01
189.000	0.00	0.32	3.728	O	|	|	|	|	1.01
189.083	0.00	0.32	3.726	O	|	|	|	|	1.01
189.167	0.00	0.32	3.724	O	|	|	|	|	1.01
189.250	0.00	0.32	3.722	O	|	|	|	|	1.01
189.333	0.00	0.32	3.719	O	|	|	|	|	1.01
189.417	0.00	0.32	3.717	O	|	|	|	|	1.00
189.500	0.00	0.32	3.715	O	|	|	|	|	1.00
189.583	0.00	0.32	3.713	O	|	|	|	|	1.00
189.667	0.00	0.32	3.711	O	|	|	|	|	1.00
189.750	0.00	0.32	3.708	O	|	|	|	|	1.00
189.833	0.00	0.32	3.706	O	|	|	|	|	1.00
189.917	0.00	0.32	3.704	O	|	|	|	|	1.00
190.000	0.00	0.32	3.702	O	|	|	|	|	1.00
190.083	0.00	0.32	3.699	O	|	|	|	|	1.00
190.167	0.00	0.32	3.697	O	|	|	|	|	1.00
190.250	0.00	0.32	3.695	O	|	|	|	|	1.00
190.333	0.00	0.32	3.693	O	|	|	|	|	1.00
190.417	0.00	0.32	3.691	O	|	|	|	|	1.00
190.500	0.00	0.32	3.688	O	|	|	|	|	1.00
190.583	0.00	0.32	3.686	O	|	|	|	|	1.00
190.667	0.00	0.32	3.684	O	|	|	|	|	1.00
190.750	0.00	0.32	3.682	O	|	|	|	|	1.00
190.833	0.00	0.32	3.680	O	|	|	|	|	0.99
190.917	0.00	0.32	3.678	O	|	|	|	|	0.99
191.000	0.00	0.32	3.675	O	|	|	|	|	0.99
191.083	0.00	0.32	3.673	O	|	|	|	|	0.99
191.167	0.00	0.32	3.671	O	|	|	|	|	0.99
191.250	0.00	0.32	3.669	O	|	|	|	|	0.99
191.333	0.00	0.32	3.667	O	|	|	|	|	0.99
191.417	0.00	0.32	3.664	O	|	|	|	|	0.99
191.500	0.00	0.32	3.662	O	|	|	|	|	0.99
191.583	0.00	0.32	3.660	O	|	|	|	|	0.99
191.667	0.00	0.32	3.658	O	|	|	|	|	0.99
191.750	0.00	0.32	3.656	O	|	|	|	|	0.99
191.833	0.00	0.32	3.654	O	|	|	|	|	0.99
191.917	0.00	0.32	3.651	O	|	|	|	|	0.99
192.000	0.00	0.32	3.649	O	|	|	|	|	0.99
192.083	0.00	0.32	3.647	O	|	|	|	|	0.99
192.167	0.00	0.32	3.645	O	|	|	|	|	0.99
192.250	0.00	0.32	3.643	O	|	|	|	|	0.98
192.333	0.00	0.31	3.640	O	|	|	|	|	0.98
192.417	0.00	0.31	3.638	O	|	|	|	|	0.98
192.500	0.00	0.31	3.636	O	|	|	|	|	0.98
192.583	0.00	0.31	3.634	O	|	|	|	|	0.98
192.667	0.00	0.31	3.632	O	|	|	|	|	0.98
192.750	0.00	0.31	3.630	O	|	|	|	|	0.98
192.833	0.00	0.31	3.627	O	|	|	|	|	0.98
192.917	0.00	0.31	3.625	O	|	|	|	|	0.98
193.000	0.00	0.31	3.623	O	|	|	|	|	0.98
193.083	0.00	0.31	3.621	O	|	|	|	|	0.98
193.167	0.00	0.31	3.619	O	|	|	|	|	0.98

193.250	0.00	0.31	3.617	O	|	|	|	|	0.98
193.333	0.00	0.31	3.615	O	|	|	|	|	0.98
193.417	0.00	0.31	3.612	O	|	|	|	|	0.98
193.500	0.00	0.31	3.610	O	|	|	|	|	0.98
193.583	0.00	0.31	3.608	O	|	|	|	|	0.98
193.667	0.00	0.31	3.606	O	|	|	|	|	0.97
193.750	0.00	0.31	3.604	O	|	|	|	|	0.97
193.833	0.00	0.31	3.602	O	|	|	|	|	0.97
193.917	0.00	0.31	3.600	O	|	|	|	|	0.97
194.000	0.00	0.31	3.597	O	|	|	|	|	0.97
194.083	0.00	0.31	3.595	O	|	|	|	|	0.97
194.167	0.00	0.31	3.593	O	|	|	|	|	0.97
194.250	0.00	0.31	3.591	O	|	|	|	|	0.97
194.333	0.00	0.31	3.589	O	|	|	|	|	0.97
194.417	0.00	0.31	3.587	O	|	|	|	|	0.97
194.500	0.00	0.31	3.585	O	|	|	|	|	0.97
194.583	0.00	0.31	3.582	O	|	|	|	|	0.97
194.667	0.00	0.31	3.580	O	|	|	|	|	0.97
194.750	0.00	0.31	3.578	O	|	|	|	|	0.97
194.833	0.00	0.31	3.576	O	|	|	|	|	0.97
194.917	0.00	0.31	3.574	O	|	|	|	|	0.97
195.000	0.00	0.31	3.572	O	|	|	|	|	0.97
195.083	0.00	0.31	3.570	O	|	|	|	|	0.96
195.167	0.00	0.31	3.567	O	|	|	|	|	0.96
195.250	0.00	0.31	3.565	O	|	|	|	|	0.96
195.333	0.00	0.31	3.563	O	|	|	|	|	0.96
195.417	0.00	0.31	3.561	O	|	|	|	|	0.96
195.500	0.00	0.31	3.559	O	|	|	|	|	0.96
195.583	0.00	0.31	3.557	O	|	|	|	|	0.96
195.667	0.00	0.31	3.555	O	|	|	|	|	0.96
195.750	0.00	0.31	3.553	O	|	|	|	|	0.96
195.833	0.00	0.31	3.551	O	|	|	|	|	0.96
195.917	0.00	0.31	3.548	O	|	|	|	|	0.96
196.000	0.00	0.31	3.546	O	|	|	|	|	0.96
196.083	0.00	0.31	3.544	O	|	|	|	|	0.96
196.167	0.00	0.31	3.542	O	|	|	|	|	0.96
196.250	0.00	0.31	3.540	O	|	|	|	|	0.96
196.333	0.00	0.31	3.538	O	|	|	|	|	0.96
196.417	0.00	0.31	3.536	O	|	|	|	|	0.96
196.500	0.00	0.31	3.534	O	|	|	|	|	0.96
196.583	0.00	0.31	3.532	O	|	|	|	|	0.95
196.667	0.00	0.31	3.529	O	|	|	|	|	0.95
196.750	0.00	0.31	3.527	O	|	|	|	|	0.95
196.833	0.00	0.30	3.525	O	|	|	|	|	0.95
196.917	0.00	0.30	3.523	O	|	|	|	|	0.95
197.000	0.00	0.30	3.521	O	|	|	|	|	0.95
197.083	0.00	0.30	3.519	O	|	|	|	|	0.95
197.167	0.00	0.30	3.517	O	|	|	|	|	0.95
197.250	0.00	0.30	3.515	O	|	|	|	|	0.95
197.333	0.00	0.30	3.513	O	|	|	|	|	0.95
197.417	0.00	0.30	3.511	O	|	|	|	|	0.95
197.500	0.00	0.30	3.508	O	|	|	|	|	0.95
197.583	0.00	0.30	3.506	O	|	|	|	|	0.95
197.667	0.00	0.30	3.504	O	|	|	|	|	0.95
197.750	0.00	0.30	3.502	O	|	|	|	|	0.95
197.833	0.00	0.30	3.500	O	|	|	|	|	0.95
197.917	0.00	0.30	3.498	O	|	|	|	|	0.95
198.000	0.00	0.30	3.496	O	|	|	|	|	0.94
198.083	0.00	0.30	3.494	O	|	|	|	|	0.94
198.167	0.00	0.30	3.492	O	|	|	|	|	0.94
198.250	0.00	0.30	3.490	O	|	|	|	|	0.94
198.333	0.00	0.30	3.488	O	|	|	|	|	0.94
198.417	0.00	0.30	3.486	O	|	|	|	|	0.94

198.500	0.00	0.30	3.483	O	|	|	|	|	0.94
198.583	0.00	0.30	3.481	O	|	|	|	|	0.94
198.667	0.00	0.30	3.479	O	|	|	|	|	0.94
198.750	0.00	0.30	3.477	O	|	|	|	|	0.94
198.833	0.00	0.30	3.475	O	|	|	|	|	0.94
198.917	0.00	0.30	3.473	O	|	|	|	|	0.94
199.000	0.00	0.30	3.471	O	|	|	|	|	0.94
199.083	0.00	0.30	3.469	O	|	|	|	|	0.94
199.167	0.00	0.30	3.467	O	|	|	|	|	0.94
199.250	0.00	0.30	3.465	O	|	|	|	|	0.94
199.333	0.00	0.30	3.463	O	|	|	|	|	0.94
199.417	0.00	0.30	3.461	O	|	|	|	|	0.94
199.500	0.00	0.30	3.459	O	|	|	|	|	0.93
199.583	0.00	0.30	3.457	O	|	|	|	|	0.93
199.667	0.00	0.30	3.455	O	|	|	|	|	0.93
199.750	0.00	0.30	3.453	O	|	|	|	|	0.93
199.833	0.00	0.30	3.450	O	|	|	|	|	0.93
199.917	0.00	0.30	3.448	O	|	|	|	|	0.93
200.000	0.00	0.30	3.446	O	|	|	|	|	0.93
200.083	0.00	0.30	3.444	O	|	|	|	|	0.93
200.167	0.00	0.30	3.442	O	|	|	|	|	0.93
200.250	0.00	0.30	3.440	O	|	|	|	|	0.93
200.333	0.00	0.30	3.438	O	|	|	|	|	0.93
200.417	0.00	0.30	3.436	O	|	|	|	|	0.93
200.500	0.00	0.30	3.434	O	|	|	|	|	0.93
200.583	0.00	0.30	3.432	O	|	|	|	|	0.93
200.667	0.00	0.30	3.430	O	|	|	|	|	0.93
200.750	0.00	0.30	3.428	O	|	|	|	|	0.93
200.833	0.00	0.30	3.426	O	|	|	|	|	0.93
200.917	0.00	0.30	3.424	O	|	|	|	|	0.93
201.000	0.00	0.30	3.422	O	|	|	|	|	0.92
201.083	0.00	0.30	3.420	O	|	|	|	|	0.92
201.167	0.00	0.30	3.418	O	|	|	|	|	0.92
201.250	0.00	0.30	3.416	O	|	|	|	|	0.92
201.333	0.00	0.30	3.414	O	|	|	|	|	0.92
201.417	0.00	0.30	3.412	O	|	|	|	|	0.92
201.500	0.00	0.29	3.410	O	|	|	|	|	0.92
201.583	0.00	0.29	3.408	O	|	|	|	|	0.92
201.667	0.00	0.29	3.406	O	|	|	|	|	0.92
201.750	0.00	0.29	3.404	O	|	|	|	|	0.92
201.833	0.00	0.29	3.401	O	|	|	|	|	0.92
201.917	0.00	0.29	3.399	O	|	|	|	|	0.92
202.000	0.00	0.29	3.397	O	|	|	|	|	0.92
202.083	0.00	0.29	3.395	O	|	|	|	|	0.92
202.167	0.00	0.29	3.393	O	|	|	|	|	0.92
202.250	0.00	0.29	3.391	O	|	|	|	|	0.92
202.333	0.00	0.29	3.389	O	|	|	|	|	0.92
202.417	0.00	0.29	3.387	O	|	|	|	|	0.92
202.500	0.00	0.29	3.385	O	|	|	|	|	0.91
202.583	0.00	0.29	3.383	O	|	|	|	|	0.91
202.667	0.00	0.29	3.381	O	|	|	|	|	0.91
202.750	0.00	0.29	3.379	O	|	|	|	|	0.91
202.833	0.00	0.29	3.377	O	|	|	|	|	0.91
202.917	0.00	0.29	3.375	O	|	|	|	|	0.91
203.000	0.00	0.29	3.373	O	|	|	|	|	0.91
203.083	0.00	0.29	3.371	O	|	|	|	|	0.91
203.167	0.00	0.29	3.369	O	|	|	|	|	0.91
203.250	0.00	0.29	3.367	O	|	|	|	|	0.91
203.333	0.00	0.29	3.365	O	|	|	|	|	0.91
203.417	0.00	0.29	3.363	O	|	|	|	|	0.91
203.500	0.00	0.29	3.361	O	|	|	|	|	0.91
203.583	0.00	0.29	3.359	O	|	|	|	|	0.91
203.667	0.00	0.29	3.357	O	|	|	|	|	0.91

203.750	0.00	0.29	3.355	O	|	|	|	|	0.91
203.833	0.00	0.29	3.353	O	|	|	|	|	0.91
203.917	0.00	0.29	3.351	O	|	|	|	|	0.91
204.000	0.00	0.29	3.349	O	|	|	|	|	0.91
204.083	0.00	0.29	3.347	O	|	|	|	|	0.90
204.167	0.00	0.29	3.345	O	|	|	|	|	0.90
204.250	0.00	0.29	3.343	O	|	|	|	|	0.90
204.333	0.00	0.29	3.341	O	|	|	|	|	0.90
204.417	0.00	0.29	3.339	O	|	|	|	|	0.90
204.500	0.00	0.29	3.337	O	|	|	|	|	0.90
204.583	0.00	0.29	3.335	O	|	|	|	|	0.90
204.667	0.00	0.29	3.333	O	|	|	|	|	0.90
204.750	0.00	0.29	3.331	O	|	|	|	|	0.90
204.833	0.00	0.29	3.329	O	|	|	|	|	0.90
204.917	0.00	0.29	3.327	O	|	|	|	|	0.90
205.000	0.00	0.29	3.325	O	|	|	|	|	0.90
205.083	0.00	0.29	3.323	O	|	|	|	|	0.90
205.167	0.00	0.29	3.321	O	|	|	|	|	0.90
205.250	0.00	0.29	3.319	O	|	|	|	|	0.90
205.333	0.00	0.29	3.317	O	|	|	|	|	0.90
205.417	0.00	0.29	3.315	O	|	|	|	|	0.90
205.500	0.00	0.29	3.313	O	|	|	|	|	0.90
205.583	0.00	0.29	3.312	O	|	|	|	|	0.90
205.667	0.00	0.29	3.310	O	|	|	|	|	0.89
205.750	0.00	0.29	3.308	O	|	|	|	|	0.89
205.833	0.00	0.29	3.306	O	|	|	|	|	0.89
205.917	0.00	0.29	3.304	O	|	|	|	|	0.89
206.000	0.00	0.29	3.302	O	|	|	|	|	0.89
206.083	0.00	0.29	3.300	O	|	|	|	|	0.89
206.167	0.00	0.29	3.298	O	|	|	|	|	0.89
206.250	0.00	0.29	3.296	O	|	|	|	|	0.89
206.333	0.00	0.28	3.294	O	|	|	|	|	0.89
206.417	0.00	0.28	3.292	O	|	|	|	|	0.89
206.500	0.00	0.28	3.290	O	|	|	|	|	0.89
206.583	0.00	0.28	3.288	O	|	|	|	|	0.89
206.667	0.00	0.28	3.286	O	|	|	|	|	0.89
206.750	0.00	0.28	3.284	O	|	|	|	|	0.89
206.833	0.00	0.28	3.282	O	|	|	|	|	0.89
206.917	0.00	0.28	3.280	O	|	|	|	|	0.89
207.000	0.00	0.28	3.278	O	|	|	|	|	0.89
207.083	0.00	0.28	3.276	O	|	|	|	|	0.89
207.167	0.00	0.28	3.274	O	|	|	|	|	0.88
207.250	0.00	0.28	3.272	O	|	|	|	|	0.88
207.333	0.00	0.28	3.270	O	|	|	|	|	0.88
207.417	0.00	0.28	3.268	O	|	|	|	|	0.88
207.500	0.00	0.28	3.266	O	|	|	|	|	0.88
207.583	0.00	0.28	3.265	O	|	|	|	|	0.88
207.667	0.00	0.28	3.263	O	|	|	|	|	0.88
207.750	0.00	0.28	3.261	O	|	|	|	|	0.88
207.833	0.00	0.28	3.259	O	|	|	|	|	0.88
207.917	0.00	0.28	3.257	O	|	|	|	|	0.88
208.000	0.00	0.28	3.255	O	|	|	|	|	0.88
208.083	0.00	0.28	3.253	O	|	|	|	|	0.88
208.167	0.00	0.28	3.251	O	|	|	|	|	0.88
208.250	0.00	0.28	3.249	O	|	|	|	|	0.88
208.333	0.00	0.28	3.247	O	|	|	|	|	0.88
208.417	0.00	0.28	3.245	O	|	|	|	|	0.88
208.500	0.00	0.28	3.243	O	|	|	|	|	0.88
208.583	0.00	0.28	3.241	O	|	|	|	|	0.88
208.667	0.00	0.28	3.239	O	|	|	|	|	0.88
208.750	0.00	0.28	3.237	O	|	|	|	|	0.87
208.833	0.00	0.28	3.235	O	|	|	|	|	0.87
208.917	0.00	0.28	3.234	O	|	|	|	|	0.87

209.000	0.00	0.28	3.232	O	|	|	|	|	0.87
209.083	0.00	0.28	3.230	O	|	|	|	|	0.87
209.167	0.00	0.28	3.228	O	|	|	|	|	0.87
209.250	0.00	0.28	3.226	O	|	|	|	|	0.87
209.333	0.00	0.28	3.224	O	|	|	|	|	0.87
209.417	0.00	0.28	3.222	O	|	|	|	|	0.87
209.500	0.00	0.28	3.220	O	|	|	|	|	0.87
209.583	0.00	0.28	3.218	O	|	|	|	|	0.87
209.667	0.00	0.28	3.216	O	|	|	|	|	0.87
209.750	0.00	0.28	3.214	O	|	|	|	|	0.87
209.833	0.00	0.28	3.212	O	|	|	|	|	0.87
209.917	0.00	0.28	3.211	O	|	|	|	|	0.87
210.000	0.00	0.28	3.209	O	|	|	|	|	0.87
210.083	0.00	0.28	3.207	O	|	|	|	|	0.87
210.167	0.00	0.28	3.205	O	|	|	|	|	0.87
210.250	0.00	0.28	3.203	O	|	|	|	|	0.87
210.333	0.00	0.28	3.201	O	|	|	|	|	0.87
210.417	0.00	0.28	3.199	O	|	|	|	|	0.86
210.500	0.00	0.28	3.197	O	|	|	|	|	0.86
210.583	0.00	0.28	3.195	O	|	|	|	|	0.86
210.667	0.00	0.28	3.193	O	|	|	|	|	0.86
210.750	0.00	0.28	3.191	O	|	|	|	|	0.86
210.833	0.00	0.28	3.190	O	|	|	|	|	0.86
210.917	0.00	0.28	3.188	O	|	|	|	|	0.86
211.000	0.00	0.28	3.186	O	|	|	|	|	0.86
211.083	0.00	0.28	3.184	O	|	|	|	|	0.86
211.167	0.00	0.28	3.182	O	|	|	|	|	0.86
211.250	0.00	0.28	3.180	O	|	|	|	|	0.86
211.333	0.00	0.27	3.178	O	|	|	|	|	0.86
211.417	0.00	0.27	3.176	O	|	|	|	|	0.86
211.500	0.00	0.27	3.174	O	|	|	|	|	0.86
211.583	0.00	0.27	3.173	O	|	|	|	|	0.86
211.667	0.00	0.27	3.171	O	|	|	|	|	0.86
211.750	0.00	0.27	3.169	O	|	|	|	|	0.86
211.833	0.00	0.27	3.167	O	|	|	|	|	0.86
211.917	0.00	0.27	3.165	O	|	|	|	|	0.86
212.000	0.00	0.27	3.163	O	|	|	|	|	0.85
212.083	0.00	0.27	3.161	O	|	|	|	|	0.85
212.167	0.00	0.27	3.159	O	|	|	|	|	0.85
212.250	0.00	0.27	3.157	O	|	|	|	|	0.85
212.333	0.00	0.27	3.156	O	|	|	|	|	0.85
212.417	0.00	0.27	3.154	O	|	|	|	|	0.85
212.500	0.00	0.27	3.152	O	|	|	|	|	0.85
212.583	0.00	0.27	3.150	O	|	|	|	|	0.85
212.667	0.00	0.27	3.148	O	|	|	|	|	0.85
212.750	0.00	0.27	3.146	O	|	|	|	|	0.85
212.833	0.00	0.27	3.144	O	|	|	|	|	0.85
212.917	0.00	0.27	3.142	O	|	|	|	|	0.85
213.000	0.00	0.27	3.141	O	|	|	|	|	0.85
213.083	0.00	0.27	3.139	O	|	|	|	|	0.85
213.167	0.00	0.27	3.137	O	|	|	|	|	0.85
213.250	0.00	0.27	3.135	O	|	|	|	|	0.85
213.333	0.00	0.27	3.133	O	|	|	|	|	0.85
213.417	0.00	0.27	3.131	O	|	|	|	|	0.85
213.500	0.00	0.27	3.129	O	|	|	|	|	0.85
213.583	0.00	0.27	3.127	O	|	|	|	|	0.85
213.667	0.00	0.27	3.126	O	|	|	|	|	0.84
213.750	0.00	0.27	3.124	O	|	|	|	|	0.84
213.833	0.00	0.27	3.122	O	|	|	|	|	0.84
213.917	0.00	0.27	3.120	O	|	|	|	|	0.84
214.000	0.00	0.27	3.118	O	|	|	|	|	0.84
214.083	0.00	0.27	3.116	O	|	|	|	|	0.84
214.167	0.00	0.27	3.114	O	|	|	|	|	0.84

214.250	0.00	0.27	3.113	O	|	|	|	|	0.84
214.333	0.00	0.27	3.111	O	|	|	|	|	0.84
214.417	0.00	0.27	3.109	O	|	|	|	|	0.84
214.500	0.00	0.27	3.107	O	|	|	|	|	0.84
214.583	0.00	0.27	3.105	O	|	|	|	|	0.84
214.667	0.00	0.27	3.103	O	|	|	|	|	0.84
214.750	0.00	0.27	3.102	O	|	|	|	|	0.84
214.833	0.00	0.27	3.100	O	|	|	|	|	0.84
214.917	0.00	0.27	3.098	O	|	|	|	|	0.84
215.000	0.00	0.27	3.096	O	|	|	|	|	0.84
215.083	0.00	0.27	3.094	O	|	|	|	|	0.84
215.167	0.00	0.27	3.092	O	|	|	|	|	0.84
215.250	0.00	0.27	3.090	O	|	|	|	|	0.84
215.333	0.00	0.27	3.089	O	|	|	|	|	0.83
215.417	0.00	0.27	3.087	O	|	|	|	|	0.83
215.500	0.00	0.27	3.085	O	|	|	|	|	0.83
215.583	0.00	0.27	3.083	O	|	|	|	|	0.83
215.667	0.00	0.27	3.081	O	|	|	|	|	0.83
215.750	0.00	0.27	3.079	O	|	|	|	|	0.83
215.833	0.00	0.27	3.078	O	|	|	|	|	0.83
215.917	0.00	0.27	3.076	O	|	|	|	|	0.83
216.000	0.00	0.27	3.074	O	|	|	|	|	0.83
216.083	0.00	0.27	3.072	O	|	|	|	|	0.83
216.167	0.00	0.27	3.070	O	|	|	|	|	0.83
216.250	0.00	0.27	3.068	O	|	|	|	|	0.83
216.333	0.00	0.27	3.067	O	|	|	|	|	0.83
216.417	0.00	0.27	3.065	O	|	|	|	|	0.83
216.500	0.00	0.26	3.063	O	|	|	|	|	0.83
216.583	0.00	0.26	3.061	O	|	|	|	|	0.83
216.667	0.00	0.26	3.059	O	|	|	|	|	0.83
216.750	0.00	0.26	3.057	O	|	|	|	|	0.83
216.833	0.00	0.26	3.056	O	|	|	|	|	0.83
216.917	0.00	0.26	3.054	O	|	|	|	|	0.83
217.000	0.00	0.26	3.052	O	|	|	|	|	0.82
217.083	0.00	0.26	3.050	O	|	|	|	|	0.82
217.167	0.00	0.26	3.048	O	|	|	|	|	0.82
217.250	0.00	0.26	3.047	O	|	|	|	|	0.82
217.333	0.00	0.26	3.045	O	|	|	|	|	0.82
217.417	0.00	0.26	3.043	O	|	|	|	|	0.82
217.500	0.00	0.26	3.041	O	|	|	|	|	0.82
217.583	0.00	0.26	3.039	O	|	|	|	|	0.82
217.667	0.00	0.26	3.038	O	|	|	|	|	0.82
217.750	0.00	0.26	3.036	O	|	|	|	|	0.82
217.833	0.00	0.26	3.034	O	|	|	|	|	0.82
217.917	0.00	0.26	3.032	O	|	|	|	|	0.82
218.000	0.00	0.26	3.030	O	|	|	|	|	0.82
218.083	0.00	0.26	3.028	O	|	|	|	|	0.82
218.167	0.00	0.26	3.027	O	|	|	|	|	0.82
218.250	0.00	0.26	3.025	O	|	|	|	|	0.82
218.333	0.00	0.26	3.023	O	|	|	|	|	0.82
218.417	0.00	0.26	3.021	O	|	|	|	|	0.82
218.500	0.00	0.26	3.019	O	|	|	|	|	0.82
218.583	0.00	0.26	3.018	O	|	|	|	|	0.82
218.667	0.00	0.26	3.016	O	|	|	|	|	0.82
218.750	0.00	0.26	3.014	O	|	|	|	|	0.81
218.833	0.00	0.26	3.012	O	|	|	|	|	0.81
218.917	0.00	0.26	3.011	O	|	|	|	|	0.81
219.000	0.00	0.26	3.009	O	|	|	|	|	0.81
219.083	0.00	0.26	3.007	O	|	|	|	|	0.81
219.167	0.00	0.26	3.005	O	|	|	|	|	0.81
219.250	0.00	0.26	3.003	O	|	|	|	|	0.81
219.333	0.00	0.26	3.002	O	|	|	|	|	0.81
219.417	0.00	0.26	3.000	O	|	|	|	|	0.81

219.500	0.00	0.26	2.998	O	|	|	|	|	0.81
219.583	0.00	0.26	2.996	O	|	|	|	|	0.81
219.667	0.00	0.26	2.994	O	|	|	|	|	0.81
219.750	0.00	0.26	2.993	O	|	|	|	|	0.81
219.833	0.00	0.26	2.991	O	|	|	|	|	0.81
219.917	0.00	0.26	2.989	O	|	|	|	|	0.81
220.000	0.00	0.26	2.987	O	|	|	|	|	0.81
220.083	0.00	0.26	2.986	O	|	|	|	|	0.81
220.167	0.00	0.26	2.984	O	|	|	|	|	0.81
220.250	0.00	0.26	2.982	O	|	|	|	|	0.81
220.333	0.00	0.26	2.980	O	|	|	|	|	0.81
220.417	0.00	0.26	2.978	O	|	|	|	|	0.80
220.500	0.00	0.26	2.977	O	|	|	|	|	0.80
220.583	0.00	0.26	2.975	O	|	|	|	|	0.80
220.667	0.00	0.26	2.973	O	|	|	|	|	0.80
220.750	0.00	0.26	2.971	O	|	|	|	|	0.80
220.833	0.00	0.26	2.970	O	|	|	|	|	0.80
220.917	0.00	0.26	2.968	O	|	|	|	|	0.80
221.000	0.00	0.26	2.966	O	|	|	|	|	0.80
221.083	0.00	0.26	2.964	O	|	|	|	|	0.80
221.167	0.00	0.26	2.962	O	|	|	|	|	0.80
221.250	0.00	0.26	2.961	O	|	|	|	|	0.80
221.333	0.00	0.26	2.959	O	|	|	|	|	0.80
221.417	0.00	0.26	2.957	O	|	|	|	|	0.80
221.500	0.00	0.26	2.955	O	|	|	|	|	0.80
221.583	0.00	0.26	2.954	O	|	|	|	|	0.80
221.667	0.00	0.26	2.952	O	|	|	|	|	0.80
221.750	0.00	0.26	2.950	O	|	|	|	|	0.80
221.833	0.00	0.25	2.948	O	|	|	|	|	0.80
221.917	0.00	0.25	2.947	O	|	|	|	|	0.80
222.000	0.00	0.25	2.945	O	|	|	|	|	0.80
222.083	0.00	0.25	2.943	O	|	|	|	|	0.80
222.167	0.00	0.25	2.941	O	|	|	|	|	0.79
222.250	0.00	0.25	2.940	O	|	|	|	|	0.79
222.333	0.00	0.25	2.938	O	|	|	|	|	0.79
222.417	0.00	0.25	2.936	O	|	|	|	|	0.79
222.500	0.00	0.25	2.934	O	|	|	|	|	0.79
222.583	0.00	0.25	2.933	O	|	|	|	|	0.79
222.667	0.00	0.25	2.931	O	|	|	|	|	0.79
222.750	0.00	0.25	2.929	O	|	|	|	|	0.79
222.833	0.00	0.25	2.927	O	|	|	|	|	0.79
222.917	0.00	0.25	2.926	O	|	|	|	|	0.79
223.000	0.00	0.25	2.924	O	|	|	|	|	0.79
223.083	0.00	0.25	2.922	O	|	|	|	|	0.79
223.167	0.00	0.25	2.920	O	|	|	|	|	0.79
223.250	0.00	0.25	2.919	O	|	|	|	|	0.79
223.333	0.00	0.25	2.917	O	|	|	|	|	0.79
223.417	0.00	0.25	2.915	O	|	|	|	|	0.79
223.500	0.00	0.25	2.913	O	|	|	|	|	0.79
223.583	0.00	0.25	2.912	O	|	|	|	|	0.79
223.667	0.00	0.25	2.910	O	|	|	|	|	0.79
223.750	0.00	0.25	2.908	O	|	|	|	|	0.79
223.833	0.00	0.25	2.907	O	|	|	|	|	0.79
223.917	0.00	0.25	2.905	O	|	|	|	|	0.79
224.000	0.00	0.25	2.903	O	|	|	|	|	0.78
224.083	0.00	0.25	2.901	O	|	|	|	|	0.78
224.167	0.00	0.25	2.900	O	|	|	|	|	0.78
224.250	0.00	0.25	2.898	O	|	|	|	|	0.78
224.333	0.00	0.25	2.896	O	|	|	|	|	0.78
224.417	0.00	0.25	2.894	O	|	|	|	|	0.78
224.500	0.00	0.25	2.893	O	|	|	|	|	0.78
224.583	0.00	0.25	2.891	O	|	|	|	|	0.78
224.667	0.00	0.25	2.889	O	|	|	|	|	0.78

224.750	0.00	0.25	2.888	O	|	|	|	|	0.78
224.833	0.00	0.25	2.886	O	|	|	|	|	0.78
224.917	0.00	0.25	2.884	O	|	|	|	|	0.78
225.000	0.00	0.25	2.882	O	|	|	|	|	0.78
225.083	0.00	0.25	2.881	O	|	|	|	|	0.78
225.167	0.00	0.25	2.879	O	|	|	|	|	0.78
225.250	0.00	0.25	2.877	O	|	|	|	|	0.78
225.333	0.00	0.25	2.876	O	|	|	|	|	0.78
225.417	0.00	0.25	2.874	O	|	|	|	|	0.78
225.500	0.00	0.25	2.872	O	|	|	|	|	0.78
225.583	0.00	0.25	2.870	O	|	|	|	|	0.78
225.667	0.00	0.25	2.869	O	|	|	|	|	0.78
225.750	0.00	0.25	2.867	O	|	|	|	|	0.77
225.833	0.00	0.25	2.865	O	|	|	|	|	0.77
225.917	0.00	0.25	2.864	O	|	|	|	|	0.77
226.000	0.00	0.25	2.862	O	|	|	|	|	0.77
226.083	0.00	0.25	2.860	O	|	|	|	|	0.77
226.167	0.00	0.25	2.858	O	|	|	|	|	0.77
226.250	0.00	0.25	2.857	O	|	|	|	|	0.77
226.333	0.00	0.25	2.855	O	|	|	|	|	0.77
226.417	0.00	0.25	2.853	O	|	|	|	|	0.77
226.500	0.00	0.25	2.852	O	|	|	|	|	0.77
226.583	0.00	0.25	2.850	O	|	|	|	|	0.77
226.667	0.00	0.25	2.848	O	|	|	|	|	0.77
226.750	0.00	0.25	2.847	O	|	|	|	|	0.77
226.833	0.00	0.25	2.845	O	|	|	|	|	0.77
226.917	0.00	0.25	2.843	O	|	|	|	|	0.77
227.000	0.00	0.25	2.841	O	|	|	|	|	0.77
227.083	0.00	0.25	2.840	O	|	|	|	|	0.77
227.167	0.00	0.25	2.838	O	|	|	|	|	0.77
227.250	0.00	0.25	2.836	O	|	|	|	|	0.77
227.333	0.00	0.25	2.835	O	|	|	|	|	0.77
227.417	0.00	0.25	2.833	O	|	|	|	|	0.77
227.500	0.00	0.24	2.831	O	|	|	|	|	0.77
227.583	0.00	0.24	2.830	O	|	|	|	|	0.76
227.667	0.00	0.24	2.828	O	|	|	|	|	0.76
227.750	0.00	0.24	2.826	O	|	|	|	|	0.76
227.833	0.00	0.24	2.825	O	|	|	|	|	0.76
227.917	0.00	0.24	2.823	O	|	|	|	|	0.76
228.000	0.00	0.24	2.821	O	|	|	|	|	0.76
228.083	0.00	0.24	2.820	O	|	|	|	|	0.76
228.167	0.00	0.24	2.818	O	|	|	|	|	0.76
228.250	0.00	0.24	2.816	O	|	|	|	|	0.76
228.333	0.00	0.24	2.815	O	|	|	|	|	0.76
228.417	0.00	0.24	2.813	O	|	|	|	|	0.76
228.500	0.00	0.24	2.811	O	|	|	|	|	0.76
228.583	0.00	0.24	2.810	O	|	|	|	|	0.76
228.667	0.00	0.24	2.808	O	|	|	|	|	0.76
228.750	0.00	0.24	2.806	O	|	|	|	|	0.76
228.833	0.00	0.24	2.805	O	|	|	|	|	0.76
228.917	0.00	0.24	2.803	O	|	|	|	|	0.76
229.000	0.00	0.24	2.801	O	|	|	|	|	0.76
229.083	0.00	0.24	2.799	O	|	|	|	|	0.76
229.167	0.00	0.24	2.798	O	|	|	|	|	0.76
229.250	0.00	0.24	2.796	O	|	|	|	|	0.76
229.333	0.00	0.24	2.794	O	|	|	|	|	0.76
229.417	0.00	0.24	2.793	O	|	|	|	|	0.75
229.500	0.00	0.24	2.791	O	|	|	|	|	0.75
229.583	0.00	0.24	2.790	O	|	|	|	|	0.75
229.667	0.00	0.24	2.788	O	|	|	|	|	0.75
229.750	0.00	0.24	2.786	O	|	|	|	|	0.75
229.833	0.00	0.24	2.785	O	|	|	|	|	0.75
229.917	0.00	0.24	2.783	O	|	|	|	|	0.75

230.000	0.00	0.24	2.781	O	|	|	|	|	0.75
230.083	0.00	0.24	2.780	O	|	|	|	|	0.75
230.167	0.00	0.24	2.778	O	|	|	|	|	0.75
230.250	0.00	0.24	2.776	O	|	|	|	|	0.75
230.333	0.00	0.24	2.775	O	|	|	|	|	0.75
230.417	0.00	0.24	2.773	O	|	|	|	|	0.75
230.500	0.00	0.24	2.771	O	|	|	|	|	0.75
230.583	0.00	0.24	2.770	O	|	|	|	|	0.75
230.667	0.00	0.24	2.768	O	|	|	|	|	0.75
230.750	0.00	0.24	2.766	O	|	|	|	|	0.75
230.833	0.00	0.24	2.765	O	|	|	|	|	0.75
230.917	0.00	0.24	2.763	O	|	|	|	|	0.75
231.000	0.00	0.24	2.761	O	|	|	|	|	0.75
231.083	0.00	0.24	2.760	O	|	|	|	|	0.75
231.167	0.00	0.24	2.758	O	|	|	|	|	0.75
231.250	0.00	0.24	2.756	O	|	|	|	|	0.74
231.333	0.00	0.24	2.755	O	|	|	|	|	0.74
231.417	0.00	0.24	2.753	O	|	|	|	|	0.74
231.500	0.00	0.24	2.752	O	|	|	|	|	0.74
231.583	0.00	0.24	2.750	O	|	|	|	|	0.74
231.667	0.00	0.24	2.748	O	|	|	|	|	0.74
231.750	0.00	0.24	2.747	O	|	|	|	|	0.74
231.833	0.00	0.24	2.745	O	|	|	|	|	0.74
231.917	0.00	0.24	2.743	O	|	|	|	|	0.74
232.000	0.00	0.24	2.742	O	|	|	|	|	0.74
232.083	0.00	0.24	2.740	O	|	|	|	|	0.74
232.167	0.00	0.24	2.738	O	|	|	|	|	0.74
232.250	0.00	0.24	2.737	O	|	|	|	|	0.74
232.333	0.00	0.24	2.735	O	|	|	|	|	0.74
232.417	0.00	0.24	2.734	O	|	|	|	|	0.74
232.500	0.00	0.24	2.732	O	|	|	|	|	0.74
232.583	0.00	0.24	2.730	O	|	|	|	|	0.74
232.667	0.00	0.24	2.729	O	|	|	|	|	0.74
232.750	0.00	0.24	2.727	O	|	|	|	|	0.74
232.833	0.00	0.24	2.725	O	|	|	|	|	0.74
232.917	0.00	0.24	2.724	O	|	|	|	|	0.74
233.000	0.00	0.24	2.722	O	|	|	|	|	0.74
233.083	0.00	0.24	2.721	O	|	|	|	|	0.74
233.167	0.00	0.24	2.719	O	|	|	|	|	0.73
233.250	0.00	0.24	2.717	O	|	|	|	|	0.73
233.333	0.00	0.23	2.716	O	|	|	|	|	0.73
233.417	0.00	0.23	2.714	O	|	|	|	|	0.73
233.500	0.00	0.23	2.712	O	|	|	|	|	0.73
233.583	0.00	0.23	2.711	O	|	|	|	|	0.73
233.667	0.00	0.23	2.709	O	|	|	|	|	0.73
233.750	0.00	0.23	2.708	O	|	|	|	|	0.73
233.833	0.00	0.23	2.706	O	|	|	|	|	0.73
233.917	0.00	0.23	2.704	O	|	|	|	|	0.73
234.000	0.00	0.23	2.703	O	|	|	|	|	0.73
234.083	0.00	0.23	2.701	O	|	|	|	|	0.73
234.167	0.00	0.23	2.700	O	|	|	|	|	0.73
234.250	0.00	0.23	2.698	O	|	|	|	|	0.73
234.333	0.00	0.23	2.696	O	|	|	|	|	0.73
234.417	0.00	0.23	2.695	O	|	|	|	|	0.73
234.500	0.00	0.23	2.693	O	|	|	|	|	0.73
234.583	0.00	0.23	2.692	O	|	|	|	|	0.73
234.667	0.00	0.23	2.690	O	|	|	|	|	0.73
234.750	0.00	0.23	2.688	O	|	|	|	|	0.73
234.833	0.00	0.23	2.687	O	|	|	|	|	0.73
234.917	0.00	0.23	2.685	O	|	|	|	|	0.73
235.000	0.00	0.23	2.684	O	|	|	|	|	0.73
235.083	0.00	0.23	2.682	O	|	|	|	|	0.72
235.167	0.00	0.23	2.680	O	|	|	|	|	0.72

235.250	0.00	0.23	2.679	O	|	|	|	|	0.72
235.333	0.00	0.23	2.677	O	|	|	|	|	0.72
235.417	0.00	0.23	2.676	O	|	|	|	|	0.72
235.500	0.00	0.23	2.674	O	|	|	|	|	0.72
235.583	0.00	0.23	2.672	O	|	|	|	|	0.72
235.667	0.00	0.23	2.671	O	|	|	|	|	0.72
235.750	0.00	0.23	2.669	O	|	|	|	|	0.72
235.833	0.00	0.23	2.668	O	|	|	|	|	0.72
235.917	0.00	0.23	2.666	O	|	|	|	|	0.72
236.000	0.00	0.23	2.664	O	|	|	|	|	0.72
236.083	0.00	0.23	2.663	O	|	|	|	|	0.72
236.167	0.00	0.23	2.661	O	|	|	|	|	0.72
236.250	0.00	0.23	2.660	O	|	|	|	|	0.72
236.333	0.00	0.23	2.658	O	|	|	|	|	0.72
236.417	0.00	0.23	2.657	O	|	|	|	|	0.72
236.500	0.00	0.23	2.655	O	|	|	|	|	0.72
236.583	0.00	0.23	2.653	O	|	|	|	|	0.72
236.667	0.00	0.23	2.652	O	|	|	|	|	0.72
236.750	0.00	0.23	2.650	O	|	|	|	|	0.72
236.833	0.00	0.23	2.649	O	|	|	|	|	0.72
236.917	0.00	0.23	2.647	O	|	|	|	|	0.72
237.000	0.00	0.23	2.645	O	|	|	|	|	0.71
237.083	0.00	0.23	2.644	O	|	|	|	|	0.71
237.167	0.00	0.23	2.642	O	|	|	|	|	0.71
237.250	0.00	0.23	2.641	O	|	|	|	|	0.71
237.333	0.00	0.23	2.639	O	|	|	|	|	0.71
237.417	0.00	0.23	2.638	O	|	|	|	|	0.71
237.500	0.00	0.23	2.636	O	|	|	|	|	0.71
237.583	0.00	0.23	2.634	O	|	|	|	|	0.71
237.667	0.00	0.23	2.633	O	|	|	|	|	0.71
237.750	0.00	0.23	2.631	O	|	|	|	|	0.71
237.833	0.00	0.23	2.630	O	|	|	|	|	0.71
237.917	0.00	0.23	2.628	O	|	|	|	|	0.71
238.000	0.00	0.23	2.627	O	|	|	|	|	0.71
238.083	0.00	0.23	2.625	O	|	|	|	|	0.71
238.167	0.00	0.23	2.624	O	|	|	|	|	0.71
238.250	0.00	0.23	2.622	O	|	|	|	|	0.71
238.333	0.00	0.23	2.620	O	|	|	|	|	0.71
238.417	0.00	0.23	2.619	O	|	|	|	|	0.71
238.500	0.00	0.23	2.617	O	|	|	|	|	0.71
238.583	0.00	0.23	2.616	O	|	|	|	|	0.71
238.667	0.00	0.23	2.614	O	|	|	|	|	0.71
238.750	0.00	0.23	2.613	O	|	|	|	|	0.71
238.833	0.00	0.23	2.611	O	|	|	|	|	0.71
238.917	0.00	0.23	2.609	O	|	|	|	|	0.71
239.000	0.00	0.23	2.608	O	|	|	|	|	0.70
239.083	0.00	0.23	2.606	O	|	|	|	|	0.70
239.167	0.00	0.23	2.605	O	|	|	|	|	0.70
239.250	0.00	0.23	2.603	O	|	|	|	|	0.70
239.333	0.00	0.23	2.602	O	|	|	|	|	0.70
239.417	0.00	0.22	2.600	O	|	|	|	|	0.70
239.500	0.00	0.22	2.599	O	|	|	|	|	0.70
239.583	0.00	0.22	2.597	O	|	|	|	|	0.70
239.667	0.00	0.22	2.596	O	|	|	|	|	0.70
239.750	0.00	0.22	2.594	O	|	|	|	|	0.70
239.833	0.00	0.22	2.592	O	|	|	|	|	0.70
239.917	0.00	0.22	2.591	O	|	|	|	|	0.70
240.000	0.00	0.22	2.589	O	|	|	|	|	0.70
240.083	0.00	0.22	2.588	O	|	|	|	|	0.70
240.167	0.00	0.22	2.586	O	|	|	|	|	0.70
240.250	0.00	0.22	2.585	O	|	|	|	|	0.70
240.333	0.00	0.22	2.583	O	|	|	|	|	0.70
240.417	0.00	0.22	2.582	O	|	|	|	|	0.70

240.500	0.00	0.22	2.580	O	|	|	|	|	0.70
240.583	0.00	0.22	2.579	O	|	|	|	|	0.70
240.667	0.00	0.22	2.577	O	|	|	|	|	0.70
240.750	0.00	0.22	2.576	O	|	|	|	|	0.70
240.833	0.00	0.22	2.574	O	|	|	|	|	0.70
240.917	0.00	0.22	2.572	O	|	|	|	|	0.70
241.000	0.00	0.22	2.571	O	|	|	|	|	0.69
241.083	0.00	0.22	2.569	O	|	|	|	|	0.69
241.167	0.00	0.22	2.568	O	|	|	|	|	0.69
241.250	0.00	0.22	2.566	O	|	|	|	|	0.69
241.333	0.00	0.22	2.565	O	|	|	|	|	0.69
241.417	0.00	0.22	2.563	O	|	|	|	|	0.69
241.500	0.00	0.22	2.562	O	|	|	|	|	0.69
241.583	0.00	0.22	2.560	O	|	|	|	|	0.69
241.667	0.00	0.22	2.559	O	|	|	|	|	0.69
241.750	0.00	0.22	2.557	O	|	|	|	|	0.69
241.833	0.00	0.22	2.556	O	|	|	|	|	0.69
241.917	0.00	0.22	2.554	O	|	|	|	|	0.69
242.000	0.00	0.22	2.553	O	|	|	|	|	0.69
242.083	0.00	0.22	2.551	O	|	|	|	|	0.69
242.167	0.00	0.22	2.550	O	|	|	|	|	0.69
242.250	0.00	0.22	2.548	O	|	|	|	|	0.69
242.333	0.00	0.22	2.547	O	|	|	|	|	0.69
242.417	0.00	0.22	2.545	O	|	|	|	|	0.69
242.500	0.00	0.22	2.544	O	|	|	|	|	0.69
242.583	0.00	0.22	2.542	O	|	|	|	|	0.69
242.667	0.00	0.22	2.540	O	|	|	|	|	0.69
242.750	0.00	0.22	2.539	O	|	|	|	|	0.69
242.833	0.00	0.22	2.537	O	|	|	|	|	0.69
242.917	0.00	0.22	2.536	O	|	|	|	|	0.69
243.000	0.00	0.22	2.534	O	|	|	|	|	0.68
243.083	0.00	0.22	2.533	O	|	|	|	|	0.68
243.167	0.00	0.22	2.531	O	|	|	|	|	0.68
243.250	0.00	0.22	2.530	O	|	|	|	|	0.68
243.333	0.00	0.22	2.528	O	|	|	|	|	0.68
243.417	0.00	0.22	2.527	O	|	|	|	|	0.68
243.500	0.00	0.22	2.525	O	|	|	|	|	0.68
243.583	0.00	0.22	2.524	O	|	|	|	|	0.68
243.667	0.00	0.22	2.522	O	|	|	|	|	0.68
243.750	0.00	0.22	2.521	O	|	|	|	|	0.68
243.833	0.00	0.22	2.519	O	|	|	|	|	0.68
243.917	0.00	0.22	2.518	O	|	|	|	|	0.68
244.000	0.00	0.22	2.516	O	|	|	|	|	0.68
244.083	0.00	0.22	2.515	O	|	|	|	|	0.68
244.167	0.00	0.22	2.513	O	|	|	|	|	0.68
244.250	0.00	0.22	2.512	O	|	|	|	|	0.68
244.333	0.00	0.22	2.510	O	|	|	|	|	0.68
244.417	0.00	0.22	2.509	O	|	|	|	|	0.68
244.500	0.00	0.22	2.507	O	|	|	|	|	0.68
244.583	0.00	0.22	2.506	O	|	|	|	|	0.68
244.667	0.00	0.22	2.504	O	|	|	|	|	0.68
244.750	0.00	0.22	2.503	O	|	|	|	|	0.68
244.833	0.00	0.22	2.501	O	|	|	|	|	0.68
244.917	0.00	0.22	2.500	O	|	|	|	|	0.68
245.000	0.00	0.22	2.498	O	|	|	|	|	0.68
245.083	0.00	0.22	2.497	O	|	|	|	|	0.67
245.167	0.00	0.22	2.495	O	|	|	|	|	0.67
245.250	0.00	0.22	2.494	O	|	|	|	|	0.67
245.333	0.00	0.22	2.493	O	|	|	|	|	0.67
245.417	0.00	0.22	2.491	O	|	|	|	|	0.67
245.500	0.00	0.22	2.490	O	|	|	|	|	0.67
245.583	0.00	0.22	2.488	O	|	|	|	|	0.67
245.667	0.00	0.22	2.487	O	|	|	|	|	0.67

245.750	0.00	0.21	2.485	O	|	|	|	|	0.67
245.833	0.00	0.21	2.484	O	|	|	|	|	0.67
245.917	0.00	0.21	2.482	O	|	|	|	|	0.67
246.000	0.00	0.21	2.481	O	|	|	|	|	0.67
246.083	0.00	0.21	2.479	O	|	|	|	|	0.67
246.167	0.00	0.21	2.478	O	|	|	|	|	0.67
246.250	0.00	0.21	2.476	O	|	|	|	|	0.67
246.333	0.00	0.21	2.475	O	|	|	|	|	0.67
246.417	0.00	0.21	2.473	O	|	|	|	|	0.67
246.500	0.00	0.21	2.472	O	|	|	|	|	0.67
246.583	0.00	0.21	2.470	O	|	|	|	|	0.67
246.667	0.00	0.21	2.469	O	|	|	|	|	0.67
246.750	0.00	0.21	2.467	O	|	|	|	|	0.67
246.833	0.00	0.21	2.466	O	|	|	|	|	0.67
246.917	0.00	0.21	2.464	O	|	|	|	|	0.67
247.000	0.00	0.21	2.463	O	|	|	|	|	0.67
247.083	0.00	0.21	2.462	O	|	|	|	|	0.67
247.167	0.00	0.21	2.460	O	|	|	|	|	0.66
247.250	0.00	0.21	2.459	O	|	|	|	|	0.66
247.333	0.00	0.21	2.457	O	|	|	|	|	0.66
247.417	0.00	0.21	2.456	O	|	|	|	|	0.66
247.500	0.00	0.21	2.454	O	|	|	|	|	0.66
247.583	0.00	0.21	2.453	O	|	|	|	|	0.66
247.667	0.00	0.21	2.451	O	|	|	|	|	0.66
247.750	0.00	0.21	2.450	O	|	|	|	|	0.66
247.833	0.00	0.21	2.448	O	|	|	|	|	0.66
247.917	0.00	0.21	2.447	O	|	|	|	|	0.66
248.000	0.00	0.21	2.445	O	|	|	|	|	0.66
248.083	0.00	0.21	2.444	O	|	|	|	|	0.66
248.167	0.00	0.21	2.443	O	|	|	|	|	0.66
248.250	0.00	0.21	2.441	O	|	|	|	|	0.66
248.333	0.00	0.21	2.440	O	|	|	|	|	0.66
248.417	0.00	0.21	2.438	O	|	|	|	|	0.66
248.500	0.00	0.21	2.437	O	|	|	|	|	0.66
248.583	0.00	0.21	2.435	O	|	|	|	|	0.66
248.667	0.00	0.21	2.434	O	|	|	|	|	0.66
248.750	0.00	0.21	2.432	O	|	|	|	|	0.66
248.833	0.00	0.21	2.431	O	|	|	|	|	0.66
248.917	0.00	0.21	2.429	O	|	|	|	|	0.66
249.000	0.00	0.21	2.428	O	|	|	|	|	0.66
249.083	0.00	0.21	2.427	O	|	|	|	|	0.66
249.167	0.00	0.21	2.425	O	|	|	|	|	0.66
249.250	0.00	0.21	2.424	O	|	|	|	|	0.66
249.333	0.00	0.21	2.422	O	|	|	|	|	0.65
249.417	0.00	0.21	2.421	O	|	|	|	|	0.65
249.500	0.00	0.21	2.419	O	|	|	|	|	0.65
249.583	0.00	0.21	2.418	O	|	|	|	|	0.65
249.667	0.00	0.21	2.416	O	|	|	|	|	0.65
249.750	0.00	0.21	2.415	O	|	|	|	|	0.65
249.833	0.00	0.21	2.414	O	|	|	|	|	0.65
249.917	0.00	0.21	2.412	O	|	|	|	|	0.65
250.000	0.00	0.21	2.411	O	|	|	|	|	0.65
250.083	0.00	0.21	2.409	O	|	|	|	|	0.65
250.167	0.00	0.21	2.408	O	|	|	|	|	0.65
250.250	0.00	0.21	2.406	O	|	|	|	|	0.65
250.333	0.00	0.21	2.405	O	|	|	|	|	0.65
250.417	0.00	0.21	2.404	O	|	|	|	|	0.65
250.500	0.00	0.21	2.402	O	|	|	|	|	0.65
250.583	0.00	0.21	2.401	O	|	|	|	|	0.65
250.667	0.00	0.21	2.399	O	|	|	|	|	0.65
250.750	0.00	0.21	2.398	O	|	|	|	|	0.65
250.833	0.00	0.21	2.396	O	|	|	|	|	0.65
250.917	0.00	0.21	2.395	O	|	|	|	|	0.65

251.000	0.00	0.21	2.394	O	|	|	|	|	0.65
251.083	0.00	0.21	2.392	O	|	|	|	|	0.65
251.167	0.00	0.21	2.391	O	|	|	|	|	0.65
251.250	0.00	0.21	2.389	O	|	|	|	|	0.65
251.333	0.00	0.21	2.388	O	|	|	|	|	0.65
251.417	0.00	0.21	2.386	O	|	|	|	|	0.64
251.500	0.00	0.21	2.385	O	|	|	|	|	0.64
251.583	0.00	0.21	2.384	O	|	|	|	|	0.64
251.667	0.00	0.21	2.382	O	|	|	|	|	0.64
251.750	0.00	0.21	2.381	O	|	|	|	|	0.64
251.833	0.00	0.21	2.379	O	|	|	|	|	0.64
251.917	0.00	0.21	2.378	O	|	|	|	|	0.64
252.000	0.00	0.21	2.377	O	|	|	|	|	0.64
252.083	0.00	0.21	2.375	O	|	|	|	|	0.64
252.167	0.00	0.21	2.374	O	|	|	|	|	0.64
252.250	0.00	0.21	2.372	O	|	|	|	|	0.64
252.333	0.00	0.21	2.371	O	|	|	|	|	0.64
252.417	0.00	0.20	2.369	O	|	|	|	|	0.64
252.500	0.00	0.20	2.368	O	|	|	|	|	0.64
252.583	0.00	0.20	2.367	O	|	|	|	|	0.64
252.667	0.00	0.20	2.365	O	|	|	|	|	0.64
252.750	0.00	0.20	2.364	O	|	|	|	|	0.64
252.833	0.00	0.20	2.362	O	|	|	|	|	0.64
252.917	0.00	0.20	2.361	O	|	|	|	|	0.64
253.000	0.00	0.20	2.360	O	|	|	|	|	0.64
253.083	0.00	0.20	2.358	O	|	|	|	|	0.64
253.167	0.00	0.20	2.357	O	|	|	|	|	0.64
253.250	0.00	0.20	2.355	O	|	|	|	|	0.64
253.333	0.00	0.20	2.354	O	|	|	|	|	0.64
253.417	0.00	0.20	2.353	O	|	|	|	|	0.64
253.500	0.00	0.20	2.351	O	|	|	|	|	0.64
253.583	0.00	0.20	2.350	O	|	|	|	|	0.64
253.667	0.00	0.20	2.348	O	|	|	|	|	0.63
253.750	0.00	0.20	2.347	O	|	|	|	|	0.63
253.833	0.00	0.20	2.346	O	|	|	|	|	0.63
253.917	0.00	0.20	2.344	O	|	|	|	|	0.63
254.000	0.00	0.20	2.343	O	|	|	|	|	0.63
254.083	0.00	0.20	2.341	O	|	|	|	|	0.63
254.167	0.00	0.20	2.340	O	|	|	|	|	0.63
254.250	0.00	0.20	2.339	O	|	|	|	|	0.63
254.333	0.00	0.20	2.337	O	|	|	|	|	0.63
254.417	0.00	0.20	2.336	O	|	|	|	|	0.63
254.500	0.00	0.20	2.334	O	|	|	|	|	0.63
254.583	0.00	0.20	2.333	O	|	|	|	|	0.63
254.667	0.00	0.20	2.332	O	|	|	|	|	0.63
254.750	0.00	0.20	2.330	O	|	|	|	|	0.63
254.833	0.00	0.20	2.329	O	|	|	|	|	0.63
254.917	0.00	0.20	2.327	O	|	|	|	|	0.63
255.000	0.00	0.20	2.326	O	|	|	|	|	0.63
255.083	0.00	0.20	2.325	O	|	|	|	|	0.63
255.167	0.00	0.20	2.323	O	|	|	|	|	0.63
255.250	0.00	0.20	2.322	O	|	|	|	|	0.63
255.333	0.00	0.20	2.321	O	|	|	|	|	0.63
255.417	0.00	0.20	2.319	O	|	|	|	|	0.63
255.500	0.00	0.20	2.318	O	|	|	|	|	0.63
255.583	0.00	0.20	2.316	O	|	|	|	|	0.63
255.667	0.00	0.20	2.315	O	|	|	|	|	0.63
255.750	0.00	0.20	2.314	O	|	|	|	|	0.63
255.833	0.00	0.20	2.312	O	|	|	|	|	0.62
255.917	0.00	0.20	2.311	O	|	|	|	|	0.62
256.000	0.00	0.20	2.310	O	|	|	|	|	0.62
256.083	0.00	0.20	2.308	O	|	|	|	|	0.62
256.167	0.00	0.20	2.307	O	|	|	|	|	0.62

256.250	0.00	0.20	2.305	O	|	|	|	|	0.62
256.333	0.00	0.20	2.304	O	|	|	|	|	0.62
256.417	0.00	0.20	2.303	O	|	|	|	|	0.62
256.500	0.00	0.20	2.301	O	|	|	|	|	0.62
256.583	0.00	0.20	2.300	O	|	|	|	|	0.62
256.667	0.00	0.20	2.299	O	|	|	|	|	0.62
256.750	0.00	0.20	2.297	O	|	|	|	|	0.62
256.833	0.00	0.20	2.296	O	|	|	|	|	0.62
256.917	0.00	0.20	2.294	O	|	|	|	|	0.62
257.000	0.00	0.20	2.293	O	|	|	|	|	0.62
257.083	0.00	0.20	2.292	O	|	|	|	|	0.62
257.167	0.00	0.20	2.290	O	|	|	|	|	0.62
257.250	0.00	0.20	2.289	O	|	|	|	|	0.62
257.333	0.00	0.20	2.288	O	|	|	|	|	0.62
257.417	0.00	0.20	2.286	O	|	|	|	|	0.62
257.500	0.00	0.20	2.285	O	|	|	|	|	0.62
257.583	0.00	0.20	2.284	O	|	|	|	|	0.62
257.667	0.00	0.20	2.282	O	|	|	|	|	0.62
257.750	0.00	0.20	2.281	O	|	|	|	|	0.62
257.833	0.00	0.20	2.279	O	|	|	|	|	0.62
257.917	0.00	0.20	2.278	O	|	|	|	|	0.62
258.000	0.00	0.20	2.277	O	|	|	|	|	0.62
258.083	0.00	0.20	2.275	O	|	|	|	|	0.61
258.167	0.00	0.20	2.274	O	|	|	|	|	0.61
258.250	0.00	0.20	2.273	O	|	|	|	|	0.61
258.333	0.00	0.20	2.271	O	|	|	|	|	0.61
258.417	0.00	0.20	2.270	O	|	|	|	|	0.61
258.500	0.00	0.20	2.269	O	|	|	|	|	0.61
258.583	0.00	0.20	2.267	O	|	|	|	|	0.61
258.667	0.00	0.20	2.266	O	|	|	|	|	0.61
258.750	0.00	0.20	2.265	O	|	|	|	|	0.61
258.833	0.00	0.20	2.263	O	|	|	|	|	0.61
258.917	0.00	0.20	2.262	O	|	|	|	|	0.61
259.000	0.00	0.20	2.261	O	|	|	|	|	0.61
259.083	0.00	0.20	2.259	O	|	|	|	|	0.61
259.167	0.00	0.20	2.258	O	|	|	|	|	0.61
259.250	0.00	0.20	2.257	O	|	|	|	|	0.61
259.333	0.00	0.20	2.255	O	|	|	|	|	0.61
259.417	0.00	0.19	2.254	O	|	|	|	|	0.61
259.500	0.00	0.19	2.252	O	|	|	|	|	0.61
259.583	0.00	0.19	2.251	O	|	|	|	|	0.61
259.667	0.00	0.19	2.250	O	|	|	|	|	0.61
259.750	0.00	0.19	2.248	O	|	|	|	|	0.61
259.833	0.00	0.19	2.247	O	|	|	|	|	0.61
259.917	0.00	0.19	2.246	O	|	|	|	|	0.61
260.000	0.00	0.19	2.244	O	|	|	|	|	0.61
260.083	0.00	0.19	2.243	O	|	|	|	|	0.61
260.167	0.00	0.19	2.242	O	|	|	|	|	0.61
260.250	0.00	0.19	2.240	O	|	|	|	|	0.61
260.333	0.00	0.19	2.239	O	|	|	|	|	0.61
260.417	0.00	0.19	2.238	O	|	|	|	|	0.60
260.500	0.00	0.19	2.236	O	|	|	|	|	0.60
260.583	0.00	0.19	2.235	O	|	|	|	|	0.60
260.667	0.00	0.19	2.234	O	|	|	|	|	0.60
260.750	0.00	0.19	2.232	O	|	|	|	|	0.60
260.833	0.00	0.19	2.231	O	|	|	|	|	0.60
260.917	0.00	0.19	2.230	O	|	|	|	|	0.60
261.000	0.00	0.19	2.228	O	|	|	|	|	0.60
261.083	0.00	0.19	2.227	O	|	|	|	|	0.60
261.167	0.00	0.19	2.226	O	|	|	|	|	0.60
261.250	0.00	0.19	2.224	O	|	|	|	|	0.60
261.333	0.00	0.19	2.223	O	|	|	|	|	0.60
261.417	0.00	0.19	2.222	O	|	|	|	|	0.60

261.500	0.00	0.19	2.221	O	|	|	|	|	0.60
261.583	0.00	0.19	2.219	O	|	|	|	|	0.60
261.667	0.00	0.19	2.218	O	|	|	|	|	0.60
261.750	0.00	0.19	2.217	O	|	|	|	|	0.60
261.833	0.00	0.19	2.215	O	|	|	|	|	0.60
261.917	0.00	0.19	2.214	O	|	|	|	|	0.60
262.000	0.00	0.19	2.213	O	|	|	|	|	0.60
262.083	0.00	0.19	2.211	O	|	|	|	|	0.60
262.167	0.00	0.19	2.210	O	|	|	|	|	0.60
262.250	0.00	0.19	2.209	O	|	|	|	|	0.60
262.333	0.00	0.19	2.207	O	|	|	|	|	0.60
262.417	0.00	0.19	2.206	O	|	|	|	|	0.60
262.500	0.00	0.19	2.205	O	|	|	|	|	0.60
262.583	0.00	0.19	2.203	O	|	|	|	|	0.60
262.667	0.00	0.19	2.202	O	|	|	|	|	0.60
262.750	0.00	0.19	2.201	O	|	|	|	|	0.59
262.833	0.00	0.19	2.199	O	|	|	|	|	0.59
262.917	0.00	0.19	2.198	O	|	|	|	|	0.59
263.000	0.00	0.19	2.197	O	|	|	|	|	0.59
263.083	0.00	0.19	2.196	O	|	|	|	|	0.59
263.167	0.00	0.19	2.194	O	|	|	|	|	0.59
263.250	0.00	0.19	2.193	O	|	|	|	|	0.59
263.333	0.00	0.19	2.192	O	|	|	|	|	0.59
263.417	0.00	0.19	2.190	O	|	|	|	|	0.59
263.500	0.00	0.19	2.189	O	|	|	|	|	0.59
263.583	0.00	0.19	2.188	O	|	|	|	|	0.59
263.667	0.00	0.19	2.186	O	|	|	|	|	0.59
263.750	0.00	0.19	2.185	O	|	|	|	|	0.59
263.833	0.00	0.19	2.184	O	|	|	|	|	0.59
263.917	0.00	0.19	2.182	O	|	|	|	|	0.59
264.000	0.00	0.19	2.181	O	|	|	|	|	0.59
264.083	0.00	0.19	2.180	O	|	|	|	|	0.59
264.167	0.00	0.19	2.179	O	|	|	|	|	0.59
264.250	0.00	0.19	2.177	O	|	|	|	|	0.59
264.333	0.00	0.19	2.176	O	|	|	|	|	0.59
264.417	0.00	0.19	2.175	O	|	|	|	|	0.59
264.500	0.00	0.19	2.173	O	|	|	|	|	0.59
264.583	0.00	0.19	2.172	O	|	|	|	|	0.59
264.667	0.00	0.19	2.171	O	|	|	|	|	0.59
264.750	0.00	0.19	2.170	O	|	|	|	|	0.59
264.833	0.00	0.19	2.168	O	|	|	|	|	0.59
264.917	0.00	0.19	2.167	O	|	|	|	|	0.59
265.000	0.00	0.19	2.166	O	|	|	|	|	0.59
265.083	0.00	0.19	2.164	O	|	|	|	|	0.58
265.167	0.00	0.19	2.163	O	|	|	|	|	0.58
265.250	0.00	0.19	2.162	O	|	|	|	|	0.58
265.333	0.00	0.19	2.160	O	|	|	|	|	0.58
265.417	0.00	0.19	2.159	O	|	|	|	|	0.58
265.500	0.00	0.19	2.158	O	|	|	|	|	0.58
265.583	0.00	0.19	2.157	O	|	|	|	|	0.58
265.667	0.00	0.19	2.155	O	|	|	|	|	0.58
265.750	0.00	0.19	2.154	O	|	|	|	|	0.58
265.833	0.00	0.19	2.153	O	|	|	|	|	0.58
265.917	0.00	0.19	2.152	O	|	|	|	|	0.58
266.000	0.00	0.19	2.150	O	|	|	|	|	0.58
266.083	0.00	0.19	2.149	O	|	|	|	|	0.58
266.167	0.00	0.19	2.148	O	|	|	|	|	0.58
266.250	0.00	0.19	2.146	O	|	|	|	|	0.58
266.333	0.00	0.19	2.145	O	|	|	|	|	0.58
266.417	0.00	0.19	2.144	O	|	|	|	|	0.58
266.500	0.00	0.19	2.143	O	|	|	|	|	0.58
266.583	0.00	0.19	2.141	O	|	|	|	|	0.58
266.667	0.00	0.19	2.140	O	|	|	|	|	0.58

266.750	0.00	0.18	2.139	O	|	|	|	|	0.58
266.833	0.00	0.18	2.137	O	|	|	|	|	0.58
266.917	0.00	0.18	2.136	O	|	|	|	|	0.58
267.000	0.00	0.18	2.135	O	|	|	|	|	0.58
267.083	0.00	0.18	2.134	O	|	|	|	|	0.58
267.167	0.00	0.18	2.132	O	|	|	|	|	0.58
267.250	0.00	0.18	2.131	O	|	|	|	|	0.58
267.333	0.00	0.18	2.130	O	|	|	|	|	0.58
267.417	0.00	0.18	2.129	O	|	|	|	|	0.58
267.500	0.00	0.18	2.127	O	|	|	|	|	0.57
267.583	0.00	0.18	2.126	O	|	|	|	|	0.57
267.667	0.00	0.18	2.125	O	|	|	|	|	0.57
267.750	0.00	0.18	2.123	O	|	|	|	|	0.57
267.833	0.00	0.18	2.122	O	|	|	|	|	0.57
267.917	0.00	0.18	2.121	O	|	|	|	|	0.57
268.000	0.00	0.18	2.120	O	|	|	|	|	0.57
268.083	0.00	0.18	2.118	O	|	|	|	|	0.57
268.167	0.00	0.18	2.117	O	|	|	|	|	0.57
268.250	0.00	0.18	2.116	O	|	|	|	|	0.57
268.333	0.00	0.18	2.115	O	|	|	|	|	0.57
268.417	0.00	0.18	2.113	O	|	|	|	|	0.57
268.500	0.00	0.18	2.112	O	|	|	|	|	0.57
268.583	0.00	0.18	2.111	O	|	|	|	|	0.57
268.667	0.00	0.18	2.110	O	|	|	|	|	0.57
268.750	0.00	0.18	2.108	O	|	|	|	|	0.57
268.833	0.00	0.18	2.107	O	|	|	|	|	0.57
268.917	0.00	0.18	2.106	O	|	|	|	|	0.57
269.000	0.00	0.18	2.105	O	|	|	|	|	0.57
269.083	0.00	0.18	2.103	O	|	|	|	|	0.57
269.167	0.00	0.18	2.102	O	|	|	|	|	0.57
269.250	0.00	0.18	2.101	O	|	|	|	|	0.57
269.333	0.00	0.18	2.100	O	|	|	|	|	0.57
269.417	0.00	0.18	2.098	O	|	|	|	|	0.57
269.500	0.00	0.18	2.097	O	|	|	|	|	0.57
269.583	0.00	0.18	2.096	O	|	|	|	|	0.57
269.667	0.00	0.18	2.095	O	|	|	|	|	0.57
269.750	0.00	0.18	2.093	O	|	|	|	|	0.57
269.833	0.00	0.18	2.092	O	|	|	|	|	0.57
269.917	0.00	0.18	2.091	O	|	|	|	|	0.57
270.000	0.00	0.18	2.090	O	|	|	|	|	0.56
270.083	0.00	0.18	2.088	O	|	|	|	|	0.56
270.167	0.00	0.18	2.087	O	|	|	|	|	0.56
270.250	0.00	0.18	2.086	O	|	|	|	|	0.56
270.333	0.00	0.18	2.085	O	|	|	|	|	0.56
270.417	0.00	0.18	2.083	O	|	|	|	|	0.56
270.500	0.00	0.18	2.082	O	|	|	|	|	0.56
270.583	0.00	0.18	2.081	O	|	|	|	|	0.56
270.667	0.00	0.18	2.080	O	|	|	|	|	0.56
270.750	0.00	0.18	2.078	O	|	|	|	|	0.56
270.833	0.00	0.18	2.077	O	|	|	|	|	0.56
270.917	0.00	0.18	2.076	O	|	|	|	|	0.56
271.000	0.00	0.18	2.075	O	|	|	|	|	0.56
271.083	0.00	0.18	2.073	O	|	|	|	|	0.56
271.167	0.00	0.18	2.072	O	|	|	|	|	0.56
271.250	0.00	0.18	2.071	O	|	|	|	|	0.56
271.333	0.00	0.18	2.070	O	|	|	|	|	0.56
271.417	0.00	0.18	2.069	O	|	|	|	|	0.56
271.500	0.00	0.18	2.067	O	|	|	|	|	0.56
271.583	0.00	0.18	2.066	O	|	|	|	|	0.56
271.667	0.00	0.18	2.065	O	|	|	|	|	0.56
271.750	0.00	0.18	2.064	O	|	|	|	|	0.56
271.833	0.00	0.18	2.062	O	|	|	|	|	0.56
271.917	0.00	0.18	2.061	O	|	|	|	|	0.56

272.000	0.00	0.18	2.060	O	|	|	|	|	0.56
272.083	0.00	0.18	2.059	O	|	|	|	|	0.56
272.167	0.00	0.18	2.058	O	|	|	|	|	0.56
272.250	0.00	0.18	2.056	O	|	|	|	|	0.56
272.333	0.00	0.18	2.055	O	|	|	|	|	0.56
272.417	0.00	0.18	2.054	O	|	|	|	|	0.56
272.500	0.00	0.18	2.053	O	|	|	|	|	0.55
272.583	0.00	0.18	2.051	O	|	|	|	|	0.55
272.667	0.00	0.18	2.050	O	|	|	|	|	0.55
272.750	0.00	0.18	2.049	O	|	|	|	|	0.55
272.833	0.00	0.18	2.048	O	|	|	|	|	0.55
272.917	0.00	0.18	2.047	O	|	|	|	|	0.55
273.000	0.00	0.18	2.045	O	|	|	|	|	0.55
273.083	0.00	0.18	2.044	O	|	|	|	|	0.55
273.167	0.00	0.18	2.043	O	|	|	|	|	0.55
273.250	0.00	0.18	2.042	O	|	|	|	|	0.55
273.333	0.00	0.18	2.040	O	|	|	|	|	0.55
273.417	0.00	0.18	2.039	O	|	|	|	|	0.55
273.500	0.00	0.18	2.038	O	|	|	|	|	0.55
273.583	0.00	0.18	2.037	O	|	|	|	|	0.55
273.667	0.00	0.18	2.036	O	|	|	|	|	0.55
273.750	0.00	0.18	2.034	O	|	|	|	|	0.55
273.833	0.00	0.18	2.033	O	|	|	|	|	0.55
273.917	0.00	0.18	2.032	O	|	|	|	|	0.55
274.000	0.00	0.18	2.031	O	|	|	|	|	0.55
274.083	0.00	0.18	2.030	O	|	|	|	|	0.55
274.167	0.00	0.18	2.028	O	|	|	|	|	0.55
274.250	0.00	0.18	2.027	O	|	|	|	|	0.55
274.333	0.00	0.18	2.026	O	|	|	|	|	0.55
274.417	0.00	0.18	2.025	O	|	|	|	|	0.55
274.500	0.00	0.18	2.023	O	|	|	|	|	0.55
274.583	0.00	0.17	2.022	O	|	|	|	|	0.55
274.667	0.00	0.17	2.021	O	|	|	|	|	0.55
274.750	0.00	0.17	2.020	O	|	|	|	|	0.55
274.833	0.00	0.17	2.019	O	|	|	|	|	0.55
274.917	0.00	0.17	2.017	O	|	|	|	|	0.55
275.000	0.00	0.17	2.016	O	|	|	|	|	0.54
275.083	0.00	0.17	2.015	O	|	|	|	|	0.54
275.167	0.00	0.17	2.014	O	|	|	|	|	0.54
275.250	0.00	0.17	2.013	O	|	|	|	|	0.54
275.333	0.00	0.17	2.011	O	|	|	|	|	0.54
275.417	0.00	0.17	2.010	O	|	|	|	|	0.54
275.500	0.00	0.17	2.009	O	|	|	|	|	0.54
275.583	0.00	0.17	2.008	O	|	|	|	|	0.54
275.667	0.00	0.17	2.007	O	|	|	|	|	0.54
275.750	0.00	0.17	2.005	O	|	|	|	|	0.54
275.833	0.00	0.17	2.004	O	|	|	|	|	0.54
275.917	0.00	0.17	2.003	O	|	|	|	|	0.54
276.000	0.00	0.17	2.002	O	|	|	|	|	0.54
276.083	0.00	0.17	2.001	O	|	|	|	|	0.54
276.167	0.00	0.17	2.000	O	|	|	|	|	0.54
276.250	0.00	0.17	1.998	O	|	|	|	|	0.54
276.333	0.00	0.17	1.997	O	|	|	|	|	0.54
276.417	0.00	0.17	1.996	O	|	|	|	|	0.54
276.500	0.00	0.17	1.995	O	|	|	|	|	0.54
276.583	0.00	0.17	1.994	O	|	|	|	|	0.54
276.667	0.00	0.17	1.992	O	|	|	|	|	0.54
276.750	0.00	0.17	1.991	O	|	|	|	|	0.54
276.833	0.00	0.17	1.990	O	|	|	|	|	0.54
276.917	0.00	0.17	1.989	O	|	|	|	|	0.54
277.000	0.00	0.17	1.988	O	|	|	|	|	0.54
277.083	0.00	0.17	1.986	O	|	|	|	|	0.54
277.167	0.00	0.17	1.985	O	|	|	|	|	0.54

277.250	0.00	0.17	1.984	O	|	|	|	|	0.54
277.333	0.00	0.17	1.983	O	|	|	|	|	0.54
277.417	0.00	0.17	1.982	O	|	|	|	|	0.54
277.500	0.00	0.17	1.981	O	|	|	|	|	0.54
277.583	0.00	0.17	1.979	O	|	|	|	|	0.53
277.667	0.00	0.17	1.978	O	|	|	|	|	0.53
277.750	0.00	0.17	1.977	O	|	|	|	|	0.53
277.833	0.00	0.17	1.976	O	|	|	|	|	0.53
277.917	0.00	0.17	1.975	O	|	|	|	|	0.53
278.000	0.00	0.17	1.973	O	|	|	|	|	0.53
278.083	0.00	0.17	1.972	O	|	|	|	|	0.53
278.167	0.00	0.17	1.971	O	|	|	|	|	0.53
278.250	0.00	0.17	1.970	O	|	|	|	|	0.53
278.333	0.00	0.17	1.969	O	|	|	|	|	0.53
278.417	0.00	0.17	1.968	O	|	|	|	|	0.53
278.500	0.00	0.17	1.966	O	|	|	|	|	0.53
278.583	0.00	0.17	1.965	O	|	|	|	|	0.53
278.667	0.00	0.17	1.964	O	|	|	|	|	0.53
278.750	0.00	0.17	1.963	O	|	|	|	|	0.53
278.833	0.00	0.17	1.962	O	|	|	|	|	0.53
278.917	0.00	0.17	1.961	O	|	|	|	|	0.53
279.000	0.00	0.17	1.959	O	|	|	|	|	0.53
279.083	0.00	0.17	1.958	O	|	|	|	|	0.53
279.167	0.00	0.17	1.957	O	|	|	|	|	0.53
279.250	0.00	0.17	1.956	O	|	|	|	|	0.53
279.333	0.00	0.17	1.955	O	|	|	|	|	0.53
279.417	0.00	0.17	1.954	O	|	|	|	|	0.53
279.500	0.00	0.17	1.952	O	|	|	|	|	0.53
279.583	0.00	0.17	1.951	O	|	|	|	|	0.53
279.667	0.00	0.17	1.950	O	|	|	|	|	0.53
279.750	0.00	0.17	1.949	O	|	|	|	|	0.53
279.833	0.00	0.17	1.948	O	|	|	|	|	0.53
279.917	0.00	0.17	1.947	O	|	|	|	|	0.53
280.000	0.00	0.17	1.945	O	|	|	|	|	0.53
280.083	0.00	0.17	1.944	O	|	|	|	|	0.53
280.167	0.00	0.17	1.943	O	|	|	|	|	0.53
280.250	0.00	0.17	1.942	O	|	|	|	|	0.52
280.333	0.00	0.17	1.941	O	|	|	|	|	0.52
280.417	0.00	0.17	1.940	O	|	|	|	|	0.52
280.500	0.00	0.17	1.939	O	|	|	|	|	0.52
280.583	0.00	0.17	1.937	O	|	|	|	|	0.52
280.667	0.00	0.17	1.936	O	|	|	|	|	0.52
280.750	0.00	0.17	1.935	O	|	|	|	|	0.52
280.833	0.00	0.17	1.934	O	|	|	|	|	0.52
280.917	0.00	0.17	1.933	O	|	|	|	|	0.52
281.000	0.00	0.17	1.932	O	|	|	|	|	0.52
281.083	0.00	0.17	1.930	O	|	|	|	|	0.52
281.167	0.00	0.17	1.929	O	|	|	|	|	0.52
281.250	0.00	0.17	1.928	O	|	|	|	|	0.52
281.333	0.00	0.17	1.927	O	|	|	|	|	0.52
281.417	0.00	0.17	1.926	O	|	|	|	|	0.52
281.500	0.00	0.17	1.925	O	|	|	|	|	0.52
281.583	0.00	0.17	1.924	O	|	|	|	|	0.52
281.667	0.00	0.17	1.922	O	|	|	|	|	0.52
281.750	0.00	0.17	1.921	O	|	|	|	|	0.52
281.833	0.00	0.17	1.920	O	|	|	|	|	0.52
281.917	0.00	0.17	1.919	O	|	|	|	|	0.52
282.000	0.00	0.17	1.918	O	|	|	|	|	0.52
282.083	0.00	0.17	1.917	O	|	|	|	|	0.52
282.167	0.00	0.17	1.916	O	|	|	|	|	0.52
282.250	0.00	0.17	1.914	O	|	|	|	|	0.52
282.333	0.00	0.17	1.913	O	|	|	|	|	0.52
282.417	0.00	0.17	1.912	O	|	|	|	|	0.52

282.500	0.00	0.17	1.911	O	|	|	|	|	0.52
282.583	0.00	0.17	1.910	O	|	|	|	|	0.52
282.667	0.00	0.17	1.909	O	|	|	|	|	0.52
282.750	0.00	0.16	1.908	O	|	|	|	|	0.52
282.833	0.00	0.16	1.906	O	|	|	|	|	0.52
282.917	0.00	0.16	1.905	O	|	|	|	|	0.51
283.000	0.00	0.16	1.904	O	|	|	|	|	0.51
283.083	0.00	0.16	1.903	O	|	|	|	|	0.51
283.167	0.00	0.16	1.902	O	|	|	|	|	0.51
283.250	0.00	0.16	1.901	O	|	|	|	|	0.51
283.333	0.00	0.16	1.900	O	|	|	|	|	0.51
283.417	0.00	0.16	1.899	O	|	|	|	|	0.51
283.500	0.00	0.16	1.897	O	|	|	|	|	0.51
283.583	0.00	0.16	1.896	O	|	|	|	|	0.51
283.667	0.00	0.16	1.895	O	|	|	|	|	0.51
283.750	0.00	0.16	1.894	O	|	|	|	|	0.51
283.833	0.00	0.16	1.893	O	|	|	|	|	0.51
283.917	0.00	0.16	1.892	O	|	|	|	|	0.51
284.000	0.00	0.16	1.891	O	|	|	|	|	0.51
284.083	0.00	0.16	1.890	O	|	|	|	|	0.51
284.167	0.00	0.16	1.888	O	|	|	|	|	0.51
284.250	0.00	0.16	1.887	O	|	|	|	|	0.51
284.333	0.00	0.16	1.886	O	|	|	|	|	0.51
284.417	0.00	0.16	1.885	O	|	|	|	|	0.51
284.500	0.00	0.16	1.884	O	|	|	|	|	0.51
284.583	0.00	0.16	1.883	O	|	|	|	|	0.51
284.667	0.00	0.16	1.882	O	|	|	|	|	0.51
284.750	0.00	0.16	1.881	O	|	|	|	|	0.51
284.833	0.00	0.16	1.879	O	|	|	|	|	0.51
284.917	0.00	0.16	1.878	O	|	|	|	|	0.51
285.000	0.00	0.16	1.877	O	|	|	|	|	0.51
285.083	0.00	0.16	1.876	O	|	|	|	|	0.51
285.167	0.00	0.16	1.875	O	|	|	|	|	0.51
285.250	0.00	0.16	1.874	O	|	|	|	|	0.51
285.333	0.00	0.16	1.873	O	|	|	|	|	0.51
285.417	0.00	0.16	1.872	O	|	|	|	|	0.51
285.500	0.00	0.16	1.870	O	|	|	|	|	0.51
285.583	0.00	0.16	1.869	O	|	|	|	|	0.51
285.667	0.00	0.16	1.868	O	|	|	|	|	0.50
285.750	0.00	0.16	1.867	O	|	|	|	|	0.50
285.833	0.00	0.16	1.866	O	|	|	|	|	0.50
285.917	0.00	0.16	1.865	O	|	|	|	|	0.50
286.000	0.00	0.16	1.864	O	|	|	|	|	0.50
286.083	0.00	0.16	1.863	O	|	|	|	|	0.50
286.167	0.00	0.16	1.862	O	|	|	|	|	0.50
286.250	0.00	0.16	1.860	O	|	|	|	|	0.50
286.333	0.00	0.16	1.859	O	|	|	|	|	0.50
286.417	0.00	0.16	1.858	O	|	|	|	|	0.50
286.500	0.00	0.16	1.857	O	|	|	|	|	0.50
286.583	0.00	0.16	1.856	O	|	|	|	|	0.50
286.667	0.00	0.16	1.855	O	|	|	|	|	0.50
286.750	0.00	0.16	1.854	O	|	|	|	|	0.50
286.833	0.00	0.16	1.853	O	|	|	|	|	0.50
286.917	0.00	0.16	1.852	O	|	|	|	|	0.50
287.000	0.00	0.16	1.851	O	|	|	|	|	0.50
287.083	0.00	0.16	1.849	O	|	|	|	|	0.50
287.167	0.00	0.16	1.848	O	|	|	|	|	0.50
287.250	0.00	0.16	1.847	O	|	|	|	|	0.50
287.333	0.00	0.16	1.846	O	|	|	|	|	0.50
287.417	0.00	0.16	1.845	O	|	|	|	|	0.50
287.500	0.00	0.16	1.844	O	|	|	|	|	0.50
287.583	0.00	0.16	1.843	O	|	|	|	|	0.50
287.667	0.00	0.16	1.842	O	|	|	|	|	0.50

287.750	0.00	0.16	1.841	O	|	|	|	|	0.50
287.833	0.00	0.16	1.840	O	|	|	|	|	0.50
287.917	0.00	0.16	1.838	O	|	|	|	|	0.50
288.000	0.00	0.16	1.837	O	|	|	|	|	0.50
288.083	0.00	0.16	1.836	O	|	|	|	|	0.50
288.167	0.00	0.16	1.835	O	|	|	|	|	0.50
288.250	0.00	0.16	1.834	O	|	|	|	|	0.50
288.333	0.00	0.16	1.833	O	|	|	|	|	0.50
288.417	0.00	0.16	1.832	O	|	|	|	|	0.50
288.500	0.00	0.16	1.831	O	|	|	|	|	0.49
288.583	0.00	0.16	1.830	O	|	|	|	|	0.49
288.667	0.00	0.16	1.829	O	|	|	|	|	0.49
288.750	0.00	0.16	1.828	O	|	|	|	|	0.49
288.833	0.00	0.16	1.826	O	|	|	|	|	0.49
288.917	0.00	0.16	1.825	O	|	|	|	|	0.49
289.000	0.00	0.16	1.824	O	|	|	|	|	0.49
289.083	0.00	0.16	1.823	O	|	|	|	|	0.49
289.167	0.00	0.16	1.822	O	|	|	|	|	0.49
289.250	0.00	0.16	1.821	O	|	|	|	|	0.49
289.333	0.00	0.16	1.820	O	|	|	|	|	0.49
289.417	0.00	0.16	1.819	O	|	|	|	|	0.49
289.500	0.00	0.16	1.818	O	|	|	|	|	0.49
289.583	0.00	0.16	1.817	O	|	|	|	|	0.49
289.667	0.00	0.16	1.816	O	|	|	|	|	0.49
289.750	0.00	0.16	1.815	O	|	|	|	|	0.49
289.833	0.00	0.16	1.813	O	|	|	|	|	0.49
289.917	0.00	0.16	1.812	O	|	|	|	|	0.49
290.000	0.00	0.16	1.811	O	|	|	|	|	0.49
290.083	0.00	0.16	1.810	O	|	|	|	|	0.49
290.167	0.00	0.16	1.809	O	|	|	|	|	0.49
290.250	0.00	0.16	1.808	O	|	|	|	|	0.49
290.333	0.00	0.16	1.807	O	|	|	|	|	0.49
290.417	0.00	0.16	1.806	O	|	|	|	|	0.49
290.500	0.00	0.16	1.805	O	|	|	|	|	0.49
290.583	0.00	0.16	1.804	O	|	|	|	|	0.49
290.667	0.00	0.16	1.803	O	|	|	|	|	0.49
290.750	0.00	0.16	1.802	O	|	|	|	|	0.49
290.833	0.00	0.16	1.801	O	|	|	|	|	0.49
290.917	0.00	0.16	1.799	O	|	|	|	|	0.49
291.000	0.00	0.16	1.798	O	|	|	|	|	0.49
291.083	0.00	0.16	1.797	O	|	|	|	|	0.49
291.167	0.00	0.16	1.796	O	|	|	|	|	0.49
291.250	0.00	0.16	1.795	O	|	|	|	|	0.49
291.333	0.00	0.16	1.794	O	|	|	|	|	0.48
291.417	0.00	0.16	1.793	O	|	|	|	|	0.48
291.500	0.00	0.15	1.792	O	|	|	|	|	0.48
291.583	0.00	0.15	1.791	O	|	|	|	|	0.48
291.667	0.00	0.15	1.790	O	|	|	|	|	0.48
291.750	0.00	0.15	1.789	O	|	|	|	|	0.48
291.833	0.00	0.15	1.788	O	|	|	|	|	0.48
291.917	0.00	0.15	1.787	O	|	|	|	|	0.48
292.000	0.00	0.15	1.786	O	|	|	|	|	0.48
292.083	0.00	0.15	1.784	O	|	|	|	|	0.48
292.167	0.00	0.15	1.783	O	|	|	|	|	0.48
292.250	0.00	0.15	1.782	O	|	|	|	|	0.48
292.333	0.00	0.15	1.781	O	|	|	|	|	0.48
292.417	0.00	0.15	1.780	O	|	|	|	|	0.48
292.500	0.00	0.15	1.779	O	|	|	|	|	0.48
292.583	0.00	0.15	1.778	O	|	|	|	|	0.48
292.667	0.00	0.15	1.777	O	|	|	|	|	0.48
292.750	0.00	0.15	1.776	O	|	|	|	|	0.48
292.833	0.00	0.15	1.775	O	|	|	|	|	0.48
292.917	0.00	0.15	1.774	O	|	|	|	|	0.48

293.000	0.00	0.15	1.773	O	|	|	|	|	0.48
293.083	0.00	0.15	1.772	O	|	|	|	|	0.48
293.167	0.00	0.15	1.771	O	|	|	|	|	0.48
293.250	0.00	0.15	1.770	O	|	|	|	|	0.48
293.333	0.00	0.15	1.769	O	|	|	|	|	0.48
293.417	0.00	0.15	1.768	O	|	|	|	|	0.48
293.500	0.00	0.15	1.767	O	|	|	|	|	0.48
293.583	0.00	0.15	1.765	O	|	|	|	|	0.48
293.667	0.00	0.15	1.764	O	|	|	|	|	0.48
293.750	0.00	0.15	1.763	O	|	|	|	|	0.48
293.833	0.00	0.15	1.762	O	|	|	|	|	0.48
293.917	0.00	0.15	1.761	O	|	|	|	|	0.48
294.000	0.00	0.15	1.760	O	|	|	|	|	0.48
294.083	0.00	0.15	1.759	O	|	|	|	|	0.48
294.167	0.00	0.15	1.758	O	|	|	|	|	0.48
294.250	0.00	0.15	1.757	O	|	|	|	|	0.47
294.333	0.00	0.15	1.756	O	|	|	|	|	0.47
294.417	0.00	0.15	1.755	O	|	|	|	|	0.47
294.500	0.00	0.15	1.754	O	|	|	|	|	0.47
294.583	0.00	0.15	1.753	O	|	|	|	|	0.47
294.667	0.00	0.15	1.752	O	|	|	|	|	0.47
294.750	0.00	0.15	1.751	O	|	|	|	|	0.47
294.833	0.00	0.15	1.750	O	|	|	|	|	0.47
294.917	0.00	0.15	1.749	O	|	|	|	|	0.47
295.000	0.00	0.15	1.748	O	|	|	|	|	0.47
295.083	0.00	0.15	1.747	O	|	|	|	|	0.47
295.167	0.00	0.15	1.746	O	|	|	|	|	0.47
295.250	0.00	0.15	1.745	O	|	|	|	|	0.47
295.333	0.00	0.15	1.744	O	|	|	|	|	0.47
295.417	0.00	0.15	1.742	O	|	|	|	|	0.47
295.500	0.00	0.15	1.741	O	|	|	|	|	0.47
295.583	0.00	0.15	1.740	O	|	|	|	|	0.47
295.667	0.00	0.15	1.739	O	|	|	|	|	0.47
295.750	0.00	0.15	1.738	O	|	|	|	|	0.47
295.833	0.00	0.15	1.737	O	|	|	|	|	0.47
295.917	0.00	0.15	1.736	O	|	|	|	|	0.47
296.000	0.00	0.15	1.735	O	|	|	|	|	0.47
296.083	0.00	0.15	1.734	O	|	|	|	|	0.47
296.167	0.00	0.15	1.733	O	|	|	|	|	0.47
296.250	0.00	0.15	1.732	O	|	|	|	|	0.47
296.333	0.00	0.15	1.731	O	|	|	|	|	0.47
296.417	0.00	0.15	1.730	O	|	|	|	|	0.47
296.500	0.00	0.15	1.729	O	|	|	|	|	0.47
296.583	0.00	0.15	1.728	O	|	|	|	|	0.47
296.667	0.00	0.15	1.727	O	|	|	|	|	0.47
296.750	0.00	0.15	1.726	O	|	|	|	|	0.47
296.833	0.00	0.15	1.725	O	|	|	|	|	0.47
296.917	0.00	0.15	1.724	O	|	|	|	|	0.47
297.000	0.00	0.15	1.723	O	|	|	|	|	0.47
297.083	0.00	0.15	1.722	O	|	|	|	|	0.47
297.167	0.00	0.15	1.721	O	|	|	|	|	0.47
297.250	0.00	0.15	1.720	O	|	|	|	|	0.46
297.333	0.00	0.15	1.719	O	|	|	|	|	0.46
297.417	0.00	0.15	1.718	O	|	|	|	|	0.46
297.500	0.00	0.15	1.717	O	|	|	|	|	0.46
297.583	0.00	0.15	1.716	O	|	|	|	|	0.46
297.667	0.00	0.15	1.715	O	|	|	|	|	0.46
297.750	0.00	0.15	1.714	O	|	|	|	|	0.46
297.833	0.00	0.15	1.713	O	|	|	|	|	0.46
297.917	0.00	0.15	1.712	O	|	|	|	|	0.46
298.000	0.00	0.15	1.711	O	|	|	|	|	0.46
298.083	0.00	0.15	1.710	O	|	|	|	|	0.46
298.167	0.00	0.15	1.709	O	|	|	|	|	0.46

298.250	0.00	0.15	1.708	O	|	|	|	|	0.46
298.333	0.00	0.15	1.707	O	|	|	|	|	0.46
298.417	0.00	0.15	1.706	O	|	|	|	|	0.46
298.500	0.00	0.15	1.705	O	|	|	|	|	0.46
298.583	0.00	0.15	1.703	O	|	|	|	|	0.46
298.667	0.00	0.15	1.702	O	|	|	|	|	0.46
298.750	0.00	0.15	1.701	O	|	|	|	|	0.46
298.833	0.00	0.15	1.700	O	|	|	|	|	0.46
298.917	0.00	0.15	1.699	O	|	|	|	|	0.46
299.000	0.00	0.15	1.698	O	|	|	|	|	0.46
299.083	0.00	0.15	1.697	O	|	|	|	|	0.46
299.167	0.00	0.15	1.696	O	|	|	|	|	0.46
299.250	0.00	0.15	1.695	O	|	|	|	|	0.46
299.333	0.00	0.15	1.694	O	|	|	|	|	0.46
299.417	0.00	0.15	1.693	O	|	|	|	|	0.46
299.500	0.00	0.15	1.692	O	|	|	|	|	0.46
299.583	0.00	0.15	1.691	O	|	|	|	|	0.46
299.667	0.00	0.15	1.690	O	|	|	|	|	0.46
299.750	0.00	0.15	1.689	O	|	|	|	|	0.46
299.833	0.00	0.15	1.688	O	|	|	|	|	0.46
299.917	0.00	0.15	1.687	O	|	|	|	|	0.46
300.000	0.00	0.15	1.686	O	|	|	|	|	0.46
300.083	0.00	0.15	1.685	O	|	|	|	|	0.46
300.167	0.00	0.15	1.684	O	|	|	|	|	0.46
300.250	0.00	0.15	1.683	O	|	|	|	|	0.45
300.333	0.00	0.15	1.682	O	|	|	|	|	0.45
300.417	0.00	0.15	1.681	O	|	|	|	|	0.45
300.500	0.00	0.15	1.680	O	|	|	|	|	0.45
300.583	0.00	0.15	1.679	O	|	|	|	|	0.45
300.667	0.00	0.15	1.678	O	|	|	|	|	0.45
300.750	0.00	0.15	1.677	O	|	|	|	|	0.45
300.833	0.00	0.14	1.676	O	|	|	|	|	0.45
300.917	0.00	0.14	1.675	O	|	|	|	|	0.45
301.000	0.00	0.14	1.674	O	|	|	|	|	0.45
301.083	0.00	0.14	1.673	O	|	|	|	|	0.45
301.167	0.00	0.14	1.672	O	|	|	|	|	0.45
301.250	0.00	0.14	1.671	O	|	|	|	|	0.45
301.333	0.00	0.14	1.670	O	|	|	|	|	0.45
301.417	0.00	0.14	1.669	O	|	|	|	|	0.45
301.500	0.00	0.14	1.668	O	|	|	|	|	0.45
301.583	0.00	0.14	1.667	O	|	|	|	|	0.45
301.667	0.00	0.14	1.666	O	|	|	|	|	0.45
301.750	0.00	0.14	1.665	O	|	|	|	|	0.45
301.833	0.00	0.14	1.664	O	|	|	|	|	0.45
301.917	0.00	0.14	1.663	O	|	|	|	|	0.45
302.000	0.00	0.14	1.662	O	|	|	|	|	0.45
302.083	0.00	0.14	1.661	O	|	|	|	|	0.45
302.167	0.00	0.14	1.660	O	|	|	|	|	0.45
302.250	0.00	0.14	1.659	O	|	|	|	|	0.45
302.333	0.00	0.14	1.658	O	|	|	|	|	0.45
302.417	0.00	0.14	1.657	O	|	|	|	|	0.45
302.500	0.00	0.14	1.656	O	|	|	|	|	0.45
302.583	0.00	0.14	1.655	O	|	|	|	|	0.45
302.667	0.00	0.14	1.654	O	|	|	|	|	0.45
302.750	0.00	0.14	1.654	O	|	|	|	|	0.45
302.833	0.00	0.14	1.653	O	|	|	|	|	0.45
302.917	0.00	0.14	1.652	O	|	|	|	|	0.45
303.000	0.00	0.14	1.651	O	|	|	|	|	0.45
303.083	0.00	0.14	1.650	O	|	|	|	|	0.45
303.167	0.00	0.14	1.649	O	|	|	|	|	0.45
303.250	0.00	0.14	1.648	O	|	|	|	|	0.45
303.333	0.00	0.14	1.647	O	|	|	|	|	0.45
303.417	0.00	0.14	1.646	O	|	|	|	|	0.44

303.500	0.00	0.14	1.645	O	|	|	|	|	0.44
303.583	0.00	0.14	1.644	O	|	|	|	|	0.44
303.667	0.00	0.14	1.643	O	|	|	|	|	0.44
303.750	0.00	0.14	1.642	O	|	|	|	|	0.44
303.833	0.00	0.14	1.641	O	|	|	|	|	0.44
303.917	0.00	0.14	1.640	O	|	|	|	|	0.44
304.000	0.00	0.14	1.639	O	|	|	|	|	0.44
304.083	0.00	0.14	1.638	O	|	|	|	|	0.44
304.167	0.00	0.14	1.637	O	|	|	|	|	0.44
304.250	0.00	0.14	1.636	O	|	|	|	|	0.44
304.333	0.00	0.14	1.635	O	|	|	|	|	0.44
304.417	0.00	0.14	1.634	O	|	|	|	|	0.44
304.500	0.00	0.14	1.633	O	|	|	|	|	0.44
304.583	0.00	0.14	1.632	O	|	|	|	|	0.44
304.667	0.00	0.14	1.631	O	|	|	|	|	0.44
304.750	0.00	0.14	1.630	O	|	|	|	|	0.44
304.833	0.00	0.14	1.629	O	|	|	|	|	0.44
304.917	0.00	0.14	1.628	O	|	|	|	|	0.44
305.000	0.00	0.14	1.627	O	|	|	|	|	0.44
305.083	0.00	0.14	1.626	O	|	|	|	|	0.44
305.167	0.00	0.14	1.625	O	|	|	|	|	0.44
305.250	0.00	0.14	1.624	O	|	|	|	|	0.44
305.333	0.00	0.14	1.623	O	|	|	|	|	0.44
305.417	0.00	0.14	1.622	O	|	|	|	|	0.44
305.500	0.00	0.14	1.621	O	|	|	|	|	0.44
305.583	0.00	0.14	1.620	O	|	|	|	|	0.44
305.667	0.00	0.14	1.619	O	|	|	|	|	0.44
305.750	0.00	0.14	1.618	O	|	|	|	|	0.44
305.833	0.00	0.14	1.617	O	|	|	|	|	0.44
305.917	0.00	0.14	1.616	O	|	|	|	|	0.44
306.000	0.00	0.14	1.616	O	|	|	|	|	0.44
306.083	0.00	0.14	1.615	O	|	|	|	|	0.44
306.167	0.00	0.14	1.614	O	|	|	|	|	0.44
306.250	0.00	0.14	1.613	O	|	|	|	|	0.44
306.333	0.00	0.14	1.612	O	|	|	|	|	0.44
306.417	0.00	0.14	1.611	O	|	|	|	|	0.44
306.500	0.00	0.14	1.610	O	|	|	|	|	0.44
306.583	0.00	0.14	1.609	O	|	|	|	|	0.43
306.667	0.00	0.14	1.608	O	|	|	|	|	0.43
306.750	0.00	0.14	1.607	O	|	|	|	|	0.43
306.833	0.00	0.14	1.606	O	|	|	|	|	0.43
306.917	0.00	0.14	1.605	O	|	|	|	|	0.43
307.000	0.00	0.14	1.604	O	|	|	|	|	0.43
307.083	0.00	0.14	1.603	O	|	|	|	|	0.43
307.167	0.00	0.14	1.602	O	|	|	|	|	0.43
307.250	0.00	0.14	1.601	O	|	|	|	|	0.43
307.333	0.00	0.14	1.600	O	|	|	|	|	0.43
307.417	0.00	0.14	1.599	O	|	|	|	|	0.43
307.500	0.00	0.14	1.598	O	|	|	|	|	0.43
307.583	0.00	0.14	1.597	O	|	|	|	|	0.43
307.667	0.00	0.14	1.596	O	|	|	|	|	0.43
307.750	0.00	0.14	1.595	O	|	|	|	|	0.43
307.833	0.00	0.14	1.595	O	|	|	|	|	0.43
307.917	0.00	0.14	1.594	O	|	|	|	|	0.43
308.000	0.00	0.14	1.593	O	|	|	|	|	0.43
308.083	0.00	0.14	1.592	O	|	|	|	|	0.43
308.167	0.00	0.14	1.591	O	|	|	|	|	0.43
308.250	0.00	0.14	1.590	O	|	|	|	|	0.43
308.333	0.00	0.14	1.589	O	|	|	|	|	0.43
308.417	0.00	0.14	1.588	O	|	|	|	|	0.43
308.500	0.00	0.14	1.587	O	|	|	|	|	0.43
308.583	0.00	0.14	1.586	O	|	|	|	|	0.43
308.667	0.00	0.14	1.585	O	|	|	|	|	0.43

308.750	0.00	0.14	1.584	O	|	|	|	|	0.43
308.833	0.00	0.14	1.583	O	|	|	|	|	0.43
308.917	0.00	0.14	1.582	O	|	|	|	|	0.43
309.000	0.00	0.14	1.581	O	|	|	|	|	0.43
309.083	0.00	0.14	1.580	O	|	|	|	|	0.43
309.167	0.00	0.14	1.579	O	|	|	|	|	0.43
309.250	0.00	0.14	1.578	O	|	|	|	|	0.43
309.333	0.00	0.14	1.577	O	|	|	|	|	0.43
309.417	0.00	0.14	1.577	O	|	|	|	|	0.43
309.500	0.00	0.14	1.576	O	|	|	|	|	0.43
309.583	0.00	0.14	1.575	O	|	|	|	|	0.43
309.667	0.00	0.14	1.574	O	|	|	|	|	0.43
309.750	0.00	0.14	1.573	O	|	|	|	|	0.43
309.833	0.00	0.14	1.572	O	|	|	|	|	0.42
309.917	0.00	0.14	1.571	O	|	|	|	|	0.42
310.000	0.00	0.14	1.570	O	|	|	|	|	0.42
310.083	0.00	0.14	1.569	O	|	|	|	|	0.42
310.167	0.00	0.14	1.568	O	|	|	|	|	0.42
310.250	0.00	0.14	1.567	O	|	|	|	|	0.42
310.333	0.00	0.14	1.566	O	|	|	|	|	0.42
310.417	0.00	0.14	1.565	O	|	|	|	|	0.42
310.500	0.00	0.14	1.564	O	|	|	|	|	0.42
310.583	0.00	0.14	1.563	O	|	|	|	|	0.42
310.667	0.00	0.14	1.563	O	|	|	|	|	0.42
310.750	0.00	0.14	1.562	O	|	|	|	|	0.42
310.833	0.00	0.13	1.561	O	|	|	|	|	0.42
310.917	0.00	0.13	1.560	O	|	|	|	|	0.42
311.000	0.00	0.13	1.559	O	|	|	|	|	0.42
311.083	0.00	0.13	1.558	O	|	|	|	|	0.42
311.167	0.00	0.13	1.557	O	|	|	|	|	0.42
311.250	0.00	0.13	1.556	O	|	|	|	|	0.42
311.333	0.00	0.13	1.555	O	|	|	|	|	0.42
311.417	0.00	0.13	1.554	O	|	|	|	|	0.42
311.500	0.00	0.13	1.553	O	|	|	|	|	0.42
311.583	0.00	0.13	1.552	O	|	|	|	|	0.42
311.667	0.00	0.13	1.551	O	|	|	|	|	0.42
311.750	0.00	0.13	1.550	O	|	|	|	|	0.42
311.833	0.00	0.13	1.550	O	|	|	|	|	0.42
311.917	0.00	0.13	1.549	O	|	|	|	|	0.42
312.000	0.00	0.13	1.548	O	|	|	|	|	0.42
312.083	0.00	0.13	1.547	O	|	|	|	|	0.42
312.167	0.00	0.13	1.546	O	|	|	|	|	0.42
312.250	0.00	0.13	1.545	O	|	|	|	|	0.42
312.333	0.00	0.13	1.544	O	|	|	|	|	0.42
312.417	0.00	0.13	1.543	O	|	|	|	|	0.42
312.500	0.00	0.13	1.542	O	|	|	|	|	0.42
312.583	0.00	0.13	1.541	O	|	|	|	|	0.42
312.667	0.00	0.13	1.540	O	|	|	|	|	0.42
312.750	0.00	0.13	1.539	O	|	|	|	|	0.42
312.833	0.00	0.13	1.539	O	|	|	|	|	0.42
312.917	0.00	0.13	1.538	O	|	|	|	|	0.42
313.000	0.00	0.13	1.537	O	|	|	|	|	0.42
313.083	0.00	0.13	1.536	O	|	|	|	|	0.42
313.167	0.00	0.13	1.535	O	|	|	|	|	0.41
313.250	0.00	0.13	1.534	O	|	|	|	|	0.41
313.333	0.00	0.13	1.533	O	|	|	|	|	0.41
313.417	0.00	0.13	1.532	O	|	|	|	|	0.41
313.500	0.00	0.13	1.531	O	|	|	|	|	0.41
313.583	0.00	0.13	1.530	O	|	|	|	|	0.41
313.667	0.00	0.13	1.529	O	|	|	|	|	0.41
313.750	0.00	0.13	1.528	O	|	|	|	|	0.41
313.833	0.00	0.13	1.528	O	|	|	|	|	0.41
313.917	0.00	0.13	1.527	O	|	|	|	|	0.41

314.000	0.00	0.13	1.526	O	|	|	|	|	0.41
314.083	0.00	0.13	1.525	O	|	|	|	|	0.41
314.167	0.00	0.13	1.524	O	|	|	|	|	0.41
314.250	0.00	0.13	1.523	O	|	|	|	|	0.41
314.333	0.00	0.13	1.522	O	|	|	|	|	0.41
314.417	0.00	0.13	1.521	O	|	|	|	|	0.41
314.500	0.00	0.13	1.520	O	|	|	|	|	0.41
314.583	0.00	0.13	1.519	O	|	|	|	|	0.41
314.667	0.00	0.13	1.518	O	|	|	|	|	0.41
314.750	0.00	0.13	1.518	O	|	|	|	|	0.41
314.833	0.00	0.13	1.517	O	|	|	|	|	0.41
314.917	0.00	0.13	1.516	O	|	|	|	|	0.41
315.000	0.00	0.13	1.515	O	|	|	|	|	0.41
315.083	0.00	0.13	1.514	O	|	|	|	|	0.41
315.167	0.00	0.13	1.513	O	|	|	|	|	0.41
315.250	0.00	0.13	1.512	O	|	|	|	|	0.41
315.333	0.00	0.13	1.511	O	|	|	|	|	0.41
315.417	0.00	0.13	1.510	O	|	|	|	|	0.41
315.500	0.00	0.13	1.509	O	|	|	|	|	0.41
315.583	0.00	0.13	1.509	O	|	|	|	|	0.41
315.667	0.00	0.13	1.508	O	|	|	|	|	0.41
315.750	0.00	0.13	1.507	O	|	|	|	|	0.41
315.833	0.00	0.13	1.506	O	|	|	|	|	0.41
315.917	0.00	0.13	1.505	O	|	|	|	|	0.41
316.000	0.00	0.13	1.504	O	|	|	|	|	0.41
316.083	0.00	0.13	1.503	O	|	|	|	|	0.41
316.167	0.00	0.13	1.502	O	|	|	|	|	0.41
316.250	0.00	0.13	1.501	O	|	|	|	|	0.41
316.333	0.00	0.13	1.501	O	|	|	|	|	0.41
316.417	0.00	0.13	1.500	O	|	|	|	|	0.41
316.500	0.00	0.13	1.499	O	|	|	|	|	0.41
316.583	0.00	0.13	1.498	O	|	|	|	|	0.40
316.667	0.00	0.13	1.497	O	|	|	|	|	0.40
316.750	0.00	0.13	1.496	O	|	|	|	|	0.40
316.833	0.00	0.13	1.495	O	|	|	|	|	0.40
316.917	0.00	0.13	1.494	O	|	|	|	|	0.40
317.000	0.00	0.13	1.493	O	|	|	|	|	0.40
317.083	0.00	0.13	1.492	O	|	|	|	|	0.40
317.167	0.00	0.13	1.492	O	|	|	|	|	0.40
317.250	0.00	0.13	1.491	O	|	|	|	|	0.40
317.333	0.00	0.13	1.490	O	|	|	|	|	0.40
317.417	0.00	0.13	1.489	O	|	|	|	|	0.40
317.500	0.00	0.13	1.488	O	|	|	|	|	0.40
317.583	0.00	0.13	1.487	O	|	|	|	|	0.40
317.667	0.00	0.13	1.486	O	|	|	|	|	0.40
317.750	0.00	0.13	1.485	O	|	|	|	|	0.40
317.833	0.00	0.13	1.485	O	|	|	|	|	0.40
317.917	0.00	0.13	1.484	O	|	|	|	|	0.40
318.000	0.00	0.13	1.483	O	|	|	|	|	0.40
318.083	0.00	0.13	1.482	O	|	|	|	|	0.40
318.167	0.00	0.13	1.481	O	|	|	|	|	0.40
318.250	0.00	0.13	1.480	O	|	|	|	|	0.40
318.333	0.00	0.13	1.479	O	|	|	|	|	0.40
318.417	0.00	0.13	1.478	O	|	|	|	|	0.40
318.500	0.00	0.13	1.477	O	|	|	|	|	0.40
318.583	0.00	0.13	1.477	O	|	|	|	|	0.40
318.667	0.00	0.13	1.476	O	|	|	|	|	0.40
318.750	0.00	0.13	1.475	O	|	|	|	|	0.40
318.833	0.00	0.13	1.474	O	|	|	|	|	0.40
318.917	0.00	0.13	1.473	O	|	|	|	|	0.40
319.000	0.00	0.13	1.472	O	|	|	|	|	0.40
319.083	0.00	0.13	1.471	O	|	|	|	|	0.40
319.167	0.00	0.13	1.470	O	|	|	|	|	0.40

319.250	0.00	0.13	1.470	O	|	|	|	|	0.40
319.333	0.00	0.13	1.469	O	|	|	|	|	0.40
319.417	0.00	0.13	1.468	O	|	|	|	|	0.40
319.500	0.00	0.13	1.467	O	|	|	|	|	0.40
319.583	0.00	0.13	1.466	O	|	|	|	|	0.40
319.667	0.00	0.13	1.465	O	|	|	|	|	0.40
319.750	0.00	0.13	1.464	O	|	|	|	|	0.40
319.833	0.00	0.13	1.463	O	|	|	|	|	0.40
319.917	0.00	0.13	1.463	O	|	|	|	|	0.40
320.000	0.00	0.13	1.462	O	|	|	|	|	0.40
320.083	0.00	0.13	1.461	O	|	|	|	|	0.39
320.167	0.00	0.13	1.460	O	|	|	|	|	0.39
320.250	0.00	0.13	1.459	O	|	|	|	|	0.39
320.333	0.00	0.13	1.458	O	|	|	|	|	0.39
320.417	0.00	0.13	1.457	O	|	|	|	|	0.39
320.500	0.00	0.13	1.456	O	|	|	|	|	0.39
320.583	0.00	0.13	1.456	O	|	|	|	|	0.39
320.667	0.00	0.13	1.455	O	|	|	|	|	0.39
320.750	0.00	0.13	1.454	O	|	|	|	|	0.39
320.833	0.00	0.13	1.453	O	|	|	|	|	0.39
320.917	0.00	0.13	1.452	O	|	|	|	|	0.39
321.000	0.00	0.13	1.451	O	|	|	|	|	0.39
321.083	0.00	0.13	1.450	O	|	|	|	|	0.39
321.167	0.00	0.13	1.450	O	|	|	|	|	0.39
321.250	0.00	0.13	1.449	O	|	|	|	|	0.39
321.333	0.00	0.13	1.448	O	|	|	|	|	0.39
321.417	0.00	0.13	1.447	O	|	|	|	|	0.39
321.500	0.00	0.13	1.446	O	|	|	|	|	0.39
321.583	0.00	0.12	1.445	O	|	|	|	|	0.39
321.667	0.00	0.12	1.444	O	|	|	|	|	0.39
321.750	0.00	0.12	1.444	O	|	|	|	|	0.39
321.833	0.00	0.12	1.443	O	|	|	|	|	0.39
321.917	0.00	0.12	1.442	O	|	|	|	|	0.39
322.000	0.00	0.12	1.441	O	|	|	|	|	0.39
322.083	0.00	0.12	1.440	O	|	|	|	|	0.39
322.167	0.00	0.12	1.439	O	|	|	|	|	0.39
322.250	0.00	0.12	1.438	O	|	|	|	|	0.39
322.333	0.00	0.12	1.438	O	|	|	|	|	0.39
322.417	0.00	0.12	1.437	O	|	|	|	|	0.39
322.500	0.00	0.12	1.436	O	|	|	|	|	0.39
322.583	0.00	0.12	1.435	O	|	|	|	|	0.39
322.667	0.00	0.12	1.434	O	|	|	|	|	0.39
322.750	0.00	0.12	1.433	O	|	|	|	|	0.39
322.833	0.00	0.12	1.432	O	|	|	|	|	0.39
322.917	0.00	0.12	1.432	O	|	|	|	|	0.39
323.000	0.00	0.12	1.431	O	|	|	|	|	0.39
323.083	0.00	0.12	1.430	O	|	|	|	|	0.39
323.167	0.00	0.12	1.429	O	|	|	|	|	0.39
323.250	0.00	0.12	1.428	O	|	|	|	|	0.39
323.333	0.00	0.12	1.427	O	|	|	|	|	0.39
323.417	0.00	0.12	1.426	O	|	|	|	|	0.39
323.500	0.00	0.12	1.426	O	|	|	|	|	0.39
323.583	0.00	0.12	1.425	O	|	|	|	|	0.39
323.667	0.00	0.12	1.424	O	|	|	|	|	0.38
323.750	0.00	0.12	1.423	O	|	|	|	|	0.38
323.833	0.00	0.12	1.422	O	|	|	|	|	0.38
323.917	0.00	0.12	1.421	O	|	|	|	|	0.38
324.000	0.00	0.12	1.420	O	|	|	|	|	0.38
324.083	0.00	0.12	1.420	O	|	|	|	|	0.38
324.167	0.00	0.12	1.419	O	|	|	|	|	0.38
324.250	0.00	0.12	1.418	O	|	|	|	|	0.38
324.333	0.00	0.12	1.417	O	|	|	|	|	0.38
324.417	0.00	0.12	1.416	O	|	|	|	|	0.38

324.500	0.00	0.12	1.415	O	|	|	|	|	0.38
324.583	0.00	0.12	1.415	O	|	|	|	|	0.38
324.667	0.00	0.12	1.414	O	|	|	|	|	0.38
324.750	0.00	0.12	1.413	O	|	|	|	|	0.38
324.833	0.00	0.12	1.412	O	|	|	|	|	0.38
324.917	0.00	0.12	1.411	O	|	|	|	|	0.38
325.000	0.00	0.12	1.410	O	|	|	|	|	0.38
325.083	0.00	0.12	1.410	O	|	|	|	|	0.38
325.167	0.00	0.12	1.409	O	|	|	|	|	0.38
325.250	0.00	0.12	1.408	O	|	|	|	|	0.38
325.333	0.00	0.12	1.407	O	|	|	|	|	0.38
325.417	0.00	0.12	1.406	O	|	|	|	|	0.38
325.500	0.00	0.12	1.405	O	|	|	|	|	0.38
325.583	0.00	0.12	1.405	O	|	|	|	|	0.38
325.667	0.00	0.12	1.404	O	|	|	|	|	0.38
325.750	0.00	0.12	1.403	O	|	|	|	|	0.38
325.833	0.00	0.12	1.402	O	|	|	|	|	0.38
325.917	0.00	0.12	1.401	O	|	|	|	|	0.38
326.000	0.00	0.12	1.400	O	|	|	|	|	0.38
326.083	0.00	0.12	1.400	O	|	|	|	|	0.38
326.167	0.00	0.12	1.399	O	|	|	|	|	0.38
326.250	0.00	0.12	1.398	O	|	|	|	|	0.38
326.333	0.00	0.12	1.397	O	|	|	|	|	0.38
326.417	0.00	0.12	1.396	O	|	|	|	|	0.38
326.500	0.00	0.12	1.395	O	|	|	|	|	0.38
326.583	0.00	0.12	1.395	O	|	|	|	|	0.38
326.667	0.00	0.12	1.394	O	|	|	|	|	0.38
326.750	0.00	0.12	1.393	O	|	|	|	|	0.38
326.833	0.00	0.12	1.392	O	|	|	|	|	0.38
326.917	0.00	0.12	1.391	O	|	|	|	|	0.38
327.000	0.00	0.12	1.390	O	|	|	|	|	0.38
327.083	0.00	0.12	1.390	O	|	|	|	|	0.38
327.167	0.00	0.12	1.389	O	|	|	|	|	0.38
327.250	0.00	0.12	1.388	O	|	|	|	|	0.38
327.333	0.00	0.12	1.387	O	|	|	|	|	0.37
327.417	0.00	0.12	1.386	O	|	|	|	|	0.37
327.500	0.00	0.12	1.385	O	|	|	|	|	0.37
327.583	0.00	0.12	1.385	O	|	|	|	|	0.37
327.667	0.00	0.12	1.384	O	|	|	|	|	0.37
327.750	0.00	0.12	1.383	O	|	|	|	|	0.37
327.833	0.00	0.12	1.382	O	|	|	|	|	0.37
327.917	0.00	0.12	1.381	O	|	|	|	|	0.37
328.000	0.00	0.12	1.380	O	|	|	|	|	0.37
328.083	0.00	0.12	1.380	O	|	|	|	|	0.37
328.167	0.00	0.12	1.379	O	|	|	|	|	0.37
328.250	0.00	0.12	1.378	O	|	|	|	|	0.37
328.333	0.00	0.12	1.377	O	|	|	|	|	0.37
328.417	0.00	0.12	1.376	O	|	|	|	|	0.37
328.500	0.00	0.12	1.376	O	|	|	|	|	0.37
328.583	0.00	0.12	1.375	O	|	|	|	|	0.37
328.667	0.00	0.12	1.374	O	|	|	|	|	0.37
328.750	0.00	0.12	1.373	O	|	|	|	|	0.37
328.833	0.00	0.12	1.372	O	|	|	|	|	0.37
328.917	0.00	0.12	1.371	O	|	|	|	|	0.37
329.000	0.00	0.12	1.371	O	|	|	|	|	0.37
329.083	0.00	0.12	1.370	O	|	|	|	|	0.37
329.167	0.00	0.12	1.369	O	|	|	|	|	0.37
329.250	0.00	0.12	1.368	O	|	|	|	|	0.37
329.333	0.00	0.12	1.367	O	|	|	|	|	0.37
329.417	0.00	0.12	1.367	O	|	|	|	|	0.37
329.500	0.00	0.12	1.366	O	|	|	|	|	0.37
329.583	0.00	0.12	1.365	O	|	|	|	|	0.37
329.667	0.00	0.12	1.364	O	|	|	|	|	0.37

329.750	0.00	0.12	1.363	O	|	|	|	|	0.37
329.833	0.00	0.12	1.362	O	|	|	|	|	0.37
329.917	0.00	0.12	1.362	O	|	|	|	|	0.37
330.000	0.00	0.12	1.361	O	|	|	|	|	0.37
330.083	0.00	0.12	1.360	O	|	|	|	|	0.37
330.167	0.00	0.12	1.359	O	|	|	|	|	0.37
330.250	0.00	0.12	1.358	O	|	|	|	|	0.37
330.333	0.00	0.12	1.358	O	|	|	|	|	0.37
330.417	0.00	0.12	1.357	O	|	|	|	|	0.37
330.500	0.00	0.12	1.356	O	|	|	|	|	0.37
330.583	0.00	0.12	1.355	O	|	|	|	|	0.37
330.667	0.00	0.12	1.354	O	|	|	|	|	0.37
330.750	0.00	0.12	1.354	O	|	|	|	|	0.37
330.833	0.00	0.12	1.353	O	|	|	|	|	0.37
330.917	0.00	0.12	1.352	O	|	|	|	|	0.37
331.000	0.00	0.12	1.351	O	|	|	|	|	0.37
331.083	0.00	0.12	1.350	O	|	|	|	|	0.36
331.167	0.00	0.12	1.350	O	|	|	|	|	0.36
331.250	0.00	0.12	1.349	O	|	|	|	|	0.36
331.333	0.00	0.12	1.348	O	|	|	|	|	0.36
331.417	0.00	0.12	1.347	O	|	|	|	|	0.36
331.500	0.00	0.12	1.346	O	|	|	|	|	0.36
331.583	0.00	0.12	1.346	O	|	|	|	|	0.36
331.667	0.00	0.12	1.345	O	|	|	|	|	0.36
331.750	0.00	0.12	1.344	O	|	|	|	|	0.36
331.833	0.00	0.12	1.343	O	|	|	|	|	0.36
331.917	0.00	0.12	1.342	O	|	|	|	|	0.36
332.000	0.00	0.12	1.342	O	|	|	|	|	0.36
332.083	0.00	0.12	1.341	O	|	|	|	|	0.36
332.167	0.00	0.12	1.340	O	|	|	|	|	0.36
332.250	0.00	0.12	1.339	O	|	|	|	|	0.36
332.333	0.00	0.12	1.338	O	|	|	|	|	0.36
332.417	0.00	0.12	1.338	O	|	|	|	|	0.36
332.500	0.00	0.12	1.337	O	|	|	|	|	0.36
332.583	0.00	0.12	1.336	O	|	|	|	|	0.36
332.667	0.00	0.12	1.335	O	|	|	|	|	0.36
332.750	0.00	0.12	1.334	O	|	|	|	|	0.36
332.833	0.00	0.12	1.334	O	|	|	|	|	0.36
332.917	0.00	0.12	1.333	O	|	|	|	|	0.36
333.000	0.00	0.12	1.332	O	|	|	|	|	0.36
333.083	0.00	0.12	1.331	O	|	|	|	|	0.36
333.167	0.00	0.12	1.330	O	|	|	|	|	0.36
333.250	0.00	0.11	1.330	O	|	|	|	|	0.36
333.333	0.00	0.11	1.329	O	|	|	|	|	0.36
333.417	0.00	0.11	1.328	O	|	|	|	|	0.36
333.500	0.00	0.11	1.327	O	|	|	|	|	0.36
333.583	0.00	0.11	1.326	O	|	|	|	|	0.36
333.667	0.00	0.11	1.326	O	|	|	|	|	0.36
333.750	0.00	0.11	1.325	O	|	|	|	|	0.36
333.833	0.00	0.11	1.324	O	|	|	|	|	0.36
333.917	0.00	0.11	1.323	O	|	|	|	|	0.36
334.000	0.00	0.11	1.323	O	|	|	|	|	0.36
334.083	0.00	0.11	1.322	O	|	|	|	|	0.36
334.167	0.00	0.11	1.321	O	|	|	|	|	0.36
334.250	0.00	0.11	1.320	O	|	|	|	|	0.36
334.333	0.00	0.11	1.319	O	|	|	|	|	0.36
334.417	0.00	0.11	1.319	O	|	|	|	|	0.36
334.500	0.00	0.11	1.318	O	|	|	|	|	0.36
334.583	0.00	0.11	1.317	O	|	|	|	|	0.36
334.667	0.00	0.11	1.316	O	|	|	|	|	0.36
334.750	0.00	0.11	1.315	O	|	|	|	|	0.36
334.833	0.00	0.11	1.315	O	|	|	|	|	0.36
334.917	0.00	0.11	1.314	O	|	|	|	|	0.36

335.000	0.00	0.11	1.313	O	|	|	|	|	0.35
335.083	0.00	0.11	1.312	O	|	|	|	|	0.35
335.167	0.00	0.11	1.312	O	|	|	|	|	0.35
335.250	0.00	0.11	1.311	O	|	|	|	|	0.35
335.333	0.00	0.11	1.310	O	|	|	|	|	0.35
335.417	0.00	0.11	1.309	O	|	|	|	|	0.35
335.500	0.00	0.11	1.308	O	|	|	|	|	0.35
335.583	0.00	0.11	1.308	O	|	|	|	|	0.35
335.667	0.00	0.11	1.307	O	|	|	|	|	0.35
335.750	0.00	0.11	1.306	O	|	|	|	|	0.35
335.833	0.00	0.11	1.305	O	|	|	|	|	0.35
335.917	0.00	0.11	1.305	O	|	|	|	|	0.35
336.000	0.00	0.11	1.304	O	|	|	|	|	0.35
336.083	0.00	0.11	1.303	O	|	|	|	|	0.35
336.167	0.00	0.11	1.302	O	|	|	|	|	0.35
336.250	0.00	0.11	1.301	O	|	|	|	|	0.35
336.333	0.00	0.11	1.301	O	|	|	|	|	0.35
336.417	0.00	0.11	1.300	O	|	|	|	|	0.35
336.500	0.00	0.11	1.299	O	|	|	|	|	0.35
336.583	0.00	0.11	1.298	O	|	|	|	|	0.35
336.667	0.00	0.11	1.298	O	|	|	|	|	0.35
336.750	0.00	0.11	1.297	O	|	|	|	|	0.35
336.833	0.00	0.11	1.296	O	|	|	|	|	0.35
336.917	0.00	0.11	1.295	O	|	|	|	|	0.35
337.000	0.00	0.11	1.294	O	|	|	|	|	0.35
337.083	0.00	0.11	1.294	O	|	|	|	|	0.35
337.167	0.00	0.11	1.293	O	|	|	|	|	0.35
337.250	0.00	0.11	1.292	O	|	|	|	|	0.35
337.333	0.00	0.11	1.291	O	|	|	|	|	0.35
337.417	0.00	0.11	1.291	O	|	|	|	|	0.35
337.500	0.00	0.11	1.290	O	|	|	|	|	0.35
337.583	0.00	0.11	1.289	O	|	|	|	|	0.35
337.667	0.00	0.11	1.288	O	|	|	|	|	0.35
337.750	0.00	0.11	1.288	O	|	|	|	|	0.35
337.833	0.00	0.11	1.287	O	|	|	|	|	0.35
337.917	0.00	0.11	1.286	O	|	|	|	|	0.35
338.000	0.00	0.11	1.285	O	|	|	|	|	0.35
338.083	0.00	0.11	1.284	O	|	|	|	|	0.35
338.167	0.00	0.11	1.284	O	|	|	|	|	0.35
338.250	0.00	0.11	1.283	O	|	|	|	|	0.35
338.333	0.00	0.11	1.282	O	|	|	|	|	0.35
338.417	0.00	0.11	1.281	O	|	|	|	|	0.35
338.500	0.00	0.11	1.281	O	|	|	|	|	0.35
338.583	0.00	0.11	1.280	O	|	|	|	|	0.35
338.667	0.00	0.11	1.279	O	|	|	|	|	0.35
338.750	0.00	0.11	1.278	O	|	|	|	|	0.35
338.833	0.00	0.11	1.278	O	|	|	|	|	0.35
338.917	0.00	0.11	1.277	O	|	|	|	|	0.35
339.000	0.00	0.11	1.276	O	|	|	|	|	0.34
339.083	0.00	0.11	1.275	O	|	|	|	|	0.34
339.167	0.00	0.11	1.275	O	|	|	|	|	0.34
339.250	0.00	0.11	1.274	O	|	|	|	|	0.34
339.333	0.00	0.11	1.273	O	|	|	|	|	0.34
339.417	0.00	0.11	1.272	O	|	|	|	|	0.34
339.500	0.00	0.11	1.272	O	|	|	|	|	0.34
339.583	0.00	0.11	1.271	O	|	|	|	|	0.34
339.667	0.00	0.11	1.270	O	|	|	|	|	0.34
339.750	0.00	0.11	1.269	O	|	|	|	|	0.34
339.833	0.00	0.11	1.269	O	|	|	|	|	0.34
339.917	0.00	0.11	1.268	O	|	|	|	|	0.34
340.000	0.00	0.11	1.267	O	|	|	|	|	0.34
340.083	0.00	0.11	1.266	O	|	|	|	|	0.34
340.167	0.00	0.11	1.265	O	|	|	|	|	0.34

340.250	0.00	0.11	1.265	O	|	|	|	|	0.34
340.333	0.00	0.11	1.264	O	|	|	|	|	0.34
340.417	0.00	0.11	1.263	O	|	|	|	|	0.34
340.500	0.00	0.11	1.262	O	|	|	|	|	0.34
340.583	0.00	0.11	1.262	O	|	|	|	|	0.34
340.667	0.00	0.11	1.261	O	|	|	|	|	0.34
340.750	0.00	0.11	1.260	O	|	|	|	|	0.34
340.833	0.00	0.11	1.259	O	|	|	|	|	0.34
340.917	0.00	0.11	1.259	O	|	|	|	|	0.34
341.000	0.00	0.11	1.258	O	|	|	|	|	0.34
341.083	0.00	0.11	1.257	O	|	|	|	|	0.34
341.167	0.00	0.11	1.256	O	|	|	|	|	0.34
341.250	0.00	0.11	1.256	O	|	|	|	|	0.34
341.333	0.00	0.11	1.255	O	|	|	|	|	0.34
341.417	0.00	0.11	1.254	O	|	|	|	|	0.34
341.500	0.00	0.11	1.253	O	|	|	|	|	0.34
341.583	0.00	0.11	1.253	O	|	|	|	|	0.34
341.667	0.00	0.11	1.252	O	|	|	|	|	0.34
341.750	0.00	0.11	1.251	O	|	|	|	|	0.34
341.833	0.00	0.11	1.250	O	|	|	|	|	0.34
341.917	0.00	0.11	1.250	O	|	|	|	|	0.34
342.000	0.00	0.11	1.249	O	|	|	|	|	0.34
342.083	0.00	0.11	1.248	O	|	|	|	|	0.34
342.167	0.00	0.11	1.248	O	|	|	|	|	0.34
342.250	0.00	0.11	1.247	O	|	|	|	|	0.34
342.333	0.00	0.11	1.246	O	|	|	|	|	0.34
342.417	0.00	0.11	1.245	O	|	|	|	|	0.34
342.500	0.00	0.11	1.245	O	|	|	|	|	0.34
342.583	0.00	0.11	1.244	O	|	|	|	|	0.34
342.667	0.00	0.11	1.243	O	|	|	|	|	0.34
342.750	0.00	0.11	1.242	O	|	|	|	|	0.34
342.833	0.00	0.11	1.242	O	|	|	|	|	0.34
342.917	0.00	0.11	1.241	O	|	|	|	|	0.34
343.000	0.00	0.11	1.240	O	|	|	|	|	0.34
343.083	0.00	0.11	1.239	O	|	|	|	|	0.33
343.167	0.00	0.11	1.239	O	|	|	|	|	0.33
343.250	0.00	0.11	1.238	O	|	|	|	|	0.33
343.333	0.00	0.11	1.237	O	|	|	|	|	0.33
343.417	0.00	0.11	1.236	O	|	|	|	|	0.33
343.500	0.00	0.11	1.236	O	|	|	|	|	0.33
343.583	0.00	0.11	1.235	O	|	|	|	|	0.33
343.667	0.00	0.11	1.234	O	|	|	|	|	0.33
343.750	0.00	0.11	1.233	O	|	|	|	|	0.33
343.833	0.00	0.11	1.233	O	|	|	|	|	0.33
343.917	0.00	0.11	1.232	O	|	|	|	|	0.33
344.000	0.00	0.11	1.231	O	|	|	|	|	0.33
344.083	0.00	0.11	1.231	O	|	|	|	|	0.33
344.167	0.00	0.11	1.230	O	|	|	|	|	0.33
344.250	0.00	0.11	1.229	O	|	|	|	|	0.33
344.333	0.00	0.11	1.228	O	|	|	|	|	0.33
344.417	0.00	0.11	1.228	O	|	|	|	|	0.33
344.500	0.00	0.11	1.227	O	|	|	|	|	0.33
344.583	0.00	0.11	1.226	O	|	|	|	|	0.33
344.667	0.00	0.11	1.225	O	|	|	|	|	0.33
344.750	0.00	0.11	1.225	O	|	|	|	|	0.33
344.833	0.00	0.11	1.224	O	|	|	|	|	0.33
344.917	0.00	0.11	1.223	O	|	|	|	|	0.33
345.000	0.00	0.11	1.223	O	|	|	|	|	0.33
345.083	0.00	0.11	1.222	O	|	|	|	|	0.33
345.167	0.00	0.11	1.221	O	|	|	|	|	0.33
345.250	0.00	0.11	1.220	O	|	|	|	|	0.33
345.333	0.00	0.11	1.220	O	|	|	|	|	0.33
345.417	0.00	0.11	1.219	O	|	|	|	|	0.33

345.500	0.00	0.11	1.218	O	|	|	|	|	0.33
345.583	0.00	0.11	1.217	O	|	|	|	|	0.33
345.667	0.00	0.11	1.217	O	|	|	|	|	0.33
345.750	0.00	0.11	1.216	O	|	|	|	|	0.33
345.833	0.00	0.11	1.215	O	|	|	|	|	0.33
345.917	0.00	0.11	1.215	O	|	|	|	|	0.33
346.000	0.00	0.10	1.214	O	|	|	|	|	0.33
346.083	0.00	0.10	1.213	O	|	|	|	|	0.33
346.167	0.00	0.10	1.212	O	|	|	|	|	0.33
346.250	0.00	0.10	1.212	O	|	|	|	|	0.33
346.333	0.00	0.10	1.211	O	|	|	|	|	0.33
346.417	0.00	0.10	1.210	O	|	|	|	|	0.33
346.500	0.00	0.10	1.209	O	|	|	|	|	0.33
346.583	0.00	0.10	1.209	O	|	|	|	|	0.33
346.667	0.00	0.10	1.208	O	|	|	|	|	0.33
346.750	0.00	0.10	1.207	O	|	|	|	|	0.33
346.833	0.00	0.10	1.207	O	|	|	|	|	0.33
346.917	0.00	0.10	1.206	O	|	|	|	|	0.33
347.000	0.00	0.10	1.205	O	|	|	|	|	0.33
347.083	0.00	0.10	1.204	O	|	|	|	|	0.33
347.167	0.00	0.10	1.204	O	|	|	|	|	0.33
347.250	0.00	0.10	1.203	O	|	|	|	|	0.33
347.333	0.00	0.10	1.202	O	|	|	|	|	0.32
347.417	0.00	0.10	1.202	O	|	|	|	|	0.32
347.500	0.00	0.10	1.201	O	|	|	|	|	0.32
347.583	0.00	0.10	1.200	O	|	|	|	|	0.32
347.667	0.00	0.10	1.199	O	|	|	|	|	0.32
347.750	0.00	0.10	1.199	O	|	|	|	|	0.32
347.833	0.00	0.10	1.198	O	|	|	|	|	0.32
347.917	0.00	0.10	1.197	O	|	|	|	|	0.32
348.000	0.00	0.10	1.197	O	|	|	|	|	0.32
348.083	0.00	0.10	1.196	O	|	|	|	|	0.32
348.167	0.00	0.10	1.195	O	|	|	|	|	0.32
348.250	0.00	0.10	1.194	O	|	|	|	|	0.32
348.333	0.00	0.10	1.194	O	|	|	|	|	0.32
348.417	0.00	0.10	1.193	O	|	|	|	|	0.32
348.500	0.00	0.10	1.192	O	|	|	|	|	0.32
348.583	0.00	0.10	1.192	O	|	|	|	|	0.32
348.667	0.00	0.10	1.191	O	|	|	|	|	0.32
348.750	0.00	0.10	1.190	O	|	|	|	|	0.32
348.833	0.00	0.10	1.189	O	|	|	|	|	0.32
348.917	0.00	0.10	1.189	O	|	|	|	|	0.32
349.000	0.00	0.10	1.188	O	|	|	|	|	0.32
349.083	0.00	0.10	1.187	O	|	|	|	|	0.32
349.167	0.00	0.10	1.187	O	|	|	|	|	0.32
349.250	0.00	0.10	1.186	O	|	|	|	|	0.32
349.333	0.00	0.10	1.185	O	|	|	|	|	0.32
349.417	0.00	0.10	1.185	O	|	|	|	|	0.32
349.500	0.00	0.10	1.184	O	|	|	|	|	0.32
349.583	0.00	0.10	1.183	O	|	|	|	|	0.32
349.667	0.00	0.10	1.182	O	|	|	|	|	0.32
349.750	0.00	0.10	1.182	O	|	|	|	|	0.32
349.833	0.00	0.10	1.181	O	|	|	|	|	0.32
349.917	0.00	0.10	1.180	O	|	|	|	|	0.32
350.000	0.00	0.10	1.180	O	|	|	|	|	0.32
350.083	0.00	0.10	1.179	O	|	|	|	|	0.32
350.167	0.00	0.10	1.178	O	|	|	|	|	0.32
350.250	0.00	0.10	1.177	O	|	|	|	|	0.32
350.333	0.00	0.10	1.177	O	|	|	|	|	0.32
350.417	0.00	0.10	1.176	O	|	|	|	|	0.32
350.500	0.00	0.10	1.175	O	|	|	|	|	0.32
350.583	0.00	0.10	1.175	O	|	|	|	|	0.32
350.667	0.00	0.10	1.174	O	|	|	|	|	0.32

350.750	0.00	0.10	1.173	O	|	|	|	|	0.32
350.833	0.00	0.10	1.173	O	|	|	|	|	0.32
350.917	0.00	0.10	1.172	O	|	|	|	|	0.32
351.000	0.00	0.10	1.171	O	|	|	|	|	0.32
351.083	0.00	0.10	1.170	O	|	|	|	|	0.32
351.167	0.00	0.10	1.170	O	|	|	|	|	0.32
351.250	0.00	0.10	1.169	O	|	|	|	|	0.32
351.333	0.00	0.10	1.168	O	|	|	|	|	0.32
351.417	0.00	0.10	1.168	O	|	|	|	|	0.32
351.500	0.00	0.10	1.167	O	|	|	|	|	0.32
351.583	0.00	0.10	1.166	O	|	|	|	|	0.32
351.667	0.00	0.10	1.166	O	|	|	|	|	0.32
351.750	0.00	0.10	1.165	O	|	|	|	|	0.31
351.833	0.00	0.10	1.164	O	|	|	|	|	0.31
351.917	0.00	0.10	1.164	O	|	|	|	|	0.31
352.000	0.00	0.10	1.163	O	|	|	|	|	0.31
352.083	0.00	0.10	1.162	O	|	|	|	|	0.31
352.167	0.00	0.10	1.161	O	|	|	|	|	0.31
352.250	0.00	0.10	1.161	O	|	|	|	|	0.31
352.333	0.00	0.10	1.160	O	|	|	|	|	0.31
352.417	0.00	0.10	1.159	O	|	|	|	|	0.31
352.500	0.00	0.10	1.159	O	|	|	|	|	0.31
352.583	0.00	0.10	1.158	O	|	|	|	|	0.31
352.667	0.00	0.10	1.157	O	|	|	|	|	0.31
352.750	0.00	0.10	1.157	O	|	|	|	|	0.31
352.833	0.00	0.10	1.156	O	|	|	|	|	0.31
352.917	0.00	0.10	1.155	O	|	|	|	|	0.31
353.000	0.00	0.10	1.155	O	|	|	|	|	0.31
353.083	0.00	0.10	1.154	O	|	|	|	|	0.31
353.167	0.00	0.10	1.153	O	|	|	|	|	0.31
353.250	0.00	0.10	1.153	O	|	|	|	|	0.31
353.333	0.00	0.10	1.152	O	|	|	|	|	0.31
353.417	0.00	0.10	1.151	O	|	|	|	|	0.31
353.500	0.00	0.10	1.150	O	|	|	|	|	0.31
353.583	0.00	0.10	1.150	O	|	|	|	|	0.31
353.667	0.00	0.10	1.149	O	|	|	|	|	0.31
353.750	0.00	0.10	1.148	O	|	|	|	|	0.31
353.833	0.00	0.10	1.148	O	|	|	|	|	0.31
353.917	0.00	0.10	1.147	O	|	|	|	|	0.31
354.000	0.00	0.10	1.146	O	|	|	|	|	0.31
354.083	0.00	0.10	1.146	O	|	|	|	|	0.31
354.167	0.00	0.10	1.145	O	|	|	|	|	0.31
354.250	0.00	0.10	1.144	O	|	|	|	|	0.31
354.333	0.00	0.10	1.144	O	|	|	|	|	0.31
354.417	0.00	0.10	1.143	O	|	|	|	|	0.31
354.500	0.00	0.10	1.142	O	|	|	|	|	0.31
354.583	0.00	0.10	1.142	O	|	|	|	|	0.31
354.667	0.00	0.10	1.141	O	|	|	|	|	0.31
354.750	0.00	0.10	1.140	O	|	|	|	|	0.31
354.833	0.00	0.10	1.140	O	|	|	|	|	0.31
354.917	0.00	0.10	1.139	O	|	|	|	|	0.31
355.000	0.00	0.10	1.138	O	|	|	|	|	0.31
355.083	0.00	0.10	1.138	O	|	|	|	|	0.31
355.167	0.00	0.10	1.137	O	|	|	|	|	0.31
355.250	0.00	0.10	1.136	O	|	|	|	|	0.31
355.333	0.00	0.10	1.135	O	|	|	|	|	0.31
355.417	0.00	0.10	1.135	O	|	|	|	|	0.31
355.500	0.00	0.10	1.134	O	|	|	|	|	0.31
355.583	0.00	0.10	1.133	O	|	|	|	|	0.31
355.667	0.00	0.10	1.133	O	|	|	|	|	0.31
355.750	0.00	0.10	1.132	O	|	|	|	|	0.31
355.833	0.00	0.10	1.131	O	|	|	|	|	0.31
355.917	0.00	0.10	1.131	O	|	|	|	|	0.31

356.000	0.00	0.10	1.130	O	|	|	|	|	0.31
356.083	0.00	0.10	1.129	O	|	|	|	|	0.31
356.167	0.00	0.10	1.129	O	|	|	|	|	0.31
356.250	0.00	0.10	1.128	O	|	|	|	|	0.30
356.333	0.00	0.10	1.127	O	|	|	|	|	0.30
356.417	0.00	0.10	1.127	O	|	|	|	|	0.30
356.500	0.00	0.10	1.126	O	|	|	|	|	0.30
356.583	0.00	0.10	1.125	O	|	|	|	|	0.30
356.667	0.00	0.10	1.125	O	|	|	|	|	0.30
356.750	0.00	0.10	1.124	O	|	|	|	|	0.30
356.833	0.00	0.10	1.123	O	|	|	|	|	0.30
356.917	0.00	0.10	1.123	O	|	|	|	|	0.30
357.000	0.00	0.10	1.122	O	|	|	|	|	0.30
357.083	0.00	0.10	1.121	O	|	|	|	|	0.30
357.167	0.00	0.10	1.121	O	|	|	|	|	0.30
357.250	0.00	0.10	1.120	O	|	|	|	|	0.30
357.333	0.00	0.10	1.119	O	|	|	|	|	0.30
357.417	0.00	0.10	1.119	O	|	|	|	|	0.30
357.500	0.00	0.10	1.118	O	|	|	|	|	0.30
357.583	0.00	0.10	1.117	O	|	|	|	|	0.30
357.667	0.00	0.10	1.117	O	|	|	|	|	0.30
357.750	0.00	0.10	1.116	O	|	|	|	|	0.30
357.833	0.00	0.10	1.115	O	|	|	|	|	0.30
357.917	0.00	0.10	1.115	O	|	|	|	|	0.30
358.000	0.00	0.10	1.114	O	|	|	|	|	0.30
358.083	0.00	0.10	1.113	O	|	|	|	|	0.30
358.167	0.00	0.10	1.113	O	|	|	|	|	0.30
358.250	0.00	0.10	1.112	O	|	|	|	|	0.30
358.333	0.00	0.10	1.111	O	|	|	|	|	0.30
358.417	0.00	0.10	1.111	O	|	|	|	|	0.30
358.500	0.00	0.10	1.110	O	|	|	|	|	0.30
358.583	0.00	0.10	1.109	O	|	|	|	|	0.30
358.667	0.00	0.10	1.109	O	|	|	|	|	0.30
358.750	0.00	0.10	1.108	O	|	|	|	|	0.30
358.833	0.00	0.10	1.107	O	|	|	|	|	0.30
358.917	0.00	0.10	1.107	O	|	|	|	|	0.30
359.000	0.00	0.10	1.106	O	|	|	|	|	0.30
359.083	0.00	0.10	1.105	O	|	|	|	|	0.30
359.167	0.00	0.10	1.105	O	|	|	|	|	0.30
359.250	0.00	0.10	1.104	O	|	|	|	|	0.30
359.333	0.00	0.10	1.103	O	|	|	|	|	0.30
359.417	0.00	0.10	1.103	O	|	|	|	|	0.30
359.500	0.00	0.10	1.102	O	|	|	|	|	0.30
359.583	0.00	0.10	1.101	O	|	|	|	|	0.30
359.667	0.00	0.10	1.101	O	|	|	|	|	0.30
359.750	0.00	0.10	1.100	O	|	|	|	|	0.30
359.833	0.00	0.10	1.100	O	|	|	|	|	0.30
359.917	0.00	0.10	1.099	O	|	|	|	|	0.30
360.000	0.00	0.09	1.098	O	|	|	|	|	0.30
360.083	0.00	0.09	1.098	O	|	|	|	|	0.30
360.167	0.00	0.09	1.097	O	|	|	|	|	0.30
360.250	0.00	0.09	1.096	O	|	|	|	|	0.30
360.333	0.00	0.09	1.096	O	|	|	|	|	0.30
360.417	0.00	0.09	1.095	O	|	|	|	|	0.30
360.500	0.00	0.09	1.094	O	|	|	|	|	0.30
360.583	0.00	0.09	1.094	O	|	|	|	|	0.30
360.667	0.00	0.09	1.093	O	|	|	|	|	0.30
360.750	0.00	0.09	1.092	O	|	|	|	|	0.30
360.833	0.00	0.09	1.092	O	|	|	|	|	0.30
360.917	0.00	0.09	1.091	O	|	|	|	|	0.29
361.000	0.00	0.09	1.090	O	|	|	|	|	0.29
361.083	0.00	0.09	1.090	O	|	|	|	|	0.29
361.167	0.00	0.09	1.089	O	|	|	|	|	0.29

361.250	0.00	0.09	1.088	O	|	|	|	|	0.29
361.333	0.00	0.09	1.088	O	|	|	|	|	0.29
361.417	0.00	0.09	1.087	O	|	|	|	|	0.29
361.500	0.00	0.09	1.087	O	|	|	|	|	0.29
361.583	0.00	0.09	1.086	O	|	|	|	|	0.29
361.667	0.00	0.09	1.085	O	|	|	|	|	0.29
361.750	0.00	0.09	1.085	O	|	|	|	|	0.29
361.833	0.00	0.09	1.084	O	|	|	|	|	0.29
361.917	0.00	0.09	1.083	O	|	|	|	|	0.29
362.000	0.00	0.09	1.083	O	|	|	|	|	0.29
362.083	0.00	0.09	1.082	O	|	|	|	|	0.29
362.167	0.00	0.09	1.081	O	|	|	|	|	0.29
362.250	0.00	0.09	1.081	O	|	|	|	|	0.29
362.333	0.00	0.09	1.080	O	|	|	|	|	0.29
362.417	0.00	0.09	1.079	O	|	|	|	|	0.29
362.500	0.00	0.09	1.079	O	|	|	|	|	0.29
362.583	0.00	0.09	1.078	O	|	|	|	|	0.29
362.667	0.00	0.09	1.077	O	|	|	|	|	0.29
362.750	0.00	0.09	1.077	O	|	|	|	|	0.29
362.833	0.00	0.09	1.076	O	|	|	|	|	0.29
362.917	0.00	0.09	1.076	O	|	|	|	|	0.29
363.000	0.00	0.09	1.075	O	|	|	|	|	0.29
363.083	0.00	0.09	1.074	O	|	|	|	|	0.29
363.167	0.00	0.09	1.074	O	|	|	|	|	0.29
363.250	0.00	0.09	1.073	O	|	|	|	|	0.29
363.333	0.00	0.09	1.072	O	|	|	|	|	0.29
363.417	0.00	0.09	1.072	O	|	|	|	|	0.29
363.500	0.00	0.09	1.071	O	|	|	|	|	0.29
363.583	0.00	0.09	1.070	O	|	|	|	|	0.29
363.667	0.00	0.09	1.070	O	|	|	|	|	0.29
363.750	0.00	0.09	1.069	O	|	|	|	|	0.29
363.833	0.00	0.09	1.069	O	|	|	|	|	0.29
363.917	0.00	0.09	1.068	O	|	|	|	|	0.29
364.000	0.00	0.09	1.067	O	|	|	|	|	0.29
364.083	0.00	0.09	1.067	O	|	|	|	|	0.29
364.167	0.00	0.09	1.066	O	|	|	|	|	0.29
364.250	0.00	0.09	1.065	O	|	|	|	|	0.29
364.333	0.00	0.09	1.065	O	|	|	|	|	0.29
364.417	0.00	0.09	1.064	O	|	|	|	|	0.29
364.500	0.00	0.09	1.063	O	|	|	|	|	0.29
364.583	0.00	0.09	1.063	O	|	|	|	|	0.29
364.667	0.00	0.09	1.062	O	|	|	|	|	0.29
364.750	0.00	0.09	1.062	O	|	|	|	|	0.29
364.833	0.00	0.09	1.061	O	|	|	|	|	0.29
364.917	0.00	0.09	1.060	O	|	|	|	|	0.29
365.000	0.00	0.09	1.060	O	|	|	|	|	0.29
365.083	0.00	0.09	1.059	O	|	|	|	|	0.29
365.167	0.00	0.09	1.058	O	|	|	|	|	0.29
365.250	0.00	0.09	1.058	O	|	|	|	|	0.29
365.333	0.00	0.09	1.057	O	|	|	|	|	0.29
365.417	0.00	0.09	1.057	O	|	|	|	|	0.29
365.500	0.00	0.09	1.056	O	|	|	|	|	0.29
365.583	0.00	0.09	1.055	O	|	|	|	|	0.29
365.667	0.00	0.09	1.055	O	|	|	|	|	0.29
365.750	0.00	0.09	1.054	O	|	|	|	|	0.28
365.833	0.00	0.09	1.053	O	|	|	|	|	0.28
365.917	0.00	0.09	1.053	O	|	|	|	|	0.28
366.000	0.00	0.09	1.052	O	|	|	|	|	0.28
366.083	0.00	0.09	1.051	O	|	|	|	|	0.28
366.167	0.00	0.09	1.051	O	|	|	|	|	0.28
366.250	0.00	0.09	1.050	O	|	|	|	|	0.28
366.333	0.00	0.09	1.050	O	|	|	|	|	0.28
366.417	0.00	0.09	1.049	O	|	|	|	|	0.28

366.500	0.00	0.09	1.048	O	|	|	|	|	0.28
366.583	0.00	0.09	1.048	O	|	|	|	|	0.28
366.667	0.00	0.09	1.047	O	|	|	|	|	0.28
366.750	0.00	0.09	1.046	O	|	|	|	|	0.28
366.833	0.00	0.09	1.046	O	|	|	|	|	0.28
366.917	0.00	0.09	1.045	O	|	|	|	|	0.28
367.000	0.00	0.09	1.045	O	|	|	|	|	0.28
367.083	0.00	0.09	1.044	O	|	|	|	|	0.28
367.167	0.00	0.09	1.043	O	|	|	|	|	0.28
367.250	0.00	0.09	1.043	O	|	|	|	|	0.28
367.333	0.00	0.09	1.042	O	|	|	|	|	0.28
367.417	0.00	0.09	1.042	O	|	|	|	|	0.28
367.500	0.00	0.09	1.041	O	|	|	|	|	0.28
367.583	0.00	0.09	1.040	O	|	|	|	|	0.28
367.667	0.00	0.09	1.040	O	|	|	|	|	0.28
367.750	0.00	0.09	1.039	O	|	|	|	|	0.28
367.833	0.00	0.09	1.038	O	|	|	|	|	0.28
367.917	0.00	0.09	1.038	O	|	|	|	|	0.28
368.000	0.00	0.09	1.037	O	|	|	|	|	0.28
368.083	0.00	0.09	1.037	O	|	|	|	|	0.28
368.167	0.00	0.09	1.036	O	|	|	|	|	0.28
368.250	0.00	0.09	1.035	O	|	|	|	|	0.28
368.333	0.00	0.09	1.035	O	|	|	|	|	0.28
368.417	0.00	0.09	1.034	O	|	|	|	|	0.28
368.500	0.00	0.09	1.033	O	|	|	|	|	0.28
368.583	0.00	0.09	1.033	O	|	|	|	|	0.28
368.667	0.00	0.09	1.032	O	|	|	|	|	0.28
368.750	0.00	0.09	1.032	O	|	|	|	|	0.28
368.833	0.00	0.09	1.031	O	|	|	|	|	0.28
368.917	0.00	0.09	1.030	O	|	|	|	|	0.28
369.000	0.00	0.09	1.030	O	|	|	|	|	0.28
369.083	0.00	0.09	1.029	O	|	|	|	|	0.28
369.167	0.00	0.09	1.029	O	|	|	|	|	0.28
369.250	0.00	0.09	1.028	O	|	|	|	|	0.28
369.333	0.00	0.09	1.027	O	|	|	|	|	0.28
369.417	0.00	0.09	1.027	O	|	|	|	|	0.28
369.500	0.00	0.09	1.026	O	|	|	|	|	0.28
369.583	0.00	0.09	1.026	O	|	|	|	|	0.28
369.667	0.00	0.09	1.025	O	|	|	|	|	0.28
369.750	0.00	0.09	1.024	O	|	|	|	|	0.28
369.833	0.00	0.09	1.024	O	|	|	|	|	0.28
369.917	0.00	0.09	1.023	O	|	|	|	|	0.28
370.000	0.00	0.09	1.022	O	|	|	|	|	0.28
370.083	0.00	0.09	1.022	O	|	|	|	|	0.28
370.167	0.00	0.09	1.021	O	|	|	|	|	0.28
370.250	0.00	0.09	1.021	O	|	|	|	|	0.28
370.333	0.00	0.09	1.020	O	|	|	|	|	0.28
370.417	0.00	0.09	1.019	O	|	|	|	|	0.28
370.500	0.00	0.09	1.019	O	|	|	|	|	0.28
370.583	0.00	0.09	1.018	O	|	|	|	|	0.28
370.667	0.00	0.09	1.018	O	|	|	|	|	0.28
370.750	0.00	0.09	1.017	O	|	|	|	|	0.27
370.833	0.00	0.09	1.016	O	|	|	|	|	0.27
370.917	0.00	0.09	1.016	O	|	|	|	|	0.27
371.000	0.00	0.09	1.015	O	|	|	|	|	0.27
371.083	0.00	0.09	1.015	O	|	|	|	|	0.27
371.167	0.00	0.09	1.014	O	|	|	|	|	0.27
371.250	0.00	0.09	1.013	O	|	|	|	|	0.27
371.333	0.00	0.09	1.013	O	|	|	|	|	0.27
371.417	0.00	0.09	1.012	O	|	|	|	|	0.27
371.500	0.00	0.09	1.012	O	|	|	|	|	0.27
371.583	0.00	0.09	1.011	O	|	|	|	|	0.27
371.667	0.00	0.09	1.010	O	|	|	|	|	0.27

371.750	0.00	0.09	1.010	O	|	|	|	|	0.27
371.833	0.00	0.09	1.009	O	|	|	|	|	0.27
371.917	0.00	0.09	1.009	O	|	|	|	|	0.27
372.000	0.00	0.09	1.008	O	|	|	|	|	0.27
372.083	0.00	0.09	1.007	O	|	|	|	|	0.27
372.167	0.00	0.09	1.007	O	|	|	|	|	0.27
372.250	0.00	0.09	1.006	O	|	|	|	|	0.27
372.333	0.00	0.09	1.006	O	|	|	|	|	0.27
372.417	0.00	0.09	1.005	O	|	|	|	|	0.27
372.500	0.00	0.09	1.004	O	|	|	|	|	0.27
372.583	0.00	0.09	1.004	O	|	|	|	|	0.27
372.667	0.00	0.09	1.003	O	|	|	|	|	0.27
372.750	0.00	0.09	1.003	O	|	|	|	|	0.27
372.833	0.00	0.09	1.002	O	|	|	|	|	0.27
372.917	0.00	0.09	1.001	O	|	|	|	|	0.27
373.000	0.00	0.09	1.001	O	|	|	|	|	0.27
373.083	0.00	0.09	1.000	O	|	|	|	|	0.27
373.167	0.00	0.09	1.000	O	|	|	|	|	0.27
373.250	0.00	0.09	0.999	O	|	|	|	|	0.27
373.333	0.00	0.09	0.998	O	|	|	|	|	0.27
373.417	0.00	0.09	0.998	O	|	|	|	|	0.27
373.500	0.00	0.09	0.997	O	|	|	|	|	0.27
373.583	0.00	0.09	0.997	O	|	|	|	|	0.27
373.667	0.00	0.09	0.996	O	|	|	|	|	0.27
373.750	0.00	0.09	0.995	O	|	|	|	|	0.27
373.833	0.00	0.09	0.995	O	|	|	|	|	0.27
373.917	0.00	0.09	0.994	O	|	|	|	|	0.27
374.000	0.00	0.09	0.994	O	|	|	|	|	0.27
374.083	0.00	0.09	0.993	O	|	|	|	|	0.27
374.167	0.00	0.09	0.992	O	|	|	|	|	0.27
374.250	0.00	0.09	0.992	O	|	|	|	|	0.27
374.333	0.00	0.09	0.991	O	|	|	|	|	0.27
374.417	0.00	0.09	0.991	O	|	|	|	|	0.27
374.500	0.00	0.09	0.990	O	|	|	|	|	0.27
374.583	0.00	0.09	0.990	O	|	|	|	|	0.27
374.667	0.00	0.09	0.989	O	|	|	|	|	0.27
374.750	0.00	0.09	0.988	O	|	|	|	|	0.27
374.833	0.00	0.09	0.988	O	|	|	|	|	0.27
374.917	0.00	0.09	0.987	O	|	|	|	|	0.27
375.000	0.00	0.09	0.987	O	|	|	|	|	0.27
375.083	0.00	0.09	0.986	O	|	|	|	|	0.27
375.167	0.00	0.09	0.985	O	|	|	|	|	0.27
375.250	0.00	0.09	0.985	O	|	|	|	|	0.27
375.333	0.00	0.09	0.984	O	|	|	|	|	0.27
375.417	0.00	0.09	0.984	O	|	|	|	|	0.27
375.500	0.00	0.09	0.983	O	|	|	|	|	0.27
375.583	0.00	0.08	0.982	O	|	|	|	|	0.27
375.667	0.00	0.08	0.982	O	|	|	|	|	0.27
375.750	0.00	0.08	0.981	O	|	|	|	|	0.27
375.833	0.00	0.08	0.981	O	|	|	|	|	0.27
375.917	0.00	0.08	0.980	O	|	|	|	|	0.26
376.000	0.00	0.08	0.980	O	|	|	|	|	0.26
376.083	0.00	0.08	0.979	O	|	|	|	|	0.26
376.167	0.00	0.08	0.978	O	|	|	|	|	0.26
376.250	0.00	0.08	0.978	O	|	|	|	|	0.26
376.333	0.00	0.08	0.977	O	|	|	|	|	0.26
376.417	0.00	0.08	0.977	O	|	|	|	|	0.26
376.500	0.00	0.08	0.976	O	|	|	|	|	0.26
376.583	0.00	0.08	0.975	O	|	|	|	|	0.26
376.667	0.00	0.08	0.975	O	|	|	|	|	0.26
376.750	0.00	0.08	0.974	O	|	|	|	|	0.26
376.833	0.00	0.08	0.974	O	|	|	|	|	0.26
376.917	0.00	0.08	0.973	O	|	|	|	|	0.26

377.000	0.00	0.08	0.973	O	|	|	|	|	0.26
377.083	0.00	0.08	0.972	O	|	|	|	|	0.26
377.167	0.00	0.08	0.971	O	|	|	|	|	0.26
377.250	0.00	0.08	0.971	O	|	|	|	|	0.26
377.333	0.00	0.08	0.970	O	|	|	|	|	0.26
377.417	0.00	0.08	0.970	O	|	|	|	|	0.26
377.500	0.00	0.08	0.969	O	|	|	|	|	0.26
377.583	0.00	0.08	0.969	O	|	|	|	|	0.26
377.667	0.00	0.08	0.968	O	|	|	|	|	0.26
377.750	0.00	0.08	0.967	O	|	|	|	|	0.26
377.833	0.00	0.08	0.967	O	|	|	|	|	0.26
377.917	0.00	0.08	0.966	O	|	|	|	|	0.26
378.000	0.00	0.08	0.966	O	|	|	|	|	0.26
378.083	0.00	0.08	0.965	O	|	|	|	|	0.26
378.167	0.00	0.08	0.964	O	|	|	|	|	0.26
378.250	0.00	0.08	0.964	O	|	|	|	|	0.26
378.333	0.00	0.08	0.963	O	|	|	|	|	0.26
378.417	0.00	0.08	0.963	O	|	|	|	|	0.26
378.500	0.00	0.08	0.962	O	|	|	|	|	0.26
378.583	0.00	0.08	0.962	O	|	|	|	|	0.26
378.667	0.00	0.08	0.961	O	|	|	|	|	0.26
378.750	0.00	0.08	0.960	O	|	|	|	|	0.26
378.833	0.00	0.08	0.960	O	|	|	|	|	0.26
378.917	0.00	0.08	0.959	O	|	|	|	|	0.26
379.000	0.00	0.08	0.959	O	|	|	|	|	0.26
379.083	0.00	0.08	0.958	O	|	|	|	|	0.26
379.167	0.00	0.08	0.958	O	|	|	|	|	0.26
379.250	0.00	0.08	0.957	O	|	|	|	|	0.26
379.333	0.00	0.08	0.956	O	|	|	|	|	0.26
379.417	0.00	0.08	0.956	O	|	|	|	|	0.26
379.500	0.00	0.08	0.955	O	|	|	|	|	0.26
379.583	0.00	0.08	0.955	O	|	|	|	|	0.26
379.667	0.00	0.08	0.954	O	|	|	|	|	0.26
379.750	0.00	0.08	0.954	O	|	|	|	|	0.26
379.833	0.00	0.08	0.953	O	|	|	|	|	0.26
379.917	0.00	0.08	0.953	O	|	|	|	|	0.26
380.000	0.00	0.08	0.952	O	|	|	|	|	0.26
380.083	0.00	0.08	0.951	O	|	|	|	|	0.26
380.167	0.00	0.08	0.951	O	|	|	|	|	0.26
380.250	0.00	0.08	0.950	O	|	|	|	|	0.26
380.333	0.00	0.08	0.950	O	|	|	|	|	0.26
380.417	0.00	0.08	0.949	O	|	|	|	|	0.26
380.500	0.00	0.08	0.949	O	|	|	|	|	0.26
380.583	0.00	0.08	0.948	O	|	|	|	|	0.26
380.667	0.00	0.08	0.947	O	|	|	|	|	0.26
380.750	0.00	0.08	0.947	O	|	|	|	|	0.26
380.833	0.00	0.08	0.946	O	|	|	|	|	0.26
380.917	0.00	0.08	0.946	O	|	|	|	|	0.26
381.000	0.00	0.08	0.945	O	|	|	|	|	0.26
381.083	0.00	0.08	0.945	O	|	|	|	|	0.26
381.167	0.00	0.08	0.944	O	|	|	|	|	0.26
381.250	0.00	0.08	0.943	O	|	|	|	|	0.25
381.333	0.00	0.08	0.943	O	|	|	|	|	0.25
381.417	0.00	0.08	0.942	O	|	|	|	|	0.25
381.500	0.00	0.08	0.942	O	|	|	|	|	0.25
381.583	0.00	0.08	0.941	O	|	|	|	|	0.25
381.667	0.00	0.08	0.941	O	|	|	|	|	0.25
381.750	0.00	0.08	0.940	O	|	|	|	|	0.25
381.833	0.00	0.08	0.940	O	|	|	|	|	0.25
381.917	0.00	0.08	0.939	O	|	|	|	|	0.25
382.000	0.00	0.08	0.938	O	|	|	|	|	0.25
382.083	0.00	0.08	0.938	O	|	|	|	|	0.25
382.167	0.00	0.08	0.937	O	|	|	|	|	0.25

382.250	0.00	0.08	0.937	O	|	|	|	|	0.25
382.333	0.00	0.08	0.936	O	|	|	|	|	0.25
382.417	0.00	0.08	0.936	O	|	|	|	|	0.25
382.500	0.00	0.08	0.935	O	|	|	|	|	0.25
382.583	0.00	0.08	0.935	O	|	|	|	|	0.25
382.667	0.00	0.08	0.934	O	|	|	|	|	0.25
382.750	0.00	0.08	0.933	O	|	|	|	|	0.25
382.833	0.00	0.08	0.933	O	|	|	|	|	0.25
382.917	0.00	0.08	0.932	O	|	|	|	|	0.25
383.000	0.00	0.08	0.932	O	|	|	|	|	0.25
383.083	0.00	0.08	0.931	O	|	|	|	|	0.25
383.167	0.00	0.08	0.931	O	|	|	|	|	0.25
383.250	0.00	0.08	0.930	O	|	|	|	|	0.25
383.333	0.00	0.08	0.930	O	|	|	|	|	0.25
383.417	0.00	0.08	0.929	O	|	|	|	|	0.25
383.500	0.00	0.08	0.928	O	|	|	|	|	0.25
383.583	0.00	0.08	0.928	O	|	|	|	|	0.25
383.667	0.00	0.08	0.927	O	|	|	|	|	0.25
383.750	0.00	0.08	0.927	O	|	|	|	|	0.25
383.833	0.00	0.08	0.926	O	|	|	|	|	0.25
383.917	0.00	0.08	0.926	O	|	|	|	|	0.25
384.000	0.00	0.08	0.925	O	|	|	|	|	0.25
384.083	0.00	0.08	0.925	O	|	|	|	|	0.25
384.167	0.00	0.08	0.924	O	|	|	|	|	0.25
384.250	0.00	0.08	0.923	O	|	|	|	|	0.25
384.333	0.00	0.08	0.923	O	|	|	|	|	0.25
384.417	0.00	0.08	0.922	O	|	|	|	|	0.25
384.500	0.00	0.08	0.922	O	|	|	|	|	0.25
384.583	0.00	0.08	0.921	O	|	|	|	|	0.25
384.667	0.00	0.08	0.921	O	|	|	|	|	0.25
384.750	0.00	0.08	0.920	O	|	|	|	|	0.25
384.833	0.00	0.08	0.920	O	|	|	|	|	0.25
384.917	0.00	0.08	0.919	O	|	|	|	|	0.25
385.000	0.00	0.08	0.919	O	|	|	|	|	0.25
385.083	0.00	0.08	0.918	O	|	|	|	|	0.25
385.167	0.00	0.08	0.917	O	|	|	|	|	0.25
385.250	0.00	0.08	0.917	O	|	|	|	|	0.25
385.333	0.00	0.08	0.916	O	|	|	|	|	0.25
385.417	0.00	0.08	0.916	O	|	|	|	|	0.25
385.500	0.00	0.08	0.915	O	|	|	|	|	0.25
385.583	0.00	0.08	0.915	O	|	|	|	|	0.25
385.667	0.00	0.08	0.914	O	|	|	|	|	0.25
385.750	0.00	0.08	0.914	O	|	|	|	|	0.25
385.833	0.00	0.08	0.913	O	|	|	|	|	0.25
385.917	0.00	0.08	0.913	O	|	|	|	|	0.25
386.000	0.00	0.08	0.912	O	|	|	|	|	0.25
386.083	0.00	0.08	0.911	O	|	|	|	|	0.25
386.167	0.00	0.08	0.911	O	|	|	|	|	0.25
386.250	0.00	0.08	0.910	O	|	|	|	|	0.25
386.333	0.00	0.08	0.910	O	|	|	|	|	0.25
386.417	0.00	0.08	0.909	O	|	|	|	|	0.25
386.500	0.00	0.08	0.909	O	|	|	|	|	0.25
386.583	0.00	0.08	0.908	O	|	|	|	|	0.25
386.667	0.00	0.08	0.908	O	|	|	|	|	0.25
386.750	0.00	0.08	0.907	O	|	|	|	|	0.25
386.833	0.00	0.08	0.907	O	|	|	|	|	0.25
386.917	0.00	0.08	0.906	O	|	|	|	|	0.24
387.000	0.00	0.08	0.905	O	|	|	|	|	0.24
387.083	0.00	0.08	0.905	O	|	|	|	|	0.24
387.167	0.00	0.08	0.904	O	|	|	|	|	0.24
387.250	0.00	0.08	0.904	O	|	|	|	|	0.24
387.333	0.00	0.08	0.903	O	|	|	|	|	0.24
387.417	0.00	0.08	0.903	O	|	|	|	|	0.24

387.500	0.00	0.08	0.902	O	|	|	|	|	0.24
387.583	0.00	0.08	0.902	O	|	|	|	|	0.24
387.667	0.00	0.08	0.901	O	|	|	|	|	0.24
387.750	0.00	0.08	0.901	O	|	|	|	|	0.24
387.833	0.00	0.08	0.900	O	|	|	|	|	0.24
387.917	0.00	0.08	0.900	O	|	|	|	|	0.24
388.000	0.00	0.08	0.899	O	|	|	|	|	0.24
388.083	0.00	0.08	0.898	O	|	|	|	|	0.24
388.167	0.00	0.08	0.898	O	|	|	|	|	0.24
388.250	0.00	0.08	0.897	O	|	|	|	|	0.24
388.333	0.00	0.08	0.897	O	|	|	|	|	0.24
388.417	0.00	0.08	0.896	O	|	|	|	|	0.24
388.500	0.00	0.08	0.896	O	|	|	|	|	0.24
388.583	0.00	0.08	0.895	O	|	|	|	|	0.24
388.667	0.00	0.08	0.895	O	|	|	|	|	0.24
388.750	0.00	0.08	0.894	O	|	|	|	|	0.24
388.833	0.00	0.08	0.894	O	|	|	|	|	0.24
388.917	0.00	0.08	0.893	O	|	|	|	|	0.24
389.000	0.00	0.08	0.893	O	|	|	|	|	0.24
389.083	0.00	0.08	0.892	O	|	|	|	|	0.24
389.167	0.00	0.08	0.892	O	|	|	|	|	0.24
389.250	0.00	0.08	0.891	O	|	|	|	|	0.24
389.333	0.00	0.08	0.891	O	|	|	|	|	0.24
389.417	0.00	0.08	0.890	O	|	|	|	|	0.24
389.500	0.00	0.08	0.889	O	|	|	|	|	0.24
389.583	0.00	0.08	0.889	O	|	|	|	|	0.24
389.667	0.00	0.08	0.888	O	|	|	|	|	0.24
389.750	0.00	0.08	0.888	O	|	|	|	|	0.24
389.833	0.00	0.08	0.887	O	|	|	|	|	0.24
389.917	0.00	0.08	0.887	O	|	|	|	|	0.24
390.000	0.00	0.08	0.886	O	|	|	|	|	0.24
390.083	0.00	0.08	0.886	O	|	|	|	|	0.24
390.167	0.00	0.08	0.885	O	|	|	|	|	0.24
390.250	0.00	0.08	0.885	O	|	|	|	|	0.24
390.333	0.00	0.08	0.884	O	|	|	|	|	0.24
390.417	0.00	0.08	0.884	O	|	|	|	|	0.24
390.500	0.00	0.08	0.883	O	|	|	|	|	0.24
390.583	0.00	0.08	0.883	O	|	|	|	|	0.24
390.667	0.00	0.08	0.882	O	|	|	|	|	0.24
390.750	0.00	0.08	0.882	O	|	|	|	|	0.24
390.833	0.00	0.08	0.881	O	|	|	|	|	0.24
390.917	0.00	0.08	0.880	O	|	|	|	|	0.24
391.000	0.00	0.08	0.880	O	|	|	|	|	0.24
391.083	0.00	0.08	0.879	O	|	|	|	|	0.24
391.167	0.00	0.08	0.879	O	|	|	|	|	0.24
391.250	0.00	0.08	0.878	O	|	|	|	|	0.24
391.333	0.00	0.08	0.878	O	|	|	|	|	0.24
391.417	0.00	0.08	0.877	O	|	|	|	|	0.24
391.500	0.00	0.08	0.877	O	|	|	|	|	0.24
391.583	0.00	0.08	0.876	O	|	|	|	|	0.24
391.667	0.00	0.08	0.876	O	|	|	|	|	0.24
391.750	0.00	0.08	0.875	O	|	|	|	|	0.24
391.833	0.00	0.08	0.875	O	|	|	|	|	0.24
391.917	0.00	0.08	0.874	O	|	|	|	|	0.24
392.000	0.00	0.08	0.874	O	|	|	|	|	0.24
392.083	0.00	0.08	0.873	O	|	|	|	|	0.24
392.167	0.00	0.08	0.873	O	|	|	|	|	0.24
392.250	0.00	0.08	0.872	O	|	|	|	|	0.24
392.333	0.00	0.08	0.872	O	|	|	|	|	0.24
392.417	0.00	0.08	0.871	O	|	|	|	|	0.24
392.500	0.00	0.08	0.871	O	|	|	|	|	0.24
392.583	0.00	0.08	0.870	O	|	|	|	|	0.24
392.667	0.00	0.08	0.870	O	|	|	|	|	0.24

392.750	0.00	0.08	0.869	O	|	|	|	|	0.23
392.833	0.00	0.08	0.868	O	|	|	|	|	0.23
392.917	0.00	0.08	0.868	O	|	|	|	|	0.23
393.000	0.00	0.08	0.867	O	|	|	|	|	0.23
393.083	0.00	0.07	0.867	O	|	|	|	|	0.23
393.167	0.00	0.07	0.866	O	|	|	|	|	0.23
393.250	0.00	0.07	0.866	O	|	|	|	|	0.23
393.333	0.00	0.07	0.865	O	|	|	|	|	0.23
393.417	0.00	0.07	0.865	O	|	|	|	|	0.23
393.500	0.00	0.07	0.864	O	|	|	|	|	0.23
393.583	0.00	0.07	0.864	O	|	|	|	|	0.23
393.667	0.00	0.07	0.863	O	|	|	|	|	0.23
393.750	0.00	0.07	0.863	O	|	|	|	|	0.23
393.833	0.00	0.07	0.862	O	|	|	|	|	0.23
393.917	0.00	0.07	0.862	O	|	|	|	|	0.23
394.000	0.00	0.07	0.861	O	|	|	|	|	0.23
394.083	0.00	0.07	0.861	O	|	|	|	|	0.23
394.167	0.00	0.07	0.860	O	|	|	|	|	0.23
394.250	0.00	0.07	0.860	O	|	|	|	|	0.23
394.333	0.00	0.07	0.859	O	|	|	|	|	0.23
394.417	0.00	0.07	0.859	O	|	|	|	|	0.23
394.500	0.00	0.07	0.858	O	|	|	|	|	0.23
394.583	0.00	0.07	0.858	O	|	|	|	|	0.23
394.667	0.00	0.07	0.857	O	|	|	|	|	0.23
394.750	0.00	0.07	0.857	O	|	|	|	|	0.23
394.833	0.00	0.07	0.856	O	|	|	|	|	0.23
394.917	0.00	0.07	0.856	O	|	|	|	|	0.23
395.000	0.00	0.07	0.855	O	|	|	|	|	0.23
395.083	0.00	0.07	0.855	O	|	|	|	|	0.23
395.167	0.00	0.07	0.854	O	|	|	|	|	0.23
395.250	0.00	0.07	0.854	O	|	|	|	|	0.23
395.333	0.00	0.07	0.853	O	|	|	|	|	0.23
395.417	0.00	0.07	0.853	O	|	|	|	|	0.23
395.500	0.00	0.07	0.852	O	|	|	|	|	0.23
395.583	0.00	0.07	0.852	O	|	|	|	|	0.23
395.667	0.00	0.07	0.851	O	|	|	|	|	0.23
395.750	0.00	0.07	0.851	O	|	|	|	|	0.23
395.833	0.00	0.07	0.850	O	|	|	|	|	0.23
395.917	0.00	0.07	0.850	O	|	|	|	|	0.23
396.000	0.00	0.07	0.849	O	|	|	|	|	0.23
396.083	0.00	0.07	0.849	O	|	|	|	|	0.23
396.167	0.00	0.07	0.848	O	|	|	|	|	0.23
396.250	0.00	0.07	0.848	O	|	|	|	|	0.23
396.333	0.00	0.07	0.847	O	|	|	|	|	0.23
396.417	0.00	0.07	0.847	O	|	|	|	|	0.23
396.500	0.00	0.07	0.846	O	|	|	|	|	0.23
396.583	0.00	0.07	0.846	O	|	|	|	|	0.23
396.667	0.00	0.07	0.845	O	|	|	|	|	0.23
396.750	0.00	0.07	0.845	O	|	|	|	|	0.23
396.833	0.00	0.07	0.844	O	|	|	|	|	0.23
396.917	0.00	0.07	0.844	O	|	|	|	|	0.23
397.000	0.00	0.07	0.843	O	|	|	|	|	0.23
397.083	0.00	0.07	0.843	O	|	|	|	|	0.23
397.167	0.00	0.07	0.842	O	|	|	|	|	0.23
397.250	0.00	0.07	0.842	O	|	|	|	|	0.23
397.333	0.00	0.07	0.841	O	|	|	|	|	0.23
397.417	0.00	0.07	0.841	O	|	|	|	|	0.23
397.500	0.00	0.07	0.840	O	|	|	|	|	0.23
397.583	0.00	0.07	0.840	O	|	|	|	|	0.23
397.667	0.00	0.07	0.839	O	|	|	|	|	0.23
397.750	0.00	0.07	0.839	O	|	|	|	|	0.23
397.833	0.00	0.07	0.838	O	|	|	|	|	0.23
397.917	0.00	0.07	0.838	O	|	|	|	|	0.23

398.000	0.00	0.07	0.837	O	|	|	|	|	0.23
398.083	0.00	0.07	0.837	O	|	|	|	|	0.23
398.167	0.00	0.07	0.836	O	|	|	|	|	0.23
398.250	0.00	0.07	0.836	O	|	|	|	|	0.23
398.333	0.00	0.07	0.835	O	|	|	|	|	0.23
398.417	0.00	0.07	0.835	O	|	|	|	|	0.23
398.500	0.00	0.07	0.834	O	|	|	|	|	0.23
398.583	0.00	0.07	0.834	O	|	|	|	|	0.23
398.667	0.00	0.07	0.833	O	|	|	|	|	0.23
398.750	0.00	0.07	0.833	O	|	|	|	|	0.23
398.833	0.00	0.07	0.832	O	|	|	|	|	0.22
398.917	0.00	0.07	0.832	O	|	|	|	|	0.22
399.000	0.00	0.07	0.831	O	|	|	|	|	0.22
399.083	0.00	0.07	0.831	O	|	|	|	|	0.22
399.167	0.00	0.07	0.830	O	|	|	|	|	0.22
399.250	0.00	0.07	0.830	O	|	|	|	|	0.22
399.333	0.00	0.07	0.829	O	|	|	|	|	0.22
399.417	0.00	0.07	0.829	O	|	|	|	|	0.22
399.500	0.00	0.07	0.828	O	|	|	|	|	0.22
399.583	0.00	0.07	0.828	O	|	|	|	|	0.22
399.667	0.00	0.07	0.827	O	|	|	|	|	0.22
399.750	0.00	0.07	0.827	O	|	|	|	|	0.22
399.833	0.00	0.07	0.826	O	|	|	|	|	0.22
399.917	0.00	0.07	0.826	O	|	|	|	|	0.22
400.000	0.00	0.07	0.825	O	|	|	|	|	0.22
400.083	0.00	0.07	0.825	O	|	|	|	|	0.22
400.167	0.00	0.07	0.824	O	|	|	|	|	0.22
400.250	0.00	0.07	0.824	O	|	|	|	|	0.22
400.333	0.00	0.07	0.823	O	|	|	|	|	0.22
400.417	0.00	0.07	0.823	O	|	|	|	|	0.22
400.500	0.00	0.07	0.822	O	|	|	|	|	0.22
400.583	0.00	0.07	0.822	O	|	|	|	|	0.22
400.667	0.00	0.07	0.821	O	|	|	|	|	0.22
400.750	0.00	0.07	0.821	O	|	|	|	|	0.22
400.833	0.00	0.07	0.820	O	|	|	|	|	0.22
400.917	0.00	0.07	0.820	O	|	|	|	|	0.22
401.000	0.00	0.07	0.819	O	|	|	|	|	0.22
401.083	0.00	0.07	0.819	O	|	|	|	|	0.22
401.167	0.00	0.07	0.818	O	|	|	|	|	0.22
401.250	0.00	0.07	0.818	O	|	|	|	|	0.22
401.333	0.00	0.07	0.817	O	|	|	|	|	0.22
401.417	0.00	0.07	0.817	O	|	|	|	|	0.22
401.500	0.00	0.07	0.816	O	|	|	|	|	0.22
401.583	0.00	0.07	0.816	O	|	|	|	|	0.22
401.667	0.00	0.07	0.815	O	|	|	|	|	0.22
401.750	0.00	0.07	0.815	O	|	|	|	|	0.22
401.833	0.00	0.07	0.814	O	|	|	|	|	0.22
401.917	0.00	0.07	0.814	O	|	|	|	|	0.22
402.000	0.00	0.07	0.813	O	|	|	|	|	0.22
402.083	0.00	0.07	0.813	O	|	|	|	|	0.22
402.167	0.00	0.07	0.812	O	|	|	|	|	0.22
402.250	0.00	0.07	0.812	O	|	|	|	|	0.22
402.333	0.00	0.07	0.811	O	|	|	|	|	0.22
402.417	0.00	0.07	0.811	O	|	|	|	|	0.22
402.500	0.00	0.07	0.811	O	|	|	|	|	0.22
402.583	0.00	0.07	0.810	O	|	|	|	|	0.22
402.667	0.00	0.07	0.810	O	|	|	|	|	0.22
402.750	0.00	0.07	0.809	O	|	|	|	|	0.22
402.833	0.00	0.07	0.809	O	|	|	|	|	0.22
402.917	0.00	0.07	0.808	O	|	|	|	|	0.22
403.000	0.00	0.07	0.808	O	|	|	|	|	0.22
403.083	0.00	0.07	0.807	O	|	|	|	|	0.22
403.167	0.00	0.07	0.807	O	|	|	|	|	0.22

403.250	0.00	0.07	0.806	O	|	|	|	|	0.22
403.333	0.00	0.07	0.806	O	|	|	|	|	0.22
403.417	0.00	0.07	0.805	O	|	|	|	|	0.22
403.500	0.00	0.07	0.805	O	|	|	|	|	0.22
403.583	0.00	0.07	0.804	O	|	|	|	|	0.22
403.667	0.00	0.07	0.804	O	|	|	|	|	0.22
403.750	0.00	0.07	0.803	O	|	|	|	|	0.22
403.833	0.00	0.07	0.803	O	|	|	|	|	0.22
403.917	0.00	0.07	0.802	O	|	|	|	|	0.22
404.000	0.00	0.07	0.802	O	|	|	|	|	0.22
404.083	0.00	0.07	0.801	O	|	|	|	|	0.22
404.167	0.00	0.07	0.801	O	|	|	|	|	0.22
404.250	0.00	0.07	0.800	O	|	|	|	|	0.22
404.333	0.00	0.07	0.800	O	|	|	|	|	0.22
404.417	0.00	0.07	0.799	O	|	|	|	|	0.22
404.500	0.00	0.07	0.799	O	|	|	|	|	0.22
404.583	0.00	0.07	0.799	O	|	|	|	|	0.22
404.667	0.00	0.07	0.798	O	|	|	|	|	0.22
404.750	0.00	0.07	0.798	O	|	|	|	|	0.22
404.833	0.00	0.07	0.797	O	|	|	|	|	0.22
404.917	0.00	0.07	0.797	O	|	|	|	|	0.22
405.000	0.00	0.07	0.796	O	|	|	|	|	0.22
405.083	0.00	0.07	0.796	O	|	|	|	|	0.22
405.167	0.00	0.07	0.795	O	|	|	|	|	0.21
405.250	0.00	0.07	0.795	O	|	|	|	|	0.21
405.333	0.00	0.07	0.794	O	|	|	|	|	0.21
405.417	0.00	0.07	0.794	O	|	|	|	|	0.21
405.500	0.00	0.07	0.793	O	|	|	|	|	0.21
405.583	0.00	0.07	0.793	O	|	|	|	|	0.21
405.667	0.00	0.07	0.792	O	|	|	|	|	0.21
405.750	0.00	0.07	0.792	O	|	|	|	|	0.21
405.833	0.00	0.07	0.791	O	|	|	|	|	0.21
405.917	0.00	0.07	0.791	O	|	|	|	|	0.21
406.000	0.00	0.07	0.790	O	|	|	|	|	0.21
406.083	0.00	0.07	0.790	O	|	|	|	|	0.21
406.167	0.00	0.07	0.790	O	|	|	|	|	0.21
406.250	0.00	0.07	0.789	O	|	|	|	|	0.21
406.333	0.00	0.07	0.789	O	|	|	|	|	0.21
406.417	0.00	0.07	0.788	O	|	|	|	|	0.21
406.500	0.00	0.07	0.788	O	|	|	|	|	0.21
406.583	0.00	0.07	0.787	O	|	|	|	|	0.21
406.667	0.00	0.07	0.787	O	|	|	|	|	0.21
406.750	0.00	0.07	0.786	O	|	|	|	|	0.21
406.833	0.00	0.07	0.786	O	|	|	|	|	0.21
406.917	0.00	0.07	0.785	O	|	|	|	|	0.21
407.000	0.00	0.07	0.785	O	|	|	|	|	0.21
407.083	0.00	0.07	0.784	O	|	|	|	|	0.21
407.167	0.00	0.07	0.784	O	|	|	|	|	0.21
407.250	0.00	0.07	0.783	O	|	|	|	|	0.21
407.333	0.00	0.07	0.783	O	|	|	|	|	0.21
407.417	0.00	0.07	0.783	O	|	|	|	|	0.21
407.500	0.00	0.07	0.782	O	|	|	|	|	0.21
407.583	0.00	0.07	0.782	O	|	|	|	|	0.21
407.667	0.00	0.07	0.781	O	|	|	|	|	0.21
407.750	0.00	0.07	0.781	O	|	|	|	|	0.21
407.833	0.00	0.07	0.780	O	|	|	|	|	0.21
407.917	0.00	0.07	0.780	O	|	|	|	|	0.21
408.000	0.00	0.07	0.779	O	|	|	|	|	0.21
408.083	0.00	0.07	0.779	O	|	|	|	|	0.21
408.167	0.00	0.07	0.778	O	|	|	|	|	0.21
408.250	0.00	0.07	0.778	O	|	|	|	|	0.21
408.333	0.00	0.07	0.777	O	|	|	|	|	0.21
408.417	0.00	0.07	0.777	O	|	|	|	|	0.21

408.500	0.00	0.07	0.776	O	|	|	|	|	0.21
408.583	0.00	0.07	0.776	O	|	|	|	|	0.21
408.667	0.00	0.07	0.776	O	|	|	|	|	0.21
408.750	0.00	0.07	0.775	O	|	|	|	|	0.21
408.833	0.00	0.07	0.775	O	|	|	|	|	0.21
408.917	0.00	0.07	0.774	O	|	|	|	|	0.21
409.000	0.00	0.07	0.774	O	|	|	|	|	0.21
409.083	0.00	0.07	0.773	O	|	|	|	|	0.21
409.167	0.00	0.07	0.773	O	|	|	|	|	0.21
409.250	0.00	0.07	0.772	O	|	|	|	|	0.21
409.333	0.00	0.07	0.772	O	|	|	|	|	0.21
409.417	0.00	0.07	0.771	O	|	|	|	|	0.21
409.500	0.00	0.07	0.771	O	|	|	|	|	0.21
409.583	0.00	0.07	0.771	O	|	|	|	|	0.21
409.667	0.00	0.07	0.770	O	|	|	|	|	0.21
409.750	0.00	0.07	0.770	O	|	|	|	|	0.21
409.833	0.00	0.07	0.769	O	|	|	|	|	0.21
409.917	0.00	0.07	0.769	O	|	|	|	|	0.21
410.000	0.00	0.07	0.768	O	|	|	|	|	0.21
410.083	0.00	0.07	0.768	O	|	|	|	|	0.21
410.167	0.00	0.07	0.767	O	|	|	|	|	0.21
410.250	0.00	0.07	0.767	O	|	|	|	|	0.21
410.333	0.00	0.07	0.766	O	|	|	|	|	0.21
410.417	0.00	0.07	0.766	O	|	|	|	|	0.21
410.500	0.00	0.07	0.765	O	|	|	|	|	0.21
410.583	0.00	0.07	0.765	O	|	|	|	|	0.21
410.667	0.00	0.07	0.765	O	|	|	|	|	0.21
410.750	0.00	0.07	0.764	O	|	|	|	|	0.21
410.833	0.00	0.07	0.764	O	|	|	|	|	0.21
410.917	0.00	0.07	0.763	O	|	|	|	|	0.21
411.000	0.00	0.07	0.763	O	|	|	|	|	0.21
411.083	0.00	0.07	0.762	O	|	|	|	|	0.21
411.167	0.00	0.07	0.762	O	|	|	|	|	0.21
411.250	0.00	0.07	0.761	O	|	|	|	|	0.21
411.333	0.00	0.07	0.761	O	|	|	|	|	0.21
411.417	0.00	0.07	0.760	O	|	|	|	|	0.21
411.500	0.00	0.07	0.760	O	|	|	|	|	0.21
411.583	0.00	0.07	0.760	O	|	|	|	|	0.21
411.667	0.00	0.07	0.759	O	|	|	|	|	0.21
411.750	0.00	0.07	0.759	O	|	|	|	|	0.21
411.833	0.00	0.07	0.758	O	|	|	|	|	0.20
411.917	0.00	0.07	0.758	O	|	|	|	|	0.20
412.000	0.00	0.07	0.757	O	|	|	|	|	0.20
412.083	0.00	0.07	0.757	O	|	|	|	|	0.20
412.167	0.00	0.07	0.756	O	|	|	|	|	0.20
412.250	0.00	0.07	0.756	O	|	|	|	|	0.20
412.333	0.00	0.07	0.756	O	|	|	|	|	0.20
412.417	0.00	0.07	0.755	O	|	|	|	|	0.20
412.500	0.00	0.07	0.755	O	|	|	|	|	0.20
412.583	0.00	0.07	0.754	O	|	|	|	|	0.20
412.667	0.00	0.07	0.754	O	|	|	|	|	0.20
412.750	0.00	0.07	0.753	O	|	|	|	|	0.20
412.833	0.00	0.07	0.753	O	|	|	|	|	0.20
412.917	0.00	0.07	0.752	O	|	|	|	|	0.20
413.000	0.00	0.07	0.752	O	|	|	|	|	0.20
413.083	0.00	0.06	0.751	O	|	|	|	|	0.20
413.167	0.00	0.06	0.751	O	|	|	|	|	0.20
413.250	0.00	0.06	0.751	O	|	|	|	|	0.20
413.333	0.00	0.06	0.750	O	|	|	|	|	0.20
413.417	0.00	0.06	0.750	O	|	|	|	|	0.20
413.500	0.00	0.06	0.749	O	|	|	|	|	0.20
413.583	0.00	0.06	0.749	O	|	|	|	|	0.20
413.667	0.00	0.06	0.748	O	|	|	|	|	0.20

413.750	0.00	0.06	0.748	O	|	|	|	|	0.20
413.833	0.00	0.06	0.747	O	|	|	|	|	0.20
413.917	0.00	0.06	0.747	O	|	|	|	|	0.20
414.000	0.00	0.06	0.747	O	|	|	|	|	0.20
414.083	0.00	0.06	0.746	O	|	|	|	|	0.20
414.167	0.00	0.06	0.746	O	|	|	|	|	0.20
414.250	0.00	0.06	0.745	O	|	|	|	|	0.20
414.333	0.00	0.06	0.745	O	|	|	|	|	0.20
414.417	0.00	0.06	0.744	O	|	|	|	|	0.20
414.500	0.00	0.06	0.744	O	|	|	|	|	0.20
414.583	0.00	0.06	0.743	O	|	|	|	|	0.20
414.667	0.00	0.06	0.743	O	|	|	|	|	0.20
414.750	0.00	0.06	0.743	O	|	|	|	|	0.20
414.833	0.00	0.06	0.742	O	|	|	|	|	0.20
414.917	0.00	0.06	0.742	O	|	|	|	|	0.20
415.000	0.00	0.06	0.741	O	|	|	|	|	0.20
415.083	0.00	0.06	0.741	O	|	|	|	|	0.20
415.167	0.00	0.06	0.740	O	|	|	|	|	0.20
415.250	0.00	0.06	0.740	O	|	|	|	|	0.20
415.333	0.00	0.06	0.739	O	|	|	|	|	0.20
415.417	0.00	0.06	0.739	O	|	|	|	|	0.20
415.500	0.00	0.06	0.739	O	|	|	|	|	0.20
415.583	0.00	0.06	0.738	O	|	|	|	|	0.20
415.667	0.00	0.06	0.738	O	|	|	|	|	0.20
415.750	0.00	0.06	0.737	O	|	|	|	|	0.20
415.833	0.00	0.06	0.737	O	|	|	|	|	0.20
415.917	0.00	0.06	0.736	O	|	|	|	|	0.20
416.000	0.00	0.06	0.736	O	|	|	|	|	0.20
416.083	0.00	0.06	0.736	O	|	|	|	|	0.20
416.167	0.00	0.06	0.735	O	|	|	|	|	0.20
416.250	0.00	0.06	0.735	O	|	|	|	|	0.20
416.333	0.00	0.06	0.734	O	|	|	|	|	0.20
416.417	0.00	0.06	0.734	O	|	|	|	|	0.20
416.500	0.00	0.06	0.733	O	|	|	|	|	0.20
416.583	0.00	0.06	0.733	O	|	|	|	|	0.20
416.667	0.00	0.06	0.732	O	|	|	|	|	0.20

Remaining water in basin = 0.73 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 5001
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 138.007 (CFS)
Total volume = 81.629 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

APPENDIX I.2: BASIN “A” 10 – YEAR ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/26/15

TRACT NO. 36294
BASIN A
10YR-24HR
FN: BASINA1024

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: APR2410.rte
**********HYDROGRAPH DATA**********
Number of intervals = 298
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 77.510 (CFS)
Total volume = 43.394 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 298
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
1.000	3.700	0.320	3.699	3.701
2.000	7.260	0.730	7.257	7.263
3.000	10.970	1.680	10.964	10.976
4.000	14.830	3.750	14.817	14.843
5.000	18.840	6.600	18.817	18.863
6.000	23.010	8.310	22.981	23.039

7.000	27.330	9.700	27.297	27.363
8.000	31.820	69.480	31.581	32.059
9.000	36.470	153.260	35.942	36.998
10.000	40.880	229.980	40.088	41.672
12.000	51.430	1331.420	46.845	56.015

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 19.4 38.75 58.13 77.51	Depth (Ft.)
0.083	0.51	0.00	0.002	O	0.00
0.167	2.31	0.00	0.012	O	0.00
0.250	3.19	0.00	0.030	OI	0.01
0.333	3.80	0.00	0.054	OI	0.01
0.417	4.91	0.01	0.084	O I	0.02
0.500	5.49	0.01	0.120	O I	0.03
0.583	5.76	0.01	0.159	O I	0.04
0.667	5.94	0.02	0.199	O I	0.05
0.750	6.05	0.02	0.240	O I	0.06
0.833	6.39	0.02	0.283	O I	0.08
0.917	7.36	0.03	0.330	O I	0.09
1.000	7.82	0.03	0.382	O I	0.10
1.083	7.75	0.04	0.435	O I	0.12
1.167	6.98	0.04	0.486	O I	0.13
1.250	6.61	0.05	0.532	O I	0.14
1.333	6.48	0.05	0.577	O I	0.16
1.417	6.41	0.05	0.621	O I	0.17
1.500	6.36	0.06	0.665	O I	0.18
1.583	6.33	0.06	0.708	O I	0.19
1.667	6.31	0.06	0.751	O I	0.20
1.750	6.29	0.07	0.794	O I	0.21
1.833	6.53	0.07	0.838	O I	0.23
1.917	7.41	0.08	0.885	O I	0.24
2.000	7.85	0.08	0.937	O I	0.25
2.083	8.03	0.09	0.991	O I	0.27
2.167	8.13	0.09	1.046	O I	0.28
2.250	8.20	0.10	1.102	O I	0.30
2.333	8.25	0.10	1.158	O I	0.31
2.417	8.28	0.11	1.214	O I	0.33
2.500	8.31	0.11	1.271	O I	0.34
2.583	8.58	0.11	1.328	O I	0.36
2.667	9.50	0.12	1.389	O I	0.38
2.750	9.93	0.13	1.455	O I	0.39
2.833	10.11	0.13	1.524	O I	0.41
2.917	10.22	0.14	1.593	O I	0.43
3.000	10.29	0.14	1.662	O I	0.45
3.083	10.34	0.15	1.732	O I	0.47
3.167	10.37	0.16	1.803	O I	0.49
3.250	10.39	0.16	1.873	O I	0.51
3.333	10.41	0.17	1.943	O I	0.53
3.417	10.43	0.17	2.014	O I	0.54
3.500	10.43	0.18	2.085	O I	0.56
3.583	10.43	0.19	2.155	O I	0.58
3.667	10.43	0.19	2.226	O I	0.60
3.750	10.43	0.20	2.296	O I	0.62
3.833	10.68	0.20	2.367	O I	0.64
3.917	11.58	0.21	2.443	O I	0.66
4.000	12.02	0.22	2.522	O I	0.68
4.083	12.20	0.23	2.604	O I	0.70
4.167	12.30	0.23	2.687	O I	0.73

4.250	12.37	0.24	2.770	O	I	|				0.75
4.333	12.68	0.25	2.855	O	I	|				0.77
4.417	13.61	0.25	2.944	O	I	|				0.80
4.500	14.07	0.26	3.037	O	I	|				0.82
4.583	14.27	0.27	3.133	O	I	|				0.85
4.667	14.39	0.28	3.230	O	I	|				0.87
4.750	14.46	0.29	3.327	O	I	|				0.90
4.833	14.76	0.30	3.426	O	I	|				0.93
4.917	15.70	0.31	3.529	O	I	|				0.95
5.000	16.16	0.31	3.636	O	I	|				0.98
5.083	15.84	0.33	3.744	O	I	|				1.01
5.167	14.16	0.34	3.845	O	I	|				1.04
5.250	13.35	0.35	3.938	O	I	|				1.07
5.333	13.31	0.36	4.027	O	I	|				1.09
5.417	14.03	0.37	4.119	O	I	|				1.12
5.500	14.35	0.38	4.214	O	I	|				1.14
5.583	14.71	0.39	4.311	O	I	|				1.17
5.667	15.66	0.40	4.413	O	I	|				1.20
5.750	16.12	0.41	4.520	O	I	|				1.23
5.833	16.31	0.43	4.628	O	I	|				1.26
5.917	16.42	0.44	4.738	O	I	|				1.29
6.000	16.51	0.45	4.848	O	I	|				1.32
6.083	16.83	0.47	4.960	O	I	|				1.35
6.167	17.78	0.48	5.076	O	I	|				1.39
6.250	18.24	0.49	5.197	O	I	|				1.42
6.333	18.44	0.51	5.320	O	I	|				1.45
6.417	18.56	0.52	5.443	O	I	|				1.49
6.500	18.63	0.54	5.568	O	I	|				1.52
6.583	18.93	0.55	5.693	O	I	|				1.56
6.667	19.87	0.56	5.823	O	I					1.60
6.750	20.33	0.58	5.958	O	I					1.63
6.833	20.52	0.60	6.094	O	I					1.67
6.917	20.64	0.61	6.232	O	I					1.71
7.000	20.71	0.63	6.370	O	I					1.75
7.083	20.76	0.64	6.509	O	I					1.79
7.167	20.80	0.66	6.647	O	I					1.83
7.250	20.82	0.68	6.786	O	I					1.87
7.333	21.09	0.69	6.925	O	I					1.91
7.417	22.01	0.71	7.069	O	|	I				1.95
7.500	22.45	0.73	7.217	O	|	I				1.99
7.583	22.88	0.76	7.368	O	|	I				2.03
7.667	23.89	0.80	7.524	O	|	I				2.07
7.750	24.39	0.84	7.684	O	|	I				2.11
7.833	24.87	0.88	7.848	O	|	I				2.16
7.917	25.92	0.92	8.017	O	|	I				2.20
8.000	26.45	0.97	8.191	O	|	I				2.25
8.083	27.20	1.01	8.369	O	|	I				2.30
8.167	29.16	1.06	8.556	O	|	I				2.35
8.250	30.12	1.11	8.752	O	|	I				2.40
8.333	30.54	1.16	8.953	O	|	I				2.46
8.417	30.81	1.22	9.156	O	|	I				2.51
8.500	30.97	1.27	9.360	O	|	I				2.57
8.583	31.34	1.32	9.566	O	|	I				2.62
8.667	32.32	1.37	9.776	O	|	I				2.68
8.750	32.81	1.43	9.991	O	|	I				2.74
8.833	33.28	1.48	10.208	O	|	I				2.79
8.917	34.31	1.54	10.431	O	|	I				2.85
9.000	34.82	1.60	10.658	O	|	I				2.92
9.083	35.56	1.66	10.889	O	|	I				2.98
9.167	37.50	1.77	11.129	O	|	I				3.04
9.250	38.47	1.90	11.378	O	|	I				3.11
9.333	39.14	2.03	11.631	O	|	I				3.17
9.417	40.30	2.17	11.890	O	|	I				3.24

9.500	40.90	2.32	12.155	O	I		3.31
9.583	41.45	2.46	12.422	O	I		3.38
9.667	42.54	2.60	12.694	O	I		3.45
9.750	43.09	2.75	12.970	O	I		3.52
9.833	43.61	2.90	13.249	O	I		3.59
9.917	44.68	3.05	13.533	O	I		3.66
10.000	45.21	3.21	13.821	O	I		3.74
10.083	43.65	3.36	14.104	O	I		3.81
10.167	37.51	3.50	14.360	O	I		3.88
10.250	34.54	3.62	14.583	O	I		3.94
10.333	33.37	3.73	14.792	O	I		3.99
10.417	32.67	3.87	14.993	O	I		4.04
10.500	32.22	4.01	15.190	O	I		4.09
10.583	33.18	4.15	15.387	O	I		4.14
10.667	37.45	4.30	15.601	O	I		4.19
10.750	39.47	4.46	15.836	O	I		4.25
10.833	40.24	4.64	16.079	O	I		4.31
10.917	40.67	4.81	16.325	O	I		4.37
11.000	41.01	4.99	16.572	O	I		4.43
11.083	40.99	5.16	16.820	O	I		4.50
11.167	40.27	5.34	17.063	O	I		4.56
11.250	39.95	5.51	17.302	O	I		4.62
11.333	39.86	5.68	17.539	O	I		4.68
11.417	39.83	5.84	17.773	O	I		4.73
11.500	39.76	6.01	18.007	O	I		4.79
11.583	39.19	6.17	18.236	O	I		4.85
11.667	37.36	6.33	18.457	O	I		4.90
11.750	36.46	6.48	18.667	O	I		4.96
11.833	36.35	6.61	18.873	O	I		5.01
11.917	37.02	6.70	19.080	O	I		5.06
12.000	37.32	6.78	19.289	O	I		5.11
12.083	39.20	6.87	19.506	O	I		5.16
12.167	45.53	6.97	19.750	O	I		5.22
12.250	48.62	7.09	20.026	O	I		5.28
12.333	50.13	7.21	20.316	O	I		5.35
12.417	51.78	7.33	20.617	O	I		5.43
12.500	52.72	7.46	20.926	O	I		5.50
12.583	53.77	7.58	21.241	O	I		5.58
12.667	55.93	7.72	21.566	O	I		5.65
12.750	57.04	7.86	21.901	O	I		5.73
12.833	57.82	8.00	22.242	O	I		5.82
12.917	59.07	8.14	22.589	O	I		5.90
13.000	59.67	8.28	22.942	O	I		5.98
13.083	62.07	8.40	23.303	O	I		6.07
13.167	69.70	8.53	23.699	O	I		6.16
13.250	73.60	8.67	24.133	O	I		6.26
13.333	75.39	8.82	24.586	O	I		6.36
13.417	76.62	8.97	25.048	O	I		6.47
13.500	77.51	9.12	25.517	O	I		6.58
13.583	74.33	9.26	25.976	O	I		6.69
13.667	61.25	9.39	26.379	O	I		6.78
13.750	54.94	9.50	26.714	O	I		6.86
13.833	52.47	9.60	27.018	O	I		6.93
13.917	51.02	9.69	27.308	O	I		6.99
14.000	50.01	13.00	27.578	O	I		7.06
14.083	50.33	16.26	27.822	O	I		7.11
14.167	53.42	19.38	28.057	O	I		7.16
14.250	54.81	22.42	28.286	O	I		7.21
14.333	55.01	25.27	28.500	O	I		7.26
14.417	54.31	27.85	28.693	O	I		7.30
14.500	54.15	30.16	28.867	O	I		7.34
14.583	54.17	32.27	29.025	O	I		7.38
14.667	54.20	34.19	29.169	O	I		7.41

14.750	54.23	35.94	29.301	|	|	O |	I |	|	7.44
14.833	53.99	37.54	29.421	|	|	O|	I |	|	7.47
14.917	53.11	38.94	29.526	|	|	O	I |	|	7.49
15.000	52.65	40.16	29.618	|	|	O	I |	|	7.51
15.083	52.20	41.24	29.699	|	|	|O	I |	|	7.53
15.167	51.18	42.15	29.768	|	|	|O	I |	|	7.54
15.250	50.67	42.92	29.825	|	|	|O	I |	|	7.56
15.333	50.19	43.58	29.875	|	|	|O	I |	|	7.57
15.417	49.15	44.12	29.915	|	|	| O	I |	|	7.58
15.500	48.62	44.53	29.946	|	|	| O	I |	|	7.58
15.583	47.35	44.84	29.969	|	|	| O	I |	|	7.59
15.667	43.60	44.89	29.973	|	|	|I	O |	|	7.59
15.750	41.75	44.70	29.959	|	|	|I	O |	|	7.59
15.833	40.98	44.41	29.937	|	|	I	O |	|	7.58
15.917	40.50	44.08	29.913	|	|	I	O |	|	7.58
16.000	40.21	43.76	29.888	|	|	I	O |	|	7.57
16.083	36.13	43.27	29.851	|	|	I	|O |	|	7.56
16.167	22.49	42.04	29.759	|	|I	|	|O |	|	7.54
16.250	15.83	40.04	29.609	|	I	|	O |	|	7.51
16.333	13.11	37.80	29.440	|	I	|	O|	|	7.47
16.417	11.45	35.56	29.272	|	I	|	O	|	|	7.43
16.500	10.42	33.40	29.110	|	I	|	O	|	|	7.40
16.583	9.44	31.34	28.956	|	I	|	O	|	|	7.36
16.667	8.02	29.36	28.807	|	I	|	O	|	|	7.33
16.750	7.23	27.45	28.664	|	I	|	O	|	|	7.30
16.833	6.80	25.66	28.529	|	I	|	O	|	|	7.27
16.917	6.46	23.99	28.404	|	I	|	O	|	|	7.24
17.000	6.39	22.45	28.288	|	I	|	O	|	|	7.21
17.083	6.86	21.07	28.184	|	I	|	O	|	|	7.19
17.167	8.62	19.90	28.096	|	I	|	O	|	|	7.17
17.250	9.48	18.95	28.025	|	I	|	O|	|	|	7.15
17.333	9.81	18.13	27.963	|	I	|	O|	|	|	7.14
17.417	10.01	17.41	27.909	|	I	|	O|	|	|	7.13
17.500	10.15	16.77	27.861	|	I	O |	|	|	|	7.12
17.583	10.24	16.19	27.818	|	I	O |	|	|	|	7.11
17.667	10.31	15.67	27.779	|	I	O |	|	|	|	7.10
17.750	10.36	15.21	27.744	|	I	O |	|	|	|	7.09
17.833	10.14	14.77	27.711	|	I	O |	|	|	|	7.08
17.917	9.27	14.33	27.678	|	I	O |	|	|	|	7.08
18.000	8.83	13.86	27.643	|	I	O |	|	|	|	7.07
18.083	8.65	13.42	27.609	|	I	O |	|	|	|	7.06
18.167	8.55	12.99	27.577	|	I	O |	|	|	|	7.06
18.250	8.48	12.60	27.548	|	I	O |	|	|	|	7.05
18.333	8.43	12.24	27.521	|	I	O |	|	|	|	7.04
18.417	8.40	11.90	27.495	|	I	O |	|	|	|	7.04
18.500	8.37	11.59	27.472	|	I	O |	|	|	|	7.03
18.583	8.10	11.30	27.450	|	I	O |	|	|	|	7.03
18.667	7.18	10.98	27.426	|	I	O |	|	|	|	7.02
18.750	6.75	10.63	27.400	|	I	O |	|	|	|	7.02
18.833	6.31	10.27	27.373	|	I	O |	|	|	|	7.01
18.917	5.31	9.88	27.343	|	I	O |	|	|	|	7.00
19.000	4.80	9.69	27.311	|	I	O |	|	|	|	7.00
19.083	4.83	9.68	27.277	|	I	O |	|	|	|	6.99
19.167	5.59	9.67	27.246	|	I	O |	|	|	|	6.98
19.250	5.94	9.66	27.219	|	I	O |	|	|	|	6.97
19.333	6.30	9.66	27.195	|	I	O |	|	|	|	6.97
19.417	7.26	9.65	27.175	|	I	O |	|	|	|	6.96
19.500	7.74	9.65	27.161	|	O	|	|	|	|	6.96
19.583	7.69	9.64	27.147	|	O	|	|	|	|	6.96
19.667	6.92	9.64	27.131	|	I	O |	|	|	|	6.95
19.750	6.58	9.63	27.111	|	I	O |	|	|	|	6.95
19.833	6.21	9.62	27.089	|	I	O |	|	|	|	6.94
19.917	5.25	9.61	27.062	|	I	O |	|	|	|	6.94

20.000	4.77	9.60	27.031	I O				6.93
20.083	4.82	9.59	26.997	I O				6.92
20.167	5.59	9.58	26.967	IO				6.92
20.250	5.94	9.57	26.941	IO				6.91
20.333	6.05	9.57	26.916	IO				6.90
20.417	6.10	9.56	26.892	IO				6.90
20.500	6.15	9.55	26.869	IO				6.89
20.583	6.18	9.54	26.845	IO				6.89
20.667	6.20	9.54	26.822	IO				6.88
20.750	6.22	9.53	26.799	IO				6.88
20.833	5.98	9.52	26.776	IO				6.87
20.917	5.10	9.51	26.749	IO				6.87
21.000	4.66	9.50	26.717	I O				6.86
21.083	4.74	9.49	26.684	I O				6.85
21.167	5.53	9.48	26.654	IO				6.84
21.250	5.90	9.47	26.628	IO				6.84
21.333	5.77	9.47	26.603	IO				6.83
21.417	4.95	9.46	26.575	IO				6.83
21.500	4.55	9.45	26.542	I O				6.82
21.583	4.67	9.44	26.509	I O				6.81
21.667	5.48	9.43	26.479	IO				6.80
21.750	5.87	9.42	26.453	IO				6.80
21.833	5.76	9.41	26.428	IO				6.79
21.917	4.95	9.40	26.400	IO				6.78
22.000	4.55	9.39	26.368	I O				6.78
22.083	4.67	9.38	26.335	I O				6.77
22.167	5.48	9.37	26.306	IO				6.76
22.250	5.87	9.36	26.280	IO				6.76
22.333	5.76	9.35	26.256	IO				6.75
22.417	4.95	9.35	26.229	IO				6.75
22.500	4.55	9.34	26.197	I O				6.74
22.583	4.41	9.32	26.164	I O				6.73
22.667	4.32	9.31	26.129	I O				6.72
22.750	4.28	9.30	26.095	I O				6.71
22.833	4.25	9.29	26.060	I O				6.71
22.917	4.23	9.28	26.025	I O				6.70
23.000	4.20	9.27	25.991	I O				6.69
23.083	4.19	9.26	25.956	I O				6.68
23.167	4.17	9.25	25.921	I O				6.67
23.250	4.17	9.24	25.886	I O				6.67
23.333	4.17	9.22	25.851	I O				6.66
23.417	4.17	9.21	25.816	I O				6.65
23.500	4.17	9.20	25.781	I O				6.64
23.583	4.17	9.19	25.747	I O				6.63
23.667	4.17	9.18	25.712	I O				6.63
23.750	4.17	9.17	25.678	I O				6.62
23.833	4.17	9.16	25.644	I O				6.61
23.917	4.17	9.15	25.609	I O				6.60
24.000	4.17	9.14	25.575	I O				6.59
24.083	3.66	9.12	25.539	I O				6.59
24.167	1.86	9.11	25.495	I O				6.58
24.250	0.98	9.09	25.442	I O				6.56
24.333	0.63	9.07	25.385	I O				6.55
24.417	0.41	9.06	25.326	I O				6.54
24.500	0.28	9.04	25.267	I O				6.52
24.583	0.18	9.02	25.206	I O				6.51
24.667	0.11	9.00	25.145	I O				6.49
24.750	0.06	8.98	25.084	I O				6.48
24.833	0.03	8.96	25.022	I O				6.47
24.917	0.00	8.94	24.961	I O				6.45
25.000	0.00	8.92	24.899	I O				6.44
25.083	0.00	8.90	24.838	I O				6.42
25.167	0.00	8.88	24.777	I O				6.41

25.250	0.00	8.86	24.716	I	O	|	|	|	|	6.39
25.333	0.00	8.84	24.655	I	O	|	|	|	|	6.38
25.417	0.00	8.82	24.594	I	O	|	|	|	|	6.37
25.500	0.00	8.80	24.533	I	O	|	|	|	|	6.35
25.583	0.00	8.78	24.473	I	O	|	|	|	|	6.34
25.667	0.00	8.76	24.412	I	O	|	|	|	|	6.32
25.750	0.00	8.74	24.352	I	O	|	|	|	|	6.31
25.833	0.00	8.72	24.292	I	O	|	|	|	|	6.30
25.917	0.00	8.70	24.232	I	O	|	|	|	|	6.28
26.000	0.00	8.68	24.172	I	O	|	|	|	|	6.27
26.083	0.00	8.66	24.112	I	O	|	|	|	|	6.26
26.167	0.00	8.65	24.053	I	O	|	|	|	|	6.24
26.250	0.00	8.63	23.993	I	O	|	|	|	|	6.23
26.333	0.00	8.61	23.934	I	O	|	|	|	|	6.21
26.417	0.00	8.59	23.875	I	O	|	|	|	|	6.20
26.500	0.00	8.57	23.815	I	O	|	|	|	|	6.19
26.583	0.00	8.55	23.757	I	O	|	|	|	|	6.17
26.667	0.00	8.53	23.698	I	O	|	|	|	|	6.16
26.750	0.00	8.51	23.639	I	O	|	|	|	|	6.15
26.833	0.00	8.49	23.580	I	O	|	|	|	|	6.13
26.917	0.00	8.47	23.522	I	O	|	|	|	|	6.12
27.000	0.00	8.46	23.464	I	O	|	|	|	|	6.11
27.083	0.00	8.44	23.406	I	O	|	|	|	|	6.09
27.167	0.00	8.42	23.347	I	O	|	|	|	|	6.08
27.250	0.00	8.40	23.290	I	O	|	|	|	|	6.06
27.333	0.00	8.38	23.232	I	O	|	|	|	|	6.05
27.417	0.00	8.36	23.174	I	O	|	|	|	|	6.04
27.500	0.00	8.34	23.117	I	O	|	|	|	|	6.02
27.583	0.00	8.33	23.059	I	O	|	|	|	|	6.01
27.667	0.00	8.31	23.002	I	O	|	|	|	|	6.00
27.750	0.00	8.28	22.945	I	O	|	|	|	|	5.98
27.833	0.00	8.26	22.888	I	O	|	|	|	|	5.97
27.917	0.00	8.24	22.831	I	O	|	|	|	|	5.96
28.000	0.00	8.21	22.774	I	O	|	|	|	|	5.94
28.083	0.00	8.19	22.718	I	O	|	|	|	|	5.93
28.167	0.00	8.17	22.662	I	O	|	|	|	|	5.92
28.250	0.00	8.14	22.605	I	O	|	|	|	|	5.90
28.333	0.00	8.12	22.549	I	O	|	|	|	|	5.89
28.417	0.00	8.10	22.494	I	O	|	|	|	|	5.88
28.500	0.00	8.08	22.438	I	O	|	|	|	|	5.86
28.583	0.00	8.05	22.382	I	O	|	|	|	|	5.85
28.667	0.00	8.03	22.327	I	O	|	|	|	|	5.84
28.750	0.00	8.01	22.272	I	O	|	|	|	|	5.82
28.833	0.00	7.98	22.217	I	O	|	|	|	|	5.81
28.917	0.00	7.96	22.162	I	O	|	|	|	|	5.80
29.000	0.00	7.94	22.107	I	O	|	|	|	|	5.78
29.083	0.00	7.92	22.052	I	O	|	|	|	|	5.77
29.167	0.00	7.89	21.998	I	O	|	|	|	|	5.76
29.250	0.00	7.87	21.944	I	O	|	|	|	|	5.74
29.333	0.00	7.85	21.889	I	O	|	|	|	|	5.73
29.417	0.00	7.83	21.835	I	O	|	|	|	|	5.72
29.500	0.00	7.81	21.782	I	O	|	|	|	|	5.71
29.583	0.00	7.78	21.728	I	O	|	|	|	|	5.69
29.667	0.00	7.76	21.674	I	O	|	|	|	|	5.68
29.750	0.00	7.74	21.621	I	O	|	|	|	|	5.67
29.833	0.00	7.72	21.568	I	O	|	|	|	|	5.65
29.917	0.00	7.70	21.515	I	O	|	|	|	|	5.64
30.000	0.00	7.68	21.462	I	O	|	|	|	|	5.63
30.083	0.00	7.65	21.409	I	O	|	|	|	|	5.62
30.167	0.00	7.63	21.356	I	O	|	|	|	|	5.60
30.250	0.00	7.61	21.304	I	O	|	|	|	|	5.59
30.333	0.00	7.59	21.252	I	O	|	|	|	|	5.58
30.417	0.00	7.57	21.199	I	O	|	|	|	|	5.57

30.500	0.00	7.55	21.147	I	O	|	|	|	5.55
30.583	0.00	7.52	21.095	I	O	|	|	|	5.54
30.667	0.00	7.50	21.044	I	O	|	|	|	5.53
30.750	0.00	7.48	20.992	I	O	|	|	|	5.52
30.833	0.00	7.46	20.941	I	O	|	|	|	5.50
30.917	0.00	7.44	20.889	I	O	|	|	|	5.49
31.000	0.00	7.42	20.838	I	O	|	|	|	5.48
31.083	0.00	7.40	20.787	I	O	|	|	|	5.47
31.167	0.00	7.38	20.736	I	O	|	|	|	5.45
31.250	0.00	7.36	20.685	I	O	|	|	|	5.44
31.333	0.00	7.34	20.635	I	O	|	|	|	5.43
31.417	0.00	7.32	20.584	I	O	|	|	|	5.42
31.500	0.00	7.29	20.534	I	O	|	|	|	5.41
31.583	0.00	7.27	20.484	I	O	|	|	|	5.39
31.667	0.00	7.25	20.434	I	O	|	|	|	5.38
31.750	0.00	7.23	20.384	I	O	|	|	|	5.37
31.833	0.00	7.21	20.334	I	O	|	|	|	5.36
31.917	0.00	7.19	20.285	I	O	|	|	|	5.35
32.000	0.00	7.17	20.235	I	O	|	|	|	5.33
32.083	0.00	7.15	20.186	I	O	|	|	|	5.32
32.167	0.00	7.13	20.137	I	O	|	|	|	5.31
32.250	0.00	7.11	20.088	I	O	|	|	|	5.30
32.333	0.00	7.09	20.039	I	O	|	|	|	5.29
32.417	0.00	7.07	19.990	I	O	|	|	|	5.28
32.500	0.00	7.05	19.941	I	O	|	|	|	5.26
32.583	0.00	7.03	19.893	I	O	|	|	|	5.25
32.667	0.00	7.01	19.844	I	O	|	|	|	5.24
32.750	0.00	6.99	19.796	I	O	|	|	|	5.23
32.833	0.00	6.97	19.748	I	O	|	|	|	5.22
32.917	0.00	6.95	19.700	I	O	|	|	|	5.21
33.000	0.00	6.93	19.652	I	O	|	|	|	5.19
33.083	0.00	6.91	19.605	I	O	|	|	|	5.18
33.167	0.00	6.89	19.557	I	O	|	|	|	5.17
33.250	0.00	6.87	19.510	I	O	|	|	|	5.16
33.333	0.00	6.86	19.462	I	O	|	|	|	5.15
33.417	0.00	6.84	19.415	I	O	|	|	|	5.14
33.500	0.00	6.82	19.368	I	O	|	|	|	5.13
33.583	0.00	6.80	19.321	I	O	|	|	|	5.12
33.667	0.00	6.78	19.275	I	O	|	|	|	5.10
33.750	0.00	6.76	19.228	I	O	|	|	|	5.09
33.833	0.00	6.74	19.182	I	O	|	|	|	5.08
33.917	0.00	6.72	19.135	I	O	|	|	|	5.07
34.000	0.00	6.70	19.089	I	O	|	|	|	5.06
34.083	0.00	6.68	19.043	I	O	|	|	|	5.05
34.167	0.00	6.66	18.997	I	O	|	|	|	5.04
34.250	0.00	6.65	18.951	I	O	|	|	|	5.03
34.333	0.00	6.63	18.905	I	O	|	|	|	5.02
34.417	0.00	6.61	18.860	I	O	|	|	|	5.00
34.500	0.00	6.58	18.814	I	O	|	|	|	4.99
34.583	0.00	6.55	18.769	I	O	|	|	|	4.98
34.667	0.00	6.52	18.724	I	O	|	|	|	4.97
34.750	0.00	6.49	18.679	I	O	|	|	|	4.96
34.833	0.00	6.45	18.635	I	O	|	|	|	4.95
34.917	0.00	6.42	18.591	I	O	|	|	|	4.94
35.000	0.00	6.39	18.546	I	O	|	|	|	4.93
35.083	0.00	6.36	18.502	I	O	|	|	|	4.92
35.167	0.00	6.33	18.459	I	O	|	|	|	4.90
35.250	0.00	6.30	18.415	I	O	|	|	|	4.89
35.333	0.00	6.27	18.372	I	O	|	|	|	4.88
35.417	0.00	6.24	18.329	I	O	|	|	|	4.87
35.500	0.00	6.21	18.286	I	O	|	|	|	4.86
35.583	0.00	6.18	18.243	I	O	|	|	|	4.85
35.667	0.00	6.15	18.201	I	O	|	|	|	4.84

35.750	0.00	6.12	18.159	I O	|	|	|	4.83
35.833	0.00	6.09	18.117	I O	|	|	|	4.82
35.917	0.00	6.06	18.075	I O	|	|	|	4.81
36.000	0.00	6.03	18.033	I O	|	|	|	4.80
36.083	0.00	6.00	17.992	I O	|	|	|	4.79
36.167	0.00	5.97	17.951	I O	|	|	|	4.78
36.250	0.00	5.94	17.910	I O	|	|	|	4.77
36.333	0.00	5.91	17.869	I O	|	|	|	4.76
36.417	0.00	5.88	17.828	I O	|	|	|	4.75
36.500	0.00	5.85	17.788	I O	|	|	|	4.74
36.583	0.00	5.82	17.748	I O	|	|	|	4.73
36.667	0.00	5.80	17.708	I O	|	|	|	4.72
36.750	0.00	5.77	17.668	I O	|	|	|	4.71
36.833	0.00	5.74	17.628	I O	|	|	|	4.70
36.917	0.00	5.71	17.589	I O	|	|	|	4.69
37.000	0.00	5.68	17.550	I O	|	|	|	4.68
37.083	0.00	5.66	17.511	I O	|	|	|	4.67
37.167	0.00	5.63	17.472	I O	|	|	|	4.66
37.250	0.00	5.60	17.433	I O	|	|	|	4.65
37.333	0.00	5.57	17.395	I O	|	|	|	4.64
37.417	0.00	5.55	17.356	I O	|	|	|	4.63
37.500	0.00	5.52	17.318	I O	|	|	|	4.62
37.583	0.00	5.49	17.280	I O	|	|	|	4.61
37.667	0.00	5.46	17.243	I O	|	|	|	4.60
37.750	0.00	5.44	17.205	I O	|	|	|	4.59
37.833	0.00	5.41	17.168	I O	|	|	|	4.58
37.917	0.00	5.39	17.131	I O	|	|	|	4.57
38.000	0.00	5.36	17.094	I O	|	|	|	4.56
38.083	0.00	5.33	17.057	I O	|	|	|	4.56
38.167	0.00	5.31	17.020	I O	|	|	|	4.55
38.250	0.00	5.28	16.984	I O	|	|	|	4.54
38.333	0.00	5.25	16.947	I O	|	|	|	4.53
38.417	0.00	5.23	16.911	I O	|	|	|	4.52
38.500	0.00	5.20	16.875	I O	|	|	|	4.51
38.583	0.00	5.18	16.840	I O	|	|	|	4.50
38.667	0.00	5.15	16.804	I O	|	|	|	4.49
38.750	0.00	5.13	16.769	I O	|	|	|	4.48
38.833	0.00	5.10	16.733	I O	|	|	|	4.47
38.917	0.00	5.08	16.698	I O	|	|	|	4.47
39.000	0.00	5.05	16.663	I O	|	|	|	4.46
39.083	0.00	5.03	16.629	I O	|	|	|	4.45
39.167	0.00	5.00	16.594	I O	|	|	|	4.44
39.250	0.00	4.98	16.560	I O	|	|	|	4.43
39.333	0.00	4.96	16.526	I O	|	|	|	4.42
39.417	0.00	4.93	16.492	I O	|	|	|	4.41
39.500	0.00	4.91	16.458	I O	|	|	|	4.41
39.583	0.00	4.88	16.424	I O	|	|	|	4.40
39.667	0.00	4.86	16.390	I O	|	|	|	4.39
39.750	0.00	4.84	16.357	IO	|	|	|	4.38
39.833	0.00	4.81	16.324	IO	|	|	|	4.37
39.917	0.00	4.79	16.291	IO	|	|	|	4.36
40.000	0.00	4.76	16.258	IO	|	|	|	4.36
40.083	0.00	4.74	16.225	IO	|	|	|	4.35
40.167	0.00	4.72	16.193	IO	|	|	|	4.34
40.250	0.00	4.70	16.160	IO	|	|	|	4.33
40.333	0.00	4.67	16.128	IO	|	|	|	4.32
40.417	0.00	4.65	16.096	IO	|	|	|	4.32
40.500	0.00	4.63	16.064	IO	|	|	|	4.31
40.583	0.00	4.60	16.032	IO	|	|	|	4.30
40.667	0.00	4.58	16.000	IO	|	|	|	4.29
40.750	0.00	4.56	15.969	IO	|	|	|	4.28
40.833	0.00	4.54	15.938	IO	|	|	|	4.28
40.917	0.00	4.52	15.906	IO	|	|	|	4.27

41.000	0.00	4.49	15.875	IO	|	|	|	4.26
41.083	0.00	4.47	15.845	IO	|	|	|	4.25
41.167	0.00	4.45	15.814	IO	|	|	|	4.25
41.250	0.00	4.43	15.783	IO	|	|	|	4.24
41.333	0.00	4.41	15.753	IO	|	|	|	4.23
41.417	0.00	4.38	15.723	IO	|	|	|	4.22
41.500	0.00	4.36	15.692	IO	|	|	|	4.22
41.583	0.00	4.34	15.662	IO	|	|	|	4.21
41.667	0.00	4.32	15.633	IO	|	|	|	4.20
41.750	0.00	4.30	15.603	IO	|	|	|	4.19
41.833	0.00	4.28	15.573	IO	|	|	|	4.19
41.917	0.00	4.26	15.544	IO	|	|	|	4.18
42.000	0.00	4.24	15.515	IO	|	|	|	4.17
42.083	0.00	4.22	15.486	IO	|	|	|	4.16
42.167	0.00	4.20	15.457	IO	|	|	|	4.16
42.250	0.00	4.17	15.428	IO	|	|	|	4.15
42.333	0.00	4.15	15.399	IO	|	|	|	4.14
42.417	0.00	4.13	15.371	IO	|	|	|	4.13
42.500	0.00	4.11	15.342	IO	|	|	|	4.13
42.583	0.00	4.09	15.314	IO	|	|	|	4.12
42.667	0.00	4.07	15.286	IO	|	|	|	4.11
42.750	0.00	4.05	15.258	IO	|	|	|	4.11
42.833	0.00	4.03	15.230	IO	|	|	|	4.10
42.917	0.00	4.01	15.202	IO	|	|	|	4.09
43.000	0.00	3.99	15.175	IO	|	|	|	4.09
43.083	0.00	3.98	15.147	IO	|	|	|	4.08
43.167	0.00	3.96	15.120	IO	|	|	|	4.07
43.250	0.00	3.94	15.093	IO	|	|	|	4.07
43.333	0.00	3.92	15.066	IO	|	|	|	4.06
43.417	0.00	3.90	15.039	IO	|	|	|	4.05
43.500	0.00	3.88	15.012	IO	|	|	|	4.05
43.583	0.00	3.86	14.985	IO	|	|	|	4.04
43.667	0.00	3.84	14.959	IO	|	|	|	4.03
43.750	0.00	3.82	14.932	IO	|	|	|	4.03
43.833	0.00	3.80	14.906	IO	|	|	|	4.02
43.917	0.00	3.79	14.880	IO	|	|	|	4.01
44.000	0.00	3.77	14.854	IO	|	|	|	4.01
44.083	0.00	3.75	14.828	IO	|	|	|	4.00
44.167	0.00	3.74	14.802	IO	|	|	|	3.99
44.250	0.00	3.72	14.777	IO	|	|	|	3.99
44.333	0.00	3.71	14.751	IO	|	|	|	3.98
44.417	0.00	3.69	14.726	IO	|	|	|	3.97
44.500	0.00	3.68	14.700	IO	|	|	|	3.97
44.583	0.00	3.67	14.675	IO	|	|	|	3.96
44.667	0.00	3.65	14.650	IO	|	|	|	3.95
44.750	0.00	3.64	14.625	IO	|	|	|	3.95
44.833	0.00	3.63	14.600	IO	|	|	|	3.94
44.917	0.00	3.61	14.575	IO	|	|	|	3.93
45.000	0.00	3.60	14.550	IO	|	|	|	3.93
45.083	0.00	3.59	14.525	IO	|	|	|	3.92
45.167	0.00	3.57	14.500	IO	|	|	|	3.91
45.250	0.00	3.56	14.476	IO	|	|	|	3.91
45.333	0.00	3.55	14.451	IO	|	|	|	3.90
45.417	0.00	3.53	14.427	IO	|	|	|	3.90
45.500	0.00	3.52	14.403	IO	|	|	|	3.89
45.583	0.00	3.51	14.379	IO	|	|	|	3.88
45.667	0.00	3.49	14.354	IO	|	|	|	3.88
45.750	0.00	3.48	14.330	IO	|	|	|	3.87
45.833	0.00	3.47	14.306	IO	|	|	|	3.86
45.917	0.00	3.46	14.283	IO	|	|	|	3.86
46.000	0.00	3.44	14.259	IO	|	|	|	3.85
46.083	0.00	3.43	14.235	IO	|	|	|	3.85
46.167	0.00	3.42	14.212	IO	|	|	|	3.84

46.250	0.00	3.41	14.188	IO				3.83
46.333	0.00	3.39	14.165	IO				3.83
46.417	0.00	3.38	14.141	IO				3.82
46.500	0.00	3.37	14.118	IO				3.82
46.583	0.00	3.36	14.095	IO				3.81
46.667	0.00	3.34	14.072	IO				3.80
46.750	0.00	3.33	14.049	IO				3.80
46.833	0.00	3.32	14.026	IO				3.79
46.917	0.00	3.31	14.003	IO				3.79
47.000	0.00	3.29	13.980	IO				3.78
47.083	0.00	3.28	13.958	IO				3.77
47.167	0.00	3.27	13.935	IO				3.77
47.250	0.00	3.26	13.913	IO				3.76
47.333	0.00	3.25	13.890	IO				3.76
47.417	0.00	3.23	13.868	IO				3.75
47.500	0.00	3.22	13.846	IO				3.75
47.583	0.00	3.21	13.824	IO				3.74
47.667	0.00	3.20	13.802	IO				3.73
47.750	0.00	3.19	13.780	IO				3.73
47.833	0.00	3.17	13.758	IO				3.72
47.917	0.00	3.16	13.736	IO				3.72
48.000	0.00	3.15	13.714	IO				3.71
48.083	0.00	3.14	13.692	IO				3.71
48.167	0.00	3.13	13.671	IO				3.70
48.250	0.00	3.12	13.649	IO				3.69
48.333	0.00	3.11	13.628	IO				3.69
48.417	0.00	3.09	13.607	IO				3.68
48.500	0.00	3.08	13.585	IO				3.68
48.583	0.00	3.07	13.564	IO				3.67
48.667	0.00	3.06	13.543	IO				3.67
48.750	0.00	3.05	13.522	IO				3.66
48.833	0.00	3.04	13.501	IO				3.66
48.917	0.00	3.03	13.480	IO				3.65
49.000	0.00	3.01	13.459	IO				3.64
49.083	0.00	3.00	13.439	IO				3.64
49.167	0.00	2.99	13.418	IO				3.63
49.250	0.00	2.98	13.397	IO				3.63
49.333	0.00	2.97	13.377	IO				3.62
49.417	0.00	2.96	13.356	IO				3.62
49.500	0.00	2.95	13.336	IO				3.61
49.583	0.00	2.94	13.316	IO				3.61
49.667	0.00	2.93	13.296	IO				3.60
49.750	0.00	2.92	13.276	IO				3.60
49.833	0.00	2.91	13.256	IO				3.59
49.917	0.00	2.89	13.236	IO				3.59
50.000	0.00	2.88	13.216	IO				3.58
50.083	0.00	2.87	13.196	IO				3.58
50.167	0.00	2.86	13.176	IO				3.57
50.250	0.00	2.85	13.156	IO				3.57
50.333	0.00	2.84	13.137	IO				3.56
50.417	0.00	2.83	13.117	IO				3.56
50.500	0.00	2.82	13.098	IO				3.55
50.583	0.00	2.81	13.078	IO				3.55
50.667	0.00	2.80	13.059	IO				3.54
50.750	0.00	2.79	13.040	IO				3.54
50.833	0.00	2.78	13.021	IO				3.53
50.917	0.00	2.77	13.002	IO				3.53
51.000	0.00	2.76	12.982	IO				3.52
51.083	0.00	2.75	12.963	IO				3.52
51.167	0.00	2.74	12.945	IO				3.51
51.250	0.00	2.73	12.926	IO				3.51
51.333	0.00	2.72	12.907	IO				3.50
51.417	0.00	2.71	12.888	IO				3.50

51.500	0.00	2.70	12.870	IO				3.49
51.583	0.00	2.69	12.851	IO				3.49
51.667	0.00	2.68	12.833	IO				3.48
51.750	0.00	2.67	12.814	IO				3.48
51.833	0.00	2.66	12.796	IO				3.47
51.917	0.00	2.65	12.778	IO				3.47
52.000	0.00	2.64	12.759	IO				3.46
52.083	0.00	2.63	12.741	IO				3.46
52.167	0.00	2.62	12.723	IO				3.45
52.250	0.00	2.61	12.705	IO				3.45
52.333	0.00	2.60	12.687	IO				3.44
52.417	0.00	2.59	12.669	IO				3.44
52.500	0.00	2.58	12.652	IO				3.44
52.583	0.00	2.57	12.634	IO				3.43
52.667	0.00	2.56	12.616	IO				3.43
52.750	0.00	2.55	12.598	IO				3.42
52.833	0.00	2.54	12.581	IO				3.42
52.917	0.00	2.53	12.563	IO				3.41
53.000	0.00	2.53	12.546	IO				3.41
53.083	0.00	2.52	12.529	IO				3.40
53.167	0.00	2.51	12.511	IO				3.40
53.250	0.00	2.50	12.494	IO				3.39
53.333	0.00	2.49	12.477	IO				3.39
53.417	0.00	2.48	12.460	IO				3.39
53.500	0.00	2.47	12.443	IO				3.38
53.583	0.00	2.46	12.426	IO				3.38
53.667	0.00	2.45	12.409	IO				3.37
53.750	0.00	2.44	12.392	IO				3.37
53.833	0.00	2.43	12.375	IO				3.36
53.917	0.00	2.42	12.359	IO				3.36
54.000	0.00	2.42	12.342	O				3.36
54.083	0.00	2.41	12.325	O				3.35
54.167	0.00	2.40	12.309	O				3.35
54.250	0.00	2.39	12.292	O				3.34
54.333	0.00	2.38	12.276	O				3.34
54.417	0.00	2.37	12.259	O				3.33
54.500	0.00	2.36	12.243	O				3.33
54.583	0.00	2.35	12.227	O				3.33
54.667	0.00	2.35	12.211	O				3.32
54.750	0.00	2.34	12.195	O				3.32
54.833	0.00	2.33	12.179	O				3.31
54.917	0.00	2.32	12.163	O				3.31
55.000	0.00	2.31	12.147	O				3.30
55.083	0.00	2.30	12.131	O				3.30
55.167	0.00	2.29	12.115	O				3.30
55.250	0.00	2.29	12.099	O				3.29
55.333	0.00	2.28	12.083	O				3.29
55.417	0.00	2.27	12.068	O				3.28
55.500	0.00	2.26	12.052	O				3.28
55.583	0.00	2.25	12.037	O				3.28
55.667	0.00	2.24	12.021	O				3.27
55.750	0.00	2.24	12.006	O				3.27
55.833	0.00	2.23	11.990	O				3.26
55.917	0.00	2.22	11.975	O				3.26
56.000	0.00	2.21	11.960	O				3.26
56.083	0.00	2.20	11.945	O				3.25
56.167	0.00	2.19	11.929	O				3.25
56.250	0.00	2.19	11.914	O				3.24
56.333	0.00	2.18	11.899	O				3.24
56.417	0.00	2.17	11.884	O				3.24
56.500	0.00	2.16	11.869	O				3.23
56.583	0.00	2.15	11.855	O				3.23
56.667	0.00	2.15	11.840	O				3.23

56.750	0.00	2.14	11.825	O	|	|	|	|	3.22
56.833	0.00	2.13	11.810	O	|	|	|	|	3.22
56.917	0.00	2.12	11.796	O	|	|	|	|	3.21
57.000	0.00	2.11	11.781	O	|	|	|	|	3.21
57.083	0.00	2.11	11.767	O	|	|	|	|	3.21
57.167	0.00	2.10	11.752	O	|	|	|	|	3.20
57.250	0.00	2.09	11.738	O	|	|	|	|	3.20
57.333	0.00	2.08	11.723	O	|	|	|	|	3.20
57.417	0.00	2.08	11.709	O	|	|	|	|	3.19
57.500	0.00	2.07	11.695	O	|	|	|	|	3.19
57.583	0.00	2.06	11.680	O	|	|	|	|	3.18
57.667	0.00	2.05	11.666	O	|	|	|	|	3.18
57.750	0.00	2.05	11.652	O	|	|	|	|	3.18
57.833	0.00	2.04	11.638	O	|	|	|	|	3.17
57.917	0.00	2.03	11.624	O	|	|	|	|	3.17
58.000	0.00	2.02	11.610	O	|	|	|	|	3.17
58.083	0.00	2.02	11.596	O	|	|	|	|	3.16
58.167	0.00	2.01	11.582	O	|	|	|	|	3.16
58.250	0.00	2.00	11.569	O	|	|	|	|	3.16
58.333	0.00	1.99	11.555	O	|	|	|	|	3.15
58.417	0.00	1.99	11.541	O	|	|	|	|	3.15
58.500	0.00	1.98	11.527	O	|	|	|	|	3.14
58.583	0.00	1.97	11.514	O	|	|	|	|	3.14
58.667	0.00	1.96	11.500	O	|	|	|	|	3.14
58.750	0.00	1.96	11.487	O	|	|	|	|	3.13
58.833	0.00	1.95	11.473	O	|	|	|	|	3.13
58.917	0.00	1.94	11.460	O	|	|	|	|	3.13
59.000	0.00	1.94	11.447	O	|	|	|	|	3.12
59.083	0.00	1.93	11.433	O	|	|	|	|	3.12
59.167	0.00	1.92	11.420	O	|	|	|	|	3.12
59.250	0.00	1.91	11.407	O	|	|	|	|	3.11
59.333	0.00	1.91	11.394	O	|	|	|	|	3.11
59.417	0.00	1.90	11.380	O	|	|	|	|	3.11
59.500	0.00	1.89	11.367	O	|	|	|	|	3.10
59.583	0.00	1.89	11.354	O	|	|	|	|	3.10
59.667	0.00	1.88	11.341	O	|	|	|	|	3.10
59.750	0.00	1.87	11.329	O	|	|	|	|	3.09
59.833	0.00	1.87	11.316	O	|	|	|	|	3.09
59.917	0.00	1.86	11.303	O	|	|	|	|	3.09
60.000	0.00	1.85	11.290	O	|	|	|	|	3.08
60.083	0.00	1.84	11.277	O	|	|	|	|	3.08
60.167	0.00	1.84	11.265	O	|	|	|	|	3.08
60.250	0.00	1.83	11.252	O	|	|	|	|	3.07
60.333	0.00	1.82	11.239	O	|	|	|	|	3.07
60.417	0.00	1.82	11.227	O	|	|	|	|	3.07
60.500	0.00	1.81	11.214	O	|	|	|	|	3.06
60.583	0.00	1.80	11.202	O	|	|	|	|	3.06
60.667	0.00	1.80	11.190	O	|	|	|	|	3.06
60.750	0.00	1.79	11.177	O	|	|	|	|	3.05
60.833	0.00	1.78	11.165	O	|	|	|	|	3.05
60.917	0.00	1.78	11.153	O	|	|	|	|	3.05
61.000	0.00	1.77	11.140	O	|	|	|	|	3.04
61.083	0.00	1.76	11.128	O	|	|	|	|	3.04
61.167	0.00	1.76	11.116	O	|	|	|	|	3.04
61.250	0.00	1.75	11.104	O	|	|	|	|	3.03
61.333	0.00	1.75	11.092	O	|	|	|	|	3.03
61.417	0.00	1.74	11.080	O	|	|	|	|	3.03
61.500	0.00	1.73	11.068	O	|	|	|	|	3.03
61.583	0.00	1.73	11.056	O	|	|	|	|	3.02
61.667	0.00	1.72	11.044	O	|	|	|	|	3.02
61.750	0.00	1.71	11.032	O	|	|	|	|	3.02
61.833	0.00	1.71	11.021	O	|	|	|	|	3.01
61.917	0.00	1.70	11.009	O	|	|	|	|	3.01

62.000	0.00	1.69	10.997	O	|	|	|	|	3.01
62.083	0.00	1.69	10.986	O	|	|	|	|	3.00
62.167	0.00	1.68	10.974	O	|	|	|	|	3.00
62.250	0.00	1.68	10.962	O	|	|	|	|	3.00
62.333	0.00	1.68	10.951	O	|	|	|	|	2.99
62.417	0.00	1.67	10.939	O	|	|	|	|	2.99
62.500	0.00	1.67	10.928	O	|	|	|	|	2.99
62.583	0.00	1.67	10.916	O	|	|	|	|	2.99
62.667	0.00	1.66	10.905	O	|	|	|	|	2.98
62.750	0.00	1.66	10.893	O	|	|	|	|	2.98
62.833	0.00	1.66	10.882	O	|	|	|	|	2.98
62.917	0.00	1.65	10.871	O	|	|	|	|	2.97
63.000	0.00	1.65	10.859	O	|	|	|	|	2.97
63.083	0.00	1.65	10.848	O	|	|	|	|	2.97
63.167	0.00	1.65	10.836	O	|	|	|	|	2.96
63.250	0.00	1.64	10.825	O	|	|	|	|	2.96
63.333	0.00	1.64	10.814	O	|	|	|	|	2.96
63.417	0.00	1.64	10.803	O	|	|	|	|	2.95
63.500	0.00	1.63	10.791	O	|	|	|	|	2.95
63.583	0.00	1.63	10.780	O	|	|	|	|	2.95
63.667	0.00	1.63	10.769	O	|	|	|	|	2.95
63.750	0.00	1.63	10.758	O	|	|	|	|	2.94
63.833	0.00	1.62	10.746	O	|	|	|	|	2.94
63.917	0.00	1.62	10.735	O	|	|	|	|	2.94
64.000	0.00	1.62	10.724	O	|	|	|	|	2.93
64.083	0.00	1.61	10.713	O	|	|	|	|	2.93
64.167	0.00	1.61	10.702	O	|	|	|	|	2.93
64.250	0.00	1.61	10.691	O	|	|	|	|	2.92
64.333	0.00	1.61	10.680	O	|	|	|	|	2.92
64.417	0.00	1.60	10.669	O	|	|	|	|	2.92
64.500	0.00	1.60	10.658	O	|	|	|	|	2.92
64.583	0.00	1.60	10.647	O	|	|	|	|	2.91
64.667	0.00	1.59	10.636	O	|	|	|	|	2.91
64.750	0.00	1.59	10.625	O	|	|	|	|	2.91
64.833	0.00	1.59	10.614	O	|	|	|	|	2.90
64.917	0.00	1.59	10.603	O	|	|	|	|	2.90
65.000	0.00	1.58	10.592	O	|	|	|	|	2.90
65.083	0.00	1.58	10.581	O	|	|	|	|	2.90
65.167	0.00	1.58	10.570	O	|	|	|	|	2.89
65.250	0.00	1.57	10.559	O	|	|	|	|	2.89
65.333	0.00	1.57	10.548	O	|	|	|	|	2.89
65.417	0.00	1.57	10.538	O	|	|	|	|	2.88
65.500	0.00	1.57	10.527	O	|	|	|	|	2.88
65.583	0.00	1.56	10.516	O	|	|	|	|	2.88
65.667	0.00	1.56	10.505	O	|	|	|	|	2.87
65.750	0.00	1.56	10.495	O	|	|	|	|	2.87
65.833	0.00	1.56	10.484	O	|	|	|	|	2.87
65.917	0.00	1.55	10.473	O	|	|	|	|	2.87
66.000	0.00	1.55	10.462	O	|	|	|	|	2.86
66.083	0.00	1.55	10.452	O	|	|	|	|	2.86
66.167	0.00	1.54	10.441	O	|	|	|	|	2.86
66.250	0.00	1.54	10.430	O	|	|	|	|	2.85
66.333	0.00	1.54	10.420	O	|	|	|	|	2.85
66.417	0.00	1.54	10.409	O	|	|	|	|	2.85
66.500	0.00	1.53	10.399	O	|	|	|	|	2.85
66.583	0.00	1.53	10.388	O	|	|	|	|	2.84
66.667	0.00	1.53	10.378	O	|	|	|	|	2.84
66.750	0.00	1.53	10.367	O	|	|	|	|	2.84
66.833	0.00	1.52	10.357	O	|	|	|	|	2.83
66.917	0.00	1.52	10.346	O	|	|	|	|	2.83
67.000	0.00	1.52	10.336	O	|	|	|	|	2.83
67.083	0.00	1.51	10.325	O	|	|	|	|	2.83
67.167	0.00	1.51	10.315	O	|	|	|	|	2.82

67.250	0.00	1.51	10.304	O	|	|	|	|	2.82
67.333	0.00	1.51	10.294	O	|	|	|	|	2.82
67.417	0.00	1.50	10.284	O	|	|	|	|	2.81
67.500	0.00	1.50	10.273	O	|	|	|	|	2.81
67.583	0.00	1.50	10.263	O	|	|	|	|	2.81
67.667	0.00	1.50	10.253	O	|	|	|	|	2.81
67.750	0.00	1.49	10.242	O	|	|	|	|	2.80
67.833	0.00	1.49	10.232	O	|	|	|	|	2.80
67.917	0.00	1.49	10.222	O	|	|	|	|	2.80
68.000	0.00	1.49	10.212	O	|	|	|	|	2.80
68.083	0.00	1.48	10.201	O	|	|	|	|	2.79
68.167	0.00	1.48	10.191	O	|	|	|	|	2.79
68.250	0.00	1.48	10.181	O	|	|	|	|	2.79
68.333	0.00	1.48	10.171	O	|	|	|	|	2.78
68.417	0.00	1.47	10.161	O	|	|	|	|	2.78
68.500	0.00	1.47	10.150	O	|	|	|	|	2.78
68.583	0.00	1.47	10.140	O	|	|	|	|	2.78
68.667	0.00	1.46	10.130	O	|	|	|	|	2.77
68.750	0.00	1.46	10.120	O	|	|	|	|	2.77
68.833	0.00	1.46	10.110	O	|	|	|	|	2.77
68.917	0.00	1.46	10.100	O	|	|	|	|	2.77
69.000	0.00	1.45	10.090	O	|	|	|	|	2.76
69.083	0.00	1.45	10.080	O	|	|	|	|	2.76
69.167	0.00	1.45	10.070	O	|	|	|	|	2.76
69.250	0.00	1.45	10.060	O	|	|	|	|	2.75
69.333	0.00	1.44	10.050	O	|	|	|	|	2.75
69.417	0.00	1.44	10.040	O	|	|	|	|	2.75
69.500	0.00	1.44	10.030	O	|	|	|	|	2.75
69.583	0.00	1.44	10.020	O	|	|	|	|	2.74
69.667	0.00	1.43	10.010	O	|	|	|	|	2.74
69.750	0.00	1.43	10.001	O	|	|	|	|	2.74
69.833	0.00	1.43	9.991	O	|	|	|	|	2.74
69.917	0.00	1.43	9.981	O	|	|	|	|	2.73
70.000	0.00	1.42	9.971	O	|	|	|	|	2.73
70.083	0.00	1.42	9.961	O	|	|	|	|	2.73
70.167	0.00	1.42	9.951	O	|	|	|	|	2.73
70.250	0.00	1.42	9.942	O	|	|	|	|	2.72
70.333	0.00	1.41	9.932	O	|	|	|	|	2.72
70.417	0.00	1.41	9.922	O	|	|	|	|	2.72
70.500	0.00	1.41	9.913	O	|	|	|	|	2.71
70.583	0.00	1.41	9.903	O	|	|	|	|	2.71
70.667	0.00	1.40	9.893	O	|	|	|	|	2.71
70.750	0.00	1.40	9.883	O	|	|	|	|	2.71
70.833	0.00	1.40	9.874	O	|	|	|	|	2.70
70.917	0.00	1.40	9.864	O	|	|	|	|	2.70
71.000	0.00	1.39	9.855	O	|	|	|	|	2.70
71.083	0.00	1.39	9.845	O	|	|	|	|	2.70
71.167	0.00	1.39	9.835	O	|	|	|	|	2.69
71.250	0.00	1.39	9.826	O	|	|	|	|	2.69
71.333	0.00	1.38	9.816	O	|	|	|	|	2.69
71.417	0.00	1.38	9.807	O	|	|	|	|	2.69
71.500	0.00	1.38	9.797	O	|	|	|	|	2.68
71.583	0.00	1.38	9.788	O	|	|	|	|	2.68
71.667	0.00	1.37	9.778	O	|	|	|	|	2.68
71.750	0.00	1.37	9.769	O	|	|	|	|	2.68
71.833	0.00	1.37	9.759	O	|	|	|	|	2.67
71.917	0.00	1.37	9.750	O	|	|	|	|	2.67
72.000	0.00	1.37	9.741	O	|	|	|	|	2.67
72.083	0.00	1.36	9.731	O	|	|	|	|	2.67
72.167	0.00	1.36	9.722	O	|	|	|	|	2.66
72.250	0.00	1.36	9.712	O	|	|	|	|	2.66
72.333	0.00	1.36	9.703	O	|	|	|	|	2.66
72.417	0.00	1.35	9.694	O	|	|	|	|	2.66

72.500	0.00	1.35	9.684	O					2.65
72.583	0.00	1.35	9.675	O					2.65
72.667	0.00	1.35	9.666	O					2.65
72.750	0.00	1.34	9.657	O					2.65
72.833	0.00	1.34	9.647	O					2.64
72.917	0.00	1.34	9.638	O					2.64
73.000	0.00	1.34	9.629	O					2.64
73.083	0.00	1.33	9.620	O					2.64
73.167	0.00	1.33	9.611	O					2.63
73.250	0.00	1.33	9.601	O					2.63
73.333	0.00	1.33	9.592	O					2.63
73.417	0.00	1.32	9.583	O					2.63
73.500	0.00	1.32	9.574	O					2.62
73.583	0.00	1.32	9.565	O					2.62
73.667	0.00	1.32	9.556	O					2.62
73.750	0.00	1.32	9.547	O					2.62
73.833	0.00	1.31	9.538	O					2.61
73.917	0.00	1.31	9.529	O					2.61
74.000	0.00	1.31	9.520	O					2.61
74.083	0.00	1.31	9.511	O					2.61
74.167	0.00	1.30	9.502	O					2.60
74.250	0.00	1.30	9.493	O					2.60
74.333	0.00	1.30	9.484	O					2.60
74.417	0.00	1.30	9.475	O					2.60
74.500	0.00	1.29	9.466	O					2.59
74.583	0.00	1.29	9.457	O					2.59
74.667	0.00	1.29	9.448	O					2.59
74.750	0.00	1.29	9.439	O					2.59
74.833	0.00	1.29	9.430	O					2.58
74.917	0.00	1.28	9.421	O					2.58
75.000	0.00	1.28	9.413	O					2.58
75.083	0.00	1.28	9.404	O					2.58
75.167	0.00	1.28	9.395	O					2.58
75.250	0.00	1.27	9.386	O					2.57
75.333	0.00	1.27	9.377	O					2.57
75.417	0.00	1.27	9.369	O					2.57
75.500	0.00	1.27	9.360	O					2.57
75.583	0.00	1.27	9.351	O					2.56
75.667	0.00	1.26	9.343	O					2.56
75.750	0.00	1.26	9.334	O					2.56
75.833	0.00	1.26	9.325	O					2.56
75.917	0.00	1.26	9.317	O					2.55
76.000	0.00	1.25	9.308	O					2.55
76.083	0.00	1.25	9.299	O					2.55
76.167	0.00	1.25	9.291	O					2.55
76.250	0.00	1.25	9.282	O					2.55
76.333	0.00	1.25	9.273	O					2.54
76.417	0.00	1.24	9.265	O					2.54
76.500	0.00	1.24	9.256	O					2.54
76.583	0.00	1.24	9.248	O					2.54
76.667	0.00	1.24	9.239	O					2.53
76.750	0.00	1.23	9.231	O					2.53
76.833	0.00	1.23	9.222	O					2.53
76.917	0.00	1.23	9.214	O					2.53
77.000	0.00	1.23	9.205	O					2.52
77.083	0.00	1.23	9.197	O					2.52
77.167	0.00	1.22	9.188	O					2.52
77.250	0.00	1.22	9.180	O					2.52
77.333	0.00	1.22	9.172	O					2.52
77.417	0.00	1.22	9.163	O					2.51
77.500	0.00	1.22	9.155	O					2.51
77.583	0.00	1.21	9.146	O					2.51
77.667	0.00	1.21	9.138	O					2.51

77.750	0.00	1.21	9.130	O	|	|	|	|	2.50
77.833	0.00	1.21	9.121	O	|	|	|	|	2.50
77.917	0.00	1.20	9.113	O	|	|	|	|	2.50
78.000	0.00	1.20	9.105	O	|	|	|	|	2.50
78.083	0.00	1.20	9.097	O	|	|	|	|	2.50
78.167	0.00	1.20	9.088	O	|	|	|	|	2.49
78.250	0.00	1.20	9.080	O	|	|	|	|	2.49
78.333	0.00	1.19	9.072	O	|	|	|	|	2.49
78.417	0.00	1.19	9.064	O	|	|	|	|	2.49
78.500	0.00	1.19	9.055	O	|	|	|	|	2.48
78.583	0.00	1.19	9.047	O	|	|	|	|	2.48
78.667	0.00	1.19	9.039	O	|	|	|	|	2.48
78.750	0.00	1.18	9.031	O	|	|	|	|	2.48
78.833	0.00	1.18	9.023	O	|	|	|	|	2.48
78.917	0.00	1.18	9.015	O	|	|	|	|	2.47
79.000	0.00	1.18	9.007	O	|	|	|	|	2.47
79.083	0.00	1.18	8.998	O	|	|	|	|	2.47
79.167	0.00	1.17	8.990	O	|	|	|	|	2.47
79.250	0.00	1.17	8.982	O	|	|	|	|	2.46
79.333	0.00	1.17	8.974	O	|	|	|	|	2.46
79.417	0.00	1.17	8.966	O	|	|	|	|	2.46
79.500	0.00	1.16	8.958	O	|	|	|	|	2.46
79.583	0.00	1.16	8.950	O	|	|	|	|	2.46
79.667	0.00	1.16	8.942	O	|	|	|	|	2.45
79.750	0.00	1.16	8.934	O	|	|	|	|	2.45
79.833	0.00	1.16	8.926	O	|	|	|	|	2.45
79.917	0.00	1.15	8.918	O	|	|	|	|	2.45
80.000	0.00	1.15	8.910	O	|	|	|	|	2.44
80.083	0.00	1.15	8.902	O	|	|	|	|	2.44
80.167	0.00	1.15	8.894	O	|	|	|	|	2.44
80.250	0.00	1.15	8.886	O	|	|	|	|	2.44
80.333	0.00	1.14	8.879	O	|	|	|	|	2.44
80.417	0.00	1.14	8.871	O	|	|	|	|	2.43
80.500	0.00	1.14	8.863	O	|	|	|	|	2.43
80.583	0.00	1.14	8.855	O	|	|	|	|	2.43
80.667	0.00	1.14	8.847	O	|	|	|	|	2.43
80.750	0.00	1.13	8.839	O	|	|	|	|	2.43
80.833	0.00	1.13	8.832	O	|	|	|	|	2.42
80.917	0.00	1.13	8.824	O	|	|	|	|	2.42
81.000	0.00	1.13	8.816	O	|	|	|	|	2.42
81.083	0.00	1.13	8.808	O	|	|	|	|	2.42
81.167	0.00	1.12	8.800	O	|	|	|	|	2.42
81.250	0.00	1.12	8.793	O	|	|	|	|	2.41
81.333	0.00	1.12	8.785	O	|	|	|	|	2.41
81.417	0.00	1.12	8.777	O	|	|	|	|	2.41
81.500	0.00	1.12	8.770	O	|	|	|	|	2.41
81.583	0.00	1.11	8.762	O	|	|	|	|	2.40
81.667	0.00	1.11	8.754	O	|	|	|	|	2.40
81.750	0.00	1.11	8.747	O	|	|	|	|	2.40
81.833	0.00	1.11	8.739	O	|	|	|	|	2.40
81.917	0.00	1.11	8.731	O	|	|	|	|	2.40
82.000	0.00	1.10	8.724	O	|	|	|	|	2.39
82.083	0.00	1.10	8.716	O	|	|	|	|	2.39
82.167	0.00	1.10	8.709	O	|	|	|	|	2.39
82.250	0.00	1.10	8.701	O	|	|	|	|	2.39
82.333	0.00	1.10	8.693	O	|	|	|	|	2.39
82.417	0.00	1.10	8.686	O	|	|	|	|	2.38
82.500	0.00	1.09	8.678	O	|	|	|	|	2.38
82.583	0.00	1.09	8.671	O	|	|	|	|	2.38
82.667	0.00	1.09	8.663	O	|	|	|	|	2.38
82.750	0.00	1.09	8.656	O	|	|	|	|	2.38
82.833	0.00	1.09	8.648	O	|	|	|	|	2.37
82.917	0.00	1.08	8.641	O	|	|	|	|	2.37

83.000	0.00	1.08	8.633	O	|	|	|	|	2.37
83.083	0.00	1.08	8.626	O	|	|	|	|	2.37
83.167	0.00	1.08	8.618	O	|	|	|	|	2.37
83.250	0.00	1.08	8.611	O	|	|	|	|	2.36
83.333	0.00	1.07	8.604	O	|	|	|	|	2.36
83.417	0.00	1.07	8.596	O	|	|	|	|	2.36
83.500	0.00	1.07	8.589	O	|	|	|	|	2.36
83.583	0.00	1.07	8.582	O	|	|	|	|	2.36
83.667	0.00	1.07	8.574	O	|	|	|	|	2.35
83.750	0.00	1.06	8.567	O	|	|	|	|	2.35
83.833	0.00	1.06	8.560	O	|	|	|	|	2.35
83.917	0.00	1.06	8.552	O	|	|	|	|	2.35
84.000	0.00	1.06	8.545	O	|	|	|	|	2.35
84.083	0.00	1.06	8.538	O	|	|	|	|	2.34
84.167	0.00	1.06	8.530	O	|	|	|	|	2.34
84.250	0.00	1.05	8.523	O	|	|	|	|	2.34
84.333	0.00	1.05	8.516	O	|	|	|	|	2.34
84.417	0.00	1.05	8.509	O	|	|	|	|	2.34
84.500	0.00	1.05	8.501	O	|	|	|	|	2.33
84.583	0.00	1.05	8.494	O	|	|	|	|	2.33
84.667	0.00	1.04	8.487	O	|	|	|	|	2.33
84.750	0.00	1.04	8.480	O	|	|	|	|	2.33
84.833	0.00	1.04	8.473	O	|	|	|	|	2.33
84.917	0.00	1.04	8.465	O	|	|	|	|	2.32
85.000	0.00	1.04	8.458	O	|	|	|	|	2.32
85.083	0.00	1.04	8.451	O	|	|	|	|	2.32
85.167	0.00	1.03	8.444	O	|	|	|	|	2.32
85.250	0.00	1.03	8.437	O	|	|	|	|	2.32
85.333	0.00	1.03	8.430	O	|	|	|	|	2.32
85.417	0.00	1.03	8.423	O	|	|	|	|	2.31
85.500	0.00	1.03	8.416	O	|	|	|	|	2.31
85.583	0.00	1.02	8.409	O	|	|	|	|	2.31
85.667	0.00	1.02	8.402	O	|	|	|	|	2.31
85.750	0.00	1.02	8.395	O	|	|	|	|	2.31
85.833	0.00	1.02	8.388	O	|	|	|	|	2.30
85.917	0.00	1.02	8.381	O	|	|	|	|	2.30
86.000	0.00	1.02	8.374	O	|	|	|	|	2.30
86.083	0.00	1.01	8.367	O	|	|	|	|	2.30
86.167	0.00	1.01	8.360	O	|	|	|	|	2.30
86.250	0.00	1.01	8.353	O	|	|	|	|	2.29
86.333	0.00	1.01	8.346	O	|	|	|	|	2.29
86.417	0.00	1.01	8.339	O	|	|	|	|	2.29
86.500	0.00	1.00	8.332	O	|	|	|	|	2.29
86.583	0.00	1.00	8.325	O	|	|	|	|	2.29
86.667	0.00	1.00	8.318	O	|	|	|	|	2.29
86.750	0.00	1.00	8.311	O	|	|	|	|	2.28
86.833	0.00	1.00	8.304	O	|	|	|	|	2.28
86.917	0.00	1.00	8.297	O	|	|	|	|	2.28
87.000	0.00	0.99	8.291	O	|	|	|	|	2.28
87.083	0.00	0.99	8.284	O	|	|	|	|	2.28
87.167	0.00	0.99	8.277	O	|	|	|	|	2.27
87.250	0.00	0.99	8.270	O	|	|	|	|	2.27
87.333	0.00	0.99	8.263	O	|	|	|	|	2.27
87.417	0.00	0.99	8.256	O	|	|	|	|	2.27
87.500	0.00	0.98	8.250	O	|	|	|	|	2.27
87.583	0.00	0.98	8.243	O	|	|	|	|	2.26
87.667	0.00	0.98	8.236	O	|	|	|	|	2.26
87.750	0.00	0.98	8.229	O	|	|	|	|	2.26
87.833	0.00	0.98	8.223	O	|	|	|	|	2.26
87.917	0.00	0.97	8.216	O	|	|	|	|	2.26
88.000	0.00	0.97	8.209	O	|	|	|	|	2.26
88.083	0.00	0.97	8.203	O	|	|	|	|	2.25
88.167	0.00	0.97	8.196	O	|	|	|	|	2.25

88.250	0.00	0.97	8.189	O	|	|	|	|	2.25
88.333	0.00	0.97	8.183	O	|	|	|	|	2.25
88.417	0.00	0.96	8.176	O	|	|	|	|	2.25
88.500	0.00	0.96	8.169	O	|	|	|	|	2.25
88.583	0.00	0.96	8.163	O	|	|	|	|	2.24
88.667	0.00	0.96	8.156	O	|	|	|	|	2.24
88.750	0.00	0.96	8.149	O	|	|	|	|	2.24
88.833	0.00	0.96	8.143	O	|	|	|	|	2.24
88.917	0.00	0.95	8.136	O	|	|	|	|	2.24
89.000	0.00	0.95	8.130	O	|	|	|	|	2.23
89.083	0.00	0.95	8.123	O	|	|	|	|	2.23
89.167	0.00	0.95	8.117	O	|	|	|	|	2.23
89.250	0.00	0.95	8.110	O	|	|	|	|	2.23
89.333	0.00	0.95	8.104	O	|	|	|	|	2.23
89.417	0.00	0.94	8.097	O	|	|	|	|	2.23
89.500	0.00	0.94	8.090	O	|	|	|	|	2.22
89.583	0.00	0.94	8.084	O	|	|	|	|	2.22
89.667	0.00	0.94	8.078	O	|	|	|	|	2.22
89.750	0.00	0.94	8.071	O	|	|	|	|	2.22
89.833	0.00	0.94	8.065	O	|	|	|	|	2.22
89.917	0.00	0.93	8.058	O	|	|	|	|	2.22
90.000	0.00	0.93	8.052	O	|	|	|	|	2.21
90.083	0.00	0.93	8.045	O	|	|	|	|	2.21
90.167	0.00	0.93	8.039	O	|	|	|	|	2.21
90.250	0.00	0.93	8.033	O	|	|	|	|	2.21
90.333	0.00	0.93	8.026	O	|	|	|	|	2.21
90.417	0.00	0.92	8.020	O	|	|	|	|	2.20
90.500	0.00	0.92	8.013	O	|	|	|	|	2.20
90.583	0.00	0.92	8.007	O	|	|	|	|	2.20
90.667	0.00	0.92	8.001	O	|	|	|	|	2.20
90.750	0.00	0.92	7.994	O	|	|	|	|	2.20
90.833	0.00	0.92	7.988	O	|	|	|	|	2.20
90.917	0.00	0.91	7.982	O	|	|	|	|	2.19
91.000	0.00	0.91	7.975	O	|	|	|	|	2.19
91.083	0.00	0.91	7.969	O	|	|	|	|	2.19
91.167	0.00	0.91	7.963	O	|	|	|	|	2.19
91.250	0.00	0.91	7.957	O	|	|	|	|	2.19
91.333	0.00	0.91	7.950	O	|	|	|	|	2.19
91.417	0.00	0.91	7.944	O	|	|	|	|	2.18
91.500	0.00	0.90	7.938	O	|	|	|	|	2.18
91.583	0.00	0.90	7.932	O	|	|	|	|	2.18
91.667	0.00	0.90	7.926	O	|	|	|	|	2.18
91.750	0.00	0.90	7.919	O	|	|	|	|	2.18
91.833	0.00	0.90	7.913	O	|	|	|	|	2.18
91.917	0.00	0.90	7.907	O	|	|	|	|	2.17
92.000	0.00	0.89	7.901	O	|	|	|	|	2.17
92.083	0.00	0.89	7.895	O	|	|	|	|	2.17
92.167	0.00	0.89	7.889	O	|	|	|	|	2.17
92.250	0.00	0.89	7.882	O	|	|	|	|	2.17
92.333	0.00	0.89	7.876	O	|	|	|	|	2.17
92.417	0.00	0.89	7.870	O	|	|	|	|	2.16
92.500	0.00	0.88	7.864	O	|	|	|	|	2.16
92.583	0.00	0.88	7.858	O	|	|	|	|	2.16
92.667	0.00	0.88	7.852	O	|	|	|	|	2.16
92.750	0.00	0.88	7.846	O	|	|	|	|	2.16
92.833	0.00	0.88	7.840	O	|	|	|	|	2.16
92.917	0.00	0.88	7.834	O	|	|	|	|	2.15
93.000	0.00	0.88	7.828	O	|	|	|	|	2.15
93.083	0.00	0.87	7.822	O	|	|	|	|	2.15
93.167	0.00	0.87	7.816	O	|	|	|	|	2.15
93.250	0.00	0.87	7.810	O	|	|	|	|	2.15
93.333	0.00	0.87	7.804	O	|	|	|	|	2.15
93.417	0.00	0.87	7.798	O	|	|	|	|	2.14

93.500	0.00	0.87	7.792	O	|	|	|	|	2.14
93.583	0.00	0.86	7.786	O	|	|	|	|	2.14
93.667	0.00	0.86	7.780	O	|	|	|	|	2.14
93.750	0.00	0.86	7.774	O	|	|	|	|	2.14
93.833	0.00	0.86	7.768	O	|	|	|	|	2.14
93.917	0.00	0.86	7.762	O	|	|	|	|	2.14
94.000	0.00	0.86	7.756	O	|	|	|	|	2.13
94.083	0.00	0.86	7.750	O	|	|	|	|	2.13
94.167	0.00	0.85	7.744	O	|	|	|	|	2.13
94.250	0.00	0.85	7.738	O	|	|	|	|	2.13
94.333	0.00	0.85	7.733	O	|	|	|	|	2.13
94.417	0.00	0.85	7.727	O	|	|	|	|	2.13
94.500	0.00	0.85	7.721	O	|	|	|	|	2.12
94.583	0.00	0.85	7.715	O	|	|	|	|	2.12
94.667	0.00	0.85	7.709	O	|	|	|	|	2.12
94.750	0.00	0.84	7.703	O	|	|	|	|	2.12
94.833	0.00	0.84	7.698	O	|	|	|	|	2.12
94.917	0.00	0.84	7.692	O	|	|	|	|	2.12
95.000	0.00	0.84	7.686	O	|	|	|	|	2.11
95.083	0.00	0.84	7.680	O	|	|	|	|	2.11
95.167	0.00	0.84	7.674	O	|	|	|	|	2.11
95.250	0.00	0.83	7.669	O	|	|	|	|	2.11
95.333	0.00	0.83	7.663	O	|	|	|	|	2.11
95.417	0.00	0.83	7.657	O	|	|	|	|	2.11
95.500	0.00	0.83	7.652	O	|	|	|	|	2.11
95.583	0.00	0.83	7.646	O	|	|	|	|	2.10
95.667	0.00	0.83	7.640	O	|	|	|	|	2.10
95.750	0.00	0.83	7.634	O	|	|	|	|	2.10
95.833	0.00	0.82	7.629	O	|	|	|	|	2.10
95.917	0.00	0.82	7.623	O	|	|	|	|	2.10
96.000	0.00	0.82	7.617	O	|	|	|	|	2.10
96.083	0.00	0.82	7.612	O	|	|	|	|	2.09
96.167	0.00	0.82	7.606	O	|	|	|	|	2.09
96.250	0.00	0.82	7.600	O	|	|	|	|	2.09
96.333	0.00	0.82	7.595	O	|	|	|	|	2.09
96.417	0.00	0.81	7.589	O	|	|	|	|	2.09
96.500	0.00	0.81	7.584	O	|	|	|	|	2.09
96.583	0.00	0.81	7.578	O	|	|	|	|	2.09
96.667	0.00	0.81	7.572	O	|	|	|	|	2.08
96.750	0.00	0.81	7.567	O	|	|	|	|	2.08
96.833	0.00	0.81	7.561	O	|	|	|	|	2.08
96.917	0.00	0.81	7.556	O	|	|	|	|	2.08
97.000	0.00	0.80	7.550	O	|	|	|	|	2.08
97.083	0.00	0.80	7.545	O	|	|	|	|	2.08
97.167	0.00	0.80	7.539	O	|	|	|	|	2.08
97.250	0.00	0.80	7.534	O	|	|	|	|	2.07
97.333	0.00	0.80	7.528	O	|	|	|	|	2.07
97.417	0.00	0.80	7.523	O	|	|	|	|	2.07
97.500	0.00	0.80	7.517	O	|	|	|	|	2.07
97.583	0.00	0.79	7.512	O	|	|	|	|	2.07
97.667	0.00	0.79	7.506	O	|	|	|	|	2.07
97.750	0.00	0.79	7.501	O	|	|	|	|	2.06
97.833	0.00	0.79	7.495	O	|	|	|	|	2.06
97.917	0.00	0.79	7.490	O	|	|	|	|	2.06
98.000	0.00	0.79	7.484	O	|	|	|	|	2.06
98.083	0.00	0.79	7.479	O	|	|	|	|	2.06
98.167	0.00	0.78	7.474	O	|	|	|	|	2.06
98.250	0.00	0.78	7.468	O	|	|	|	|	2.06
98.333	0.00	0.78	7.463	O	|	|	|	|	2.05
98.417	0.00	0.78	7.457	O	|	|	|	|	2.05
98.500	0.00	0.78	7.452	O	|	|	|	|	2.05
98.583	0.00	0.78	7.447	O	|	|	|	|	2.05
98.667	0.00	0.78	7.441	O	|	|	|	|	2.05

98.750	0.00	0.78	7.436	O	|	|	|	|	2.05
98.833	0.00	0.77	7.431	O	|	|	|	|	2.05
98.917	0.00	0.77	7.425	O	|	|	|	|	2.04
99.000	0.00	0.77	7.420	O	|	|	|	|	2.04
99.083	0.00	0.77	7.415	O	|	|	|	|	2.04
99.167	0.00	0.77	7.409	O	|	|	|	|	2.04
99.250	0.00	0.77	7.404	O	|	|	|	|	2.04
99.333	0.00	0.77	7.399	O	|	|	|	|	2.04
99.417	0.00	0.76	7.394	O	|	|	|	|	2.04
99.500	0.00	0.76	7.388	O	|	|	|	|	2.03
99.583	0.00	0.76	7.383	O	|	|	|	|	2.03
99.667	0.00	0.76	7.378	O	|	|	|	|	2.03
99.750	0.00	0.76	7.373	O	|	|	|	|	2.03
99.833	0.00	0.76	7.367	O	|	|	|	|	2.03
99.917	0.00	0.76	7.362	O	|	|	|	|	2.03
100.000	0.00	0.75	7.357	O	|	|	|	|	2.03
100.083	0.00	0.75	7.352	O	|	|	|	|	2.02
100.167	0.00	0.75	7.347	O	|	|	|	|	2.02
100.250	0.00	0.75	7.341	O	|	|	|	|	2.02
100.333	0.00	0.75	7.336	O	|	|	|	|	2.02
100.417	0.00	0.75	7.331	O	|	|	|	|	2.02
100.500	0.00	0.75	7.326	O	|	|	|	|	2.02
100.583	0.00	0.75	7.321	O	|	|	|	|	2.02
100.667	0.00	0.74	7.316	O	|	|	|	|	2.02
100.750	0.00	0.74	7.311	O	|	|	|	|	2.01
100.833	0.00	0.74	7.305	O	|	|	|	|	2.01
100.917	0.00	0.74	7.300	O	|	|	|	|	2.01
101.000	0.00	0.74	7.295	O	|	|	|	|	2.01
101.083	0.00	0.74	7.290	O	|	|	|	|	2.01
101.167	0.00	0.74	7.285	O	|	|	|	|	2.01
101.250	0.00	0.74	7.280	O	|	|	|	|	2.01
101.333	0.00	0.73	7.275	O	|	|	|	|	2.00
101.417	0.00	0.73	7.270	O	|	|	|	|	2.00
101.500	0.00	0.73	7.265	O	|	|	|	|	2.00
101.583	0.00	0.73	7.260	O	|	|	|	|	2.00
101.667	0.00	0.73	7.255	O	|	|	|	|	2.00
101.750	0.00	0.73	7.250	O	|	|	|	|	2.00
101.833	0.00	0.73	7.245	O	|	|	|	|	2.00
101.917	0.00	0.73	7.240	O	|	|	|	|	1.99
102.000	0.00	0.73	7.235	O	|	|	|	|	1.99
102.083	0.00	0.73	7.230	O	|	|	|	|	1.99
102.167	0.00	0.73	7.225	O	|	|	|	|	1.99
102.250	0.00	0.73	7.220	O	|	|	|	|	1.99
102.333	0.00	0.72	7.215	O	|	|	|	|	1.99
102.417	0.00	0.72	7.210	O	|	|	|	|	1.99
102.500	0.00	0.72	7.205	O	|	|	|	|	1.98
102.583	0.00	0.72	7.200	O	|	|	|	|	1.98
102.667	0.00	0.72	7.195	O	|	|	|	|	1.98
102.750	0.00	0.72	7.190	O	|	|	|	|	1.98
102.833	0.00	0.72	7.185	O	|	|	|	|	1.98
102.917	0.00	0.72	7.180	O	|	|	|	|	1.98
103.000	0.00	0.72	7.175	O	|	|	|	|	1.98
103.083	0.00	0.72	7.170	O	|	|	|	|	1.97
103.167	0.00	0.72	7.165	O	|	|	|	|	1.97
103.250	0.00	0.72	7.160	O	|	|	|	|	1.97
103.333	0.00	0.72	7.155	O	|	|	|	|	1.97
103.417	0.00	0.72	7.150	O	|	|	|	|	1.97
103.500	0.00	0.72	7.145	O	|	|	|	|	1.97
103.583	0.00	0.72	7.140	O	|	|	|	|	1.97
103.667	0.00	0.72	7.135	O	|	|	|	|	1.97
103.750	0.00	0.72	7.130	O	|	|	|	|	1.96
103.833	0.00	0.71	7.126	O	|	|	|	|	1.96
103.917	0.00	0.71	7.121	O	|	|	|	|	1.96

104.000	0.00	0.71	7.116	O	|	|	|	|	1.96
104.083	0.00	0.71	7.111	O	|	|	|	|	1.96
104.167	0.00	0.71	7.106	O	|	|	|	|	1.96
104.250	0.00	0.71	7.101	O	|	|	|	|	1.96
104.333	0.00	0.71	7.096	O	|	|	|	|	1.95
104.417	0.00	0.71	7.091	O	|	|	|	|	1.95
104.500	0.00	0.71	7.086	O	|	|	|	|	1.95
104.583	0.00	0.71	7.081	O	|	|	|	|	1.95
104.667	0.00	0.71	7.077	O	|	|	|	|	1.95
104.750	0.00	0.71	7.072	O	|	|	|	|	1.95
104.833	0.00	0.71	7.067	O	|	|	|	|	1.95
104.917	0.00	0.71	7.062	O	|	|	|	|	1.94
105.000	0.00	0.71	7.057	O	|	|	|	|	1.94
105.083	0.00	0.71	7.052	O	|	|	|	|	1.94
105.167	0.00	0.71	7.047	O	|	|	|	|	1.94
105.250	0.00	0.70	7.042	O	|	|	|	|	1.94
105.333	0.00	0.70	7.038	O	|	|	|	|	1.94
105.417	0.00	0.70	7.033	O	|	|	|	|	1.94
105.500	0.00	0.70	7.028	O	|	|	|	|	1.93
105.583	0.00	0.70	7.023	O	|	|	|	|	1.93
105.667	0.00	0.70	7.018	O	|	|	|	|	1.93
105.750	0.00	0.70	7.013	O	|	|	|	|	1.93
105.833	0.00	0.70	7.009	O	|	|	|	|	1.93
105.917	0.00	0.70	7.004	O	|	|	|	|	1.93
106.000	0.00	0.70	6.999	O	|	|	|	|	1.93
106.083	0.00	0.70	6.994	O	|	|	|	|	1.93
106.167	0.00	0.70	6.989	O	|	|	|	|	1.92
106.250	0.00	0.70	6.984	O	|	|	|	|	1.92
106.333	0.00	0.70	6.980	O	|	|	|	|	1.92
106.417	0.00	0.70	6.975	O	|	|	|	|	1.92
106.500	0.00	0.70	6.970	O	|	|	|	|	1.92
106.583	0.00	0.70	6.965	O	|	|	|	|	1.92
106.667	0.00	0.70	6.960	O	|	|	|	|	1.92
106.750	0.00	0.69	6.956	O	|	|	|	|	1.91
106.833	0.00	0.69	6.951	O	|	|	|	|	1.91
106.917	0.00	0.69	6.946	O	|	|	|	|	1.91
107.000	0.00	0.69	6.941	O	|	|	|	|	1.91
107.083	0.00	0.69	6.937	O	|	|	|	|	1.91
107.167	0.00	0.69	6.932	O	|	|	|	|	1.91
107.250	0.00	0.69	6.927	O	|	|	|	|	1.91
107.333	0.00	0.69	6.922	O	|	|	|	|	1.91
107.417	0.00	0.69	6.918	O	|	|	|	|	1.90
107.500	0.00	0.69	6.913	O	|	|	|	|	1.90
107.583	0.00	0.69	6.908	O	|	|	|	|	1.90
107.667	0.00	0.69	6.903	O	|	|	|	|	1.90
107.750	0.00	0.69	6.899	O	|	|	|	|	1.90
107.833	0.00	0.69	6.894	O	|	|	|	|	1.90
107.917	0.00	0.69	6.889	O	|	|	|	|	1.90
108.000	0.00	0.69	6.884	O	|	|	|	|	1.89
108.083	0.00	0.69	6.880	O	|	|	|	|	1.89
108.167	0.00	0.69	6.875	O	|	|	|	|	1.89
108.250	0.00	0.69	6.870	O	|	|	|	|	1.89
108.333	0.00	0.68	6.865	O	|	|	|	|	1.89
108.417	0.00	0.68	6.861	O	|	|	|	|	1.89
108.500	0.00	0.68	6.856	O	|	|	|	|	1.89
108.583	0.00	0.68	6.851	O	|	|	|	|	1.89
108.667	0.00	0.68	6.847	O	|	|	|	|	1.88
108.750	0.00	0.68	6.842	O	|	|	|	|	1.88
108.833	0.00	0.68	6.837	O	|	|	|	|	1.88
108.917	0.00	0.68	6.833	O	|	|	|	|	1.88
109.000	0.00	0.68	6.828	O	|	|	|	|	1.88
109.083	0.00	0.68	6.823	O	|	|	|	|	1.88
109.167	0.00	0.68	6.818	O	|	|	|	|	1.88

109.250	0.00	0.68	6.814	O	|	|	|	|	1.87
109.333	0.00	0.68	6.809	O	|	|	|	|	1.87
109.417	0.00	0.68	6.804	O	|	|	|	|	1.87
109.500	0.00	0.68	6.800	O	|	|	|	|	1.87
109.583	0.00	0.68	6.795	O	|	|	|	|	1.87
109.667	0.00	0.68	6.790	O	|	|	|	|	1.87
109.750	0.00	0.68	6.786	O	|	|	|	|	1.87
109.833	0.00	0.67	6.781	O	|	|	|	|	1.87
109.917	0.00	0.67	6.777	O	|	|	|	|	1.86
110.000	0.00	0.67	6.772	O	|	|	|	|	1.86
110.083	0.00	0.67	6.767	O	|	|	|	|	1.86
110.167	0.00	0.67	6.763	O	|	|	|	|	1.86
110.250	0.00	0.67	6.758	O	|	|	|	|	1.86
110.333	0.00	0.67	6.753	O	|	|	|	|	1.86
110.417	0.00	0.67	6.749	O	|	|	|	|	1.86
110.500	0.00	0.67	6.744	O	|	|	|	|	1.86
110.583	0.00	0.67	6.740	O	|	|	|	|	1.85
110.667	0.00	0.67	6.735	O	|	|	|	|	1.85
110.750	0.00	0.67	6.730	O	|	|	|	|	1.85
110.833	0.00	0.67	6.726	O	|	|	|	|	1.85
110.917	0.00	0.67	6.721	O	|	|	|	|	1.85
111.000	0.00	0.67	6.716	O	|	|	|	|	1.85
111.083	0.00	0.67	6.712	O	|	|	|	|	1.85
111.167	0.00	0.67	6.707	O	|	|	|	|	1.84
111.250	0.00	0.67	6.703	O	|	|	|	|	1.84
111.333	0.00	0.67	6.698	O	|	|	|	|	1.84
111.417	0.00	0.66	6.694	O	|	|	|	|	1.84
111.500	0.00	0.66	6.689	O	|	|	|	|	1.84
111.583	0.00	0.66	6.684	O	|	|	|	|	1.84
111.667	0.00	0.66	6.680	O	|	|	|	|	1.84
111.750	0.00	0.66	6.675	O	|	|	|	|	1.84
111.833	0.00	0.66	6.671	O	|	|	|	|	1.83
111.917	0.00	0.66	6.666	O	|	|	|	|	1.83
112.000	0.00	0.66	6.662	O	|	|	|	|	1.83
112.083	0.00	0.66	6.657	O	|	|	|	|	1.83
112.167	0.00	0.66	6.652	O	|	|	|	|	1.83
112.250	0.00	0.66	6.648	O	|	|	|	|	1.83
112.333	0.00	0.66	6.643	O	|	|	|	|	1.83
112.417	0.00	0.66	6.639	O	|	|	|	|	1.83
112.500	0.00	0.66	6.634	O	|	|	|	|	1.82
112.583	0.00	0.66	6.630	O	|	|	|	|	1.82
112.667	0.00	0.66	6.625	O	|	|	|	|	1.82
112.750	0.00	0.66	6.621	O	|	|	|	|	1.82
112.833	0.00	0.66	6.616	O	|	|	|	|	1.82
112.917	0.00	0.66	6.612	O	|	|	|	|	1.82
113.000	0.00	0.65	6.607	O	|	|	|	|	1.82
113.083	0.00	0.65	6.603	O	|	|	|	|	1.82
113.167	0.00	0.65	6.598	O	|	|	|	|	1.81
113.250	0.00	0.65	6.594	O	|	|	|	|	1.81
113.333	0.00	0.65	6.589	O	|	|	|	|	1.81
113.417	0.00	0.65	6.585	O	|	|	|	|	1.81
113.500	0.00	0.65	6.580	O	|	|	|	|	1.81
113.583	0.00	0.65	6.576	O	|	|	|	|	1.81
113.667	0.00	0.65	6.571	O	|	|	|	|	1.81
113.750	0.00	0.65	6.567	O	|	|	|	|	1.81
113.833	0.00	0.65	6.562	O	|	|	|	|	1.80
113.917	0.00	0.65	6.558	O	|	|	|	|	1.80
114.000	0.00	0.65	6.553	O	|	|	|	|	1.80
114.083	0.00	0.65	6.549	O	|	|	|	|	1.80
114.167	0.00	0.65	6.544	O	|	|	|	|	1.80
114.250	0.00	0.65	6.540	O	|	|	|	|	1.80
114.333	0.00	0.65	6.536	O	|	|	|	|	1.80
114.417	0.00	0.65	6.531	O	|	|	|	|	1.80

114.500	0.00	0.65	6.527	O	|	|	|	|	1.79
114.583	0.00	0.65	6.522	O	|	|	|	|	1.79
114.667	0.00	0.64	6.518	O	|	|	|	|	1.79
114.750	0.00	0.64	6.513	O	|	|	|	|	1.79
114.833	0.00	0.64	6.509	O	|	|	|	|	1.79
114.917	0.00	0.64	6.504	O	|	|	|	|	1.79
115.000	0.00	0.64	6.500	O	|	|	|	|	1.79
115.083	0.00	0.64	6.496	O	|	|	|	|	1.79
115.167	0.00	0.64	6.491	O	|	|	|	|	1.78
115.250	0.00	0.64	6.487	O	|	|	|	|	1.78
115.333	0.00	0.64	6.482	O	|	|	|	|	1.78
115.417	0.00	0.64	6.478	O	|	|	|	|	1.78
115.500	0.00	0.64	6.474	O	|	|	|	|	1.78
115.583	0.00	0.64	6.469	O	|	|	|	|	1.78
115.667	0.00	0.64	6.465	O	|	|	|	|	1.78
115.750	0.00	0.64	6.460	O	|	|	|	|	1.78
115.833	0.00	0.64	6.456	O	|	|	|	|	1.77
115.917	0.00	0.64	6.452	O	|	|	|	|	1.77
116.000	0.00	0.64	6.447	O	|	|	|	|	1.77
116.083	0.00	0.64	6.443	O	|	|	|	|	1.77
116.167	0.00	0.64	6.438	O	|	|	|	|	1.77
116.250	0.00	0.63	6.434	O	|	|	|	|	1.77
116.333	0.00	0.63	6.430	O	|	|	|	|	1.77
116.417	0.00	0.63	6.425	O	|	|	|	|	1.77
116.500	0.00	0.63	6.421	O	|	|	|	|	1.76
116.583	0.00	0.63	6.417	O	|	|	|	|	1.76
116.667	0.00	0.63	6.412	O	|	|	|	|	1.76
116.750	0.00	0.63	6.408	O	|	|	|	|	1.76
116.833	0.00	0.63	6.403	O	|	|	|	|	1.76
116.917	0.00	0.63	6.399	O	|	|	|	|	1.76
117.000	0.00	0.63	6.395	O	|	|	|	|	1.76
117.083	0.00	0.63	6.390	O	|	|	|	|	1.76
117.167	0.00	0.63	6.386	O	|	|	|	|	1.75
117.250	0.00	0.63	6.382	O	|	|	|	|	1.75
117.333	0.00	0.63	6.377	O	|	|	|	|	1.75
117.417	0.00	0.63	6.373	O	|	|	|	|	1.75
117.500	0.00	0.63	6.369	O	|	|	|	|	1.75
117.583	0.00	0.63	6.364	O	|	|	|	|	1.75
117.667	0.00	0.63	6.360	O	|	|	|	|	1.75
117.750	0.00	0.63	6.356	O	|	|	|	|	1.75
117.833	0.00	0.63	6.352	O	|	|	|	|	1.74
117.917	0.00	0.62	6.347	O	|	|	|	|	1.74
118.000	0.00	0.62	6.343	O	|	|	|	|	1.74
118.083	0.00	0.62	6.339	O	|	|	|	|	1.74
118.167	0.00	0.62	6.334	O	|	|	|	|	1.74
118.250	0.00	0.62	6.330	O	|	|	|	|	1.74
118.333	0.00	0.62	6.326	O	|	|	|	|	1.74
118.417	0.00	0.62	6.321	O	|	|	|	|	1.74
118.500	0.00	0.62	6.317	O	|	|	|	|	1.74
118.583	0.00	0.62	6.313	O	|	|	|	|	1.73
118.667	0.00	0.62	6.309	O	|	|	|	|	1.73
118.750	0.00	0.62	6.304	O	|	|	|	|	1.73
118.833	0.00	0.62	6.300	O	|	|	|	|	1.73
118.917	0.00	0.62	6.296	O	|	|	|	|	1.73
119.000	0.00	0.62	6.292	O	|	|	|	|	1.73
119.083	0.00	0.62	6.287	O	|	|	|	|	1.73
119.167	0.00	0.62	6.283	O	|	|	|	|	1.73
119.250	0.00	0.62	6.279	O	|	|	|	|	1.72
119.333	0.00	0.62	6.275	O	|	|	|	|	1.72
119.417	0.00	0.62	6.270	O	|	|	|	|	1.72
119.500	0.00	0.62	6.266	O	|	|	|	|	1.72
119.583	0.00	0.62	6.262	O	|	|	|	|	1.72
119.667	0.00	0.61	6.258	O	|	|	|	|	1.72

119.750	0.00	0.61	6.253	O	|	|	|	|	1.72
119.833	0.00	0.61	6.249	O	|	|	|	|	1.72
119.917	0.00	0.61	6.245	O	|	|	|	|	1.71
120.000	0.00	0.61	6.241	O	|	|	|	|	1.71
120.083	0.00	0.61	6.237	O	|	|	|	|	1.71
120.167	0.00	0.61	6.232	O	|	|	|	|	1.71
120.250	0.00	0.61	6.228	O	|	|	|	|	1.71
120.333	0.00	0.61	6.224	O	|	|	|	|	1.71
120.417	0.00	0.61	6.220	O	|	|	|	|	1.71
120.500	0.00	0.61	6.215	O	|	|	|	|	1.71
120.583	0.00	0.61	6.211	O	|	|	|	|	1.71
120.667	0.00	0.61	6.207	O	|	|	|	|	1.70
120.750	0.00	0.61	6.203	O	|	|	|	|	1.70
120.833	0.00	0.61	6.199	O	|	|	|	|	1.70
120.917	0.00	0.61	6.195	O	|	|	|	|	1.70
121.000	0.00	0.61	6.190	O	|	|	|	|	1.70
121.083	0.00	0.61	6.186	O	|	|	|	|	1.70
121.167	0.00	0.61	6.182	O	|	|	|	|	1.70
121.250	0.00	0.61	6.178	O	|	|	|	|	1.70
121.333	0.00	0.60	6.174	O	|	|	|	|	1.69
121.417	0.00	0.60	6.169	O	|	|	|	|	1.69
121.500	0.00	0.60	6.165	O	|	|	|	|	1.69
121.583	0.00	0.60	6.161	O	|	|	|	|	1.69
121.667	0.00	0.60	6.157	O	|	|	|	|	1.69
121.750	0.00	0.60	6.153	O	|	|	|	|	1.69
121.833	0.00	0.60	6.149	O	|	|	|	|	1.69
121.917	0.00	0.60	6.145	O	|	|	|	|	1.69
122.000	0.00	0.60	6.140	O	|	|	|	|	1.69
122.083	0.00	0.60	6.136	O	|	|	|	|	1.68
122.167	0.00	0.60	6.132	O	|	|	|	|	1.68
122.250	0.00	0.60	6.128	O	|	|	|	|	1.68
122.333	0.00	0.60	6.124	O	|	|	|	|	1.68
122.417	0.00	0.60	6.120	O	|	|	|	|	1.68
122.500	0.00	0.60	6.116	O	|	|	|	|	1.68
122.583	0.00	0.60	6.112	O	|	|	|	|	1.68
122.667	0.00	0.60	6.107	O	|	|	|	|	1.68
122.750	0.00	0.60	6.103	O	|	|	|	|	1.68
122.833	0.00	0.60	6.099	O	|	|	|	|	1.67
122.917	0.00	0.60	6.095	O	|	|	|	|	1.67
123.000	0.00	0.60	6.091	O	|	|	|	|	1.67
123.083	0.00	0.59	6.087	O	|	|	|	|	1.67
123.167	0.00	0.59	6.083	O	|	|	|	|	1.67
123.250	0.00	0.59	6.079	O	|	|	|	|	1.67
123.333	0.00	0.59	6.075	O	|	|	|	|	1.67
123.417	0.00	0.59	6.071	O	|	|	|	|	1.67
123.500	0.00	0.59	6.066	O	|	|	|	|	1.66
123.583	0.00	0.59	6.062	O	|	|	|	|	1.66
123.667	0.00	0.59	6.058	O	|	|	|	|	1.66
123.750	0.00	0.59	6.054	O	|	|	|	|	1.66
123.833	0.00	0.59	6.050	O	|	|	|	|	1.66
123.917	0.00	0.59	6.046	O	|	|	|	|	1.66
124.000	0.00	0.59	6.042	O	|	|	|	|	1.66
124.083	0.00	0.59	6.038	O	|	|	|	|	1.66
124.167	0.00	0.59	6.034	O	|	|	|	|	1.66
124.250	0.00	0.59	6.030	O	|	|	|	|	1.65
124.333	0.00	0.59	6.026	O	|	|	|	|	1.65
124.417	0.00	0.59	6.022	O	|	|	|	|	1.65
124.500	0.00	0.59	6.018	O	|	|	|	|	1.65
124.583	0.00	0.59	6.014	O	|	|	|	|	1.65
124.667	0.00	0.59	6.010	O	|	|	|	|	1.65
124.750	0.00	0.59	6.006	O	|	|	|	|	1.65
124.833	0.00	0.59	6.002	O	|	|	|	|	1.65
124.917	0.00	0.58	5.998	O	|	|	|	|	1.65

125.000	0.00	0.58	5.994	O	|	|	|	|	1.64
125.083	0.00	0.58	5.989	O	|	|	|	|	1.64
125.167	0.00	0.58	5.985	O	|	|	|	|	1.64
125.250	0.00	0.58	5.981	O	|	|	|	|	1.64
125.333	0.00	0.58	5.977	O	|	|	|	|	1.64
125.417	0.00	0.58	5.973	O	|	|	|	|	1.64
125.500	0.00	0.58	5.969	O	|	|	|	|	1.64
125.583	0.00	0.58	5.965	O	|	|	|	|	1.64
125.667	0.00	0.58	5.961	O	|	|	|	|	1.64
125.750	0.00	0.58	5.957	O	|	|	|	|	1.63
125.833	0.00	0.58	5.953	O	|	|	|	|	1.63
125.917	0.00	0.58	5.949	O	|	|	|	|	1.63
126.000	0.00	0.58	5.945	O	|	|	|	|	1.63
126.083	0.00	0.58	5.941	O	|	|	|	|	1.63
126.167	0.00	0.58	5.937	O	|	|	|	|	1.63
126.250	0.00	0.58	5.934	O	|	|	|	|	1.63
126.333	0.00	0.58	5.930	O	|	|	|	|	1.63
126.417	0.00	0.58	5.926	O	|	|	|	|	1.63
126.500	0.00	0.58	5.922	O	|	|	|	|	1.62
126.583	0.00	0.58	5.918	O	|	|	|	|	1.62
126.667	0.00	0.57	5.914	O	|	|	|	|	1.62
126.750	0.00	0.57	5.910	O	|	|	|	|	1.62
126.833	0.00	0.57	5.906	O	|	|	|	|	1.62
126.917	0.00	0.57	5.902	O	|	|	|	|	1.62
127.000	0.00	0.57	5.898	O	|	|	|	|	1.62
127.083	0.00	0.57	5.894	O	|	|	|	|	1.62
127.167	0.00	0.57	5.890	O	|	|	|	|	1.62
127.250	0.00	0.57	5.886	O	|	|	|	|	1.61
127.333	0.00	0.57	5.882	O	|	|	|	|	1.61
127.417	0.00	0.57	5.878	O	|	|	|	|	1.61
127.500	0.00	0.57	5.874	O	|	|	|	|	1.61
127.583	0.00	0.57	5.870	O	|	|	|	|	1.61
127.667	0.00	0.57	5.866	O	|	|	|	|	1.61
127.750	0.00	0.57	5.862	O	|	|	|	|	1.61
127.833	0.00	0.57	5.859	O	|	|	|	|	1.61
127.917	0.00	0.57	5.855	O	|	|	|	|	1.61
128.000	0.00	0.57	5.851	O	|	|	|	|	1.60
128.083	0.00	0.57	5.847	O	|	|	|	|	1.60
128.167	0.00	0.57	5.843	O	|	|	|	|	1.60
128.250	0.00	0.57	5.839	O	|	|	|	|	1.60
128.333	0.00	0.57	5.835	O	|	|	|	|	1.60
128.417	0.00	0.57	5.831	O	|	|	|	|	1.60
128.500	0.00	0.57	5.827	O	|	|	|	|	1.60
128.583	0.00	0.56	5.823	O	|	|	|	|	1.60
128.667	0.00	0.56	5.820	O	|	|	|	|	1.60
128.750	0.00	0.56	5.816	O	|	|	|	|	1.59
128.833	0.00	0.56	5.812	O	|	|	|	|	1.59
128.917	0.00	0.56	5.808	O	|	|	|	|	1.59
129.000	0.00	0.56	5.804	O	|	|	|	|	1.59
129.083	0.00	0.56	5.800	O	|	|	|	|	1.59
129.167	0.00	0.56	5.796	O	|	|	|	|	1.59
129.250	0.00	0.56	5.792	O	|	|	|	|	1.59
129.333	0.00	0.56	5.789	O	|	|	|	|	1.59
129.417	0.00	0.56	5.785	O	|	|	|	|	1.59
129.500	0.00	0.56	5.781	O	|	|	|	|	1.58
129.583	0.00	0.56	5.777	O	|	|	|	|	1.58
129.667	0.00	0.56	5.773	O	|	|	|	|	1.58
129.750	0.00	0.56	5.769	O	|	|	|	|	1.58
129.833	0.00	0.56	5.765	O	|	|	|	|	1.58
129.917	0.00	0.56	5.762	O	|	|	|	|	1.58
130.000	0.00	0.56	5.758	O	|	|	|	|	1.58
130.083	0.00	0.56	5.754	O	|	|	|	|	1.58
130.167	0.00	0.56	5.750	O	|	|	|	|	1.58

130.250	0.00	0.56	5.746	O	|	|	|	|	1.57
130.333	0.00	0.56	5.742	O	|	|	|	|	1.57
130.417	0.00	0.55	5.739	O	|	|	|	|	1.57
130.500	0.00	0.55	5.735	O	|	|	|	|	1.57
130.583	0.00	0.55	5.731	O	|	|	|	|	1.57
130.667	0.00	0.55	5.727	O	|	|	|	|	1.57
130.750	0.00	0.55	5.723	O	|	|	|	|	1.57
130.833	0.00	0.55	5.720	O	|	|	|	|	1.57
130.917	0.00	0.55	5.716	O	|	|	|	|	1.57
131.000	0.00	0.55	5.712	O	|	|	|	|	1.57
131.083	0.00	0.55	5.708	O	|	|	|	|	1.56
131.167	0.00	0.55	5.704	O	|	|	|	|	1.56
131.250	0.00	0.55	5.701	O	|	|	|	|	1.56
131.333	0.00	0.55	5.697	O	|	|	|	|	1.56
131.417	0.00	0.55	5.693	O	|	|	|	|	1.56
131.500	0.00	0.55	5.689	O	|	|	|	|	1.56
131.583	0.00	0.55	5.685	O	|	|	|	|	1.56
131.667	0.00	0.55	5.682	O	|	|	|	|	1.56
131.750	0.00	0.55	5.678	O	|	|	|	|	1.56
131.833	0.00	0.55	5.674	O	|	|	|	|	1.55
131.917	0.00	0.55	5.670	O	|	|	|	|	1.55
132.000	0.00	0.55	5.667	O	|	|	|	|	1.55
132.083	0.00	0.55	5.663	O	|	|	|	|	1.55
132.167	0.00	0.55	5.659	O	|	|	|	|	1.55
132.250	0.00	0.55	5.655	O	|	|	|	|	1.55
132.333	0.00	0.54	5.652	O	|	|	|	|	1.55
132.417	0.00	0.54	5.648	O	|	|	|	|	1.55
132.500	0.00	0.54	5.644	O	|	|	|	|	1.55
132.583	0.00	0.54	5.640	O	|	|	|	|	1.55
132.667	0.00	0.54	5.637	O	|	|	|	|	1.54
132.750	0.00	0.54	5.633	O	|	|	|	|	1.54
132.833	0.00	0.54	5.629	O	|	|	|	|	1.54
132.917	0.00	0.54	5.625	O	|	|	|	|	1.54
133.000	0.00	0.54	5.622	O	|	|	|	|	1.54
133.083	0.00	0.54	5.618	O	|	|	|	|	1.54
133.167	0.00	0.54	5.614	O	|	|	|	|	1.54
133.250	0.00	0.54	5.610	O	|	|	|	|	1.54
133.333	0.00	0.54	5.607	O	|	|	|	|	1.54
133.417	0.00	0.54	5.603	O	|	|	|	|	1.53
133.500	0.00	0.54	5.599	O	|	|	|	|	1.53
133.583	0.00	0.54	5.596	O	|	|	|	|	1.53
133.667	0.00	0.54	5.592	O	|	|	|	|	1.53
133.750	0.00	0.54	5.588	O	|	|	|	|	1.53
133.833	0.00	0.54	5.585	O	|	|	|	|	1.53
133.917	0.00	0.54	5.581	O	|	|	|	|	1.53
134.000	0.00	0.54	5.577	O	|	|	|	|	1.53
134.083	0.00	0.54	5.573	O	|	|	|	|	1.53
134.167	0.00	0.54	5.570	O	|	|	|	|	1.53
134.250	0.00	0.53	5.566	O	|	|	|	|	1.52
134.333	0.00	0.53	5.562	O	|	|	|	|	1.52
134.417	0.00	0.53	5.559	O	|	|	|	|	1.52
134.500	0.00	0.53	5.555	O	|	|	|	|	1.52
134.583	0.00	0.53	5.551	O	|	|	|	|	1.52
134.667	0.00	0.53	5.548	O	|	|	|	|	1.52
134.750	0.00	0.53	5.544	O	|	|	|	|	1.52
134.833	0.00	0.53	5.540	O	|	|	|	|	1.52
134.917	0.00	0.53	5.537	O	|	|	|	|	1.52
135.000	0.00	0.53	5.533	O	|	|	|	|	1.51
135.083	0.00	0.53	5.529	O	|	|	|	|	1.51
135.167	0.00	0.53	5.526	O	|	|	|	|	1.51
135.250	0.00	0.53	5.522	O	|	|	|	|	1.51
135.333	0.00	0.53	5.518	O	|	|	|	|	1.51
135.417	0.00	0.53	5.515	O	|	|	|	|	1.51

135.500	0.00	0.53	5.511	O	|	|	|	|	1.51
135.583	0.00	0.53	5.507	O	|	|	|	|	1.51
135.667	0.00	0.53	5.504	O	|	|	|	|	1.51
135.750	0.00	0.53	5.500	O	|	|	|	|	1.51
135.833	0.00	0.53	5.497	O	|	|	|	|	1.50
135.917	0.00	0.53	5.493	O	|	|	|	|	1.50
136.000	0.00	0.53	5.489	O	|	|	|	|	1.50
136.083	0.00	0.53	5.486	O	|	|	|	|	1.50
136.167	0.00	0.53	5.482	O	|	|	|	|	1.50
136.250	0.00	0.52	5.478	O	|	|	|	|	1.50
136.333	0.00	0.52	5.475	O	|	|	|	|	1.50
136.417	0.00	0.52	5.471	O	|	|	|	|	1.50
136.500	0.00	0.52	5.468	O	|	|	|	|	1.50
136.583	0.00	0.52	5.464	O	|	|	|	|	1.50
136.667	0.00	0.52	5.460	O	|	|	|	|	1.49
136.750	0.00	0.52	5.457	O	|	|	|	|	1.49
136.833	0.00	0.52	5.453	O	|	|	|	|	1.49
136.917	0.00	0.52	5.450	O	|	|	|	|	1.49
137.000	0.00	0.52	5.446	O	|	|	|	|	1.49
137.083	0.00	0.52	5.442	O	|	|	|	|	1.49
137.167	0.00	0.52	5.439	O	|	|	|	|	1.49
137.250	0.00	0.52	5.435	O	|	|	|	|	1.49
137.333	0.00	0.52	5.432	O	|	|	|	|	1.49
137.417	0.00	0.52	5.428	O	|	|	|	|	1.49
137.500	0.00	0.52	5.425	O	|	|	|	|	1.48
137.583	0.00	0.52	5.421	O	|	|	|	|	1.48
137.667	0.00	0.52	5.417	O	|	|	|	|	1.48
137.750	0.00	0.52	5.414	O	|	|	|	|	1.48
137.833	0.00	0.52	5.410	O	|	|	|	|	1.48
137.917	0.00	0.52	5.407	O	|	|	|	|	1.48
138.000	0.00	0.52	5.403	O	|	|	|	|	1.48
138.083	0.00	0.52	5.400	O	|	|	|	|	1.48
138.167	0.00	0.52	5.396	O	|	|	|	|	1.48
138.250	0.00	0.51	5.393	O	|	|	|	|	1.48
138.333	0.00	0.51	5.389	O	|	|	|	|	1.47
138.417	0.00	0.51	5.385	O	|	|	|	|	1.47
138.500	0.00	0.51	5.382	O	|	|	|	|	1.47
138.583	0.00	0.51	5.378	O	|	|	|	|	1.47
138.667	0.00	0.51	5.375	O	|	|	|	|	1.47
138.750	0.00	0.51	5.371	O	|	|	|	|	1.47
138.833	0.00	0.51	5.368	O	|	|	|	|	1.47
138.917	0.00	0.51	5.364	O	|	|	|	|	1.47
139.000	0.00	0.51	5.361	O	|	|	|	|	1.47
139.083	0.00	0.51	5.357	O	|	|	|	|	1.47
139.167	0.00	0.51	5.354	O	|	|	|	|	1.46
139.250	0.00	0.51	5.350	O	|	|	|	|	1.46
139.333	0.00	0.51	5.347	O	|	|	|	|	1.46
139.417	0.00	0.51	5.343	O	|	|	|	|	1.46
139.500	0.00	0.51	5.340	O	|	|	|	|	1.46
139.583	0.00	0.51	5.336	O	|	|	|	|	1.46
139.667	0.00	0.51	5.333	O	|	|	|	|	1.46
139.750	0.00	0.51	5.329	O	|	|	|	|	1.46
139.833	0.00	0.51	5.326	O	|	|	|	|	1.46
139.917	0.00	0.51	5.322	O	|	|	|	|	1.46
140.000	0.00	0.51	5.319	O	|	|	|	|	1.45
140.083	0.00	0.51	5.315	O	|	|	|	|	1.45
140.167	0.00	0.51	5.312	O	|	|	|	|	1.45
140.250	0.00	0.51	5.308	O	|	|	|	|	1.45
140.333	0.00	0.50	5.305	O	|	|	|	|	1.45
140.417	0.00	0.50	5.301	O	|	|	|	|	1.45
140.500	0.00	0.50	5.298	O	|	|	|	|	1.45
140.583	0.00	0.50	5.294	O	|	|	|	|	1.45
140.667	0.00	0.50	5.291	O	|	|	|	|	1.45

140.750	0.00	0.50	5.287	O	|	|	|	|	1.45
140.833	0.00	0.50	5.284	O	|	|	|	|	1.44
140.917	0.00	0.50	5.280	O	|	|	|	|	1.44
141.000	0.00	0.50	5.277	O	|	|	|	|	1.44
141.083	0.00	0.50	5.274	O	|	|	|	|	1.44
141.167	0.00	0.50	5.270	O	|	|	|	|	1.44
141.250	0.00	0.50	5.267	O	|	|	|	|	1.44
141.333	0.00	0.50	5.263	O	|	|	|	|	1.44
141.417	0.00	0.50	5.260	O	|	|	|	|	1.44
141.500	0.00	0.50	5.256	O	|	|	|	|	1.44
141.583	0.00	0.50	5.253	O	|	|	|	|	1.44
141.667	0.00	0.50	5.249	O	|	|	|	|	1.44
141.750	0.00	0.50	5.246	O	|	|	|	|	1.43
141.833	0.00	0.50	5.243	O	|	|	|	|	1.43
141.917	0.00	0.50	5.239	O	|	|	|	|	1.43
142.000	0.00	0.50	5.236	O	|	|	|	|	1.43
142.083	0.00	0.50	5.232	O	|	|	|	|	1.43
142.167	0.00	0.50	5.229	O	|	|	|	|	1.43
142.250	0.00	0.50	5.226	O	|	|	|	|	1.43
142.333	0.00	0.50	5.222	O	|	|	|	|	1.43
142.417	0.00	0.49	5.219	O	|	|	|	|	1.43
142.500	0.00	0.49	5.215	O	|	|	|	|	1.43
142.583	0.00	0.49	5.212	O	|	|	|	|	1.42
142.667	0.00	0.49	5.208	O	|	|	|	|	1.42
142.750	0.00	0.49	5.205	O	|	|	|	|	1.42
142.833	0.00	0.49	5.202	O	|	|	|	|	1.42
142.917	0.00	0.49	5.198	O	|	|	|	|	1.42
143.000	0.00	0.49	5.195	O	|	|	|	|	1.42
143.083	0.00	0.49	5.192	O	|	|	|	|	1.42
143.167	0.00	0.49	5.188	O	|	|	|	|	1.42
143.250	0.00	0.49	5.185	O	|	|	|	|	1.42
143.333	0.00	0.49	5.181	O	|	|	|	|	1.42
143.417	0.00	0.49	5.178	O	|	|	|	|	1.42
143.500	0.00	0.49	5.175	O	|	|	|	|	1.41
143.583	0.00	0.49	5.171	O	|	|	|	|	1.41
143.667	0.00	0.49	5.168	O	|	|	|	|	1.41
143.750	0.00	0.49	5.165	O	|	|	|	|	1.41
143.833	0.00	0.49	5.161	O	|	|	|	|	1.41
143.917	0.00	0.49	5.158	O	|	|	|	|	1.41
144.000	0.00	0.49	5.154	O	|	|	|	|	1.41
144.083	0.00	0.49	5.151	O	|	|	|	|	1.41
144.167	0.00	0.49	5.148	O	|	|	|	|	1.41
144.250	0.00	0.49	5.144	O	|	|	|	|	1.41
144.333	0.00	0.49	5.141	O	|	|	|	|	1.40
144.417	0.00	0.49	5.138	O	|	|	|	|	1.40
144.500	0.00	0.49	5.134	O	|	|	|	|	1.40
144.583	0.00	0.48	5.131	O	|	|	|	|	1.40
144.667	0.00	0.48	5.128	O	|	|	|	|	1.40
144.750	0.00	0.48	5.124	O	|	|	|	|	1.40
144.833	0.00	0.48	5.121	O	|	|	|	|	1.40
144.917	0.00	0.48	5.118	O	|	|	|	|	1.40
145.000	0.00	0.48	5.114	O	|	|	|	|	1.40
145.083	0.00	0.48	5.111	O	|	|	|	|	1.40
145.167	0.00	0.48	5.108	O	|	|	|	|	1.40
145.250	0.00	0.48	5.104	O	|	|	|	|	1.39
145.333	0.00	0.48	5.101	O	|	|	|	|	1.39
145.417	0.00	0.48	5.098	O	|	|	|	|	1.39
145.500	0.00	0.48	5.094	O	|	|	|	|	1.39
145.583	0.00	0.48	5.091	O	|	|	|	|	1.39
145.667	0.00	0.48	5.088	O	|	|	|	|	1.39
145.750	0.00	0.48	5.084	O	|	|	|	|	1.39
145.833	0.00	0.48	5.081	O	|	|	|	|	1.39
145.917	0.00	0.48	5.078	O	|	|	|	|	1.39

146.000	0.00	0.48	5.075	O	|	|	|	|	1.39
146.083	0.00	0.48	5.071	O	|	|	|	|	1.39
146.167	0.00	0.48	5.068	O	|	|	|	|	1.38
146.250	0.00	0.48	5.065	O	|	|	|	|	1.38
146.333	0.00	0.48	5.061	O	|	|	|	|	1.38
146.417	0.00	0.48	5.058	O	|	|	|	|	1.38
146.500	0.00	0.48	5.055	O	|	|	|	|	1.38
146.583	0.00	0.48	5.052	O	|	|	|	|	1.38
146.667	0.00	0.48	5.048	O	|	|	|	|	1.38
146.750	0.00	0.47	5.045	O	|	|	|	|	1.38
146.833	0.00	0.47	5.042	O	|	|	|	|	1.38
146.917	0.00	0.47	5.039	O	|	|	|	|	1.38
147.000	0.00	0.47	5.035	O	|	|	|	|	1.38
147.083	0.00	0.47	5.032	O	|	|	|	|	1.37
147.167	0.00	0.47	5.029	O	|	|	|	|	1.37
147.250	0.00	0.47	5.025	O	|	|	|	|	1.37
147.333	0.00	0.47	5.022	O	|	|	|	|	1.37
147.417	0.00	0.47	5.019	O	|	|	|	|	1.37
147.500	0.00	0.47	5.016	O	|	|	|	|	1.37
147.583	0.00	0.47	5.012	O	|	|	|	|	1.37
147.667	0.00	0.47	5.009	O	|	|	|	|	1.37
147.750	0.00	0.47	5.006	O	|	|	|	|	1.37
147.833	0.00	0.47	5.003	O	|	|	|	|	1.37
147.917	0.00	0.47	5.000	O	|	|	|	|	1.37
148.000	0.00	0.47	4.996	O	|	|	|	|	1.36
148.083	0.00	0.47	4.993	O	|	|	|	|	1.36
148.167	0.00	0.47	4.990	O	|	|	|	|	1.36
148.250	0.00	0.47	4.987	O	|	|	|	|	1.36
148.333	0.00	0.47	4.983	O	|	|	|	|	1.36
148.417	0.00	0.47	4.980	O	|	|	|	|	1.36
148.500	0.00	0.47	4.977	O	|	|	|	|	1.36
148.583	0.00	0.47	4.974	O	|	|	|	|	1.36
148.667	0.00	0.47	4.971	O	|	|	|	|	1.36
148.750	0.00	0.47	4.967	O	|	|	|	|	1.36
148.833	0.00	0.47	4.964	O	|	|	|	|	1.36
148.917	0.00	0.47	4.961	O	|	|	|	|	1.35
149.000	0.00	0.46	4.958	O	|	|	|	|	1.35
149.083	0.00	0.46	4.954	O	|	|	|	|	1.35
149.167	0.00	0.46	4.951	O	|	|	|	|	1.35
149.250	0.00	0.46	4.948	O	|	|	|	|	1.35
149.333	0.00	0.46	4.945	O	|	|	|	|	1.35
149.417	0.00	0.46	4.942	O	|	|	|	|	1.35
149.500	0.00	0.46	4.939	O	|	|	|	|	1.35
149.583	0.00	0.46	4.935	O	|	|	|	|	1.35
149.667	0.00	0.46	4.932	O	|	|	|	|	1.35
149.750	0.00	0.46	4.929	O	|	|	|	|	1.35
149.833	0.00	0.46	4.926	O	|	|	|	|	1.34
149.917	0.00	0.46	4.923	O	|	|	|	|	1.34
150.000	0.00	0.46	4.919	O	|	|	|	|	1.34
150.083	0.00	0.46	4.916	O	|	|	|	|	1.34
150.167	0.00	0.46	4.913	O	|	|	|	|	1.34
150.250	0.00	0.46	4.910	O	|	|	|	|	1.34
150.333	0.00	0.46	4.907	O	|	|	|	|	1.34
150.417	0.00	0.46	4.904	O	|	|	|	|	1.34
150.500	0.00	0.46	4.900	O	|	|	|	|	1.34
150.583	0.00	0.46	4.897	O	|	|	|	|	1.34
150.667	0.00	0.46	4.894	O	|	|	|	|	1.34
150.750	0.00	0.46	4.891	O	|	|	|	|	1.33
150.833	0.00	0.46	4.888	O	|	|	|	|	1.33
150.917	0.00	0.46	4.885	O	|	|	|	|	1.33
151.000	0.00	0.46	4.882	O	|	|	|	|	1.33
151.083	0.00	0.46	4.878	O	|	|	|	|	1.33
151.167	0.00	0.46	4.875	O	|	|	|	|	1.33

151.250	0.00	0.45	4.872	O	|	|	|	|	1.33
151.333	0.00	0.45	4.869	O	|	|	|	|	1.33
151.417	0.00	0.45	4.866	O	|	|	|	|	1.33
151.500	0.00	0.45	4.863	O	|	|	|	|	1.33
151.583	0.00	0.45	4.860	O	|	|	|	|	1.33
151.667	0.00	0.45	4.857	O	|	|	|	|	1.32
151.750	0.00	0.45	4.853	O	|	|	|	|	1.32
151.833	0.00	0.45	4.850	O	|	|	|	|	1.32
151.917	0.00	0.45	4.847	O	|	|	|	|	1.32
152.000	0.00	0.45	4.844	O	|	|	|	|	1.32
152.083	0.00	0.45	4.841	O	|	|	|	|	1.32
152.167	0.00	0.45	4.838	O	|	|	|	|	1.32
152.250	0.00	0.45	4.835	O	|	|	|	|	1.32
152.333	0.00	0.45	4.832	O	|	|	|	|	1.32
152.417	0.00	0.45	4.829	O	|	|	|	|	1.32
152.500	0.00	0.45	4.825	O	|	|	|	|	1.32
152.583	0.00	0.45	4.822	O	|	|	|	|	1.32
152.667	0.00	0.45	4.819	O	|	|	|	|	1.31
152.750	0.00	0.45	4.816	O	|	|	|	|	1.31
152.833	0.00	0.45	4.813	O	|	|	|	|	1.31
152.917	0.00	0.45	4.810	O	|	|	|	|	1.31
153.000	0.00	0.45	4.807	O	|	|	|	|	1.31
153.083	0.00	0.45	4.804	O	|	|	|	|	1.31
153.167	0.00	0.45	4.801	O	|	|	|	|	1.31
153.250	0.00	0.45	4.798	O	|	|	|	|	1.31
153.333	0.00	0.45	4.795	O	|	|	|	|	1.31
153.417	0.00	0.45	4.792	O	|	|	|	|	1.31
153.500	0.00	0.45	4.788	O	|	|	|	|	1.31
153.583	0.00	0.45	4.785	O	|	|	|	|	1.30
153.667	0.00	0.44	4.782	O	|	|	|	|	1.30
153.750	0.00	0.44	4.779	O	|	|	|	|	1.30
153.833	0.00	0.44	4.776	O	|	|	|	|	1.30
153.917	0.00	0.44	4.773	O	|	|	|	|	1.30
154.000	0.00	0.44	4.770	O	|	|	|	|	1.30
154.083	0.00	0.44	4.767	O	|	|	|	|	1.30
154.167	0.00	0.44	4.764	O	|	|	|	|	1.30
154.250	0.00	0.44	4.761	O	|	|	|	|	1.30
154.333	0.00	0.44	4.758	O	|	|	|	|	1.30
154.417	0.00	0.44	4.755	O	|	|	|	|	1.30
154.500	0.00	0.44	4.752	O	|	|	|	|	1.30
154.583	0.00	0.44	4.749	O	|	|	|	|	1.29
154.667	0.00	0.44	4.746	O	|	|	|	|	1.29
154.750	0.00	0.44	4.743	O	|	|	|	|	1.29
154.833	0.00	0.44	4.740	O	|	|	|	|	1.29
154.917	0.00	0.44	4.737	O	|	|	|	|	1.29
155.000	0.00	0.44	4.734	O	|	|	|	|	1.29
155.083	0.00	0.44	4.731	O	|	|	|	|	1.29
155.167	0.00	0.44	4.728	O	|	|	|	|	1.29
155.250	0.00	0.44	4.725	O	|	|	|	|	1.29
155.333	0.00	0.44	4.722	O	|	|	|	|	1.29
155.417	0.00	0.44	4.719	O	|	|	|	|	1.29
155.500	0.00	0.44	4.716	O	|	|	|	|	1.29
155.583	0.00	0.44	4.713	O	|	|	|	|	1.28
155.667	0.00	0.44	4.710	O	|	|	|	|	1.28
155.750	0.00	0.44	4.707	O	|	|	|	|	1.28
155.833	0.00	0.44	4.704	O	|	|	|	|	1.28
155.917	0.00	0.44	4.701	O	|	|	|	|	1.28
156.000	0.00	0.43	4.698	O	|	|	|	|	1.28
156.083	0.00	0.43	4.695	O	|	|	|	|	1.28
156.167	0.00	0.43	4.692	O	|	|	|	|	1.28
156.250	0.00	0.43	4.689	O	|	|	|	|	1.28
156.333	0.00	0.43	4.686	O	|	|	|	|	1.28
156.417	0.00	0.43	4.683	O	|	|	|	|	1.28

156.500	0.00	0.43	4.680	O	|	|	|	|	1.28
156.583	0.00	0.43	4.677	O	|	|	|	|	1.27
156.667	0.00	0.43	4.674	O	|	|	|	|	1.27
156.750	0.00	0.43	4.671	O	|	|	|	|	1.27
156.833	0.00	0.43	4.668	O	|	|	|	|	1.27
156.917	0.00	0.43	4.665	O	|	|	|	|	1.27
157.000	0.00	0.43	4.662	O	|	|	|	|	1.27
157.083	0.00	0.43	4.659	O	|	|	|	|	1.27
157.167	0.00	0.43	4.656	O	|	|	|	|	1.27
157.250	0.00	0.43	4.653	O	|	|	|	|	1.27
157.333	0.00	0.43	4.650	O	|	|	|	|	1.27
157.417	0.00	0.43	4.647	O	|	|	|	|	1.27
157.500	0.00	0.43	4.644	O	|	|	|	|	1.27
157.583	0.00	0.43	4.641	O	|	|	|	|	1.26
157.667	0.00	0.43	4.638	O	|	|	|	|	1.26
157.750	0.00	0.43	4.635	O	|	|	|	|	1.26
157.833	0.00	0.43	4.632	O	|	|	|	|	1.26
157.917	0.00	0.43	4.629	O	|	|	|	|	1.26
158.000	0.00	0.43	4.626	O	|	|	|	|	1.26
158.083	0.00	0.43	4.623	O	|	|	|	|	1.26
158.167	0.00	0.43	4.620	O	|	|	|	|	1.26
158.250	0.00	0.43	4.618	O	|	|	|	|	1.26
158.333	0.00	0.43	4.615	O	|	|	|	|	1.26
158.417	0.00	0.42	4.612	O	|	|	|	|	1.26
158.500	0.00	0.42	4.609	O	|	|	|	|	1.26
158.583	0.00	0.42	4.606	O	|	|	|	|	1.25
158.667	0.00	0.42	4.603	O	|	|	|	|	1.25
158.750	0.00	0.42	4.600	O	|	|	|	|	1.25
158.833	0.00	0.42	4.597	O	|	|	|	|	1.25
158.917	0.00	0.42	4.594	O	|	|	|	|	1.25
159.000	0.00	0.42	4.591	O	|	|	|	|	1.25
159.083	0.00	0.42	4.588	O	|	|	|	|	1.25
159.167	0.00	0.42	4.585	O	|	|	|	|	1.25
159.250	0.00	0.42	4.583	O	|	|	|	|	1.25
159.333	0.00	0.42	4.580	O	|	|	|	|	1.25
159.417	0.00	0.42	4.577	O	|	|	|	|	1.25
159.500	0.00	0.42	4.574	O	|	|	|	|	1.25
159.583	0.00	0.42	4.571	O	|	|	|	|	1.24
159.667	0.00	0.42	4.568	O	|	|	|	|	1.24
159.750	0.00	0.42	4.565	O	|	|	|	|	1.24
159.833	0.00	0.42	4.562	O	|	|	|	|	1.24
159.917	0.00	0.42	4.559	O	|	|	|	|	1.24
160.000	0.00	0.42	4.556	O	|	|	|	|	1.24
160.083	0.00	0.42	4.554	O	|	|	|	|	1.24
160.167	0.00	0.42	4.551	O	|	|	|	|	1.24
160.250	0.00	0.42	4.548	O	|	|	|	|	1.24
160.333	0.00	0.42	4.545	O	|	|	|	|	1.24
160.417	0.00	0.42	4.542	O	|	|	|	|	1.24
160.500	0.00	0.42	4.539	O	|	|	|	|	1.24
160.583	0.00	0.42	4.536	O	|	|	|	|	1.23
160.667	0.00	0.42	4.533	O	|	|	|	|	1.23
160.750	0.00	0.42	4.531	O	|	|	|	|	1.23
160.833	0.00	0.42	4.528	O	|	|	|	|	1.23
160.917	0.00	0.42	4.525	O	|	|	|	|	1.23
161.000	0.00	0.41	4.522	O	|	|	|	|	1.23
161.083	0.00	0.41	4.519	O	|	|	|	|	1.23
161.167	0.00	0.41	4.516	O	|	|	|	|	1.23
161.250	0.00	0.41	4.513	O	|	|	|	|	1.23
161.333	0.00	0.41	4.511	O	|	|	|	|	1.23
161.417	0.00	0.41	4.508	O	|	|	|	|	1.23
161.500	0.00	0.41	4.505	O	|	|	|	|	1.23
161.583	0.00	0.41	4.502	O	|	|	|	|	1.23
161.667	0.00	0.41	4.499	O	|	|	|	|	1.22

161.750	0.00	0.41	4.496	O	|	|	|	|	1.22
161.833	0.00	0.41	4.494	O	|	|	|	|	1.22
161.917	0.00	0.41	4.491	O	|	|	|	|	1.22
162.000	0.00	0.41	4.488	O	|	|	|	|	1.22
162.083	0.00	0.41	4.485	O	|	|	|	|	1.22
162.167	0.00	0.41	4.482	O	|	|	|	|	1.22
162.250	0.00	0.41	4.479	O	|	|	|	|	1.22
162.333	0.00	0.41	4.477	O	|	|	|	|	1.22
162.417	0.00	0.41	4.474	O	|	|	|	|	1.22
162.500	0.00	0.41	4.471	O	|	|	|	|	1.22
162.583	0.00	0.41	4.468	O	|	|	|	|	1.22
162.667	0.00	0.41	4.465	O	|	|	|	|	1.21
162.750	0.00	0.41	4.463	O	|	|	|	|	1.21
162.833	0.00	0.41	4.460	O	|	|	|	|	1.21
162.917	0.00	0.41	4.457	O	|	|	|	|	1.21
163.000	0.00	0.41	4.454	O	|	|	|	|	1.21
163.083	0.00	0.41	4.451	O	|	|	|	|	1.21
163.167	0.00	0.41	4.449	O	|	|	|	|	1.21
163.250	0.00	0.41	4.446	O	|	|	|	|	1.21
163.333	0.00	0.41	4.443	O	|	|	|	|	1.21
163.417	0.00	0.41	4.440	O	|	|	|	|	1.21
163.500	0.00	0.40	4.437	O	|	|	|	|	1.21
163.583	0.00	0.40	4.435	O	|	|	|	|	1.21
163.667	0.00	0.40	4.432	O	|	|	|	|	1.21
163.750	0.00	0.40	4.429	O	|	|	|	|	1.20
163.833	0.00	0.40	4.426	O	|	|	|	|	1.20
163.917	0.00	0.40	4.423	O	|	|	|	|	1.20
164.000	0.00	0.40	4.421	O	|	|	|	|	1.20
164.083	0.00	0.40	4.418	O	|	|	|	|	1.20
164.167	0.00	0.40	4.415	O	|	|	|	|	1.20
164.250	0.00	0.40	4.412	O	|	|	|	|	1.20
164.333	0.00	0.40	4.410	O	|	|	|	|	1.20
164.417	0.00	0.40	4.407	O	|	|	|	|	1.20
164.500	0.00	0.40	4.404	O	|	|	|	|	1.20
164.583	0.00	0.40	4.401	O	|	|	|	|	1.20
164.667	0.00	0.40	4.399	O	|	|	|	|	1.20
164.750	0.00	0.40	4.396	O	|	|	|	|	1.20
164.833	0.00	0.40	4.393	O	|	|	|	|	1.19
164.917	0.00	0.40	4.390	O	|	|	|	|	1.19
165.000	0.00	0.40	4.388	O	|	|	|	|	1.19
165.083	0.00	0.40	4.385	O	|	|	|	|	1.19
165.167	0.00	0.40	4.382	O	|	|	|	|	1.19
165.250	0.00	0.40	4.379	O	|	|	|	|	1.19
165.333	0.00	0.40	4.377	O	|	|	|	|	1.19
165.417	0.00	0.40	4.374	O	|	|	|	|	1.19
165.500	0.00	0.40	4.371	O	|	|	|	|	1.19
165.583	0.00	0.40	4.368	O	|	|	|	|	1.19
165.667	0.00	0.40	4.366	O	|	|	|	|	1.19
165.750	0.00	0.40	4.363	O	|	|	|	|	1.19
165.833	0.00	0.40	4.360	O	|	|	|	|	1.19
165.917	0.00	0.40	4.357	O	|	|	|	|	1.18
166.000	0.00	0.40	4.355	O	|	|	|	|	1.18
166.083	0.00	0.40	4.352	O	|	|	|	|	1.18
166.167	0.00	0.39	4.349	O	|	|	|	|	1.18
166.250	0.00	0.39	4.347	O	|	|	|	|	1.18
166.333	0.00	0.39	4.344	O	|	|	|	|	1.18
166.417	0.00	0.39	4.341	O	|	|	|	|	1.18
166.500	0.00	0.39	4.338	O	|	|	|	|	1.18
166.583	0.00	0.39	4.336	O	|	|	|	|	1.18
166.667	0.00	0.39	4.333	O	|	|	|	|	1.18
166.750	0.00	0.39	4.330	O	|	|	|	|	1.18
166.833	0.00	0.39	4.328	O	|	|	|	|	1.18
166.917	0.00	0.39	4.325	O	|	|	|	|	1.18

167.000	0.00	0.39	4.322	O	|	|	|	|	1.17
167.083	0.00	0.39	4.319	O	|	|	|	|	1.17
167.167	0.00	0.39	4.317	O	|	|	|	|	1.17
167.250	0.00	0.39	4.314	O	|	|	|	|	1.17
167.333	0.00	0.39	4.311	O	|	|	|	|	1.17
167.417	0.00	0.39	4.309	O	|	|	|	|	1.17
167.500	0.00	0.39	4.306	O	|	|	|	|	1.17
167.583	0.00	0.39	4.303	O	|	|	|	|	1.17
167.667	0.00	0.39	4.301	O	|	|	|	|	1.17
167.750	0.00	0.39	4.298	O	|	|	|	|	1.17
167.833	0.00	0.39	4.295	O	|	|	|	|	1.17
167.917	0.00	0.39	4.293	O	|	|	|	|	1.17
168.000	0.00	0.39	4.290	O	|	|	|	|	1.17
168.083	0.00	0.39	4.287	O	|	|	|	|	1.16
168.167	0.00	0.39	4.285	O	|	|	|	|	1.16
168.250	0.00	0.39	4.282	O	|	|	|	|	1.16
168.333	0.00	0.39	4.279	O	|	|	|	|	1.16
168.417	0.00	0.39	4.277	O	|	|	|	|	1.16
168.500	0.00	0.39	4.274	O	|	|	|	|	1.16
168.583	0.00	0.39	4.271	O	|	|	|	|	1.16
168.667	0.00	0.39	4.269	O	|	|	|	|	1.16
168.750	0.00	0.39	4.266	O	|	|	|	|	1.16
168.833	0.00	0.38	4.263	O	|	|	|	|	1.16
168.917	0.00	0.38	4.261	O	|	|	|	|	1.16
169.000	0.00	0.38	4.258	O	|	|	|	|	1.16
169.083	0.00	0.38	4.255	O	|	|	|	|	1.16
169.167	0.00	0.38	4.253	O	|	|	|	|	1.16
169.250	0.00	0.38	4.250	O	|	|	|	|	1.15
169.333	0.00	0.38	4.247	O	|	|	|	|	1.15
169.417	0.00	0.38	4.245	O	|	|	|	|	1.15
169.500	0.00	0.38	4.242	O	|	|	|	|	1.15
169.583	0.00	0.38	4.240	O	|	|	|	|	1.15
169.667	0.00	0.38	4.237	O	|	|	|	|	1.15
169.750	0.00	0.38	4.234	O	|	|	|	|	1.15
169.833	0.00	0.38	4.232	O	|	|	|	|	1.15
169.917	0.00	0.38	4.229	O	|	|	|	|	1.15
170.000	0.00	0.38	4.226	O	|	|	|	|	1.15
170.083	0.00	0.38	4.224	O	|	|	|	|	1.15
170.167	0.00	0.38	4.221	O	|	|	|	|	1.15
170.250	0.00	0.38	4.219	O	|	|	|	|	1.15
170.333	0.00	0.38	4.216	O	|	|	|	|	1.14
170.417	0.00	0.38	4.213	O	|	|	|	|	1.14
170.500	0.00	0.38	4.211	O	|	|	|	|	1.14
170.583	0.00	0.38	4.208	O	|	|	|	|	1.14
170.667	0.00	0.38	4.206	O	|	|	|	|	1.14
170.750	0.00	0.38	4.203	O	|	|	|	|	1.14
170.833	0.00	0.38	4.200	O	|	|	|	|	1.14
170.917	0.00	0.38	4.198	O	|	|	|	|	1.14
171.000	0.00	0.38	4.195	O	|	|	|	|	1.14
171.083	0.00	0.38	4.193	O	|	|	|	|	1.14
171.167	0.00	0.38	4.190	O	|	|	|	|	1.14
171.250	0.00	0.38	4.187	O	|	|	|	|	1.14
171.333	0.00	0.38	4.185	O	|	|	|	|	1.14
171.417	0.00	0.38	4.182	O	|	|	|	|	1.14
171.500	0.00	0.38	4.180	O	|	|	|	|	1.13
171.583	0.00	0.37	4.177	O	|	|	|	|	1.13
171.667	0.00	0.37	4.174	O	|	|	|	|	1.13
171.750	0.00	0.37	4.172	O	|	|	|	|	1.13
171.833	0.00	0.37	4.169	O	|	|	|	|	1.13
171.917	0.00	0.37	4.167	O	|	|	|	|	1.13
172.000	0.00	0.37	4.164	O	|	|	|	|	1.13
172.083	0.00	0.37	4.162	O	|	|	|	|	1.13
172.167	0.00	0.37	4.159	O	|	|	|	|	1.13

172.250	0.00	0.37	4.156	O	|	|	|	|	1.13
172.333	0.00	0.37	4.154	O	|	|	|	|	1.13
172.417	0.00	0.37	4.151	O	|	|	|	|	1.13
172.500	0.00	0.37	4.149	O	|	|	|	|	1.13
172.583	0.00	0.37	4.146	O	|	|	|	|	1.13
172.667	0.00	0.37	4.144	O	|	|	|	|	1.12
172.750	0.00	0.37	4.141	O	|	|	|	|	1.12
172.833	0.00	0.37	4.139	O	|	|	|	|	1.12
172.917	0.00	0.37	4.136	O	|	|	|	|	1.12
173.000	0.00	0.37	4.133	O	|	|	|	|	1.12
173.083	0.00	0.37	4.131	O	|	|	|	|	1.12
173.167	0.00	0.37	4.128	O	|	|	|	|	1.12
173.250	0.00	0.37	4.126	O	|	|	|	|	1.12
173.333	0.00	0.37	4.123	O	|	|	|	|	1.12
173.417	0.00	0.37	4.121	O	|	|	|	|	1.12
173.500	0.00	0.37	4.118	O	|	|	|	|	1.12
173.583	0.00	0.37	4.116	O	|	|	|	|	1.12
173.667	0.00	0.37	4.113	O	|	|	|	|	1.12
173.750	0.00	0.37	4.111	O	|	|	|	|	1.12
173.833	0.00	0.37	4.108	O	|	|	|	|	1.11
173.917	0.00	0.37	4.106	O	|	|	|	|	1.11
174.000	0.00	0.37	4.103	O	|	|	|	|	1.11
174.083	0.00	0.37	4.100	O	|	|	|	|	1.11
174.167	0.00	0.37	4.098	O	|	|	|	|	1.11
174.250	0.00	0.37	4.095	O	|	|	|	|	1.11
174.333	0.00	0.37	4.093	O	|	|	|	|	1.11
174.417	0.00	0.36	4.090	O	|	|	|	|	1.11
174.500	0.00	0.36	4.088	O	|	|	|	|	1.11
174.583	0.00	0.36	4.085	O	|	|	|	|	1.11
174.667	0.00	0.36	4.083	O	|	|	|	|	1.11
174.750	0.00	0.36	4.080	O	|	|	|	|	1.11
174.833	0.00	0.36	4.078	O	|	|	|	|	1.11
174.917	0.00	0.36	4.075	O	|	|	|	|	1.11
175.000	0.00	0.36	4.073	O	|	|	|	|	1.10
175.083	0.00	0.36	4.070	O	|	|	|	|	1.10
175.167	0.00	0.36	4.068	O	|	|	|	|	1.10
175.250	0.00	0.36	4.065	O	|	|	|	|	1.10
175.333	0.00	0.36	4.063	O	|	|	|	|	1.10
175.417	0.00	0.36	4.060	O	|	|	|	|	1.10
175.500	0.00	0.36	4.058	O	|	|	|	|	1.10
175.583	0.00	0.36	4.055	O	|	|	|	|	1.10
175.667	0.00	0.36	4.053	O	|	|	|	|	1.10
175.750	0.00	0.36	4.050	O	|	|	|	|	1.10
175.833	0.00	0.36	4.048	O	|	|	|	|	1.10
175.917	0.00	0.36	4.045	O	|	|	|	|	1.10
176.000	0.00	0.36	4.043	O	|	|	|	|	1.10
176.083	0.00	0.36	4.041	O	|	|	|	|	1.10
176.167	0.00	0.36	4.038	O	|	|	|	|	1.09
176.250	0.00	0.36	4.036	O	|	|	|	|	1.09
176.333	0.00	0.36	4.033	O	|	|	|	|	1.09
176.417	0.00	0.36	4.031	O	|	|	|	|	1.09
176.500	0.00	0.36	4.028	O	|	|	|	|	1.09
176.583	0.00	0.36	4.026	O	|	|	|	|	1.09
176.667	0.00	0.36	4.023	O	|	|	|	|	1.09
176.750	0.00	0.36	4.021	O	|	|	|	|	1.09
176.833	0.00	0.36	4.018	O	|	|	|	|	1.09
176.917	0.00	0.36	4.016	O	|	|	|	|	1.09
177.000	0.00	0.36	4.013	O	|	|	|	|	1.09
177.083	0.00	0.36	4.011	O	|	|	|	|	1.09
177.167	0.00	0.36	4.009	O	|	|	|	|	1.09
177.250	0.00	0.36	4.006	O	|	|	|	|	1.09
177.333	0.00	0.35	4.004	O	|	|	|	|	1.09
177.417	0.00	0.35	4.001	O	|	|	|	|	1.08

177.500	0.00	0.35	3.999	O	|	|	|	|	1.08
177.583	0.00	0.35	3.996	O	|	|	|	|	1.08
177.667	0.00	0.35	3.994	O	|	|	|	|	1.08
177.750	0.00	0.35	3.991	O	|	|	|	|	1.08
177.833	0.00	0.35	3.989	O	|	|	|	|	1.08
177.917	0.00	0.35	3.987	O	|	|	|	|	1.08
178.000	0.00	0.35	3.984	O	|	|	|	|	1.08
178.083	0.00	0.35	3.982	O	|	|	|	|	1.08
178.167	0.00	0.35	3.979	O	|	|	|	|	1.08
178.250	0.00	0.35	3.977	O	|	|	|	|	1.08
178.333	0.00	0.35	3.974	O	|	|	|	|	1.08
178.417	0.00	0.35	3.972	O	|	|	|	|	1.08
178.500	0.00	0.35	3.970	O	|	|	|	|	1.08
178.583	0.00	0.35	3.967	O	|	|	|	|	1.08
178.667	0.00	0.35	3.965	O	|	|	|	|	1.07
178.750	0.00	0.35	3.962	O	|	|	|	|	1.07
178.833	0.00	0.35	3.960	O	|	|	|	|	1.07
178.917	0.00	0.35	3.958	O	|	|	|	|	1.07
179.000	0.00	0.35	3.955	O	|	|	|	|	1.07
179.083	0.00	0.35	3.953	O	|	|	|	|	1.07
179.167	0.00	0.35	3.950	O	|	|	|	|	1.07
179.250	0.00	0.35	3.948	O	|	|	|	|	1.07
179.333	0.00	0.35	3.946	O	|	|	|	|	1.07
179.417	0.00	0.35	3.943	O	|	|	|	|	1.07
179.500	0.00	0.35	3.941	O	|	|	|	|	1.07
179.583	0.00	0.35	3.938	O	|	|	|	|	1.07
179.667	0.00	0.35	3.936	O	|	|	|	|	1.07
179.750	0.00	0.35	3.934	O	|	|	|	|	1.07
179.833	0.00	0.35	3.931	O	|	|	|	|	1.06
179.917	0.00	0.35	3.929	O	|	|	|	|	1.06
180.000	0.00	0.35	3.926	O	|	|	|	|	1.06
180.083	0.00	0.35	3.924	O	|	|	|	|	1.06
180.167	0.00	0.35	3.922	O	|	|	|	|	1.06
180.250	0.00	0.35	3.919	O	|	|	|	|	1.06
180.333	0.00	0.34	3.917	O	|	|	|	|	1.06
180.417	0.00	0.34	3.914	O	|	|	|	|	1.06
180.500	0.00	0.34	3.912	O	|	|	|	|	1.06
180.583	0.00	0.34	3.910	O	|	|	|	|	1.06
180.667	0.00	0.34	3.907	O	|	|	|	|	1.06
180.750	0.00	0.34	3.905	O	|	|	|	|	1.06
180.833	0.00	0.34	3.903	O	|	|	|	|	1.06
180.917	0.00	0.34	3.900	O	|	|	|	|	1.06
181.000	0.00	0.34	3.898	O	|	|	|	|	1.06
181.083	0.00	0.34	3.896	O	|	|	|	|	1.05
181.167	0.00	0.34	3.893	O	|	|	|	|	1.05
181.250	0.00	0.34	3.891	O	|	|	|	|	1.05
181.333	0.00	0.34	3.888	O	|	|	|	|	1.05
181.417	0.00	0.34	3.886	O	|	|	|	|	1.05
181.500	0.00	0.34	3.884	O	|	|	|	|	1.05
181.583	0.00	0.34	3.881	O	|	|	|	|	1.05
181.667	0.00	0.34	3.879	O	|	|	|	|	1.05
181.750	0.00	0.34	3.877	O	|	|	|	|	1.05
181.833	0.00	0.34	3.874	O	|	|	|	|	1.05
181.917	0.00	0.34	3.872	O	|	|	|	|	1.05
182.000	0.00	0.34	3.870	O	|	|	|	|	1.05
182.083	0.00	0.34	3.867	O	|	|	|	|	1.05
182.167	0.00	0.34	3.865	O	|	|	|	|	1.05
182.250	0.00	0.34	3.863	O	|	|	|	|	1.05
182.333	0.00	0.34	3.860	O	|	|	|	|	1.05
182.417	0.00	0.34	3.858	O	|	|	|	|	1.04
182.500	0.00	0.34	3.856	O	|	|	|	|	1.04
182.583	0.00	0.34	3.853	O	|	|	|	|	1.04
182.667	0.00	0.34	3.851	O	|	|	|	|	1.04

182.750	0.00	0.34	3.849	O	|	|	|	|	1.04
182.833	0.00	0.34	3.846	O	|	|	|	|	1.04
182.917	0.00	0.34	3.844	O	|	|	|	|	1.04
183.000	0.00	0.34	3.842	O	|	|	|	|	1.04
183.083	0.00	0.34	3.839	O	|	|	|	|	1.04
183.167	0.00	0.34	3.837	O	|	|	|	|	1.04
183.250	0.00	0.34	3.835	O	|	|	|	|	1.04
183.333	0.00	0.34	3.833	O	|	|	|	|	1.04
183.417	0.00	0.33	3.830	O	|	|	|	|	1.04
183.500	0.00	0.33	3.828	O	|	|	|	|	1.04
183.583	0.00	0.33	3.826	O	|	|	|	|	1.04
183.667	0.00	0.33	3.823	O	|	|	|	|	1.03
183.750	0.00	0.33	3.821	O	|	|	|	|	1.03
183.833	0.00	0.33	3.819	O	|	|	|	|	1.03
183.917	0.00	0.33	3.816	O	|	|	|	|	1.03
184.000	0.00	0.33	3.814	O	|	|	|	|	1.03
184.083	0.00	0.33	3.812	O	|	|	|	|	1.03
184.167	0.00	0.33	3.810	O	|	|	|	|	1.03
184.250	0.00	0.33	3.807	O	|	|	|	|	1.03
184.333	0.00	0.33	3.805	O	|	|	|	|	1.03
184.417	0.00	0.33	3.803	O	|	|	|	|	1.03
184.500	0.00	0.33	3.800	O	|	|	|	|	1.03
184.583	0.00	0.33	3.798	O	|	|	|	|	1.03
184.667	0.00	0.33	3.796	O	|	|	|	|	1.03
184.750	0.00	0.33	3.794	O	|	|	|	|	1.03
184.833	0.00	0.33	3.791	O	|	|	|	|	1.03
184.917	0.00	0.33	3.789	O	|	|	|	|	1.03
185.000	0.00	0.33	3.787	O	|	|	|	|	1.02
185.083	0.00	0.33	3.784	O	|	|	|	|	1.02
185.167	0.00	0.33	3.782	O	|	|	|	|	1.02
185.250	0.00	0.33	3.780	O	|	|	|	|	1.02
185.333	0.00	0.33	3.778	O	|	|	|	|	1.02
185.417	0.00	0.33	3.775	O	|	|	|	|	1.02
185.500	0.00	0.33	3.773	O	|	|	|	|	1.02
185.583	0.00	0.33	3.771	O	|	|	|	|	1.02
185.667	0.00	0.33	3.769	O	|	|	|	|	1.02
185.750	0.00	0.33	3.766	O	|	|	|	|	1.02
185.833	0.00	0.33	3.764	O	|	|	|	|	1.02
185.917	0.00	0.33	3.762	O	|	|	|	|	1.02
186.000	0.00	0.33	3.760	O	|	|	|	|	1.02
186.083	0.00	0.33	3.757	O	|	|	|	|	1.02
186.167	0.00	0.33	3.755	O	|	|	|	|	1.02
186.250	0.00	0.33	3.753	O	|	|	|	|	1.01
186.333	0.00	0.33	3.751	O	|	|	|	|	1.01
186.417	0.00	0.33	3.748	O	|	|	|	|	1.01
186.500	0.00	0.33	3.746	O	|	|	|	|	1.01
186.583	0.00	0.33	3.744	O	|	|	|	|	1.01
186.667	0.00	0.32	3.742	O	|	|	|	|	1.01
186.750	0.00	0.32	3.739	O	|	|	|	|	1.01
186.833	0.00	0.32	3.737	O	|	|	|	|	1.01
186.917	0.00	0.32	3.735	O	|	|	|	|	1.01
187.000	0.00	0.32	3.733	O	|	|	|	|	1.01
187.083	0.00	0.32	3.730	O	|	|	|	|	1.01
187.167	0.00	0.32	3.728	O	|	|	|	|	1.01
187.250	0.00	0.32	3.726	O	|	|	|	|	1.01
187.333	0.00	0.32	3.724	O	|	|	|	|	1.01
187.417	0.00	0.32	3.722	O	|	|	|	|	1.01
187.500	0.00	0.32	3.719	O	|	|	|	|	1.01
187.583	0.00	0.32	3.717	O	|	|	|	|	1.00
187.667	0.00	0.32	3.715	O	|	|	|	|	1.00
187.750	0.00	0.32	3.713	O	|	|	|	|	1.00
187.833	0.00	0.32	3.710	O	|	|	|	|	1.00
187.917	0.00	0.32	3.708	O	|	|	|	|	1.00

188.000	0.00	0.32	3.706	O	|	|	|	| 1.00
188.083	0.00	0.32	3.704	O	|	|	|	| 1.00
188.167	0.00	0.32	3.702	O	|	|	|	| 1.00
188.250	0.00	0.32	3.699	O	|	|	|	| 1.00
188.333	0.00	0.32	3.697	O	|	|	|	| 1.00
188.417	0.00	0.32	3.695	O	|	|	|	| 1.00
188.500	0.00	0.32	3.693	O	|	|	|	| 1.00
188.583	0.00	0.32	3.691	O	|	|	|	| 1.00
188.667	0.00	0.32	3.688	O	|	|	|	| 1.00
188.750	0.00	0.32	3.686	O	|	|	|	| 1.00
188.833	0.00	0.32	3.684	O	|	|	|	| 1.00
188.917	0.00	0.32	3.682	O	|	|	|	| 1.00
189.000	0.00	0.32	3.680	O	|	|	|	| 0.99
189.083	0.00	0.32	3.677	O	|	|	|	| 0.99
189.167	0.00	0.32	3.675	O	|	|	|	| 0.99
189.250	0.00	0.32	3.673	O	|	|	|	| 0.99
189.333	0.00	0.32	3.671	O	|	|	|	| 0.99
189.417	0.00	0.32	3.669	O	|	|	|	| 0.99
189.500	0.00	0.32	3.667	O	|	|	|	| 0.99
189.583	0.00	0.32	3.664	O	|	|	|	| 0.99
189.667	0.00	0.32	3.662	O	|	|	|	| 0.99
189.750	0.00	0.32	3.660	O	|	|	|	| 0.99
189.833	0.00	0.32	3.658	O	|	|	|	| 0.99
189.917	0.00	0.32	3.656	O	|	|	|	| 0.99
190.000	0.00	0.32	3.653	O	|	|	|	| 0.99
190.083	0.00	0.32	3.651	O	|	|	|	| 0.99
190.167	0.00	0.32	3.649	O	|	|	|	| 0.99
190.250	0.00	0.32	3.647	O	|	|	|	| 0.99
190.333	0.00	0.32	3.645	O	|	|	|	| 0.99
190.417	0.00	0.32	3.643	O	|	|	|	| 0.98
190.500	0.00	0.31	3.640	O	|	|	|	| 0.98
190.583	0.00	0.31	3.638	O	|	|	|	| 0.98
190.667	0.00	0.31	3.636	O	|	|	|	| 0.98
190.750	0.00	0.31	3.634	O	|	|	|	| 0.98
190.833	0.00	0.31	3.632	O	|	|	|	| 0.98
190.917	0.00	0.31	3.630	O	|	|	|	| 0.98
191.000	0.00	0.31	3.627	O	|	|	|	| 0.98
191.083	0.00	0.31	3.625	O	|	|	|	| 0.98
191.167	0.00	0.31	3.623	O	|	|	|	| 0.98
191.250	0.00	0.31	3.621	O	|	|	|	| 0.98
191.333	0.00	0.31	3.619	O	|	|	|	| 0.98
191.417	0.00	0.31	3.617	O	|	|	|	| 0.98
191.500	0.00	0.31	3.615	O	|	|	|	| 0.98
191.583	0.00	0.31	3.612	O	|	|	|	| 0.98
191.667	0.00	0.31	3.610	O	|	|	|	| 0.98
191.750	0.00	0.31	3.608	O	|	|	|	| 0.98
191.833	0.00	0.31	3.606	O	|	|	|	| 0.97
191.917	0.00	0.31	3.604	O	|	|	|	| 0.97
192.000	0.00	0.31	3.602	O	|	|	|	| 0.97
192.083	0.00	0.31	3.599	O	|	|	|	| 0.97
192.167	0.00	0.31	3.597	O	|	|	|	| 0.97
192.250	0.00	0.31	3.595	O	|	|	|	| 0.97
192.333	0.00	0.31	3.593	O	|	|	|	| 0.97
192.417	0.00	0.31	3.591	O	|	|	|	| 0.97
192.500	0.00	0.31	3.589	O	|	|	|	| 0.97
192.583	0.00	0.31	3.587	O	|	|	|	| 0.97
192.667	0.00	0.31	3.584	O	|	|	|	| 0.97
192.750	0.00	0.31	3.582	O	|	|	|	| 0.97
192.833	0.00	0.31	3.580	O	|	|	|	| 0.97
192.917	0.00	0.31	3.578	O	|	|	|	| 0.97
193.000	0.00	0.31	3.576	O	|	|	|	| 0.97
193.083	0.00	0.31	3.574	O	|	|	|	| 0.97
193.167	0.00	0.31	3.572	O	|	|	|	| 0.97

193.250	0.00	0.31	3.570	O	|	|	|	|	0.96
193.333	0.00	0.31	3.567	O	|	|	|	|	0.96
193.417	0.00	0.31	3.565	O	|	|	|	|	0.96
193.500	0.00	0.31	3.563	O	|	|	|	|	0.96
193.583	0.00	0.31	3.561	O	|	|	|	|	0.96
193.667	0.00	0.31	3.559	O	|	|	|	|	0.96
193.750	0.00	0.31	3.557	O	|	|	|	|	0.96
193.833	0.00	0.31	3.555	O	|	|	|	|	0.96
193.917	0.00	0.31	3.553	O	|	|	|	|	0.96
194.000	0.00	0.31	3.550	O	|	|	|	|	0.96
194.083	0.00	0.31	3.548	O	|	|	|	|	0.96
194.167	0.00	0.31	3.546	O	|	|	|	|	0.96
194.250	0.00	0.31	3.544	O	|	|	|	|	0.96
194.333	0.00	0.31	3.542	O	|	|	|	|	0.96
194.417	0.00	0.31	3.540	O	|	|	|	|	0.96
194.500	0.00	0.31	3.538	O	|	|	|	|	0.96
194.583	0.00	0.31	3.536	O	|	|	|	|	0.96
194.667	0.00	0.31	3.534	O	|	|	|	|	0.96
194.750	0.00	0.31	3.532	O	|	|	|	|	0.95
194.833	0.00	0.31	3.529	O	|	|	|	|	0.95
194.917	0.00	0.31	3.527	O	|	|	|	|	0.95
195.000	0.00	0.30	3.525	O	|	|	|	|	0.95
195.083	0.00	0.30	3.523	O	|	|	|	|	0.95
195.167	0.00	0.30	3.521	O	|	|	|	|	0.95
195.250	0.00	0.30	3.519	O	|	|	|	|	0.95
195.333	0.00	0.30	3.517	O	|	|	|	|	0.95
195.417	0.00	0.30	3.515	O	|	|	|	|	0.95
195.500	0.00	0.30	3.513	O	|	|	|	|	0.95
195.583	0.00	0.30	3.511	O	|	|	|	|	0.95
195.667	0.00	0.30	3.508	O	|	|	|	|	0.95
195.750	0.00	0.30	3.506	O	|	|	|	|	0.95
195.833	0.00	0.30	3.504	O	|	|	|	|	0.95
195.917	0.00	0.30	3.502	O	|	|	|	|	0.95
196.000	0.00	0.30	3.500	O	|	|	|	|	0.95
196.083	0.00	0.30	3.498	O	|	|	|	|	0.95
196.167	0.00	0.30	3.496	O	|	|	|	|	0.94
196.250	0.00	0.30	3.494	O	|	|	|	|	0.94
196.333	0.00	0.30	3.492	O	|	|	|	|	0.94
196.417	0.00	0.30	3.490	O	|	|	|	|	0.94
196.500	0.00	0.30	3.488	O	|	|	|	|	0.94
196.583	0.00	0.30	3.486	O	|	|	|	|	0.94
196.667	0.00	0.30	3.483	O	|	|	|	|	0.94
196.750	0.00	0.30	3.481	O	|	|	|	|	0.94
196.833	0.00	0.30	3.479	O	|	|	|	|	0.94
196.917	0.00	0.30	3.477	O	|	|	|	|	0.94
197.000	0.00	0.30	3.475	O	|	|	|	|	0.94
197.083	0.00	0.30	3.473	O	|	|	|	|	0.94
197.167	0.00	0.30	3.471	O	|	|	|	|	0.94
197.250	0.00	0.30	3.469	O	|	|	|	|	0.94
197.333	0.00	0.30	3.467	O	|	|	|	|	0.94
197.417	0.00	0.30	3.465	O	|	|	|	|	0.94
197.500	0.00	0.30	3.463	O	|	|	|	|	0.94
197.583	0.00	0.30	3.461	O	|	|	|	|	0.94
197.667	0.00	0.30	3.459	O	|	|	|	|	0.93
197.750	0.00	0.30	3.457	O	|	|	|	|	0.93
197.833	0.00	0.30	3.455	O	|	|	|	|	0.93
197.917	0.00	0.30	3.452	O	|	|	|	|	0.93
198.000	0.00	0.30	3.450	O	|	|	|	|	0.93
198.083	0.00	0.30	3.448	O	|	|	|	|	0.93
198.167	0.00	0.30	3.446	O	|	|	|	|	0.93
198.250	0.00	0.30	3.444	O	|	|	|	|	0.93
198.333	0.00	0.30	3.442	O	|	|	|	|	0.93
198.417	0.00	0.30	3.440	O	|	|	|	|	0.93

198.500	0.00	0.30	3.438	O	|	|	|	|	0.93
198.583	0.00	0.30	3.436	O	|	|	|	|	0.93
198.667	0.00	0.30	3.434	O	|	|	|	|	0.93
198.750	0.00	0.30	3.432	O	|	|	|	|	0.93
198.833	0.00	0.30	3.430	O	|	|	|	|	0.93
198.917	0.00	0.30	3.428	O	|	|	|	|	0.93
199.000	0.00	0.30	3.426	O	|	|	|	|	0.93
199.083	0.00	0.30	3.424	O	|	|	|	|	0.93
199.167	0.00	0.30	3.422	O	|	|	|	|	0.92
199.250	0.00	0.30	3.420	O	|	|	|	|	0.92
199.333	0.00	0.30	3.418	O	|	|	|	|	0.92
199.417	0.00	0.30	3.416	O	|	|	|	|	0.92
199.500	0.00	0.30	3.414	O	|	|	|	|	0.92
199.583	0.00	0.30	3.412	O	|	|	|	|	0.92
199.667	0.00	0.29	3.410	O	|	|	|	|	0.92
199.750	0.00	0.29	3.408	O	|	|	|	|	0.92
199.833	0.00	0.29	3.405	O	|	|	|	|	0.92
199.917	0.00	0.29	3.403	O	|	|	|	|	0.92
200.000	0.00	0.29	3.401	O	|	|	|	|	0.92
200.083	0.00	0.29	3.399	O	|	|	|	|	0.92
200.167	0.00	0.29	3.397	O	|	|	|	|	0.92
200.250	0.00	0.29	3.395	O	|	|	|	|	0.92
200.333	0.00	0.29	3.393	O	|	|	|	|	0.92
200.417	0.00	0.29	3.391	O	|	|	|	|	0.92
200.500	0.00	0.29	3.389	O	|	|	|	|	0.92
200.583	0.00	0.29	3.387	O	|	|	|	|	0.92
200.667	0.00	0.29	3.385	O	|	|	|	|	0.91
200.750	0.00	0.29	3.383	O	|	|	|	|	0.91
200.833	0.00	0.29	3.381	O	|	|	|	|	0.91
200.917	0.00	0.29	3.379	O	|	|	|	|	0.91
201.000	0.00	0.29	3.377	O	|	|	|	|	0.91
201.083	0.00	0.29	3.375	O	|	|	|	|	0.91
201.167	0.00	0.29	3.373	O	|	|	|	|	0.91
201.250	0.00	0.29	3.371	O	|	|	|	|	0.91
201.333	0.00	0.29	3.369	O	|	|	|	|	0.91
201.417	0.00	0.29	3.367	O	|	|	|	|	0.91
201.500	0.00	0.29	3.365	O	|	|	|	|	0.91
201.583	0.00	0.29	3.363	O	|	|	|	|	0.91
201.667	0.00	0.29	3.361	O	|	|	|	|	0.91
201.750	0.00	0.29	3.359	O	|	|	|	|	0.91
201.833	0.00	0.29	3.357	O	|	|	|	|	0.91
201.917	0.00	0.29	3.355	O	|	|	|	|	0.91
202.000	0.00	0.29	3.353	O	|	|	|	|	0.91
202.083	0.00	0.29	3.351	O	|	|	|	|	0.91
202.167	0.00	0.29	3.349	O	|	|	|	|	0.91
202.250	0.00	0.29	3.347	O	|	|	|	|	0.90
202.333	0.00	0.29	3.345	O	|	|	|	|	0.90
202.417	0.00	0.29	3.343	O	|	|	|	|	0.90
202.500	0.00	0.29	3.341	O	|	|	|	|	0.90
202.583	0.00	0.29	3.339	O	|	|	|	|	0.90
202.667	0.00	0.29	3.337	O	|	|	|	|	0.90
202.750	0.00	0.29	3.335	O	|	|	|	|	0.90
202.833	0.00	0.29	3.333	O	|	|	|	|	0.90
202.917	0.00	0.29	3.331	O	|	|	|	|	0.90
203.000	0.00	0.29	3.329	O	|	|	|	|	0.90
203.083	0.00	0.29	3.327	O	|	|	|	|	0.90
203.167	0.00	0.29	3.325	O	|	|	|	|	0.90
203.250	0.00	0.29	3.323	O	|	|	|	|	0.90
203.333	0.00	0.29	3.321	O	|	|	|	|	0.90
203.417	0.00	0.29	3.319	O	|	|	|	|	0.90
203.500	0.00	0.29	3.317	O	|	|	|	|	0.90
203.583	0.00	0.29	3.315	O	|	|	|	|	0.90
203.667	0.00	0.29	3.313	O	|	|	|	|	0.90

203.750	0.00	0.29	3.311	O	|	|	|	|	0.89
203.833	0.00	0.29	3.310	O	|	|	|	|	0.89
203.917	0.00	0.29	3.308	O	|	|	|	|	0.89
204.000	0.00	0.29	3.306	O	|	|	|	|	0.89
204.083	0.00	0.29	3.304	O	|	|	|	|	0.89
204.167	0.00	0.29	3.302	O	|	|	|	|	0.89
204.250	0.00	0.29	3.300	O	|	|	|	|	0.89
204.333	0.00	0.29	3.298	O	|	|	|	|	0.89
204.417	0.00	0.29	3.296	O	|	|	|	|	0.89
204.500	0.00	0.28	3.294	O	|	|	|	|	0.89
204.583	0.00	0.28	3.292	O	|	|	|	|	0.89
204.667	0.00	0.28	3.290	O	|	|	|	|	0.89
204.750	0.00	0.28	3.288	O	|	|	|	|	0.89
204.833	0.00	0.28	3.286	O	|	|	|	|	0.89
204.917	0.00	0.28	3.284	O	|	|	|	|	0.89
205.000	0.00	0.28	3.282	O	|	|	|	|	0.89
205.083	0.00	0.28	3.280	O	|	|	|	|	0.89
205.167	0.00	0.28	3.278	O	|	|	|	|	0.89
205.250	0.00	0.28	3.276	O	|	|	|	|	0.89
205.333	0.00	0.28	3.274	O	|	|	|	|	0.88
205.417	0.00	0.28	3.272	O	|	|	|	|	0.88
205.500	0.00	0.28	3.270	O	|	|	|	|	0.88
205.583	0.00	0.28	3.268	O	|	|	|	|	0.88
205.667	0.00	0.28	3.266	O	|	|	|	|	0.88
205.750	0.00	0.28	3.264	O	|	|	|	|	0.88
205.833	0.00	0.28	3.263	O	|	|	|	|	0.88
205.917	0.00	0.28	3.261	O	|	|	|	|	0.88
206.000	0.00	0.28	3.259	O	|	|	|	|	0.88
206.083	0.00	0.28	3.257	O	|	|	|	|	0.88
206.167	0.00	0.28	3.255	O	|	|	|	|	0.88
206.250	0.00	0.28	3.253	O	|	|	|	|	0.88
206.333	0.00	0.28	3.251	O	|	|	|	|	0.88
206.417	0.00	0.28	3.249	O	|	|	|	|	0.88
206.500	0.00	0.28	3.247	O	|	|	|	|	0.88
206.583	0.00	0.28	3.245	O	|	|	|	|	0.88
206.667	0.00	0.28	3.243	O	|	|	|	|	0.88
206.750	0.00	0.28	3.241	O	|	|	|	|	0.88
206.833	0.00	0.28	3.239	O	|	|	|	|	0.88
206.917	0.00	0.28	3.237	O	|	|	|	|	0.87
207.000	0.00	0.28	3.235	O	|	|	|	|	0.87
207.083	0.00	0.28	3.234	O	|	|	|	|	0.87
207.167	0.00	0.28	3.232	O	|	|	|	|	0.87
207.250	0.00	0.28	3.230	O	|	|	|	|	0.87
207.333	0.00	0.28	3.228	O	|	|	|	|	0.87
207.417	0.00	0.28	3.226	O	|	|	|	|	0.87
207.500	0.00	0.28	3.224	O	|	|	|	|	0.87
207.583	0.00	0.28	3.222	O	|	|	|	|	0.87
207.667	0.00	0.28	3.220	O	|	|	|	|	0.87
207.750	0.00	0.28	3.218	O	|	|	|	|	0.87
207.833	0.00	0.28	3.216	O	|	|	|	|	0.87
207.917	0.00	0.28	3.214	O	|	|	|	|	0.87
208.000	0.00	0.28	3.212	O	|	|	|	|	0.87
208.083	0.00	0.28	3.210	O	|	|	|	|	0.87
208.167	0.00	0.28	3.209	O	|	|	|	|	0.87
208.250	0.00	0.28	3.207	O	|	|	|	|	0.87
208.333	0.00	0.28	3.205	O	|	|	|	|	0.87
208.417	0.00	0.28	3.203	O	|	|	|	|	0.87
208.500	0.00	0.28	3.201	O	|	|	|	|	0.87
208.583	0.00	0.28	3.199	O	|	|	|	|	0.86
208.667	0.00	0.28	3.197	O	|	|	|	|	0.86
208.750	0.00	0.28	3.195	O	|	|	|	|	0.86
208.833	0.00	0.28	3.193	O	|	|	|	|	0.86
208.917	0.00	0.28	3.191	O	|	|	|	|	0.86

209.000	0.00	0.28	3.190	O	|	|	|	|	0.86
209.083	0.00	0.28	3.188	O	|	|	|	|	0.86
209.167	0.00	0.28	3.186	O	|	|	|	|	0.86
209.250	0.00	0.28	3.184	O	|	|	|	|	0.86
209.333	0.00	0.28	3.182	O	|	|	|	|	0.86
209.417	0.00	0.28	3.180	O	|	|	|	|	0.86
209.500	0.00	0.27	3.178	O	|	|	|	|	0.86
209.583	0.00	0.27	3.176	O	|	|	|	|	0.86
209.667	0.00	0.27	3.174	O	|	|	|	|	0.86
209.750	0.00	0.27	3.172	O	|	|	|	|	0.86
209.833	0.00	0.27	3.171	O	|	|	|	|	0.86
209.917	0.00	0.27	3.169	O	|	|	|	|	0.86
210.000	0.00	0.27	3.167	O	|	|	|	|	0.86
210.083	0.00	0.27	3.165	O	|	|	|	|	0.86
210.167	0.00	0.27	3.163	O	|	|	|	|	0.85
210.250	0.00	0.27	3.161	O	|	|	|	|	0.85
210.333	0.00	0.27	3.159	O	|	|	|	|	0.85
210.417	0.00	0.27	3.157	O	|	|	|	|	0.85
210.500	0.00	0.27	3.156	O	|	|	|	|	0.85
210.583	0.00	0.27	3.154	O	|	|	|	|	0.85
210.667	0.00	0.27	3.152	O	|	|	|	|	0.85
210.750	0.00	0.27	3.150	O	|	|	|	|	0.85
210.833	0.00	0.27	3.148	O	|	|	|	|	0.85
210.917	0.00	0.27	3.146	O	|	|	|	|	0.85
211.000	0.00	0.27	3.144	O	|	|	|	|	0.85
211.083	0.00	0.27	3.142	O	|	|	|	|	0.85
211.167	0.00	0.27	3.141	O	|	|	|	|	0.85
211.250	0.00	0.27	3.139	O	|	|	|	|	0.85
211.333	0.00	0.27	3.137	O	|	|	|	|	0.85
211.417	0.00	0.27	3.135	O	|	|	|	|	0.85
211.500	0.00	0.27	3.133	O	|	|	|	|	0.85
211.583	0.00	0.27	3.131	O	|	|	|	|	0.85
211.667	0.00	0.27	3.129	O	|	|	|	|	0.85
211.750	0.00	0.27	3.127	O	|	|	|	|	0.85
211.833	0.00	0.27	3.126	O	|	|	|	|	0.84
211.917	0.00	0.27	3.124	O	|	|	|	|	0.84
212.000	0.00	0.27	3.122	O	|	|	|	|	0.84
212.083	0.00	0.27	3.120	O	|	|	|	|	0.84
212.167	0.00	0.27	3.118	O	|	|	|	|	0.84
212.250	0.00	0.27	3.116	O	|	|	|	|	0.84
212.333	0.00	0.27	3.114	O	|	|	|	|	0.84
212.417	0.00	0.27	3.113	O	|	|	|	|	0.84
212.500	0.00	0.27	3.111	O	|	|	|	|	0.84
212.583	0.00	0.27	3.109	O	|	|	|	|	0.84
212.667	0.00	0.27	3.107	O	|	|	|	|	0.84
212.750	0.00	0.27	3.105	O	|	|	|	|	0.84
212.833	0.00	0.27	3.103	O	|	|	|	|	0.84
212.917	0.00	0.27	3.101	O	|	|	|	|	0.84
213.000	0.00	0.27	3.100	O	|	|	|	|	0.84
213.083	0.00	0.27	3.098	O	|	|	|	|	0.84
213.167	0.00	0.27	3.096	O	|	|	|	|	0.84
213.250	0.00	0.27	3.094	O	|	|	|	|	0.84
213.333	0.00	0.27	3.092	O	|	|	|	|	0.84
213.417	0.00	0.27	3.090	O	|	|	|	|	0.84
213.500	0.00	0.27	3.089	O	|	|	|	|	0.83
213.583	0.00	0.27	3.087	O	|	|	|	|	0.83
213.667	0.00	0.27	3.085	O	|	|	|	|	0.83
213.750	0.00	0.27	3.083	O	|	|	|	|	0.83
213.833	0.00	0.27	3.081	O	|	|	|	|	0.83
213.917	0.00	0.27	3.079	O	|	|	|	|	0.83
214.000	0.00	0.27	3.078	O	|	|	|	|	0.83
214.083	0.00	0.27	3.076	O	|	|	|	|	0.83
214.167	0.00	0.27	3.074	O	|	|	|	|	0.83

214.250	0.00	0.27	3.072	O	|	|	|	|	0.83
214.333	0.00	0.27	3.070	O	|	|	|	|	0.83
214.417	0.00	0.27	3.068	O	|	|	|	|	0.83
214.500	0.00	0.27	3.067	O	|	|	|	|	0.83
214.583	0.00	0.27	3.065	O	|	|	|	|	0.83
214.667	0.00	0.26	3.063	O	|	|	|	|	0.83
214.750	0.00	0.26	3.061	O	|	|	|	|	0.83
214.833	0.00	0.26	3.059	O	|	|	|	|	0.83
214.917	0.00	0.26	3.057	O	|	|	|	|	0.83
215.000	0.00	0.26	3.056	O	|	|	|	|	0.83
215.083	0.00	0.26	3.054	O	|	|	|	|	0.83
215.167	0.00	0.26	3.052	O	|	|	|	|	0.82
215.250	0.00	0.26	3.050	O	|	|	|	|	0.82
215.333	0.00	0.26	3.048	O	|	|	|	|	0.82
215.417	0.00	0.26	3.047	O	|	|	|	|	0.82
215.500	0.00	0.26	3.045	O	|	|	|	|	0.82
215.583	0.00	0.26	3.043	O	|	|	|	|	0.82
215.667	0.00	0.26	3.041	O	|	|	|	|	0.82
215.750	0.00	0.26	3.039	O	|	|	|	|	0.82
215.833	0.00	0.26	3.037	O	|	|	|	|	0.82
215.917	0.00	0.26	3.036	O	|	|	|	|	0.82
216.000	0.00	0.26	3.034	O	|	|	|	|	0.82
216.083	0.00	0.26	3.032	O	|	|	|	|	0.82
216.167	0.00	0.26	3.030	O	|	|	|	|	0.82
216.250	0.00	0.26	3.028	O	|	|	|	|	0.82
216.333	0.00	0.26	3.027	O	|	|	|	|	0.82
216.417	0.00	0.26	3.025	O	|	|	|	|	0.82
216.500	0.00	0.26	3.023	O	|	|	|	|	0.82
216.583	0.00	0.26	3.021	O	|	|	|	|	0.82
216.667	0.00	0.26	3.019	O	|	|	|	|	0.82
216.750	0.00	0.26	3.018	O	|	|	|	|	0.82
216.833	0.00	0.26	3.016	O	|	|	|	|	0.82
216.917	0.00	0.26	3.014	O	|	|	|	|	0.81
217.000	0.00	0.26	3.012	O	|	|	|	|	0.81
217.083	0.00	0.26	3.010	O	|	|	|	|	0.81
217.167	0.00	0.26	3.009	O	|	|	|	|	0.81
217.250	0.00	0.26	3.007	O	|	|	|	|	0.81
217.333	0.00	0.26	3.005	O	|	|	|	|	0.81
217.417	0.00	0.26	3.003	O	|	|	|	|	0.81
217.500	0.00	0.26	3.002	O	|	|	|	|	0.81
217.583	0.00	0.26	3.000	O	|	|	|	|	0.81
217.667	0.00	0.26	2.998	O	|	|	|	|	0.81
217.750	0.00	0.26	2.996	O	|	|	|	|	0.81
217.833	0.00	0.26	2.994	O	|	|	|	|	0.81
217.917	0.00	0.26	2.993	O	|	|	|	|	0.81
218.000	0.00	0.26	2.991	O	|	|	|	|	0.81
218.083	0.00	0.26	2.989	O	|	|	|	|	0.81
218.167	0.00	0.26	2.987	O	|	|	|	|	0.81
218.250	0.00	0.26	2.985	O	|	|	|	|	0.81
218.333	0.00	0.26	2.984	O	|	|	|	|	0.81
218.417	0.00	0.26	2.982	O	|	|	|	|	0.81
218.500	0.00	0.26	2.980	O	|	|	|	|	0.81
218.583	0.00	0.26	2.978	O	|	|	|	|	0.80
218.667	0.00	0.26	2.977	O	|	|	|	|	0.80
218.750	0.00	0.26	2.975	O	|	|	|	|	0.80
218.833	0.00	0.26	2.973	O	|	|	|	|	0.80
218.917	0.00	0.26	2.971	O	|	|	|	|	0.80
219.000	0.00	0.26	2.970	O	|	|	|	|	0.80
219.083	0.00	0.26	2.968	O	|	|	|	|	0.80
219.167	0.00	0.26	2.966	O	|	|	|	|	0.80
219.250	0.00	0.26	2.964	O	|	|	|	|	0.80
219.333	0.00	0.26	2.962	O	|	|	|	|	0.80
219.417	0.00	0.26	2.961	O	|	|	|	|	0.80

219.500	0.00	0.26	2.959	O	|	|	|	|	0.80
219.583	0.00	0.26	2.957	O	|	|	|	|	0.80
219.667	0.00	0.26	2.955	O	|	|	|	|	0.80
219.750	0.00	0.26	2.954	O	|	|	|	|	0.80
219.833	0.00	0.26	2.952	O	|	|	|	|	0.80
219.917	0.00	0.26	2.950	O	|	|	|	|	0.80
220.000	0.00	0.25	2.948	O	|	|	|	|	0.80
220.083	0.00	0.25	2.947	O	|	|	|	|	0.80
220.167	0.00	0.25	2.945	O	|	|	|	|	0.80
220.250	0.00	0.25	2.943	O	|	|	|	|	0.80
220.333	0.00	0.25	2.941	O	|	|	|	|	0.79
220.417	0.00	0.25	2.940	O	|	|	|	|	0.79
220.500	0.00	0.25	2.938	O	|	|	|	|	0.79
220.583	0.00	0.25	2.936	O	|	|	|	|	0.79
220.667	0.00	0.25	2.934	O	|	|	|	|	0.79
220.750	0.00	0.25	2.933	O	|	|	|	|	0.79
220.833	0.00	0.25	2.931	O	|	|	|	|	0.79
220.917	0.00	0.25	2.929	O	|	|	|	|	0.79
221.000	0.00	0.25	2.927	O	|	|	|	|	0.79
221.083	0.00	0.25	2.926	O	|	|	|	|	0.79
221.167	0.00	0.25	2.924	O	|	|	|	|	0.79
221.250	0.00	0.25	2.922	O	|	|	|	|	0.79
221.333	0.00	0.25	2.920	O	|	|	|	|	0.79
221.417	0.00	0.25	2.919	O	|	|	|	|	0.79
221.500	0.00	0.25	2.917	O	|	|	|	|	0.79
221.583	0.00	0.25	2.915	O	|	|	|	|	0.79
221.667	0.00	0.25	2.913	O	|	|	|	|	0.79
221.750	0.00	0.25	2.912	O	|	|	|	|	0.79
221.833	0.00	0.25	2.910	O	|	|	|	|	0.79
221.917	0.00	0.25	2.908	O	|	|	|	|	0.79
222.000	0.00	0.25	2.907	O	|	|	|	|	0.79
222.083	0.00	0.25	2.905	O	|	|	|	|	0.79
222.167	0.00	0.25	2.903	O	|	|	|	|	0.78
222.250	0.00	0.25	2.901	O	|	|	|	|	0.78
222.333	0.00	0.25	2.900	O	|	|	|	|	0.78
222.417	0.00	0.25	2.898	O	|	|	|	|	0.78
222.500	0.00	0.25	2.896	O	|	|	|	|	0.78
222.583	0.00	0.25	2.894	O	|	|	|	|	0.78
222.667	0.00	0.25	2.893	O	|	|	|	|	0.78
222.750	0.00	0.25	2.891	O	|	|	|	|	0.78
222.833	0.00	0.25	2.889	O	|	|	|	|	0.78
222.917	0.00	0.25	2.888	O	|	|	|	|	0.78
223.000	0.00	0.25	2.886	O	|	|	|	|	0.78
223.083	0.00	0.25	2.884	O	|	|	|	|	0.78
223.167	0.00	0.25	2.882	O	|	|	|	|	0.78
223.250	0.00	0.25	2.881	O	|	|	|	|	0.78
223.333	0.00	0.25	2.879	O	|	|	|	|	0.78
223.417	0.00	0.25	2.877	O	|	|	|	|	0.78
223.500	0.00	0.25	2.876	O	|	|	|	|	0.78
223.583	0.00	0.25	2.874	O	|	|	|	|	0.78
223.667	0.00	0.25	2.872	O	|	|	|	|	0.78
223.750	0.00	0.25	2.870	O	|	|	|	|	0.78
223.833	0.00	0.25	2.869	O	|	|	|	|	0.78
223.917	0.00	0.25	2.867	O	|	|	|	|	0.77
224.000	0.00	0.25	2.865	O	|	|	|	|	0.77
224.083	0.00	0.25	2.864	O	|	|	|	|	0.77
224.167	0.00	0.25	2.862	O	|	|	|	|	0.77
224.250	0.00	0.25	2.860	O	|	|	|	|	0.77
224.333	0.00	0.25	2.858	O	|	|	|	|	0.77
224.417	0.00	0.25	2.857	O	|	|	|	|	0.77
224.500	0.00	0.25	2.855	O	|	|	|	|	0.77
224.583	0.00	0.25	2.853	O	|	|	|	|	0.77
224.667	0.00	0.25	2.852	O	|	|	|	|	0.77

224.750	0.00	0.25	2.850	O	|	|	|	|	0.77
224.833	0.00	0.25	2.848	O	|	|	|	|	0.77
224.917	0.00	0.25	2.847	O	|	|	|	|	0.77
225.000	0.00	0.25	2.845	O	|	|	|	|	0.77
225.083	0.00	0.25	2.843	O	|	|	|	|	0.77
225.167	0.00	0.25	2.841	O	|	|	|	|	0.77
225.250	0.00	0.25	2.840	O	|	|	|	|	0.77
225.333	0.00	0.25	2.838	O	|	|	|	|	0.77
225.417	0.00	0.25	2.836	O	|	|	|	|	0.77
225.500	0.00	0.25	2.835	O	|	|	|	|	0.77
225.583	0.00	0.25	2.833	O	|	|	|	|	0.77
225.667	0.00	0.24	2.831	O	|	|	|	|	0.77
225.750	0.00	0.24	2.830	O	|	|	|	|	0.76
225.833	0.00	0.24	2.828	O	|	|	|	|	0.76
225.917	0.00	0.24	2.826	O	|	|	|	|	0.76
226.000	0.00	0.24	2.825	O	|	|	|	|	0.76
226.083	0.00	0.24	2.823	O	|	|	|	|	0.76
226.167	0.00	0.24	2.821	O	|	|	|	|	0.76
226.250	0.00	0.24	2.820	O	|	|	|	|	0.76
226.333	0.00	0.24	2.818	O	|	|	|	|	0.76
226.417	0.00	0.24	2.816	O	|	|	|	|	0.76
226.500	0.00	0.24	2.815	O	|	|	|	|	0.76
226.583	0.00	0.24	2.813	O	|	|	|	|	0.76
226.667	0.00	0.24	2.811	O	|	|	|	|	0.76
226.750	0.00	0.24	2.809	O	|	|	|	|	0.76
226.833	0.00	0.24	2.808	O	|	|	|	|	0.76
226.917	0.00	0.24	2.806	O	|	|	|	|	0.76
227.000	0.00	0.24	2.804	O	|	|	|	|	0.76
227.083	0.00	0.24	2.803	O	|	|	|	|	0.76
227.167	0.00	0.24	2.801	O	|	|	|	|	0.76
227.250	0.00	0.24	2.799	O	|	|	|	|	0.76
227.333	0.00	0.24	2.798	O	|	|	|	|	0.76
227.417	0.00	0.24	2.796	O	|	|	|	|	0.76
227.500	0.00	0.24	2.794	O	|	|	|	|	0.76
227.583	0.00	0.24	2.793	O	|	|	|	|	0.75
227.667	0.00	0.24	2.791	O	|	|	|	|	0.75
227.750	0.00	0.24	2.789	O	|	|	|	|	0.75
227.833	0.00	0.24	2.788	O	|	|	|	|	0.75
227.917	0.00	0.24	2.786	O	|	|	|	|	0.75
228.000	0.00	0.24	2.784	O	|	|	|	|	0.75
228.083	0.00	0.24	2.783	O	|	|	|	|	0.75
228.167	0.00	0.24	2.781	O	|	|	|	|	0.75
228.250	0.00	0.24	2.780	O	|	|	|	|	0.75
228.333	0.00	0.24	2.778	O	|	|	|	|	0.75
228.417	0.00	0.24	2.776	O	|	|	|	|	0.75
228.500	0.00	0.24	2.775	O	|	|	|	|	0.75
228.583	0.00	0.24	2.773	O	|	|	|	|	0.75
228.667	0.00	0.24	2.771	O	|	|	|	|	0.75
228.750	0.00	0.24	2.770	O	|	|	|	|	0.75
228.833	0.00	0.24	2.768	O	|	|	|	|	0.75
228.917	0.00	0.24	2.766	O	|	|	|	|	0.75
229.000	0.00	0.24	2.765	O	|	|	|	|	0.75
229.083	0.00	0.24	2.763	O	|	|	|	|	0.75
229.167	0.00	0.24	2.761	O	|	|	|	|	0.75
229.250	0.00	0.24	2.760	O	|	|	|	|	0.75
229.333	0.00	0.24	2.758	O	|	|	|	|	0.75
229.417	0.00	0.24	2.756	O	|	|	|	|	0.74
229.500	0.00	0.24	2.755	O	|	|	|	|	0.74
229.583	0.00	0.24	2.753	O	|	|	|	|	0.74
229.667	0.00	0.24	2.752	O	|	|	|	|	0.74
229.750	0.00	0.24	2.750	O	|	|	|	|	0.74
229.833	0.00	0.24	2.748	O	|	|	|	|	0.74
229.917	0.00	0.24	2.747	O	|	|	|	|	0.74

230.000	0.00	0.24	2.745	O	|	|	|	|	0.74
230.083	0.00	0.24	2.743	O	|	|	|	|	0.74
230.167	0.00	0.24	2.742	O	|	|	|	|	0.74
230.250	0.00	0.24	2.740	O	|	|	|	|	0.74
230.333	0.00	0.24	2.738	O	|	|	|	|	0.74
230.417	0.00	0.24	2.737	O	|	|	|	|	0.74
230.500	0.00	0.24	2.735	O	|	|	|	|	0.74
230.583	0.00	0.24	2.734	O	|	|	|	|	0.74
230.667	0.00	0.24	2.732	O	|	|	|	|	0.74
230.750	0.00	0.24	2.730	O	|	|	|	|	0.74
230.833	0.00	0.24	2.729	O	|	|	|	|	0.74
230.917	0.00	0.24	2.727	O	|	|	|	|	0.74
231.000	0.00	0.24	2.725	O	|	|	|	|	0.74
231.083	0.00	0.24	2.724	O	|	|	|	|	0.74
231.167	0.00	0.24	2.722	O	|	|	|	|	0.74
231.250	0.00	0.24	2.721	O	|	|	|	|	0.74
231.333	0.00	0.24	2.719	O	|	|	|	|	0.73
231.417	0.00	0.24	2.717	O	|	|	|	|	0.73
231.500	0.00	0.23	2.716	O	|	|	|	|	0.73
231.583	0.00	0.23	2.714	O	|	|	|	|	0.73
231.667	0.00	0.23	2.712	O	|	|	|	|	0.73
231.750	0.00	0.23	2.711	O	|	|	|	|	0.73
231.833	0.00	0.23	2.709	O	|	|	|	|	0.73
231.917	0.00	0.23	2.708	O	|	|	|	|	0.73
232.000	0.00	0.23	2.706	O	|	|	|	|	0.73
232.083	0.00	0.23	2.704	O	|	|	|	|	0.73
232.167	0.00	0.23	2.703	O	|	|	|	|	0.73
232.250	0.00	0.23	2.701	O	|	|	|	|	0.73
232.333	0.00	0.23	2.700	O	|	|	|	|	0.73
232.417	0.00	0.23	2.698	O	|	|	|	|	0.73
232.500	0.00	0.23	2.696	O	|	|	|	|	0.73
232.583	0.00	0.23	2.695	O	|	|	|	|	0.73
232.667	0.00	0.23	2.693	O	|	|	|	|	0.73
232.750	0.00	0.23	2.692	O	|	|	|	|	0.73
232.833	0.00	0.23	2.690	O	|	|	|	|	0.73
232.917	0.00	0.23	2.688	O	|	|	|	|	0.73
233.000	0.00	0.23	2.687	O	|	|	|	|	0.73
233.083	0.00	0.23	2.685	O	|	|	|	|	0.73
233.167	0.00	0.23	2.684	O	|	|	|	|	0.73
233.250	0.00	0.23	2.682	O	|	|	|	|	0.72
233.333	0.00	0.23	2.680	O	|	|	|	|	0.72
233.417	0.00	0.23	2.679	O	|	|	|	|	0.72
233.500	0.00	0.23	2.677	O	|	|	|	|	0.72
233.583	0.00	0.23	2.676	O	|	|	|	|	0.72
233.667	0.00	0.23	2.674	O	|	|	|	|	0.72
233.750	0.00	0.23	2.672	O	|	|	|	|	0.72
233.833	0.00	0.23	2.671	O	|	|	|	|	0.72
233.917	0.00	0.23	2.669	O	|	|	|	|	0.72
234.000	0.00	0.23	2.668	O	|	|	|	|	0.72
234.083	0.00	0.23	2.666	O	|	|	|	|	0.72
234.167	0.00	0.23	2.664	O	|	|	|	|	0.72
234.250	0.00	0.23	2.663	O	|	|	|	|	0.72
234.333	0.00	0.23	2.661	O	|	|	|	|	0.72
234.417	0.00	0.23	2.660	O	|	|	|	|	0.72
234.500	0.00	0.23	2.658	O	|	|	|	|	0.72
234.583	0.00	0.23	2.657	O	|	|	|	|	0.72
234.667	0.00	0.23	2.655	O	|	|	|	|	0.72
234.750	0.00	0.23	2.653	O	|	|	|	|	0.72
234.833	0.00	0.23	2.652	O	|	|	|	|	0.72
234.917	0.00	0.23	2.650	O	|	|	|	|	0.72
235.000	0.00	0.23	2.649	O	|	|	|	|	0.72
235.083	0.00	0.23	2.647	O	|	|	|	|	0.72
235.167	0.00	0.23	2.645	O	|	|	|	|	0.71

235.250	0.00	0.23	2.644	O	|	|	|	|	0.71
235.333	0.00	0.23	2.642	O	|	|	|	|	0.71
235.417	0.00	0.23	2.641	O	|	|	|	|	0.71
235.500	0.00	0.23	2.639	O	|	|	|	|	0.71
235.583	0.00	0.23	2.638	O	|	|	|	|	0.71
235.667	0.00	0.23	2.636	O	|	|	|	|	0.71
235.750	0.00	0.23	2.634	O	|	|	|	|	0.71
235.833	0.00	0.23	2.633	O	|	|	|	|	0.71
235.917	0.00	0.23	2.631	O	|	|	|	|	0.71
236.000	0.00	0.23	2.630	O	|	|	|	|	0.71
236.083	0.00	0.23	2.628	O	|	|	|	|	0.71
236.167	0.00	0.23	2.627	O	|	|	|	|	0.71
236.250	0.00	0.23	2.625	O	|	|	|	|	0.71
236.333	0.00	0.23	2.623	O	|	|	|	|	0.71
236.417	0.00	0.23	2.622	O	|	|	|	|	0.71
236.500	0.00	0.23	2.620	O	|	|	|	|	0.71
236.583	0.00	0.23	2.619	O	|	|	|	|	0.71
236.667	0.00	0.23	2.617	O	|	|	|	|	0.71
236.750	0.00	0.23	2.616	O	|	|	|	|	0.71
236.833	0.00	0.23	2.614	O	|	|	|	|	0.71
236.917	0.00	0.23	2.613	O	|	|	|	|	0.71
237.000	0.00	0.23	2.611	O	|	|	|	|	0.71
237.083	0.00	0.23	2.609	O	|	|	|	|	0.71
237.167	0.00	0.23	2.608	O	|	|	|	|	0.70
237.250	0.00	0.23	2.606	O	|	|	|	|	0.70
237.333	0.00	0.23	2.605	O	|	|	|	|	0.70
237.417	0.00	0.23	2.603	O	|	|	|	|	0.70
237.500	0.00	0.23	2.602	O	|	|	|	|	0.70
237.583	0.00	0.22	2.600	O	|	|	|	|	0.70
237.667	0.00	0.22	2.599	O	|	|	|	|	0.70
237.750	0.00	0.22	2.597	O	|	|	|	|	0.70
237.833	0.00	0.22	2.596	O	|	|	|	|	0.70
237.917	0.00	0.22	2.594	O	|	|	|	|	0.70
238.000	0.00	0.22	2.592	O	|	|	|	|	0.70
238.083	0.00	0.22	2.591	O	|	|	|	|	0.70
238.167	0.00	0.22	2.589	O	|	|	|	|	0.70
238.250	0.00	0.22	2.588	O	|	|	|	|	0.70
238.333	0.00	0.22	2.586	O	|	|	|	|	0.70
238.417	0.00	0.22	2.585	O	|	|	|	|	0.70
238.500	0.00	0.22	2.583	O	|	|	|	|	0.70
238.583	0.00	0.22	2.582	O	|	|	|	|	0.70
238.667	0.00	0.22	2.580	O	|	|	|	|	0.70
238.750	0.00	0.22	2.579	O	|	|	|	|	0.70
238.833	0.00	0.22	2.577	O	|	|	|	|	0.70
238.917	0.00	0.22	2.575	O	|	|	|	|	0.70
239.000	0.00	0.22	2.574	O	|	|	|	|	0.70
239.083	0.00	0.22	2.572	O	|	|	|	|	0.70
239.167	0.00	0.22	2.571	O	|	|	|	|	0.69
239.250	0.00	0.22	2.569	O	|	|	|	|	0.69
239.333	0.00	0.22	2.568	O	|	|	|	|	0.69
239.417	0.00	0.22	2.566	O	|	|	|	|	0.69
239.500	0.00	0.22	2.565	O	|	|	|	|	0.69
239.583	0.00	0.22	2.563	O	|	|	|	|	0.69
239.667	0.00	0.22	2.562	O	|	|	|	|	0.69
239.750	0.00	0.22	2.560	O	|	|	|	|	0.69
239.833	0.00	0.22	2.559	O	|	|	|	|	0.69
239.917	0.00	0.22	2.557	O	|	|	|	|	0.69
240.000	0.00	0.22	2.556	O	|	|	|	|	0.69
240.083	0.00	0.22	2.554	O	|	|	|	|	0.69
240.167	0.00	0.22	2.553	O	|	|	|	|	0.69
240.250	0.00	0.22	2.551	O	|	|	|	|	0.69
240.333	0.00	0.22	2.550	O	|	|	|	|	0.69
240.417	0.00	0.22	2.548	O	|	|	|	|	0.69

240.500	0.00	0.22	2.547	O	|	|	|	|	0.69
240.583	0.00	0.22	2.545	O	|	|	|	|	0.69
240.667	0.00	0.22	2.543	O	|	|	|	|	0.69
240.750	0.00	0.22	2.542	O	|	|	|	|	0.69
240.833	0.00	0.22	2.540	O	|	|	|	|	0.69
240.917	0.00	0.22	2.539	O	|	|	|	|	0.69
241.000	0.00	0.22	2.537	O	|	|	|	|	0.69
241.083	0.00	0.22	2.536	O	|	|	|	|	0.69
241.167	0.00	0.22	2.534	O	|	|	|	|	0.68
241.250	0.00	0.22	2.533	O	|	|	|	|	0.68
241.333	0.00	0.22	2.531	O	|	|	|	|	0.68
241.417	0.00	0.22	2.530	O	|	|	|	|	0.68
241.500	0.00	0.22	2.528	O	|	|	|	|	0.68
241.583	0.00	0.22	2.527	O	|	|	|	|	0.68
241.667	0.00	0.22	2.525	O	|	|	|	|	0.68
241.750	0.00	0.22	2.524	O	|	|	|	|	0.68
241.833	0.00	0.22	2.522	O	|	|	|	|	0.68
241.917	0.00	0.22	2.521	O	|	|	|	|	0.68
242.000	0.00	0.22	2.519	O	|	|	|	|	0.68
242.083	0.00	0.22	2.518	O	|	|	|	|	0.68
242.167	0.00	0.22	2.516	O	|	|	|	|	0.68
242.250	0.00	0.22	2.515	O	|	|	|	|	0.68
242.333	0.00	0.22	2.513	O	|	|	|	|	0.68
242.417	0.00	0.22	2.512	O	|	|	|	|	0.68
242.500	0.00	0.22	2.510	O	|	|	|	|	0.68
242.583	0.00	0.22	2.509	O	|	|	|	|	0.68
242.667	0.00	0.22	2.507	O	|	|	|	|	0.68
242.750	0.00	0.22	2.506	O	|	|	|	|	0.68
242.833	0.00	0.22	2.504	O	|	|	|	|	0.68
242.917	0.00	0.22	2.503	O	|	|	|	|	0.68
243.000	0.00	0.22	2.501	O	|	|	|	|	0.68
243.083	0.00	0.22	2.500	O	|	|	|	|	0.68
243.167	0.00	0.22	2.498	O	|	|	|	|	0.68
243.250	0.00	0.22	2.497	O	|	|	|	|	0.67
243.333	0.00	0.22	2.495	O	|	|	|	|	0.67
243.417	0.00	0.22	2.494	O	|	|	|	|	0.67
243.500	0.00	0.22	2.492	O	|	|	|	|	0.67
243.583	0.00	0.22	2.491	O	|	|	|	|	0.67
243.667	0.00	0.22	2.490	O	|	|	|	|	0.67
243.750	0.00	0.22	2.488	O	|	|	|	|	0.67
243.833	0.00	0.22	2.487	O	|	|	|	|	0.67
243.917	0.00	0.21	2.485	O	|	|	|	|	0.67
244.000	0.00	0.21	2.484	O	|	|	|	|	0.67
244.083	0.00	0.21	2.482	O	|	|	|	|	0.67
244.167	0.00	0.21	2.481	O	|	|	|	|	0.67
244.250	0.00	0.21	2.479	O	|	|	|	|	0.67
244.333	0.00	0.21	2.478	O	|	|	|	|	0.67
244.417	0.00	0.21	2.476	O	|	|	|	|	0.67
244.500	0.00	0.21	2.475	O	|	|	|	|	0.67
244.583	0.00	0.21	2.473	O	|	|	|	|	0.67
244.667	0.00	0.21	2.472	O	|	|	|	|	0.67
244.750	0.00	0.21	2.470	O	|	|	|	|	0.67
244.833	0.00	0.21	2.469	O	|	|	|	|	0.67
244.917	0.00	0.21	2.467	O	|	|	|	|	0.67
245.000	0.00	0.21	2.466	O	|	|	|	|	0.67
245.083	0.00	0.21	2.464	O	|	|	|	|	0.67
245.167	0.00	0.21	2.463	O	|	|	|	|	0.67
245.250	0.00	0.21	2.461	O	|	|	|	|	0.67
245.333	0.00	0.21	2.460	O	|	|	|	|	0.66
245.417	0.00	0.21	2.459	O	|	|	|	|	0.66
245.500	0.00	0.21	2.457	O	|	|	|	|	0.66
245.583	0.00	0.21	2.456	O	|	|	|	|	0.66
245.667	0.00	0.21	2.454	O	|	|	|	|	0.66

245.750	0.00	0.21	2.453	O	|	|	|	|	0.66
245.833	0.00	0.21	2.451	O	|	|	|	|	0.66
245.917	0.00	0.21	2.450	O	|	|	|	|	0.66
246.000	0.00	0.21	2.448	O	|	|	|	|	0.66
246.083	0.00	0.21	2.447	O	|	|	|	|	0.66
246.167	0.00	0.21	2.445	O	|	|	|	|	0.66
246.250	0.00	0.21	2.444	O	|	|	|	|	0.66
246.333	0.00	0.21	2.443	O	|	|	|	|	0.66
246.417	0.00	0.21	2.441	O	|	|	|	|	0.66
246.500	0.00	0.21	2.440	O	|	|	|	|	0.66
246.583	0.00	0.21	2.438	O	|	|	|	|	0.66
246.667	0.00	0.21	2.437	O	|	|	|	|	0.66
246.750	0.00	0.21	2.435	O	|	|	|	|	0.66
246.833	0.00	0.21	2.434	O	|	|	|	|	0.66
246.917	0.00	0.21	2.432	O	|	|	|	|	0.66
247.000	0.00	0.21	2.431	O	|	|	|	|	0.66
247.083	0.00	0.21	2.429	O	|	|	|	|	0.66
247.167	0.00	0.21	2.428	O	|	|	|	|	0.66
247.250	0.00	0.21	2.427	O	|	|	|	|	0.66
247.333	0.00	0.21	2.425	O	|	|	|	|	0.66
247.417	0.00	0.21	2.424	O	|	|	|	|	0.66
247.500	0.00	0.21	2.422	O	|	|	|	|	0.65
247.583	0.00	0.21	2.421	O	|	|	|	|	0.65
247.667	0.00	0.21	2.419	O	|	|	|	|	0.65
247.750	0.00	0.21	2.418	O	|	|	|	|	0.65
247.833	0.00	0.21	2.416	O	|	|	|	|	0.65
247.917	0.00	0.21	2.415	O	|	|	|	|	0.65
248.000	0.00	0.21	2.414	O	|	|	|	|	0.65
248.083	0.00	0.21	2.412	O	|	|	|	|	0.65
248.167	0.00	0.21	2.411	O	|	|	|	|	0.65
248.250	0.00	0.21	2.409	O	|	|	|	|	0.65
248.333	0.00	0.21	2.408	O	|	|	|	|	0.65
248.417	0.00	0.21	2.406	O	|	|	|	|	0.65
248.500	0.00	0.21	2.405	O	|	|	|	|	0.65
248.583	0.00	0.21	2.404	O	|	|	|	|	0.65
248.667	0.00	0.21	2.402	O	|	|	|	|	0.65
248.750	0.00	0.21	2.401	O	|	|	|	|	0.65
248.833	0.00	0.21	2.399	O	|	|	|	|	0.65
248.917	0.00	0.21	2.398	O	|	|	|	|	0.65
249.000	0.00	0.21	2.396	O	|	|	|	|	0.65
249.083	0.00	0.21	2.395	O	|	|	|	|	0.65
249.167	0.00	0.21	2.394	O	|	|	|	|	0.65
249.250	0.00	0.21	2.392	O	|	|	|	|	0.65
249.333	0.00	0.21	2.391	O	|	|	|	|	0.65
249.417	0.00	0.21	2.389	O	|	|	|	|	0.65
249.500	0.00	0.21	2.388	O	|	|	|	|	0.65
249.583	0.00	0.21	2.386	O	|	|	|	|	0.64
249.667	0.00	0.21	2.385	O	|	|	|	|	0.64
249.750	0.00	0.21	2.384	O	|	|	|	|	0.64
249.833	0.00	0.21	2.382	O	|	|	|	|	0.64
249.917	0.00	0.21	2.381	O	|	|	|	|	0.64
250.000	0.00	0.21	2.379	O	|	|	|	|	0.64
250.083	0.00	0.21	2.378	O	|	|	|	|	0.64
250.167	0.00	0.21	2.376	O	|	|	|	|	0.64
250.250	0.00	0.21	2.375	O	|	|	|	|	0.64
250.333	0.00	0.21	2.374	O	|	|	|	|	0.64
250.417	0.00	0.21	2.372	O	|	|	|	|	0.64
250.500	0.00	0.21	2.371	O	|	|	|	|	0.64
250.583	0.00	0.20	2.369	O	|	|	|	|	0.64
250.667	0.00	0.20	2.368	O	|	|	|	|	0.64
250.750	0.00	0.20	2.367	O	|	|	|	|	0.64
250.833	0.00	0.20	2.365	O	|	|	|	|	0.64
250.917	0.00	0.20	2.364	O	|	|	|	|	0.64

251.000	0.00	0.20	2.362	O	|	|	|	|	0.64
251.083	0.00	0.20	2.361	O	|	|	|	|	0.64
251.167	0.00	0.20	2.360	O	|	|	|	|	0.64
251.250	0.00	0.20	2.358	O	|	|	|	|	0.64
251.333	0.00	0.20	2.357	O	|	|	|	|	0.64
251.417	0.00	0.20	2.355	O	|	|	|	|	0.64
251.500	0.00	0.20	2.354	O	|	|	|	|	0.64
251.583	0.00	0.20	2.353	O	|	|	|	|	0.64
251.667	0.00	0.20	2.351	O	|	|	|	|	0.64
251.750	0.00	0.20	2.350	O	|	|	|	|	0.64
251.833	0.00	0.20	2.348	O	|	|	|	|	0.63
251.917	0.00	0.20	2.347	O	|	|	|	|	0.63
252.000	0.00	0.20	2.346	O	|	|	|	|	0.63
252.083	0.00	0.20	2.344	O	|	|	|	|	0.63
252.167	0.00	0.20	2.343	O	|	|	|	|	0.63
252.250	0.00	0.20	2.341	O	|	|	|	|	0.63
252.333	0.00	0.20	2.340	O	|	|	|	|	0.63
252.417	0.00	0.20	2.339	O	|	|	|	|	0.63
252.500	0.00	0.20	2.337	O	|	|	|	|	0.63
252.583	0.00	0.20	2.336	O	|	|	|	|	0.63
252.667	0.00	0.20	2.334	O	|	|	|	|	0.63
252.750	0.00	0.20	2.333	O	|	|	|	|	0.63
252.833	0.00	0.20	2.332	O	|	|	|	|	0.63
252.917	0.00	0.20	2.330	O	|	|	|	|	0.63
253.000	0.00	0.20	2.329	O	|	|	|	|	0.63
253.083	0.00	0.20	2.327	O	|	|	|	|	0.63
253.167	0.00	0.20	2.326	O	|	|	|	|	0.63
253.250	0.00	0.20	2.325	O	|	|	|	|	0.63
253.333	0.00	0.20	2.323	O	|	|	|	|	0.63
253.417	0.00	0.20	2.322	O	|	|	|	|	0.63
253.500	0.00	0.20	2.321	O	|	|	|	|	0.63
253.583	0.00	0.20	2.319	O	|	|	|	|	0.63
253.667	0.00	0.20	2.318	O	|	|	|	|	0.63
253.750	0.00	0.20	2.316	O	|	|	|	|	0.63
253.833	0.00	0.20	2.315	O	|	|	|	|	0.63
253.917	0.00	0.20	2.314	O	|	|	|	|	0.63
254.000	0.00	0.20	2.312	O	|	|	|	|	0.62
254.083	0.00	0.20	2.311	O	|	|	|	|	0.62
254.167	0.00	0.20	2.310	O	|	|	|	|	0.62
254.250	0.00	0.20	2.308	O	|	|	|	|	0.62
254.333	0.00	0.20	2.307	O	|	|	|	|	0.62
254.417	0.00	0.20	2.305	O	|	|	|	|	0.62
254.500	0.00	0.20	2.304	O	|	|	|	|	0.62
254.583	0.00	0.20	2.303	O	|	|	|	|	0.62
254.667	0.00	0.20	2.301	O	|	|	|	|	0.62
254.750	0.00	0.20	2.300	O	|	|	|	|	0.62
254.833	0.00	0.20	2.299	O	|	|	|	|	0.62
254.917	0.00	0.20	2.297	O	|	|	|	|	0.62
255.000	0.00	0.20	2.296	O	|	|	|	|	0.62
255.083	0.00	0.20	2.294	O	|	|	|	|	0.62
255.167	0.00	0.20	2.293	O	|	|	|	|	0.62
255.250	0.00	0.20	2.292	O	|	|	|	|	0.62
255.333	0.00	0.20	2.290	O	|	|	|	|	0.62
255.417	0.00	0.20	2.289	O	|	|	|	|	0.62
255.500	0.00	0.20	2.288	O	|	|	|	|	0.62
255.583	0.00	0.20	2.286	O	|	|	|	|	0.62
255.667	0.00	0.20	2.285	O	|	|	|	|	0.62
255.750	0.00	0.20	2.284	O	|	|	|	|	0.62
255.833	0.00	0.20	2.282	O	|	|	|	|	0.62
255.917	0.00	0.20	2.281	O	|	|	|	|	0.62
256.000	0.00	0.20	2.279	O	|	|	|	|	0.62
256.083	0.00	0.20	2.278	O	|	|	|	|	0.62
256.167	0.00	0.20	2.277	O	|	|	|	|	0.62

256.250	0.00	0.20	2.275	O	|	|	|	|	0.61
256.333	0.00	0.20	2.274	O	|	|	|	|	0.61
256.417	0.00	0.20	2.273	O	|	|	|	|	0.61
256.500	0.00	0.20	2.271	O	|	|	|	|	0.61
256.583	0.00	0.20	2.270	O	|	|	|	|	0.61
256.667	0.00	0.20	2.269	O	|	|	|	|	0.61
256.750	0.00	0.20	2.267	O	|	|	|	|	0.61
256.833	0.00	0.20	2.266	O	|	|	|	|	0.61
256.917	0.00	0.20	2.265	O	|	|	|	|	0.61
257.000	0.00	0.20	2.263	O	|	|	|	|	0.61
257.083	0.00	0.20	2.262	O	|	|	|	|	0.61
257.167	0.00	0.20	2.261	O	|	|	|	|	0.61
257.250	0.00	0.20	2.259	O	|	|	|	|	0.61
257.333	0.00	0.20	2.258	O	|	|	|	|	0.61
257.417	0.00	0.20	2.256	O	|	|	|	|	0.61
257.500	0.00	0.20	2.255	O	|	|	|	|	0.61
257.583	0.00	0.19	2.254	O	|	|	|	|	0.61
257.667	0.00	0.19	2.252	O	|	|	|	|	0.61
257.750	0.00	0.19	2.251	O	|	|	|	|	0.61
257.833	0.00	0.19	2.250	O	|	|	|	|	0.61
257.917	0.00	0.19	2.248	O	|	|	|	|	0.61
258.000	0.00	0.19	2.247	O	|	|	|	|	0.61
258.083	0.00	0.19	2.246	O	|	|	|	|	0.61
258.167	0.00	0.19	2.244	O	|	|	|	|	0.61
258.250	0.00	0.19	2.243	O	|	|	|	|	0.61
258.333	0.00	0.19	2.242	O	|	|	|	|	0.61
258.417	0.00	0.19	2.240	O	|	|	|	|	0.61
258.500	0.00	0.19	2.239	O	|	|	|	|	0.61
258.583	0.00	0.19	2.238	O	|	|	|	|	0.60
258.667	0.00	0.19	2.236	O	|	|	|	|	0.60
258.750	0.00	0.19	2.235	O	|	|	|	|	0.60
258.833	0.00	0.19	2.234	O	|	|	|	|	0.60
258.917	0.00	0.19	2.232	O	|	|	|	|	0.60
259.000	0.00	0.19	2.231	O	|	|	|	|	0.60
259.083	0.00	0.19	2.230	O	|	|	|	|	0.60
259.167	0.00	0.19	2.228	O	|	|	|	|	0.60
259.250	0.00	0.19	2.227	O	|	|	|	|	0.60
259.333	0.00	0.19	2.226	O	|	|	|	|	0.60
259.417	0.00	0.19	2.224	O	|	|	|	|	0.60
259.500	0.00	0.19	2.223	O	|	|	|	|	0.60
259.583	0.00	0.19	2.222	O	|	|	|	|	0.60
259.667	0.00	0.19	2.220	O	|	|	|	|	0.60
259.750	0.00	0.19	2.219	O	|	|	|	|	0.60
259.833	0.00	0.19	2.218	O	|	|	|	|	0.60
259.917	0.00	0.19	2.217	O	|	|	|	|	0.60
260.000	0.00	0.19	2.215	O	|	|	|	|	0.60
260.083	0.00	0.19	2.214	O	|	|	|	|	0.60
260.167	0.00	0.19	2.213	O	|	|	|	|	0.60
260.250	0.00	0.19	2.211	O	|	|	|	|	0.60
260.333	0.00	0.19	2.210	O	|	|	|	|	0.60
260.417	0.00	0.19	2.209	O	|	|	|	|	0.60
260.500	0.00	0.19	2.207	O	|	|	|	|	0.60
260.583	0.00	0.19	2.206	O	|	|	|	|	0.60
260.667	0.00	0.19	2.205	O	|	|	|	|	0.60
260.750	0.00	0.19	2.203	O	|	|	|	|	0.60
260.833	0.00	0.19	2.202	O	|	|	|	|	0.60
260.917	0.00	0.19	2.201	O	|	|	|	|	0.59
261.000	0.00	0.19	2.199	O	|	|	|	|	0.59
261.083	0.00	0.19	2.198	O	|	|	|	|	0.59
261.167	0.00	0.19	2.197	O	|	|	|	|	0.59
261.250	0.00	0.19	2.195	O	|	|	|	|	0.59
261.333	0.00	0.19	2.194	O	|	|	|	|	0.59
261.417	0.00	0.19	2.193	O	|	|	|	|	0.59

261.500	0.00	0.19	2.192	O	|	|	|	|	0.59
261.583	0.00	0.19	2.190	O	|	|	|	|	0.59
261.667	0.00	0.19	2.189	O	|	|	|	|	0.59
261.750	0.00	0.19	2.188	O	|	|	|	|	0.59
261.833	0.00	0.19	2.186	O	|	|	|	|	0.59
261.917	0.00	0.19	2.185	O	|	|	|	|	0.59
262.000	0.00	0.19	2.184	O	|	|	|	|	0.59
262.083	0.00	0.19	2.182	O	|	|	|	|	0.59
262.167	0.00	0.19	2.181	O	|	|	|	|	0.59
262.250	0.00	0.19	2.180	O	|	|	|	|	0.59
262.333	0.00	0.19	2.179	O	|	|	|	|	0.59
262.417	0.00	0.19	2.177	O	|	|	|	|	0.59
262.500	0.00	0.19	2.176	O	|	|	|	|	0.59
262.583	0.00	0.19	2.175	O	|	|	|	|	0.59
262.667	0.00	0.19	2.173	O	|	|	|	|	0.59
262.750	0.00	0.19	2.172	O	|	|	|	|	0.59
262.833	0.00	0.19	2.171	O	|	|	|	|	0.59
262.917	0.00	0.19	2.169	O	|	|	|	|	0.59
263.000	0.00	0.19	2.168	O	|	|	|	|	0.59
263.083	0.00	0.19	2.167	O	|	|	|	|	0.59
263.167	0.00	0.19	2.166	O	|	|	|	|	0.59
263.250	0.00	0.19	2.164	O	|	|	|	|	0.58
263.333	0.00	0.19	2.163	O	|	|	|	|	0.58
263.417	0.00	0.19	2.162	O	|	|	|	|	0.58
263.500	0.00	0.19	2.160	O	|	|	|	|	0.58
263.583	0.00	0.19	2.159	O	|	|	|	|	0.58
263.667	0.00	0.19	2.158	O	|	|	|	|	0.58
263.750	0.00	0.19	2.157	O	|	|	|	|	0.58
263.833	0.00	0.19	2.155	O	|	|	|	|	0.58
263.917	0.00	0.19	2.154	O	|	|	|	|	0.58
264.000	0.00	0.19	2.153	O	|	|	|	|	0.58
264.083	0.00	0.19	2.151	O	|	|	|	|	0.58
264.167	0.00	0.19	2.150	O	|	|	|	|	0.58
264.250	0.00	0.19	2.149	O	|	|	|	|	0.58
264.333	0.00	0.19	2.148	O	|	|	|	|	0.58
264.417	0.00	0.19	2.146	O	|	|	|	|	0.58
264.500	0.00	0.19	2.145	O	|	|	|	|	0.58
264.583	0.00	0.19	2.144	O	|	|	|	|	0.58
264.667	0.00	0.19	2.143	O	|	|	|	|	0.58
264.750	0.00	0.19	2.141	O	|	|	|	|	0.58
264.833	0.00	0.19	2.140	O	|	|	|	|	0.58
264.917	0.00	0.18	2.139	O	|	|	|	|	0.58
265.000	0.00	0.18	2.137	O	|	|	|	|	0.58
265.083	0.00	0.18	2.136	O	|	|	|	|	0.58
265.167	0.00	0.18	2.135	O	|	|	|	|	0.58
265.250	0.00	0.18	2.134	O	|	|	|	|	0.58
265.333	0.00	0.18	2.132	O	|	|	|	|	0.58
265.417	0.00	0.18	2.131	O	|	|	|	|	0.58
265.500	0.00	0.18	2.130	O	|	|	|	|	0.58
265.583	0.00	0.18	2.129	O	|	|	|	|	0.58
265.667	0.00	0.18	2.127	O	|	|	|	|	0.57
265.750	0.00	0.18	2.126	O	|	|	|	|	0.57
265.833	0.00	0.18	2.125	O	|	|	|	|	0.57
265.917	0.00	0.18	2.123	O	|	|	|	|	0.57
266.000	0.00	0.18	2.122	O	|	|	|	|	0.57
266.083	0.00	0.18	2.121	O	|	|	|	|	0.57
266.167	0.00	0.18	2.120	O	|	|	|	|	0.57
266.250	0.00	0.18	2.118	O	|	|	|	|	0.57
266.333	0.00	0.18	2.117	O	|	|	|	|	0.57
266.417	0.00	0.18	2.116	O	|	|	|	|	0.57
266.500	0.00	0.18	2.115	O	|	|	|	|	0.57
266.583	0.00	0.18	2.113	O	|	|	|	|	0.57
266.667	0.00	0.18	2.112	O	|	|	|	|	0.57

266.750	0.00	0.18	2.111	O	|	|	|	|	0.57
266.833	0.00	0.18	2.110	O	|	|	|	|	0.57
266.917	0.00	0.18	2.108	O	|	|	|	|	0.57
267.000	0.00	0.18	2.107	O	|	|	|	|	0.57
267.083	0.00	0.18	2.106	O	|	|	|	|	0.57
267.167	0.00	0.18	2.105	O	|	|	|	|	0.57
267.250	0.00	0.18	2.103	O	|	|	|	|	0.57
267.333	0.00	0.18	2.102	O	|	|	|	|	0.57
267.417	0.00	0.18	2.101	O	|	|	|	|	0.57
267.500	0.00	0.18	2.100	O	|	|	|	|	0.57
267.583	0.00	0.18	2.098	O	|	|	|	|	0.57
267.667	0.00	0.18	2.097	O	|	|	|	|	0.57
267.750	0.00	0.18	2.096	O	|	|	|	|	0.57
267.833	0.00	0.18	2.095	O	|	|	|	|	0.57
267.917	0.00	0.18	2.093	O	|	|	|	|	0.57
268.000	0.00	0.18	2.092	O	|	|	|	|	0.57
268.083	0.00	0.18	2.091	O	|	|	|	|	0.57
268.167	0.00	0.18	2.090	O	|	|	|	|	0.56
268.250	0.00	0.18	2.088	O	|	|	|	|	0.56
268.333	0.00	0.18	2.087	O	|	|	|	|	0.56
268.417	0.00	0.18	2.086	O	|	|	|	|	0.56
268.500	0.00	0.18	2.085	O	|	|	|	|	0.56
268.583	0.00	0.18	2.083	O	|	|	|	|	0.56
268.667	0.00	0.18	2.082	O	|	|	|	|	0.56
268.750	0.00	0.18	2.081	O	|	|	|	|	0.56
268.833	0.00	0.18	2.080	O	|	|	|	|	0.56
268.917	0.00	0.18	2.078	O	|	|	|	|	0.56
269.000	0.00	0.18	2.077	O	|	|	|	|	0.56
269.083	0.00	0.18	2.076	O	|	|	|	|	0.56
269.167	0.00	0.18	2.075	O	|	|	|	|	0.56
269.250	0.00	0.18	2.073	O	|	|	|	|	0.56
269.333	0.00	0.18	2.072	O	|	|	|	|	0.56
269.417	0.00	0.18	2.071	O	|	|	|	|	0.56
269.500	0.00	0.18	2.070	O	|	|	|	|	0.56
269.583	0.00	0.18	2.069	O	|	|	|	|	0.56
269.667	0.00	0.18	2.067	O	|	|	|	|	0.56
269.750	0.00	0.18	2.066	O	|	|	|	|	0.56
269.833	0.00	0.18	2.065	O	|	|	|	|	0.56
269.917	0.00	0.18	2.064	O	|	|	|	|	0.56
270.000	0.00	0.18	2.062	O	|	|	|	|	0.56
270.083	0.00	0.18	2.061	O	|	|	|	|	0.56
270.167	0.00	0.18	2.060	O	|	|	|	|	0.56
270.250	0.00	0.18	2.059	O	|	|	|	|	0.56
270.333	0.00	0.18	2.057	O	|	|	|	|	0.56
270.417	0.00	0.18	2.056	O	|	|	|	|	0.56
270.500	0.00	0.18	2.055	O	|	|	|	|	0.56
270.583	0.00	0.18	2.054	O	|	|	|	|	0.56
270.667	0.00	0.18	2.053	O	|	|	|	|	0.55
270.750	0.00	0.18	2.051	O	|	|	|	|	0.55
270.833	0.00	0.18	2.050	O	|	|	|	|	0.55
270.917	0.00	0.18	2.049	O	|	|	|	|	0.55
271.000	0.00	0.18	2.048	O	|	|	|	|	0.55
271.083	0.00	0.18	2.046	O	|	|	|	|	0.55
271.167	0.00	0.18	2.045	O	|	|	|	|	0.55
271.250	0.00	0.18	2.044	O	|	|	|	|	0.55
271.333	0.00	0.18	2.043	O	|	|	|	|	0.55
271.417	0.00	0.18	2.042	O	|	|	|	|	0.55
271.500	0.00	0.18	2.040	O	|	|	|	|	0.55
271.583	0.00	0.18	2.039	O	|	|	|	|	0.55
271.667	0.00	0.18	2.038	O	|	|	|	|	0.55
271.750	0.00	0.18	2.037	O	|	|	|	|	0.55
271.833	0.00	0.18	2.036	O	|	|	|	|	0.55
271.917	0.00	0.18	2.034	O	|	|	|	|	0.55

272.000	0.00	0.18	2.033	O	|	|	|	|	0.55
272.083	0.00	0.18	2.032	O	|	|	|	|	0.55
272.167	0.00	0.18	2.031	O	|	|	|	|	0.55
272.250	0.00	0.18	2.029	O	|	|	|	|	0.55
272.333	0.00	0.18	2.028	O	|	|	|	|	0.55
272.417	0.00	0.18	2.027	O	|	|	|	|	0.55
272.500	0.00	0.18	2.026	O	|	|	|	|	0.55
272.583	0.00	0.18	2.025	O	|	|	|	|	0.55
272.667	0.00	0.18	2.023	O	|	|	|	|	0.55
272.750	0.00	0.17	2.022	O	|	|	|	|	0.55
272.833	0.00	0.17	2.021	O	|	|	|	|	0.55
272.917	0.00	0.17	2.020	O	|	|	|	|	0.55
273.000	0.00	0.17	2.019	O	|	|	|	|	0.55
273.083	0.00	0.17	2.017	O	|	|	|	|	0.55
273.167	0.00	0.17	2.016	O	|	|	|	|	0.54
273.250	0.00	0.17	2.015	O	|	|	|	|	0.54
273.333	0.00	0.17	2.014	O	|	|	|	|	0.54
273.417	0.00	0.17	2.013	O	|	|	|	|	0.54
273.500	0.00	0.17	2.011	O	|	|	|	|	0.54
273.583	0.00	0.17	2.010	O	|	|	|	|	0.54
273.667	0.00	0.17	2.009	O	|	|	|	|	0.54
273.750	0.00	0.17	2.008	O	|	|	|	|	0.54
273.833	0.00	0.17	2.007	O	|	|	|	|	0.54
273.917	0.00	0.17	2.005	O	|	|	|	|	0.54
274.000	0.00	0.17	2.004	O	|	|	|	|	0.54
274.083	0.00	0.17	2.003	O	|	|	|	|	0.54
274.167	0.00	0.17	2.002	O	|	|	|	|	0.54
274.250	0.00	0.17	2.001	O	|	|	|	|	0.54
274.333	0.00	0.17	1.999	O	|	|	|	|	0.54
274.417	0.00	0.17	1.998	O	|	|	|	|	0.54
274.500	0.00	0.17	1.997	O	|	|	|	|	0.54
274.583	0.00	0.17	1.996	O	|	|	|	|	0.54
274.667	0.00	0.17	1.995	O	|	|	|	|	0.54
274.750	0.00	0.17	1.994	O	|	|	|	|	0.54
274.833	0.00	0.17	1.992	O	|	|	|	|	0.54
274.917	0.00	0.17	1.991	O	|	|	|	|	0.54
275.000	0.00	0.17	1.990	O	|	|	|	|	0.54
275.083	0.00	0.17	1.989	O	|	|	|	|	0.54
275.167	0.00	0.17	1.988	O	|	|	|	|	0.54
275.250	0.00	0.17	1.986	O	|	|	|	|	0.54
275.333	0.00	0.17	1.985	O	|	|	|	|	0.54
275.417	0.00	0.17	1.984	O	|	|	|	|	0.54
275.500	0.00	0.17	1.983	O	|	|	|	|	0.54
275.583	0.00	0.17	1.982	O	|	|	|	|	0.54
275.667	0.00	0.17	1.981	O	|	|	|	|	0.54
275.750	0.00	0.17	1.979	O	|	|	|	|	0.53
275.833	0.00	0.17	1.978	O	|	|	|	|	0.53
275.917	0.00	0.17	1.977	O	|	|	|	|	0.53
276.000	0.00	0.17	1.976	O	|	|	|	|	0.53
276.083	0.00	0.17	1.975	O	|	|	|	|	0.53
276.167	0.00	0.17	1.973	O	|	|	|	|	0.53
276.250	0.00	0.17	1.972	O	|	|	|	|	0.53
276.333	0.00	0.17	1.971	O	|	|	|	|	0.53
276.417	0.00	0.17	1.970	O	|	|	|	|	0.53
276.500	0.00	0.17	1.969	O	|	|	|	|	0.53
276.583	0.00	0.17	1.968	O	|	|	|	|	0.53
276.667	0.00	0.17	1.966	O	|	|	|	|	0.53
276.750	0.00	0.17	1.965	O	|	|	|	|	0.53
276.833	0.00	0.17	1.964	O	|	|	|	|	0.53
276.917	0.00	0.17	1.963	O	|	|	|	|	0.53
277.000	0.00	0.17	1.962	O	|	|	|	|	0.53
277.083	0.00	0.17	1.961	O	|	|	|	|	0.53
277.167	0.00	0.17	1.959	O	|	|	|	|	0.53

277.250	0.00	0.17	1.958	O	|	|	|	|	0.53
277.333	0.00	0.17	1.957	O	|	|	|	|	0.53
277.417	0.00	0.17	1.956	O	|	|	|	|	0.53
277.500	0.00	0.17	1.955	O	|	|	|	|	0.53
277.583	0.00	0.17	1.954	O	|	|	|	|	0.53
277.667	0.00	0.17	1.952	O	|	|	|	|	0.53
277.750	0.00	0.17	1.951	O	|	|	|	|	0.53
277.833	0.00	0.17	1.950	O	|	|	|	|	0.53
277.917	0.00	0.17	1.949	O	|	|	|	|	0.53
278.000	0.00	0.17	1.948	O	|	|	|	|	0.53
278.083	0.00	0.17	1.947	O	|	|	|	|	0.53
278.167	0.00	0.17	1.945	O	|	|	|	|	0.53
278.250	0.00	0.17	1.944	O	|	|	|	|	0.53
278.333	0.00	0.17	1.943	O	|	|	|	|	0.53
278.417	0.00	0.17	1.942	O	|	|	|	|	0.52
278.500	0.00	0.17	1.941	O	|	|	|	|	0.52
278.583	0.00	0.17	1.940	O	|	|	|	|	0.52
278.667	0.00	0.17	1.939	O	|	|	|	|	0.52
278.750	0.00	0.17	1.937	O	|	|	|	|	0.52
278.833	0.00	0.17	1.936	O	|	|	|	|	0.52
278.917	0.00	0.17	1.935	O	|	|	|	|	0.52
279.000	0.00	0.17	1.934	O	|	|	|	|	0.52
279.083	0.00	0.17	1.933	O	|	|	|	|	0.52
279.167	0.00	0.17	1.932	O	|	|	|	|	0.52
279.250	0.00	0.17	1.930	O	|	|	|	|	0.52
279.333	0.00	0.17	1.929	O	|	|	|	|	0.52
279.417	0.00	0.17	1.928	O	|	|	|	|	0.52
279.500	0.00	0.17	1.927	O	|	|	|	|	0.52
279.583	0.00	0.17	1.926	O	|	|	|	|	0.52
279.667	0.00	0.17	1.925	O	|	|	|	|	0.52
279.750	0.00	0.17	1.924	O	|	|	|	|	0.52
279.833	0.00	0.17	1.922	O	|	|	|	|	0.52
279.917	0.00	0.17	1.921	O	|	|	|	|	0.52
280.000	0.00	0.17	1.920	O	|	|	|	|	0.52
280.083	0.00	0.17	1.919	O	|	|	|	|	0.52
280.167	0.00	0.17	1.918	O	|	|	|	|	0.52
280.250	0.00	0.17	1.917	O	|	|	|	|	0.52
280.333	0.00	0.17	1.916	O	|	|	|	|	0.52
280.417	0.00	0.17	1.914	O	|	|	|	|	0.52
280.500	0.00	0.17	1.913	O	|	|	|	|	0.52
280.583	0.00	0.17	1.912	O	|	|	|	|	0.52
280.667	0.00	0.17	1.911	O	|	|	|	|	0.52
280.750	0.00	0.17	1.910	O	|	|	|	|	0.52
280.833	0.00	0.17	1.909	O	|	|	|	|	0.52
280.917	0.00	0.16	1.908	O	|	|	|	|	0.52
281.000	0.00	0.16	1.906	O	|	|	|	|	0.52
281.083	0.00	0.16	1.905	O	|	|	|	|	0.51
281.167	0.00	0.16	1.904	O	|	|	|	|	0.51
281.250	0.00	0.16	1.903	O	|	|	|	|	0.51
281.333	0.00	0.16	1.902	O	|	|	|	|	0.51
281.417	0.00	0.16	1.901	O	|	|	|	|	0.51
281.500	0.00	0.16	1.900	O	|	|	|	|	0.51
281.583	0.00	0.16	1.899	O	|	|	|	|	0.51
281.667	0.00	0.16	1.897	O	|	|	|	|	0.51
281.750	0.00	0.16	1.896	O	|	|	|	|	0.51
281.833	0.00	0.16	1.895	O	|	|	|	|	0.51
281.917	0.00	0.16	1.894	O	|	|	|	|	0.51
282.000	0.00	0.16	1.893	O	|	|	|	|	0.51
282.083	0.00	0.16	1.892	O	|	|	|	|	0.51
282.167	0.00	0.16	1.891	O	|	|	|	|	0.51
282.250	0.00	0.16	1.889	O	|	|	|	|	0.51
282.333	0.00	0.16	1.888	O	|	|	|	|	0.51
282.417	0.00	0.16	1.887	O	|	|	|	|	0.51

282.500	0.00	0.16	1.886	O	|	|	|	|	0.51
282.583	0.00	0.16	1.885	O	|	|	|	|	0.51
282.667	0.00	0.16	1.884	O	|	|	|	|	0.51
282.750	0.00	0.16	1.883	O	|	|	|	|	0.51
282.833	0.00	0.16	1.882	O	|	|	|	|	0.51
282.917	0.00	0.16	1.881	O	|	|	|	|	0.51
283.000	0.00	0.16	1.879	O	|	|	|	|	0.51
283.083	0.00	0.16	1.878	O	|	|	|	|	0.51
283.167	0.00	0.16	1.877	O	|	|	|	|	0.51
283.250	0.00	0.16	1.876	O	|	|	|	|	0.51
283.333	0.00	0.16	1.875	O	|	|	|	|	0.51
283.417	0.00	0.16	1.874	O	|	|	|	|	0.51
283.500	0.00	0.16	1.873	O	|	|	|	|	0.51
283.583	0.00	0.16	1.872	O	|	|	|	|	0.51
283.667	0.00	0.16	1.870	O	|	|	|	|	0.51
283.750	0.00	0.16	1.869	O	|	|	|	|	0.51
283.833	0.00	0.16	1.868	O	|	|	|	|	0.50
283.917	0.00	0.16	1.867	O	|	|	|	|	0.50
284.000	0.00	0.16	1.866	O	|	|	|	|	0.50
284.083	0.00	0.16	1.865	O	|	|	|	|	0.50
284.167	0.00	0.16	1.864	O	|	|	|	|	0.50
284.250	0.00	0.16	1.863	O	|	|	|	|	0.50
284.333	0.00	0.16	1.862	O	|	|	|	|	0.50
284.417	0.00	0.16	1.860	O	|	|	|	|	0.50
284.500	0.00	0.16	1.859	O	|	|	|	|	0.50
284.583	0.00	0.16	1.858	O	|	|	|	|	0.50
284.667	0.00	0.16	1.857	O	|	|	|	|	0.50
284.750	0.00	0.16	1.856	O	|	|	|	|	0.50
284.833	0.00	0.16	1.855	O	|	|	|	|	0.50
284.917	0.00	0.16	1.854	O	|	|	|	|	0.50
285.000	0.00	0.16	1.853	O	|	|	|	|	0.50
285.083	0.00	0.16	1.852	O	|	|	|	|	0.50
285.167	0.00	0.16	1.851	O	|	|	|	|	0.50
285.250	0.00	0.16	1.849	O	|	|	|	|	0.50
285.333	0.00	0.16	1.848	O	|	|	|	|	0.50
285.417	0.00	0.16	1.847	O	|	|	|	|	0.50
285.500	0.00	0.16	1.846	O	|	|	|	|	0.50
285.583	0.00	0.16	1.845	O	|	|	|	|	0.50
285.667	0.00	0.16	1.844	O	|	|	|	|	0.50
285.750	0.00	0.16	1.843	O	|	|	|	|	0.50
285.833	0.00	0.16	1.842	O	|	|	|	|	0.50
285.917	0.00	0.16	1.841	O	|	|	|	|	0.50
286.000	0.00	0.16	1.840	O	|	|	|	|	0.50
286.083	0.00	0.16	1.838	O	|	|	|	|	0.50
286.167	0.00	0.16	1.837	O	|	|	|	|	0.50
286.250	0.00	0.16	1.836	O	|	|	|	|	0.50
286.333	0.00	0.16	1.835	O	|	|	|	|	0.50
286.417	0.00	0.16	1.834	O	|	|	|	|	0.50
286.500	0.00	0.16	1.833	O	|	|	|	|	0.50
286.583	0.00	0.16	1.832	O	|	|	|	|	0.50
286.667	0.00	0.16	1.831	O	|	|	|	|	0.49
286.750	0.00	0.16	1.830	O	|	|	|	|	0.49
286.833	0.00	0.16	1.829	O	|	|	|	|	0.49
286.917	0.00	0.16	1.828	O	|	|	|	|	0.49
287.000	0.00	0.16	1.826	O	|	|	|	|	0.49
287.083	0.00	0.16	1.825	O	|	|	|	|	0.49
287.167	0.00	0.16	1.824	O	|	|	|	|	0.49
287.250	0.00	0.16	1.823	O	|	|	|	|	0.49
287.333	0.00	0.16	1.822	O	|	|	|	|	0.49
287.417	0.00	0.16	1.821	O	|	|	|	|	0.49
287.500	0.00	0.16	1.820	O	|	|	|	|	0.49
287.583	0.00	0.16	1.819	O	|	|	|	|	0.49
287.667	0.00	0.16	1.818	O	|	|	|	|	0.49

287.750	0.00	0.16	1.817	O	|	|	|	|	0.49
287.833	0.00	0.16	1.816	O	|	|	|	|	0.49
287.917	0.00	0.16	1.814	O	|	|	|	|	0.49
288.000	0.00	0.16	1.813	O	|	|	|	|	0.49
288.083	0.00	0.16	1.812	O	|	|	|	|	0.49
288.167	0.00	0.16	1.811	O	|	|	|	|	0.49
288.250	0.00	0.16	1.810	O	|	|	|	|	0.49
288.333	0.00	0.16	1.809	O	|	|	|	|	0.49
288.417	0.00	0.16	1.808	O	|	|	|	|	0.49
288.500	0.00	0.16	1.807	O	|	|	|	|	0.49
288.583	0.00	0.16	1.806	O	|	|	|	|	0.49
288.667	0.00	0.16	1.805	O	|	|	|	|	0.49
288.750	0.00	0.16	1.804	O	|	|	|	|	0.49
288.833	0.00	0.16	1.803	O	|	|	|	|	0.49
288.917	0.00	0.16	1.802	O	|	|	|	|	0.49
289.000	0.00	0.16	1.800	O	|	|	|	|	0.49
289.083	0.00	0.16	1.799	O	|	|	|	|	0.49
289.167	0.00	0.16	1.798	O	|	|	|	|	0.49
289.250	0.00	0.16	1.797	O	|	|	|	|	0.49
289.333	0.00	0.16	1.796	O	|	|	|	|	0.49
289.417	0.00	0.16	1.795	O	|	|	|	|	0.49
289.500	0.00	0.16	1.794	O	|	|	|	|	0.48
289.583	0.00	0.16	1.793	O	|	|	|	|	0.48
289.667	0.00	0.15	1.792	O	|	|	|	|	0.48
289.750	0.00	0.15	1.791	O	|	|	|	|	0.48
289.833	0.00	0.15	1.790	O	|	|	|	|	0.48
289.917	0.00	0.15	1.789	O	|	|	|	|	0.48
290.000	0.00	0.15	1.788	O	|	|	|	|	0.48
290.083	0.00	0.15	1.787	O	|	|	|	|	0.48
290.167	0.00	0.15	1.786	O	|	|	|	|	0.48
290.250	0.00	0.15	1.784	O	|	|	|	|	0.48
290.333	0.00	0.15	1.783	O	|	|	|	|	0.48
290.417	0.00	0.15	1.782	O	|	|	|	|	0.48
290.500	0.00	0.15	1.781	O	|	|	|	|	0.48
290.583	0.00	0.15	1.780	O	|	|	|	|	0.48
290.667	0.00	0.15	1.779	O	|	|	|	|	0.48
290.750	0.00	0.15	1.778	O	|	|	|	|	0.48
290.833	0.00	0.15	1.777	O	|	|	|	|	0.48
290.917	0.00	0.15	1.776	O	|	|	|	|	0.48
291.000	0.00	0.15	1.775	O	|	|	|	|	0.48
291.083	0.00	0.15	1.774	O	|	|	|	|	0.48
291.167	0.00	0.15	1.773	O	|	|	|	|	0.48
291.250	0.00	0.15	1.772	O	|	|	|	|	0.48
291.333	0.00	0.15	1.771	O	|	|	|	|	0.48
291.417	0.00	0.15	1.770	O	|	|	|	|	0.48
291.500	0.00	0.15	1.769	O	|	|	|	|	0.48
291.583	0.00	0.15	1.768	O	|	|	|	|	0.48
291.667	0.00	0.15	1.766	O	|	|	|	|	0.48
291.750	0.00	0.15	1.765	O	|	|	|	|	0.48
291.833	0.00	0.15	1.764	O	|	|	|	|	0.48
291.917	0.00	0.15	1.763	O	|	|	|	|	0.48
292.000	0.00	0.15	1.762	O	|	|	|	|	0.48
292.083	0.00	0.15	1.761	O	|	|	|	|	0.48
292.167	0.00	0.15	1.760	O	|	|	|	|	0.48
292.250	0.00	0.15	1.759	O	|	|	|	|	0.48
292.333	0.00	0.15	1.758	O	|	|	|	|	0.48
292.417	0.00	0.15	1.757	O	|	|	|	|	0.47
292.500	0.00	0.15	1.756	O	|	|	|	|	0.47
292.583	0.00	0.15	1.755	O	|	|	|	|	0.47
292.667	0.00	0.15	1.754	O	|	|	|	|	0.47
292.750	0.00	0.15	1.753	O	|	|	|	|	0.47
292.833	0.00	0.15	1.752	O	|	|	|	|	0.47
292.917	0.00	0.15	1.751	O	|	|	|	|	0.47

293.000	0.00	0.15	1.750	O	|	|	|	|	0.47
293.083	0.00	0.15	1.749	O	|	|	|	|	0.47
293.167	0.00	0.15	1.748	O	|	|	|	|	0.47
293.250	0.00	0.15	1.747	O	|	|	|	|	0.47
293.333	0.00	0.15	1.746	O	|	|	|	|	0.47
293.417	0.00	0.15	1.745	O	|	|	|	|	0.47
293.500	0.00	0.15	1.744	O	|	|	|	|	0.47
293.583	0.00	0.15	1.742	O	|	|	|	|	0.47
293.667	0.00	0.15	1.741	O	|	|	|	|	0.47
293.750	0.00	0.15	1.740	O	|	|	|	|	0.47
293.833	0.00	0.15	1.739	O	|	|	|	|	0.47
293.917	0.00	0.15	1.738	O	|	|	|	|	0.47
294.000	0.00	0.15	1.737	O	|	|	|	|	0.47
294.083	0.00	0.15	1.736	O	|	|	|	|	0.47
294.167	0.00	0.15	1.735	O	|	|	|	|	0.47
294.250	0.00	0.15	1.734	O	|	|	|	|	0.47
294.333	0.00	0.15	1.733	O	|	|	|	|	0.47
294.417	0.00	0.15	1.732	O	|	|	|	|	0.47
294.500	0.00	0.15	1.731	O	|	|	|	|	0.47
294.583	0.00	0.15	1.730	O	|	|	|	|	0.47
294.667	0.00	0.15	1.729	O	|	|	|	|	0.47
294.750	0.00	0.15	1.728	O	|	|	|	|	0.47
294.833	0.00	0.15	1.727	O	|	|	|	|	0.47
294.917	0.00	0.15	1.726	O	|	|	|	|	0.47
295.000	0.00	0.15	1.725	O	|	|	|	|	0.47
295.083	0.00	0.15	1.724	O	|	|	|	|	0.47
295.167	0.00	0.15	1.723	O	|	|	|	|	0.47
295.250	0.00	0.15	1.722	O	|	|	|	|	0.47
295.333	0.00	0.15	1.721	O	|	|	|	|	0.47
295.417	0.00	0.15	1.720	O	|	|	|	|	0.46
295.500	0.00	0.15	1.719	O	|	|	|	|	0.46
295.583	0.00	0.15	1.718	O	|	|	|	|	0.46
295.667	0.00	0.15	1.717	O	|	|	|	|	0.46
295.750	0.00	0.15	1.716	O	|	|	|	|	0.46
295.833	0.00	0.15	1.715	O	|	|	|	|	0.46
295.917	0.00	0.15	1.714	O	|	|	|	|	0.46
296.000	0.00	0.15	1.713	O	|	|	|	|	0.46
296.083	0.00	0.15	1.712	O	|	|	|	|	0.46
296.167	0.00	0.15	1.711	O	|	|	|	|	0.46
296.250	0.00	0.15	1.710	O	|	|	|	|	0.46
296.333	0.00	0.15	1.709	O	|	|	|	|	0.46
296.417	0.00	0.15	1.708	O	|	|	|	|	0.46
296.500	0.00	0.15	1.707	O	|	|	|	|	0.46
296.583	0.00	0.15	1.705	O	|	|	|	|	0.46
296.667	0.00	0.15	1.704	O	|	|	|	|	0.46
296.750	0.00	0.15	1.703	O	|	|	|	|	0.46
296.833	0.00	0.15	1.702	O	|	|	|	|	0.46
296.917	0.00	0.15	1.701	O	|	|	|	|	0.46
297.000	0.00	0.15	1.700	O	|	|	|	|	0.46
297.083	0.00	0.15	1.699	O	|	|	|	|	0.46
297.167	0.00	0.15	1.698	O	|	|	|	|	0.46
297.250	0.00	0.15	1.697	O	|	|	|	|	0.46
297.333	0.00	0.15	1.696	O	|	|	|	|	0.46
297.417	0.00	0.15	1.695	O	|	|	|	|	0.46
297.500	0.00	0.15	1.694	O	|	|	|	|	0.46
297.583	0.00	0.15	1.693	O	|	|	|	|	0.46
297.667	0.00	0.15	1.692	O	|	|	|	|	0.46
297.750	0.00	0.15	1.691	O	|	|	|	|	0.46
297.833	0.00	0.15	1.690	O	|	|	|	|	0.46
297.917	0.00	0.15	1.689	O	|	|	|	|	0.46
298.000	0.00	0.15	1.688	O	|	|	|	|	0.46
298.083	0.00	0.15	1.687	O	|	|	|	|	0.46
298.167	0.00	0.15	1.686	O	|	|	|	|	0.46

298.250	0.00	0.15	1.685	O	|	|	|	|	0.46
298.333	0.00	0.15	1.684	O	|	|	|	|	0.46
298.417	0.00	0.15	1.683	O	|	|	|	|	0.45
298.500	0.00	0.15	1.682	O	|	|	|	|	0.45
298.583	0.00	0.15	1.681	O	|	|	|	|	0.45
298.667	0.00	0.15	1.680	O	|	|	|	|	0.45
298.750	0.00	0.15	1.679	O	|	|	|	|	0.45
298.833	0.00	0.15	1.678	O	|	|	|	|	0.45
298.917	0.00	0.15	1.677	O	|	|	|	|	0.45
299.000	0.00	0.14	1.676	O	|	|	|	|	0.45
299.083	0.00	0.14	1.675	O	|	|	|	|	0.45
299.167	0.00	0.14	1.674	O	|	|	|	|	0.45
299.250	0.00	0.14	1.673	O	|	|	|	|	0.45
299.333	0.00	0.14	1.672	O	|	|	|	|	0.45
299.417	0.00	0.14	1.671	O	|	|	|	|	0.45
299.500	0.00	0.14	1.670	O	|	|	|	|	0.45
299.583	0.00	0.14	1.669	O	|	|	|	|	0.45
299.667	0.00	0.14	1.668	O	|	|	|	|	0.45
299.750	0.00	0.14	1.667	O	|	|	|	|	0.45
299.833	0.00	0.14	1.666	O	|	|	|	|	0.45
299.917	0.00	0.14	1.665	O	|	|	|	|	0.45
300.000	0.00	0.14	1.664	O	|	|	|	|	0.45
300.083	0.00	0.14	1.663	O	|	|	|	|	0.45
300.167	0.00	0.14	1.662	O	|	|	|	|	0.45
300.250	0.00	0.14	1.661	O	|	|	|	|	0.45
300.333	0.00	0.14	1.660	O	|	|	|	|	0.45
300.417	0.00	0.14	1.659	O	|	|	|	|	0.45
300.500	0.00	0.14	1.658	O	|	|	|	|	0.45
300.583	0.00	0.14	1.657	O	|	|	|	|	0.45
300.667	0.00	0.14	1.656	O	|	|	|	|	0.45
300.750	0.00	0.14	1.655	O	|	|	|	|	0.45
300.833	0.00	0.14	1.654	O	|	|	|	|	0.45
300.917	0.00	0.14	1.653	O	|	|	|	|	0.45
301.000	0.00	0.14	1.652	O	|	|	|	|	0.45
301.083	0.00	0.14	1.652	O	|	|	|	|	0.45
301.167	0.00	0.14	1.651	O	|	|	|	|	0.45
301.250	0.00	0.14	1.650	O	|	|	|	|	0.45
301.333	0.00	0.14	1.649	O	|	|	|	|	0.45
301.417	0.00	0.14	1.648	O	|	|	|	|	0.45
301.500	0.00	0.14	1.647	O	|	|	|	|	0.45
301.583	0.00	0.14	1.646	O	|	|	|	|	0.44
301.667	0.00	0.14	1.645	O	|	|	|	|	0.44
301.750	0.00	0.14	1.644	O	|	|	|	|	0.44
301.833	0.00	0.14	1.643	O	|	|	|	|	0.44
301.917	0.00	0.14	1.642	O	|	|	|	|	0.44
302.000	0.00	0.14	1.641	O	|	|	|	|	0.44
302.083	0.00	0.14	1.640	O	|	|	|	|	0.44
302.167	0.00	0.14	1.639	O	|	|	|	|	0.44
302.250	0.00	0.14	1.638	O	|	|	|	|	0.44
302.333	0.00	0.14	1.637	O	|	|	|	|	0.44
302.417	0.00	0.14	1.636	O	|	|	|	|	0.44
302.500	0.00	0.14	1.635	O	|	|	|	|	0.44
302.583	0.00	0.14	1.634	O	|	|	|	|	0.44
302.667	0.00	0.14	1.633	O	|	|	|	|	0.44
302.750	0.00	0.14	1.632	O	|	|	|	|	0.44
302.833	0.00	0.14	1.631	O	|	|	|	|	0.44
302.917	0.00	0.14	1.630	O	|	|	|	|	0.44
303.000	0.00	0.14	1.629	O	|	|	|	|	0.44
303.083	0.00	0.14	1.628	O	|	|	|	|	0.44
303.167	0.00	0.14	1.627	O	|	|	|	|	0.44
303.250	0.00	0.14	1.626	O	|	|	|	|	0.44
303.333	0.00	0.14	1.625	O	|	|	|	|	0.44
303.417	0.00	0.14	1.624	O	|	|	|	|	0.44

303.500	0.00	0.14	1.623	O					0.44
303.583	0.00	0.14	1.622	O					0.44
303.667	0.00	0.14	1.621	O					0.44
303.750	0.00	0.14	1.620	O					0.44
303.833	0.00	0.14	1.619	O					0.44
303.917	0.00	0.14	1.618	O					0.44
304.000	0.00	0.14	1.617	O					0.44
304.083	0.00	0.14	1.616	O					0.44
304.167	0.00	0.14	1.616	O					0.44
304.250	0.00	0.14	1.615	O					0.44
304.333	0.00	0.14	1.614	O					0.44
304.417	0.00	0.14	1.613	O					0.44
304.500	0.00	0.14	1.612	O					0.44
304.583	0.00	0.14	1.611	O					0.44
304.667	0.00	0.14	1.610	O					0.44
304.750	0.00	0.14	1.609	O					0.43
304.833	0.00	0.14	1.608	O					0.43
304.917	0.00	0.14	1.607	O					0.43
305.000	0.00	0.14	1.606	O					0.43
305.083	0.00	0.14	1.605	O					0.43
305.167	0.00	0.14	1.604	O					0.43
305.250	0.00	0.14	1.603	O					0.43
305.333	0.00	0.14	1.602	O					0.43
305.417	0.00	0.14	1.601	O					0.43
305.500	0.00	0.14	1.600	O					0.43
305.583	0.00	0.14	1.599	O					0.43
305.667	0.00	0.14	1.598	O					0.43
305.750	0.00	0.14	1.597	O					0.43
305.833	0.00	0.14	1.596	O					0.43
305.917	0.00	0.14	1.595	O					0.43
306.000	0.00	0.14	1.594	O					0.43
306.083	0.00	0.14	1.594	O					0.43
306.167	0.00	0.14	1.593	O					0.43
306.250	0.00	0.14	1.592	O					0.43
306.333	0.00	0.14	1.591	O					0.43
306.417	0.00	0.14	1.590	O					0.43
306.500	0.00	0.14	1.589	O					0.43
306.583	0.00	0.14	1.588	O					0.43
306.667	0.00	0.14	1.587	O					0.43
306.750	0.00	0.14	1.586	O					0.43
306.833	0.00	0.14	1.585	O					0.43
306.917	0.00	0.14	1.584	O					0.43
307.000	0.00	0.14	1.583	O					0.43
307.083	0.00	0.14	1.582	O					0.43
307.167	0.00	0.14	1.581	O					0.43
307.250	0.00	0.14	1.580	O					0.43
307.333	0.00	0.14	1.579	O					0.43
307.417	0.00	0.14	1.578	O					0.43
307.500	0.00	0.14	1.577	O					0.43
307.583	0.00	0.14	1.577	O					0.43
307.667	0.00	0.14	1.576	O					0.43
307.750	0.00	0.14	1.575	O					0.43
307.833	0.00	0.14	1.574	O					0.43
307.917	0.00	0.14	1.573	O					0.43
308.000	0.00	0.14	1.572	O					0.42
308.083	0.00	0.14	1.571	O					0.42
308.167	0.00	0.14	1.570	O					0.42
308.250	0.00	0.14	1.569	O					0.42
308.333	0.00	0.14	1.568	O					0.42
308.417	0.00	0.14	1.567	O					0.42
308.500	0.00	0.14	1.566	O					0.42
308.583	0.00	0.14	1.565	O					0.42
308.667	0.00	0.14	1.564	O					0.42

308.750	0.00	0.14	1.563	O	|	|	|	|	0.42
308.833	0.00	0.14	1.563	O	|	|	|	|	0.42
308.917	0.00	0.14	1.562	O	|	|	|	|	0.42
309.000	0.00	0.13	1.561	O	|	|	|	|	0.42
309.083	0.00	0.13	1.560	O	|	|	|	|	0.42
309.167	0.00	0.13	1.559	O	|	|	|	|	0.42
309.250	0.00	0.13	1.558	O	|	|	|	|	0.42
309.333	0.00	0.13	1.557	O	|	|	|	|	0.42
309.417	0.00	0.13	1.556	O	|	|	|	|	0.42
309.500	0.00	0.13	1.555	O	|	|	|	|	0.42
309.583	0.00	0.13	1.554	O	|	|	|	|	0.42
309.667	0.00	0.13	1.553	O	|	|	|	|	0.42
309.750	0.00	0.13	1.552	O	|	|	|	|	0.42
309.833	0.00	0.13	1.551	O	|	|	|	|	0.42
309.917	0.00	0.13	1.550	O	|	|	|	|	0.42
310.000	0.00	0.13	1.550	O	|	|	|	|	0.42
310.083	0.00	0.13	1.549	O	|	|	|	|	0.42
310.167	0.00	0.13	1.548	O	|	|	|	|	0.42
310.250	0.00	0.13	1.547	O	|	|	|	|	0.42
310.333	0.00	0.13	1.546	O	|	|	|	|	0.42
310.417	0.00	0.13	1.545	O	|	|	|	|	0.42
310.500	0.00	0.13	1.544	O	|	|	|	|	0.42
310.583	0.00	0.13	1.543	O	|	|	|	|	0.42
310.667	0.00	0.13	1.542	O	|	|	|	|	0.42
310.750	0.00	0.13	1.541	O	|	|	|	|	0.42
310.833	0.00	0.13	1.540	O	|	|	|	|	0.42
310.917	0.00	0.13	1.539	O	|	|	|	|	0.42
311.000	0.00	0.13	1.539	O	|	|	|	|	0.42
311.083	0.00	0.13	1.538	O	|	|	|	|	0.42
311.167	0.00	0.13	1.537	O	|	|	|	|	0.42
311.250	0.00	0.13	1.536	O	|	|	|	|	0.42
311.333	0.00	0.13	1.535	O	|	|	|	|	0.41
311.417	0.00	0.13	1.534	O	|	|	|	|	0.41
311.500	0.00	0.13	1.533	O	|	|	|	|	0.41
311.583	0.00	0.13	1.532	O	|	|	|	|	0.41
311.667	0.00	0.13	1.531	O	|	|	|	|	0.41
311.750	0.00	0.13	1.530	O	|	|	|	|	0.41
311.833	0.00	0.13	1.529	O	|	|	|	|	0.41
311.917	0.00	0.13	1.528	O	|	|	|	|	0.41
312.000	0.00	0.13	1.528	O	|	|	|	|	0.41
312.083	0.00	0.13	1.527	O	|	|	|	|	0.41
312.167	0.00	0.13	1.526	O	|	|	|	|	0.41
312.250	0.00	0.13	1.525	O	|	|	|	|	0.41
312.333	0.00	0.13	1.524	O	|	|	|	|	0.41
312.417	0.00	0.13	1.523	O	|	|	|	|	0.41
312.500	0.00	0.13	1.522	O	|	|	|	|	0.41
312.583	0.00	0.13	1.521	O	|	|	|	|	0.41
312.667	0.00	0.13	1.520	O	|	|	|	|	0.41
312.750	0.00	0.13	1.519	O	|	|	|	|	0.41
312.833	0.00	0.13	1.518	O	|	|	|	|	0.41
312.917	0.00	0.13	1.518	O	|	|	|	|	0.41
313.000	0.00	0.13	1.517	O	|	|	|	|	0.41
313.083	0.00	0.13	1.516	O	|	|	|	|	0.41
313.167	0.00	0.13	1.515	O	|	|	|	|	0.41
313.250	0.00	0.13	1.514	O	|	|	|	|	0.41
313.333	0.00	0.13	1.513	O	|	|	|	|	0.41
313.417	0.00	0.13	1.512	O	|	|	|	|	0.41
313.500	0.00	0.13	1.511	O	|	|	|	|	0.41
313.583	0.00	0.13	1.510	O	|	|	|	|	0.41
313.667	0.00	0.13	1.509	O	|	|	|	|	0.41
313.750	0.00	0.13	1.509	O	|	|	|	|	0.41
313.833	0.00	0.13	1.508	O	|	|	|	|	0.41
313.917	0.00	0.13	1.507	O	|	|	|	|	0.41

314.000	0.00	0.13	1.506	O	|	|	|	|	0.41
314.083	0.00	0.13	1.505	O	|	|	|	|	0.41
314.167	0.00	0.13	1.504	O	|	|	|	|	0.41
314.250	0.00	0.13	1.503	O	|	|	|	|	0.41
314.333	0.00	0.13	1.502	O	|	|	|	|	0.41
314.417	0.00	0.13	1.501	O	|	|	|	|	0.41
314.500	0.00	0.13	1.500	O	|	|	|	|	0.41
314.583	0.00	0.13	1.500	O	|	|	|	|	0.41
314.667	0.00	0.13	1.499	O	|	|	|	|	0.41
314.750	0.00	0.13	1.498	O	|	|	|	|	0.40
314.833	0.00	0.13	1.497	O	|	|	|	|	0.40
314.917	0.00	0.13	1.496	O	|	|	|	|	0.40
315.000	0.00	0.13	1.495	O	|	|	|	|	0.40
315.083	0.00	0.13	1.494	O	|	|	|	|	0.40
315.167	0.00	0.13	1.493	O	|	|	|	|	0.40
315.250	0.00	0.13	1.492	O	|	|	|	|	0.40
315.333	0.00	0.13	1.492	O	|	|	|	|	0.40
315.417	0.00	0.13	1.491	O	|	|	|	|	0.40
315.500	0.00	0.13	1.490	O	|	|	|	|	0.40
315.583	0.00	0.13	1.489	O	|	|	|	|	0.40
315.667	0.00	0.13	1.488	O	|	|	|	|	0.40
315.750	0.00	0.13	1.487	O	|	|	|	|	0.40
315.833	0.00	0.13	1.486	O	|	|	|	|	0.40
315.917	0.00	0.13	1.485	O	|	|	|	|	0.40
316.000	0.00	0.13	1.484	O	|	|	|	|	0.40
316.083	0.00	0.13	1.484	O	|	|	|	|	0.40
316.167	0.00	0.13	1.483	O	|	|	|	|	0.40
316.250	0.00	0.13	1.482	O	|	|	|	|	0.40
316.333	0.00	0.13	1.481	O	|	|	|	|	0.40
316.417	0.00	0.13	1.480	O	|	|	|	|	0.40
316.500	0.00	0.13	1.479	O	|	|	|	|	0.40
316.583	0.00	0.13	1.478	O	|	|	|	|	0.40
316.667	0.00	0.13	1.477	O	|	|	|	|	0.40
316.750	0.00	0.13	1.477	O	|	|	|	|	0.40
316.833	0.00	0.13	1.476	O	|	|	|	|	0.40
316.917	0.00	0.13	1.475	O	|	|	|	|	0.40
317.000	0.00	0.13	1.474	O	|	|	|	|	0.40
317.083	0.00	0.13	1.473	O	|	|	|	|	0.40
317.167	0.00	0.13	1.472	O	|	|	|	|	0.40
317.250	0.00	0.13	1.471	O	|	|	|	|	0.40
317.333	0.00	0.13	1.470	O	|	|	|	|	0.40
317.417	0.00	0.13	1.470	O	|	|	|	|	0.40
317.500	0.00	0.13	1.469	O	|	|	|	|	0.40
317.583	0.00	0.13	1.468	O	|	|	|	|	0.40
317.667	0.00	0.13	1.467	O	|	|	|	|	0.40
317.750	0.00	0.13	1.466	O	|	|	|	|	0.40
317.833	0.00	0.13	1.465	O	|	|	|	|	0.40
317.917	0.00	0.13	1.464	O	|	|	|	|	0.40
318.000	0.00	0.13	1.463	O	|	|	|	|	0.40
318.083	0.00	0.13	1.463	O	|	|	|	|	0.40
318.167	0.00	0.13	1.462	O	|	|	|	|	0.40
318.250	0.00	0.13	1.461	O	|	|	|	|	0.39
318.333	0.00	0.13	1.460	O	|	|	|	|	0.39
318.417	0.00	0.13	1.459	O	|	|	|	|	0.39
318.500	0.00	0.13	1.458	O	|	|	|	|	0.39
318.583	0.00	0.13	1.457	O	|	|	|	|	0.39
318.667	0.00	0.13	1.456	O	|	|	|	|	0.39
318.750	0.00	0.13	1.456	O	|	|	|	|	0.39
318.833	0.00	0.13	1.455	O	|	|	|	|	0.39
318.917	0.00	0.13	1.454	O	|	|	|	|	0.39
319.000	0.00	0.13	1.453	O	|	|	|	|	0.39
319.083	0.00	0.13	1.452	O	|	|	|	|	0.39
319.167	0.00	0.13	1.451	O	|	|	|	|	0.39

319.250	0.00	0.13	1.450	O	|	|	|	|	0.39
319.333	0.00	0.13	1.450	O	|	|	|	|	0.39
319.417	0.00	0.13	1.449	O	|	|	|	|	0.39
319.500	0.00	0.13	1.448	O	|	|	|	|	0.39
319.583	0.00	0.13	1.447	O	|	|	|	|	0.39
319.667	0.00	0.13	1.446	O	|	|	|	|	0.39
319.750	0.00	0.12	1.445	O	|	|	|	|	0.39
319.833	0.00	0.12	1.444	O	|	|	|	|	0.39
319.917	0.00	0.12	1.444	O	|	|	|	|	0.39
320.000	0.00	0.12	1.443	O	|	|	|	|	0.39
320.083	0.00	0.12	1.442	O	|	|	|	|	0.39
320.167	0.00	0.12	1.441	O	|	|	|	|	0.39
320.250	0.00	0.12	1.440	O	|	|	|	|	0.39
320.333	0.00	0.12	1.439	O	|	|	|	|	0.39
320.417	0.00	0.12	1.438	O	|	|	|	|	0.39
320.500	0.00	0.12	1.438	O	|	|	|	|	0.39
320.583	0.00	0.12	1.437	O	|	|	|	|	0.39
320.667	0.00	0.12	1.436	O	|	|	|	|	0.39
320.750	0.00	0.12	1.435	O	|	|	|	|	0.39
320.833	0.00	0.12	1.434	O	|	|	|	|	0.39
320.917	0.00	0.12	1.433	O	|	|	|	|	0.39
321.000	0.00	0.12	1.432	O	|	|	|	|	0.39
321.083	0.00	0.12	1.432	O	|	|	|	|	0.39
321.167	0.00	0.12	1.431	O	|	|	|	|	0.39
321.250	0.00	0.12	1.430	O	|	|	|	|	0.39
321.333	0.00	0.12	1.429	O	|	|	|	|	0.39
321.417	0.00	0.12	1.428	O	|	|	|	|	0.39
321.500	0.00	0.12	1.427	O	|	|	|	|	0.39
321.583	0.00	0.12	1.426	O	|	|	|	|	0.39
321.667	0.00	0.12	1.426	O	|	|	|	|	0.39
321.750	0.00	0.12	1.425	O	|	|	|	|	0.39
321.833	0.00	0.12	1.424	O	|	|	|	|	0.38
321.917	0.00	0.12	1.423	O	|	|	|	|	0.38
322.000	0.00	0.12	1.422	O	|	|	|	|	0.38
322.083	0.00	0.12	1.421	O	|	|	|	|	0.38
322.167	0.00	0.12	1.420	O	|	|	|	|	0.38
322.250	0.00	0.12	1.420	O	|	|	|	|	0.38
322.333	0.00	0.12	1.419	O	|	|	|	|	0.38
322.417	0.00	0.12	1.418	O	|	|	|	|	0.38
322.500	0.00	0.12	1.417	O	|	|	|	|	0.38
322.583	0.00	0.12	1.416	O	|	|	|	|	0.38
322.667	0.00	0.12	1.415	O	|	|	|	|	0.38
322.750	0.00	0.12	1.415	O	|	|	|	|	0.38
322.833	0.00	0.12	1.414	O	|	|	|	|	0.38
322.917	0.00	0.12	1.413	O	|	|	|	|	0.38
323.000	0.00	0.12	1.412	O	|	|	|	|	0.38
323.083	0.00	0.12	1.411	O	|	|	|	|	0.38
323.167	0.00	0.12	1.410	O	|	|	|	|	0.38
323.250	0.00	0.12	1.410	O	|	|	|	|	0.38
323.333	0.00	0.12	1.409	O	|	|	|	|	0.38
323.417	0.00	0.12	1.408	O	|	|	|	|	0.38
323.500	0.00	0.12	1.407	O	|	|	|	|	0.38
323.583	0.00	0.12	1.406	O	|	|	|	|	0.38
323.667	0.00	0.12	1.405	O	|	|	|	|	0.38
323.750	0.00	0.12	1.404	O	|	|	|	|	0.38
323.833	0.00	0.12	1.404	O	|	|	|	|	0.38
323.917	0.00	0.12	1.403	O	|	|	|	|	0.38
324.000	0.00	0.12	1.402	O	|	|	|	|	0.38
324.083	0.00	0.12	1.401	O	|	|	|	|	0.38
324.167	0.00	0.12	1.400	O	|	|	|	|	0.38
324.250	0.00	0.12	1.399	O	|	|	|	|	0.38
324.333	0.00	0.12	1.399	O	|	|	|	|	0.38
324.417	0.00	0.12	1.398	O	|	|	|	|	0.38

324.500	0.00	0.12	1.397	O	|	|	|	|	0.38
324.583	0.00	0.12	1.396	O	|	|	|	|	0.38
324.667	0.00	0.12	1.395	O	|	|	|	|	0.38
324.750	0.00	0.12	1.394	O	|	|	|	|	0.38
324.833	0.00	0.12	1.394	O	|	|	|	|	0.38
324.917	0.00	0.12	1.393	O	|	|	|	|	0.38
325.000	0.00	0.12	1.392	O	|	|	|	|	0.38
325.083	0.00	0.12	1.391	O	|	|	|	|	0.38
325.167	0.00	0.12	1.390	O	|	|	|	|	0.38
325.250	0.00	0.12	1.390	O	|	|	|	|	0.38
325.333	0.00	0.12	1.389	O	|	|	|	|	0.38
325.417	0.00	0.12	1.388	O	|	|	|	|	0.38
325.500	0.00	0.12	1.387	O	|	|	|	|	0.37
325.583	0.00	0.12	1.386	O	|	|	|	|	0.37
325.667	0.00	0.12	1.385	O	|	|	|	|	0.37
325.750	0.00	0.12	1.385	O	|	|	|	|	0.37
325.833	0.00	0.12	1.384	O	|	|	|	|	0.37
325.917	0.00	0.12	1.383	O	|	|	|	|	0.37
326.000	0.00	0.12	1.382	O	|	|	|	|	0.37
326.083	0.00	0.12	1.381	O	|	|	|	|	0.37
326.167	0.00	0.12	1.380	O	|	|	|	|	0.37
326.250	0.00	0.12	1.380	O	|	|	|	|	0.37
326.333	0.00	0.12	1.379	O	|	|	|	|	0.37
326.417	0.00	0.12	1.378	O	|	|	|	|	0.37
326.500	0.00	0.12	1.377	O	|	|	|	|	0.37
326.583	0.00	0.12	1.376	O	|	|	|	|	0.37
326.667	0.00	0.12	1.376	O	|	|	|	|	0.37
326.750	0.00	0.12	1.375	O	|	|	|	|	0.37
326.833	0.00	0.12	1.374	O	|	|	|	|	0.37
326.917	0.00	0.12	1.373	O	|	|	|	|	0.37
327.000	0.00	0.12	1.372	O	|	|	|	|	0.37
327.083	0.00	0.12	1.371	O	|	|	|	|	0.37
327.167	0.00	0.12	1.371	O	|	|	|	|	0.37
327.250	0.00	0.12	1.370	O	|	|	|	|	0.37
327.333	0.00	0.12	1.369	O	|	|	|	|	0.37
327.417	0.00	0.12	1.368	O	|	|	|	|	0.37
327.500	0.00	0.12	1.367	O	|	|	|	|	0.37
327.583	0.00	0.12	1.367	O	|	|	|	|	0.37
327.667	0.00	0.12	1.366	O	|	|	|	|	0.37
327.750	0.00	0.12	1.365	O	|	|	|	|	0.37
327.833	0.00	0.12	1.364	O	|	|	|	|	0.37
327.917	0.00	0.12	1.363	O	|	|	|	|	0.37
328.000	0.00	0.12	1.362	O	|	|	|	|	0.37
328.083	0.00	0.12	1.362	O	|	|	|	|	0.37
328.167	0.00	0.12	1.361	O	|	|	|	|	0.37
328.250	0.00	0.12	1.360	O	|	|	|	|	0.37
328.333	0.00	0.12	1.359	O	|	|	|	|	0.37
328.417	0.00	0.12	1.358	O	|	|	|	|	0.37
328.500	0.00	0.12	1.358	O	|	|	|	|	0.37
328.583	0.00	0.12	1.357	O	|	|	|	|	0.37
328.667	0.00	0.12	1.356	O	|	|	|	|	0.37
328.750	0.00	0.12	1.355	O	|	|	|	|	0.37
328.833	0.00	0.12	1.354	O	|	|	|	|	0.37
328.917	0.00	0.12	1.354	O	|	|	|	|	0.37
329.000	0.00	0.12	1.353	O	|	|	|	|	0.37
329.083	0.00	0.12	1.352	O	|	|	|	|	0.37
329.167	0.00	0.12	1.351	O	|	|	|	|	0.37
329.250	0.00	0.12	1.350	O	|	|	|	|	0.36
329.333	0.00	0.12	1.350	O	|	|	|	|	0.36
329.417	0.00	0.12	1.349	O	|	|	|	|	0.36
329.500	0.00	0.12	1.348	O	|	|	|	|	0.36
329.583	0.00	0.12	1.347	O	|	|	|	|	0.36
329.667	0.00	0.12	1.346	O	|	|	|	|	0.36

329.750	0.00	0.12	1.346	O	|	|	|	|	0.36
329.833	0.00	0.12	1.345	O	|	|	|	|	0.36
329.917	0.00	0.12	1.344	O	|	|	|	|	0.36
330.000	0.00	0.12	1.343	O	|	|	|	|	0.36
330.083	0.00	0.12	1.342	O	|	|	|	|	0.36
330.167	0.00	0.12	1.342	O	|	|	|	|	0.36
330.250	0.00	0.12	1.341	O	|	|	|	|	0.36
330.333	0.00	0.12	1.340	O	|	|	|	|	0.36
330.417	0.00	0.12	1.339	O	|	|	|	|	0.36
330.500	0.00	0.12	1.338	O	|	|	|	|	0.36
330.583	0.00	0.12	1.338	O	|	|	|	|	0.36
330.667	0.00	0.12	1.337	O	|	|	|	|	0.36
330.750	0.00	0.12	1.336	O	|	|	|	|	0.36
330.833	0.00	0.12	1.335	O	|	|	|	|	0.36
330.917	0.00	0.12	1.334	O	|	|	|	|	0.36
331.000	0.00	0.12	1.334	O	|	|	|	|	0.36
331.083	0.00	0.12	1.333	O	|	|	|	|	0.36
331.167	0.00	0.12	1.332	O	|	|	|	|	0.36
331.250	0.00	0.12	1.331	O	|	|	|	|	0.36
331.333	0.00	0.12	1.330	O	|	|	|	|	0.36
331.417	0.00	0.11	1.330	O	|	|	|	|	0.36
331.500	0.00	0.11	1.329	O	|	|	|	|	0.36
331.583	0.00	0.11	1.328	O	|	|	|	|	0.36
331.667	0.00	0.11	1.327	O	|	|	|	|	0.36
331.750	0.00	0.11	1.326	O	|	|	|	|	0.36
331.833	0.00	0.11	1.326	O	|	|	|	|	0.36
331.917	0.00	0.11	1.325	O	|	|	|	|	0.36
332.000	0.00	0.11	1.324	O	|	|	|	|	0.36
332.083	0.00	0.11	1.323	O	|	|	|	|	0.36
332.167	0.00	0.11	1.322	O	|	|	|	|	0.36
332.250	0.00	0.11	1.322	O	|	|	|	|	0.36
332.333	0.00	0.11	1.321	O	|	|	|	|	0.36
332.417	0.00	0.11	1.320	O	|	|	|	|	0.36
332.500	0.00	0.11	1.319	O	|	|	|	|	0.36
332.583	0.00	0.11	1.319	O	|	|	|	|	0.36
332.667	0.00	0.11	1.318	O	|	|	|	|	0.36
332.750	0.00	0.11	1.317	O	|	|	|	|	0.36
332.833	0.00	0.11	1.316	O	|	|	|	|	0.36
332.917	0.00	0.11	1.315	O	|	|	|	|	0.36
333.000	0.00	0.11	1.315	O	|	|	|	|	0.36
333.083	0.00	0.11	1.314	O	|	|	|	|	0.36
333.167	0.00	0.11	1.313	O	|	|	|	|	0.35
333.250	0.00	0.11	1.312	O	|	|	|	|	0.35
333.333	0.00	0.11	1.312	O	|	|	|	|	0.35
333.417	0.00	0.11	1.311	O	|	|	|	|	0.35
333.500	0.00	0.11	1.310	O	|	|	|	|	0.35
333.583	0.00	0.11	1.309	O	|	|	|	|	0.35
333.667	0.00	0.11	1.308	O	|	|	|	|	0.35
333.750	0.00	0.11	1.308	O	|	|	|	|	0.35
333.833	0.00	0.11	1.307	O	|	|	|	|	0.35
333.917	0.00	0.11	1.306	O	|	|	|	|	0.35
334.000	0.00	0.11	1.305	O	|	|	|	|	0.35
334.083	0.00	0.11	1.305	O	|	|	|	|	0.35
334.167	0.00	0.11	1.304	O	|	|	|	|	0.35
334.250	0.00	0.11	1.303	O	|	|	|	|	0.35
334.333	0.00	0.11	1.302	O	|	|	|	|	0.35
334.417	0.00	0.11	1.301	O	|	|	|	|	0.35
334.500	0.00	0.11	1.301	O	|	|	|	|	0.35
334.583	0.00	0.11	1.300	O	|	|	|	|	0.35
334.667	0.00	0.11	1.299	O	|	|	|	|	0.35
334.750	0.00	0.11	1.298	O	|	|	|	|	0.35
334.833	0.00	0.11	1.298	O	|	|	|	|	0.35
334.917	0.00	0.11	1.297	O	|	|	|	|	0.35

335.000	0.00	0.11	1.296	O	|	|	|	|	0.35
335.083	0.00	0.11	1.295	O	|	|	|	|	0.35
335.167	0.00	0.11	1.294	O	|	|	|	|	0.35
335.250	0.00	0.11	1.294	O	|	|	|	|	0.35
335.333	0.00	0.11	1.293	O	|	|	|	|	0.35
335.417	0.00	0.11	1.292	O	|	|	|	|	0.35
335.500	0.00	0.11	1.291	O	|	|	|	|	0.35
335.583	0.00	0.11	1.291	O	|	|	|	|	0.35
335.667	0.00	0.11	1.290	O	|	|	|	|	0.35
335.750	0.00	0.11	1.289	O	|	|	|	|	0.35
335.833	0.00	0.11	1.288	O	|	|	|	|	0.35
335.917	0.00	0.11	1.288	O	|	|	|	|	0.35
336.000	0.00	0.11	1.287	O	|	|	|	|	0.35
336.083	0.00	0.11	1.286	O	|	|	|	|	0.35
336.167	0.00	0.11	1.285	O	|	|	|	|	0.35
336.250	0.00	0.11	1.284	O	|	|	|	|	0.35
336.333	0.00	0.11	1.284	O	|	|	|	|	0.35
336.417	0.00	0.11	1.283	O	|	|	|	|	0.35
336.500	0.00	0.11	1.282	O	|	|	|	|	0.35
336.583	0.00	0.11	1.281	O	|	|	|	|	0.35
336.667	0.00	0.11	1.281	O	|	|	|	|	0.35
336.750	0.00	0.11	1.280	O	|	|	|	|	0.35
336.833	0.00	0.11	1.279	O	|	|	|	|	0.35
336.917	0.00	0.11	1.278	O	|	|	|	|	0.35
337.000	0.00	0.11	1.278	O	|	|	|	|	0.35
337.083	0.00	0.11	1.277	O	|	|	|	|	0.35
337.167	0.00	0.11	1.276	O	|	|	|	|	0.34
337.250	0.00	0.11	1.275	O	|	|	|	|	0.34
337.333	0.00	0.11	1.275	O	|	|	|	|	0.34
337.417	0.00	0.11	1.274	O	|	|	|	|	0.34
337.500	0.00	0.11	1.273	O	|	|	|	|	0.34
337.583	0.00	0.11	1.272	O	|	|	|	|	0.34
337.667	0.00	0.11	1.272	O	|	|	|	|	0.34
337.750	0.00	0.11	1.271	O	|	|	|	|	0.34
337.833	0.00	0.11	1.270	O	|	|	|	|	0.34
337.917	0.00	0.11	1.269	O	|	|	|	|	0.34
338.000	0.00	0.11	1.268	O	|	|	|	|	0.34
338.083	0.00	0.11	1.268	O	|	|	|	|	0.34
338.167	0.00	0.11	1.267	O	|	|	|	|	0.34
338.250	0.00	0.11	1.266	O	|	|	|	|	0.34
338.333	0.00	0.11	1.265	O	|	|	|	|	0.34
338.417	0.00	0.11	1.265	O	|	|	|	|	0.34
338.500	0.00	0.11	1.264	O	|	|	|	|	0.34
338.583	0.00	0.11	1.263	O	|	|	|	|	0.34
338.667	0.00	0.11	1.262	O	|	|	|	|	0.34
338.750	0.00	0.11	1.262	O	|	|	|	|	0.34
338.833	0.00	0.11	1.261	O	|	|	|	|	0.34
338.917	0.00	0.11	1.260	O	|	|	|	|	0.34
339.000	0.00	0.11	1.259	O	|	|	|	|	0.34
339.083	0.00	0.11	1.259	O	|	|	|	|	0.34
339.167	0.00	0.11	1.258	O	|	|	|	|	0.34
339.250	0.00	0.11	1.257	O	|	|	|	|	0.34
339.333	0.00	0.11	1.256	O	|	|	|	|	0.34
339.417	0.00	0.11	1.256	O	|	|	|	|	0.34
339.500	0.00	0.11	1.255	O	|	|	|	|	0.34
339.583	0.00	0.11	1.254	O	|	|	|	|	0.34
339.667	0.00	0.11	1.253	O	|	|	|	|	0.34
339.750	0.00	0.11	1.253	O	|	|	|	|	0.34
339.833	0.00	0.11	1.252	O	|	|	|	|	0.34
339.917	0.00	0.11	1.251	O	|	|	|	|	0.34
340.000	0.00	0.11	1.250	O	|	|	|	|	0.34
340.083	0.00	0.11	1.250	O	|	|	|	|	0.34
340.167	0.00	0.11	1.249	O	|	|	|	|	0.34

340.250	0.00	0.11	1.248	O	|	|	|	|	0.34
340.333	0.00	0.11	1.248	O	|	|	|	|	0.34
340.417	0.00	0.11	1.247	O	|	|	|	|	0.34
340.500	0.00	0.11	1.246	O	|	|	|	|	0.34
340.583	0.00	0.11	1.245	O	|	|	|	|	0.34
340.667	0.00	0.11	1.245	O	|	|	|	|	0.34
340.750	0.00	0.11	1.244	O	|	|	|	|	0.34
340.833	0.00	0.11	1.243	O	|	|	|	|	0.34
340.917	0.00	0.11	1.242	O	|	|	|	|	0.34
341.000	0.00	0.11	1.242	O	|	|	|	|	0.34
341.083	0.00	0.11	1.241	O	|	|	|	|	0.34
341.167	0.00	0.11	1.240	O	|	|	|	|	0.34
341.250	0.00	0.11	1.239	O	|	|	|	|	0.33
341.333	0.00	0.11	1.239	O	|	|	|	|	0.33
341.417	0.00	0.11	1.238	O	|	|	|	|	0.33
341.500	0.00	0.11	1.237	O	|	|	|	|	0.33
341.583	0.00	0.11	1.236	O	|	|	|	|	0.33
341.667	0.00	0.11	1.236	O	|	|	|	|	0.33
341.750	0.00	0.11	1.235	O	|	|	|	|	0.33
341.833	0.00	0.11	1.234	O	|	|	|	|	0.33
341.917	0.00	0.11	1.233	O	|	|	|	|	0.33
342.000	0.00	0.11	1.233	O	|	|	|	|	0.33
342.083	0.00	0.11	1.232	O	|	|	|	|	0.33
342.167	0.00	0.11	1.231	O	|	|	|	|	0.33
342.250	0.00	0.11	1.231	O	|	|	|	|	0.33
342.333	0.00	0.11	1.230	O	|	|	|	|	0.33
342.417	0.00	0.11	1.229	O	|	|	|	|	0.33
342.500	0.00	0.11	1.228	O	|	|	|	|	0.33
342.583	0.00	0.11	1.228	O	|	|	|	|	0.33
342.667	0.00	0.11	1.227	O	|	|	|	|	0.33
342.750	0.00	0.11	1.226	O	|	|	|	|	0.33
342.833	0.00	0.11	1.225	O	|	|	|	|	0.33
342.917	0.00	0.11	1.225	O	|	|	|	|	0.33
343.000	0.00	0.11	1.224	O	|	|	|	|	0.33
343.083	0.00	0.11	1.223	O	|	|	|	|	0.33
343.167	0.00	0.11	1.222	O	|	|	|	|	0.33
343.250	0.00	0.11	1.222	O	|	|	|	|	0.33
343.333	0.00	0.11	1.221	O	|	|	|	|	0.33
343.417	0.00	0.11	1.220	O	|	|	|	|	0.33
343.500	0.00	0.11	1.220	O	|	|	|	|	0.33
343.583	0.00	0.11	1.219	O	|	|	|	|	0.33
343.667	0.00	0.11	1.218	O	|	|	|	|	0.33
343.750	0.00	0.11	1.217	O	|	|	|	|	0.33
343.833	0.00	0.11	1.217	O	|	|	|	|	0.33
343.917	0.00	0.11	1.216	O	|	|	|	|	0.33
344.000	0.00	0.11	1.215	O	|	|	|	|	0.33
344.083	0.00	0.11	1.215	O	|	|	|	|	0.33
344.167	0.00	0.10	1.214	O	|	|	|	|	0.33
344.250	0.00	0.10	1.213	O	|	|	|	|	0.33
344.333	0.00	0.10	1.212	O	|	|	|	|	0.33
344.417	0.00	0.10	1.212	O	|	|	|	|	0.33
344.500	0.00	0.10	1.211	O	|	|	|	|	0.33
344.583	0.00	0.10	1.210	O	|	|	|	|	0.33
344.667	0.00	0.10	1.209	O	|	|	|	|	0.33
344.750	0.00	0.10	1.209	O	|	|	|	|	0.33
344.833	0.00	0.10	1.208	O	|	|	|	|	0.33
344.917	0.00	0.10	1.207	O	|	|	|	|	0.33
345.000	0.00	0.10	1.207	O	|	|	|	|	0.33
345.083	0.00	0.10	1.206	O	|	|	|	|	0.33
345.167	0.00	0.10	1.205	O	|	|	|	|	0.33
345.250	0.00	0.10	1.204	O	|	|	|	|	0.33
345.333	0.00	0.10	1.204	O	|	|	|	|	0.33
345.417	0.00	0.10	1.203	O	|	|	|	|	0.33

345.500	0.00	0.10	1.202	O	|	|	|	|	0.32
345.583	0.00	0.10	1.202	O	|	|	|	|	0.32
345.667	0.00	0.10	1.201	O	|	|	|	|	0.32
345.750	0.00	0.10	1.200	O	|	|	|	|	0.32
345.833	0.00	0.10	1.199	O	|	|	|	|	0.32
345.917	0.00	0.10	1.199	O	|	|	|	|	0.32
346.000	0.00	0.10	1.198	O	|	|	|	|	0.32
346.083	0.00	0.10	1.197	O	|	|	|	|	0.32
346.167	0.00	0.10	1.197	O	|	|	|	|	0.32
346.250	0.00	0.10	1.196	O	|	|	|	|	0.32
346.333	0.00	0.10	1.195	O	|	|	|	|	0.32
346.417	0.00	0.10	1.194	O	|	|	|	|	0.32
346.500	0.00	0.10	1.194	O	|	|	|	|	0.32
346.583	0.00	0.10	1.193	O	|	|	|	|	0.32
346.667	0.00	0.10	1.192	O	|	|	|	|	0.32
346.750	0.00	0.10	1.192	O	|	|	|	|	0.32
346.833	0.00	0.10	1.191	O	|	|	|	|	0.32
346.917	0.00	0.10	1.190	O	|	|	|	|	0.32
347.000	0.00	0.10	1.189	O	|	|	|	|	0.32
347.083	0.00	0.10	1.189	O	|	|	|	|	0.32
347.167	0.00	0.10	1.188	O	|	|	|	|	0.32
347.250	0.00	0.10	1.187	O	|	|	|	|	0.32
347.333	0.00	0.10	1.187	O	|	|	|	|	0.32
347.417	0.00	0.10	1.186	O	|	|	|	|	0.32
347.500	0.00	0.10	1.185	O	|	|	|	|	0.32
347.583	0.00	0.10	1.185	O	|	|	|	|	0.32
347.667	0.00	0.10	1.184	O	|	|	|	|	0.32
347.750	0.00	0.10	1.183	O	|	|	|	|	0.32
347.833	0.00	0.10	1.182	O	|	|	|	|	0.32
347.917	0.00	0.10	1.182	O	|	|	|	|	0.32
348.000	0.00	0.10	1.181	O	|	|	|	|	0.32
348.083	0.00	0.10	1.180	O	|	|	|	|	0.32
348.167	0.00	0.10	1.180	O	|	|	|	|	0.32
348.250	0.00	0.10	1.179	O	|	|	|	|	0.32
348.333	0.00	0.10	1.178	O	|	|	|	|	0.32
348.417	0.00	0.10	1.177	O	|	|	|	|	0.32
348.500	0.00	0.10	1.177	O	|	|	|	|	0.32
348.583	0.00	0.10	1.176	O	|	|	|	|	0.32
348.667	0.00	0.10	1.175	O	|	|	|	|	0.32
348.750	0.00	0.10	1.175	O	|	|	|	|	0.32
348.833	0.00	0.10	1.174	O	|	|	|	|	0.32
348.917	0.00	0.10	1.173	O	|	|	|	|	0.32
349.000	0.00	0.10	1.173	O	|	|	|	|	0.32
349.083	0.00	0.10	1.172	O	|	|	|	|	0.32
349.167	0.00	0.10	1.171	O	|	|	|	|	0.32
349.250	0.00	0.10	1.170	O	|	|	|	|	0.32
349.333	0.00	0.10	1.170	O	|	|	|	|	0.32
349.417	0.00	0.10	1.169	O	|	|	|	|	0.32
349.500	0.00	0.10	1.168	O	|	|	|	|	0.32
349.583	0.00	0.10	1.168	O	|	|	|	|	0.32
349.667	0.00	0.10	1.167	O	|	|	|	|	0.32
349.750	0.00	0.10	1.166	O	|	|	|	|	0.32
349.833	0.00	0.10	1.166	O	|	|	|	|	0.32
349.917	0.00	0.10	1.165	O	|	|	|	|	0.31
350.000	0.00	0.10	1.164	O	|	|	|	|	0.31
350.083	0.00	0.10	1.164	O	|	|	|	|	0.31
350.167	0.00	0.10	1.163	O	|	|	|	|	0.31
350.250	0.00	0.10	1.162	O	|	|	|	|	0.31
350.333	0.00	0.10	1.161	O	|	|	|	|	0.31
350.417	0.00	0.10	1.161	O	|	|	|	|	0.31
350.500	0.00	0.10	1.160	O	|	|	|	|	0.31
350.583	0.00	0.10	1.159	O	|	|	|	|	0.31
350.667	0.00	0.10	1.159	O	|	|	|	|	0.31

350.750	0.00	0.10	1.158	O	|	|	|	|	0.31
350.833	0.00	0.10	1.157	O	|	|	|	|	0.31
350.917	0.00	0.10	1.157	O	|	|	|	|	0.31
351.000	0.00	0.10	1.156	O	|	|	|	|	0.31
351.083	0.00	0.10	1.155	O	|	|	|	|	0.31
351.167	0.00	0.10	1.155	O	|	|	|	|	0.31
351.250	0.00	0.10	1.154	O	|	|	|	|	0.31
351.333	0.00	0.10	1.153	O	|	|	|	|	0.31
351.417	0.00	0.10	1.152	O	|	|	|	|	0.31
351.500	0.00	0.10	1.152	O	|	|	|	|	0.31
351.583	0.00	0.10	1.151	O	|	|	|	|	0.31
351.667	0.00	0.10	1.150	O	|	|	|	|	0.31
351.750	0.00	0.10	1.150	O	|	|	|	|	0.31
351.833	0.00	0.10	1.149	O	|	|	|	|	0.31
351.917	0.00	0.10	1.148	O	|	|	|	|	0.31
352.000	0.00	0.10	1.148	O	|	|	|	|	0.31
352.083	0.00	0.10	1.147	O	|	|	|	|	0.31
352.167	0.00	0.10	1.146	O	|	|	|	|	0.31
352.250	0.00	0.10	1.146	O	|	|	|	|	0.31
352.333	0.00	0.10	1.145	O	|	|	|	|	0.31
352.417	0.00	0.10	1.144	O	|	|	|	|	0.31
352.500	0.00	0.10	1.144	O	|	|	|	|	0.31
352.583	0.00	0.10	1.143	O	|	|	|	|	0.31
352.667	0.00	0.10	1.142	O	|	|	|	|	0.31
352.750	0.00	0.10	1.142	O	|	|	|	|	0.31
352.833	0.00	0.10	1.141	O	|	|	|	|	0.31
352.917	0.00	0.10	1.140	O	|	|	|	|	0.31
353.000	0.00	0.10	1.140	O	|	|	|	|	0.31
353.083	0.00	0.10	1.139	O	|	|	|	|	0.31
353.167	0.00	0.10	1.138	O	|	|	|	|	0.31
353.250	0.00	0.10	1.137	O	|	|	|	|	0.31
353.333	0.00	0.10	1.137	O	|	|	|	|	0.31
353.417	0.00	0.10	1.136	O	|	|	|	|	0.31
353.500	0.00	0.10	1.135	O	|	|	|	|	0.31
353.583	0.00	0.10	1.135	O	|	|	|	|	0.31
353.667	0.00	0.10	1.134	O	|	|	|	|	0.31
353.750	0.00	0.10	1.133	O	|	|	|	|	0.31
353.833	0.00	0.10	1.133	O	|	|	|	|	0.31
353.917	0.00	0.10	1.132	O	|	|	|	|	0.31
354.000	0.00	0.10	1.131	O	|	|	|	|	0.31
354.083	0.00	0.10	1.131	O	|	|	|	|	0.31
354.167	0.00	0.10	1.130	O	|	|	|	|	0.31
354.250	0.00	0.10	1.129	O	|	|	|	|	0.31
354.333	0.00	0.10	1.129	O	|	|	|	|	0.31
354.417	0.00	0.10	1.128	O	|	|	|	|	0.30
354.500	0.00	0.10	1.127	O	|	|	|	|	0.30
354.583	0.00	0.10	1.127	O	|	|	|	|	0.30
354.667	0.00	0.10	1.126	O	|	|	|	|	0.30
354.750	0.00	0.10	1.125	O	|	|	|	|	0.30
354.833	0.00	0.10	1.125	O	|	|	|	|	0.30
354.917	0.00	0.10	1.124	O	|	|	|	|	0.30
355.000	0.00	0.10	1.123	O	|	|	|	|	0.30
355.083	0.00	0.10	1.123	O	|	|	|	|	0.30
355.167	0.00	0.10	1.122	O	|	|	|	|	0.30
355.250	0.00	0.10	1.121	O	|	|	|	|	0.30
355.333	0.00	0.10	1.121	O	|	|	|	|	0.30
355.417	0.00	0.10	1.120	O	|	|	|	|	0.30
355.500	0.00	0.10	1.119	O	|	|	|	|	0.30
355.583	0.00	0.10	1.119	O	|	|	|	|	0.30
355.667	0.00	0.10	1.118	O	|	|	|	|	0.30
355.750	0.00	0.10	1.117	O	|	|	|	|	0.30
355.833	0.00	0.10	1.117	O	|	|	|	|	0.30
355.917	0.00	0.10	1.116	O	|	|	|	|	0.30

356.000	0.00	0.10	1.115	O	|	|	|	|	0.30
356.083	0.00	0.10	1.115	O	|	|	|	|	0.30
356.167	0.00	0.10	1.114	O	|	|	|	|	0.30
356.250	0.00	0.10	1.113	O	|	|	|	|	0.30
356.333	0.00	0.10	1.113	O	|	|	|	|	0.30
356.417	0.00	0.10	1.112	O	|	|	|	|	0.30
356.500	0.00	0.10	1.111	O	|	|	|	|	0.30
356.583	0.00	0.10	1.111	O	|	|	|	|	0.30
356.667	0.00	0.10	1.110	O	|	|	|	|	0.30
356.750	0.00	0.10	1.109	O	|	|	|	|	0.30
356.833	0.00	0.10	1.109	O	|	|	|	|	0.30
356.917	0.00	0.10	1.108	O	|	|	|	|	0.30
357.000	0.00	0.10	1.107	O	|	|	|	|	0.30
357.083	0.00	0.10	1.107	O	|	|	|	|	0.30
357.167	0.00	0.10	1.106	O	|	|	|	|	0.30
357.250	0.00	0.10	1.105	O	|	|	|	|	0.30
357.333	0.00	0.10	1.105	O	|	|	|	|	0.30
357.417	0.00	0.10	1.104	O	|	|	|	|	0.30
357.500	0.00	0.10	1.103	O	|	|	|	|	0.30
357.583	0.00	0.10	1.103	O	|	|	|	|	0.30
357.667	0.00	0.10	1.102	O	|	|	|	|	0.30
357.750	0.00	0.10	1.101	O	|	|	|	|	0.30
357.833	0.00	0.10	1.101	O	|	|	|	|	0.30
357.917	0.00	0.10	1.100	O	|	|	|	|	0.30
358.000	0.00	0.10	1.100	O	|	|	|	|	0.30
358.083	0.00	0.10	1.099	O	|	|	|	|	0.30
358.167	0.00	0.09	1.098	O	|	|	|	|	0.30
358.250	0.00	0.09	1.098	O	|	|	|	|	0.30
358.333	0.00	0.09	1.097	O	|	|	|	|	0.30
358.417	0.00	0.09	1.096	O	|	|	|	|	0.30
358.500	0.00	0.09	1.096	O	|	|	|	|	0.30
358.583	0.00	0.09	1.095	O	|	|	|	|	0.30
358.667	0.00	0.09	1.094	O	|	|	|	|	0.30
358.750	0.00	0.09	1.094	O	|	|	|	|	0.30
358.833	0.00	0.09	1.093	O	|	|	|	|	0.30
358.917	0.00	0.09	1.092	O	|	|	|	|	0.30
359.000	0.00	0.09	1.092	O	|	|	|	|	0.30
359.083	0.00	0.09	1.091	O	|	|	|	|	0.29
359.167	0.00	0.09	1.090	O	|	|	|	|	0.29
359.250	0.00	0.09	1.090	O	|	|	|	|	0.29
359.333	0.00	0.09	1.089	O	|	|	|	|	0.29
359.417	0.00	0.09	1.088	O	|	|	|	|	0.29
359.500	0.00	0.09	1.088	O	|	|	|	|	0.29
359.583	0.00	0.09	1.087	O	|	|	|	|	0.29
359.667	0.00	0.09	1.086	O	|	|	|	|	0.29
359.750	0.00	0.09	1.086	O	|	|	|	|	0.29
359.833	0.00	0.09	1.085	O	|	|	|	|	0.29
359.917	0.00	0.09	1.085	O	|	|	|	|	0.29
360.000	0.00	0.09	1.084	O	|	|	|	|	0.29
360.083	0.00	0.09	1.083	O	|	|	|	|	0.29
360.167	0.00	0.09	1.083	O	|	|	|	|	0.29
360.250	0.00	0.09	1.082	O	|	|	|	|	0.29
360.333	0.00	0.09	1.081	O	|	|	|	|	0.29
360.417	0.00	0.09	1.081	O	|	|	|	|	0.29
360.500	0.00	0.09	1.080	O	|	|	|	|	0.29
360.583	0.00	0.09	1.079	O	|	|	|	|	0.29
360.667	0.00	0.09	1.079	O	|	|	|	|	0.29
360.750	0.00	0.09	1.078	O	|	|	|	|	0.29
360.833	0.00	0.09	1.077	O	|	|	|	|	0.29
360.917	0.00	0.09	1.077	O	|	|	|	|	0.29
361.000	0.00	0.09	1.076	O	|	|	|	|	0.29
361.083	0.00	0.09	1.076	O	|	|	|	|	0.29
361.167	0.00	0.09	1.075	O	|	|	|	|	0.29

361.250	0.00	0.09	1.074	O	|	|	|	|	0.29
361.333	0.00	0.09	1.074	O	|	|	|	|	0.29
361.417	0.00	0.09	1.073	O	|	|	|	|	0.29
361.500	0.00	0.09	1.072	O	|	|	|	|	0.29
361.583	0.00	0.09	1.072	O	|	|	|	|	0.29
361.667	0.00	0.09	1.071	O	|	|	|	|	0.29
361.750	0.00	0.09	1.070	O	|	|	|	|	0.29
361.833	0.00	0.09	1.070	O	|	|	|	|	0.29
361.917	0.00	0.09	1.069	O	|	|	|	|	0.29
362.000	0.00	0.09	1.069	O	|	|	|	|	0.29
362.083	0.00	0.09	1.068	O	|	|	|	|	0.29
362.167	0.00	0.09	1.067	O	|	|	|	|	0.29
362.250	0.00	0.09	1.067	O	|	|	|	|	0.29
362.333	0.00	0.09	1.066	O	|	|	|	|	0.29
362.417	0.00	0.09	1.065	O	|	|	|	|	0.29
362.500	0.00	0.09	1.065	O	|	|	|	|	0.29
362.583	0.00	0.09	1.064	O	|	|	|	|	0.29
362.667	0.00	0.09	1.063	O	|	|	|	|	0.29
362.750	0.00	0.09	1.063	O	|	|	|	|	0.29
362.833	0.00	0.09	1.062	O	|	|	|	|	0.29
362.917	0.00	0.09	1.062	O	|	|	|	|	0.29
363.000	0.00	0.09	1.061	O	|	|	|	|	0.29
363.083	0.00	0.09	1.060	O	|	|	|	|	0.29
363.167	0.00	0.09	1.060	O	|	|	|	|	0.29
363.250	0.00	0.09	1.059	O	|	|	|	|	0.29
363.333	0.00	0.09	1.058	O	|	|	|	|	0.29
363.417	0.00	0.09	1.058	O	|	|	|	|	0.29
363.500	0.00	0.09	1.057	O	|	|	|	|	0.29
363.583	0.00	0.09	1.057	O	|	|	|	|	0.29
363.667	0.00	0.09	1.056	O	|	|	|	|	0.29
363.750	0.00	0.09	1.055	O	|	|	|	|	0.29
363.833	0.00	0.09	1.055	O	|	|	|	|	0.29
363.917	0.00	0.09	1.054	O	|	|	|	|	0.28
364.000	0.00	0.09	1.053	O	|	|	|	|	0.28
364.083	0.00	0.09	1.053	O	|	|	|	|	0.28
364.167	0.00	0.09	1.052	O	|	|	|	|	0.28
364.250	0.00	0.09	1.051	O	|	|	|	|	0.28
364.333	0.00	0.09	1.051	O	|	|	|	|	0.28
364.417	0.00	0.09	1.050	O	|	|	|	|	0.28
364.500	0.00	0.09	1.050	O	|	|	|	|	0.28
364.583	0.00	0.09	1.049	O	|	|	|	|	0.28
364.667	0.00	0.09	1.048	O	|	|	|	|	0.28
364.750	0.00	0.09	1.048	O	|	|	|	|	0.28
364.833	0.00	0.09	1.047	O	|	|	|	|	0.28
364.917	0.00	0.09	1.046	O	|	|	|	|	0.28
365.000	0.00	0.09	1.046	O	|	|	|	|	0.28
365.083	0.00	0.09	1.045	O	|	|	|	|	0.28
365.167	0.00	0.09	1.045	O	|	|	|	|	0.28
365.250	0.00	0.09	1.044	O	|	|	|	|	0.28
365.333	0.00	0.09	1.043	O	|	|	|	|	0.28
365.417	0.00	0.09	1.043	O	|	|	|	|	0.28
365.500	0.00	0.09	1.042	O	|	|	|	|	0.28
365.583	0.00	0.09	1.042	O	|	|	|	|	0.28
365.667	0.00	0.09	1.041	O	|	|	|	|	0.28
365.750	0.00	0.09	1.040	O	|	|	|	|	0.28
365.833	0.00	0.09	1.040	O	|	|	|	|	0.28
365.917	0.00	0.09	1.039	O	|	|	|	|	0.28
366.000	0.00	0.09	1.038	O	|	|	|	|	0.28
366.083	0.00	0.09	1.038	O	|	|	|	|	0.28
366.167	0.00	0.09	1.037	O	|	|	|	|	0.28
366.250	0.00	0.09	1.037	O	|	|	|	|	0.28
366.333	0.00	0.09	1.036	O	|	|	|	|	0.28
366.417	0.00	0.09	1.035	O	|	|	|	|	0.28

366.500	0.00	0.09	1.035	O	|	|	|	|	0.28
366.583	0.00	0.09	1.034	O	|	|	|	|	0.28
366.667	0.00	0.09	1.033	O	|	|	|	|	0.28
366.750	0.00	0.09	1.033	O	|	|	|	|	0.28
366.833	0.00	0.09	1.032	O	|	|	|	|	0.28
366.917	0.00	0.09	1.032	O	|	|	|	|	0.28
367.000	0.00	0.09	1.031	O	|	|	|	|	0.28
367.083	0.00	0.09	1.030	O	|	|	|	|	0.28
367.167	0.00	0.09	1.030	O	|	|	|	|	0.28
367.250	0.00	0.09	1.029	O	|	|	|	|	0.28
367.333	0.00	0.09	1.029	O	|	|	|	|	0.28
367.417	0.00	0.09	1.028	O	|	|	|	|	0.28
367.500	0.00	0.09	1.027	O	|	|	|	|	0.28
367.583	0.00	0.09	1.027	O	|	|	|	|	0.28
367.667	0.00	0.09	1.026	O	|	|	|	|	0.28
367.750	0.00	0.09	1.026	O	|	|	|	|	0.28
367.833	0.00	0.09	1.025	O	|	|	|	|	0.28
367.917	0.00	0.09	1.024	O	|	|	|	|	0.28
368.000	0.00	0.09	1.024	O	|	|	|	|	0.28
368.083	0.00	0.09	1.023	O	|	|	|	|	0.28
368.167	0.00	0.09	1.022	O	|	|	|	|	0.28
368.250	0.00	0.09	1.022	O	|	|	|	|	0.28
368.333	0.00	0.09	1.021	O	|	|	|	|	0.28
368.417	0.00	0.09	1.021	O	|	|	|	|	0.28
368.500	0.00	0.09	1.020	O	|	|	|	|	0.28
368.583	0.00	0.09	1.019	O	|	|	|	|	0.28
368.667	0.00	0.09	1.019	O	|	|	|	|	0.28
368.750	0.00	0.09	1.018	O	|	|	|	|	0.28
368.833	0.00	0.09	1.018	O	|	|	|	|	0.28
368.917	0.00	0.09	1.017	O	|	|	|	|	0.27
369.000	0.00	0.09	1.016	O	|	|	|	|	0.27
369.083	0.00	0.09	1.016	O	|	|	|	|	0.27
369.167	0.00	0.09	1.015	O	|	|	|	|	0.27
369.250	0.00	0.09	1.015	O	|	|	|	|	0.27
369.333	0.00	0.09	1.014	O	|	|	|	|	0.27
369.417	0.00	0.09	1.013	O	|	|	|	|	0.27
369.500	0.00	0.09	1.013	O	|	|	|	|	0.27
369.583	0.00	0.09	1.012	O	|	|	|	|	0.27
369.667	0.00	0.09	1.012	O	|	|	|	|	0.27
369.750	0.00	0.09	1.011	O	|	|	|	|	0.27
369.833	0.00	0.09	1.010	O	|	|	|	|	0.27
369.917	0.00	0.09	1.010	O	|	|	|	|	0.27
370.000	0.00	0.09	1.009	O	|	|	|	|	0.27
370.083	0.00	0.09	1.009	O	|	|	|	|	0.27
370.167	0.00	0.09	1.008	O	|	|	|	|	0.27
370.250	0.00	0.09	1.007	O	|	|	|	|	0.27
370.333	0.00	0.09	1.007	O	|	|	|	|	0.27
370.417	0.00	0.09	1.006	O	|	|	|	|	0.27
370.500	0.00	0.09	1.006	O	|	|	|	|	0.27
370.583	0.00	0.09	1.005	O	|	|	|	|	0.27
370.667	0.00	0.09	1.004	O	|	|	|	|	0.27
370.750	0.00	0.09	1.004	O	|	|	|	|	0.27
370.833	0.00	0.09	1.003	O	|	|	|	|	0.27
370.917	0.00	0.09	1.003	O	|	|	|	|	0.27
371.000	0.00	0.09	1.002	O	|	|	|	|	0.27
371.083	0.00	0.09	1.001	O	|	|	|	|	0.27
371.167	0.00	0.09	1.001	O	|	|	|	|	0.27
371.250	0.00	0.09	1.000	O	|	|	|	|	0.27
371.333	0.00	0.09	1.000	O	|	|	|	|	0.27
371.417	0.00	0.09	0.999	O	|	|	|	|	0.27
371.500	0.00	0.09	0.998	O	|	|	|	|	0.27
371.583	0.00	0.09	0.998	O	|	|	|	|	0.27
371.667	0.00	0.09	0.997	O	|	|	|	|	0.27

371.750	0.00	0.09	0.997	O	|	|	|	|	0.27
371.833	0.00	0.09	0.996	O	|	|	|	|	0.27
371.917	0.00	0.09	0.995	O	|	|	|	|	0.27
372.000	0.00	0.09	0.995	O	|	|	|	|	0.27
372.083	0.00	0.09	0.994	O	|	|	|	|	0.27
372.167	0.00	0.09	0.994	O	|	|	|	|	0.27
372.250	0.00	0.09	0.993	O	|	|	|	|	0.27
372.333	0.00	0.09	0.992	O	|	|	|	|	0.27
372.417	0.00	0.09	0.992	O	|	|	|	|	0.27
372.500	0.00	0.09	0.991	O	|	|	|	|	0.27
372.583	0.00	0.09	0.991	O	|	|	|	|	0.27
372.667	0.00	0.09	0.990	O	|	|	|	|	0.27
372.750	0.00	0.09	0.989	O	|	|	|	|	0.27
372.833	0.00	0.09	0.989	O	|	|	|	|	0.27
372.917	0.00	0.09	0.988	O	|	|	|	|	0.27
373.000	0.00	0.09	0.988	O	|	|	|	|	0.27
373.083	0.00	0.09	0.987	O	|	|	|	|	0.27
373.167	0.00	0.09	0.987	O	|	|	|	|	0.27
373.250	0.00	0.09	0.986	O	|	|	|	|	0.27
373.333	0.00	0.09	0.985	O	|	|	|	|	0.27
373.417	0.00	0.09	0.985	O	|	|	|	|	0.27
373.500	0.00	0.09	0.984	O	|	|	|	|	0.27
373.583	0.00	0.09	0.984	O	|	|	|	|	0.27
373.667	0.00	0.09	0.983	O	|	|	|	|	0.27
373.750	0.00	0.08	0.982	O	|	|	|	|	0.27
373.833	0.00	0.08	0.982	O	|	|	|	|	0.27
373.917	0.00	0.08	0.981	O	|	|	|	|	0.27
374.000	0.00	0.08	0.981	O	|	|	|	|	0.27
374.083	0.00	0.08	0.980	O	|	|	|	|	0.26
374.167	0.00	0.08	0.980	O	|	|	|	|	0.26
374.250	0.00	0.08	0.979	O	|	|	|	|	0.26
374.333	0.00	0.08	0.978	O	|	|	|	|	0.26
374.417	0.00	0.08	0.978	O	|	|	|	|	0.26
374.500	0.00	0.08	0.977	O	|	|	|	|	0.26
374.583	0.00	0.08	0.977	O	|	|	|	|	0.26
374.667	0.00	0.08	0.976	O	|	|	|	|	0.26
374.750	0.00	0.08	0.975	O	|	|	|	|	0.26
374.833	0.00	0.08	0.975	O	|	|	|	|	0.26
374.917	0.00	0.08	0.974	O	|	|	|	|	0.26
375.000	0.00	0.08	0.974	O	|	|	|	|	0.26
375.083	0.00	0.08	0.973	O	|	|	|	|	0.26
375.167	0.00	0.08	0.973	O	|	|	|	|	0.26
375.250	0.00	0.08	0.972	O	|	|	|	|	0.26
375.333	0.00	0.08	0.971	O	|	|	|	|	0.26
375.417	0.00	0.08	0.971	O	|	|	|	|	0.26
375.500	0.00	0.08	0.970	O	|	|	|	|	0.26
375.583	0.00	0.08	0.970	O	|	|	|	|	0.26
375.667	0.00	0.08	0.969	O	|	|	|	|	0.26
375.750	0.00	0.08	0.969	O	|	|	|	|	0.26
375.833	0.00	0.08	0.968	O	|	|	|	|	0.26
375.917	0.00	0.08	0.967	O	|	|	|	|	0.26
376.000	0.00	0.08	0.967	O	|	|	|	|	0.26
376.083	0.00	0.08	0.966	O	|	|	|	|	0.26
376.167	0.00	0.08	0.966	O	|	|	|	|	0.26
376.250	0.00	0.08	0.965	O	|	|	|	|	0.26
376.333	0.00	0.08	0.964	O	|	|	|	|	0.26
376.417	0.00	0.08	0.964	O	|	|	|	|	0.26
376.500	0.00	0.08	0.963	O	|	|	|	|	0.26
376.583	0.00	0.08	0.963	O	|	|	|	|	0.26
376.667	0.00	0.08	0.962	O	|	|	|	|	0.26
376.750	0.00	0.08	0.962	O	|	|	|	|	0.26
376.833	0.00	0.08	0.961	O	|	|	|	|	0.26
376.917	0.00	0.08	0.960	O	|	|	|	|	0.26

377.000	0.00	0.08	0.960	O	|	|	|	|	0.26
377.083	0.00	0.08	0.959	O	|	|	|	|	0.26
377.167	0.00	0.08	0.959	O	|	|	|	|	0.26
377.250	0.00	0.08	0.958	O	|	|	|	|	0.26
377.333	0.00	0.08	0.958	O	|	|	|	|	0.26
377.417	0.00	0.08	0.957	O	|	|	|	|	0.26
377.500	0.00	0.08	0.956	O	|	|	|	|	0.26
377.583	0.00	0.08	0.956	O	|	|	|	|	0.26
377.667	0.00	0.08	0.955	O	|	|	|	|	0.26
377.750	0.00	0.08	0.955	O	|	|	|	|	0.26
377.833	0.00	0.08	0.954	O	|	|	|	|	0.26
377.917	0.00	0.08	0.954	O	|	|	|	|	0.26
378.000	0.00	0.08	0.953	O	|	|	|	|	0.26
378.083	0.00	0.08	0.952	O	|	|	|	|	0.26
378.167	0.00	0.08	0.952	O	|	|	|	|	0.26
378.250	0.00	0.08	0.951	O	|	|	|	|	0.26
378.333	0.00	0.08	0.951	O	|	|	|	|	0.26
378.417	0.00	0.08	0.950	O	|	|	|	|	0.26
378.500	0.00	0.08	0.950	O	|	|	|	|	0.26
378.583	0.00	0.08	0.949	O	|	|	|	|	0.26
378.667	0.00	0.08	0.949	O	|	|	|	|	0.26
378.750	0.00	0.08	0.948	O	|	|	|	|	0.26
378.833	0.00	0.08	0.947	O	|	|	|	|	0.26
378.917	0.00	0.08	0.947	O	|	|	|	|	0.26
379.000	0.00	0.08	0.946	O	|	|	|	|	0.26
379.083	0.00	0.08	0.946	O	|	|	|	|	0.26
379.167	0.00	0.08	0.945	O	|	|	|	|	0.26
379.250	0.00	0.08	0.945	O	|	|	|	|	0.26
379.333	0.00	0.08	0.944	O	|	|	|	|	0.26
379.417	0.00	0.08	0.943	O	|	|	|	|	0.25
379.500	0.00	0.08	0.943	O	|	|	|	|	0.25
379.583	0.00	0.08	0.942	O	|	|	|	|	0.25
379.667	0.00	0.08	0.942	O	|	|	|	|	0.25
379.750	0.00	0.08	0.941	O	|	|	|	|	0.25
379.833	0.00	0.08	0.941	O	|	|	|	|	0.25
379.917	0.00	0.08	0.940	O	|	|	|	|	0.25
380.000	0.00	0.08	0.940	O	|	|	|	|	0.25
380.083	0.00	0.08	0.939	O	|	|	|	|	0.25
380.167	0.00	0.08	0.938	O	|	|	|	|	0.25
380.250	0.00	0.08	0.938	O	|	|	|	|	0.25
380.333	0.00	0.08	0.937	O	|	|	|	|	0.25
380.417	0.00	0.08	0.937	O	|	|	|	|	0.25
380.500	0.00	0.08	0.936	O	|	|	|	|	0.25
380.583	0.00	0.08	0.936	O	|	|	|	|	0.25
380.667	0.00	0.08	0.935	O	|	|	|	|	0.25
380.750	0.00	0.08	0.935	O	|	|	|	|	0.25
380.833	0.00	0.08	0.934	O	|	|	|	|	0.25
380.917	0.00	0.08	0.933	O	|	|	|	|	0.25
381.000	0.00	0.08	0.933	O	|	|	|	|	0.25
381.083	0.00	0.08	0.932	O	|	|	|	|	0.25
381.167	0.00	0.08	0.932	O	|	|	|	|	0.25
381.250	0.00	0.08	0.931	O	|	|	|	|	0.25
381.333	0.00	0.08	0.931	O	|	|	|	|	0.25
381.417	0.00	0.08	0.930	O	|	|	|	|	0.25
381.500	0.00	0.08	0.930	O	|	|	|	|	0.25
381.583	0.00	0.08	0.929	O	|	|	|	|	0.25
381.667	0.00	0.08	0.928	O	|	|	|	|	0.25
381.750	0.00	0.08	0.928	O	|	|	|	|	0.25
381.833	0.00	0.08	0.927	O	|	|	|	|	0.25
381.917	0.00	0.08	0.927	O	|	|	|	|	0.25
382.000	0.00	0.08	0.926	O	|	|	|	|	0.25
382.083	0.00	0.08	0.926	O	|	|	|	|	0.25
382.167	0.00	0.08	0.925	O	|	|	|	|	0.25

382.250	0.00	0.08	0.925	O	|	|	|	|	0.25
382.333	0.00	0.08	0.924	O	|	|	|	|	0.25
382.417	0.00	0.08	0.923	O	|	|	|	|	0.25
382.500	0.00	0.08	0.923	O	|	|	|	|	0.25
382.583	0.00	0.08	0.922	O	|	|	|	|	0.25
382.667	0.00	0.08	0.922	O	|	|	|	|	0.25
382.750	0.00	0.08	0.921	O	|	|	|	|	0.25
382.833	0.00	0.08	0.921	O	|	|	|	|	0.25
382.917	0.00	0.08	0.920	O	|	|	|	|	0.25
383.000	0.00	0.08	0.920	O	|	|	|	|	0.25
383.083	0.00	0.08	0.919	O	|	|	|	|	0.25
383.167	0.00	0.08	0.919	O	|	|	|	|	0.25
383.250	0.00	0.08	0.918	O	|	|	|	|	0.25
383.333	0.00	0.08	0.917	O	|	|	|	|	0.25
383.417	0.00	0.08	0.917	O	|	|	|	|	0.25
383.500	0.00	0.08	0.916	O	|	|	|	|	0.25
383.583	0.00	0.08	0.916	O	|	|	|	|	0.25
383.667	0.00	0.08	0.915	O	|	|	|	|	0.25
383.750	0.00	0.08	0.915	O	|	|	|	|	0.25
383.833	0.00	0.08	0.914	O	|	|	|	|	0.25
383.917	0.00	0.08	0.914	O	|	|	|	|	0.25
384.000	0.00	0.08	0.913	O	|	|	|	|	0.25
384.083	0.00	0.08	0.913	O	|	|	|	|	0.25
384.167	0.00	0.08	0.912	O	|	|	|	|	0.25
384.250	0.00	0.08	0.911	O	|	|	|	|	0.25
384.333	0.00	0.08	0.911	O	|	|	|	|	0.25
384.417	0.00	0.08	0.910	O	|	|	|	|	0.25
384.500	0.00	0.08	0.910	O	|	|	|	|	0.25
384.583	0.00	0.08	0.909	O	|	|	|	|	0.25
384.667	0.00	0.08	0.909	O	|	|	|	|	0.25
384.750	0.00	0.08	0.908	O	|	|	|	|	0.25
384.833	0.00	0.08	0.908	O	|	|	|	|	0.25
384.917	0.00	0.08	0.907	O	|	|	|	|	0.25
385.000	0.00	0.08	0.907	O	|	|	|	|	0.25
385.083	0.00	0.08	0.906	O	|	|	|	|	0.24
385.167	0.00	0.08	0.905	O	|	|	|	|	0.24
385.250	0.00	0.08	0.905	O	|	|	|	|	0.24
385.333	0.00	0.08	0.904	O	|	|	|	|	0.24
385.417	0.00	0.08	0.904	O	|	|	|	|	0.24
385.500	0.00	0.08	0.903	O	|	|	|	|	0.24
385.583	0.00	0.08	0.903	O	|	|	|	|	0.24
385.667	0.00	0.08	0.902	O	|	|	|	|	0.24
385.750	0.00	0.08	0.902	O	|	|	|	|	0.24
385.833	0.00	0.08	0.901	O	|	|	|	|	0.24
385.917	0.00	0.08	0.901	O	|	|	|	|	0.24
386.000	0.00	0.08	0.900	O	|	|	|	|	0.24
386.083	0.00	0.08	0.900	O	|	|	|	|	0.24
386.167	0.00	0.08	0.899	O	|	|	|	|	0.24
386.250	0.00	0.08	0.898	O	|	|	|	|	0.24
386.333	0.00	0.08	0.898	O	|	|	|	|	0.24
386.417	0.00	0.08	0.897	O	|	|	|	|	0.24
386.500	0.00	0.08	0.897	O	|	|	|	|	0.24
386.583	0.00	0.08	0.896	O	|	|	|	|	0.24
386.667	0.00	0.08	0.896	O	|	|	|	|	0.24
386.750	0.00	0.08	0.895	O	|	|	|	|	0.24
386.833	0.00	0.08	0.895	O	|	|	|	|	0.24
386.917	0.00	0.08	0.894	O	|	|	|	|	0.24
387.000	0.00	0.08	0.894	O	|	|	|	|	0.24
387.083	0.00	0.08	0.893	O	|	|	|	|	0.24
387.167	0.00	0.08	0.893	O	|	|	|	|	0.24
387.250	0.00	0.08	0.892	O	|	|	|	|	0.24
387.333	0.00	0.08	0.892	O	|	|	|	|	0.24
387.417	0.00	0.08	0.891	O	|	|	|	|	0.24

387.500	0.00	0.08	0.890	O	|	|	|	|	0.24
387.583	0.00	0.08	0.890	O	|	|	|	|	0.24
387.667	0.00	0.08	0.889	O	|	|	|	|	0.24
387.750	0.00	0.08	0.889	O	|	|	|	|	0.24
387.833	0.00	0.08	0.888	O	|	|	|	|	0.24
387.917	0.00	0.08	0.888	O	|	|	|	|	0.24
388.000	0.00	0.08	0.887	O	|	|	|	|	0.24
388.083	0.00	0.08	0.887	O	|	|	|	|	0.24
388.167	0.00	0.08	0.886	O	|	|	|	|	0.24
388.250	0.00	0.08	0.886	O	|	|	|	|	0.24
388.333	0.00	0.08	0.885	O	|	|	|	|	0.24
388.417	0.00	0.08	0.885	O	|	|	|	|	0.24
388.500	0.00	0.08	0.884	O	|	|	|	|	0.24
388.583	0.00	0.08	0.884	O	|	|	|	|	0.24
388.667	0.00	0.08	0.883	O	|	|	|	|	0.24
388.750	0.00	0.08	0.883	O	|	|	|	|	0.24
388.833	0.00	0.08	0.882	O	|	|	|	|	0.24
388.917	0.00	0.08	0.882	O	|	|	|	|	0.24
389.000	0.00	0.08	0.881	O	|	|	|	|	0.24
389.083	0.00	0.08	0.880	O	|	|	|	|	0.24
389.167	0.00	0.08	0.880	O	|	|	|	|	0.24
389.250	0.00	0.08	0.879	O	|	|	|	|	0.24
389.333	0.00	0.08	0.879	O	|	|	|	|	0.24
389.417	0.00	0.08	0.878	O	|	|	|	|	0.24
389.500	0.00	0.08	0.878	O	|	|	|	|	0.24
389.583	0.00	0.08	0.877	O	|	|	|	|	0.24
389.667	0.00	0.08	0.877	O	|	|	|	|	0.24
389.750	0.00	0.08	0.876	O	|	|	|	|	0.24
389.833	0.00	0.08	0.876	O	|	|	|	|	0.24
389.917	0.00	0.08	0.875	O	|	|	|	|	0.24
390.000	0.00	0.08	0.875	O	|	|	|	|	0.24
390.083	0.00	0.08	0.874	O	|	|	|	|	0.24
390.167	0.00	0.08	0.874	O	|	|	|	|	0.24
390.250	0.00	0.08	0.873	O	|	|	|	|	0.24
390.333	0.00	0.08	0.873	O	|	|	|	|	0.24
390.417	0.00	0.08	0.872	O	|	|	|	|	0.24
390.500	0.00	0.08	0.872	O	|	|	|	|	0.24
390.583	0.00	0.08	0.871	O	|	|	|	|	0.24
390.667	0.00	0.08	0.871	O	|	|	|	|	0.24
390.750	0.00	0.08	0.870	O	|	|	|	|	0.24
390.833	0.00	0.08	0.870	O	|	|	|	|	0.24
390.917	0.00	0.08	0.869	O	|	|	|	|	0.23
391.000	0.00	0.08	0.868	O	|	|	|	|	0.23
391.083	0.00	0.08	0.868	O	|	|	|	|	0.23
391.167	0.00	0.08	0.867	O	|	|	|	|	0.23
391.250	0.00	0.07	0.867	O	|	|	|	|	0.23
391.333	0.00	0.07	0.866	O	|	|	|	|	0.23
391.417	0.00	0.07	0.866	O	|	|	|	|	0.23
391.500	0.00	0.07	0.865	O	|	|	|	|	0.23
391.583	0.00	0.07	0.865	O	|	|	|	|	0.23
391.667	0.00	0.07	0.864	O	|	|	|	|	0.23
391.750	0.00	0.07	0.864	O	|	|	|	|	0.23
391.833	0.00	0.07	0.863	O	|	|	|	|	0.23
391.917	0.00	0.07	0.863	O	|	|	|	|	0.23
392.000	0.00	0.07	0.862	O	|	|	|	|	0.23
392.083	0.00	0.07	0.862	O	|	|	|	|	0.23
392.167	0.00	0.07	0.861	O	|	|	|	|	0.23
392.250	0.00	0.07	0.861	O	|	|	|	|	0.23
392.333	0.00	0.07	0.860	O	|	|	|	|	0.23
392.417	0.00	0.07	0.860	O	|	|	|	|	0.23
392.500	0.00	0.07	0.859	O	|	|	|	|	0.23
392.583	0.00	0.07	0.859	O	|	|	|	|	0.23
392.667	0.00	0.07	0.858	O	|	|	|	|	0.23

392.750	0.00	0.07	0.858	O	|	|	|	|	0.23
392.833	0.00	0.07	0.857	O	|	|	|	|	0.23
392.917	0.00	0.07	0.857	O	|	|	|	|	0.23
393.000	0.00	0.07	0.856	O	|	|	|	|	0.23
393.083	0.00	0.07	0.856	O	|	|	|	|	0.23
393.167	0.00	0.07	0.855	O	|	|	|	|	0.23
393.250	0.00	0.07	0.855	O	|	|	|	|	0.23
393.333	0.00	0.07	0.854	O	|	|	|	|	0.23
393.417	0.00	0.07	0.854	O	|	|	|	|	0.23
393.500	0.00	0.07	0.853	O	|	|	|	|	0.23
393.583	0.00	0.07	0.853	O	|	|	|	|	0.23
393.667	0.00	0.07	0.852	O	|	|	|	|	0.23
393.750	0.00	0.07	0.852	O	|	|	|	|	0.23
393.833	0.00	0.07	0.851	O	|	|	|	|	0.23
393.917	0.00	0.07	0.851	O	|	|	|	|	0.23
394.000	0.00	0.07	0.850	O	|	|	|	|	0.23
394.083	0.00	0.07	0.850	O	|	|	|	|	0.23
394.167	0.00	0.07	0.849	O	|	|	|	|	0.23
394.250	0.00	0.07	0.849	O	|	|	|	|	0.23
394.333	0.00	0.07	0.848	O	|	|	|	|	0.23
394.417	0.00	0.07	0.848	O	|	|	|	|	0.23
394.500	0.00	0.07	0.847	O	|	|	|	|	0.23
394.583	0.00	0.07	0.847	O	|	|	|	|	0.23
394.667	0.00	0.07	0.846	O	|	|	|	|	0.23
394.750	0.00	0.07	0.846	O	|	|	|	|	0.23
394.833	0.00	0.07	0.845	O	|	|	|	|	0.23
394.917	0.00	0.07	0.845	O	|	|	|	|	0.23
395.000	0.00	0.07	0.844	O	|	|	|	|	0.23
395.083	0.00	0.07	0.844	O	|	|	|	|	0.23
395.167	0.00	0.07	0.843	O	|	|	|	|	0.23
395.250	0.00	0.07	0.843	O	|	|	|	|	0.23
395.333	0.00	0.07	0.842	O	|	|	|	|	0.23
395.417	0.00	0.07	0.842	O	|	|	|	|	0.23
395.500	0.00	0.07	0.841	O	|	|	|	|	0.23
395.583	0.00	0.07	0.840	O	|	|	|	|	0.23
395.667	0.00	0.07	0.840	O	|	|	|	|	0.23
395.750	0.00	0.07	0.839	O	|	|	|	|	0.23
395.833	0.00	0.07	0.839	O	|	|	|	|	0.23
395.917	0.00	0.07	0.838	O	|	|	|	|	0.23
396.000	0.00	0.07	0.838	O	|	|	|	|	0.23
396.083	0.00	0.07	0.838	O	|	|	|	|	0.23
396.167	0.00	0.07	0.837	O	|	|	|	|	0.23
396.250	0.00	0.07	0.837	O	|	|	|	|	0.23
396.333	0.00	0.07	0.836	O	|	|	|	|	0.23
396.417	0.00	0.07	0.836	O	|	|	|	|	0.23
396.500	0.00	0.07	0.835	O	|	|	|	|	0.23
396.583	0.00	0.07	0.835	O	|	|	|	|	0.23
396.667	0.00	0.07	0.834	O	|	|	|	|	0.23
396.750	0.00	0.07	0.834	O	|	|	|	|	0.23
396.833	0.00	0.07	0.833	O	|	|	|	|	0.23
396.917	0.00	0.07	0.833	O	|	|	|	|	0.23
397.000	0.00	0.07	0.832	O	|	|	|	|	0.22
397.083	0.00	0.07	0.832	O	|	|	|	|	0.22
397.167	0.00	0.07	0.831	O	|	|	|	|	0.22
397.250	0.00	0.07	0.831	O	|	|	|	|	0.22
397.333	0.00	0.07	0.830	O	|	|	|	|	0.22
397.417	0.00	0.07	0.830	O	|	|	|	|	0.22
397.500	0.00	0.07	0.829	O	|	|	|	|	0.22
397.583	0.00	0.07	0.829	O	|	|	|	|	0.22
397.667	0.00	0.07	0.828	O	|	|	|	|	0.22
397.750	0.00	0.07	0.828	O	|	|	|	|	0.22
397.833	0.00	0.07	0.827	O	|	|	|	|	0.22
397.917	0.00	0.07	0.827	O	|	|	|	|	0.22

398.000	0.00	0.07	0.826	O	|	|	|	|	0.22
398.083	0.00	0.07	0.826	O	|	|	|	|	0.22
398.167	0.00	0.07	0.825	O	|	|	|	|	0.22
398.250	0.00	0.07	0.825	O	|	|	|	|	0.22
398.333	0.00	0.07	0.824	O	|	|	|	|	0.22
398.417	0.00	0.07	0.824	O	|	|	|	|	0.22
398.500	0.00	0.07	0.823	O	|	|	|	|	0.22
398.583	0.00	0.07	0.823	O	|	|	|	|	0.22
398.667	0.00	0.07	0.822	O	|	|	|	|	0.22
398.750	0.00	0.07	0.822	O	|	|	|	|	0.22
398.833	0.00	0.07	0.821	O	|	|	|	|	0.22
398.917	0.00	0.07	0.821	O	|	|	|	|	0.22
399.000	0.00	0.07	0.820	O	|	|	|	|	0.22
399.083	0.00	0.07	0.820	O	|	|	|	|	0.22
399.167	0.00	0.07	0.819	O	|	|	|	|	0.22
399.250	0.00	0.07	0.819	O	|	|	|	|	0.22
399.333	0.00	0.07	0.818	O	|	|	|	|	0.22
399.417	0.00	0.07	0.818	O	|	|	|	|	0.22
399.500	0.00	0.07	0.817	O	|	|	|	|	0.22
399.583	0.00	0.07	0.817	O	|	|	|	|	0.22
399.667	0.00	0.07	0.816	O	|	|	|	|	0.22
399.750	0.00	0.07	0.816	O	|	|	|	|	0.22
399.833	0.00	0.07	0.815	O	|	|	|	|	0.22
399.917	0.00	0.07	0.815	O	|	|	|	|	0.22
400.000	0.00	0.07	0.814	O	|	|	|	|	0.22
400.083	0.00	0.07	0.814	O	|	|	|	|	0.22
400.167	0.00	0.07	0.813	O	|	|	|	|	0.22
400.250	0.00	0.07	0.813	O	|	|	|	|	0.22
400.333	0.00	0.07	0.812	O	|	|	|	|	0.22
400.417	0.00	0.07	0.812	O	|	|	|	|	0.22
400.500	0.00	0.07	0.811	O	|	|	|	|	0.22
400.583	0.00	0.07	0.811	O	|	|	|	|	0.22
400.667	0.00	0.07	0.811	O	|	|	|	|	0.22
400.750	0.00	0.07	0.810	O	|	|	|	|	0.22
400.833	0.00	0.07	0.810	O	|	|	|	|	0.22
400.917	0.00	0.07	0.809	O	|	|	|	|	0.22
401.000	0.00	0.07	0.809	O	|	|	|	|	0.22
401.083	0.00	0.07	0.808	O	|	|	|	|	0.22
401.167	0.00	0.07	0.808	O	|	|	|	|	0.22
401.250	0.00	0.07	0.807	O	|	|	|	|	0.22
401.333	0.00	0.07	0.807	O	|	|	|	|	0.22
401.417	0.00	0.07	0.806	O	|	|	|	|	0.22
401.500	0.00	0.07	0.806	O	|	|	|	|	0.22
401.583	0.00	0.07	0.805	O	|	|	|	|	0.22
401.667	0.00	0.07	0.805	O	|	|	|	|	0.22
401.750	0.00	0.07	0.804	O	|	|	|	|	0.22
401.833	0.00	0.07	0.804	O	|	|	|	|	0.22
401.917	0.00	0.07	0.803	O	|	|	|	|	0.22
402.000	0.00	0.07	0.803	O	|	|	|	|	0.22
402.083	0.00	0.07	0.802	O	|	|	|	|	0.22
402.167	0.00	0.07	0.802	O	|	|	|	|	0.22
402.250	0.00	0.07	0.801	O	|	|	|	|	0.22
402.333	0.00	0.07	0.801	O	|	|	|	|	0.22
402.417	0.00	0.07	0.800	O	|	|	|	|	0.22
402.500	0.00	0.07	0.800	O	|	|	|	|	0.22
402.583	0.00	0.07	0.799	O	|	|	|	|	0.22
402.667	0.00	0.07	0.799	O	|	|	|	|	0.22
402.750	0.00	0.07	0.799	O	|	|	|	|	0.22
402.833	0.00	0.07	0.798	O	|	|	|	|	0.22
402.917	0.00	0.07	0.798	O	|	|	|	|	0.22
403.000	0.00	0.07	0.797	O	|	|	|	|	0.22
403.083	0.00	0.07	0.797	O	|	|	|	|	0.22
403.167	0.00	0.07	0.796	O	|	|	|	|	0.22

403.250	0.00	0.07	0.796	O	|	|	|	|	0.22
403.333	0.00	0.07	0.795	O	|	|	|	|	0.21
403.417	0.00	0.07	0.795	O	|	|	|	|	0.21
403.500	0.00	0.07	0.794	O	|	|	|	|	0.21
403.583	0.00	0.07	0.794	O	|	|	|	|	0.21
403.667	0.00	0.07	0.793	O	|	|	|	|	0.21
403.750	0.00	0.07	0.793	O	|	|	|	|	0.21
403.833	0.00	0.07	0.792	O	|	|	|	|	0.21
403.917	0.00	0.07	0.792	O	|	|	|	|	0.21
404.000	0.00	0.07	0.791	O	|	|	|	|	0.21
404.083	0.00	0.07	0.791	O	|	|	|	|	0.21
404.167	0.00	0.07	0.790	O	|	|	|	|	0.21
404.250	0.00	0.07	0.790	O	|	|	|	|	0.21
404.333	0.00	0.07	0.790	O	|	|	|	|	0.21
404.417	0.00	0.07	0.789	O	|	|	|	|	0.21
404.500	0.00	0.07	0.789	O	|	|	|	|	0.21
404.583	0.00	0.07	0.788	O	|	|	|	|	0.21
404.667	0.00	0.07	0.788	O	|	|	|	|	0.21
404.750	0.00	0.07	0.787	O	|	|	|	|	0.21
404.833	0.00	0.07	0.787	O	|	|	|	|	0.21
404.917	0.00	0.07	0.786	O	|	|	|	|	0.21
405.000	0.00	0.07	0.786	O	|	|	|	|	0.21
405.083	0.00	0.07	0.785	O	|	|	|	|	0.21
405.167	0.00	0.07	0.785	O	|	|	|	|	0.21
405.250	0.00	0.07	0.784	O	|	|	|	|	0.21
405.333	0.00	0.07	0.784	O	|	|	|	|	0.21
405.417	0.00	0.07	0.783	O	|	|	|	|	0.21
405.500	0.00	0.07	0.783	O	|	|	|	|	0.21
405.583	0.00	0.07	0.783	O	|	|	|	|	0.21
405.667	0.00	0.07	0.782	O	|	|	|	|	0.21
405.750	0.00	0.07	0.782	O	|	|	|	|	0.21
405.833	0.00	0.07	0.781	O	|	|	|	|	0.21
405.917	0.00	0.07	0.781	O	|	|	|	|	0.21
406.000	0.00	0.07	0.780	O	|	|	|	|	0.21
406.083	0.00	0.07	0.780	O	|	|	|	|	0.21
406.167	0.00	0.07	0.779	O	|	|	|	|	0.21
406.250	0.00	0.07	0.779	O	|	|	|	|	0.21
406.333	0.00	0.07	0.778	O	|	|	|	|	0.21
406.417	0.00	0.07	0.778	O	|	|	|	|	0.21
406.500	0.00	0.07	0.777	O	|	|	|	|	0.21
406.583	0.00	0.07	0.777	O	|	|	|	|	0.21
406.667	0.00	0.07	0.776	O	|	|	|	|	0.21
406.750	0.00	0.07	0.776	O	|	|	|	|	0.21
406.833	0.00	0.07	0.776	O	|	|	|	|	0.21
406.917	0.00	0.07	0.775	O	|	|	|	|	0.21
407.000	0.00	0.07	0.775	O	|	|	|	|	0.21
407.083	0.00	0.07	0.774	O	|	|	|	|	0.21
407.167	0.00	0.07	0.774	O	|	|	|	|	0.21
407.250	0.00	0.07	0.773	O	|	|	|	|	0.21
407.333	0.00	0.07	0.773	O	|	|	|	|	0.21
407.417	0.00	0.07	0.772	O	|	|	|	|	0.21
407.500	0.00	0.07	0.772	O	|	|	|	|	0.21
407.583	0.00	0.07	0.771	O	|	|	|	|	0.21
407.667	0.00	0.07	0.771	O	|	|	|	|	0.21
407.750	0.00	0.07	0.770	O	|	|	|	|	0.21
407.833	0.00	0.07	0.770	O	|	|	|	|	0.21
407.917	0.00	0.07	0.770	O	|	|	|	|	0.21
408.000	0.00	0.07	0.769	O	|	|	|	|	0.21
408.083	0.00	0.07	0.769	O	|	|	|	|	0.21
408.167	0.00	0.07	0.768	O	|	|	|	|	0.21
408.250	0.00	0.07	0.768	O	|	|	|	|	0.21
408.333	0.00	0.07	0.767	O	|	|	|	|	0.21
408.417	0.00	0.07	0.767	O	|	|	|	|	0.21

408.500	0.00	0.07	0.766	O	|	|	|	|	0.21
408.583	0.00	0.07	0.766	O	|	|	|	|	0.21
408.667	0.00	0.07	0.765	O	|	|	|	|	0.21
408.750	0.00	0.07	0.765	O	|	|	|	|	0.21
408.833	0.00	0.07	0.765	O	|	|	|	|	0.21
408.917	0.00	0.07	0.764	O	|	|	|	|	0.21
409.000	0.00	0.07	0.764	O	|	|	|	|	0.21
409.083	0.00	0.07	0.763	O	|	|	|	|	0.21
409.167	0.00	0.07	0.763	O	|	|	|	|	0.21
409.250	0.00	0.07	0.762	O	|	|	|	|	0.21
409.333	0.00	0.07	0.762	O	|	|	|	|	0.21
409.417	0.00	0.07	0.761	O	|	|	|	|	0.21
409.500	0.00	0.07	0.761	O	|	|	|	|	0.21
409.583	0.00	0.07	0.760	O	|	|	|	|	0.21
409.667	0.00	0.07	0.760	O	|	|	|	|	0.21
409.750	0.00	0.07	0.760	O	|	|	|	|	0.21
409.833	0.00	0.07	0.759	O	|	|	|	|	0.21
409.917	0.00	0.07	0.759	O	|	|	|	|	0.21
410.000	0.00	0.07	0.758	O	|	|	|	|	0.20
410.083	0.00	0.07	0.758	O	|	|	|	|	0.20
410.167	0.00	0.07	0.757	O	|	|	|	|	0.20
410.250	0.00	0.07	0.757	O	|	|	|	|	0.20
410.333	0.00	0.07	0.756	O	|	|	|	|	0.20
410.417	0.00	0.07	0.756	O	|	|	|	|	0.20
410.500	0.00	0.07	0.755	O	|	|	|	|	0.20
410.583	0.00	0.07	0.755	O	|	|	|	|	0.20
410.667	0.00	0.07	0.755	O	|	|	|	|	0.20
410.750	0.00	0.07	0.754	O	|	|	|	|	0.20
410.833	0.00	0.07	0.754	O	|	|	|	|	0.20
410.917	0.00	0.07	0.753	O	|	|	|	|	0.20
411.000	0.00	0.07	0.753	O	|	|	|	|	0.20
411.083	0.00	0.07	0.752	O	|	|	|	|	0.20
411.167	0.00	0.07	0.752	O	|	|	|	|	0.20
411.250	0.00	0.06	0.751	O	|	|	|	|	0.20
411.333	0.00	0.06	0.751	O	|	|	|	|	0.20
411.417	0.00	0.06	0.751	O	|	|	|	|	0.20
411.500	0.00	0.06	0.750	O	|	|	|	|	0.20
411.583	0.00	0.06	0.750	O	|	|	|	|	0.20
411.667	0.00	0.06	0.749	O	|	|	|	|	0.20
411.750	0.00	0.06	0.749	O	|	|	|	|	0.20
411.833	0.00	0.06	0.748	O	|	|	|	|	0.20
411.917	0.00	0.06	0.748	O	|	|	|	|	0.20
412.000	0.00	0.06	0.747	O	|	|	|	|	0.20
412.083	0.00	0.06	0.747	O	|	|	|	|	0.20
412.167	0.00	0.06	0.747	O	|	|	|	|	0.20
412.250	0.00	0.06	0.746	O	|	|	|	|	0.20
412.333	0.00	0.06	0.746	O	|	|	|	|	0.20
412.417	0.00	0.06	0.745	O	|	|	|	|	0.20
412.500	0.00	0.06	0.745	O	|	|	|	|	0.20
412.583	0.00	0.06	0.744	O	|	|	|	|	0.20
412.667	0.00	0.06	0.744	O	|	|	|	|	0.20
412.750	0.00	0.06	0.743	O	|	|	|	|	0.20
412.833	0.00	0.06	0.743	O	|	|	|	|	0.20
412.917	0.00	0.06	0.743	O	|	|	|	|	0.20
413.000	0.00	0.06	0.742	O	|	|	|	|	0.20
413.083	0.00	0.06	0.742	O	|	|	|	|	0.20
413.167	0.00	0.06	0.741	O	|	|	|	|	0.20
413.250	0.00	0.06	0.741	O	|	|	|	|	0.20
413.333	0.00	0.06	0.740	O	|	|	|	|	0.20
413.417	0.00	0.06	0.740	O	|	|	|	|	0.20
413.500	0.00	0.06	0.739	O	|	|	|	|	0.20
413.583	0.00	0.06	0.739	O	|	|	|	|	0.20
413.667	0.00	0.06	0.739	O	|	|	|	|	0.20

413.750	0.00	0.06	0.738	O	|	|	|	|	0.20
413.833	0.00	0.06	0.738	O	|	|	|	|	0.20
413.917	0.00	0.06	0.737	O	|	|	|	|	0.20
414.000	0.00	0.06	0.737	O	|	|	|	|	0.20
414.083	0.00	0.06	0.736	O	|	|	|	|	0.20
414.167	0.00	0.06	0.736	O	|	|	|	|	0.20
414.250	0.00	0.06	0.736	O	|	|	|	|	0.20
414.333	0.00	0.06	0.735	O	|	|	|	|	0.20
414.417	0.00	0.06	0.735	O	|	|	|	|	0.20
414.500	0.00	0.06	0.734	O	|	|	|	|	0.20
414.583	0.00	0.06	0.734	O	|	|	|	|	0.20
414.667	0.00	0.06	0.733	O	|	|	|	|	0.20
414.750	0.00	0.06	0.733	O	|	|	|	|	0.20
414.833	0.00	0.06	0.732	O	|	|	|	|	0.20
414.917	0.00	0.06	0.732	O	|	|	|	|	0.20
415.000	0.00	0.06	0.732	O	|	|	|	|	0.20
415.083	0.00	0.06	0.731	O	|	|	|	|	0.20
415.167	0.00	0.06	0.731	O	|	|	|	|	0.20
415.250	0.00	0.06	0.730	O	|	|	|	|	0.20
415.333	0.00	0.06	0.730	O	|	|	|	|	0.20
415.417	0.00	0.06	0.729	O	|	|	|	|	0.20
415.500	0.00	0.06	0.729	O	|	|	|	|	0.20
415.583	0.00	0.06	0.729	O	|	|	|	|	0.20
415.667	0.00	0.06	0.728	O	|	|	|	|	0.20
415.750	0.00	0.06	0.728	O	|	|	|	|	0.20
415.833	0.00	0.06	0.727	O	|	|	|	|	0.20
415.917	0.00	0.06	0.727	O	|	|	|	|	0.20
416.000	0.00	0.06	0.726	O	|	|	|	|	0.20
416.083	0.00	0.06	0.726	O	|	|	|	|	0.20
416.167	0.00	0.06	0.726	O	|	|	|	|	0.20
416.250	0.00	0.06	0.725	O	|	|	|	|	0.20
416.333	0.00	0.06	0.725	O	|	|	|	|	0.20
416.417	0.00	0.06	0.724	O	|	|	|	|	0.20
416.500	0.00	0.06	0.724	O	|	|	|	|	0.20
416.583	0.00	0.06	0.723	O	|	|	|	|	0.20
416.667	0.00	0.06	0.723	O	|	|	|	|	0.20

Remaining water in basin = 0.72 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 5001
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 44.892 (CFS)
Total volume = 42.671 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

APPENDIX I.3: BASIN “A” 5 – YEAR ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/26/15

TRACT NO. 36294
BASIN A
5YR-24HR
FN: BASINA524

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: APR245.rte

**********HYDROGRAPH DATA**********

Number of intervals = 298
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 55.812 (CFS)
Total volume = 34.267 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++

Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 298
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
1.000	3.700	0.320	3.699	3.701
2.000	7.260	0.730	7.257	7.263
3.000	10.970	1.680	10.964	10.976
4.000	14.830	3.750	14.817	14.843
5.000	18.840	6.600	18.817	18.863
6.000	23.010	8.310	22.981	23.039

7.000	27.330	9.700	27.297	27.363
8.000	31.820	69.480	31.581	32.059
9.000	36.470	153.260	35.942	36.998
10.000	40.880	229.980	40.088	41.672
12.000	51.430	1331.420	46.845	56.015

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 14.0 27.91 41.86 55.81	Depth (Ft.)
0.083	0.41	0.00	0.001	O	0.00
0.167	1.84	0.00	0.009	OI	0.00
0.250	2.54	0.00	0.024	OI	0.01
0.333	3.02	0.00	0.043	OI	0.01
0.417	3.91	0.01	0.067	O I	0.02
0.500	4.36	0.01	0.096	O I	0.03
0.583	4.58	0.01	0.126	O I	0.03
0.667	4.72	0.01	0.158	O I	0.04
0.750	4.81	0.02	0.191	O I	0.05
0.833	5.08	0.02	0.225	O I	0.06
0.917	5.85	0.02	0.262	O I	0.07
1.000	6.22	0.03	0.304	O I	0.08
1.083	6.17	0.03	0.346	O I	0.09
1.167	5.55	0.03	0.386	O I	0.10
1.250	5.26	0.04	0.423	O I	0.11
1.333	5.15	0.04	0.459	O I	0.12
1.417	5.10	0.04	0.494	O I	0.13
1.500	5.06	0.05	0.529	O I	0.14
1.583	5.04	0.05	0.563	O I	0.15
1.667	5.02	0.05	0.597	O I	0.16
1.750	5.00	0.05	0.632	O I	0.17
1.833	5.19	0.06	0.666	O I	0.18
1.917	5.90	0.06	0.704	O I	0.19
2.000	6.24	0.06	0.745	O I	0.20
2.083	6.38	0.07	0.788	O I	0.21
2.167	6.47	0.07	0.832	O I	0.22
2.250	6.52	0.08	0.876	O I	0.24
2.333	6.56	0.08	0.921	O I	0.25
2.417	6.59	0.08	0.966	O I	0.26
2.500	6.61	0.09	1.011	O I	0.27
2.583	6.83	0.09	1.056	O I	0.29
2.667	7.55	0.10	1.105	O I	0.30
2.750	7.90	0.10	1.158	O I	0.31
2.833	8.04	0.10	1.212	O I	0.33
2.917	8.13	0.11	1.267	O I	0.34
3.000	8.18	0.11	1.322	O I	0.36
3.083	8.22	0.12	1.378	O I	0.37
3.167	8.25	0.12	1.434	O I	0.39
3.250	8.27	0.13	1.490	O I	0.40
3.333	8.28	0.13	1.546	O I	0.42
3.417	8.29	0.14	1.602	O I	0.43
3.500	8.29	0.14	1.658	O I	0.45
3.583	8.29	0.15	1.714	O I	0.46
3.667	8.29	0.15	1.770	O I	0.48
3.750	8.29	0.16	1.826	O I	0.49
3.833	8.50	0.16	1.883	O I	0.51
3.917	9.21	0.17	1.943	O I	0.53
4.000	9.56	0.17	2.006	O I	0.54
4.083	9.70	0.18	2.071	O I	0.56
4.167	9.79	0.18	2.137	O I	0.58

4.250	9.84	0.19	2.204	O	I	|	|	|	|	0.60
4.333	10.08	0.20	2.271	O	I	|	|	|	|	0.61
4.417	10.83	0.20	2.341	O	I	|	|	|	|	0.63
4.500	11.19	0.21	2.416	O	I	|	|	|	|	0.65
4.583	11.35	0.22	2.492	O	I	|	|	|	|	0.67
4.667	11.44	0.22	2.569	O	I	|	|	|	|	0.69
4.750	11.50	0.23	2.646	O	I	|	|	|	|	0.72
4.833	11.74	0.24	2.725	O	I	|	|	|	|	0.74
4.917	12.49	0.24	2.807	O	I	|	|	|	|	0.76
5.000	12.85	0.25	2.892	O	I	|	|	|	|	0.78
5.083	12.60	0.26	2.978	O	I	|	|	|	|	0.80
5.167	11.26	0.26	3.058	O	I	|	|	|	|	0.83
5.250	10.62	0.27	3.132	O	I	|	|	|	|	0.85
5.333	10.58	0.28	3.203	O	I	|	|	|	|	0.87
5.417	11.16	0.28	3.276	O	I	|	|	|	|	0.89
5.500	11.41	0.29	3.352	O	I	|	|	|	|	0.91
5.583	11.70	0.30	3.429	O	I	|	|	|	|	0.93
5.667	12.45	0.30	3.510	O	I	|	|	|	|	0.95
5.750	12.82	0.31	3.595	O	I	|	|	|	|	0.97
5.833	12.97	0.32	3.682	O	I	|	|	|	|	1.00
5.917	13.06	0.33	3.769	O	I	|	|	|	|	1.02
6.000	13.13	0.34	3.857	O	I	|	|	|	|	1.04
6.083	13.39	0.35	3.946	O	I	|	|	|	|	1.07
6.167	14.14	0.36	4.039	O	I	|	|	|	|	1.10
6.250	14.51	0.37	4.135	O	I	|	|	|	|	1.12
6.333	14.66	0.38	4.233	O	I	|	|	|	|	1.15
6.417	14.76	0.39	4.331	O	I	|	|	|	|	1.18
6.500	14.82	0.40	4.430	O	I	|	|	|	|	1.21
6.583	15.06	0.42	4.531	O	I	|	|	|	|	1.23
6.667	15.80	0.43	4.634	O	I	|	|	|	|	1.26
6.750	16.17	0.44	4.741	O	I	|	|	|	|	1.29
6.833	16.32	0.45	4.850	O	I	|	|	|	|	1.32
6.917	16.42	0.47	4.959	O	I	|	|	|	|	1.35
7.000	16.47	0.48	5.069	O	I	|	|	|	|	1.38
7.083	16.51	0.49	5.180	O	I	|	|	|	|	1.42
7.167	16.54	0.50	5.290	O	I	|	|	|	|	1.45
7.250	16.56	0.52	5.401	O	I	|	|	|	|	1.48
7.333	16.78	0.53	5.512	O	I	|	|	|	|	1.51
7.417	17.51	0.54	5.626	O	I	|	|	|	|	1.54
7.500	17.85	0.56	5.744	O	I	|	|	|	|	1.57
7.583	18.20	0.57	5.864	O	I	|	|	|	|	1.61
7.667	19.00	0.58	5.989	O	I	|	|	|	|	1.64
7.750	19.40	0.60	6.117	O	I	|	|	|	|	1.68
7.833	19.78	0.61	6.247	O	I	|	|	|	|	1.72
7.917	20.61	0.63	6.382	O	I	|	|	|	|	1.75
8.000	21.03	0.64	6.521	O	I	|	|	|	|	1.79
8.083	21.64	0.66	6.664	O	I	|	|	|	|	1.83
8.167	23.19	0.68	6.813	O	I	|	|	|	|	1.87
8.250	23.96	0.70	6.971	O	I	|	|	|	|	1.92
8.333	24.29	0.72	7.132	O	I	|	|	|	|	1.96
8.417	24.50	0.74	7.295	O	I	|	|	|	|	2.01
8.500	24.63	0.78	7.459	O	I	|	|	|	|	2.05
8.583	24.93	0.82	7.625	O	I	|	|	|	|	2.10
8.667	25.71	0.87	7.793	O	I	|	|	|	|	2.14
8.750	26.09	0.91	7.965	O	I	|	|	|	|	2.19
8.833	26.47	0.96	8.140	O	I	|	|	|	|	2.24
8.917	27.29	1.00	8.318	O	I	|	|	|	|	2.29
9.000	27.69	1.05	8.501	O	I	|	|	|	|	2.33
9.083	28.28	1.10	8.686	O	I	|	|	|	|	2.38
9.167	29.83	1.14	8.878	O	I	|	|	|	|	2.44
9.250	30.59	1.20	9.078	O	I	|	|	|	|	2.49
9.333	31.13	1.25	9.282	O	I	|	|	|	|	2.55
9.417	32.06	1.30	9.491	O	I	|	|	|	|	2.60

9.500	32.53	1.36	9.705	O	|	| I |	|	2.66
9.583	32.97	1.41	9.921	O	|	| I |	|	2.72
9.667	33.84	1.47	10.141	O	|	| I |	|	2.78
9.750	34.28	1.53	10.365	O	|	| I |	|	2.84
9.833	34.69	1.58	10.592	O	|	| I |	|	2.90
9.917	35.54	1.64	10.822	O	|	| I |	|	2.96
10.000	35.96	1.73	11.057	O	|	| I |	|	3.02
10.083	34.72	1.85	11.288	O	|	| I |	|	3.08
10.167	29.84	1.96	11.497	O	|	I |	|	3.14
10.250	27.48	2.06	11.681	O	|	I |	|	3.18
10.333	26.54	2.15	11.852	O	|	I |	|	3.23
10.417	25.99	2.24	12.018	O	|	I |	|	3.27
10.500	25.62	2.33	12.180	O	|	I |	|	3.31
10.583	26.39	2.42	12.343	O	|	I |	|	3.36
10.667	29.79	2.51	12.519	O	|	I |	|	3.40
10.750	31.40	2.61	12.712	O	|	| I |	|	3.45
10.833	32.01	2.72	12.912	O	|	| I |	|	3.50
10.917	32.35	2.83	13.115	O	|	| I |	|	3.56
11.000	32.62	2.94	13.319	O	|	| I |	|	3.61
11.083	32.61	3.05	13.523	O	|	| I |	|	3.66
11.167	32.03	3.16	13.724	O	|	| I |	|	3.71
11.250	31.78	3.26	13.921	O	|	| I |	|	3.76
11.333	31.70	3.37	14.117	O	|	| I |	|	3.82
11.417	31.68	3.47	14.312	O	|	| I |	|	3.87
11.500	31.62	3.58	14.506	| O	|	| I |	|	3.92
11.583	31.17	3.68	14.697	| O	|	I |	|	3.97
11.667	29.72	3.79	14.881	| O	|	I |	|	4.01
11.750	29.00	3.91	15.057	| O	|	I |	|	4.06
11.833	28.91	4.03	15.229	| O	|	I |	|	4.10
11.917	29.44	4.16	15.401	| O	|	I |	|	4.14
12.000	29.68	4.28	15.576	| O	|	I |	|	4.19
12.083	31.18	4.41	15.756	| O	|	I |	|	4.23
12.167	36.22	4.55	15.957	| O	|	| I |	|	4.28
12.250	38.67	4.71	16.183	| O	|	| I |	|	4.34
12.333	39.87	4.88	16.420	| O	|	| I |	|	4.40
12.417	41.18	5.05	16.665	| O	|	| I |	|	4.46
12.500	41.93	5.23	16.916	| O |	|	| I |	|	4.52
12.583	42.76	5.41	17.171	| O |	|	| I |	|	4.58
12.667	44.49	5.60	17.433	| O |	|	| I |	|	4.65
12.750	45.37	5.79	17.704	| O |	|	| | I |	|	4.72
12.833	45.99	5.99	17.978	| O |	|	| | I |	|	4.78
12.917	46.98	6.18	18.256	| O |	|	| | I |	|	4.85
13.000	47.46	6.39	18.538	| O |	|	| | | I |	|	4.92
13.083	48.71	6.59	18.824	| O |	|	| | | I |	|	5.00
13.167	52.44	6.72	19.127	| O |	|	| | | | I |	5.07
13.250	54.28	6.85	19.448	| O |	|	| | | | I |	5.15
13.333	55.04	6.98	19.776	| O |	|	| | | | I |	5.22
13.417	55.52	7.12	20.109	| O |	|	| | | | I |	5.30
13.500	55.81	7.26	20.442	| O |	|	| | | | I |	5.38
13.583	53.76	7.39	20.769	| O |	|	| | | | I |	5.46
13.667	46.05	7.51	21.062	| O |	|	| | | I | |	5.53
13.750	42.32	7.61	21.314	| O |	|	| | I | |	5.59
13.833	40.83	7.71	21.547	| O |	|	| | I | |	5.65
13.917	39.96	7.80	21.772	| O |	|	| | I | |	5.70
14.000	39.36	7.89	21.991	| O |	|	| | I | |	5.76
14.083	39.76	7.98	22.209	| O |	|	| | I | |	5.81
14.167	42.31	8.07	22.436	| O |	|	| | I |	5.86
14.250	43.50	8.17	22.676	| O |	|	| | I |	5.92
14.333	43.71	8.27	22.920	| O |	|	| | | I |	5.98
14.417	43.20	8.36	23.162	| O |	|	| | I |	6.04
14.500	43.07	8.44	23.401	| O |	|	| | I |	6.09
14.583	43.08	8.51	23.639	| O |	|	| | I |	6.15
14.667	43.11	8.59	23.877	| O |	|	| | I |	6.20

14.750	43.13	8.67	24.115	| O |	|	| I |	6.26
14.833	42.94	8.74	24.351	| O |	|	| I |	6.31
14.917	42.25	8.82	24.584	| O |	|	| I |	6.36
15.000	41.88	8.89	24.813	| O |	|	| I |	6.42
15.083	41.52	8.96	25.038	| O |	|	| I|	6.47
15.167	40.71	9.03	25.260	| O |	|	| I|	6.52
15.250	40.31	9.10	25.476	| O |	|	| I|	6.57
15.333	39.92	9.17	25.689	| O |	|	| I |	6.62
15.417	39.09	9.24	25.898	| O |	|	| I |	6.67
15.500	38.67	9.30	26.102	| O |	|	| I |	6.72
15.583	37.66	9.37	26.301	| O |	|	| I |	6.76
15.667	34.68	9.43	26.485	| O |	|	| I |	6.80
15.750	33.21	9.48	26.654	| O |	|	| I |	6.84
15.833	32.60	9.53	26.815	| O |	|	| I |	6.88
15.917	32.22	9.58	26.972	| O |	|	| I |	6.92
16.000	31.98	9.63	27.127	| O |	|	| I |	6.95
16.083	28.74	9.68	27.269	| O |	| I |	|	6.99
16.167	17.89	10.12	27.362	| O |	I |	|	7.01
16.250	12.59	10.57	27.396	| OI|	|	|	7.01
16.333	10.43	10.66	27.402	| IO |	|	|	7.02
16.417	9.11	10.58	27.396	| IO |	|	|	7.01
16.500	8.29	10.41	27.384	| IO |	|	|	7.01
16.583	7.51	10.19	27.367	| IO |	|	|	7.01
16.667	6.38	9.91	27.346	| I O |	|	|	7.00
16.750	5.75	9.70	27.320	| I O |	|	|	7.00
16.833	5.41	9.69	27.292	| I O |	|	|	6.99
16.917	5.14	9.68	27.261	| I O |	|	|	6.98
17.000	5.09	9.67	27.230	| I O |	|	|	6.98
17.083	5.46	9.66	27.200	| I O |	|	|	6.97
17.167	6.86	9.65	27.175	| I O |	|	|	6.96
17.250	7.54	9.64	27.159	| IO |	|	|	6.96
17.333	7.80	9.64	27.145	| IO |	|	|	6.96
17.417	7.96	9.64	27.133	| IO |	|	|	6.95
17.500	8.07	9.63	27.122	| IO |	|	|	6.95
17.583	8.15	9.63	27.111	| IO |	|	|	6.95
17.667	8.20	9.63	27.101	| IO |	|	|	6.95
17.750	8.24	9.62	27.092	| IO |	|	|	6.94
17.833	8.06	9.62	27.082	| IO |	|	|	6.94
17.917	7.37	9.62	27.068	| IO |	|	|	6.94
18.000	7.02	9.61	27.052	| IO |	|	|	6.94
18.083	6.88	9.60	27.034	| I O |	|	|	6.93
18.167	6.80	9.60	27.015	| I O |	|	|	6.93
18.250	6.74	9.59	26.995	| I O |	|	|	6.92
18.333	6.71	9.59	26.975	| I O |	|	|	6.92
18.417	6.68	9.58	26.955	| I O |	|	|	6.91
18.500	6.66	9.57	26.935	| I O |	|	|	6.91
18.583	6.44	9.57	26.915	| I O |	|	|	6.90
18.667	5.71	9.56	26.891	| I O |	|	|	6.90
18.750	5.37	9.55	26.863	| I O |	|	|	6.89
18.833	5.02	9.54	26.833	| I O |	|	|	6.88
18.917	4.22	9.53	26.799	| I O |	|	|	6.88
19.000	3.82	9.52	26.761	| I O |	|	|	6.87
19.083	3.84	9.50	26.722	| I O |	|	|	6.86
19.167	4.45	9.49	26.685	| I O |	|	|	6.85
19.250	4.72	9.48	26.652	| I O |	|	|	6.84
19.333	5.01	9.47	26.620	| I O |	|	|	6.84
19.417	5.77	9.46	26.592	| I O |	|	|	6.83
19.500	6.16	9.45	26.568	| I O |	|	|	6.82
19.583	6.12	9.45	26.545	| I O |	|	|	6.82
19.667	5.50	9.44	26.520	| I O |	|	|	6.81
19.750	5.23	9.43	26.492	| I O |	|	|	6.81
19.833	4.94	9.42	26.462	| I O |	|	|	6.80
19.917	4.18	9.41	26.428	| I O |	|	|	6.79

20.000	3.79	9.40	26.391	I	O				6.78
20.083	3.83	9.39	26.353	I	O				6.77
20.167	4.45	9.37	26.317	I	O				6.77
20.250	4.72	9.36	26.284	I	O				6.76
20.333	4.81	9.35	26.252	I	O				6.75
20.417	4.85	9.34	26.221	I	O				6.74
20.500	4.89	9.33	26.190	I	O				6.74
20.583	4.92	9.32	26.160	I	O				6.73
20.667	4.93	9.31	26.129	I	O				6.72
20.750	4.95	9.30	26.099	I	O				6.72
20.833	4.76	9.29	26.069	I	O				6.71
20.917	4.06	9.28	26.035	I	O				6.70
21.000	3.71	9.27	25.998	I	O				6.69
21.083	3.77	9.26	25.960	I	O				6.68
21.167	4.40	9.25	25.924	I	O				6.67
21.250	4.70	9.24	25.892	I	O				6.67
21.333	4.59	9.23	25.860	I	O				6.66
21.417	3.93	9.22	25.826	I	O				6.65
21.500	3.62	9.20	25.789	I	O				6.64
21.583	3.71	9.19	25.751	I	O				6.63
21.667	4.36	9.18	25.715	I	O				6.63
21.750	4.67	9.17	25.683	I	O				6.62
21.833	4.58	9.16	25.652	I	O				6.61
21.917	3.93	9.15	25.618	I	O				6.60
22.000	3.62	9.14	25.581	I	O				6.60
22.083	3.71	9.13	25.544	I	O				6.59
22.167	4.36	9.11	25.509	I	O				6.58
22.250	4.67	9.10	25.477	I	O				6.57
22.333	4.58	9.09	25.446	I	O				6.56
22.417	3.93	9.08	25.413	I	O				6.56
22.500	3.62	9.07	25.376	I	O				6.55
22.583	3.51	9.06	25.338	I	O				6.54
22.667	3.44	9.05	25.300	I	O				6.53
22.750	3.40	9.03	25.261	I	O				6.52
22.833	3.38	9.02	25.223	I	O				6.51
22.917	3.36	9.01	25.184	I	O				6.50
23.000	3.34	9.00	25.145	I	O				6.49
23.083	3.33	8.98	25.106	I	O				6.49
23.167	3.32	8.97	25.067	I	O				6.48
23.250	3.32	8.96	25.028	I	O				6.47
23.333	3.32	8.95	24.989	I	O				6.46
23.417	3.32	8.93	24.950	I	O				6.45
23.500	3.32	8.92	24.912	I	O				6.44
23.583	3.32	8.91	24.873	I	O				6.43
23.667	3.32	8.90	24.835	I	O				6.42
23.750	3.32	8.88	24.796	I	O				6.41
23.833	3.32	8.87	24.758	I	O				6.40
23.917	3.32	8.86	24.720	I	O				6.40
24.000	3.32	8.85	24.682	I	O				6.39
24.083	2.91	8.84	24.642	I	O				6.38
24.167	1.48	8.82	24.596	I	O				6.37
24.250	0.78	8.80	24.544	I	O				6.35
24.333	0.50	8.79	24.487	I	O				6.34
24.417	0.33	8.77	24.430	I	O				6.33
24.500	0.22	8.75	24.371	I	O				6.32
24.583	0.14	8.73	24.312	I	O				6.30
24.667	0.09	8.71	24.253	I	O				6.29
24.750	0.05	8.69	24.194	I	O				6.27
24.833	0.02	8.67	24.134	I	O				6.26
24.917	0.00	8.65	24.075	I	O				6.25
25.000	0.00	8.63	24.015	I	O				6.23
25.083	0.00	8.61	23.956	I	O				6.22
25.167	0.00	8.60	23.897	I	O				6.21

25.250	0.00	8.58	23.837	I	O	|	|	|	|	6.19
25.333	0.00	8.56	23.778	I	O	|	|	|	|	6.18
25.417	0.00	8.54	23.720	I	O	|	|	|	|	6.16
25.500	0.00	8.52	23.661	I	O	|	|	|	|	6.15
25.583	0.00	8.50	23.602	I	O	|	|	|	|	6.14
25.667	0.00	8.48	23.544	I	O	|	|	|	|	6.12
25.750	0.00	8.46	23.485	I	O	|	|	|	|	6.11
25.833	0.00	8.44	23.427	I	O	|	|	|	|	6.10
25.917	0.00	8.43	23.369	I	O	|	|	|	|	6.08
26.000	0.00	8.41	23.311	I	O	|	|	|	|	6.07
26.083	0.00	8.39	23.253	I	O	|	|	|	|	6.06
26.167	0.00	8.37	23.196	I	O	|	|	|	|	6.04
26.250	0.00	8.35	23.138	I	O	|	|	|	|	6.03
26.333	0.00	8.33	23.081	I	O	|	|	|	|	6.02
26.417	0.00	8.31	23.023	I	O	|	|	|	|	6.00
26.500	0.00	8.29	22.966	I	O	|	|	|	|	5.99
26.583	0.00	8.27	22.909	I	O	|	|	|	|	5.98
26.667	0.00	8.25	22.852	I	O	|	|	|	|	5.96
26.750	0.00	8.22	22.795	I	O	|	|	|	|	5.95
26.833	0.00	8.20	22.739	I	O	|	|	|	|	5.93
26.917	0.00	8.18	22.682	I	O	|	|	|	|	5.92
27.000	0.00	8.15	22.626	I	O	|	|	|	|	5.91
27.083	0.00	8.13	22.570	I	O	|	|	|	|	5.89
27.167	0.00	8.11	22.514	I	O	|	|	|	|	5.88
27.250	0.00	8.08	22.459	I	O	|	|	|	|	5.87
27.333	0.00	8.06	22.403	I	O	|	|	|	|	5.85
27.417	0.00	8.04	22.347	I	O	|	|	|	|	5.84
27.500	0.00	8.02	22.292	I	O	|	|	|	|	5.83
27.583	0.00	7.99	22.237	I	O	|	|	|	|	5.81
27.667	0.00	7.97	22.182	I	O	|	|	|	|	5.80
27.750	0.00	7.95	22.127	I	O	|	|	|	|	5.79
27.833	0.00	7.93	22.073	I	O	|	|	|	|	5.78
27.917	0.00	7.90	22.018	I	O	|	|	|	|	5.76
28.000	0.00	7.88	21.964	I	O	|	|	|	|	5.75
28.083	0.00	7.86	21.910	I	O	|	|	|	|	5.74
28.167	0.00	7.84	21.856	I	O	|	|	|	|	5.72
28.250	0.00	7.81	21.802	I	O	|	|	|	|	5.71
28.333	0.00	7.79	21.748	I	O	|	|	|	|	5.70
28.417	0.00	7.77	21.694	I	O	|	|	|	|	5.68
28.500	0.00	7.75	21.641	I	O	|	|	|	|	5.67
28.583	0.00	7.73	21.588	I	O	|	|	|	|	5.66
28.667	0.00	7.70	21.534	I	O	|	|	|	|	5.65
28.750	0.00	7.68	21.481	I	O	|	|	|	|	5.63
28.833	0.00	7.66	21.429	I	O	|	|	|	|	5.62
28.917	0.00	7.64	21.376	I	O	|	|	|	|	5.61
29.000	0.00	7.62	21.323	I	O	|	|	|	|	5.60
29.083	0.00	7.60	21.271	I	O	|	|	|	|	5.58
29.167	0.00	7.58	21.219	I	O	|	|	|	|	5.57
29.250	0.00	7.55	21.167	I	O	|	|	|	|	5.56
29.333	0.00	7.53	21.115	I	O	|	|	|	|	5.55
29.417	0.00	7.51	21.063	I	O	|	|	|	|	5.53
29.500	0.00	7.49	21.011	I	O	|	|	|	|	5.52
29.583	0.00	7.47	20.960	I	O	|	|	|	|	5.51
29.667	0.00	7.45	20.908	I	O	|	|	|	|	5.50
29.750	0.00	7.43	20.857	I	O	|	|	|	|	5.48
29.833	0.00	7.41	20.806	I	O	|	|	|	|	5.47
29.917	0.00	7.39	20.755	I	O	|	|	|	|	5.46
30.000	0.00	7.36	20.704	I	O	|	|	|	|	5.45
30.083	0.00	7.34	20.654	I	O	|	|	|	|	5.43
30.167	0.00	7.32	20.603	I	O	|	|	|	|	5.42
30.250	0.00	7.30	20.553	I	O	|	|	|	|	5.41
30.333	0.00	7.28	20.503	I	O	|	|	|	|	5.40
30.417	0.00	7.26	20.452	I	O	|	|	|	|	5.39

30.500	0.00	7.24	20.403	I	O	|	|	|	|	5.37
30.583	0.00	7.22	20.353	I	O	|	|	|	|	5.36
30.667	0.00	7.20	20.303	I	O	|	|	|	|	5.35
30.750	0.00	7.18	20.254	I	O	|	|	|	|	5.34
30.833	0.00	7.16	20.204	I	O	|	|	|	|	5.33
30.917	0.00	7.14	20.155	I	O	|	|	|	|	5.32
31.000	0.00	7.12	20.106	I	O	|	|	|	|	5.30
31.083	0.00	7.10	20.057	I	O	|	|	|	|	5.29
31.167	0.00	7.08	20.008	I	O	|	|	|	|	5.28
31.250	0.00	7.06	19.959	I	O	|	|	|	|	5.27
31.333	0.00	7.04	19.911	I	O	|	|	|	|	5.26
31.417	0.00	7.02	19.862	I	O	|	|	|	|	5.25
31.500	0.00	7.00	19.814	I	O	|	|	|	|	5.23
31.583	0.00	6.98	19.766	I	O	|	|	|	|	5.22
31.667	0.00	6.96	19.718	I	O	|	|	|	|	5.21
31.750	0.00	6.94	19.670	I	O	|	|	|	|	5.20
31.833	0.00	6.92	19.622	I	O	|	|	|	|	5.19
31.917	0.00	6.90	19.575	I	O	|	|	|	|	5.18
32.000	0.00	6.88	19.527	I	O	|	|	|	|	5.16
32.083	0.00	6.86	19.480	I	O	|	|	|	|	5.15
32.167	0.00	6.84	19.433	I	O	|	|	|	|	5.14
32.250	0.00	6.82	19.386	I	O	|	|	|	|	5.13
32.333	0.00	6.80	19.339	I	O	|	|	|	|	5.12
32.417	0.00	6.79	19.292	I	O	|	|	|	|	5.11
32.500	0.00	6.77	19.245	I	O	|	|	|	|	5.10
32.583	0.00	6.75	19.199	I	O	|	|	|	|	5.09
32.667	0.00	6.73	19.152	I	O	|	|	|	|	5.07
32.750	0.00	6.71	19.106	I	O	|	|	|	|	5.06
32.833	0.00	6.69	19.060	I	O	|	|	|	|	5.05
32.917	0.00	6.67	19.014	I	O	|	|	|	|	5.04
33.000	0.00	6.65	18.968	I	O	|	|	|	|	5.03
33.083	0.00	6.63	18.922	I	O	|	|	|	|	5.02
33.167	0.00	6.62	18.877	I	O	|	|	|	|	5.01
33.250	0.00	6.59	18.831	I	O	|	|	|	|	5.00
33.333	0.00	6.56	18.786	I	O	|	|	|	|	4.99
33.417	0.00	6.53	18.741	I	O	|	|	|	|	4.98
33.500	0.00	6.50	18.696	I	O	|	|	|	|	4.96
33.583	0.00	6.47	18.651	I	O	|	|	|	|	4.95
33.667	0.00	6.43	18.607	I	O	|	|	|	|	4.94
33.750	0.00	6.40	18.563	I	O	|	|	|	|	4.93
33.833	0.00	6.37	18.519	I	O	|	|	|	|	4.92
33.917	0.00	6.34	18.475	I	O	|	|	|	|	4.91
34.000	0.00	6.31	18.431	I	O	|	|	|	|	4.90
34.083	0.00	6.28	18.388	I	O	|	|	|	|	4.89
34.167	0.00	6.25	18.345	I	O	|	|	|	|	4.88
34.250	0.00	6.22	18.302	I	O	|	|	|	|	4.87
34.333	0.00	6.19	18.259	I	O	|	|	|	|	4.86
34.417	0.00	6.16	18.217	I	O	|	|	|	|	4.84
34.500	0.00	6.13	18.174	I	O	|	|	|	|	4.83
34.583	0.00	6.10	18.132	I	O	|	|	|	|	4.82
34.667	0.00	6.07	18.091	I	O	|	|	|	|	4.81
34.750	0.00	6.04	18.049	I	O	|	|	|	|	4.80
34.833	0.00	6.01	18.007	I	O	|	|	|	|	4.79
34.917	0.00	5.98	17.966	I	O	|	|	|	|	4.78
35.000	0.00	5.95	17.925	I	O	|	|	|	|	4.77
35.083	0.00	5.92	17.884	I	O	|	|	|	|	4.76
35.167	0.00	5.89	17.843	I	O	|	|	|	|	4.75
35.250	0.00	5.86	17.803	I	O	|	|	|	|	4.74
35.333	0.00	5.83	17.763	I	O	|	|	|	|	4.73
35.417	0.00	5.81	17.723	I	O	|	|	|	|	4.72
35.500	0.00	5.78	17.683	I	O	|	|	|	|	4.71
35.583	0.00	5.75	17.643	I	O	|	|	|	|	4.70
35.667	0.00	5.72	17.604	I	O	|	|	|	|	4.69

35.750	0.00	5.69	17.564	I	O	|	|	|	4.68
35.833	0.00	5.67	17.525	I	O	|	|	|	4.67
35.917	0.00	5.64	17.486	I	O	|	|	|	4.66
36.000	0.00	5.61	17.447	I	O	|	|	|	4.65
36.083	0.00	5.58	17.409	I	O	|	|	|	4.64
36.167	0.00	5.56	17.371	I	O	|	|	|	4.63
36.250	0.00	5.53	17.332	I	O	|	|	|	4.62
36.333	0.00	5.50	17.294	I	O	|	|	|	4.61
36.417	0.00	5.47	17.257	I	O	|	|	|	4.61
36.500	0.00	5.45	17.219	I	O	|	|	|	4.60
36.583	0.00	5.42	17.182	I	O	|	|	|	4.59
36.667	0.00	5.39	17.144	I	O	|	|	|	4.58
36.750	0.00	5.37	17.107	I	O	|	|	|	4.57
36.833	0.00	5.34	17.070	I	O	|	|	|	4.56
36.917	0.00	5.32	17.034	I	O	|	|	|	4.55
37.000	0.00	5.29	16.997	I	O	|	|	|	4.54
37.083	0.00	5.26	16.961	I	O	|	|	|	4.53
37.167	0.00	5.24	16.925	I	O	|	|	|	4.52
37.250	0.00	5.21	16.889	I	O	|	|	|	4.51
37.333	0.00	5.19	16.853	I	O	|	|	|	4.50
37.417	0.00	5.16	16.817	I	O	|	|	|	4.50
37.500	0.00	5.14	16.782	I	O	|	|	|	4.49
37.583	0.00	5.11	16.746	I	O	|	|	|	4.48
37.667	0.00	5.09	16.711	I	O	|	|	|	4.47
37.750	0.00	5.06	16.676	I	O	|	|	|	4.46
37.833	0.00	5.04	16.642	I	O	|	|	|	4.45
37.917	0.00	5.01	16.607	I	O	|	|	|	4.44
38.000	0.00	4.99	16.573	I	O	|	|	|	4.43
38.083	0.00	4.96	16.538	I	O	|	|	|	4.43
38.167	0.00	4.94	16.504	I	O	|	|	|	4.42
38.250	0.00	4.92	16.470	I	O	|	|	|	4.41
38.333	0.00	4.89	16.436	I	O	|	|	|	4.40
38.417	0.00	4.87	16.403	I	O	|	|	|	4.39
38.500	0.00	4.84	16.369	I	O	|	|	|	4.38
38.583	0.00	4.82	16.336	I	O	|	|	|	4.38
38.667	0.00	4.80	16.303	I	O	|	|	|	4.37
38.750	0.00	4.77	16.270	I	O	|	|	|	4.36
38.833	0.00	4.75	16.237	I	O	|	|	|	4.35
38.917	0.00	4.73	16.205	I	O	|	|	|	4.34
39.000	0.00	4.70	16.172	I	O	|	|	|	4.33
39.083	0.00	4.68	16.140	I	O	|	|	|	4.33
39.167	0.00	4.66	16.108	I	O	|	|	|	4.32
39.250	0.00	4.64	16.076	I	O	|	|	|	4.31
39.333	0.00	4.61	16.044	I	O	|	|	|	4.30
39.417	0.00	4.59	16.012	I	O	|	|	|	4.29
39.500	0.00	4.57	15.981	I	O	|	|	|	4.29
39.583	0.00	4.55	15.949	I	O	|	|	|	4.28
39.667	0.00	4.52	15.918	I	O	|	|	|	4.27
39.750	0.00	4.50	15.887	I	O	|	|	|	4.26
39.833	0.00	4.48	15.856	I	O	|	|	|	4.26
39.917	0.00	4.46	15.825	I	O	|	|	|	4.25
40.000	0.00	4.44	15.795	I	O	|	|	|	4.24
40.083	0.00	4.41	15.764	I	O	|	|	|	4.23
40.167	0.00	4.39	15.734	I	O	|	|	|	4.23
40.250	0.00	4.37	15.704	I	O	|	|	|	4.22
40.333	0.00	4.35	15.674	I	O	|	|	|	4.21
40.417	0.00	4.33	15.644	I	O	|	|	|	4.20
40.500	0.00	4.31	15.614	I	O	|	|	|	4.20
40.583	0.00	4.29	15.584	I	O	|	|	|	4.19
40.667	0.00	4.27	15.555	I	O	|	|	|	4.18
40.750	0.00	4.24	15.526	I	O	|	|	|	4.17
40.833	0.00	4.22	15.496	I	O	|	|	|	4.17
40.917	0.00	4.20	15.467	I	O	|	|	|	4.16

41.000	0.00	4.18	15.439	I O	|	|	|	4.15
41.083	0.00	4.16	15.410	I O	|	|	|	4.14
41.167	0.00	4.14	15.381	I O	|	|	|	4.14
41.250	0.00	4.12	15.353	I O	|	|	|	4.13
41.333	0.00	4.10	15.324	I O	|	|	|	4.12
41.417	0.00	4.08	15.296	I O	|	|	|	4.12
41.500	0.00	4.06	15.268	I O	|	|	|	4.11
41.583	0.00	4.04	15.240	I O	|	|	|	4.10
41.667	0.00	4.02	15.213	I O	|	|	|	4.10
41.750	0.00	4.00	15.185	I O	|	|	|	4.09
41.833	0.00	3.98	15.157	I O	|	|	|	4.08
41.917	0.00	3.96	15.130	I O	|	|	|	4.07
42.000	0.00	3.94	15.103	I O	|	|	|	4.07
42.083	0.00	3.92	15.076	I O	|	|	|	4.06
42.167	0.00	3.91	15.049	I O	|	|	|	4.05
42.250	0.00	3.89	15.022	I O	|	|	|	4.05
42.333	0.00	3.87	14.995	I O	|	|	|	4.04
42.417	0.00	3.85	14.969	I O	|	|	|	4.03
42.500	0.00	3.83	14.942	I O	|	|	|	4.03
42.583	0.00	3.81	14.916	I O	|	|	|	4.02
42.667	0.00	3.79	14.890	I O	|	|	|	4.01
42.750	0.00	3.77	14.864	I O	|	|	|	4.01
42.833	0.00	3.76	14.838	I O	|	|	|	4.00
42.917	0.00	3.74	14.812	I O	|	|	|	4.00
43.000	0.00	3.73	14.786	I O	|	|	|	3.99
43.083	0.00	3.71	14.761	I O	|	|	|	3.98
43.167	0.00	3.70	14.735	I O	|	|	|	3.98
43.250	0.00	3.69	14.710	I O	|	|	|	3.97
43.333	0.00	3.67	14.684	I O	|	|	|	3.96
43.417	0.00	3.66	14.659	I O	|	|	|	3.96
43.500	0.00	3.64	14.634	I O	|	|	|	3.95
43.583	0.00	3.63	14.609	I O	|	|	|	3.94
43.667	0.00	3.62	14.584	I O	|	|	|	3.94
43.750	0.00	3.60	14.559	I O	|	|	|	3.93
43.833	0.00	3.59	14.534	I O	|	|	|	3.92
43.917	0.00	3.58	14.510	I O	|	|	|	3.92
44.000	0.00	3.56	14.485	I O	|	|	|	3.91
44.083	0.00	3.55	14.460	I O	|	|	|	3.90
44.167	0.00	3.54	14.436	I O	|	|	|	3.90
44.250	0.00	3.53	14.412	I O	|	|	|	3.89
44.333	0.00	3.51	14.388	I O	|	|	|	3.89
44.417	0.00	3.50	14.363	I O	|	|	|	3.88
44.500	0.00	3.49	14.339	IO	|	|	|	3.87
44.583	0.00	3.47	14.315	IO	|	|	|	3.87
44.667	0.00	3.46	14.291	IO	|	|	|	3.86
44.750	0.00	3.45	14.268	IO	|	|	|	3.85
44.833	0.00	3.44	14.244	IO	|	|	|	3.85
44.917	0.00	3.42	14.220	IO	|	|	|	3.84
45.000	0.00	3.41	14.197	IO	|	|	|	3.84
45.083	0.00	3.40	14.173	IO	|	|	|	3.83
45.167	0.00	3.39	14.150	IO	|	|	|	3.82
45.250	0.00	3.37	14.127	IO	|	|	|	3.82
45.333	0.00	3.36	14.104	IO	|	|	|	3.81
45.417	0.00	3.35	14.080	IO	|	|	|	3.81
45.500	0.00	3.34	14.057	IO	|	|	|	3.80
45.583	0.00	3.32	14.034	IO	|	|	|	3.79
45.667	0.00	3.31	14.012	IO	|	|	|	3.79
45.750	0.00	3.30	13.989	IO	|	|	|	3.78
45.833	0.00	3.29	13.966	IO	|	|	|	3.78
45.917	0.00	3.27	13.944	IO	|	|	|	3.77
46.000	0.00	3.26	13.921	IO	|	|	|	3.76
46.083	0.00	3.25	13.899	IO	|	|	|	3.76
46.167	0.00	3.24	13.876	IO	|	|	|	3.75

46.250	0.00	3.23	13.854	IO				3.75
46.333	0.00	3.21	13.832	IO				3.74
46.417	0.00	3.20	13.810	IO				3.74
46.500	0.00	3.19	13.788	IO				3.73
46.583	0.00	3.18	13.766	IO				3.72
46.667	0.00	3.17	13.744	IO				3.72
46.750	0.00	3.16	13.722	IO				3.71
46.833	0.00	3.14	13.701	IO				3.71
46.917	0.00	3.13	13.679	IO				3.70
47.000	0.00	3.12	13.657	IO				3.70
47.083	0.00	3.11	13.636	IO				3.69
47.167	0.00	3.10	13.615	IO				3.69
47.250	0.00	3.09	13.593	IO				3.68
47.333	0.00	3.08	13.572	IO				3.67
47.417	0.00	3.06	13.551	IO				3.67
47.500	0.00	3.05	13.530	IO				3.66
47.583	0.00	3.04	13.509	IO				3.66
47.667	0.00	3.03	13.488	IO				3.65
47.750	0.00	3.02	13.467	IO				3.65
47.833	0.00	3.01	13.446	IO				3.64
47.917	0.00	3.00	13.426	IO				3.64
48.000	0.00	2.99	13.405	IO				3.63
48.083	0.00	2.97	13.385	IO				3.63
48.167	0.00	2.96	13.364	IO				3.62
48.250	0.00	2.95	13.344	IO				3.61
48.333	0.00	2.94	13.323	IO				3.61
48.417	0.00	2.93	13.303	IO				3.60
48.500	0.00	2.92	13.283	IO				3.60
48.583	0.00	2.91	13.263	IO				3.59
48.667	0.00	2.90	13.243	IO				3.59
48.750	0.00	2.89	13.223	IO				3.58
48.833	0.00	2.88	13.203	IO				3.58
48.917	0.00	2.87	13.183	IO				3.57
49.000	0.00	2.86	13.164	IO				3.57
49.083	0.00	2.85	13.144	IO				3.56
49.167	0.00	2.84	13.124	IO				3.56
49.250	0.00	2.82	13.105	IO				3.55
49.333	0.00	2.81	13.086	IO				3.55
49.417	0.00	2.80	13.066	IO				3.54
49.500	0.00	2.79	13.047	IO				3.54
49.583	0.00	2.78	13.028	IO				3.53
49.667	0.00	2.77	13.009	IO				3.53
49.750	0.00	2.76	12.990	IO				3.52
49.833	0.00	2.75	12.971	IO				3.52
49.917	0.00	2.74	12.952	IO				3.51
50.000	0.00	2.73	12.933	IO				3.51
50.083	0.00	2.72	12.914	IO				3.50
50.167	0.00	2.71	12.895	IO				3.50
50.250	0.00	2.70	12.877	IO				3.49
50.333	0.00	2.69	12.858	IO				3.49
50.417	0.00	2.68	12.840	IO				3.48
50.500	0.00	2.67	12.821	IO				3.48
50.583	0.00	2.66	12.803	IO				3.47
50.667	0.00	2.65	12.784	IO				3.47
50.750	0.00	2.64	12.766	IO				3.47
50.833	0.00	2.63	12.748	IO				3.46
50.917	0.00	2.62	12.730	IO				3.46
51.000	0.00	2.61	12.712	IO				3.45
51.083	0.00	2.60	12.694	IO				3.45
51.167	0.00	2.59	12.676	IO				3.44
51.250	0.00	2.59	12.658	IO				3.44
51.333	0.00	2.58	12.640	IO				3.43
51.417	0.00	2.57	12.623	IO				3.43

51.500	0.00	2.56	12.605	IO	|	|	|	3.42
51.583	0.00	2.55	12.587	IO	|	|	|	3.42
51.667	0.00	2.54	12.570	IO	|	|	|	3.41
51.750	0.00	2.53	12.552	IO	|	|	|	3.41
51.833	0.00	2.52	12.535	IO	|	|	|	3.41
51.917	0.00	2.51	12.518	IO	|	|	|	3.40
52.000	0.00	2.50	12.501	IO	|	|	|	3.40
52.083	0.00	2.49	12.483	IO	|	|	|	3.39
52.167	0.00	2.48	12.466	IO	|	|	|	3.39
52.250	0.00	2.47	12.449	IO	|	|	|	3.38
52.333	0.00	2.46	12.432	IO	|	|	|	3.38
52.417	0.00	2.46	12.415	IO	|	|	|	3.37
52.500	0.00	2.45	12.398	IO	|	|	|	3.37
52.583	0.00	2.44	12.382	IO	|	|	|	3.37
52.667	0.00	2.43	12.365	IO	|	|	|	3.36
52.750	0.00	2.42	12.348	IO	|	|	|	3.36
52.833	0.00	2.41	12.331	IO	|	|	|	3.35
52.917	0.00	2.40	12.315	IO	|	|	|	3.35
53.000	0.00	2.39	12.298	IO	|	|	|	3.34
53.083	0.00	2.38	12.282	IO	|	|	|	3.34
53.167	0.00	2.37	12.266	IO	|	|	|	3.34
53.250	0.00	2.37	12.249	IO	|	|	|	3.33
53.333	0.00	2.36	12.233	IO	|	|	|	3.33
53.417	0.00	2.35	12.217	IO	|	|	|	3.32
53.500	0.00	2.34	12.201	IO	|	|	|	3.32
53.583	0.00	2.33	12.185	IO	|	|	|	3.31
53.667	0.00	2.32	12.168	IO	|	|	|	3.31
53.750	0.00	2.31	12.153	IO	|	|	|	3.31
53.833	0.00	2.31	12.137	IO	|	|	|	3.30
53.917	0.00	2.30	12.121	IO	|	|	|	3.30
54.000	0.00	2.29	12.105	IO	|	|	|	3.29
54.083	0.00	2.28	12.089	IO	|	|	|	3.29
54.167	0.00	2.27	12.074	IO	|	|	|	3.29
54.250	0.00	2.26	12.058	IO	|	|	|	3.28
54.333	0.00	2.26	12.042	IO	|	|	|	3.28
54.417	0.00	2.25	12.027	IO	|	|	|	3.27
54.500	0.00	2.24	12.011	IO	|	|	|	3.27
54.583	0.00	2.23	11.996	IO	|	|	|	3.27
54.667	0.00	2.22	11.981	IO	|	|	|	3.26
54.750	0.00	2.21	11.965	IO	|	|	|	3.26
54.833	0.00	2.21	11.950	IO	|	|	|	3.25
54.917	0.00	2.20	11.935	IO	|	|	|	3.25
55.000	0.00	2.19	11.920	IO	|	|	|	3.25
55.083	0.00	2.18	11.905	IO	|	|	|	3.24
55.167	0.00	2.17	11.890	IO	|	|	|	3.24
55.250	0.00	2.17	11.875	IO	|	|	|	3.23
55.333	0.00	2.16	11.860	IO	|	|	|	3.23
55.417	0.00	2.15	11.845	IO	|	|	|	3.23
55.500	0.00	2.14	11.830	IO	|	|	|	3.22
55.583	0.00	2.13	11.816	IO	|	|	|	3.22
55.667	0.00	2.13	11.801	IO	|	|	|	3.22
55.750	0.00	2.12	11.786	IO	|	|	|	3.21
55.833	0.00	2.11	11.772	IO	|	|	|	3.21
55.917	0.00	2.10	11.757	IO	|	|	|	3.20
56.000	0.00	2.09	11.743	IO	|	|	|	3.20
56.083	0.00	2.09	11.729	IO	|	|	|	3.20
56.167	0.00	2.08	11.714	IO	|	|	|	3.19
56.250	0.00	2.07	11.700	IO	|	|	|	3.19
56.333	0.00	2.06	11.686	IO	|	|	|	3.19
56.417	0.00	2.06	11.671	IO	|	|	|	3.18
56.500	0.00	2.05	11.657	IO	|	|	|	3.18
56.583	0.00	2.04	11.643	IO	|	|	|	3.17
56.667	0.00	2.03	11.629	IO	|	|	|	3.17

56.750	0.00	2.03	11.615	IO				3.17
56.833	0.00	2.02	11.601	IO				3.16
56.917	0.00	2.01	11.587	IO				3.16
57.000	0.00	2.00	11.574	IO				3.16
57.083	0.00	2.00	11.560	IO				3.15
57.167	0.00	1.99	11.546	IO				3.15
57.250	0.00	1.98	11.532	IO				3.15
57.333	0.00	1.97	11.519	IO				3.14
57.417	0.00	1.97	11.505	IO				3.14
57.500	0.00	1.96	11.492	IO				3.14
57.583	0.00	1.95	11.478	IO				3.13
57.667	0.00	1.95	11.465	IO				3.13
57.750	0.00	1.94	11.451	IO				3.12
57.833	0.00	1.93	11.438	IO				3.12
57.917	0.00	1.92	11.425	IO				3.12
58.000	0.00	1.92	11.412	IO				3.11
58.083	0.00	1.91	11.398	IO				3.11
58.167	0.00	1.90	11.385	IO				3.11
58.250	0.00	1.90	11.372	IO				3.10
58.333	0.00	1.89	11.359	IO				3.10
58.417	0.00	1.88	11.346	IO				3.10
58.500	0.00	1.87	11.333	IO				3.09
58.583	0.00	1.87	11.320	IO				3.09
58.667	0.00	1.86	11.308	IO				3.09
58.750	0.00	1.85	11.295	IO				3.08
58.833	0.00	1.85	11.282	IO				3.08
58.917	0.00	1.84	11.269	IO				3.08
59.000	0.00	1.83	11.257	IO				3.07
59.083	0.00	1.83	11.244	IO				3.07
59.167	0.00	1.82	11.232	IO				3.07
59.250	0.00	1.81	11.219	IO				3.06
59.333	0.00	1.81	11.207	IO				3.06
59.417	0.00	1.80	11.194	IO				3.06
59.500	0.00	1.79	11.182	IO				3.05
59.583	0.00	1.79	11.169	IO				3.05
59.667	0.00	1.78	11.157	IO				3.05
59.750	0.00	1.77	11.145	IO				3.05
59.833	0.00	1.77	11.133	IO				3.04
59.917	0.00	1.76	11.121	IO				3.04
60.000	0.00	1.75	11.108	IO				3.04
60.083	0.00	1.75	11.096	IO				3.03
60.167	0.00	1.74	11.084	O				3.03
60.250	0.00	1.73	11.072	O				3.03
60.333	0.00	1.73	11.060	O				3.02
60.417	0.00	1.72	11.049	O				3.02
60.500	0.00	1.72	11.037	O				3.02
60.583	0.00	1.71	11.025	O				3.01
60.667	0.00	1.70	11.013	O				3.01
60.750	0.00	1.70	11.002	O				3.01
60.833	0.00	1.69	10.990	O				3.01
60.917	0.00	1.68	10.978	O				3.00
61.000	0.00	1.68	10.967	O				3.00
61.083	0.00	1.68	10.955	O				3.00
61.167	0.00	1.67	10.944	O				2.99
61.250	0.00	1.67	10.932	O				2.99
61.333	0.00	1.67	10.921	O				2.99
61.417	0.00	1.66	10.909	O				2.98
61.500	0.00	1.66	10.898	O				2.98
61.583	0.00	1.66	10.886	O				2.98
61.667	0.00	1.66	10.875	O				2.97
61.750	0.00	1.65	10.863	O				2.97
61.833	0.00	1.65	10.852	O				2.97
61.917	0.00	1.65	10.841	O				2.97

62.000	0.00	1.64	10.829	O	|	|	|	|	2.96
62.083	0.00	1.64	10.818	O	|	|	|	|	2.96
62.167	0.00	1.64	10.807	O	|	|	|	|	2.96
62.250	0.00	1.64	10.795	O	|	|	|	|	2.95
62.333	0.00	1.63	10.784	O	|	|	|	|	2.95
62.417	0.00	1.63	10.773	O	|	|	|	|	2.95
62.500	0.00	1.63	10.762	O	|	|	|	|	2.94
62.583	0.00	1.62	10.751	O	|	|	|	|	2.94
62.667	0.00	1.62	10.739	O	|	|	|	|	2.94
62.750	0.00	1.62	10.728	O	|	|	|	|	2.93
62.833	0.00	1.62	10.717	O	|	|	|	|	2.93
62.917	0.00	1.61	10.706	O	|	|	|	|	2.93
63.000	0.00	1.61	10.695	O	|	|	|	|	2.93
63.083	0.00	1.61	10.684	O	|	|	|	|	2.92
63.167	0.00	1.60	10.673	O	|	|	|	|	2.92
63.250	0.00	1.60	10.662	O	|	|	|	|	2.92
63.333	0.00	1.60	10.651	O	|	|	|	|	2.91
63.417	0.00	1.60	10.640	O	|	|	|	|	2.91
63.500	0.00	1.59	10.629	O	|	|	|	|	2.91
63.583	0.00	1.59	10.618	O	|	|	|	|	2.91
63.667	0.00	1.59	10.607	O	|	|	|	|	2.90
63.750	0.00	1.58	10.596	O	|	|	|	|	2.90
63.833	0.00	1.58	10.585	O	|	|	|	|	2.90
63.917	0.00	1.58	10.574	O	|	|	|	|	2.89
64.000	0.00	1.58	10.563	O	|	|	|	|	2.89
64.083	0.00	1.57	10.552	O	|	|	|	|	2.89
64.167	0.00	1.57	10.542	O	|	|	|	|	2.88
64.250	0.00	1.57	10.531	O	|	|	|	|	2.88
64.333	0.00	1.56	10.520	O	|	|	|	|	2.88
64.417	0.00	1.56	10.509	O	|	|	|	|	2.88
64.500	0.00	1.56	10.498	O	|	|	|	|	2.87
64.583	0.00	1.56	10.488	O	|	|	|	|	2.87
64.667	0.00	1.55	10.477	O	|	|	|	|	2.87
64.750	0.00	1.55	10.466	O	|	|	|	|	2.86
64.833	0.00	1.55	10.456	O	|	|	|	|	2.86
64.917	0.00	1.55	10.445	O	|	|	|	|	2.86
65.000	0.00	1.54	10.434	O	|	|	|	|	2.86
65.083	0.00	1.54	10.424	O	|	|	|	|	2.85
65.167	0.00	1.54	10.413	O	|	|	|	|	2.85
65.250	0.00	1.53	10.403	O	|	|	|	|	2.85
65.333	0.00	1.53	10.392	O	|	|	|	|	2.84
65.417	0.00	1.53	10.382	O	|	|	|	|	2.84
65.500	0.00	1.53	10.371	O	|	|	|	|	2.84
65.583	0.00	1.52	10.360	O	|	|	|	|	2.84
65.667	0.00	1.52	10.350	O	|	|	|	|	2.83
65.750	0.00	1.52	10.340	O	|	|	|	|	2.83
65.833	0.00	1.52	10.329	O	|	|	|	|	2.83
65.917	0.00	1.51	10.319	O	|	|	|	|	2.82
66.000	0.00	1.51	10.308	O	|	|	|	|	2.82
66.083	0.00	1.51	10.298	O	|	|	|	|	2.82
66.167	0.00	1.51	10.287	O	|	|	|	|	2.82
66.250	0.00	1.50	10.277	O	|	|	|	|	2.81
66.333	0.00	1.50	10.267	O	|	|	|	|	2.81
66.417	0.00	1.50	10.256	O	|	|	|	|	2.81
66.500	0.00	1.49	10.246	O	|	|	|	|	2.80
66.583	0.00	1.49	10.236	O	|	|	|	|	2.80
66.667	0.00	1.49	10.226	O	|	|	|	|	2.80
66.750	0.00	1.49	10.215	O	|	|	|	|	2.80
66.833	0.00	1.48	10.205	O	|	|	|	|	2.79
66.917	0.00	1.48	10.195	O	|	|	|	|	2.79
67.000	0.00	1.48	10.185	O	|	|	|	|	2.79
67.083	0.00	1.48	10.175	O	|	|	|	|	2.79
67.167	0.00	1.47	10.164	O	|	|	|	|	2.78

67.250	0.00	1.47	10.154	O	|	|	|	|	2.78
67.333	0.00	1.47	10.144	O	|	|	|	|	2.78
67.417	0.00	1.47	10.134	O	|	|	|	|	2.77
67.500	0.00	1.46	10.124	O	|	|	|	|	2.77
67.583	0.00	1.46	10.114	O	|	|	|	|	2.77
67.667	0.00	1.46	10.104	O	|	|	|	|	2.77
67.750	0.00	1.46	10.094	O	|	|	|	|	2.76
67.833	0.00	1.45	10.084	O	|	|	|	|	2.76
67.917	0.00	1.45	10.074	O	|	|	|	|	2.76
68.000	0.00	1.45	10.064	O	|	|	|	|	2.76
68.083	0.00	1.45	10.054	O	|	|	|	|	2.75
68.167	0.00	1.44	10.044	O	|	|	|	|	2.75
68.250	0.00	1.44	10.034	O	|	|	|	|	2.75
68.333	0.00	1.44	10.024	O	|	|	|	|	2.75
68.417	0.00	1.44	10.014	O	|	|	|	|	2.74
68.500	0.00	1.43	10.004	O	|	|	|	|	2.74
68.583	0.00	1.43	9.994	O	|	|	|	|	2.74
68.667	0.00	1.43	9.985	O	|	|	|	|	2.73
68.750	0.00	1.43	9.975	O	|	|	|	|	2.73
68.833	0.00	1.42	9.965	O	|	|	|	|	2.73
68.917	0.00	1.42	9.955	O	|	|	|	|	2.73
69.000	0.00	1.42	9.945	O	|	|	|	|	2.72
69.083	0.00	1.42	9.936	O	|	|	|	|	2.72
69.167	0.00	1.41	9.926	O	|	|	|	|	2.72
69.250	0.00	1.41	9.916	O	|	|	|	|	2.72
69.333	0.00	1.41	9.906	O	|	|	|	|	2.71
69.417	0.00	1.41	9.897	O	|	|	|	|	2.71
69.500	0.00	1.40	9.887	O	|	|	|	|	2.71
69.583	0.00	1.40	9.877	O	|	|	|	|	2.71
69.667	0.00	1.40	9.868	O	|	|	|	|	2.70
69.750	0.00	1.40	9.858	O	|	|	|	|	2.70
69.833	0.00	1.39	9.849	O	|	|	|	|	2.70
69.917	0.00	1.39	9.839	O	|	|	|	|	2.70
70.000	0.00	1.39	9.829	O	|	|	|	|	2.69
70.083	0.00	1.39	9.820	O	|	|	|	|	2.69
70.167	0.00	1.38	9.810	O	|	|	|	|	2.69
70.250	0.00	1.38	9.801	O	|	|	|	|	2.68
70.333	0.00	1.38	9.791	O	|	|	|	|	2.68
70.417	0.00	1.38	9.782	O	|	|	|	|	2.68
70.500	0.00	1.37	9.772	O	|	|	|	|	2.68
70.583	0.00	1.37	9.763	O	|	|	|	|	2.67
70.667	0.00	1.37	9.753	O	|	|	|	|	2.67
70.750	0.00	1.37	9.744	O	|	|	|	|	2.67
70.833	0.00	1.36	9.735	O	|	|	|	|	2.67
70.917	0.00	1.36	9.725	O	|	|	|	|	2.66
71.000	0.00	1.36	9.716	O	|	|	|	|	2.66
71.083	0.00	1.36	9.707	O	|	|	|	|	2.66
71.167	0.00	1.35	9.697	O	|	|	|	|	2.66
71.250	0.00	1.35	9.688	O	|	|	|	|	2.65
71.333	0.00	1.35	9.679	O	|	|	|	|	2.65
71.417	0.00	1.35	9.669	O	|	|	|	|	2.65
71.500	0.00	1.34	9.660	O	|	|	|	|	2.65
71.583	0.00	1.34	9.651	O	|	|	|	|	2.64
71.667	0.00	1.34	9.642	O	|	|	|	|	2.64
71.750	0.00	1.34	9.632	O	|	|	|	|	2.64
71.833	0.00	1.34	9.623	O	|	|	|	|	2.64
71.917	0.00	1.33	9.614	O	|	|	|	|	2.63
72.000	0.00	1.33	9.605	O	|	|	|	|	2.63
72.083	0.00	1.33	9.596	O	|	|	|	|	2.63
72.167	0.00	1.33	9.587	O	|	|	|	|	2.63
72.250	0.00	1.32	9.577	O	|	|	|	|	2.62
72.333	0.00	1.32	9.568	O	|	|	|	|	2.62
72.417	0.00	1.32	9.559	O	|	|	|	|	2.62

72.500	0.00	1.32	9.550	O	|	|	|	|	2.62
72.583	0.00	1.31	9.541	O	|	|	|	|	2.61
72.667	0.00	1.31	9.532	O	|	|	|	|	2.61
72.750	0.00	1.31	9.523	O	|	|	|	|	2.61
72.833	0.00	1.31	9.514	O	|	|	|	|	2.61
72.917	0.00	1.30	9.505	O	|	|	|	|	2.61
73.000	0.00	1.30	9.496	O	|	|	|	|	2.60
73.083	0.00	1.30	9.487	O	|	|	|	|	2.60
73.167	0.00	1.30	9.478	O	|	|	|	|	2.60
73.250	0.00	1.30	9.469	O	|	|	|	|	2.60
73.333	0.00	1.29	9.460	O	|	|	|	|	2.59
73.417	0.00	1.29	9.451	O	|	|	|	|	2.59
73.500	0.00	1.29	9.442	O	|	|	|	|	2.59
73.583	0.00	1.29	9.434	O	|	|	|	|	2.59
73.667	0.00	1.28	9.425	O	|	|	|	|	2.58
73.750	0.00	1.28	9.416	O	|	|	|	|	2.58
73.833	0.00	1.28	9.407	O	|	|	|	|	2.58
73.917	0.00	1.28	9.398	O	|	|	|	|	2.58
74.000	0.00	1.28	9.389	O	|	|	|	|	2.57
74.083	0.00	1.27	9.381	O	|	|	|	|	2.57
74.167	0.00	1.27	9.372	O	|	|	|	|	2.57
74.250	0.00	1.27	9.363	O	|	|	|	|	2.57
74.333	0.00	1.27	9.354	O	|	|	|	|	2.56
74.417	0.00	1.26	9.346	O	|	|	|	|	2.56
74.500	0.00	1.26	9.337	O	|	|	|	|	2.56
74.583	0.00	1.26	9.328	O	|	|	|	|	2.56
74.667	0.00	1.26	9.320	O	|	|	|	|	2.56
74.750	0.00	1.26	9.311	O	|	|	|	|	2.55
74.833	0.00	1.25	9.302	O	|	|	|	|	2.55
74.917	0.00	1.25	9.294	O	|	|	|	|	2.55
75.000	0.00	1.25	9.285	O	|	|	|	|	2.55
75.083	0.00	1.25	9.277	O	|	|	|	|	2.54
75.167	0.00	1.24	9.268	O	|	|	|	|	2.54
75.250	0.00	1.24	9.259	O	|	|	|	|	2.54
75.333	0.00	1.24	9.251	O	|	|	|	|	2.54
75.417	0.00	1.24	9.242	O	|	|	|	|	2.53
75.500	0.00	1.24	9.234	O	|	|	|	|	2.53
75.583	0.00	1.23	9.225	O	|	|	|	|	2.53
75.667	0.00	1.23	9.217	O	|	|	|	|	2.53
75.750	0.00	1.23	9.208	O	|	|	|	|	2.53
75.833	0.00	1.23	9.200	O	|	|	|	|	2.52
75.917	0.00	1.22	9.192	O	|	|	|	|	2.52
76.000	0.00	1.22	9.183	O	|	|	|	|	2.52
76.083	0.00	1.22	9.175	O	|	|	|	|	2.52
76.167	0.00	1.22	9.166	O	|	|	|	|	2.51
76.250	0.00	1.22	9.158	O	|	|	|	|	2.51
76.333	0.00	1.21	9.150	O	|	|	|	|	2.51
76.417	0.00	1.21	9.141	O	|	|	|	|	2.51
76.500	0.00	1.21	9.133	O	|	|	|	|	2.50
76.583	0.00	1.21	9.125	O	|	|	|	|	2.50
76.667	0.00	1.21	9.116	O	|	|	|	|	2.50
76.750	0.00	1.20	9.108	O	|	|	|	|	2.50
76.833	0.00	1.20	9.100	O	|	|	|	|	2.50
76.917	0.00	1.20	9.091	O	|	|	|	|	2.49
77.000	0.00	1.20	9.083	O	|	|	|	|	2.49
77.083	0.00	1.19	9.075	O	|	|	|	|	2.49
77.167	0.00	1.19	9.067	O	|	|	|	|	2.49
77.250	0.00	1.19	9.058	O	|	|	|	|	2.48
77.333	0.00	1.19	9.050	O	|	|	|	|	2.48
77.417	0.00	1.19	9.042	O	|	|	|	|	2.48
77.500	0.00	1.18	9.034	O	|	|	|	|	2.48
77.583	0.00	1.18	9.026	O	|	|	|	|	2.48
77.667	0.00	1.18	9.018	O	|	|	|	|	2.47

77.750	0.00	1.18	9.010	O	|	|	|	|	2.47
77.833	0.00	1.18	9.001	O	|	|	|	|	2.47
77.917	0.00	1.17	8.993	O	|	|	|	|	2.47
78.000	0.00	1.17	8.985	O	|	|	|	|	2.47
78.083	0.00	1.17	8.977	O	|	|	|	|	2.46
78.167	0.00	1.17	8.969	O	|	|	|	|	2.46
78.250	0.00	1.17	8.961	O	|	|	|	|	2.46
78.333	0.00	1.16	8.953	O	|	|	|	|	2.46
78.417	0.00	1.16	8.945	O	|	|	|	|	2.45
78.500	0.00	1.16	8.937	O	|	|	|	|	2.45
78.583	0.00	1.16	8.929	O	|	|	|	|	2.45
78.667	0.00	1.16	8.921	O	|	|	|	|	2.45
78.750	0.00	1.15	8.913	O	|	|	|	|	2.45
78.833	0.00	1.15	8.905	O	|	|	|	|	2.44
78.917	0.00	1.15	8.897	O	|	|	|	|	2.44
79.000	0.00	1.15	8.889	O	|	|	|	|	2.44
79.083	0.00	1.15	8.882	O	|	|	|	|	2.44
79.167	0.00	1.14	8.874	O	|	|	|	|	2.43
79.250	0.00	1.14	8.866	O	|	|	|	|	2.43
79.333	0.00	1.14	8.858	O	|	|	|	|	2.43
79.417	0.00	1.14	8.850	O	|	|	|	|	2.43
79.500	0.00	1.14	8.842	O	|	|	|	|	2.43
79.583	0.00	1.13	8.834	O	|	|	|	|	2.42
79.667	0.00	1.13	8.827	O	|	|	|	|	2.42
79.750	0.00	1.13	8.819	O	|	|	|	|	2.42
79.833	0.00	1.13	8.811	O	|	|	|	|	2.42
79.917	0.00	1.13	8.803	O	|	|	|	|	2.42
80.000	0.00	1.12	8.796	O	|	|	|	|	2.41
80.083	0.00	1.12	8.788	O	|	|	|	|	2.41
80.167	0.00	1.12	8.780	O	|	|	|	|	2.41
80.250	0.00	1.12	8.772	O	|	|	|	|	2.41
80.333	0.00	1.12	8.765	O	|	|	|	|	2.41
80.417	0.00	1.11	8.757	O	|	|	|	|	2.40
80.500	0.00	1.11	8.749	O	|	|	|	|	2.40
80.583	0.00	1.11	8.742	O	|	|	|	|	2.40
80.667	0.00	1.11	8.734	O	|	|	|	|	2.40
80.750	0.00	1.11	8.727	O	|	|	|	|	2.40
80.833	0.00	1.10	8.719	O	|	|	|	|	2.39
80.917	0.00	1.10	8.711	O	|	|	|	|	2.39
81.000	0.00	1.10	8.704	O	|	|	|	|	2.39
81.083	0.00	1.10	8.696	O	|	|	|	|	2.39
81.167	0.00	1.10	8.689	O	|	|	|	|	2.39
81.250	0.00	1.09	8.681	O	|	|	|	|	2.38
81.333	0.00	1.09	8.674	O	|	|	|	|	2.38
81.417	0.00	1.09	8.666	O	|	|	|	|	2.38
81.500	0.00	1.09	8.659	O	|	|	|	|	2.38
81.583	0.00	1.09	8.651	O	|	|	|	|	2.37
81.667	0.00	1.08	8.644	O	|	|	|	|	2.37
81.750	0.00	1.08	8.636	O	|	|	|	|	2.37
81.833	0.00	1.08	8.629	O	|	|	|	|	2.37
81.917	0.00	1.08	8.621	O	|	|	|	|	2.37
82.000	0.00	1.08	8.614	O	|	|	|	|	2.36
82.083	0.00	1.07	8.606	O	|	|	|	|	2.36
82.167	0.00	1.07	8.599	O	|	|	|	|	2.36
82.250	0.00	1.07	8.592	O	|	|	|	|	2.36
82.333	0.00	1.07	8.584	O	|	|	|	|	2.36
82.417	0.00	1.07	8.577	O	|	|	|	|	2.35
82.500	0.00	1.07	8.570	O	|	|	|	|	2.35
82.583	0.00	1.06	8.562	O	|	|	|	|	2.35
82.667	0.00	1.06	8.555	O	|	|	|	|	2.35
82.750	0.00	1.06	8.548	O	|	|	|	|	2.35
82.833	0.00	1.06	8.540	O	|	|	|	|	2.35
82.917	0.00	1.06	8.533	O	|	|	|	|	2.34

83.000	0.00	1.05	8.526	O	|	|	|	|	2.34
83.083	0.00	1.05	8.519	O	|	|	|	|	2.34
83.167	0.00	1.05	8.511	O	|	|	|	|	2.34
83.250	0.00	1.05	8.504	O	|	|	|	|	2.34
83.333	0.00	1.05	8.497	O	|	|	|	|	2.33
83.417	0.00	1.04	8.490	O	|	|	|	|	2.33
83.500	0.00	1.04	8.482	O	|	|	|	|	2.33
83.583	0.00	1.04	8.475	O	|	|	|	|	2.33
83.667	0.00	1.04	8.468	O	|	|	|	|	2.33
83.750	0.00	1.04	8.461	O	|	|	|	|	2.32
83.833	0.00	1.04	8.454	O	|	|	|	|	2.32
83.917	0.00	1.03	8.447	O	|	|	|	|	2.32
84.000	0.00	1.03	8.440	O	|	|	|	|	2.32
84.083	0.00	1.03	8.432	O	|	|	|	|	2.32
84.167	0.00	1.03	8.425	O	|	|	|	|	2.31
84.250	0.00	1.03	8.418	O	|	|	|	|	2.31
84.333	0.00	1.02	8.411	O	|	|	|	|	2.31
84.417	0.00	1.02	8.404	O	|	|	|	|	2.31
84.500	0.00	1.02	8.397	O	|	|	|	|	2.31
84.583	0.00	1.02	8.390	O	|	|	|	|	2.30
84.667	0.00	1.02	8.383	O	|	|	|	|	2.30
84.750	0.00	1.02	8.376	O	|	|	|	|	2.30
84.833	0.00	1.01	8.369	O	|	|	|	|	2.30
84.917	0.00	1.01	8.362	O	|	|	|	|	2.30
85.000	0.00	1.01	8.355	O	|	|	|	|	2.30
85.083	0.00	1.01	8.348	O	|	|	|	|	2.29
85.167	0.00	1.01	8.341	O	|	|	|	|	2.29
85.250	0.00	1.01	8.334	O	|	|	|	|	2.29
85.333	0.00	1.00	8.327	O	|	|	|	|	2.29
85.417	0.00	1.00	8.321	O	|	|	|	|	2.29
85.500	0.00	1.00	8.314	O	|	|	|	|	2.28
85.583	0.00	1.00	8.307	O	|	|	|	|	2.28
85.667	0.00	1.00	8.300	O	|	|	|	|	2.28
85.750	0.00	0.99	8.293	O	|	|	|	|	2.28
85.833	0.00	0.99	8.286	O	|	|	|	|	2.28
85.917	0.00	0.99	8.279	O	|	|	|	|	2.27
86.000	0.00	0.99	8.273	O	|	|	|	|	2.27
86.083	0.00	0.99	8.266	O	|	|	|	|	2.27
86.167	0.00	0.99	8.259	O	|	|	|	|	2.27
86.250	0.00	0.98	8.252	O	|	|	|	|	2.27
86.333	0.00	0.98	8.245	O	|	|	|	|	2.27
86.417	0.00	0.98	8.239	O	|	|	|	|	2.26
86.500	0.00	0.98	8.232	O	|	|	|	|	2.26
86.583	0.00	0.98	8.225	O	|	|	|	|	2.26
86.667	0.00	0.98	8.218	O	|	|	|	|	2.26
86.750	0.00	0.97	8.212	O	|	|	|	|	2.26
86.833	0.00	0.97	8.205	O	|	|	|	|	2.25
86.917	0.00	0.97	8.198	O	|	|	|	|	2.25
87.000	0.00	0.97	8.192	O	|	|	|	|	2.25
87.083	0.00	0.97	8.185	O	|	|	|	|	2.25
87.167	0.00	0.97	8.178	O	|	|	|	|	2.25
87.250	0.00	0.96	8.172	O	|	|	|	|	2.25
87.333	0.00	0.96	8.165	O	|	|	|	|	2.24
87.417	0.00	0.96	8.158	O	|	|	|	|	2.24
87.500	0.00	0.96	8.152	O	|	|	|	|	2.24
87.583	0.00	0.96	8.145	O	|	|	|	|	2.24
87.667	0.00	0.95	8.139	O	|	|	|	|	2.24
87.750	0.00	0.95	8.132	O	|	|	|	|	2.24
87.833	0.00	0.95	8.126	O	|	|	|	|	2.23
87.917	0.00	0.95	8.119	O	|	|	|	|	2.23
88.000	0.00	0.95	8.112	O	|	|	|	|	2.23
88.083	0.00	0.95	8.106	O	|	|	|	|	2.23
88.167	0.00	0.94	8.099	O	|	|	|	|	2.23

88.250	0.00	0.94	8.093	O	|	|	|	|	2.22
88.333	0.00	0.94	8.086	O	|	|	|	|	2.22
88.417	0.00	0.94	8.080	O	|	|	|	|	2.22
88.500	0.00	0.94	8.073	O	|	|	|	|	2.22
88.583	0.00	0.94	8.067	O	|	|	|	|	2.22
88.667	0.00	0.93	8.061	O	|	|	|	|	2.22
88.750	0.00	0.93	8.054	O	|	|	|	|	2.21
88.833	0.00	0.93	8.048	O	|	|	|	|	2.21
88.917	0.00	0.93	8.041	O	|	|	|	|	2.21
89.000	0.00	0.93	8.035	O	|	|	|	|	2.21
89.083	0.00	0.93	8.029	O	|	|	|	|	2.21
89.167	0.00	0.93	8.022	O	|	|	|	|	2.21
89.250	0.00	0.92	8.016	O	|	|	|	|	2.20
89.333	0.00	0.92	8.009	O	|	|	|	|	2.20
89.417	0.00	0.92	8.003	O	|	|	|	|	2.20
89.500	0.00	0.92	7.997	O	|	|	|	|	2.20
89.583	0.00	0.92	7.990	O	|	|	|	|	2.20
89.667	0.00	0.92	7.984	O	|	|	|	|	2.20
89.750	0.00	0.91	7.978	O	|	|	|	|	2.19
89.833	0.00	0.91	7.972	O	|	|	|	|	2.19
89.917	0.00	0.91	7.965	O	|	|	|	|	2.19
90.000	0.00	0.91	7.959	O	|	|	|	|	2.19
90.083	0.00	0.91	7.953	O	|	|	|	|	2.19
90.167	0.00	0.91	7.946	O	|	|	|	|	2.19
90.250	0.00	0.90	7.940	O	|	|	|	|	2.18
90.333	0.00	0.90	7.934	O	|	|	|	|	2.18
90.417	0.00	0.90	7.928	O	|	|	|	|	2.18
90.500	0.00	0.90	7.922	O	|	|	|	|	2.18
90.583	0.00	0.90	7.915	O	|	|	|	|	2.18
90.667	0.00	0.90	7.909	O	|	|	|	|	2.18
90.750	0.00	0.89	7.903	O	|	|	|	|	2.17
90.833	0.00	0.89	7.897	O	|	|	|	|	2.17
90.917	0.00	0.89	7.891	O	|	|	|	|	2.17
91.000	0.00	0.89	7.885	O	|	|	|	|	2.17
91.083	0.00	0.89	7.879	O	|	|	|	|	2.17
91.167	0.00	0.89	7.872	O	|	|	|	|	2.17
91.250	0.00	0.89	7.866	O	|	|	|	|	2.16
91.333	0.00	0.88	7.860	O	|	|	|	|	2.16
91.417	0.00	0.88	7.854	O	|	|	|	|	2.16
91.500	0.00	0.88	7.848	O	|	|	|	|	2.16
91.583	0.00	0.88	7.842	O	|	|	|	|	2.16
91.667	0.00	0.88	7.836	O	|	|	|	|	2.16
91.750	0.00	0.88	7.830	O	|	|	|	|	2.15
91.833	0.00	0.87	7.824	O	|	|	|	|	2.15
91.917	0.00	0.87	7.818	O	|	|	|	|	2.15
92.000	0.00	0.87	7.812	O	|	|	|	|	2.15
92.083	0.00	0.87	7.806	O	|	|	|	|	2.15
92.167	0.00	0.87	7.800	O	|	|	|	|	2.15
92.250	0.00	0.87	7.794	O	|	|	|	|	2.14
92.333	0.00	0.87	7.788	O	|	|	|	|	2.14
92.417	0.00	0.86	7.782	O	|	|	|	|	2.14
92.500	0.00	0.86	7.776	O	|	|	|	|	2.14
92.583	0.00	0.86	7.770	O	|	|	|	|	2.14
92.667	0.00	0.86	7.764	O	|	|	|	|	2.14
92.750	0.00	0.86	7.758	O	|	|	|	|	2.13
92.833	0.00	0.86	7.752	O	|	|	|	|	2.13
92.917	0.00	0.85	7.746	O	|	|	|	|	2.13
93.000	0.00	0.85	7.741	O	|	|	|	|	2.13
93.083	0.00	0.85	7.735	O	|	|	|	|	2.13
93.167	0.00	0.85	7.729	O	|	|	|	|	2.13
93.250	0.00	0.85	7.723	O	|	|	|	|	2.12
93.333	0.00	0.85	7.717	O	|	|	|	|	2.12
93.417	0.00	0.85	7.711	O	|	|	|	|	2.12

93.500	0.00	0.84	7.706	O	|	|	|	|	2.12
93.583	0.00	0.84	7.700	O	|	|	|	|	2.12
93.667	0.00	0.84	7.694	O	|	|	|	|	2.12
93.750	0.00	0.84	7.688	O	|	|	|	|	2.12
93.833	0.00	0.84	7.682	O	|	|	|	|	2.11
93.917	0.00	0.84	7.677	O	|	|	|	|	2.11
94.000	0.00	0.84	7.671	O	|	|	|	|	2.11
94.083	0.00	0.83	7.665	O	|	|	|	|	2.11
94.167	0.00	0.83	7.659	O	|	|	|	|	2.11
94.250	0.00	0.83	7.654	O	|	|	|	|	2.11
94.333	0.00	0.83	7.648	O	|	|	|	|	2.10
94.417	0.00	0.83	7.642	O	|	|	|	|	2.10
94.500	0.00	0.83	7.637	O	|	|	|	|	2.10
94.583	0.00	0.82	7.631	O	|	|	|	|	2.10
94.667	0.00	0.82	7.625	O	|	|	|	|	2.10
94.750	0.00	0.82	7.619	O	|	|	|	|	2.10
94.833	0.00	0.82	7.614	O	|	|	|	|	2.10
94.917	0.00	0.82	7.608	O	|	|	|	|	2.09
95.000	0.00	0.82	7.603	O	|	|	|	|	2.09
95.083	0.00	0.82	7.597	O	|	|	|	|	2.09
95.167	0.00	0.81	7.591	O	|	|	|	|	2.09
95.250	0.00	0.81	7.586	O	|	|	|	|	2.09
95.333	0.00	0.81	7.580	O	|	|	|	|	2.09
95.417	0.00	0.81	7.575	O	|	|	|	|	2.08
95.500	0.00	0.81	7.569	O	|	|	|	|	2.08
95.583	0.00	0.81	7.563	O	|	|	|	|	2.08
95.667	0.00	0.81	7.558	O	|	|	|	|	2.08
95.750	0.00	0.80	7.552	O	|	|	|	|	2.08
95.833	0.00	0.80	7.547	O	|	|	|	|	2.08
95.917	0.00	0.80	7.541	O	|	|	|	|	2.08
96.000	0.00	0.80	7.536	O	|	|	|	|	2.07
96.083	0.00	0.80	7.530	O	|	|	|	|	2.07
96.167	0.00	0.80	7.525	O	|	|	|	|	2.07
96.250	0.00	0.80	7.519	O	|	|	|	|	2.07
96.333	0.00	0.79	7.514	O	|	|	|	|	2.07
96.417	0.00	0.79	7.508	O	|	|	|	|	2.07
96.500	0.00	0.79	7.503	O	|	|	|	|	2.07
96.583	0.00	0.79	7.497	O	|	|	|	|	2.06
96.667	0.00	0.79	7.492	O	|	|	|	|	2.06
96.750	0.00	0.79	7.486	O	|	|	|	|	2.06
96.833	0.00	0.79	7.481	O	|	|	|	|	2.06
96.917	0.00	0.79	7.476	O	|	|	|	|	2.06
97.000	0.00	0.78	7.470	O	|	|	|	|	2.06
97.083	0.00	0.78	7.465	O	|	|	|	|	2.06
97.167	0.00	0.78	7.459	O	|	|	|	|	2.05
97.250	0.00	0.78	7.454	O	|	|	|	|	2.05
97.333	0.00	0.78	7.449	O	|	|	|	|	2.05
97.417	0.00	0.78	7.443	O	|	|	|	|	2.05
97.500	0.00	0.78	7.438	O	|	|	|	|	2.05
97.583	0.00	0.77	7.433	O	|	|	|	|	2.05
97.667	0.00	0.77	7.427	O	|	|	|	|	2.05
97.750	0.00	0.77	7.422	O	|	|	|	|	2.04
97.833	0.00	0.77	7.417	O	|	|	|	|	2.04
97.917	0.00	0.77	7.411	O	|	|	|	|	2.04
98.000	0.00	0.77	7.406	O	|	|	|	|	2.04
98.083	0.00	0.77	7.401	O	|	|	|	|	2.04
98.167	0.00	0.76	7.396	O	|	|	|	|	2.04
98.250	0.00	0.76	7.390	O	|	|	|	|	2.04
98.333	0.00	0.76	7.385	O	|	|	|	|	2.03
98.417	0.00	0.76	7.380	O	|	|	|	|	2.03
98.500	0.00	0.76	7.375	O	|	|	|	|	2.03
98.583	0.00	0.76	7.369	O	|	|	|	|	2.03
98.667	0.00	0.76	7.364	O	|	|	|	|	2.03

98.750	0.00	0.76	7.359	O					2.03
98.833	0.00	0.75	7.354	O					2.03
98.917	0.00	0.75	7.349	O					2.02
99.000	0.00	0.75	7.343	O					2.02
99.083	0.00	0.75	7.338	O					2.02
99.167	0.00	0.75	7.333	O					2.02
99.250	0.00	0.75	7.328	O					2.02
99.333	0.00	0.75	7.323	O					2.02
99.417	0.00	0.74	7.318	O					2.02
99.500	0.00	0.74	7.312	O					2.01
99.583	0.00	0.74	7.307	O					2.01
99.667	0.00	0.74	7.302	O					2.01
99.750	0.00	0.74	7.297	O					2.01
99.833	0.00	0.74	7.292	O					2.01
99.917	0.00	0.74	7.287	O					2.01
100.000	0.00	0.74	7.282	O					2.01
100.083	0.00	0.73	7.277	O					2.00
100.167	0.00	0.73	7.272	O					2.00
100.250	0.00	0.73	7.267	O					2.00
100.333	0.00	0.73	7.262	O					2.00
100.417	0.00	0.73	7.257	O					2.00
100.500	0.00	0.73	7.252	O					2.00
100.583	0.00	0.73	7.247	O					2.00
100.667	0.00	0.73	7.242	O					1.99
100.750	0.00	0.73	7.237	O					1.99
100.833	0.00	0.73	7.232	O					1.99
100.917	0.00	0.73	7.227	O					1.99
101.000	0.00	0.73	7.222	O					1.99
101.083	0.00	0.73	7.217	O					1.99
101.167	0.00	0.72	7.212	O					1.99
101.250	0.00	0.72	7.207	O					1.99
101.333	0.00	0.72	7.202	O					1.98
101.417	0.00	0.72	7.197	O					1.98
101.500	0.00	0.72	7.192	O					1.98
101.583	0.00	0.72	7.187	O					1.98
101.667	0.00	0.72	7.182	O					1.98
101.750	0.00	0.72	7.177	O					1.98
101.833	0.00	0.72	7.172	O					1.98
101.917	0.00	0.72	7.167	O					1.97
102.000	0.00	0.72	7.162	O					1.97
102.083	0.00	0.72	7.157	O					1.97
102.167	0.00	0.72	7.152	O					1.97
102.250	0.00	0.72	7.147	O					1.97
102.333	0.00	0.72	7.142	O					1.97
102.417	0.00	0.72	7.137	O					1.97
102.500	0.00	0.72	7.132	O					1.96
102.583	0.00	0.71	7.127	O					1.96
102.667	0.00	0.71	7.122	O					1.96
102.750	0.00	0.71	7.118	O					1.96
102.833	0.00	0.71	7.113	O					1.96
102.917	0.00	0.71	7.108	O					1.96
103.000	0.00	0.71	7.103	O					1.96
103.083	0.00	0.71	7.098	O					1.95
103.167	0.00	0.71	7.093	O					1.95
103.250	0.00	0.71	7.088	O					1.95
103.333	0.00	0.71	7.083	O					1.95
103.417	0.00	0.71	7.078	O					1.95
103.500	0.00	0.71	7.073	O					1.95
103.583	0.00	0.71	7.069	O					1.95
103.667	0.00	0.71	7.064	O					1.94
103.750	0.00	0.71	7.059	O					1.94
103.833	0.00	0.71	7.054	O					1.94
103.917	0.00	0.71	7.049	O					1.94

104.000	0.00	0.71	7.044	O	|	|	|	|	1.94
104.083	0.00	0.70	7.039	O	|	|	|	|	1.94
104.167	0.00	0.70	7.035	O	|	|	|	|	1.94
104.250	0.00	0.70	7.030	O	|	|	|	|	1.94
104.333	0.00	0.70	7.025	O	|	|	|	|	1.93
104.417	0.00	0.70	7.020	O	|	|	|	|	1.93
104.500	0.00	0.70	7.015	O	|	|	|	|	1.93
104.583	0.00	0.70	7.010	O	|	|	|	|	1.93
104.667	0.00	0.70	7.006	O	|	|	|	|	1.93
104.750	0.00	0.70	7.001	O	|	|	|	|	1.93
104.833	0.00	0.70	6.996	O	|	|	|	|	1.93
104.917	0.00	0.70	6.991	O	|	|	|	|	1.92
105.000	0.00	0.70	6.986	O	|	|	|	|	1.92
105.083	0.00	0.70	6.981	O	|	|	|	|	1.92
105.167	0.00	0.70	6.977	O	|	|	|	|	1.92
105.250	0.00	0.70	6.972	O	|	|	|	|	1.92
105.333	0.00	0.70	6.967	O	|	|	|	|	1.92
105.417	0.00	0.70	6.962	O	|	|	|	|	1.92
105.500	0.00	0.70	6.957	O	|	|	|	|	1.92
105.583	0.00	0.69	6.953	O	|	|	|	|	1.91
105.667	0.00	0.69	6.948	O	|	|	|	|	1.91
105.750	0.00	0.69	6.943	O	|	|	|	|	1.91
105.833	0.00	0.69	6.938	O	|	|	|	|	1.91
105.917	0.00	0.69	6.934	O	|	|	|	|	1.91
106.000	0.00	0.69	6.929	O	|	|	|	|	1.91
106.083	0.00	0.69	6.924	O	|	|	|	|	1.91
106.167	0.00	0.69	6.919	O	|	|	|	|	1.90
106.250	0.00	0.69	6.915	O	|	|	|	|	1.90
106.333	0.00	0.69	6.910	O	|	|	|	|	1.90
106.417	0.00	0.69	6.905	O	|	|	|	|	1.90
106.500	0.00	0.69	6.900	O	|	|	|	|	1.90
106.583	0.00	0.69	6.896	O	|	|	|	|	1.90
106.667	0.00	0.69	6.891	O	|	|	|	|	1.90
106.750	0.00	0.69	6.886	O	|	|	|	|	1.89
106.833	0.00	0.69	6.881	O	|	|	|	|	1.89
106.917	0.00	0.69	6.877	O	|	|	|	|	1.89
107.000	0.00	0.69	6.872	O	|	|	|	|	1.89
107.083	0.00	0.68	6.867	O	|	|	|	|	1.89
107.167	0.00	0.68	6.862	O	|	|	|	|	1.89
107.250	0.00	0.68	6.858	O	|	|	|	|	1.89
107.333	0.00	0.68	6.853	O	|	|	|	|	1.89
107.417	0.00	0.68	6.848	O	|	|	|	|	1.88
107.500	0.00	0.68	6.844	O	|	|	|	|	1.88
107.583	0.00	0.68	6.839	O	|	|	|	|	1.88
107.667	0.00	0.68	6.834	O	|	|	|	|	1.88
107.750	0.00	0.68	6.830	O	|	|	|	|	1.88
107.833	0.00	0.68	6.825	O	|	|	|	|	1.88
107.917	0.00	0.68	6.820	O	|	|	|	|	1.88
108.000	0.00	0.68	6.816	O	|	|	|	|	1.88
108.083	0.00	0.68	6.811	O	|	|	|	|	1.87
108.167	0.00	0.68	6.806	O	|	|	|	|	1.87
108.250	0.00	0.68	6.802	O	|	|	|	|	1.87
108.333	0.00	0.68	6.797	O	|	|	|	|	1.87
108.417	0.00	0.68	6.792	O	|	|	|	|	1.87
108.500	0.00	0.68	6.788	O	|	|	|	|	1.87
108.583	0.00	0.68	6.783	O	|	|	|	|	1.87
108.667	0.00	0.67	6.778	O	|	|	|	|	1.86
108.750	0.00	0.67	6.774	O	|	|	|	|	1.86
108.833	0.00	0.67	6.769	O	|	|	|	|	1.86
108.917	0.00	0.67	6.764	O	|	|	|	|	1.86
109.000	0.00	0.67	6.760	O	|	|	|	|	1.86
109.083	0.00	0.67	6.755	O	|	|	|	|	1.86
109.167	0.00	0.67	6.750	O	|	|	|	|	1.86

109.250	0.00	0.67	6.746	O	|	|	|	|	1.86
109.333	0.00	0.67	6.741	O	|	|	|	|	1.85
109.417	0.00	0.67	6.737	O	|	|	|	|	1.85
109.500	0.00	0.67	6.732	O	|	|	|	|	1.85
109.583	0.00	0.67	6.727	O	|	|	|	|	1.85
109.667	0.00	0.67	6.723	O	|	|	|	|	1.85
109.750	0.00	0.67	6.718	O	|	|	|	|	1.85
109.833	0.00	0.67	6.714	O	|	|	|	|	1.85
109.917	0.00	0.67	6.709	O	|	|	|	|	1.85
110.000	0.00	0.67	6.704	O	|	|	|	|	1.84
110.083	0.00	0.67	6.700	O	|	|	|	|	1.84
110.167	0.00	0.66	6.695	O	|	|	|	|	1.84
110.250	0.00	0.66	6.691	O	|	|	|	|	1.84
110.333	0.00	0.66	6.686	O	|	|	|	|	1.84
110.417	0.00	0.66	6.682	O	|	|	|	|	1.84
110.500	0.00	0.66	6.677	O	|	|	|	|	1.84
110.583	0.00	0.66	6.672	O	|	|	|	|	1.83
110.667	0.00	0.66	6.668	O	|	|	|	|	1.83
110.750	0.00	0.66	6.663	O	|	|	|	|	1.83
110.833	0.00	0.66	6.659	O	|	|	|	|	1.83
110.917	0.00	0.66	6.654	O	|	|	|	|	1.83
111.000	0.00	0.66	6.650	O	|	|	|	|	1.83
111.083	0.00	0.66	6.645	O	|	|	|	|	1.83
111.167	0.00	0.66	6.641	O	|	|	|	|	1.83
111.250	0.00	0.66	6.636	O	|	|	|	|	1.82
111.333	0.00	0.66	6.631	O	|	|	|	|	1.82
111.417	0.00	0.66	6.627	O	|	|	|	|	1.82
111.500	0.00	0.66	6.622	O	|	|	|	|	1.82
111.583	0.00	0.66	6.618	O	|	|	|	|	1.82
111.667	0.00	0.66	6.613	O	|	|	|	|	1.82
111.750	0.00	0.66	6.609	O	|	|	|	|	1.82
111.833	0.00	0.65	6.604	O	|	|	|	|	1.82
111.917	0.00	0.65	6.600	O	|	|	|	|	1.81
112.000	0.00	0.65	6.595	O	|	|	|	|	1.81
112.083	0.00	0.65	6.591	O	|	|	|	|	1.81
112.167	0.00	0.65	6.586	O	|	|	|	|	1.81
112.250	0.00	0.65	6.582	O	|	|	|	|	1.81
112.333	0.00	0.65	6.577	O	|	|	|	|	1.81
112.417	0.00	0.65	6.573	O	|	|	|	|	1.81
112.500	0.00	0.65	6.568	O	|	|	|	|	1.81
112.583	0.00	0.65	6.564	O	|	|	|	|	1.80
112.667	0.00	0.65	6.559	O	|	|	|	|	1.80
112.750	0.00	0.65	6.555	O	|	|	|	|	1.80
112.833	0.00	0.65	6.551	O	|	|	|	|	1.80
112.917	0.00	0.65	6.546	O	|	|	|	|	1.80
113.000	0.00	0.65	6.542	O	|	|	|	|	1.80
113.083	0.00	0.65	6.537	O	|	|	|	|	1.80
113.167	0.00	0.65	6.533	O	|	|	|	|	1.80
113.250	0.00	0.65	6.528	O	|	|	|	|	1.79
113.333	0.00	0.65	6.524	O	|	|	|	|	1.79
113.417	0.00	0.64	6.519	O	|	|	|	|	1.79
113.500	0.00	0.64	6.515	O	|	|	|	|	1.79
113.583	0.00	0.64	6.510	O	|	|	|	|	1.79
113.667	0.00	0.64	6.506	O	|	|	|	|	1.79
113.750	0.00	0.64	6.502	O	|	|	|	|	1.79
113.833	0.00	0.64	6.497	O	|	|	|	|	1.79
113.917	0.00	0.64	6.493	O	|	|	|	|	1.78
114.000	0.00	0.64	6.488	O	|	|	|	|	1.78
114.083	0.00	0.64	6.484	O	|	|	|	|	1.78
114.167	0.00	0.64	6.480	O	|	|	|	|	1.78
114.250	0.00	0.64	6.475	O	|	|	|	|	1.78
114.333	0.00	0.64	6.471	O	|	|	|	|	1.78
114.417	0.00	0.64	6.466	O	|	|	|	|	1.78

114.500	0.00	0.64	6.462	O	|	|	|	|	1.78
114.583	0.00	0.64	6.458	O	|	|	|	|	1.77
114.667	0.00	0.64	6.453	O	|	|	|	|	1.77
114.750	0.00	0.64	6.449	O	|	|	|	|	1.77
114.833	0.00	0.64	6.444	O	|	|	|	|	1.77
114.917	0.00	0.64	6.440	O	|	|	|	|	1.77
115.000	0.00	0.64	6.436	O	|	|	|	|	1.77
115.083	0.00	0.63	6.431	O	|	|	|	|	1.77
115.167	0.00	0.63	6.427	O	|	|	|	|	1.77
115.250	0.00	0.63	6.423	O	|	|	|	|	1.76
115.333	0.00	0.63	6.418	O	|	|	|	|	1.76
115.417	0.00	0.63	6.414	O	|	|	|	|	1.76
115.500	0.00	0.63	6.409	O	|	|	|	|	1.76
115.583	0.00	0.63	6.405	O	|	|	|	|	1.76
115.667	0.00	0.63	6.401	O	|	|	|	|	1.76
115.750	0.00	0.63	6.396	O	|	|	|	|	1.76
115.833	0.00	0.63	6.392	O	|	|	|	|	1.76
115.917	0.00	0.63	6.388	O	|	|	|	|	1.75
116.000	0.00	0.63	6.383	O	|	|	|	|	1.75
116.083	0.00	0.63	6.379	O	|	|	|	|	1.75
116.167	0.00	0.63	6.375	O	|	|	|	|	1.75
116.250	0.00	0.63	6.370	O	|	|	|	|	1.75
116.333	0.00	0.63	6.366	O	|	|	|	|	1.75
116.417	0.00	0.63	6.362	O	|	|	|	|	1.75
116.500	0.00	0.63	6.357	O	|	|	|	|	1.75
116.583	0.00	0.63	6.353	O	|	|	|	|	1.75
116.667	0.00	0.63	6.349	O	|	|	|	|	1.74
116.750	0.00	0.62	6.345	O	|	|	|	|	1.74
116.833	0.00	0.62	6.340	O	|	|	|	|	1.74
116.917	0.00	0.62	6.336	O	|	|	|	|	1.74
117.000	0.00	0.62	6.332	O	|	|	|	|	1.74
117.083	0.00	0.62	6.327	O	|	|	|	|	1.74
117.167	0.00	0.62	6.323	O	|	|	|	|	1.74
117.250	0.00	0.62	6.319	O	|	|	|	|	1.74
117.333	0.00	0.62	6.315	O	|	|	|	|	1.73
117.417	0.00	0.62	6.310	O	|	|	|	|	1.73
117.500	0.00	0.62	6.306	O	|	|	|	|	1.73
117.583	0.00	0.62	6.302	O	|	|	|	|	1.73
117.667	0.00	0.62	6.297	O	|	|	|	|	1.73
117.750	0.00	0.62	6.293	O	|	|	|	|	1.73
117.833	0.00	0.62	6.289	O	|	|	|	|	1.73
117.917	0.00	0.62	6.285	O	|	|	|	|	1.73
118.000	0.00	0.62	6.280	O	|	|	|	|	1.72
118.083	0.00	0.62	6.276	O	|	|	|	|	1.72
118.167	0.00	0.62	6.272	O	|	|	|	|	1.72
118.250	0.00	0.62	6.268	O	|	|	|	|	1.72
118.333	0.00	0.62	6.263	O	|	|	|	|	1.72
118.417	0.00	0.61	6.259	O	|	|	|	|	1.72
118.500	0.00	0.61	6.255	O	|	|	|	|	1.72
118.583	0.00	0.61	6.251	O	|	|	|	|	1.72
118.667	0.00	0.61	6.247	O	|	|	|	|	1.72
118.750	0.00	0.61	6.242	O	|	|	|	|	1.71
118.833	0.00	0.61	6.238	O	|	|	|	|	1.71
118.917	0.00	0.61	6.234	O	|	|	|	|	1.71
119.000	0.00	0.61	6.230	O	|	|	|	|	1.71
119.083	0.00	0.61	6.225	O	|	|	|	|	1.71
119.167	0.00	0.61	6.221	O	|	|	|	|	1.71
119.250	0.00	0.61	6.217	O	|	|	|	|	1.71
119.333	0.00	0.61	6.213	O	|	|	|	|	1.71
119.417	0.00	0.61	6.209	O	|	|	|	|	1.70
119.500	0.00	0.61	6.204	O	|	|	|	|	1.70
119.583	0.00	0.61	6.200	O	|	|	|	|	1.70
119.667	0.00	0.61	6.196	O	|	|	|	|	1.70

119.750	0.00	0.61	6.192	O	|	|	|	|	1.70
119.833	0.00	0.61	6.188	O	|	|	|	|	1.70
119.917	0.00	0.61	6.184	O	|	|	|	|	1.70
120.000	0.00	0.61	6.179	O	|	|	|	|	1.70
120.083	0.00	0.61	6.175	O	|	|	|	|	1.70
120.167	0.00	0.60	6.171	O	|	|	|	|	1.69
120.250	0.00	0.60	6.167	O	|	|	|	|	1.69
120.333	0.00	0.60	6.163	O	|	|	|	|	1.69
120.417	0.00	0.60	6.159	O	|	|	|	|	1.69
120.500	0.00	0.60	6.154	O	|	|	|	|	1.69
120.583	0.00	0.60	6.150	O	|	|	|	|	1.69
120.667	0.00	0.60	6.146	O	|	|	|	|	1.69
120.750	0.00	0.60	6.142	O	|	|	|	|	1.69
120.833	0.00	0.60	6.138	O	|	|	|	|	1.68
120.917	0.00	0.60	6.134	O	|	|	|	|	1.68
121.000	0.00	0.60	6.130	O	|	|	|	|	1.68
121.083	0.00	0.60	6.125	O	|	|	|	|	1.68
121.167	0.00	0.60	6.121	O	|	|	|	|	1.68
121.250	0.00	0.60	6.117	O	|	|	|	|	1.68
121.333	0.00	0.60	6.113	O	|	|	|	|	1.68
121.417	0.00	0.60	6.109	O	|	|	|	|	1.68
121.500	0.00	0.60	6.105	O	|	|	|	|	1.68
121.583	0.00	0.60	6.101	O	|	|	|	|	1.67
121.667	0.00	0.60	6.097	O	|	|	|	|	1.67
121.750	0.00	0.60	6.093	O	|	|	|	|	1.67
121.833	0.00	0.60	6.088	O	|	|	|	|	1.67
121.917	0.00	0.59	6.084	O	|	|	|	|	1.67
122.000	0.00	0.59	6.080	O	|	|	|	|	1.67
122.083	0.00	0.59	6.076	O	|	|	|	|	1.67
122.167	0.00	0.59	6.072	O	|	|	|	|	1.67
122.250	0.00	0.59	6.068	O	|	|	|	|	1.67
122.333	0.00	0.59	6.064	O	|	|	|	|	1.66
122.417	0.00	0.59	6.060	O	|	|	|	|	1.66
122.500	0.00	0.59	6.056	O	|	|	|	|	1.66
122.583	0.00	0.59	6.052	O	|	|	|	|	1.66
122.667	0.00	0.59	6.048	O	|	|	|	|	1.66
122.750	0.00	0.59	6.044	O	|	|	|	|	1.66
122.833	0.00	0.59	6.039	O	|	|	|	|	1.66
122.917	0.00	0.59	6.035	O	|	|	|	|	1.66
123.000	0.00	0.59	6.031	O	|	|	|	|	1.65
123.083	0.00	0.59	6.027	O	|	|	|	|	1.65
123.167	0.00	0.59	6.023	O	|	|	|	|	1.65
123.250	0.00	0.59	6.019	O	|	|	|	|	1.65
123.333	0.00	0.59	6.015	O	|	|	|	|	1.65
123.417	0.00	0.59	6.011	O	|	|	|	|	1.65
123.500	0.00	0.59	6.007	O	|	|	|	|	1.65
123.583	0.00	0.59	6.003	O	|	|	|	|	1.65
123.667	0.00	0.58	5.999	O	|	|	|	|	1.65
123.750	0.00	0.58	5.995	O	|	|	|	|	1.64
123.833	0.00	0.58	5.991	O	|	|	|	|	1.64
123.917	0.00	0.58	5.987	O	|	|	|	|	1.64
124.000	0.00	0.58	5.983	O	|	|	|	|	1.64
124.083	0.00	0.58	5.979	O	|	|	|	|	1.64
124.167	0.00	0.58	5.975	O	|	|	|	|	1.64
124.250	0.00	0.58	5.971	O	|	|	|	|	1.64
124.333	0.00	0.58	5.967	O	|	|	|	|	1.64
124.417	0.00	0.58	5.963	O	|	|	|	|	1.64
124.500	0.00	0.58	5.959	O	|	|	|	|	1.63
124.583	0.00	0.58	5.955	O	|	|	|	|	1.63
124.667	0.00	0.58	5.951	O	|	|	|	|	1.63
124.750	0.00	0.58	5.947	O	|	|	|	|	1.63
124.833	0.00	0.58	5.943	O	|	|	|	|	1.63
124.917	0.00	0.58	5.939	O	|	|	|	|	1.63

125.000	0.00	0.58	5.935	O	|	|	|	|	1.63
125.083	0.00	0.58	5.931	O	|	|	|	|	1.63
125.167	0.00	0.58	5.927	O	|	|	|	|	1.63
125.250	0.00	0.58	5.923	O	|	|	|	|	1.62
125.333	0.00	0.58	5.919	O	|	|	|	|	1.62
125.417	0.00	0.58	5.915	O	|	|	|	|	1.62
125.500	0.00	0.57	5.911	O	|	|	|	|	1.62
125.583	0.00	0.57	5.907	O	|	|	|	|	1.62
125.667	0.00	0.57	5.903	O	|	|	|	|	1.62
125.750	0.00	0.57	5.899	O	|	|	|	|	1.62
125.833	0.00	0.57	5.895	O	|	|	|	|	1.62
125.917	0.00	0.57	5.891	O	|	|	|	|	1.62
126.000	0.00	0.57	5.888	O	|	|	|	|	1.61
126.083	0.00	0.57	5.884	O	|	|	|	|	1.61
126.167	0.00	0.57	5.880	O	|	|	|	|	1.61
126.250	0.00	0.57	5.876	O	|	|	|	|	1.61
126.333	0.00	0.57	5.872	O	|	|	|	|	1.61
126.417	0.00	0.57	5.868	O	|	|	|	|	1.61
126.500	0.00	0.57	5.864	O	|	|	|	|	1.61
126.583	0.00	0.57	5.860	O	|	|	|	|	1.61
126.667	0.00	0.57	5.856	O	|	|	|	|	1.61
126.750	0.00	0.57	5.852	O	|	|	|	|	1.60
126.833	0.00	0.57	5.848	O	|	|	|	|	1.60
126.917	0.00	0.57	5.844	O	|	|	|	|	1.60
127.000	0.00	0.57	5.840	O	|	|	|	|	1.60
127.083	0.00	0.57	5.837	O	|	|	|	|	1.60
127.167	0.00	0.57	5.833	O	|	|	|	|	1.60
127.250	0.00	0.57	5.829	O	|	|	|	|	1.60
127.333	0.00	0.56	5.825	O	|	|	|	|	1.60
127.417	0.00	0.56	5.821	O	|	|	|	|	1.60
127.500	0.00	0.56	5.817	O	|	|	|	|	1.59
127.583	0.00	0.56	5.813	O	|	|	|	|	1.59
127.667	0.00	0.56	5.809	O	|	|	|	|	1.59
127.750	0.00	0.56	5.805	O	|	|	|	|	1.59
127.833	0.00	0.56	5.802	O	|	|	|	|	1.59
127.917	0.00	0.56	5.798	O	|	|	|	|	1.59
128.000	0.00	0.56	5.794	O	|	|	|	|	1.59
128.083	0.00	0.56	5.790	O	|	|	|	|	1.59
128.167	0.00	0.56	5.786	O	|	|	|	|	1.59
128.250	0.00	0.56	5.782	O	|	|	|	|	1.58
128.333	0.00	0.56	5.778	O	|	|	|	|	1.58
128.417	0.00	0.56	5.775	O	|	|	|	|	1.58
128.500	0.00	0.56	5.771	O	|	|	|	|	1.58
128.583	0.00	0.56	5.767	O	|	|	|	|	1.58
128.667	0.00	0.56	5.763	O	|	|	|	|	1.58
128.750	0.00	0.56	5.759	O	|	|	|	|	1.58
128.833	0.00	0.56	5.755	O	|	|	|	|	1.58
128.917	0.00	0.56	5.752	O	|	|	|	|	1.58
129.000	0.00	0.56	5.748	O	|	|	|	|	1.58
129.083	0.00	0.56	5.744	O	|	|	|	|	1.57
129.167	0.00	0.55	5.740	O	|	|	|	|	1.57
129.250	0.00	0.55	5.736	O	|	|	|	|	1.57
129.333	0.00	0.55	5.732	O	|	|	|	|	1.57
129.417	0.00	0.55	5.729	O	|	|	|	|	1.57
129.500	0.00	0.55	5.725	O	|	|	|	|	1.57
129.583	0.00	0.55	5.721	O	|	|	|	|	1.57
129.667	0.00	0.55	5.717	O	|	|	|	|	1.57
129.750	0.00	0.55	5.713	O	|	|	|	|	1.57
129.833	0.00	0.55	5.710	O	|	|	|	|	1.56
129.917	0.00	0.55	5.706	O	|	|	|	|	1.56
130.000	0.00	0.55	5.702	O	|	|	|	|	1.56
130.083	0.00	0.55	5.698	O	|	|	|	|	1.56
130.167	0.00	0.55	5.694	O	|	|	|	|	1.56

130.250	0.00	0.55	5.691	O	|	|	|	|	1.56
130.333	0.00	0.55	5.687	O	|	|	|	|	1.56
130.417	0.00	0.55	5.683	O	|	|	|	|	1.56
130.500	0.00	0.55	5.679	O	|	|	|	|	1.56
130.583	0.00	0.55	5.676	O	|	|	|	|	1.55
130.667	0.00	0.55	5.672	O	|	|	|	|	1.55
130.750	0.00	0.55	5.668	O	|	|	|	|	1.55
130.833	0.00	0.55	5.664	O	|	|	|	|	1.55
130.917	0.00	0.55	5.660	O	|	|	|	|	1.55
131.000	0.00	0.55	5.657	O	|	|	|	|	1.55
131.083	0.00	0.54	5.653	O	|	|	|	|	1.55
131.167	0.00	0.54	5.649	O	|	|	|	|	1.55
131.250	0.00	0.54	5.645	O	|	|	|	|	1.55
131.333	0.00	0.54	5.642	O	|	|	|	|	1.55
131.417	0.00	0.54	5.638	O	|	|	|	|	1.54
131.500	0.00	0.54	5.634	O	|	|	|	|	1.54
131.583	0.00	0.54	5.630	O	|	|	|	|	1.54
131.667	0.00	0.54	5.627	O	|	|	|	|	1.54
131.750	0.00	0.54	5.623	O	|	|	|	|	1.54
131.833	0.00	0.54	5.619	O	|	|	|	|	1.54
131.917	0.00	0.54	5.616	O	|	|	|	|	1.54
132.000	0.00	0.54	5.612	O	|	|	|	|	1.54
132.083	0.00	0.54	5.608	O	|	|	|	|	1.54
132.167	0.00	0.54	5.604	O	|	|	|	|	1.53
132.250	0.00	0.54	5.601	O	|	|	|	|	1.53
132.333	0.00	0.54	5.597	O	|	|	|	|	1.53
132.417	0.00	0.54	5.593	O	|	|	|	|	1.53
132.500	0.00	0.54	5.590	O	|	|	|	|	1.53
132.583	0.00	0.54	5.586	O	|	|	|	|	1.53
132.667	0.00	0.54	5.582	O	|	|	|	|	1.53
132.750	0.00	0.54	5.578	O	|	|	|	|	1.53
132.833	0.00	0.54	5.575	O	|	|	|	|	1.53
132.917	0.00	0.54	5.571	O	|	|	|	|	1.53
133.000	0.00	0.54	5.567	O	|	|	|	|	1.52
133.083	0.00	0.53	5.564	O	|	|	|	|	1.52
133.167	0.00	0.53	5.560	O	|	|	|	|	1.52
133.250	0.00	0.53	5.556	O	|	|	|	|	1.52
133.333	0.00	0.53	5.553	O	|	|	|	|	1.52
133.417	0.00	0.53	5.549	O	|	|	|	|	1.52
133.500	0.00	0.53	5.545	O	|	|	|	|	1.52
133.583	0.00	0.53	5.542	O	|	|	|	|	1.52
133.667	0.00	0.53	5.538	O	|	|	|	|	1.52
133.750	0.00	0.53	5.534	O	|	|	|	|	1.52
133.833	0.00	0.53	5.531	O	|	|	|	|	1.51
133.917	0.00	0.53	5.527	O	|	|	|	|	1.51
134.000	0.00	0.53	5.523	O	|	|	|	|	1.51
134.083	0.00	0.53	5.520	O	|	|	|	|	1.51
134.167	0.00	0.53	5.516	O	|	|	|	|	1.51
134.250	0.00	0.53	5.512	O	|	|	|	|	1.51
134.333	0.00	0.53	5.509	O	|	|	|	|	1.51
134.417	0.00	0.53	5.505	O	|	|	|	|	1.51
134.500	0.00	0.53	5.502	O	|	|	|	|	1.51
134.583	0.00	0.53	5.498	O	|	|	|	|	1.51
134.667	0.00	0.53	5.494	O	|	|	|	|	1.50
134.750	0.00	0.53	5.491	O	|	|	|	|	1.50
134.833	0.00	0.53	5.487	O	|	|	|	|	1.50
134.917	0.00	0.53	5.483	O	|	|	|	|	1.50
135.000	0.00	0.52	5.480	O	|	|	|	|	1.50
135.083	0.00	0.52	5.476	O	|	|	|	|	1.50
135.167	0.00	0.52	5.473	O	|	|	|	|	1.50
135.250	0.00	0.52	5.469	O	|	|	|	|	1.50
135.333	0.00	0.52	5.465	O	|	|	|	|	1.50
135.417	0.00	0.52	5.462	O	|	|	|	|	1.49

135.500	0.00	0.52	5.458	O					1.49
135.583	0.00	0.52	5.455	O					1.49
135.667	0.00	0.52	5.451	O					1.49
135.750	0.00	0.52	5.447	O					1.49
135.833	0.00	0.52	5.444	O					1.49
135.917	0.00	0.52	5.440	O					1.49
136.000	0.00	0.52	5.437	O					1.49
136.083	0.00	0.52	5.433	O					1.49
136.167	0.00	0.52	5.429	O					1.49
136.250	0.00	0.52	5.426	O					1.48
136.333	0.00	0.52	5.422	O					1.48
136.417	0.00	0.52	5.419	O					1.48
136.500	0.00	0.52	5.415	O					1.48
136.583	0.00	0.52	5.412	O					1.48
136.667	0.00	0.52	5.408	O					1.48
136.750	0.00	0.52	5.405	O					1.48
136.833	0.00	0.52	5.401	O					1.48
136.917	0.00	0.52	5.397	O					1.48
137.000	0.00	0.52	5.394	O					1.48
137.083	0.00	0.51	5.390	O					1.47
137.167	0.00	0.51	5.387	O					1.47
137.250	0.00	0.51	5.383	O					1.47
137.333	0.00	0.51	5.380	O					1.47
137.417	0.00	0.51	5.376	O					1.47
137.500	0.00	0.51	5.373	O					1.47
137.583	0.00	0.51	5.369	O					1.47
137.667	0.00	0.51	5.366	O					1.47
137.750	0.00	0.51	5.362	O					1.47
137.833	0.00	0.51	5.359	O					1.47
137.917	0.00	0.51	5.355	O					1.46
138.000	0.00	0.51	5.351	O					1.46
138.083	0.00	0.51	5.348	O					1.46
138.167	0.00	0.51	5.344	O					1.46
138.250	0.00	0.51	5.341	O					1.46
138.333	0.00	0.51	5.337	O					1.46
138.417	0.00	0.51	5.334	O					1.46
138.500	0.00	0.51	5.330	O					1.46
138.583	0.00	0.51	5.327	O					1.46
138.667	0.00	0.51	5.323	O					1.46
138.750	0.00	0.51	5.320	O					1.46
138.833	0.00	0.51	5.316	O					1.45
138.917	0.00	0.51	5.313	O					1.45
139.000	0.00	0.51	5.310	O					1.45
139.083	0.00	0.50	5.306	O					1.45
139.167	0.00	0.50	5.303	O					1.45
139.250	0.00	0.50	5.299	O					1.45
139.333	0.00	0.50	5.296	O					1.45
139.417	0.00	0.50	5.292	O					1.45
139.500	0.00	0.50	5.289	O					1.45
139.583	0.00	0.50	5.285	O					1.45
139.667	0.00	0.50	5.282	O					1.44
139.750	0.00	0.50	5.278	O					1.44
139.833	0.00	0.50	5.275	O					1.44
139.917	0.00	0.50	5.271	O					1.44
140.000	0.00	0.50	5.268	O					1.44
140.083	0.00	0.50	5.265	O					1.44
140.167	0.00	0.50	5.261	O					1.44
140.250	0.00	0.50	5.258	O					1.44
140.333	0.00	0.50	5.254	O					1.44
140.417	0.00	0.50	5.251	O					1.44
140.500	0.00	0.50	5.247	O					1.43
140.583	0.00	0.50	5.244	O					1.43
140.667	0.00	0.50	5.240	O					1.43

140.750	0.00	0.50	5.237	O	|	|	|	|	1.43
140.833	0.00	0.50	5.234	O	|	|	|	|	1.43
140.917	0.00	0.50	5.230	O	|	|	|	|	1.43
141.000	0.00	0.50	5.227	O	|	|	|	|	1.43
141.083	0.00	0.50	5.223	O	|	|	|	|	1.43
141.167	0.00	0.50	5.220	O	|	|	|	|	1.43
141.250	0.00	0.49	5.217	O	|	|	|	|	1.43
141.333	0.00	0.49	5.213	O	|	|	|	|	1.43
141.417	0.00	0.49	5.210	O	|	|	|	|	1.42
141.500	0.00	0.49	5.206	O	|	|	|	|	1.42
141.583	0.00	0.49	5.203	O	|	|	|	|	1.42
141.667	0.00	0.49	5.200	O	|	|	|	|	1.42
141.750	0.00	0.49	5.196	O	|	|	|	|	1.42
141.833	0.00	0.49	5.193	O	|	|	|	|	1.42
141.917	0.00	0.49	5.189	O	|	|	|	|	1.42
142.000	0.00	0.49	5.186	O	|	|	|	|	1.42
142.083	0.00	0.49	5.183	O	|	|	|	|	1.42
142.167	0.00	0.49	5.179	O	|	|	|	|	1.42
142.250	0.00	0.49	5.176	O	|	|	|	|	1.41
142.333	0.00	0.49	5.172	O	|	|	|	|	1.41
142.417	0.00	0.49	5.169	O	|	|	|	|	1.41
142.500	0.00	0.49	5.166	O	|	|	|	|	1.41
142.583	0.00	0.49	5.162	O	|	|	|	|	1.41
142.667	0.00	0.49	5.159	O	|	|	|	|	1.41
142.750	0.00	0.49	5.156	O	|	|	|	|	1.41
142.833	0.00	0.49	5.152	O	|	|	|	|	1.41
142.917	0.00	0.49	5.149	O	|	|	|	|	1.41
143.000	0.00	0.49	5.146	O	|	|	|	|	1.41
143.083	0.00	0.49	5.142	O	|	|	|	|	1.41
143.167	0.00	0.49	5.139	O	|	|	|	|	1.40
143.250	0.00	0.49	5.136	O	|	|	|	|	1.40
143.333	0.00	0.48	5.132	O	|	|	|	|	1.40
143.417	0.00	0.48	5.129	O	|	|	|	|	1.40
143.500	0.00	0.48	5.126	O	|	|	|	|	1.40
143.583	0.00	0.48	5.122	O	|	|	|	|	1.40
143.667	0.00	0.48	5.119	O	|	|	|	|	1.40
143.750	0.00	0.48	5.116	O	|	|	|	|	1.40
143.833	0.00	0.48	5.112	O	|	|	|	|	1.40
143.917	0.00	0.48	5.109	O	|	|	|	|	1.40
144.000	0.00	0.48	5.106	O	|	|	|	|	1.39
144.083	0.00	0.48	5.102	O	|	|	|	|	1.39
144.167	0.00	0.48	5.099	O	|	|	|	|	1.39
144.250	0.00	0.48	5.096	O	|	|	|	|	1.39
144.333	0.00	0.48	5.092	O	|	|	|	|	1.39
144.417	0.00	0.48	5.089	O	|	|	|	|	1.39
144.500	0.00	0.48	5.086	O	|	|	|	|	1.39
144.583	0.00	0.48	5.082	O	|	|	|	|	1.39
144.667	0.00	0.48	5.079	O	|	|	|	|	1.39
144.750	0.00	0.48	5.076	O	|	|	|	|	1.39
144.833	0.00	0.48	5.073	O	|	|	|	|	1.39
144.917	0.00	0.48	5.069	O	|	|	|	|	1.38
145.000	0.00	0.48	5.066	O	|	|	|	|	1.38
145.083	0.00	0.48	5.063	O	|	|	|	|	1.38
145.167	0.00	0.48	5.059	O	|	|	|	|	1.38
145.250	0.00	0.48	5.056	O	|	|	|	|	1.38
145.333	0.00	0.48	5.053	O	|	|	|	|	1.38
145.417	0.00	0.48	5.050	O	|	|	|	|	1.38
145.500	0.00	0.48	5.046	O	|	|	|	|	1.38
145.583	0.00	0.47	5.043	O	|	|	|	|	1.38
145.667	0.00	0.47	5.040	O	|	|	|	|	1.38
145.750	0.00	0.47	5.036	O	|	|	|	|	1.38
145.833	0.00	0.47	5.033	O	|	|	|	|	1.37
145.917	0.00	0.47	5.030	O	|	|	|	|	1.37

146.000	0.00	0.47	5.027	O	|	|	|	|	1.37
146.083	0.00	0.47	5.023	O	|	|	|	|	1.37
146.167	0.00	0.47	5.020	O	|	|	|	|	1.37
146.250	0.00	0.47	5.017	O	|	|	|	|	1.37
146.333	0.00	0.47	5.014	O	|	|	|	|	1.37
146.417	0.00	0.47	5.010	O	|	|	|	|	1.37
146.500	0.00	0.47	5.007	O	|	|	|	|	1.37
146.583	0.00	0.47	5.004	O	|	|	|	|	1.37
146.667	0.00	0.47	5.001	O	|	|	|	|	1.37
146.750	0.00	0.47	4.997	O	|	|	|	|	1.36
146.833	0.00	0.47	4.994	O	|	|	|	|	1.36
146.917	0.00	0.47	4.991	O	|	|	|	|	1.36
147.000	0.00	0.47	4.988	O	|	|	|	|	1.36
147.083	0.00	0.47	4.985	O	|	|	|	|	1.36
147.167	0.00	0.47	4.981	O	|	|	|	|	1.36
147.250	0.00	0.47	4.978	O	|	|	|	|	1.36
147.333	0.00	0.47	4.975	O	|	|	|	|	1.36
147.417	0.00	0.47	4.972	O	|	|	|	|	1.36
147.500	0.00	0.47	4.969	O	|	|	|	|	1.36
147.583	0.00	0.47	4.965	O	|	|	|	|	1.36
147.667	0.00	0.47	4.962	O	|	|	|	|	1.35
147.750	0.00	0.46	4.959	O	|	|	|	|	1.35
147.833	0.00	0.46	4.956	O	|	|	|	|	1.35
147.917	0.00	0.46	4.952	O	|	|	|	|	1.35
148.000	0.00	0.46	4.949	O	|	|	|	|	1.35
148.083	0.00	0.46	4.946	O	|	|	|	|	1.35
148.167	0.00	0.46	4.943	O	|	|	|	|	1.35
148.250	0.00	0.46	4.940	O	|	|	|	|	1.35
148.333	0.00	0.46	4.937	O	|	|	|	|	1.35
148.417	0.00	0.46	4.933	O	|	|	|	|	1.35
148.500	0.00	0.46	4.930	O	|	|	|	|	1.35
148.583	0.00	0.46	4.927	O	|	|	|	|	1.34
148.667	0.00	0.46	4.924	O	|	|	|	|	1.34
148.750	0.00	0.46	4.921	O	|	|	|	|	1.34
148.833	0.00	0.46	4.917	O	|	|	|	|	1.34
148.917	0.00	0.46	4.914	O	|	|	|	|	1.34
149.000	0.00	0.46	4.911	O	|	|	|	|	1.34
149.083	0.00	0.46	4.908	O	|	|	|	|	1.34
149.167	0.00	0.46	4.905	O	|	|	|	|	1.34
149.250	0.00	0.46	4.902	O	|	|	|	|	1.34
149.333	0.00	0.46	4.898	O	|	|	|	|	1.34
149.417	0.00	0.46	4.895	O	|	|	|	|	1.34
149.500	0.00	0.46	4.892	O	|	|	|	|	1.33
149.583	0.00	0.46	4.889	O	|	|	|	|	1.33
149.667	0.00	0.46	4.886	O	|	|	|	|	1.33
149.750	0.00	0.46	4.883	O	|	|	|	|	1.33
149.833	0.00	0.46	4.880	O	|	|	|	|	1.33
149.917	0.00	0.46	4.876	O	|	|	|	|	1.33
150.000	0.00	0.46	4.873	O	|	|	|	|	1.33
150.083	0.00	0.45	4.870	O	|	|	|	|	1.33
150.167	0.00	0.45	4.867	O	|	|	|	|	1.33
150.250	0.00	0.45	4.864	O	|	|	|	|	1.33
150.333	0.00	0.45	4.861	O	|	|	|	|	1.33
150.417	0.00	0.45	4.858	O	|	|	|	|	1.33
150.500	0.00	0.45	4.855	O	|	|	|	|	1.32
150.583	0.00	0.45	4.851	O	|	|	|	|	1.32
150.667	0.00	0.45	4.848	O	|	|	|	|	1.32
150.750	0.00	0.45	4.845	O	|	|	|	|	1.32
150.833	0.00	0.45	4.842	O	|	|	|	|	1.32
150.917	0.00	0.45	4.839	O	|	|	|	|	1.32
151.000	0.00	0.45	4.836	O	|	|	|	|	1.32
151.083	0.00	0.45	4.833	O	|	|	|	|	1.32
151.167	0.00	0.45	4.830	O	|	|	|	|	1.32

151.250	0.00	0.45	4.827	O	|	|	|	|	1.32
151.333	0.00	0.45	4.824	O	|	|	|	|	1.32
151.417	0.00	0.45	4.820	O	|	|	|	|	1.31
151.500	0.00	0.45	4.817	O	|	|	|	|	1.31
151.583	0.00	0.45	4.814	O	|	|	|	|	1.31
151.667	0.00	0.45	4.811	O	|	|	|	|	1.31
151.750	0.00	0.45	4.808	O	|	|	|	|	1.31
151.833	0.00	0.45	4.805	O	|	|	|	|	1.31
151.917	0.00	0.45	4.802	O	|	|	|	|	1.31
152.000	0.00	0.45	4.799	O	|	|	|	|	1.31
152.083	0.00	0.45	4.796	O	|	|	|	|	1.31
152.167	0.00	0.45	4.793	O	|	|	|	|	1.31
152.250	0.00	0.45	4.790	O	|	|	|	|	1.31
152.333	0.00	0.45	4.787	O	|	|	|	|	1.31
152.417	0.00	0.44	4.783	O	|	|	|	|	1.30
152.500	0.00	0.44	4.780	O	|	|	|	|	1.30
152.583	0.00	0.44	4.777	O	|	|	|	|	1.30
152.667	0.00	0.44	4.774	O	|	|	|	|	1.30
152.750	0.00	0.44	4.771	O	|	|	|	|	1.30
152.833	0.00	0.44	4.768	O	|	|	|	|	1.30
152.917	0.00	0.44	4.765	O	|	|	|	|	1.30
153.000	0.00	0.44	4.762	O	|	|	|	|	1.30
153.083	0.00	0.44	4.759	O	|	|	|	|	1.30
153.167	0.00	0.44	4.756	O	|	|	|	|	1.30
153.250	0.00	0.44	4.753	O	|	|	|	|	1.30
153.333	0.00	0.44	4.750	O	|	|	|	|	1.29
153.417	0.00	0.44	4.747	O	|	|	|	|	1.29
153.500	0.00	0.44	4.744	O	|	|	|	|	1.29
153.583	0.00	0.44	4.741	O	|	|	|	|	1.29
153.667	0.00	0.44	4.738	O	|	|	|	|	1.29
153.750	0.00	0.44	4.735	O	|	|	|	|	1.29
153.833	0.00	0.44	4.732	O	|	|	|	|	1.29
153.917	0.00	0.44	4.729	O	|	|	|	|	1.29
154.000	0.00	0.44	4.726	O	|	|	|	|	1.29
154.083	0.00	0.44	4.723	O	|	|	|	|	1.29
154.167	0.00	0.44	4.720	O	|	|	|	|	1.29
154.250	0.00	0.44	4.717	O	|	|	|	|	1.29
154.333	0.00	0.44	4.714	O	|	|	|	|	1.28
154.417	0.00	0.44	4.711	O	|	|	|	|	1.28
154.500	0.00	0.44	4.708	O	|	|	|	|	1.28
154.583	0.00	0.44	4.705	O	|	|	|	|	1.28
154.667	0.00	0.44	4.702	O	|	|	|	|	1.28
154.750	0.00	0.44	4.699	O	|	|	|	|	1.28
154.833	0.00	0.43	4.696	O	|	|	|	|	1.28
154.917	0.00	0.43	4.693	O	|	|	|	|	1.28
155.000	0.00	0.43	4.690	O	|	|	|	|	1.28
155.083	0.00	0.43	4.687	O	|	|	|	|	1.28
155.167	0.00	0.43	4.684	O	|	|	|	|	1.28
155.250	0.00	0.43	4.681	O	|	|	|	|	1.28
155.333	0.00	0.43	4.678	O	|	|	|	|	1.27
155.417	0.00	0.43	4.675	O	|	|	|	|	1.27
155.500	0.00	0.43	4.672	O	|	|	|	|	1.27
155.583	0.00	0.43	4.669	O	|	|	|	|	1.27
155.667	0.00	0.43	4.666	O	|	|	|	|	1.27
155.750	0.00	0.43	4.663	O	|	|	|	|	1.27
155.833	0.00	0.43	4.660	O	|	|	|	|	1.27
155.917	0.00	0.43	4.657	O	|	|	|	|	1.27
156.000	0.00	0.43	4.654	O	|	|	|	|	1.27
156.083	0.00	0.43	4.651	O	|	|	|	|	1.27
156.167	0.00	0.43	4.648	O	|	|	|	|	1.27
156.250	0.00	0.43	4.645	O	|	|	|	|	1.27
156.333	0.00	0.43	4.642	O	|	|	|	|	1.26
156.417	0.00	0.43	4.639	O	|	|	|	|	1.26

156.500	0.00	0.43	4.636	O	|	|	|	|	1.26
156.583	0.00	0.43	4.633	O	|	|	|	|	1.26
156.667	0.00	0.43	4.630	O	|	|	|	|	1.26
156.750	0.00	0.43	4.627	O	|	|	|	|	1.26
156.833	0.00	0.43	4.624	O	|	|	|	|	1.26
156.917	0.00	0.43	4.622	O	|	|	|	|	1.26
157.000	0.00	0.43	4.619	O	|	|	|	|	1.26
157.083	0.00	0.43	4.616	O	|	|	|	|	1.26
157.167	0.00	0.43	4.613	O	|	|	|	|	1.26
157.250	0.00	0.42	4.610	O	|	|	|	|	1.26
157.333	0.00	0.42	4.607	O	|	|	|	|	1.25
157.417	0.00	0.42	4.604	O	|	|	|	|	1.25
157.500	0.00	0.42	4.601	O	|	|	|	|	1.25
157.583	0.00	0.42	4.598	O	|	|	|	|	1.25
157.667	0.00	0.42	4.595	O	|	|	|	|	1.25
157.750	0.00	0.42	4.592	O	|	|	|	|	1.25
157.833	0.00	0.42	4.589	O	|	|	|	|	1.25
157.917	0.00	0.42	4.587	O	|	|	|	|	1.25
158.000	0.00	0.42	4.584	O	|	|	|	|	1.25
158.083	0.00	0.42	4.581	O	|	|	|	|	1.25
158.167	0.00	0.42	4.578	O	|	|	|	|	1.25
158.250	0.00	0.42	4.575	O	|	|	|	|	1.25
158.333	0.00	0.42	4.572	O	|	|	|	|	1.24
158.417	0.00	0.42	4.569	O	|	|	|	|	1.24
158.500	0.00	0.42	4.566	O	|	|	|	|	1.24
158.583	0.00	0.42	4.563	O	|	|	|	|	1.24
158.667	0.00	0.42	4.560	O	|	|	|	|	1.24
158.750	0.00	0.42	4.558	O	|	|	|	|	1.24
158.833	0.00	0.42	4.555	O	|	|	|	|	1.24
158.917	0.00	0.42	4.552	O	|	|	|	|	1.24
159.000	0.00	0.42	4.549	O	|	|	|	|	1.24
159.083	0.00	0.42	4.546	O	|	|	|	|	1.24
159.167	0.00	0.42	4.543	O	|	|	|	|	1.24
159.250	0.00	0.42	4.540	O	|	|	|	|	1.24
159.333	0.00	0.42	4.537	O	|	|	|	|	1.24
159.417	0.00	0.42	4.535	O	|	|	|	|	1.23
159.500	0.00	0.42	4.532	O	|	|	|	|	1.23
159.583	0.00	0.42	4.529	O	|	|	|	|	1.23
159.667	0.00	0.42	4.526	O	|	|	|	|	1.23
159.750	0.00	0.41	4.523	O	|	|	|	|	1.23
159.833	0.00	0.41	4.520	O	|	|	|	|	1.23
159.917	0.00	0.41	4.517	O	|	|	|	|	1.23
160.000	0.00	0.41	4.515	O	|	|	|	|	1.23
160.083	0.00	0.41	4.512	O	|	|	|	|	1.23
160.167	0.00	0.41	4.509	O	|	|	|	|	1.23
160.250	0.00	0.41	4.506	O	|	|	|	|	1.23
160.333	0.00	0.41	4.503	O	|	|	|	|	1.23
160.417	0.00	0.41	4.500	O	|	|	|	|	1.22
160.500	0.00	0.41	4.497	O	|	|	|	|	1.22
160.583	0.00	0.41	4.495	O	|	|	|	|	1.22
160.667	0.00	0.41	4.492	O	|	|	|	|	1.22
160.750	0.00	0.41	4.489	O	|	|	|	|	1.22
160.833	0.00	0.41	4.486	O	|	|	|	|	1.22
160.917	0.00	0.41	4.483	O	|	|	|	|	1.22
161.000	0.00	0.41	4.481	O	|	|	|	|	1.22
161.083	0.00	0.41	4.478	O	|	|	|	|	1.22
161.167	0.00	0.41	4.475	O	|	|	|	|	1.22
161.250	0.00	0.41	4.472	O	|	|	|	|	1.22
161.333	0.00	0.41	4.469	O	|	|	|	|	1.22
161.417	0.00	0.41	4.466	O	|	|	|	|	1.22
161.500	0.00	0.41	4.464	O	|	|	|	|	1.21
161.583	0.00	0.41	4.461	O	|	|	|	|	1.21
161.667	0.00	0.41	4.458	O	|	|	|	|	1.21

161.750	0.00	0.41	4.455	O	|	|	|	|	1.21
161.833	0.00	0.41	4.452	O	|	|	|	|	1.21
161.917	0.00	0.41	4.450	O	|	|	|	|	1.21
162.000	0.00	0.41	4.447	O	|	|	|	|	1.21
162.083	0.00	0.41	4.444	O	|	|	|	|	1.21
162.167	0.00	0.41	4.441	O	|	|	|	|	1.21
162.250	0.00	0.41	4.438	O	|	|	|	|	1.21
162.333	0.00	0.40	4.436	O	|	|	|	|	1.21
162.417	0.00	0.40	4.433	O	|	|	|	|	1.21
162.500	0.00	0.40	4.430	O	|	|	|	|	1.21
162.583	0.00	0.40	4.427	O	|	|	|	|	1.20
162.667	0.00	0.40	4.424	O	|	|	|	|	1.20
162.750	0.00	0.40	4.422	O	|	|	|	|	1.20
162.833	0.00	0.40	4.419	O	|	|	|	|	1.20
162.917	0.00	0.40	4.416	O	|	|	|	|	1.20
163.000	0.00	0.40	4.413	O	|	|	|	|	1.20
163.083	0.00	0.40	4.411	O	|	|	|	|	1.20
163.167	0.00	0.40	4.408	O	|	|	|	|	1.20
163.250	0.00	0.40	4.405	O	|	|	|	|	1.20
163.333	0.00	0.40	4.402	O	|	|	|	|	1.20
163.417	0.00	0.40	4.400	O	|	|	|	|	1.20
163.500	0.00	0.40	4.397	O	|	|	|	|	1.20
163.583	0.00	0.40	4.394	O	|	|	|	|	1.19
163.667	0.00	0.40	4.391	O	|	|	|	|	1.19
163.750	0.00	0.40	4.389	O	|	|	|	|	1.19
163.833	0.00	0.40	4.386	O	|	|	|	|	1.19
163.917	0.00	0.40	4.383	O	|	|	|	|	1.19
164.000	0.00	0.40	4.380	O	|	|	|	|	1.19
164.083	0.00	0.40	4.378	O	|	|	|	|	1.19
164.167	0.00	0.40	4.375	O	|	|	|	|	1.19
164.250	0.00	0.40	4.372	O	|	|	|	|	1.19
164.333	0.00	0.40	4.369	O	|	|	|	|	1.19
164.417	0.00	0.40	4.367	O	|	|	|	|	1.19
164.500	0.00	0.40	4.364	O	|	|	|	|	1.19
164.583	0.00	0.40	4.361	O	|	|	|	|	1.19
164.667	0.00	0.40	4.358	O	|	|	|	|	1.18
164.750	0.00	0.40	4.356	O	|	|	|	|	1.18
164.833	0.00	0.40	4.353	O	|	|	|	|	1.18
164.917	0.00	0.39	4.350	O	|	|	|	|	1.18
165.000	0.00	0.39	4.348	O	|	|	|	|	1.18
165.083	0.00	0.39	4.345	O	|	|	|	|	1.18
165.167	0.00	0.39	4.342	O	|	|	|	|	1.18
165.250	0.00	0.39	4.339	O	|	|	|	|	1.18
165.333	0.00	0.39	4.337	O	|	|	|	|	1.18
165.417	0.00	0.39	4.334	O	|	|	|	|	1.18
165.500	0.00	0.39	4.331	O	|	|	|	|	1.18
165.583	0.00	0.39	4.329	O	|	|	|	|	1.18
165.667	0.00	0.39	4.326	O	|	|	|	|	1.18
165.750	0.00	0.39	4.323	O	|	|	|	|	1.18
165.833	0.00	0.39	4.320	O	|	|	|	|	1.17
165.917	0.00	0.39	4.318	O	|	|	|	|	1.17
166.000	0.00	0.39	4.315	O	|	|	|	|	1.17
166.083	0.00	0.39	4.312	O	|	|	|	|	1.17
166.167	0.00	0.39	4.310	O	|	|	|	|	1.17
166.250	0.00	0.39	4.307	O	|	|	|	|	1.17
166.333	0.00	0.39	4.304	O	|	|	|	|	1.17
166.417	0.00	0.39	4.302	O	|	|	|	|	1.17
166.500	0.00	0.39	4.299	O	|	|	|	|	1.17
166.583	0.00	0.39	4.296	O	|	|	|	|	1.17
166.667	0.00	0.39	4.294	O	|	|	|	|	1.17
166.750	0.00	0.39	4.291	O	|	|	|	|	1.17
166.833	0.00	0.39	4.288	O	|	|	|	|	1.17
166.917	0.00	0.39	4.286	O	|	|	|	|	1.16

167.000	0.00	0.39	4.283	O	|	|	|	|	1.16
167.083	0.00	0.39	4.280	O	|	|	|	|	1.16
167.167	0.00	0.39	4.278	O	|	|	|	|	1.16
167.250	0.00	0.39	4.275	O	|	|	|	|	1.16
167.333	0.00	0.39	4.272	O	|	|	|	|	1.16
167.417	0.00	0.39	4.270	O	|	|	|	|	1.16
167.500	0.00	0.39	4.267	O	|	|	|	|	1.16
167.583	0.00	0.38	4.264	O	|	|	|	|	1.16
167.667	0.00	0.38	4.262	O	|	|	|	|	1.16
167.750	0.00	0.38	4.259	O	|	|	|	|	1.16
167.833	0.00	0.38	4.256	O	|	|	|	|	1.16
167.917	0.00	0.38	4.254	O	|	|	|	|	1.16
168.000	0.00	0.38	4.251	O	|	|	|	|	1.15
168.083	0.00	0.38	4.248	O	|	|	|	|	1.15
168.167	0.00	0.38	4.246	O	|	|	|	|	1.15
168.250	0.00	0.38	4.243	O	|	|	|	|	1.15
168.333	0.00	0.38	4.241	O	|	|	|	|	1.15
168.417	0.00	0.38	4.238	O	|	|	|	|	1.15
168.500	0.00	0.38	4.235	O	|	|	|	|	1.15
168.583	0.00	0.38	4.233	O	|	|	|	|	1.15
168.667	0.00	0.38	4.230	O	|	|	|	|	1.15
168.750	0.00	0.38	4.227	O	|	|	|	|	1.15
168.833	0.00	0.38	4.225	O	|	|	|	|	1.15
168.917	0.00	0.38	4.222	O	|	|	|	|	1.15
169.000	0.00	0.38	4.220	O	|	|	|	|	1.15
169.083	0.00	0.38	4.217	O	|	|	|	|	1.15
169.167	0.00	0.38	4.214	O	|	|	|	|	1.14
169.250	0.00	0.38	4.212	O	|	|	|	|	1.14
169.333	0.00	0.38	4.209	O	|	|	|	|	1.14
169.417	0.00	0.38	4.207	O	|	|	|	|	1.14
169.500	0.00	0.38	4.204	O	|	|	|	|	1.14
169.583	0.00	0.38	4.201	O	|	|	|	|	1.14
169.667	0.00	0.38	4.199	O	|	|	|	|	1.14
169.750	0.00	0.38	4.196	O	|	|	|	|	1.14
169.833	0.00	0.38	4.194	O	|	|	|	|	1.14
169.917	0.00	0.38	4.191	O	|	|	|	|	1.14
170.000	0.00	0.38	4.188	O	|	|	|	|	1.14
170.083	0.00	0.38	4.186	O	|	|	|	|	1.14
170.167	0.00	0.38	4.183	O	|	|	|	|	1.14
170.250	0.00	0.38	4.181	O	|	|	|	|	1.13
170.333	0.00	0.38	4.178	O	|	|	|	|	1.13
170.417	0.00	0.37	4.175	O	|	|	|	|	1.13
170.500	0.00	0.37	4.173	O	|	|	|	|	1.13
170.583	0.00	0.37	4.170	O	|	|	|	|	1.13
170.667	0.00	0.37	4.168	O	|	|	|	|	1.13
170.750	0.00	0.37	4.165	O	|	|	|	|	1.13
170.833	0.00	0.37	4.163	O	|	|	|	|	1.13
170.917	0.00	0.37	4.160	O	|	|	|	|	1.13
171.000	0.00	0.37	4.157	O	|	|	|	|	1.13
171.083	0.00	0.37	4.155	O	|	|	|	|	1.13
171.167	0.00	0.37	4.152	O	|	|	|	|	1.13
171.250	0.00	0.37	4.150	O	|	|	|	|	1.13
171.333	0.00	0.37	4.147	O	|	|	|	|	1.13
171.417	0.00	0.37	4.145	O	|	|	|	|	1.12
171.500	0.00	0.37	4.142	O	|	|	|	|	1.12
171.583	0.00	0.37	4.139	O	|	|	|	|	1.12
171.667	0.00	0.37	4.137	O	|	|	|	|	1.12
171.750	0.00	0.37	4.134	O	|	|	|	|	1.12
171.833	0.00	0.37	4.132	O	|	|	|	|	1.12
171.917	0.00	0.37	4.129	O	|	|	|	|	1.12
172.000	0.00	0.37	4.127	O	|	|	|	|	1.12
172.083	0.00	0.37	4.124	O	|	|	|	|	1.12
172.167	0.00	0.37	4.122	O	|	|	|	|	1.12

172.250	0.00	0.37	4.119	O	|	|	|	|	1.12
172.333	0.00	0.37	4.117	O	|	|	|	|	1.12
172.417	0.00	0.37	4.114	O	|	|	|	|	1.12
172.500	0.00	0.37	4.112	O	|	|	|	|	1.12
172.583	0.00	0.37	4.109	O	|	|	|	|	1.11
172.667	0.00	0.37	4.106	O	|	|	|	|	1.11
172.750	0.00	0.37	4.104	O	|	|	|	|	1.11
172.833	0.00	0.37	4.101	O	|	|	|	|	1.11
172.917	0.00	0.37	4.099	O	|	|	|	|	1.11
173.000	0.00	0.37	4.096	O	|	|	|	|	1.11
173.083	0.00	0.37	4.094	O	|	|	|	|	1.11
173.167	0.00	0.37	4.091	O	|	|	|	|	1.11
173.250	0.00	0.36	4.089	O	|	|	|	|	1.11
173.333	0.00	0.36	4.086	O	|	|	|	|	1.11
173.417	0.00	0.36	4.084	O	|	|	|	|	1.11
173.500	0.00	0.36	4.081	O	|	|	|	|	1.11
173.583	0.00	0.36	4.079	O	|	|	|	|	1.11
173.667	0.00	0.36	4.076	O	|	|	|	|	1.11
173.750	0.00	0.36	4.074	O	|	|	|	|	1.10
173.833	0.00	0.36	4.071	O	|	|	|	|	1.10
173.917	0.00	0.36	4.069	O	|	|	|	|	1.10
174.000	0.00	0.36	4.066	O	|	|	|	|	1.10
174.083	0.00	0.36	4.064	O	|	|	|	|	1.10
174.167	0.00	0.36	4.061	O	|	|	|	|	1.10
174.250	0.00	0.36	4.059	O	|	|	|	|	1.10
174.333	0.00	0.36	4.056	O	|	|	|	|	1.10
174.417	0.00	0.36	4.054	O	|	|	|	|	1.10
174.500	0.00	0.36	4.051	O	|	|	|	|	1.10
174.583	0.00	0.36	4.049	O	|	|	|	|	1.10
174.667	0.00	0.36	4.046	O	|	|	|	|	1.10
174.750	0.00	0.36	4.044	O	|	|	|	|	1.10
174.833	0.00	0.36	4.041	O	|	|	|	|	1.10
174.917	0.00	0.36	4.039	O	|	|	|	|	1.10
175.000	0.00	0.36	4.036	O	|	|	|	|	1.09
175.083	0.00	0.36	4.034	O	|	|	|	|	1.09
175.167	0.00	0.36	4.032	O	|	|	|	|	1.09
175.250	0.00	0.36	4.029	O	|	|	|	|	1.09
175.333	0.00	0.36	4.027	O	|	|	|	|	1.09
175.417	0.00	0.36	4.024	O	|	|	|	|	1.09
175.500	0.00	0.36	4.022	O	|	|	|	|	1.09
175.583	0.00	0.36	4.019	O	|	|	|	|	1.09
175.667	0.00	0.36	4.017	O	|	|	|	|	1.09
175.750	0.00	0.36	4.014	O	|	|	|	|	1.09
175.833	0.00	0.36	4.012	O	|	|	|	|	1.09
175.917	0.00	0.36	4.009	O	|	|	|	|	1.09
176.000	0.00	0.36	4.007	O	|	|	|	|	1.09
176.083	0.00	0.36	4.005	O	|	|	|	|	1.09
176.167	0.00	0.35	4.002	O	|	|	|	|	1.08
176.250	0.00	0.35	4.000	O	|	|	|	|	1.08
176.333	0.00	0.35	3.997	O	|	|	|	|	1.08
176.417	0.00	0.35	3.995	O	|	|	|	|	1.08
176.500	0.00	0.35	3.992	O	|	|	|	|	1.08
176.583	0.00	0.35	3.990	O	|	|	|	|	1.08
176.667	0.00	0.35	3.987	O	|	|	|	|	1.08
176.750	0.00	0.35	3.985	O	|	|	|	|	1.08
176.833	0.00	0.35	3.983	O	|	|	|	|	1.08
176.917	0.00	0.35	3.980	O	|	|	|	|	1.08
177.000	0.00	0.35	3.978	O	|	|	|	|	1.08
177.083	0.00	0.35	3.975	O	|	|	|	|	1.08
177.167	0.00	0.35	3.973	O	|	|	|	|	1.08
177.250	0.00	0.35	3.970	O	|	|	|	|	1.08
177.333	0.00	0.35	3.968	O	|	|	|	|	1.08
177.417	0.00	0.35	3.966	O	|	|	|	|	1.07

177.500	0.00	0.35	3.963	O	|	|	|	|	1.07
177.583	0.00	0.35	3.961	O	|	|	|	|	1.07
177.667	0.00	0.35	3.958	O	|	|	|	|	1.07
177.750	0.00	0.35	3.956	O	|	|	|	|	1.07
177.833	0.00	0.35	3.954	O	|	|	|	|	1.07
177.917	0.00	0.35	3.951	O	|	|	|	|	1.07
178.000	0.00	0.35	3.949	O	|	|	|	|	1.07
178.083	0.00	0.35	3.946	O	|	|	|	|	1.07
178.167	0.00	0.35	3.944	O	|	|	|	|	1.07
178.250	0.00	0.35	3.942	O	|	|	|	|	1.07
178.333	0.00	0.35	3.939	O	|	|	|	|	1.07
178.417	0.00	0.35	3.937	O	|	|	|	|	1.07
178.500	0.00	0.35	3.934	O	|	|	|	|	1.07
178.583	0.00	0.35	3.932	O	|	|	|	|	1.07
178.667	0.00	0.35	3.930	O	|	|	|	|	1.06
178.750	0.00	0.35	3.927	O	|	|	|	|	1.06
178.833	0.00	0.35	3.925	O	|	|	|	|	1.06
178.917	0.00	0.35	3.923	O	|	|	|	|	1.06
179.000	0.00	0.35	3.920	O	|	|	|	|	1.06
179.083	0.00	0.35	3.918	O	|	|	|	|	1.06
179.167	0.00	0.34	3.915	O	|	|	|	|	1.06
179.250	0.00	0.34	3.913	O	|	|	|	|	1.06
179.333	0.00	0.34	3.911	O	|	|	|	|	1.06
179.417	0.00	0.34	3.908	O	|	|	|	|	1.06
179.500	0.00	0.34	3.906	O	|	|	|	|	1.06
179.583	0.00	0.34	3.904	O	|	|	|	|	1.06
179.667	0.00	0.34	3.901	O	|	|	|	|	1.06
179.750	0.00	0.34	3.899	O	|	|	|	|	1.06
179.833	0.00	0.34	3.896	O	|	|	|	|	1.06
179.917	0.00	0.34	3.894	O	|	|	|	|	1.05
180.000	0.00	0.34	3.892	O	|	|	|	|	1.05
180.083	0.00	0.34	3.889	O	|	|	|	|	1.05
180.167	0.00	0.34	3.887	O	|	|	|	|	1.05
180.250	0.00	0.34	3.885	O	|	|	|	|	1.05
180.333	0.00	0.34	3.882	O	|	|	|	|	1.05
180.417	0.00	0.34	3.880	O	|	|	|	|	1.05
180.500	0.00	0.34	3.878	O	|	|	|	|	1.05
180.583	0.00	0.34	3.875	O	|	|	|	|	1.05
180.667	0.00	0.34	3.873	O	|	|	|	|	1.05
180.750	0.00	0.34	3.871	O	|	|	|	|	1.05
180.833	0.00	0.34	3.868	O	|	|	|	|	1.05
180.917	0.00	0.34	3.866	O	|	|	|	|	1.05
181.000	0.00	0.34	3.864	O	|	|	|	|	1.05
181.083	0.00	0.34	3.861	O	|	|	|	|	1.05
181.167	0.00	0.34	3.859	O	|	|	|	|	1.04
181.250	0.00	0.34	3.857	O	|	|	|	|	1.04
181.333	0.00	0.34	3.854	O	|	|	|	|	1.04
181.417	0.00	0.34	3.852	O	|	|	|	|	1.04
181.500	0.00	0.34	3.850	O	|	|	|	|	1.04
181.583	0.00	0.34	3.847	O	|	|	|	|	1.04
181.667	0.00	0.34	3.845	O	|	|	|	|	1.04
181.750	0.00	0.34	3.843	O	|	|	|	|	1.04
181.833	0.00	0.34	3.840	O	|	|	|	|	1.04
181.917	0.00	0.34	3.838	O	|	|	|	|	1.04
182.000	0.00	0.34	3.836	O	|	|	|	|	1.04
182.083	0.00	0.34	3.833	O	|	|	|	|	1.04
182.167	0.00	0.34	3.831	O	|	|	|	|	1.04
182.250	0.00	0.33	3.829	O	|	|	|	|	1.04
182.333	0.00	0.33	3.826	O	|	|	|	|	1.04
182.417	0.00	0.33	3.824	O	|	|	|	|	1.03
182.500	0.00	0.33	3.822	O	|	|	|	|	1.03
182.583	0.00	0.33	3.820	O	|	|	|	|	1.03
182.667	0.00	0.33	3.817	O	|	|	|	|	1.03

182.750	0.00	0.33	3.815	O	|	|	|	|	1.03
182.833	0.00	0.33	3.813	O	|	|	|	|	1.03
182.917	0.00	0.33	3.810	O	|	|	|	|	1.03
183.000	0.00	0.33	3.808	O	|	|	|	|	1.03
183.083	0.00	0.33	3.806	O	|	|	|	|	1.03
183.167	0.00	0.33	3.804	O	|	|	|	|	1.03
183.250	0.00	0.33	3.801	O	|	|	|	|	1.03
183.333	0.00	0.33	3.799	O	|	|	|	|	1.03
183.417	0.00	0.33	3.797	O	|	|	|	|	1.03
183.500	0.00	0.33	3.794	O	|	|	|	|	1.03
183.583	0.00	0.33	3.792	O	|	|	|	|	1.03
183.667	0.00	0.33	3.790	O	|	|	|	|	1.03
183.750	0.00	0.33	3.788	O	|	|	|	|	1.02
183.833	0.00	0.33	3.785	O	|	|	|	|	1.02
183.917	0.00	0.33	3.783	O	|	|	|	|	1.02
184.000	0.00	0.33	3.781	O	|	|	|	|	1.02
184.083	0.00	0.33	3.778	O	|	|	|	|	1.02
184.167	0.00	0.33	3.776	O	|	|	|	|	1.02
184.250	0.00	0.33	3.774	O	|	|	|	|	1.02
184.333	0.00	0.33	3.772	O	|	|	|	|	1.02
184.417	0.00	0.33	3.769	O	|	|	|	|	1.02
184.500	0.00	0.33	3.767	O	|	|	|	|	1.02
184.583	0.00	0.33	3.765	O	|	|	|	|	1.02
184.667	0.00	0.33	3.763	O	|	|	|	|	1.02
184.750	0.00	0.33	3.760	O	|	|	|	|	1.02
184.833	0.00	0.33	3.758	O	|	|	|	|	1.02
184.917	0.00	0.33	3.756	O	|	|	|	|	1.02
185.000	0.00	0.33	3.754	O	|	|	|	|	1.02
185.083	0.00	0.33	3.751	O	|	|	|	|	1.01
185.167	0.00	0.33	3.749	O	|	|	|	|	1.01
185.250	0.00	0.33	3.747	O	|	|	|	|	1.01
185.333	0.00	0.33	3.745	O	|	|	|	|	1.01
185.417	0.00	0.32	3.742	O	|	|	|	|	1.01
185.500	0.00	0.32	3.740	O	|	|	|	|	1.01
185.583	0.00	0.32	3.738	O	|	|	|	|	1.01
185.667	0.00	0.32	3.736	O	|	|	|	|	1.01
185.750	0.00	0.32	3.734	O	|	|	|	|	1.01
185.833	0.00	0.32	3.731	O	|	|	|	|	1.01
185.917	0.00	0.32	3.729	O	|	|	|	|	1.01
186.000	0.00	0.32	3.727	O	|	|	|	|	1.01
186.083	0.00	0.32	3.725	O	|	|	|	|	1.01
186.167	0.00	0.32	3.722	O	|	|	|	|	1.01
186.250	0.00	0.32	3.720	O	|	|	|	|	1.01
186.333	0.00	0.32	3.718	O	|	|	|	|	1.01
186.417	0.00	0.32	3.716	O	|	|	|	|	1.00
186.500	0.00	0.32	3.714	O	|	|	|	|	1.00
186.583	0.00	0.32	3.711	O	|	|	|	|	1.00
186.667	0.00	0.32	3.709	O	|	|	|	|	1.00
186.750	0.00	0.32	3.707	O	|	|	|	|	1.00
186.833	0.00	0.32	3.705	O	|	|	|	|	1.00
186.917	0.00	0.32	3.702	O	|	|	|	|	1.00
187.000	0.00	0.32	3.700	O	|	|	|	|	1.00
187.083	0.00	0.32	3.698	O	|	|	|	|	1.00
187.167	0.00	0.32	3.696	O	|	|	|	|	1.00
187.250	0.00	0.32	3.694	O	|	|	|	|	1.00
187.333	0.00	0.32	3.691	O	|	|	|	|	1.00
187.417	0.00	0.32	3.689	O	|	|	|	|	1.00
187.500	0.00	0.32	3.687	O	|	|	|	|	1.00
187.583	0.00	0.32	3.685	O	|	|	|	|	1.00
187.667	0.00	0.32	3.683	O	|	|	|	|	1.00
187.750	0.00	0.32	3.680	O	|	|	|	|	0.99
187.833	0.00	0.32	3.678	O	|	|	|	|	0.99
187.917	0.00	0.32	3.676	O	|	|	|	|	0.99

188.000	0.00	0.32	3.674	O	|	|	|	|	0.99
188.083	0.00	0.32	3.672	O	|	|	|	|	0.99
188.167	0.00	0.32	3.670	O	|	|	|	|	0.99
188.250	0.00	0.32	3.667	O	|	|	|	|	0.99
188.333	0.00	0.32	3.665	O	|	|	|	|	0.99
188.417	0.00	0.32	3.663	O	|	|	|	|	0.99
188.500	0.00	0.32	3.661	O	|	|	|	|	0.99
188.583	0.00	0.32	3.659	O	|	|	|	|	0.99
188.667	0.00	0.32	3.656	O	|	|	|	|	0.99
188.750	0.00	0.32	3.654	O	|	|	|	|	0.99
188.833	0.00	0.32	3.652	O	|	|	|	|	0.99
188.917	0.00	0.32	3.650	O	|	|	|	|	0.99
189.000	0.00	0.32	3.648	O	|	|	|	|	0.99
189.083	0.00	0.32	3.646	O	|	|	|	|	0.99
189.167	0.00	0.32	3.643	O	|	|	|	|	0.98
189.250	0.00	0.31	3.641	O	|	|	|	|	0.98
189.333	0.00	0.31	3.639	O	|	|	|	|	0.98
189.417	0.00	0.31	3.637	O	|	|	|	|	0.98
189.500	0.00	0.31	3.635	O	|	|	|	|	0.98
189.583	0.00	0.31	3.633	O	|	|	|	|	0.98
189.667	0.00	0.31	3.630	O	|	|	|	|	0.98
189.750	0.00	0.31	3.628	O	|	|	|	|	0.98
189.833	0.00	0.31	3.626	O	|	|	|	|	0.98
189.917	0.00	0.31	3.624	O	|	|	|	|	0.98
190.000	0.00	0.31	3.622	O	|	|	|	|	0.98
190.083	0.00	0.31	3.620	O	|	|	|	|	0.98
190.167	0.00	0.31	3.617	O	|	|	|	|	0.98
190.250	0.00	0.31	3.615	O	|	|	|	|	0.98
190.333	0.00	0.31	3.613	O	|	|	|	|	0.98
190.417	0.00	0.31	3.611	O	|	|	|	|	0.98
190.500	0.00	0.31	3.609	O	|	|	|	|	0.98
190.583	0.00	0.31	3.607	O	|	|	|	|	0.97
190.667	0.00	0.31	3.605	O	|	|	|	|	0.97
190.750	0.00	0.31	3.602	O	|	|	|	|	0.97
190.833	0.00	0.31	3.600	O	|	|	|	|	0.97
190.917	0.00	0.31	3.598	O	|	|	|	|	0.97
191.000	0.00	0.31	3.596	O	|	|	|	|	0.97
191.083	0.00	0.31	3.594	O	|	|	|	|	0.97
191.167	0.00	0.31	3.592	O	|	|	|	|	0.97
191.250	0.00	0.31	3.590	O	|	|	|	|	0.97
191.333	0.00	0.31	3.587	O	|	|	|	|	0.97
191.417	0.00	0.31	3.585	O	|	|	|	|	0.97
191.500	0.00	0.31	3.583	O	|	|	|	|	0.97
191.583	0.00	0.31	3.581	O	|	|	|	|	0.97
191.667	0.00	0.31	3.579	O	|	|	|	|	0.97
191.750	0.00	0.31	3.577	O	|	|	|	|	0.97
191.833	0.00	0.31	3.575	O	|	|	|	|	0.97
191.917	0.00	0.31	3.572	O	|	|	|	|	0.97
192.000	0.00	0.31	3.570	O	|	|	|	|	0.96
192.083	0.00	0.31	3.568	O	|	|	|	|	0.96
192.167	0.00	0.31	3.566	O	|	|	|	|	0.96
192.250	0.00	0.31	3.564	O	|	|	|	|	0.96
192.333	0.00	0.31	3.562	O	|	|	|	|	0.96
192.417	0.00	0.31	3.560	O	|	|	|	|	0.96
192.500	0.00	0.31	3.558	O	|	|	|	|	0.96
192.583	0.00	0.31	3.556	O	|	|	|	|	0.96
192.667	0.00	0.31	3.553	O	|	|	|	|	0.96
192.750	0.00	0.31	3.551	O	|	|	|	|	0.96
192.833	0.00	0.31	3.549	O	|	|	|	|	0.96
192.917	0.00	0.31	3.547	O	|	|	|	|	0.96
193.000	0.00	0.31	3.545	O	|	|	|	|	0.96
193.083	0.00	0.31	3.543	O	|	|	|	|	0.96
193.167	0.00	0.31	3.541	O	|	|	|	|	0.96

193.250	0.00	0.31	3.539	O	|	|	|	|	0.96
193.333	0.00	0.31	3.536	O	|	|	|	|	0.96
193.417	0.00	0.31	3.534	O	|	|	|	|	0.96
193.500	0.00	0.31	3.532	O	|	|	|	|	0.95
193.583	0.00	0.31	3.530	O	|	|	|	|	0.95
193.667	0.00	0.31	3.528	O	|	|	|	|	0.95
193.750	0.00	0.30	3.526	O	|	|	|	|	0.95
193.833	0.00	0.30	3.524	O	|	|	|	|	0.95
193.917	0.00	0.30	3.522	O	|	|	|	|	0.95
194.000	0.00	0.30	3.520	O	|	|	|	|	0.95
194.083	0.00	0.30	3.518	O	|	|	|	|	0.95
194.167	0.00	0.30	3.515	O	|	|	|	|	0.95
194.250	0.00	0.30	3.513	O	|	|	|	|	0.95
194.333	0.00	0.30	3.511	O	|	|	|	|	0.95
194.417	0.00	0.30	3.509	O	|	|	|	|	0.95
194.500	0.00	0.30	3.507	O	|	|	|	|	0.95
194.583	0.00	0.30	3.505	O	|	|	|	|	0.95
194.667	0.00	0.30	3.503	O	|	|	|	|	0.95
194.750	0.00	0.30	3.501	O	|	|	|	|	0.95
194.833	0.00	0.30	3.499	O	|	|	|	|	0.95
194.917	0.00	0.30	3.497	O	|	|	|	|	0.95
195.000	0.00	0.30	3.495	O	|	|	|	|	0.94
195.083	0.00	0.30	3.493	O	|	|	|	|	0.94
195.167	0.00	0.30	3.490	O	|	|	|	|	0.94
195.250	0.00	0.30	3.488	O	|	|	|	|	0.94
195.333	0.00	0.30	3.486	O	|	|	|	|	0.94
195.417	0.00	0.30	3.484	O	|	|	|	|	0.94
195.500	0.00	0.30	3.482	O	|	|	|	|	0.94
195.583	0.00	0.30	3.480	O	|	|	|	|	0.94
195.667	0.00	0.30	3.478	O	|	|	|	|	0.94
195.750	0.00	0.30	3.476	O	|	|	|	|	0.94
195.833	0.00	0.30	3.474	O	|	|	|	|	0.94
195.917	0.00	0.30	3.472	O	|	|	|	|	0.94
196.000	0.00	0.30	3.470	O	|	|	|	|	0.94
196.083	0.00	0.30	3.468	O	|	|	|	|	0.94
196.167	0.00	0.30	3.466	O	|	|	|	|	0.94
196.250	0.00	0.30	3.464	O	|	|	|	|	0.94
196.333	0.00	0.30	3.461	O	|	|	|	|	0.94
196.417	0.00	0.30	3.459	O	|	|	|	|	0.93
196.500	0.00	0.30	3.457	O	|	|	|	|	0.93
196.583	0.00	0.30	3.455	O	|	|	|	|	0.93
196.667	0.00	0.30	3.453	O	|	|	|	|	0.93
196.750	0.00	0.30	3.451	O	|	|	|	|	0.93
196.833	0.00	0.30	3.449	O	|	|	|	|	0.93
196.917	0.00	0.30	3.447	O	|	|	|	|	0.93
197.000	0.00	0.30	3.445	O	|	|	|	|	0.93
197.083	0.00	0.30	3.443	O	|	|	|	|	0.93
197.167	0.00	0.30	3.441	O	|	|	|	|	0.93
197.250	0.00	0.30	3.439	O	|	|	|	|	0.93
197.333	0.00	0.30	3.437	O	|	|	|	|	0.93
197.417	0.00	0.30	3.435	O	|	|	|	|	0.93
197.500	0.00	0.30	3.433	O	|	|	|	|	0.93
197.583	0.00	0.30	3.431	O	|	|	|	|	0.93
197.667	0.00	0.30	3.429	O	|	|	|	|	0.93
197.750	0.00	0.30	3.427	O	|	|	|	|	0.93
197.833	0.00	0.30	3.425	O	|	|	|	|	0.93
197.917	0.00	0.30	3.423	O	|	|	|	|	0.93
198.000	0.00	0.30	3.420	O	|	|	|	|	0.92
198.083	0.00	0.30	3.418	O	|	|	|	|	0.92
198.167	0.00	0.30	3.416	O	|	|	|	|	0.92
198.250	0.00	0.30	3.414	O	|	|	|	|	0.92
198.333	0.00	0.30	3.412	O	|	|	|	|	0.92
198.417	0.00	0.29	3.410	O	|	|	|	|	0.92

198.500	0.00	0.29	3.408	O	|	|	|	|	0.92
198.583	0.00	0.29	3.406	O	|	|	|	|	0.92
198.667	0.00	0.29	3.404	O	|	|	|	|	0.92
198.750	0.00	0.29	3.402	O	|	|	|	|	0.92
198.833	0.00	0.29	3.400	O	|	|	|	|	0.92
198.917	0.00	0.29	3.398	O	|	|	|	|	0.92
199.000	0.00	0.29	3.396	O	|	|	|	|	0.92
199.083	0.00	0.29	3.394	O	|	|	|	|	0.92
199.167	0.00	0.29	3.392	O	|	|	|	|	0.92
199.250	0.00	0.29	3.390	O	|	|	|	|	0.92
199.333	0.00	0.29	3.388	O	|	|	|	|	0.92
199.417	0.00	0.29	3.386	O	|	|	|	|	0.92
199.500	0.00	0.29	3.384	O	|	|	|	|	0.91
199.583	0.00	0.29	3.382	O	|	|	|	|	0.91
199.667	0.00	0.29	3.380	O	|	|	|	|	0.91
199.750	0.00	0.29	3.378	O	|	|	|	|	0.91
199.833	0.00	0.29	3.376	O	|	|	|	|	0.91
199.917	0.00	0.29	3.374	O	|	|	|	|	0.91
200.000	0.00	0.29	3.372	O	|	|	|	|	0.91
200.083	0.00	0.29	3.370	O	|	|	|	|	0.91
200.167	0.00	0.29	3.368	O	|	|	|	|	0.91
200.250	0.00	0.29	3.366	O	|	|	|	|	0.91
200.333	0.00	0.29	3.364	O	|	|	|	|	0.91
200.417	0.00	0.29	3.362	O	|	|	|	|	0.91
200.500	0.00	0.29	3.360	O	|	|	|	|	0.91
200.583	0.00	0.29	3.358	O	|	|	|	|	0.91
200.667	0.00	0.29	3.356	O	|	|	|	|	0.91
200.750	0.00	0.29	3.354	O	|	|	|	|	0.91
200.833	0.00	0.29	3.352	O	|	|	|	|	0.91
200.917	0.00	0.29	3.350	O	|	|	|	|	0.91
201.000	0.00	0.29	3.348	O	|	|	|	|	0.90
201.083	0.00	0.29	3.346	O	|	|	|	|	0.90
201.167	0.00	0.29	3.344	O	|	|	|	|	0.90
201.250	0.00	0.29	3.342	O	|	|	|	|	0.90
201.333	0.00	0.29	3.340	O	|	|	|	|	0.90
201.417	0.00	0.29	3.338	O	|	|	|	|	0.90
201.500	0.00	0.29	3.336	O	|	|	|	|	0.90
201.583	0.00	0.29	3.334	O	|	|	|	|	0.90
201.667	0.00	0.29	3.332	O	|	|	|	|	0.90
201.750	0.00	0.29	3.330	O	|	|	|	|	0.90
201.833	0.00	0.29	3.328	O	|	|	|	|	0.90
201.917	0.00	0.29	3.326	O	|	|	|	|	0.90
202.000	0.00	0.29	3.324	O	|	|	|	|	0.90
202.083	0.00	0.29	3.322	O	|	|	|	|	0.90
202.167	0.00	0.29	3.320	O	|	|	|	|	0.90
202.250	0.00	0.29	3.318	O	|	|	|	|	0.90
202.333	0.00	0.29	3.316	O	|	|	|	|	0.90
202.417	0.00	0.29	3.314	O	|	|	|	|	0.90
202.500	0.00	0.29	3.312	O	|	|	|	|	0.90
202.583	0.00	0.29	3.310	O	|	|	|	|	0.89
202.667	0.00	0.29	3.308	O	|	|	|	|	0.89
202.750	0.00	0.29	3.306	O	|	|	|	|	0.89
202.833	0.00	0.29	3.304	O	|	|	|	|	0.89
202.917	0.00	0.29	3.302	O	|	|	|	|	0.89
203.000	0.00	0.29	3.300	O	|	|	|	|	0.89
203.083	0.00	0.29	3.298	O	|	|	|	|	0.89
203.167	0.00	0.29	3.296	O	|	|	|	|	0.89
203.250	0.00	0.28	3.295	O	|	|	|	|	0.89
203.333	0.00	0.28	3.293	O	|	|	|	|	0.89
203.417	0.00	0.28	3.291	O	|	|	|	|	0.89
203.500	0.00	0.28	3.289	O	|	|	|	|	0.89
203.583	0.00	0.28	3.287	O	|	|	|	|	0.89
203.667	0.00	0.28	3.285	O	|	|	|	|	0.89

203.750	0.00	0.28	3.283	O	|	|	|	|	0.89
203.833	0.00	0.28	3.281	O	|	|	|	|	0.89
203.917	0.00	0.28	3.279	O	|	|	|	|	0.89
204.000	0.00	0.28	3.277	O	|	|	|	|	0.89
204.083	0.00	0.28	3.275	O	|	|	|	|	0.89
204.167	0.00	0.28	3.273	O	|	|	|	|	0.88
204.250	0.00	0.28	3.271	O	|	|	|	|	0.88
204.333	0.00	0.28	3.269	O	|	|	|	|	0.88
204.417	0.00	0.28	3.267	O	|	|	|	|	0.88
204.500	0.00	0.28	3.265	O	|	|	|	|	0.88
204.583	0.00	0.28	3.263	O	|	|	|	|	0.88
204.667	0.00	0.28	3.261	O	|	|	|	|	0.88
204.750	0.00	0.28	3.259	O	|	|	|	|	0.88
204.833	0.00	0.28	3.257	O	|	|	|	|	0.88
204.917	0.00	0.28	3.255	O	|	|	|	|	0.88
205.000	0.00	0.28	3.254	O	|	|	|	|	0.88
205.083	0.00	0.28	3.252	O	|	|	|	|	0.88
205.167	0.00	0.28	3.250	O	|	|	|	|	0.88
205.250	0.00	0.28	3.248	O	|	|	|	|	0.88
205.333	0.00	0.28	3.246	O	|	|	|	|	0.88
205.417	0.00	0.28	3.244	O	|	|	|	|	0.88
205.500	0.00	0.28	3.242	O	|	|	|	|	0.88
205.583	0.00	0.28	3.240	O	|	|	|	|	0.88
205.667	0.00	0.28	3.238	O	|	|	|	|	0.88
205.750	0.00	0.28	3.236	O	|	|	|	|	0.87
205.833	0.00	0.28	3.234	O	|	|	|	|	0.87
205.917	0.00	0.28	3.232	O	|	|	|	|	0.87
206.000	0.00	0.28	3.230	O	|	|	|	|	0.87
206.083	0.00	0.28	3.228	O	|	|	|	|	0.87
206.167	0.00	0.28	3.227	O	|	|	|	|	0.87
206.250	0.00	0.28	3.225	O	|	|	|	|	0.87
206.333	0.00	0.28	3.223	O	|	|	|	|	0.87
206.417	0.00	0.28	3.221	O	|	|	|	|	0.87
206.500	0.00	0.28	3.219	O	|	|	|	|	0.87
206.583	0.00	0.28	3.217	O	|	|	|	|	0.87
206.667	0.00	0.28	3.215	O	|	|	|	|	0.87
206.750	0.00	0.28	3.213	O	|	|	|	|	0.87
206.833	0.00	0.28	3.211	O	|	|	|	|	0.87
206.917	0.00	0.28	3.209	O	|	|	|	|	0.87
207.000	0.00	0.28	3.207	O	|	|	|	|	0.87
207.083	0.00	0.28	3.205	O	|	|	|	|	0.87
207.167	0.00	0.28	3.204	O	|	|	|	|	0.87
207.250	0.00	0.28	3.202	O	|	|	|	|	0.87
207.333	0.00	0.28	3.200	O	|	|	|	|	0.86
207.417	0.00	0.28	3.198	O	|	|	|	|	0.86
207.500	0.00	0.28	3.196	O	|	|	|	|	0.86
207.583	0.00	0.28	3.194	O	|	|	|	|	0.86
207.667	0.00	0.28	3.192	O	|	|	|	|	0.86
207.750	0.00	0.28	3.190	O	|	|	|	|	0.86
207.833	0.00	0.28	3.188	O	|	|	|	|	0.86
207.917	0.00	0.28	3.186	O	|	|	|	|	0.86
208.000	0.00	0.28	3.185	O	|	|	|	|	0.86
208.083	0.00	0.28	3.183	O	|	|	|	|	0.86
208.167	0.00	0.28	3.181	O	|	|	|	|	0.86
208.250	0.00	0.27	3.179	O	|	|	|	|	0.86
208.333	0.00	0.27	3.177	O	|	|	|	|	0.86
208.417	0.00	0.27	3.175	O	|	|	|	|	0.86
208.500	0.00	0.27	3.173	O	|	|	|	|	0.86
208.583	0.00	0.27	3.171	O	|	|	|	|	0.86
208.667	0.00	0.27	3.169	O	|	|	|	|	0.86
208.750	0.00	0.27	3.168	O	|	|	|	|	0.86
208.833	0.00	0.27	3.166	O	|	|	|	|	0.86
208.917	0.00	0.27	3.164	O	|	|	|	|	0.86

209.000	0.00	0.27	3.162	O	|	|	|	|	0.85
209.083	0.00	0.27	3.160	O	|	|	|	|	0.85
209.167	0.00	0.27	3.158	O	|	|	|	|	0.85
209.250	0.00	0.27	3.156	O	|	|	|	|	0.85
209.333	0.00	0.27	3.154	O	|	|	|	|	0.85
209.417	0.00	0.27	3.152	O	|	|	|	|	0.85
209.500	0.00	0.27	3.151	O	|	|	|	|	0.85
209.583	0.00	0.27	3.149	O	|	|	|	|	0.85
209.667	0.00	0.27	3.147	O	|	|	|	|	0.85
209.750	0.00	0.27	3.145	O	|	|	|	|	0.85
209.833	0.00	0.27	3.143	O	|	|	|	|	0.85
209.917	0.00	0.27	3.141	O	|	|	|	|	0.85
210.000	0.00	0.27	3.139	O	|	|	|	|	0.85
210.083	0.00	0.27	3.137	O	|	|	|	|	0.85
210.167	0.00	0.27	3.136	O	|	|	|	|	0.85
210.250	0.00	0.27	3.134	O	|	|	|	|	0.85
210.333	0.00	0.27	3.132	O	|	|	|	|	0.85
210.417	0.00	0.27	3.130	O	|	|	|	|	0.85
210.500	0.00	0.27	3.128	O	|	|	|	|	0.85
210.583	0.00	0.27	3.126	O	|	|	|	|	0.84
210.667	0.00	0.27	3.124	O	|	|	|	|	0.84
210.750	0.00	0.27	3.123	O	|	|	|	|	0.84
210.833	0.00	0.27	3.121	O	|	|	|	|	0.84
210.917	0.00	0.27	3.119	O	|	|	|	|	0.84
211.000	0.00	0.27	3.117	O	|	|	|	|	0.84
211.083	0.00	0.27	3.115	O	|	|	|	|	0.84
211.167	0.00	0.27	3.113	O	|	|	|	|	0.84
211.250	0.00	0.27	3.111	O	|	|	|	|	0.84
211.333	0.00	0.27	3.110	O	|	|	|	|	0.84
211.417	0.00	0.27	3.108	O	|	|	|	|	0.84
211.500	0.00	0.27	3.106	O	|	|	|	|	0.84
211.583	0.00	0.27	3.104	O	|	|	|	|	0.84
211.667	0.00	0.27	3.102	O	|	|	|	|	0.84
211.750	0.00	0.27	3.100	O	|	|	|	|	0.84
211.833	0.00	0.27	3.098	O	|	|	|	|	0.84
211.917	0.00	0.27	3.097	O	|	|	|	|	0.84
212.000	0.00	0.27	3.095	O	|	|	|	|	0.84
212.083	0.00	0.27	3.093	O	|	|	|	|	0.84
212.167	0.00	0.27	3.091	O	|	|	|	|	0.84
212.250	0.00	0.27	3.089	O	|	|	|	|	0.83
212.333	0.00	0.27	3.087	O	|	|	|	|	0.83
212.417	0.00	0.27	3.086	O	|	|	|	|	0.83
212.500	0.00	0.27	3.084	O	|	|	|	|	0.83
212.583	0.00	0.27	3.082	O	|	|	|	|	0.83
212.667	0.00	0.27	3.080	O	|	|	|	|	0.83
212.750	0.00	0.27	3.078	O	|	|	|	|	0.83
212.833	0.00	0.27	3.076	O	|	|	|	|	0.83
212.917	0.00	0.27	3.075	O	|	|	|	|	0.83
213.000	0.00	0.27	3.073	O	|	|	|	|	0.83
213.083	0.00	0.27	3.071	O	|	|	|	|	0.83
213.167	0.00	0.27	3.069	O	|	|	|	|	0.83
213.250	0.00	0.27	3.067	O	|	|	|	|	0.83
213.333	0.00	0.27	3.065	O	|	|	|	|	0.83
213.417	0.00	0.26	3.064	O	|	|	|	|	0.83
213.500	0.00	0.26	3.062	O	|	|	|	|	0.83
213.583	0.00	0.26	3.060	O	|	|	|	|	0.83
213.667	0.00	0.26	3.058	O	|	|	|	|	0.83
213.750	0.00	0.26	3.056	O	|	|	|	|	0.83
213.833	0.00	0.26	3.054	O	|	|	|	|	0.83
213.917	0.00	0.26	3.053	O	|	|	|	|	0.83
214.000	0.00	0.26	3.051	O	|	|	|	|	0.82
214.083	0.00	0.26	3.049	O	|	|	|	|	0.82
214.167	0.00	0.26	3.047	O	|	|	|	|	0.82

214.250	0.00	0.26	3.045	O	|	|	|	|	0.82
214.333	0.00	0.26	3.044	O	|	|	|	|	0.82
214.417	0.00	0.26	3.042	O	|	|	|	|	0.82
214.500	0.00	0.26	3.040	O	|	|	|	|	0.82
214.583	0.00	0.26	3.038	O	|	|	|	|	0.82
214.667	0.00	0.26	3.036	O	|	|	|	|	0.82
214.750	0.00	0.26	3.035	O	|	|	|	|	0.82
214.833	0.00	0.26	3.033	O	|	|	|	|	0.82
214.917	0.00	0.26	3.031	O	|	|	|	|	0.82
215.000	0.00	0.26	3.029	O	|	|	|	|	0.82
215.083	0.00	0.26	3.027	O	|	|	|	|	0.82
215.167	0.00	0.26	3.026	O	|	|	|	|	0.82
215.250	0.00	0.26	3.024	O	|	|	|	|	0.82
215.333	0.00	0.26	3.022	O	|	|	|	|	0.82
215.417	0.00	0.26	3.020	O	|	|	|	|	0.82
215.500	0.00	0.26	3.018	O	|	|	|	|	0.82
215.583	0.00	0.26	3.017	O	|	|	|	|	0.82
215.667	0.00	0.26	3.015	O	|	|	|	|	0.81
215.750	0.00	0.26	3.013	O	|	|	|	|	0.81
215.833	0.00	0.26	3.011	O	|	|	|	|	0.81
215.917	0.00	0.26	3.009	O	|	|	|	|	0.81
216.000	0.00	0.26	3.008	O	|	|	|	|	0.81
216.083	0.00	0.26	3.006	O	|	|	|	|	0.81
216.167	0.00	0.26	3.004	O	|	|	|	|	0.81
216.250	0.00	0.26	3.002	O	|	|	|	|	0.81
216.333	0.00	0.26	3.000	O	|	|	|	|	0.81
216.417	0.00	0.26	2.999	O	|	|	|	|	0.81
216.500	0.00	0.26	2.997	O	|	|	|	|	0.81
216.583	0.00	0.26	2.995	O	|	|	|	|	0.81
216.667	0.00	0.26	2.993	O	|	|	|	|	0.81
216.750	0.00	0.26	2.991	O	|	|	|	|	0.81
216.833	0.00	0.26	2.990	O	|	|	|	|	0.81
216.917	0.00	0.26	2.988	O	|	|	|	|	0.81
217.000	0.00	0.26	2.986	O	|	|	|	|	0.81
217.083	0.00	0.26	2.984	O	|	|	|	|	0.81
217.167	0.00	0.26	2.983	O	|	|	|	|	0.81
217.250	0.00	0.26	2.981	O	|	|	|	|	0.81
217.333	0.00	0.26	2.979	O	|	|	|	|	0.81
217.417	0.00	0.26	2.977	O	|	|	|	|	0.80
217.500	0.00	0.26	2.975	O	|	|	|	|	0.80
217.583	0.00	0.26	2.974	O	|	|	|	|	0.80
217.667	0.00	0.26	2.972	O	|	|	|	|	0.80
217.750	0.00	0.26	2.970	O	|	|	|	|	0.80
217.833	0.00	0.26	2.968	O	|	|	|	|	0.80
217.917	0.00	0.26	2.967	O	|	|	|	|	0.80
218.000	0.00	0.26	2.965	O	|	|	|	|	0.80
218.083	0.00	0.26	2.963	O	|	|	|	|	0.80
218.167	0.00	0.26	2.961	O	|	|	|	|	0.80
218.250	0.00	0.26	2.960	O	|	|	|	|	0.80
218.333	0.00	0.26	2.958	O	|	|	|	|	0.80
218.417	0.00	0.26	2.956	O	|	|	|	|	0.80
218.500	0.00	0.26	2.954	O	|	|	|	|	0.80
218.583	0.00	0.26	2.953	O	|	|	|	|	0.80
218.667	0.00	0.26	2.951	O	|	|	|	|	0.80
218.750	0.00	0.26	2.949	O	|	|	|	|	0.80
218.833	0.00	0.25	2.947	O	|	|	|	|	0.80
218.917	0.00	0.25	2.945	O	|	|	|	|	0.80
219.000	0.00	0.25	2.944	O	|	|	|	|	0.80
219.083	0.00	0.25	2.942	O	|	|	|	|	0.80
219.167	0.00	0.25	2.940	O	|	|	|	|	0.79
219.250	0.00	0.25	2.938	O	|	|	|	|	0.79
219.333	0.00	0.25	2.937	O	|	|	|	|	0.79
219.417	0.00	0.25	2.935	O	|	|	|	|	0.79

219.500	0.00	0.25	2.933	O	|	|	|	|	0.79
219.583	0.00	0.25	2.931	O	|	|	|	|	0.79
219.667	0.00	0.25	2.930	O	|	|	|	|	0.79
219.750	0.00	0.25	2.928	O	|	|	|	|	0.79
219.833	0.00	0.25	2.926	O	|	|	|	|	0.79
219.917	0.00	0.25	2.925	O	|	|	|	|	0.79
220.000	0.00	0.25	2.923	O	|	|	|	|	0.79
220.083	0.00	0.25	2.921	O	|	|	|	|	0.79
220.167	0.00	0.25	2.919	O	|	|	|	|	0.79
220.250	0.00	0.25	2.918	O	|	|	|	|	0.79
220.333	0.00	0.25	2.916	O	|	|	|	|	0.79
220.417	0.00	0.25	2.914	O	|	|	|	|	0.79
220.500	0.00	0.25	2.912	O	|	|	|	|	0.79
220.583	0.00	0.25	2.911	O	|	|	|	|	0.79
220.667	0.00	0.25	2.909	O	|	|	|	|	0.79
220.750	0.00	0.25	2.907	O	|	|	|	|	0.79
220.833	0.00	0.25	2.905	O	|	|	|	|	0.79
220.917	0.00	0.25	2.904	O	|	|	|	|	0.78
221.000	0.00	0.25	2.902	O	|	|	|	|	0.78
221.083	0.00	0.25	2.900	O	|	|	|	|	0.78
221.167	0.00	0.25	2.899	O	|	|	|	|	0.78
221.250	0.00	0.25	2.897	O	|	|	|	|	0.78
221.333	0.00	0.25	2.895	O	|	|	|	|	0.78
221.417	0.00	0.25	2.893	O	|	|	|	|	0.78
221.500	0.00	0.25	2.892	O	|	|	|	|	0.78
221.583	0.00	0.25	2.890	O	|	|	|	|	0.78
221.667	0.00	0.25	2.888	O	|	|	|	|	0.78
221.750	0.00	0.25	2.886	O	|	|	|	|	0.78
221.833	0.00	0.25	2.885	O	|	|	|	|	0.78
221.917	0.00	0.25	2.883	O	|	|	|	|	0.78
222.000	0.00	0.25	2.881	O	|	|	|	|	0.78
222.083	0.00	0.25	2.880	O	|	|	|	|	0.78
222.167	0.00	0.25	2.878	O	|	|	|	|	0.78
222.250	0.00	0.25	2.876	O	|	|	|	|	0.78
222.333	0.00	0.25	2.874	O	|	|	|	|	0.78
222.417	0.00	0.25	2.873	O	|	|	|	|	0.78
222.500	0.00	0.25	2.871	O	|	|	|	|	0.78
222.583	0.00	0.25	2.869	O	|	|	|	|	0.78
222.667	0.00	0.25	2.868	O	|	|	|	|	0.78
222.750	0.00	0.25	2.866	O	|	|	|	|	0.77
222.833	0.00	0.25	2.864	O	|	|	|	|	0.77
222.917	0.00	0.25	2.862	O	|	|	|	|	0.77
223.000	0.00	0.25	2.861	O	|	|	|	|	0.77
223.083	0.00	0.25	2.859	O	|	|	|	|	0.77
223.167	0.00	0.25	2.857	O	|	|	|	|	0.77
223.250	0.00	0.25	2.856	O	|	|	|	|	0.77
223.333	0.00	0.25	2.854	O	|	|	|	|	0.77
223.417	0.00	0.25	2.852	O	|	|	|	|	0.77
223.500	0.00	0.25	2.851	O	|	|	|	|	0.77
223.583	0.00	0.25	2.849	O	|	|	|	|	0.77
223.667	0.00	0.25	2.847	O	|	|	|	|	0.77
223.750	0.00	0.25	2.845	O	|	|	|	|	0.77
223.833	0.00	0.25	2.844	O	|	|	|	|	0.77
223.917	0.00	0.25	2.842	O	|	|	|	|	0.77
224.000	0.00	0.25	2.840	O	|	|	|	|	0.77
224.083	0.00	0.25	2.839	O	|	|	|	|	0.77
224.167	0.00	0.25	2.837	O	|	|	|	|	0.77
224.250	0.00	0.25	2.835	O	|	|	|	|	0.77
224.333	0.00	0.25	2.834	O	|	|	|	|	0.77
224.417	0.00	0.24	2.832	O	|	|	|	|	0.77
224.500	0.00	0.24	2.830	O	|	|	|	|	0.76
224.583	0.00	0.24	2.829	O	|	|	|	|	0.76
224.667	0.00	0.24	2.827	O	|	|	|	|	0.76

224.750	0.00	0.24	2.825	O	|	|	|	|	0.76
224.833	0.00	0.24	2.824	O	|	|	|	|	0.76
224.917	0.00	0.24	2.822	O	|	|	|	|	0.76
225.000	0.00	0.24	2.820	O	|	|	|	|	0.76
225.083	0.00	0.24	2.818	O	|	|	|	|	0.76
225.167	0.00	0.24	2.817	O	|	|	|	|	0.76
225.250	0.00	0.24	2.815	O	|	|	|	|	0.76
225.333	0.00	0.24	2.813	O	|	|	|	|	0.76
225.417	0.00	0.24	2.812	O	|	|	|	|	0.76
225.500	0.00	0.24	2.810	O	|	|	|	|	0.76
225.583	0.00	0.24	2.808	O	|	|	|	|	0.76
225.667	0.00	0.24	2.807	O	|	|	|	|	0.76
225.750	0.00	0.24	2.805	O	|	|	|	|	0.76
225.833	0.00	0.24	2.803	O	|	|	|	|	0.76
225.917	0.00	0.24	2.802	O	|	|	|	|	0.76
226.000	0.00	0.24	2.800	O	|	|	|	|	0.76
226.083	0.00	0.24	2.798	O	|	|	|	|	0.76
226.167	0.00	0.24	2.797	O	|	|	|	|	0.76
226.250	0.00	0.24	2.795	O	|	|	|	|	0.76
226.333	0.00	0.24	2.793	O	|	|	|	|	0.75
226.417	0.00	0.24	2.792	O	|	|	|	|	0.75
226.500	0.00	0.24	2.790	O	|	|	|	|	0.75
226.583	0.00	0.24	2.788	O	|	|	|	|	0.75
226.667	0.00	0.24	2.787	O	|	|	|	|	0.75
226.750	0.00	0.24	2.785	O	|	|	|	|	0.75
226.833	0.00	0.24	2.783	O	|	|	|	|	0.75
226.917	0.00	0.24	2.782	O	|	|	|	|	0.75
227.000	0.00	0.24	2.780	O	|	|	|	|	0.75
227.083	0.00	0.24	2.778	O	|	|	|	|	0.75
227.167	0.00	0.24	2.777	O	|	|	|	|	0.75
227.250	0.00	0.24	2.775	O	|	|	|	|	0.75
227.333	0.00	0.24	2.774	O	|	|	|	|	0.75
227.417	0.00	0.24	2.772	O	|	|	|	|	0.75
227.500	0.00	0.24	2.770	O	|	|	|	|	0.75
227.583	0.00	0.24	2.769	O	|	|	|	|	0.75
227.667	0.00	0.24	2.767	O	|	|	|	|	0.75
227.750	0.00	0.24	2.765	O	|	|	|	|	0.75
227.833	0.00	0.24	2.764	O	|	|	|	|	0.75
227.917	0.00	0.24	2.762	O	|	|	|	|	0.75
228.000	0.00	0.24	2.760	O	|	|	|	|	0.75
228.083	0.00	0.24	2.759	O	|	|	|	|	0.75
228.167	0.00	0.24	2.757	O	|	|	|	|	0.75
228.250	0.00	0.24	2.755	O	|	|	|	|	0.74
228.333	0.00	0.24	2.754	O	|	|	|	|	0.74
228.417	0.00	0.24	2.752	O	|	|	|	|	0.74
228.500	0.00	0.24	2.750	O	|	|	|	|	0.74
228.583	0.00	0.24	2.749	O	|	|	|	|	0.74
228.667	0.00	0.24	2.747	O	|	|	|	|	0.74
228.750	0.00	0.24	2.746	O	|	|	|	|	0.74
228.833	0.00	0.24	2.744	O	|	|	|	|	0.74
228.917	0.00	0.24	2.742	O	|	|	|	|	0.74
229.000	0.00	0.24	2.741	O	|	|	|	|	0.74
229.083	0.00	0.24	2.739	O	|	|	|	|	0.74
229.167	0.00	0.24	2.737	O	|	|	|	|	0.74
229.250	0.00	0.24	2.736	O	|	|	|	|	0.74
229.333	0.00	0.24	2.734	O	|	|	|	|	0.74
229.417	0.00	0.24	2.733	O	|	|	|	|	0.74
229.500	0.00	0.24	2.731	O	|	|	|	|	0.74
229.583	0.00	0.24	2.729	O	|	|	|	|	0.74
229.667	0.00	0.24	2.728	O	|	|	|	|	0.74
229.750	0.00	0.24	2.726	O	|	|	|	|	0.74
229.833	0.00	0.24	2.724	O	|	|	|	|	0.74
229.917	0.00	0.24	2.723	O	|	|	|	|	0.74

230.000	0.00	0.24	2.721	O	|	|	|	|	0.74
230.083	0.00	0.24	2.720	O	|	|	|	|	0.74
230.167	0.00	0.24	2.718	O	|	|	|	|	0.73
230.250	0.00	0.23	2.716	O	|	|	|	|	0.73
230.333	0.00	0.23	2.715	O	|	|	|	|	0.73
230.417	0.00	0.23	2.713	O	|	|	|	|	0.73
230.500	0.00	0.23	2.711	O	|	|	|	|	0.73
230.583	0.00	0.23	2.710	O	|	|	|	|	0.73
230.667	0.00	0.23	2.708	O	|	|	|	|	0.73
230.750	0.00	0.23	2.707	O	|	|	|	|	0.73
230.833	0.00	0.23	2.705	O	|	|	|	|	0.73
230.917	0.00	0.23	2.703	O	|	|	|	|	0.73
231.000	0.00	0.23	2.702	O	|	|	|	|	0.73
231.083	0.00	0.23	2.700	O	|	|	|	|	0.73
231.167	0.00	0.23	2.699	O	|	|	|	|	0.73
231.250	0.00	0.23	2.697	O	|	|	|	|	0.73
231.333	0.00	0.23	2.695	O	|	|	|	|	0.73
231.417	0.00	0.23	2.694	O	|	|	|	|	0.73
231.500	0.00	0.23	2.692	O	|	|	|	|	0.73
231.583	0.00	0.23	2.691	O	|	|	|	|	0.73
231.667	0.00	0.23	2.689	O	|	|	|	|	0.73
231.750	0.00	0.23	2.687	O	|	|	|	|	0.73
231.833	0.00	0.23	2.686	O	|	|	|	|	0.73
231.917	0.00	0.23	2.684	O	|	|	|	|	0.73
232.000	0.00	0.23	2.683	O	|	|	|	|	0.73
232.083	0.00	0.23	2.681	O	|	|	|	|	0.72
232.167	0.00	0.23	2.679	O	|	|	|	|	0.72
232.250	0.00	0.23	2.678	O	|	|	|	|	0.72
232.333	0.00	0.23	2.676	O	|	|	|	|	0.72
232.417	0.00	0.23	2.675	O	|	|	|	|	0.72
232.500	0.00	0.23	2.673	O	|	|	|	|	0.72
232.583	0.00	0.23	2.671	O	|	|	|	|	0.72
232.667	0.00	0.23	2.670	O	|	|	|	|	0.72
232.750	0.00	0.23	2.668	O	|	|	|	|	0.72
232.833	0.00	0.23	2.667	O	|	|	|	|	0.72
232.917	0.00	0.23	2.665	O	|	|	|	|	0.72
233.000	0.00	0.23	2.663	O	|	|	|	|	0.72
233.083	0.00	0.23	2.662	O	|	|	|	|	0.72
233.167	0.00	0.23	2.660	O	|	|	|	|	0.72
233.250	0.00	0.23	2.659	O	|	|	|	|	0.72
233.333	0.00	0.23	2.657	O	|	|	|	|	0.72
233.417	0.00	0.23	2.656	O	|	|	|	|	0.72
233.500	0.00	0.23	2.654	O	|	|	|	|	0.72
233.583	0.00	0.23	2.652	O	|	|	|	|	0.72
233.667	0.00	0.23	2.651	O	|	|	|	|	0.72
233.750	0.00	0.23	2.649	O	|	|	|	|	0.72
233.833	0.00	0.23	2.648	O	|	|	|	|	0.72
233.917	0.00	0.23	2.646	O	|	|	|	|	0.72
234.000	0.00	0.23	2.644	O	|	|	|	|	0.71
234.083	0.00	0.23	2.643	O	|	|	|	|	0.71
234.167	0.00	0.23	2.641	O	|	|	|	|	0.71
234.250	0.00	0.23	2.640	O	|	|	|	|	0.71
234.333	0.00	0.23	2.638	O	|	|	|	|	0.71
234.417	0.00	0.23	2.637	O	|	|	|	|	0.71
234.500	0.00	0.23	2.635	O	|	|	|	|	0.71
234.583	0.00	0.23	2.633	O	|	|	|	|	0.71
234.667	0.00	0.23	2.632	O	|	|	|	|	0.71
234.750	0.00	0.23	2.630	O	|	|	|	|	0.71
234.833	0.00	0.23	2.629	O	|	|	|	|	0.71
234.917	0.00	0.23	2.627	O	|	|	|	|	0.71
235.000	0.00	0.23	2.626	O	|	|	|	|	0.71
235.083	0.00	0.23	2.624	O	|	|	|	|	0.71
235.167	0.00	0.23	2.622	O	|	|	|	|	0.71

235.250	0.00	0.23	2.621	O	|	|	|	|	0.71
235.333	0.00	0.23	2.619	O	|	|	|	|	0.71
235.417	0.00	0.23	2.618	O	|	|	|	|	0.71
235.500	0.00	0.23	2.616	O	|	|	|	|	0.71
235.583	0.00	0.23	2.615	O	|	|	|	|	0.71
235.667	0.00	0.23	2.613	O	|	|	|	|	0.71
235.750	0.00	0.23	2.612	O	|	|	|	|	0.71
235.833	0.00	0.23	2.610	O	|	|	|	|	0.71
235.917	0.00	0.23	2.608	O	|	|	|	|	0.70
236.000	0.00	0.23	2.607	O	|	|	|	|	0.70
236.083	0.00	0.23	2.605	O	|	|	|	|	0.70
236.167	0.00	0.23	2.604	O	|	|	|	|	0.70
236.250	0.00	0.23	2.602	O	|	|	|	|	0.70
236.333	0.00	0.22	2.601	O	|	|	|	|	0.70
236.417	0.00	0.22	2.599	O	|	|	|	|	0.70
236.500	0.00	0.22	2.598	O	|	|	|	|	0.70
236.583	0.00	0.22	2.596	O	|	|	|	|	0.70
236.667	0.00	0.22	2.595	O	|	|	|	|	0.70
236.750	0.00	0.22	2.593	O	|	|	|	|	0.70
236.833	0.00	0.22	2.591	O	|	|	|	|	0.70
236.917	0.00	0.22	2.590	O	|	|	|	|	0.70
237.000	0.00	0.22	2.588	O	|	|	|	|	0.70
237.083	0.00	0.22	2.587	O	|	|	|	|	0.70
237.167	0.00	0.22	2.585	O	|	|	|	|	0.70
237.250	0.00	0.22	2.584	O	|	|	|	|	0.70
237.333	0.00	0.22	2.582	O	|	|	|	|	0.70
237.417	0.00	0.22	2.581	O	|	|	|	|	0.70
237.500	0.00	0.22	2.579	O	|	|	|	|	0.70
237.583	0.00	0.22	2.578	O	|	|	|	|	0.70
237.667	0.00	0.22	2.576	O	|	|	|	|	0.70
237.750	0.00	0.22	2.575	O	|	|	|	|	0.70
237.833	0.00	0.22	2.573	O	|	|	|	|	0.70
237.917	0.00	0.22	2.571	O	|	|	|	|	0.69
238.000	0.00	0.22	2.570	O	|	|	|	|	0.69
238.083	0.00	0.22	2.568	O	|	|	|	|	0.69
238.167	0.00	0.22	2.567	O	|	|	|	|	0.69
238.250	0.00	0.22	2.565	O	|	|	|	|	0.69
238.333	0.00	0.22	2.564	O	|	|	|	|	0.69
238.417	0.00	0.22	2.562	O	|	|	|	|	0.69
238.500	0.00	0.22	2.561	O	|	|	|	|	0.69
238.583	0.00	0.22	2.559	O	|	|	|	|	0.69
238.667	0.00	0.22	2.558	O	|	|	|	|	0.69
238.750	0.00	0.22	2.556	O	|	|	|	|	0.69
238.833	0.00	0.22	2.555	O	|	|	|	|	0.69
238.917	0.00	0.22	2.553	O	|	|	|	|	0.69
239.000	0.00	0.22	2.552	O	|	|	|	|	0.69
239.083	0.00	0.22	2.550	O	|	|	|	|	0.69
239.167	0.00	0.22	2.549	O	|	|	|	|	0.69
239.250	0.00	0.22	2.547	O	|	|	|	|	0.69
239.333	0.00	0.22	2.546	O	|	|	|	|	0.69
239.417	0.00	0.22	2.544	O	|	|	|	|	0.69
239.500	0.00	0.22	2.543	O	|	|	|	|	0.69
239.583	0.00	0.22	2.541	O	|	|	|	|	0.69
239.667	0.00	0.22	2.539	O	|	|	|	|	0.69
239.750	0.00	0.22	2.538	O	|	|	|	|	0.69
239.833	0.00	0.22	2.536	O	|	|	|	|	0.69
239.917	0.00	0.22	2.535	O	|	|	|	|	0.69
240.000	0.00	0.22	2.533	O	|	|	|	|	0.68
240.083	0.00	0.22	2.532	O	|	|	|	|	0.68
240.167	0.00	0.22	2.530	O	|	|	|	|	0.68
240.250	0.00	0.22	2.529	O	|	|	|	|	0.68
240.333	0.00	0.22	2.527	O	|	|	|	|	0.68
240.417	0.00	0.22	2.526	O	|	|	|	|	0.68

240.500	0.00	0.22	2.524	O	|	|	|	|	0.68
240.583	0.00	0.22	2.523	O	|	|	|	|	0.68
240.667	0.00	0.22	2.521	O	|	|	|	|	0.68
240.750	0.00	0.22	2.520	O	|	|	|	|	0.68
240.833	0.00	0.22	2.518	O	|	|	|	|	0.68
240.917	0.00	0.22	2.517	O	|	|	|	|	0.68
241.000	0.00	0.22	2.515	O	|	|	|	|	0.68
241.083	0.00	0.22	2.514	O	|	|	|	|	0.68
241.167	0.00	0.22	2.512	O	|	|	|	|	0.68
241.250	0.00	0.22	2.511	O	|	|	|	|	0.68
241.333	0.00	0.22	2.509	O	|	|	|	|	0.68
241.417	0.00	0.22	2.508	O	|	|	|	|	0.68
241.500	0.00	0.22	2.506	O	|	|	|	|	0.68
241.583	0.00	0.22	2.505	O	|	|	|	|	0.68
241.667	0.00	0.22	2.503	O	|	|	|	|	0.68
241.750	0.00	0.22	2.502	O	|	|	|	|	0.68
241.833	0.00	0.22	2.500	O	|	|	|	|	0.68
241.917	0.00	0.22	2.499	O	|	|	|	|	0.68
242.000	0.00	0.22	2.497	O	|	|	|	|	0.67
242.083	0.00	0.22	2.496	O	|	|	|	|	0.67
242.167	0.00	0.22	2.495	O	|	|	|	|	0.67
242.250	0.00	0.22	2.493	O	|	|	|	|	0.67
242.333	0.00	0.22	2.492	O	|	|	|	|	0.67
242.417	0.00	0.22	2.490	O	|	|	|	|	0.67
242.500	0.00	0.22	2.489	O	|	|	|	|	0.67
242.583	0.00	0.22	2.487	O	|	|	|	|	0.67
242.667	0.00	0.21	2.486	O	|	|	|	|	0.67
242.750	0.00	0.21	2.484	O	|	|	|	|	0.67
242.833	0.00	0.21	2.483	O	|	|	|	|	0.67
242.917	0.00	0.21	2.481	O	|	|	|	|	0.67
243.000	0.00	0.21	2.480	O	|	|	|	|	0.67
243.083	0.00	0.21	2.478	O	|	|	|	|	0.67
243.167	0.00	0.21	2.477	O	|	|	|	|	0.67
243.250	0.00	0.21	2.475	O	|	|	|	|	0.67
243.333	0.00	0.21	2.474	O	|	|	|	|	0.67
243.417	0.00	0.21	2.472	O	|	|	|	|	0.67
243.500	0.00	0.21	2.471	O	|	|	|	|	0.67
243.583	0.00	0.21	2.469	O	|	|	|	|	0.67
243.667	0.00	0.21	2.468	O	|	|	|	|	0.67
243.750	0.00	0.21	2.466	O	|	|	|	|	0.67
243.833	0.00	0.21	2.465	O	|	|	|	|	0.67
243.917	0.00	0.21	2.464	O	|	|	|	|	0.67
244.000	0.00	0.21	2.462	O	|	|	|	|	0.67
244.083	0.00	0.21	2.461	O	|	|	|	|	0.67
244.167	0.00	0.21	2.459	O	|	|	|	|	0.66
244.250	0.00	0.21	2.458	O	|	|	|	|	0.66
244.333	0.00	0.21	2.456	O	|	|	|	|	0.66
244.417	0.00	0.21	2.455	O	|	|	|	|	0.66
244.500	0.00	0.21	2.453	O	|	|	|	|	0.66
244.583	0.00	0.21	2.452	O	|	|	|	|	0.66
244.667	0.00	0.21	2.450	O	|	|	|	|	0.66
244.750	0.00	0.21	2.449	O	|	|	|	|	0.66
244.833	0.00	0.21	2.447	O	|	|	|	|	0.66
244.917	0.00	0.21	2.446	O	|	|	|	|	0.66
245.000	0.00	0.21	2.445	O	|	|	|	|	0.66
245.083	0.00	0.21	2.443	O	|	|	|	|	0.66
245.167	0.00	0.21	2.442	O	|	|	|	|	0.66
245.250	0.00	0.21	2.440	O	|	|	|	|	0.66
245.333	0.00	0.21	2.439	O	|	|	|	|	0.66
245.417	0.00	0.21	2.437	O	|	|	|	|	0.66
245.500	0.00	0.21	2.436	O	|	|	|	|	0.66
245.583	0.00	0.21	2.434	O	|	|	|	|	0.66
245.667	0.00	0.21	2.433	O	|	|	|	|	0.66

245.750	0.00	0.21	2.431	O	|	|	|	|	0.66
245.833	0.00	0.21	2.430	O	|	|	|	|	0.66
245.917	0.00	0.21	2.429	O	|	|	|	|	0.66
246.000	0.00	0.21	2.427	O	|	|	|	|	0.66
246.083	0.00	0.21	2.426	O	|	|	|	|	0.66
246.167	0.00	0.21	2.424	O	|	|	|	|	0.66
246.250	0.00	0.21	2.423	O	|	|	|	|	0.65
246.333	0.00	0.21	2.421	O	|	|	|	|	0.65
246.417	0.00	0.21	2.420	O	|	|	|	|	0.65
246.500	0.00	0.21	2.418	O	|	|	|	|	0.65
246.583	0.00	0.21	2.417	O	|	|	|	|	0.65
246.667	0.00	0.21	2.416	O	|	|	|	|	0.65
246.750	0.00	0.21	2.414	O	|	|	|	|	0.65
246.833	0.00	0.21	2.413	O	|	|	|	|	0.65
246.917	0.00	0.21	2.411	O	|	|	|	|	0.65
247.000	0.00	0.21	2.410	O	|	|	|	|	0.65
247.083	0.00	0.21	2.408	O	|	|	|	|	0.65
247.167	0.00	0.21	2.407	O	|	|	|	|	0.65
247.250	0.00	0.21	2.406	O	|	|	|	|	0.65
247.333	0.00	0.21	2.404	O	|	|	|	|	0.65
247.417	0.00	0.21	2.403	O	|	|	|	|	0.65
247.500	0.00	0.21	2.401	O	|	|	|	|	0.65
247.583	0.00	0.21	2.400	O	|	|	|	|	0.65
247.667	0.00	0.21	2.398	O	|	|	|	|	0.65
247.750	0.00	0.21	2.397	O	|	|	|	|	0.65
247.833	0.00	0.21	2.395	O	|	|	|	|	0.65
247.917	0.00	0.21	2.394	O	|	|	|	|	0.65
248.000	0.00	0.21	2.393	O	|	|	|	|	0.65
248.083	0.00	0.21	2.391	O	|	|	|	|	0.65
248.167	0.00	0.21	2.390	O	|	|	|	|	0.65
248.250	0.00	0.21	2.388	O	|	|	|	|	0.65
248.333	0.00	0.21	2.387	O	|	|	|	|	0.65
248.417	0.00	0.21	2.386	O	|	|	|	|	0.64
248.500	0.00	0.21	2.384	O	|	|	|	|	0.64
248.583	0.00	0.21	2.383	O	|	|	|	|	0.64
248.667	0.00	0.21	2.381	O	|	|	|	|	0.64
248.750	0.00	0.21	2.380	O	|	|	|	|	0.64
248.833	0.00	0.21	2.378	O	|	|	|	|	0.64
248.917	0.00	0.21	2.377	O	|	|	|	|	0.64
249.000	0.00	0.21	2.376	O	|	|	|	|	0.64
249.083	0.00	0.21	2.374	O	|	|	|	|	0.64
249.167	0.00	0.21	2.373	O	|	|	|	|	0.64
249.250	0.00	0.21	2.371	O	|	|	|	|	0.64
249.333	0.00	0.20	2.370	O	|	|	|	|	0.64
249.417	0.00	0.20	2.369	O	|	|	|	|	0.64
249.500	0.00	0.20	2.367	O	|	|	|	|	0.64
249.583	0.00	0.20	2.366	O	|	|	|	|	0.64
249.667	0.00	0.20	2.364	O	|	|	|	|	0.64
249.750	0.00	0.20	2.363	O	|	|	|	|	0.64
249.833	0.00	0.20	2.361	O	|	|	|	|	0.64
249.917	0.00	0.20	2.360	O	|	|	|	|	0.64
250.000	0.00	0.20	2.359	O	|	|	|	|	0.64
250.083	0.00	0.20	2.357	O	|	|	|	|	0.64
250.167	0.00	0.20	2.356	O	|	|	|	|	0.64
250.250	0.00	0.20	2.354	O	|	|	|	|	0.64
250.333	0.00	0.20	2.353	O	|	|	|	|	0.64
250.417	0.00	0.20	2.352	O	|	|	|	|	0.64
250.500	0.00	0.20	2.350	O	|	|	|	|	0.64
250.583	0.00	0.20	2.349	O	|	|	|	|	0.63
250.667	0.00	0.20	2.347	O	|	|	|	|	0.63
250.750	0.00	0.20	2.346	O	|	|	|	|	0.63
250.833	0.00	0.20	2.345	O	|	|	|	|	0.63
250.917	0.00	0.20	2.343	O	|	|	|	|	0.63

251.000	0.00	0.20	2.342	O	|	|	|	|	0.63
251.083	0.00	0.20	2.340	O	|	|	|	|	0.63
251.167	0.00	0.20	2.339	O	|	|	|	|	0.63
251.250	0.00	0.20	2.338	O	|	|	|	|	0.63
251.333	0.00	0.20	2.336	O	|	|	|	|	0.63
251.417	0.00	0.20	2.335	O	|	|	|	|	0.63
251.500	0.00	0.20	2.334	O	|	|	|	|	0.63
251.583	0.00	0.20	2.332	O	|	|	|	|	0.63
251.667	0.00	0.20	2.331	O	|	|	|	|	0.63
251.750	0.00	0.20	2.329	O	|	|	|	|	0.63
251.833	0.00	0.20	2.328	O	|	|	|	|	0.63
251.917	0.00	0.20	2.327	O	|	|	|	|	0.63
252.000	0.00	0.20	2.325	O	|	|	|	|	0.63
252.083	0.00	0.20	2.324	O	|	|	|	|	0.63
252.167	0.00	0.20	2.322	O	|	|	|	|	0.63
252.250	0.00	0.20	2.321	O	|	|	|	|	0.63
252.333	0.00	0.20	2.320	O	|	|	|	|	0.63
252.417	0.00	0.20	2.318	O	|	|	|	|	0.63
252.500	0.00	0.20	2.317	O	|	|	|	|	0.63
252.583	0.00	0.20	2.316	O	|	|	|	|	0.63
252.667	0.00	0.20	2.314	O	|	|	|	|	0.63
252.750	0.00	0.20	2.313	O	|	|	|	|	0.63
252.833	0.00	0.20	2.311	O	|	|	|	|	0.62
252.917	0.00	0.20	2.310	O	|	|	|	|	0.62
253.000	0.00	0.20	2.309	O	|	|	|	|	0.62
253.083	0.00	0.20	2.307	O	|	|	|	|	0.62
253.167	0.00	0.20	2.306	O	|	|	|	|	0.62
253.250	0.00	0.20	2.305	O	|	|	|	|	0.62
253.333	0.00	0.20	2.303	O	|	|	|	|	0.62
253.417	0.00	0.20	2.302	O	|	|	|	|	0.62
253.500	0.00	0.20	2.300	O	|	|	|	|	0.62
253.583	0.00	0.20	2.299	O	|	|	|	|	0.62
253.667	0.00	0.20	2.298	O	|	|	|	|	0.62
253.750	0.00	0.20	2.296	O	|	|	|	|	0.62
253.833	0.00	0.20	2.295	O	|	|	|	|	0.62
253.917	0.00	0.20	2.294	O	|	|	|	|	0.62
254.000	0.00	0.20	2.292	O	|	|	|	|	0.62
254.083	0.00	0.20	2.291	O	|	|	|	|	0.62
254.167	0.00	0.20	2.289	O	|	|	|	|	0.62
254.250	0.00	0.20	2.288	O	|	|	|	|	0.62
254.333	0.00	0.20	2.287	O	|	|	|	|	0.62
254.417	0.00	0.20	2.285	O	|	|	|	|	0.62
254.500	0.00	0.20	2.284	O	|	|	|	|	0.62
254.583	0.00	0.20	2.283	O	|	|	|	|	0.62
254.667	0.00	0.20	2.281	O	|	|	|	|	0.62
254.750	0.00	0.20	2.280	O	|	|	|	|	0.62
254.833	0.00	0.20	2.279	O	|	|	|	|	0.62
254.917	0.00	0.20	2.277	O	|	|	|	|	0.62
255.000	0.00	0.20	2.276	O	|	|	|	|	0.62
255.083	0.00	0.20	2.275	O	|	|	|	|	0.61
255.167	0.00	0.20	2.273	O	|	|	|	|	0.61
255.250	0.00	0.20	2.272	O	|	|	|	|	0.61
255.333	0.00	0.20	2.270	O	|	|	|	|	0.61
255.417	0.00	0.20	2.269	O	|	|	|	|	0.61
255.500	0.00	0.20	2.268	O	|	|	|	|	0.61
255.583	0.00	0.20	2.266	O	|	|	|	|	0.61
255.667	0.00	0.20	2.265	O	|	|	|	|	0.61
255.750	0.00	0.20	2.264	O	|	|	|	|	0.61
255.833	0.00	0.20	2.262	O	|	|	|	|	0.61
255.917	0.00	0.20	2.261	O	|	|	|	|	0.61
256.000	0.00	0.20	2.260	O	|	|	|	|	0.61
256.083	0.00	0.20	2.258	O	|	|	|	|	0.61
256.167	0.00	0.20	2.257	O	|	|	|	|	0.61

256.250	0.00	0.20	2.256	O	|	|	|	|	0.61
256.333	0.00	0.19	2.254	O	|	|	|	|	0.61
256.417	0.00	0.19	2.253	O	|	|	|	|	0.61
256.500	0.00	0.19	2.252	O	|	|	|	|	0.61
256.583	0.00	0.19	2.250	O	|	|	|	|	0.61
256.667	0.00	0.19	2.249	O	|	|	|	|	0.61
256.750	0.00	0.19	2.248	O	|	|	|	|	0.61
256.833	0.00	0.19	2.246	O	|	|	|	|	0.61
256.917	0.00	0.19	2.245	O	|	|	|	|	0.61
257.000	0.00	0.19	2.244	O	|	|	|	|	0.61
257.083	0.00	0.19	2.242	O	|	|	|	|	0.61
257.167	0.00	0.19	2.241	O	|	|	|	|	0.61
257.250	0.00	0.19	2.240	O	|	|	|	|	0.61
257.333	0.00	0.19	2.238	O	|	|	|	|	0.60
257.417	0.00	0.19	2.237	O	|	|	|	|	0.60
257.500	0.00	0.19	2.236	O	|	|	|	|	0.60
257.583	0.00	0.19	2.234	O	|	|	|	|	0.60
257.667	0.00	0.19	2.233	O	|	|	|	|	0.60
257.750	0.00	0.19	2.232	O	|	|	|	|	0.60
257.833	0.00	0.19	2.230	O	|	|	|	|	0.60
257.917	0.00	0.19	2.229	O	|	|	|	|	0.60
258.000	0.00	0.19	2.228	O	|	|	|	|	0.60
258.083	0.00	0.19	2.226	O	|	|	|	|	0.60
258.167	0.00	0.19	2.225	O	|	|	|	|	0.60
258.250	0.00	0.19	2.224	O	|	|	|	|	0.60
258.333	0.00	0.19	2.222	O	|	|	|	|	0.60
258.417	0.00	0.19	2.221	O	|	|	|	|	0.60
258.500	0.00	0.19	2.220	O	|	|	|	|	0.60
258.583	0.00	0.19	2.218	O	|	|	|	|	0.60
258.667	0.00	0.19	2.217	O	|	|	|	|	0.60
258.750	0.00	0.19	2.216	O	|	|	|	|	0.60
258.833	0.00	0.19	2.214	O	|	|	|	|	0.60
258.917	0.00	0.19	2.213	O	|	|	|	|	0.60
259.000	0.00	0.19	2.212	O	|	|	|	|	0.60
259.083	0.00	0.19	2.210	O	|	|	|	|	0.60
259.167	0.00	0.19	2.209	O	|	|	|	|	0.60
259.250	0.00	0.19	2.208	O	|	|	|	|	0.60
259.333	0.00	0.19	2.206	O	|	|	|	|	0.60
259.417	0.00	0.19	2.205	O	|	|	|	|	0.60
259.500	0.00	0.19	2.204	O	|	|	|	|	0.60
259.583	0.00	0.19	2.203	O	|	|	|	|	0.60
259.667	0.00	0.19	2.201	O	|	|	|	|	0.59
259.750	0.00	0.19	2.200	O	|	|	|	|	0.59
259.833	0.00	0.19	2.199	O	|	|	|	|	0.59
259.917	0.00	0.19	2.197	O	|	|	|	|	0.59
260.000	0.00	0.19	2.196	O	|	|	|	|	0.59
260.083	0.00	0.19	2.195	O	|	|	|	|	0.59
260.167	0.00	0.19	2.193	O	|	|	|	|	0.59
260.250	0.00	0.19	2.192	O	|	|	|	|	0.59
260.333	0.00	0.19	2.191	O	|	|	|	|	0.59
260.417	0.00	0.19	2.189	O	|	|	|	|	0.59
260.500	0.00	0.19	2.188	O	|	|	|	|	0.59
260.583	0.00	0.19	2.187	O	|	|	|	|	0.59
260.667	0.00	0.19	2.186	O	|	|	|	|	0.59
260.750	0.00	0.19	2.184	O	|	|	|	|	0.59
260.833	0.00	0.19	2.183	O	|	|	|	|	0.59
260.917	0.00	0.19	2.182	O	|	|	|	|	0.59
261.000	0.00	0.19	2.180	O	|	|	|	|	0.59
261.083	0.00	0.19	2.179	O	|	|	|	|	0.59
261.167	0.00	0.19	2.178	O	|	|	|	|	0.59
261.250	0.00	0.19	2.176	O	|	|	|	|	0.59
261.333	0.00	0.19	2.175	O	|	|	|	|	0.59
261.417	0.00	0.19	2.174	O	|	|	|	|	0.59

261.500	0.00	0.19	2.173	O	|	|	|	|	0.59
261.583	0.00	0.19	2.171	O	|	|	|	|	0.59
261.667	0.00	0.19	2.170	O	|	|	|	|	0.59
261.750	0.00	0.19	2.169	O	|	|	|	|	0.59
261.833	0.00	0.19	2.167	O	|	|	|	|	0.59
261.917	0.00	0.19	2.166	O	|	|	|	|	0.59
262.000	0.00	0.19	2.165	O	|	|	|	|	0.59
262.083	0.00	0.19	2.164	O	|	|	|	|	0.58
262.167	0.00	0.19	2.162	O	|	|	|	|	0.58
262.250	0.00	0.19	2.161	O	|	|	|	|	0.58
262.333	0.00	0.19	2.160	O	|	|	|	|	0.58
262.417	0.00	0.19	2.158	O	|	|	|	|	0.58
262.500	0.00	0.19	2.157	O	|	|	|	|	0.58
262.583	0.00	0.19	2.156	O	|	|	|	|	0.58
262.667	0.00	0.19	2.155	O	|	|	|	|	0.58
262.750	0.00	0.19	2.153	O	|	|	|	|	0.58
262.833	0.00	0.19	2.152	O	|	|	|	|	0.58
262.917	0.00	0.19	2.151	O	|	|	|	|	0.58
263.000	0.00	0.19	2.149	O	|	|	|	|	0.58
263.083	0.00	0.19	2.148	O	|	|	|	|	0.58
263.167	0.00	0.19	2.147	O	|	|	|	|	0.58
263.250	0.00	0.19	2.146	O	|	|	|	|	0.58
263.333	0.00	0.19	2.144	O	|	|	|	|	0.58
263.417	0.00	0.19	2.143	O	|	|	|	|	0.58
263.500	0.00	0.19	2.142	O	|	|	|	|	0.58
263.583	0.00	0.19	2.140	O	|	|	|	|	0.58
263.667	0.00	0.19	2.139	O	|	|	|	|	0.58
263.750	0.00	0.18	2.138	O	|	|	|	|	0.58
263.833	0.00	0.18	2.137	O	|	|	|	|	0.58
263.917	0.00	0.18	2.135	O	|	|	|	|	0.58
264.000	0.00	0.18	2.134	O	|	|	|	|	0.58
264.083	0.00	0.18	2.133	O	|	|	|	|	0.58
264.167	0.00	0.18	2.132	O	|	|	|	|	0.58
264.250	0.00	0.18	2.130	O	|	|	|	|	0.58
264.333	0.00	0.18	2.129	O	|	|	|	|	0.58
264.417	0.00	0.18	2.128	O	|	|	|	|	0.58
264.500	0.00	0.18	2.126	O	|	|	|	|	0.57
264.583	0.00	0.18	2.125	O	|	|	|	|	0.57
264.667	0.00	0.18	2.124	O	|	|	|	|	0.57
264.750	0.00	0.18	2.123	O	|	|	|	|	0.57
264.833	0.00	0.18	2.121	O	|	|	|	|	0.57
264.917	0.00	0.18	2.120	O	|	|	|	|	0.57
265.000	0.00	0.18	2.119	O	|	|	|	|	0.57
265.083	0.00	0.18	2.118	O	|	|	|	|	0.57
265.167	0.00	0.18	2.116	O	|	|	|	|	0.57
265.250	0.00	0.18	2.115	O	|	|	|	|	0.57
265.333	0.00	0.18	2.114	O	|	|	|	|	0.57
265.417	0.00	0.18	2.113	O	|	|	|	|	0.57
265.500	0.00	0.18	2.111	O	|	|	|	|	0.57
265.583	0.00	0.18	2.110	O	|	|	|	|	0.57
265.667	0.00	0.18	2.109	O	|	|	|	|	0.57
265.750	0.00	0.18	2.108	O	|	|	|	|	0.57
265.833	0.00	0.18	2.106	O	|	|	|	|	0.57
265.917	0.00	0.18	2.105	O	|	|	|	|	0.57
266.000	0.00	0.18	2.104	O	|	|	|	|	0.57
266.083	0.00	0.18	2.103	O	|	|	|	|	0.57
266.167	0.00	0.18	2.101	O	|	|	|	|	0.57
266.250	0.00	0.18	2.100	O	|	|	|	|	0.57
266.333	0.00	0.18	2.099	O	|	|	|	|	0.57
266.417	0.00	0.18	2.098	O	|	|	|	|	0.57
266.500	0.00	0.18	2.096	O	|	|	|	|	0.57
266.583	0.00	0.18	2.095	O	|	|	|	|	0.57
266.667	0.00	0.18	2.094	O	|	|	|	|	0.57

266.750	0.00	0.18	2.093	O	|	|	|	|	0.57
266.833	0.00	0.18	2.091	O	|	|	|	|	0.57
266.917	0.00	0.18	2.090	O	|	|	|	|	0.56
267.000	0.00	0.18	2.089	O	|	|	|	|	0.56
267.083	0.00	0.18	2.088	O	|	|	|	|	0.56
267.167	0.00	0.18	2.086	O	|	|	|	|	0.56
267.250	0.00	0.18	2.085	O	|	|	|	|	0.56
267.333	0.00	0.18	2.084	O	|	|	|	|	0.56
267.417	0.00	0.18	2.083	O	|	|	|	|	0.56
267.500	0.00	0.18	2.081	O	|	|	|	|	0.56
267.583	0.00	0.18	2.080	O	|	|	|	|	0.56
267.667	0.00	0.18	2.079	O	|	|	|	|	0.56
267.750	0.00	0.18	2.078	O	|	|	|	|	0.56
267.833	0.00	0.18	2.076	O	|	|	|	|	0.56
267.917	0.00	0.18	2.075	O	|	|	|	|	0.56
268.000	0.00	0.18	2.074	O	|	|	|	|	0.56
268.083	0.00	0.18	2.073	O	|	|	|	|	0.56
268.167	0.00	0.18	2.071	O	|	|	|	|	0.56
268.250	0.00	0.18	2.070	O	|	|	|	|	0.56
268.333	0.00	0.18	2.069	O	|	|	|	|	0.56
268.417	0.00	0.18	2.068	O	|	|	|	|	0.56
268.500	0.00	0.18	2.067	O	|	|	|	|	0.56
268.583	0.00	0.18	2.065	O	|	|	|	|	0.56
268.667	0.00	0.18	2.064	O	|	|	|	|	0.56
268.750	0.00	0.18	2.063	O	|	|	|	|	0.56
268.833	0.00	0.18	2.062	O	|	|	|	|	0.56
268.917	0.00	0.18	2.060	O	|	|	|	|	0.56
269.000	0.00	0.18	2.059	O	|	|	|	|	0.56
269.083	0.00	0.18	2.058	O	|	|	|	|	0.56
269.167	0.00	0.18	2.057	O	|	|	|	|	0.56
269.250	0.00	0.18	2.055	O	|	|	|	|	0.56
269.333	0.00	0.18	2.054	O	|	|	|	|	0.56
269.417	0.00	0.18	2.053	O	|	|	|	|	0.55
269.500	0.00	0.18	2.052	O	|	|	|	|	0.55
269.583	0.00	0.18	2.051	O	|	|	|	|	0.55
269.667	0.00	0.18	2.049	O	|	|	|	|	0.55
269.750	0.00	0.18	2.048	O	|	|	|	|	0.55
269.833	0.00	0.18	2.047	O	|	|	|	|	0.55
269.917	0.00	0.18	2.046	O	|	|	|	|	0.55
270.000	0.00	0.18	2.044	O	|	|	|	|	0.55
270.083	0.00	0.18	2.043	O	|	|	|	|	0.55
270.167	0.00	0.18	2.042	O	|	|	|	|	0.55
270.250	0.00	0.18	2.041	O	|	|	|	|	0.55
270.333	0.00	0.18	2.040	O	|	|	|	|	0.55
270.417	0.00	0.18	2.038	O	|	|	|	|	0.55
270.500	0.00	0.18	2.037	O	|	|	|	|	0.55
270.583	0.00	0.18	2.036	O	|	|	|	|	0.55
270.667	0.00	0.18	2.035	O	|	|	|	|	0.55
270.750	0.00	0.18	2.034	O	|	|	|	|	0.55
270.833	0.00	0.18	2.032	O	|	|	|	|	0.55
270.917	0.00	0.18	2.031	O	|	|	|	|	0.55
271.000	0.00	0.18	2.030	O	|	|	|	|	0.55
271.083	0.00	0.18	2.029	O	|	|	|	|	0.55
271.167	0.00	0.18	2.028	O	|	|	|	|	0.55
271.250	0.00	0.18	2.026	O	|	|	|	|	0.55
271.333	0.00	0.18	2.025	O	|	|	|	|	0.55
271.417	0.00	0.18	2.024	O	|	|	|	|	0.55
271.500	0.00	0.17	2.023	O	|	|	|	|	0.55
271.583	0.00	0.17	2.021	O	|	|	|	|	0.55
271.667	0.00	0.17	2.020	O	|	|	|	|	0.55
271.750	0.00	0.17	2.019	O	|	|	|	|	0.55
271.833	0.00	0.17	2.018	O	|	|	|	|	0.55
271.917	0.00	0.17	2.017	O	|	|	|	|	0.55

272.000	0.00	0.17	2.015	O	|	|	|	|	0.54
272.083	0.00	0.17	2.014	O	|	|	|	|	0.54
272.167	0.00	0.17	2.013	O	|	|	|	|	0.54
272.250	0.00	0.17	2.012	O	|	|	|	|	0.54
272.333	0.00	0.17	2.011	O	|	|	|	|	0.54
272.417	0.00	0.17	2.009	O	|	|	|	|	0.54
272.500	0.00	0.17	2.008	O	|	|	|	|	0.54
272.583	0.00	0.17	2.007	O	|	|	|	|	0.54
272.667	0.00	0.17	2.006	O	|	|	|	|	0.54
272.750	0.00	0.17	2.005	O	|	|	|	|	0.54
272.833	0.00	0.17	2.004	O	|	|	|	|	0.54
272.917	0.00	0.17	2.002	O	|	|	|	|	0.54
273.000	0.00	0.17	2.001	O	|	|	|	|	0.54
273.083	0.00	0.17	2.000	O	|	|	|	|	0.54
273.167	0.00	0.17	1.999	O	|	|	|	|	0.54
273.250	0.00	0.17	1.998	O	|	|	|	|	0.54
273.333	0.00	0.17	1.996	O	|	|	|	|	0.54
273.417	0.00	0.17	1.995	O	|	|	|	|	0.54
273.500	0.00	0.17	1.994	O	|	|	|	|	0.54
273.583	0.00	0.17	1.993	O	|	|	|	|	0.54
273.667	0.00	0.17	1.992	O	|	|	|	|	0.54
273.750	0.00	0.17	1.990	O	|	|	|	|	0.54
273.833	0.00	0.17	1.989	O	|	|	|	|	0.54
273.917	0.00	0.17	1.988	O	|	|	|	|	0.54
274.000	0.00	0.17	1.987	O	|	|	|	|	0.54
274.083	0.00	0.17	1.986	O	|	|	|	|	0.54
274.167	0.00	0.17	1.985	O	|	|	|	|	0.54
274.250	0.00	0.17	1.983	O	|	|	|	|	0.54
274.333	0.00	0.17	1.982	O	|	|	|	|	0.54
274.417	0.00	0.17	1.981	O	|	|	|	|	0.54
274.500	0.00	0.17	1.980	O	|	|	|	|	0.54
274.583	0.00	0.17	1.979	O	|	|	|	|	0.53
274.667	0.00	0.17	1.977	O	|	|	|	|	0.53
274.750	0.00	0.17	1.976	O	|	|	|	|	0.53
274.833	0.00	0.17	1.975	O	|	|	|	|	0.53
274.917	0.00	0.17	1.974	O	|	|	|	|	0.53
275.000	0.00	0.17	1.973	O	|	|	|	|	0.53
275.083	0.00	0.17	1.972	O	|	|	|	|	0.53
275.167	0.00	0.17	1.970	O	|	|	|	|	0.53
275.250	0.00	0.17	1.969	O	|	|	|	|	0.53
275.333	0.00	0.17	1.968	O	|	|	|	|	0.53
275.417	0.00	0.17	1.967	O	|	|	|	|	0.53
275.500	0.00	0.17	1.966	O	|	|	|	|	0.53
275.583	0.00	0.17	1.965	O	|	|	|	|	0.53
275.667	0.00	0.17	1.963	O	|	|	|	|	0.53
275.750	0.00	0.17	1.962	O	|	|	|	|	0.53
275.833	0.00	0.17	1.961	O	|	|	|	|	0.53
275.917	0.00	0.17	1.960	O	|	|	|	|	0.53
276.000	0.00	0.17	1.959	O	|	|	|	|	0.53
276.083	0.00	0.17	1.958	O	|	|	|	|	0.53
276.167	0.00	0.17	1.956	O	|	|	|	|	0.53
276.250	0.00	0.17	1.955	O	|	|	|	|	0.53
276.333	0.00	0.17	1.954	O	|	|	|	|	0.53
276.417	0.00	0.17	1.953	O	|	|	|	|	0.53
276.500	0.00	0.17	1.952	O	|	|	|	|	0.53
276.583	0.00	0.17	1.951	O	|	|	|	|	0.53
276.667	0.00	0.17	1.949	O	|	|	|	|	0.53
276.750	0.00	0.17	1.948	O	|	|	|	|	0.53
276.833	0.00	0.17	1.947	O	|	|	|	|	0.53
276.917	0.00	0.17	1.946	O	|	|	|	|	0.53
277.000	0.00	0.17	1.945	O	|	|	|	|	0.53
277.083	0.00	0.17	1.944	O	|	|	|	|	0.53
277.167	0.00	0.17	1.942	O	|	|	|	|	0.52

277.250	0.00	0.17	1.941	O	|	|	|	|	0.52
277.333	0.00	0.17	1.940	O	|	|	|	|	0.52
277.417	0.00	0.17	1.939	O	|	|	|	|	0.52
277.500	0.00	0.17	1.938	O	|	|	|	|	0.52
277.583	0.00	0.17	1.937	O	|	|	|	|	0.52
277.667	0.00	0.17	1.935	O	|	|	|	|	0.52
277.750	0.00	0.17	1.934	O	|	|	|	|	0.52
277.833	0.00	0.17	1.933	O	|	|	|	|	0.52
277.917	0.00	0.17	1.932	O	|	|	|	|	0.52
278.000	0.00	0.17	1.931	O	|	|	|	|	0.52
278.083	0.00	0.17	1.930	O	|	|	|	|	0.52
278.167	0.00	0.17	1.929	O	|	|	|	|	0.52
278.250	0.00	0.17	1.927	O	|	|	|	|	0.52
278.333	0.00	0.17	1.926	O	|	|	|	|	0.52
278.417	0.00	0.17	1.925	O	|	|	|	|	0.52
278.500	0.00	0.17	1.924	O	|	|	|	|	0.52
278.583	0.00	0.17	1.923	O	|	|	|	|	0.52
278.667	0.00	0.17	1.922	O	|	|	|	|	0.52
278.750	0.00	0.17	1.921	O	|	|	|	|	0.52
278.833	0.00	0.17	1.919	O	|	|	|	|	0.52
278.917	0.00	0.17	1.918	O	|	|	|	|	0.52
279.000	0.00	0.17	1.917	O	|	|	|	|	0.52
279.083	0.00	0.17	1.916	O	|	|	|	|	0.52
279.167	0.00	0.17	1.915	O	|	|	|	|	0.52
279.250	0.00	0.17	1.914	O	|	|	|	|	0.52
279.333	0.00	0.17	1.913	O	|	|	|	|	0.52
279.417	0.00	0.17	1.911	O	|	|	|	|	0.52
279.500	0.00	0.17	1.910	O	|	|	|	|	0.52
279.583	0.00	0.17	1.909	O	|	|	|	|	0.52
279.667	0.00	0.17	1.908	O	|	|	|	|	0.52
279.750	0.00	0.16	1.907	O	|	|	|	|	0.52
279.833	0.00	0.16	1.906	O	|	|	|	|	0.52
279.917	0.00	0.16	1.905	O	|	|	|	|	0.51
280.000	0.00	0.16	1.903	O	|	|	|	|	0.51
280.083	0.00	0.16	1.902	O	|	|	|	|	0.51
280.167	0.00	0.16	1.901	O	|	|	|	|	0.51
280.250	0.00	0.16	1.900	O	|	|	|	|	0.51
280.333	0.00	0.16	1.899	O	|	|	|	|	0.51
280.417	0.00	0.16	1.898	O	|	|	|	|	0.51
280.500	0.00	0.16	1.897	O	|	|	|	|	0.51
280.583	0.00	0.16	1.896	O	|	|	|	|	0.51
280.667	0.00	0.16	1.894	O	|	|	|	|	0.51
280.750	0.00	0.16	1.893	O	|	|	|	|	0.51
280.833	0.00	0.16	1.892	O	|	|	|	|	0.51
280.917	0.00	0.16	1.891	O	|	|	|	|	0.51
281.000	0.00	0.16	1.890	O	|	|	|	|	0.51
281.083	0.00	0.16	1.889	O	|	|	|	|	0.51
281.167	0.00	0.16	1.888	O	|	|	|	|	0.51
281.250	0.00	0.16	1.887	O	|	|	|	|	0.51
281.333	0.00	0.16	1.885	O	|	|	|	|	0.51
281.417	0.00	0.16	1.884	O	|	|	|	|	0.51
281.500	0.00	0.16	1.883	O	|	|	|	|	0.51
281.583	0.00	0.16	1.882	O	|	|	|	|	0.51
281.667	0.00	0.16	1.881	O	|	|	|	|	0.51
281.750	0.00	0.16	1.880	O	|	|	|	|	0.51
281.833	0.00	0.16	1.879	O	|	|	|	|	0.51
281.917	0.00	0.16	1.878	O	|	|	|	|	0.51
282.000	0.00	0.16	1.876	O	|	|	|	|	0.51
282.083	0.00	0.16	1.875	O	|	|	|	|	0.51
282.167	0.00	0.16	1.874	O	|	|	|	|	0.51
282.250	0.00	0.16	1.873	O	|	|	|	|	0.51
282.333	0.00	0.16	1.872	O	|	|	|	|	0.51
282.417	0.00	0.16	1.871	O	|	|	|	|	0.51

282.500	0.00	0.16	1.870	O	|	|	|	|	0.51
282.583	0.00	0.16	1.869	O	|	|	|	|	0.51
282.667	0.00	0.16	1.868	O	|	|	|	|	0.50
282.750	0.00	0.16	1.866	O	|	|	|	|	0.50
282.833	0.00	0.16	1.865	O	|	|	|	|	0.50
282.917	0.00	0.16	1.864	O	|	|	|	|	0.50
283.000	0.00	0.16	1.863	O	|	|	|	|	0.50
283.083	0.00	0.16	1.862	O	|	|	|	|	0.50
283.167	0.00	0.16	1.861	O	|	|	|	|	0.50
283.250	0.00	0.16	1.860	O	|	|	|	|	0.50
283.333	0.00	0.16	1.859	O	|	|	|	|	0.50
283.417	0.00	0.16	1.858	O	|	|	|	|	0.50
283.500	0.00	0.16	1.856	O	|	|	|	|	0.50
283.583	0.00	0.16	1.855	O	|	|	|	|	0.50
283.667	0.00	0.16	1.854	O	|	|	|	|	0.50
283.750	0.00	0.16	1.853	O	|	|	|	|	0.50
283.833	0.00	0.16	1.852	O	|	|	|	|	0.50
283.917	0.00	0.16	1.851	O	|	|	|	|	0.50
284.000	0.00	0.16	1.850	O	|	|	|	|	0.50
284.083	0.00	0.16	1.849	O	|	|	|	|	0.50
284.167	0.00	0.16	1.848	O	|	|	|	|	0.50
284.250	0.00	0.16	1.847	O	|	|	|	|	0.50
284.333	0.00	0.16	1.845	O	|	|	|	|	0.50
284.417	0.00	0.16	1.844	O	|	|	|	|	0.50
284.500	0.00	0.16	1.843	O	|	|	|	|	0.50
284.583	0.00	0.16	1.842	O	|	|	|	|	0.50
284.667	0.00	0.16	1.841	O	|	|	|	|	0.50
284.750	0.00	0.16	1.840	O	|	|	|	|	0.50
284.833	0.00	0.16	1.839	O	|	|	|	|	0.50
284.917	0.00	0.16	1.838	O	|	|	|	|	0.50
285.000	0.00	0.16	1.837	O	|	|	|	|	0.50
285.083	0.00	0.16	1.836	O	|	|	|	|	0.50
285.167	0.00	0.16	1.834	O	|	|	|	|	0.50
285.250	0.00	0.16	1.833	O	|	|	|	|	0.50
285.333	0.00	0.16	1.832	O	|	|	|	|	0.50
285.417	0.00	0.16	1.831	O	|	|	|	|	0.49
285.500	0.00	0.16	1.830	O	|	|	|	|	0.49
285.583	0.00	0.16	1.829	O	|	|	|	|	0.49
285.667	0.00	0.16	1.828	O	|	|	|	|	0.49
285.750	0.00	0.16	1.827	O	|	|	|	|	0.49
285.833	0.00	0.16	1.826	O	|	|	|	|	0.49
285.917	0.00	0.16	1.825	O	|	|	|	|	0.49
286.000	0.00	0.16	1.824	O	|	|	|	|	0.49
286.083	0.00	0.16	1.822	O	|	|	|	|	0.49
286.167	0.00	0.16	1.821	O	|	|	|	|	0.49
286.250	0.00	0.16	1.820	O	|	|	|	|	0.49
286.333	0.00	0.16	1.819	O	|	|	|	|	0.49
286.417	0.00	0.16	1.818	O	|	|	|	|	0.49
286.500	0.00	0.16	1.817	O	|	|	|	|	0.49
286.583	0.00	0.16	1.816	O	|	|	|	|	0.49
286.667	0.00	0.16	1.815	O	|	|	|	|	0.49
286.750	0.00	0.16	1.814	O	|	|	|	|	0.49
286.833	0.00	0.16	1.813	O	|	|	|	|	0.49
286.917	0.00	0.16	1.812	O	|	|	|	|	0.49
287.000	0.00	0.16	1.811	O	|	|	|	|	0.49
287.083	0.00	0.16	1.809	O	|	|	|	|	0.49
287.167	0.00	0.16	1.808	O	|	|	|	|	0.49
287.250	0.00	0.16	1.807	O	|	|	|	|	0.49
287.333	0.00	0.16	1.806	O	|	|	|	|	0.49
287.417	0.00	0.16	1.805	O	|	|	|	|	0.49
287.500	0.00	0.16	1.804	O	|	|	|	|	0.49
287.583	0.00	0.16	1.803	O	|	|	|	|	0.49
287.667	0.00	0.16	1.802	O	|	|	|	|	0.49

287.750	0.00	0.16	1.801	O	|	|	|	|	0.49
287.833	0.00	0.16	1.800	O	|	|	|	|	0.49
287.917	0.00	0.16	1.799	O	|	|	|	|	0.49
288.000	0.00	0.16	1.798	O	|	|	|	|	0.49
288.083	0.00	0.16	1.797	O	|	|	|	|	0.49
288.167	0.00	0.16	1.796	O	|	|	|	|	0.49
288.250	0.00	0.16	1.794	O	|	|	|	|	0.48
288.333	0.00	0.16	1.793	O	|	|	|	|	0.48
288.417	0.00	0.16	1.792	O	|	|	|	|	0.48
288.500	0.00	0.15	1.791	O	|	|	|	|	0.48
288.583	0.00	0.15	1.790	O	|	|	|	|	0.48
288.667	0.00	0.15	1.789	O	|	|	|	|	0.48
288.750	0.00	0.15	1.788	O	|	|	|	|	0.48
288.833	0.00	0.15	1.787	O	|	|	|	|	0.48
288.917	0.00	0.15	1.786	O	|	|	|	|	0.48
289.000	0.00	0.15	1.785	O	|	|	|	|	0.48
289.083	0.00	0.15	1.784	O	|	|	|	|	0.48
289.167	0.00	0.15	1.783	O	|	|	|	|	0.48
289.250	0.00	0.15	1.782	O	|	|	|	|	0.48
289.333	0.00	0.15	1.781	O	|	|	|	|	0.48
289.417	0.00	0.15	1.780	O	|	|	|	|	0.48
289.500	0.00	0.15	1.779	O	|	|	|	|	0.48
289.583	0.00	0.15	1.777	O	|	|	|	|	0.48
289.667	0.00	0.15	1.776	O	|	|	|	|	0.48
289.750	0.00	0.15	1.775	O	|	|	|	|	0.48
289.833	0.00	0.15	1.774	O	|	|	|	|	0.48
289.917	0.00	0.15	1.773	O	|	|	|	|	0.48
290.000	0.00	0.15	1.772	O	|	|	|	|	0.48
290.083	0.00	0.15	1.771	O	|	|	|	|	0.48
290.167	0.00	0.15	1.770	O	|	|	|	|	0.48
290.250	0.00	0.15	1.769	O	|	|	|	|	0.48
290.333	0.00	0.15	1.768	O	|	|	|	|	0.48
290.417	0.00	0.15	1.767	O	|	|	|	|	0.48
290.500	0.00	0.15	1.766	O	|	|	|	|	0.48
290.583	0.00	0.15	1.765	O	|	|	|	|	0.48
290.667	0.00	0.15	1.764	O	|	|	|	|	0.48
290.750	0.00	0.15	1.763	O	|	|	|	|	0.48
290.833	0.00	0.15	1.762	O	|	|	|	|	0.48
290.917	0.00	0.15	1.761	O	|	|	|	|	0.48
291.000	0.00	0.15	1.760	O	|	|	|	|	0.48
291.083	0.00	0.15	1.758	O	|	|	|	|	0.48
291.167	0.00	0.15	1.757	O	|	|	|	|	0.47
291.250	0.00	0.15	1.756	O	|	|	|	|	0.47
291.333	0.00	0.15	1.755	O	|	|	|	|	0.47
291.417	0.00	0.15	1.754	O	|	|	|	|	0.47
291.500	0.00	0.15	1.753	O	|	|	|	|	0.47
291.583	0.00	0.15	1.752	O	|	|	|	|	0.47
291.667	0.00	0.15	1.751	O	|	|	|	|	0.47
291.750	0.00	0.15	1.750	O	|	|	|	|	0.47
291.833	0.00	0.15	1.749	O	|	|	|	|	0.47
291.917	0.00	0.15	1.748	O	|	|	|	|	0.47
292.000	0.00	0.15	1.747	O	|	|	|	|	0.47
292.083	0.00	0.15	1.746	O	|	|	|	|	0.47
292.167	0.00	0.15	1.745	O	|	|	|	|	0.47
292.250	0.00	0.15	1.744	O	|	|	|	|	0.47
292.333	0.00	0.15	1.743	O	|	|	|	|	0.47
292.417	0.00	0.15	1.742	O	|	|	|	|	0.47
292.500	0.00	0.15	1.741	O	|	|	|	|	0.47
292.583	0.00	0.15	1.740	O	|	|	|	|	0.47
292.667	0.00	0.15	1.739	O	|	|	|	|	0.47
292.750	0.00	0.15	1.738	O	|	|	|	|	0.47
292.833	0.00	0.15	1.737	O	|	|	|	|	0.47
292.917	0.00	0.15	1.736	O	|	|	|	|	0.47

293.000	0.00	0.15	1.735	O	|	|	|	|	0.47
293.083	0.00	0.15	1.734	O	|	|	|	|	0.47
293.167	0.00	0.15	1.732	O	|	|	|	|	0.47
293.250	0.00	0.15	1.731	O	|	|	|	|	0.47
293.333	0.00	0.15	1.730	O	|	|	|	|	0.47
293.417	0.00	0.15	1.729	O	|	|	|	|	0.47
293.500	0.00	0.15	1.728	O	|	|	|	|	0.47
293.583	0.00	0.15	1.727	O	|	|	|	|	0.47
293.667	0.00	0.15	1.726	O	|	|	|	|	0.47
293.750	0.00	0.15	1.725	O	|	|	|	|	0.47
293.833	0.00	0.15	1.724	O	|	|	|	|	0.47
293.917	0.00	0.15	1.723	O	|	|	|	|	0.47
294.000	0.00	0.15	1.722	O	|	|	|	|	0.47
294.083	0.00	0.15	1.721	O	|	|	|	|	0.47
294.167	0.00	0.15	1.720	O	|	|	|	|	0.46
294.250	0.00	0.15	1.719	O	|	|	|	|	0.46
294.333	0.00	0.15	1.718	O	|	|	|	|	0.46
294.417	0.00	0.15	1.717	O	|	|	|	|	0.46
294.500	0.00	0.15	1.716	O	|	|	|	|	0.46
294.583	0.00	0.15	1.715	O	|	|	|	|	0.46
294.667	0.00	0.15	1.714	O	|	|	|	|	0.46
294.750	0.00	0.15	1.713	O	|	|	|	|	0.46
294.833	0.00	0.15	1.712	O	|	|	|	|	0.46
294.917	0.00	0.15	1.711	O	|	|	|	|	0.46
295.000	0.00	0.15	1.710	O	|	|	|	|	0.46
295.083	0.00	0.15	1.709	O	|	|	|	|	0.46
295.167	0.00	0.15	1.708	O	|	|	|	|	0.46
295.250	0.00	0.15	1.707	O	|	|	|	|	0.46
295.333	0.00	0.15	1.706	O	|	|	|	|	0.46
295.417	0.00	0.15	1.705	O	|	|	|	|	0.46
295.500	0.00	0.15	1.704	O	|	|	|	|	0.46
295.583	0.00	0.15	1.703	O	|	|	|	|	0.46
295.667	0.00	0.15	1.702	O	|	|	|	|	0.46
295.750	0.00	0.15	1.701	O	|	|	|	|	0.46
295.833	0.00	0.15	1.700	O	|	|	|	|	0.46
295.917	0.00	0.15	1.699	O	|	|	|	|	0.46
296.000	0.00	0.15	1.698	O	|	|	|	|	0.46
296.083	0.00	0.15	1.697	O	|	|	|	|	0.46
296.167	0.00	0.15	1.696	O	|	|	|	|	0.46
296.250	0.00	0.15	1.695	O	|	|	|	|	0.46
296.333	0.00	0.15	1.694	O	|	|	|	|	0.46
296.417	0.00	0.15	1.693	O	|	|	|	|	0.46
296.500	0.00	0.15	1.692	O	|	|	|	|	0.46
296.583	0.00	0.15	1.691	O	|	|	|	|	0.46
296.667	0.00	0.15	1.690	O	|	|	|	|	0.46
296.750	0.00	0.15	1.689	O	|	|	|	|	0.46
296.833	0.00	0.15	1.688	O	|	|	|	|	0.46
296.917	0.00	0.15	1.687	O	|	|	|	|	0.46
297.000	0.00	0.15	1.686	O	|	|	|	|	0.46
297.083	0.00	0.15	1.685	O	|	|	|	|	0.46
297.167	0.00	0.15	1.684	O	|	|	|	|	0.46
297.250	0.00	0.15	1.683	O	|	|	|	|	0.45
297.333	0.00	0.15	1.682	O	|	|	|	|	0.45
297.417	0.00	0.15	1.681	O	|	|	|	|	0.45
297.500	0.00	0.15	1.680	O	|	|	|	|	0.45
297.583	0.00	0.15	1.679	O	|	|	|	|	0.45
297.667	0.00	0.15	1.678	O	|	|	|	|	0.45
297.750	0.00	0.15	1.677	O	|	|	|	|	0.45
297.833	0.00	0.14	1.676	O	|	|	|	|	0.45
297.917	0.00	0.14	1.675	O	|	|	|	|	0.45
298.000	0.00	0.14	1.674	O	|	|	|	|	0.45
298.083	0.00	0.14	1.673	O	|	|	|	|	0.45
298.167	0.00	0.14	1.672	O	|	|	|	|	0.45

298.250	0.00	0.14	1.671	O	|	|	|	|	0.45
298.333	0.00	0.14	1.670	O	|	|	|	|	0.45
298.417	0.00	0.14	1.669	O	|	|	|	|	0.45
298.500	0.00	0.14	1.668	O	|	|	|	|	0.45
298.583	0.00	0.14	1.667	O	|	|	|	|	0.45
298.667	0.00	0.14	1.666	O	|	|	|	|	0.45
298.750	0.00	0.14	1.665	O	|	|	|	|	0.45
298.833	0.00	0.14	1.664	O	|	|	|	|	0.45
298.917	0.00	0.14	1.663	O	|	|	|	|	0.45
299.000	0.00	0.14	1.662	O	|	|	|	|	0.45
299.083	0.00	0.14	1.661	O	|	|	|	|	0.45
299.167	0.00	0.14	1.660	O	|	|	|	|	0.45
299.250	0.00	0.14	1.659	O	|	|	|	|	0.45
299.333	0.00	0.14	1.658	O	|	|	|	|	0.45
299.417	0.00	0.14	1.657	O	|	|	|	|	0.45
299.500	0.00	0.14	1.656	O	|	|	|	|	0.45
299.583	0.00	0.14	1.655	O	|	|	|	|	0.45
299.667	0.00	0.14	1.654	O	|	|	|	|	0.45
299.750	0.00	0.14	1.653	O	|	|	|	|	0.45
299.833	0.00	0.14	1.652	O	|	|	|	|	0.45
299.917	0.00	0.14	1.651	O	|	|	|	|	0.45
300.000	0.00	0.14	1.650	O	|	|	|	|	0.45
300.083	0.00	0.14	1.649	O	|	|	|	|	0.45
300.167	0.00	0.14	1.648	O	|	|	|	|	0.45
300.250	0.00	0.14	1.647	O	|	|	|	|	0.45
300.333	0.00	0.14	1.646	O	|	|	|	|	0.44
300.417	0.00	0.14	1.645	O	|	|	|	|	0.44
300.500	0.00	0.14	1.644	O	|	|	|	|	0.44
300.583	0.00	0.14	1.643	O	|	|	|	|	0.44
300.667	0.00	0.14	1.642	O	|	|	|	|	0.44
300.750	0.00	0.14	1.641	O	|	|	|	|	0.44
300.833	0.00	0.14	1.640	O	|	|	|	|	0.44
300.917	0.00	0.14	1.639	O	|	|	|	|	0.44
301.000	0.00	0.14	1.638	O	|	|	|	|	0.44
301.083	0.00	0.14	1.637	O	|	|	|	|	0.44
301.167	0.00	0.14	1.636	O	|	|	|	|	0.44
301.250	0.00	0.14	1.635	O	|	|	|	|	0.44
301.333	0.00	0.14	1.634	O	|	|	|	|	0.44
301.417	0.00	0.14	1.633	O	|	|	|	|	0.44
301.500	0.00	0.14	1.632	O	|	|	|	|	0.44
301.583	0.00	0.14	1.631	O	|	|	|	|	0.44
301.667	0.00	0.14	1.630	O	|	|	|	|	0.44
301.750	0.00	0.14	1.629	O	|	|	|	|	0.44
301.833	0.00	0.14	1.628	O	|	|	|	|	0.44
301.917	0.00	0.14	1.627	O	|	|	|	|	0.44
302.000	0.00	0.14	1.626	O	|	|	|	|	0.44
302.083	0.00	0.14	1.626	O	|	|	|	|	0.44
302.167	0.00	0.14	1.625	O	|	|	|	|	0.44
302.250	0.00	0.14	1.624	O	|	|	|	|	0.44
302.333	0.00	0.14	1.623	O	|	|	|	|	0.44
302.417	0.00	0.14	1.622	O	|	|	|	|	0.44
302.500	0.00	0.14	1.621	O	|	|	|	|	0.44
302.583	0.00	0.14	1.620	O	|	|	|	|	0.44
302.667	0.00	0.14	1.619	O	|	|	|	|	0.44
302.750	0.00	0.14	1.618	O	|	|	|	|	0.44
302.833	0.00	0.14	1.617	O	|	|	|	|	0.44
302.917	0.00	0.14	1.616	O	|	|	|	|	0.44
303.000	0.00	0.14	1.615	O	|	|	|	|	0.44
303.083	0.00	0.14	1.614	O	|	|	|	|	0.44
303.167	0.00	0.14	1.613	O	|	|	|	|	0.44
303.250	0.00	0.14	1.612	O	|	|	|	|	0.44
303.333	0.00	0.14	1.611	O	|	|	|	|	0.44
303.417	0.00	0.14	1.610	O	|	|	|	|	0.44

303.500	0.00	0.14	1.609	O	|	|	|	|	0.43
303.583	0.00	0.14	1.608	O	|	|	|	|	0.43
303.667	0.00	0.14	1.607	O	|	|	|	|	0.43
303.750	0.00	0.14	1.606	O	|	|	|	|	0.43
303.833	0.00	0.14	1.605	O	|	|	|	|	0.43
303.917	0.00	0.14	1.604	O	|	|	|	|	0.43
304.000	0.00	0.14	1.603	O	|	|	|	|	0.43
304.083	0.00	0.14	1.602	O	|	|	|	|	0.43
304.167	0.00	0.14	1.601	O	|	|	|	|	0.43
304.250	0.00	0.14	1.601	O	|	|	|	|	0.43
304.333	0.00	0.14	1.600	O	|	|	|	|	0.43
304.417	0.00	0.14	1.599	O	|	|	|	|	0.43
304.500	0.00	0.14	1.598	O	|	|	|	|	0.43
304.583	0.00	0.14	1.597	O	|	|	|	|	0.43
304.667	0.00	0.14	1.596	O	|	|	|	|	0.43
304.750	0.00	0.14	1.595	O	|	|	|	|	0.43
304.833	0.00	0.14	1.594	O	|	|	|	|	0.43
304.917	0.00	0.14	1.593	O	|	|	|	|	0.43
305.000	0.00	0.14	1.592	O	|	|	|	|	0.43
305.083	0.00	0.14	1.591	O	|	|	|	|	0.43
305.167	0.00	0.14	1.590	O	|	|	|	|	0.43
305.250	0.00	0.14	1.589	O	|	|	|	|	0.43
305.333	0.00	0.14	1.588	O	|	|	|	|	0.43
305.417	0.00	0.14	1.587	O	|	|	|	|	0.43
305.500	0.00	0.14	1.586	O	|	|	|	|	0.43
305.583	0.00	0.14	1.585	O	|	|	|	|	0.43
305.667	0.00	0.14	1.584	O	|	|	|	|	0.43
305.750	0.00	0.14	1.583	O	|	|	|	|	0.43
305.833	0.00	0.14	1.583	O	|	|	|	|	0.43
305.917	0.00	0.14	1.582	O	|	|	|	|	0.43
306.000	0.00	0.14	1.581	O	|	|	|	|	0.43
306.083	0.00	0.14	1.580	O	|	|	|	|	0.43
306.167	0.00	0.14	1.579	O	|	|	|	|	0.43
306.250	0.00	0.14	1.578	O	|	|	|	|	0.43
306.333	0.00	0.14	1.577	O	|	|	|	|	0.43
306.417	0.00	0.14	1.576	O	|	|	|	|	0.43
306.500	0.00	0.14	1.575	O	|	|	|	|	0.43
306.583	0.00	0.14	1.574	O	|	|	|	|	0.43
306.667	0.00	0.14	1.573	O	|	|	|	|	0.43
306.750	0.00	0.14	1.572	O	|	|	|	|	0.42
306.833	0.00	0.14	1.571	O	|	|	|	|	0.42
306.917	0.00	0.14	1.570	O	|	|	|	|	0.42
307.000	0.00	0.14	1.569	O	|	|	|	|	0.42
307.083	0.00	0.14	1.568	O	|	|	|	|	0.42
307.167	0.00	0.14	1.568	O	|	|	|	|	0.42
307.250	0.00	0.14	1.567	O	|	|	|	|	0.42
307.333	0.00	0.14	1.566	O	|	|	|	|	0.42
307.417	0.00	0.14	1.565	O	|	|	|	|	0.42
307.500	0.00	0.14	1.564	O	|	|	|	|	0.42
307.583	0.00	0.14	1.563	O	|	|	|	|	0.42
307.667	0.00	0.14	1.562	O	|	|	|	|	0.42
307.750	0.00	0.14	1.561	O	|	|	|	|	0.42
307.833	0.00	0.13	1.560	O	|	|	|	|	0.42
307.917	0.00	0.13	1.559	O	|	|	|	|	0.42
308.000	0.00	0.13	1.558	O	|	|	|	|	0.42
308.083	0.00	0.13	1.557	O	|	|	|	|	0.42
308.167	0.00	0.13	1.556	O	|	|	|	|	0.42
308.250	0.00	0.13	1.555	O	|	|	|	|	0.42
308.333	0.00	0.13	1.555	O	|	|	|	|	0.42
308.417	0.00	0.13	1.554	O	|	|	|	|	0.42
308.500	0.00	0.13	1.553	O	|	|	|	|	0.42
308.583	0.00	0.13	1.552	O	|	|	|	|	0.42
308.667	0.00	0.13	1.551	O	|	|	|	|	0.42

308.750	0.00	0.13	1.550	O	|	|	|	|	0.42
308.833	0.00	0.13	1.549	O	|	|	|	|	0.42
308.917	0.00	0.13	1.548	O	|	|	|	|	0.42
309.000	0.00	0.13	1.547	O	|	|	|	|	0.42
309.083	0.00	0.13	1.546	O	|	|	|	|	0.42
309.167	0.00	0.13	1.545	O	|	|	|	|	0.42
309.250	0.00	0.13	1.544	O	|	|	|	|	0.42
309.333	0.00	0.13	1.543	O	|	|	|	|	0.42
309.417	0.00	0.13	1.543	O	|	|	|	|	0.42
309.500	0.00	0.13	1.542	O	|	|	|	|	0.42
309.583	0.00	0.13	1.541	O	|	|	|	|	0.42
309.667	0.00	0.13	1.540	O	|	|	|	|	0.42
309.750	0.00	0.13	1.539	O	|	|	|	|	0.42
309.833	0.00	0.13	1.538	O	|	|	|	|	0.42
309.917	0.00	0.13	1.537	O	|	|	|	|	0.42
310.000	0.00	0.13	1.536	O	|	|	|	|	0.42
310.083	0.00	0.13	1.535	O	|	|	|	|	0.41
310.167	0.00	0.13	1.534	O	|	|	|	|	0.41
310.250	0.00	0.13	1.533	O	|	|	|	|	0.41
310.333	0.00	0.13	1.532	O	|	|	|	|	0.41
310.417	0.00	0.13	1.532	O	|	|	|	|	0.41
310.500	0.00	0.13	1.531	O	|	|	|	|	0.41
310.583	0.00	0.13	1.530	O	|	|	|	|	0.41
310.667	0.00	0.13	1.529	O	|	|	|	|	0.41
310.750	0.00	0.13	1.528	O	|	|	|	|	0.41
310.833	0.00	0.13	1.527	O	|	|	|	|	0.41
310.917	0.00	0.13	1.526	O	|	|	|	|	0.41
311.000	0.00	0.13	1.525	O	|	|	|	|	0.41
311.083	0.00	0.13	1.524	O	|	|	|	|	0.41
311.167	0.00	0.13	1.523	O	|	|	|	|	0.41
311.250	0.00	0.13	1.522	O	|	|	|	|	0.41
311.333	0.00	0.13	1.522	O	|	|	|	|	0.41
311.417	0.00	0.13	1.521	O	|	|	|	|	0.41
311.500	0.00	0.13	1.520	O	|	|	|	|	0.41
311.583	0.00	0.13	1.519	O	|	|	|	|	0.41
311.667	0.00	0.13	1.518	O	|	|	|	|	0.41
311.750	0.00	0.13	1.517	O	|	|	|	|	0.41
311.833	0.00	0.13	1.516	O	|	|	|	|	0.41
311.917	0.00	0.13	1.515	O	|	|	|	|	0.41
312.000	0.00	0.13	1.514	O	|	|	|	|	0.41
312.083	0.00	0.13	1.513	O	|	|	|	|	0.41
312.167	0.00	0.13	1.512	O	|	|	|	|	0.41
312.250	0.00	0.13	1.512	O	|	|	|	|	0.41
312.333	0.00	0.13	1.511	O	|	|	|	|	0.41
312.417	0.00	0.13	1.510	O	|	|	|	|	0.41
312.500	0.00	0.13	1.509	O	|	|	|	|	0.41
312.583	0.00	0.13	1.508	O	|	|	|	|	0.41
312.667	0.00	0.13	1.507	O	|	|	|	|	0.41
312.750	0.00	0.13	1.506	O	|	|	|	|	0.41
312.833	0.00	0.13	1.505	O	|	|	|	|	0.41
312.917	0.00	0.13	1.504	O	|	|	|	|	0.41
313.000	0.00	0.13	1.504	O	|	|	|	|	0.41
313.083	0.00	0.13	1.503	O	|	|	|	|	0.41
313.167	0.00	0.13	1.502	O	|	|	|	|	0.41
313.250	0.00	0.13	1.501	O	|	|	|	|	0.41
313.333	0.00	0.13	1.500	O	|	|	|	|	0.41
313.417	0.00	0.13	1.499	O	|	|	|	|	0.41
313.500	0.00	0.13	1.498	O	|	|	|	|	0.40
313.583	0.00	0.13	1.497	O	|	|	|	|	0.40
313.667	0.00	0.13	1.496	O	|	|	|	|	0.40
313.750	0.00	0.13	1.495	O	|	|	|	|	0.40
313.833	0.00	0.13	1.495	O	|	|	|	|	0.40
313.917	0.00	0.13	1.494	O	|	|	|	|	0.40

314.000	0.00	0.13	1.493	O	|	|	|	|	0.40
314.083	0.00	0.13	1.492	O	|	|	|	|	0.40
314.167	0.00	0.13	1.491	O	|	|	|	|	0.40
314.250	0.00	0.13	1.490	O	|	|	|	|	0.40
314.333	0.00	0.13	1.489	O	|	|	|	|	0.40
314.417	0.00	0.13	1.488	O	|	|	|	|	0.40
314.500	0.00	0.13	1.487	O	|	|	|	|	0.40
314.583	0.00	0.13	1.487	O	|	|	|	|	0.40
314.667	0.00	0.13	1.486	O	|	|	|	|	0.40
314.750	0.00	0.13	1.485	O	|	|	|	|	0.40
314.833	0.00	0.13	1.484	O	|	|	|	|	0.40
314.917	0.00	0.13	1.483	O	|	|	|	|	0.40
315.000	0.00	0.13	1.482	O	|	|	|	|	0.40
315.083	0.00	0.13	1.481	O	|	|	|	|	0.40
315.167	0.00	0.13	1.480	O	|	|	|	|	0.40
315.250	0.00	0.13	1.480	O	|	|	|	|	0.40
315.333	0.00	0.13	1.479	O	|	|	|	|	0.40
315.417	0.00	0.13	1.478	O	|	|	|	|	0.40
315.500	0.00	0.13	1.477	O	|	|	|	|	0.40
315.583	0.00	0.13	1.476	O	|	|	|	|	0.40
315.667	0.00	0.13	1.475	O	|	|	|	|	0.40
315.750	0.00	0.13	1.474	O	|	|	|	|	0.40
315.833	0.00	0.13	1.473	O	|	|	|	|	0.40
315.917	0.00	0.13	1.472	O	|	|	|	|	0.40
316.000	0.00	0.13	1.472	O	|	|	|	|	0.40
316.083	0.00	0.13	1.471	O	|	|	|	|	0.40
316.167	0.00	0.13	1.470	O	|	|	|	|	0.40
316.250	0.00	0.13	1.469	O	|	|	|	|	0.40
316.333	0.00	0.13	1.468	O	|	|	|	|	0.40
316.417	0.00	0.13	1.467	O	|	|	|	|	0.40
316.500	0.00	0.13	1.466	O	|	|	|	|	0.40
316.583	0.00	0.13	1.465	O	|	|	|	|	0.40
316.667	0.00	0.13	1.465	O	|	|	|	|	0.40
316.750	0.00	0.13	1.464	O	|	|	|	|	0.40
316.833	0.00	0.13	1.463	O	|	|	|	|	0.40
316.917	0.00	0.13	1.462	O	|	|	|	|	0.40
317.000	0.00	0.13	1.461	O	|	|	|	|	0.39
317.083	0.00	0.13	1.460	O	|	|	|	|	0.39
317.167	0.00	0.13	1.459	O	|	|	|	|	0.39
317.250	0.00	0.13	1.459	O	|	|	|	|	0.39
317.333	0.00	0.13	1.458	O	|	|	|	|	0.39
317.417	0.00	0.13	1.457	O	|	|	|	|	0.39
317.500	0.00	0.13	1.456	O	|	|	|	|	0.39
317.583	0.00	0.13	1.455	O	|	|	|	|	0.39
317.667	0.00	0.13	1.454	O	|	|	|	|	0.39
317.750	0.00	0.13	1.453	O	|	|	|	|	0.39
317.833	0.00	0.13	1.452	O	|	|	|	|	0.39
317.917	0.00	0.13	1.452	O	|	|	|	|	0.39
318.000	0.00	0.13	1.451	O	|	|	|	|	0.39
318.083	0.00	0.13	1.450	O	|	|	|	|	0.39
318.167	0.00	0.13	1.449	O	|	|	|	|	0.39
318.250	0.00	0.13	1.448	O	|	|	|	|	0.39
318.333	0.00	0.13	1.447	O	|	|	|	|	0.39
318.417	0.00	0.13	1.446	O	|	|	|	|	0.39
318.500	0.00	0.13	1.446	O	|	|	|	|	0.39
318.583	0.00	0.12	1.445	O	|	|	|	|	0.39
318.667	0.00	0.12	1.444	O	|	|	|	|	0.39
318.750	0.00	0.12	1.443	O	|	|	|	|	0.39
318.833	0.00	0.12	1.442	O	|	|	|	|	0.39
318.917	0.00	0.12	1.441	O	|	|	|	|	0.39
319.000	0.00	0.12	1.440	O	|	|	|	|	0.39
319.083	0.00	0.12	1.440	O	|	|	|	|	0.39
319.167	0.00	0.12	1.439	O	|	|	|	|	0.39

319.250	0.00	0.12	1.438	O	|	|	|	|	0.39
319.333	0.00	0.12	1.437	O	|	|	|	|	0.39
319.417	0.00	0.12	1.436	O	|	|	|	|	0.39
319.500	0.00	0.12	1.435	O	|	|	|	|	0.39
319.583	0.00	0.12	1.434	O	|	|	|	|	0.39
319.667	0.00	0.12	1.434	O	|	|	|	|	0.39
319.750	0.00	0.12	1.433	O	|	|	|	|	0.39
319.833	0.00	0.12	1.432	O	|	|	|	|	0.39
319.917	0.00	0.12	1.431	O	|	|	|	|	0.39
320.000	0.00	0.12	1.430	O	|	|	|	|	0.39
320.083	0.00	0.12	1.429	O	|	|	|	|	0.39
320.167	0.00	0.12	1.428	O	|	|	|	|	0.39
320.250	0.00	0.12	1.428	O	|	|	|	|	0.39
320.333	0.00	0.12	1.427	O	|	|	|	|	0.39
320.417	0.00	0.12	1.426	O	|	|	|	|	0.39
320.500	0.00	0.12	1.425	O	|	|	|	|	0.39
320.583	0.00	0.12	1.424	O	|	|	|	|	0.38
320.667	0.00	0.12	1.423	O	|	|	|	|	0.38
320.750	0.00	0.12	1.422	O	|	|	|	|	0.38
320.833	0.00	0.12	1.422	O	|	|	|	|	0.38
320.917	0.00	0.12	1.421	O	|	|	|	|	0.38
321.000	0.00	0.12	1.420	O	|	|	|	|	0.38
321.083	0.00	0.12	1.419	O	|	|	|	|	0.38
321.167	0.00	0.12	1.418	O	|	|	|	|	0.38
321.250	0.00	0.12	1.417	O	|	|	|	|	0.38
321.333	0.00	0.12	1.417	O	|	|	|	|	0.38
321.417	0.00	0.12	1.416	O	|	|	|	|	0.38
321.500	0.00	0.12	1.415	O	|	|	|	|	0.38
321.583	0.00	0.12	1.414	O	|	|	|	|	0.38
321.667	0.00	0.12	1.413	O	|	|	|	|	0.38
321.750	0.00	0.12	1.412	O	|	|	|	|	0.38
321.833	0.00	0.12	1.412	O	|	|	|	|	0.38
321.917	0.00	0.12	1.411	O	|	|	|	|	0.38
322.000	0.00	0.12	1.410	O	|	|	|	|	0.38
322.083	0.00	0.12	1.409	O	|	|	|	|	0.38
322.167	0.00	0.12	1.408	O	|	|	|	|	0.38
322.250	0.00	0.12	1.407	O	|	|	|	|	0.38
322.333	0.00	0.12	1.406	O	|	|	|	|	0.38
322.417	0.00	0.12	1.406	O	|	|	|	|	0.38
322.500	0.00	0.12	1.405	O	|	|	|	|	0.38
322.583	0.00	0.12	1.404	O	|	|	|	|	0.38
322.667	0.00	0.12	1.403	O	|	|	|	|	0.38
322.750	0.00	0.12	1.402	O	|	|	|	|	0.38
322.833	0.00	0.12	1.401	O	|	|	|	|	0.38
322.917	0.00	0.12	1.401	O	|	|	|	|	0.38
323.000	0.00	0.12	1.400	O	|	|	|	|	0.38
323.083	0.00	0.12	1.399	O	|	|	|	|	0.38
323.167	0.00	0.12	1.398	O	|	|	|	|	0.38
323.250	0.00	0.12	1.397	O	|	|	|	|	0.38
323.333	0.00	0.12	1.396	O	|	|	|	|	0.38
323.417	0.00	0.12	1.396	O	|	|	|	|	0.38
323.500	0.00	0.12	1.395	O	|	|	|	|	0.38
323.583	0.00	0.12	1.394	O	|	|	|	|	0.38
323.667	0.00	0.12	1.393	O	|	|	|	|	0.38
323.750	0.00	0.12	1.392	O	|	|	|	|	0.38
323.833	0.00	0.12	1.391	O	|	|	|	|	0.38
323.917	0.00	0.12	1.391	O	|	|	|	|	0.38
324.000	0.00	0.12	1.390	O	|	|	|	|	0.38
324.083	0.00	0.12	1.389	O	|	|	|	|	0.38
324.167	0.00	0.12	1.388	O	|	|	|	|	0.38
324.250	0.00	0.12	1.387	O	|	|	|	|	0.37
324.333	0.00	0.12	1.387	O	|	|	|	|	0.37
324.417	0.00	0.12	1.386	O	|	|	|	|	0.37

324.500	0.00	0.12	1.385	O	|	|	|	|	0.37
324.583	0.00	0.12	1.384	O	|	|	|	|	0.37
324.667	0.00	0.12	1.383	O	|	|	|	|	0.37
324.750	0.00	0.12	1.382	O	|	|	|	|	0.37
324.833	0.00	0.12	1.382	O	|	|	|	|	0.37
324.917	0.00	0.12	1.381	O	|	|	|	|	0.37
325.000	0.00	0.12	1.380	O	|	|	|	|	0.37
325.083	0.00	0.12	1.379	O	|	|	|	|	0.37
325.167	0.00	0.12	1.378	O	|	|	|	|	0.37
325.250	0.00	0.12	1.377	O	|	|	|	|	0.37
325.333	0.00	0.12	1.377	O	|	|	|	|	0.37
325.417	0.00	0.12	1.376	O	|	|	|	|	0.37
325.500	0.00	0.12	1.375	O	|	|	|	|	0.37
325.583	0.00	0.12	1.374	O	|	|	|	|	0.37
325.667	0.00	0.12	1.373	O	|	|	|	|	0.37
325.750	0.00	0.12	1.373	O	|	|	|	|	0.37
325.833	0.00	0.12	1.372	O	|	|	|	|	0.37
325.917	0.00	0.12	1.371	O	|	|	|	|	0.37
326.000	0.00	0.12	1.370	O	|	|	|	|	0.37
326.083	0.00	0.12	1.369	O	|	|	|	|	0.37
326.167	0.00	0.12	1.368	O	|	|	|	|	0.37
326.250	0.00	0.12	1.368	O	|	|	|	|	0.37
326.333	0.00	0.12	1.367	O	|	|	|	|	0.37
326.417	0.00	0.12	1.366	O	|	|	|	|	0.37
326.500	0.00	0.12	1.365	O	|	|	|	|	0.37
326.583	0.00	0.12	1.364	O	|	|	|	|	0.37
326.667	0.00	0.12	1.364	O	|	|	|	|	0.37
326.750	0.00	0.12	1.363	O	|	|	|	|	0.37
326.833	0.00	0.12	1.362	O	|	|	|	|	0.37
326.917	0.00	0.12	1.361	O	|	|	|	|	0.37
327.000	0.00	0.12	1.360	O	|	|	|	|	0.37
327.083	0.00	0.12	1.360	O	|	|	|	|	0.37
327.167	0.00	0.12	1.359	O	|	|	|	|	0.37
327.250	0.00	0.12	1.358	O	|	|	|	|	0.37
327.333	0.00	0.12	1.357	O	|	|	|	|	0.37
327.417	0.00	0.12	1.356	O	|	|	|	|	0.37
327.500	0.00	0.12	1.355	O	|	|	|	|	0.37
327.583	0.00	0.12	1.355	O	|	|	|	|	0.37
327.667	0.00	0.12	1.354	O	|	|	|	|	0.37
327.750	0.00	0.12	1.353	O	|	|	|	|	0.37
327.833	0.00	0.12	1.352	O	|	|	|	|	0.37
327.917	0.00	0.12	1.351	O	|	|	|	|	0.37
328.000	0.00	0.12	1.351	O	|	|	|	|	0.37
328.083	0.00	0.12	1.350	O	|	|	|	|	0.36
328.167	0.00	0.12	1.349	O	|	|	|	|	0.36
328.250	0.00	0.12	1.348	O	|	|	|	|	0.36
328.333	0.00	0.12	1.347	O	|	|	|	|	0.36
328.417	0.00	0.12	1.347	O	|	|	|	|	0.36
328.500	0.00	0.12	1.346	O	|	|	|	|	0.36
328.583	0.00	0.12	1.345	O	|	|	|	|	0.36
328.667	0.00	0.12	1.344	O	|	|	|	|	0.36
328.750	0.00	0.12	1.343	O	|	|	|	|	0.36
328.833	0.00	0.12	1.343	O	|	|	|	|	0.36
328.917	0.00	0.12	1.342	O	|	|	|	|	0.36
329.000	0.00	0.12	1.341	O	|	|	|	|	0.36
329.083	0.00	0.12	1.340	O	|	|	|	|	0.36
329.167	0.00	0.12	1.339	O	|	|	|	|	0.36
329.250	0.00	0.12	1.339	O	|	|	|	|	0.36
329.333	0.00	0.12	1.338	O	|	|	|	|	0.36
329.417	0.00	0.12	1.337	O	|	|	|	|	0.36
329.500	0.00	0.12	1.336	O	|	|	|	|	0.36
329.583	0.00	0.12	1.335	O	|	|	|	|	0.36
329.667	0.00	0.12	1.335	O	|	|	|	|	0.36

329.750	0.00	0.12	1.334	O	|	|	|	|	0.36
329.833	0.00	0.12	1.333	O	|	|	|	|	0.36
329.917	0.00	0.12	1.332	O	|	|	|	|	0.36
330.000	0.00	0.12	1.331	O	|	|	|	|	0.36
330.083	0.00	0.12	1.331	O	|	|	|	|	0.36
330.167	0.00	0.12	1.330	O	|	|	|	|	0.36
330.250	0.00	0.11	1.329	O	|	|	|	|	0.36
330.333	0.00	0.11	1.328	O	|	|	|	|	0.36
330.417	0.00	0.11	1.328	O	|	|	|	|	0.36
330.500	0.00	0.11	1.327	O	|	|	|	|	0.36
330.583	0.00	0.11	1.326	O	|	|	|	|	0.36
330.667	0.00	0.11	1.325	O	|	|	|	|	0.36
330.750	0.00	0.11	1.324	O	|	|	|	|	0.36
330.833	0.00	0.11	1.324	O	|	|	|	|	0.36
330.917	0.00	0.11	1.323	O	|	|	|	|	0.36
331.000	0.00	0.11	1.322	O	|	|	|	|	0.36
331.083	0.00	0.11	1.321	O	|	|	|	|	0.36
331.167	0.00	0.11	1.320	O	|	|	|	|	0.36
331.250	0.00	0.11	1.320	O	|	|	|	|	0.36
331.333	0.00	0.11	1.319	O	|	|	|	|	0.36
331.417	0.00	0.11	1.318	O	|	|	|	|	0.36
331.500	0.00	0.11	1.317	O	|	|	|	|	0.36
331.583	0.00	0.11	1.316	O	|	|	|	|	0.36
331.667	0.00	0.11	1.316	O	|	|	|	|	0.36
331.750	0.00	0.11	1.315	O	|	|	|	|	0.36
331.833	0.00	0.11	1.314	O	|	|	|	|	0.36
331.917	0.00	0.11	1.313	O	|	|	|	|	0.35
332.000	0.00	0.11	1.313	O	|	|	|	|	0.35
332.083	0.00	0.11	1.312	O	|	|	|	|	0.35
332.167	0.00	0.11	1.311	O	|	|	|	|	0.35
332.250	0.00	0.11	1.310	O	|	|	|	|	0.35
332.333	0.00	0.11	1.309	O	|	|	|	|	0.35
332.417	0.00	0.11	1.309	O	|	|	|	|	0.35
332.500	0.00	0.11	1.308	O	|	|	|	|	0.35
332.583	0.00	0.11	1.307	O	|	|	|	|	0.35
332.667	0.00	0.11	1.306	O	|	|	|	|	0.35
332.750	0.00	0.11	1.306	O	|	|	|	|	0.35
332.833	0.00	0.11	1.305	O	|	|	|	|	0.35
332.917	0.00	0.11	1.304	O	|	|	|	|	0.35
333.000	0.00	0.11	1.303	O	|	|	|	|	0.35
333.083	0.00	0.11	1.302	O	|	|	|	|	0.35
333.167	0.00	0.11	1.302	O	|	|	|	|	0.35
333.250	0.00	0.11	1.301	O	|	|	|	|	0.35
333.333	0.00	0.11	1.300	O	|	|	|	|	0.35
333.417	0.00	0.11	1.299	O	|	|	|	|	0.35
333.500	0.00	0.11	1.299	O	|	|	|	|	0.35
333.583	0.00	0.11	1.298	O	|	|	|	|	0.35
333.667	0.00	0.11	1.297	O	|	|	|	|	0.35
333.750	0.00	0.11	1.296	O	|	|	|	|	0.35
333.833	0.00	0.11	1.295	O	|	|	|	|	0.35
333.917	0.00	0.11	1.295	O	|	|	|	|	0.35
334.000	0.00	0.11	1.294	O	|	|	|	|	0.35
334.083	0.00	0.11	1.293	O	|	|	|	|	0.35
334.167	0.00	0.11	1.292	O	|	|	|	|	0.35
334.250	0.00	0.11	1.292	O	|	|	|	|	0.35
334.333	0.00	0.11	1.291	O	|	|	|	|	0.35
334.417	0.00	0.11	1.290	O	|	|	|	|	0.35
334.500	0.00	0.11	1.289	O	|	|	|	|	0.35
334.583	0.00	0.11	1.289	O	|	|	|	|	0.35
334.667	0.00	0.11	1.288	O	|	|	|	|	0.35
334.750	0.00	0.11	1.287	O	|	|	|	|	0.35
334.833	0.00	0.11	1.286	O	|	|	|	|	0.35
334.917	0.00	0.11	1.286	O	|	|	|	|	0.35

335.000	0.00	0.11	1.285	O	|	|	|	|	0.35
335.083	0.00	0.11	1.284	O	|	|	|	|	0.35
335.167	0.00	0.11	1.283	O	|	|	|	|	0.35
335.250	0.00	0.11	1.282	O	|	|	|	|	0.35
335.333	0.00	0.11	1.282	O	|	|	|	|	0.35
335.417	0.00	0.11	1.281	O	|	|	|	|	0.35
335.500	0.00	0.11	1.280	O	|	|	|	|	0.35
335.583	0.00	0.11	1.279	O	|	|	|	|	0.35
335.667	0.00	0.11	1.279	O	|	|	|	|	0.35
335.750	0.00	0.11	1.278	O	|	|	|	|	0.35
335.833	0.00	0.11	1.277	O	|	|	|	|	0.35
335.917	0.00	0.11	1.276	O	|	|	|	|	0.34
336.000	0.00	0.11	1.276	O	|	|	|	|	0.34
336.083	0.00	0.11	1.275	O	|	|	|	|	0.34
336.167	0.00	0.11	1.274	O	|	|	|	|	0.34
336.250	0.00	0.11	1.273	O	|	|	|	|	0.34
336.333	0.00	0.11	1.273	O	|	|	|	|	0.34
336.417	0.00	0.11	1.272	O	|	|	|	|	0.34
336.500	0.00	0.11	1.271	O	|	|	|	|	0.34
336.583	0.00	0.11	1.270	O	|	|	|	|	0.34
336.667	0.00	0.11	1.270	O	|	|	|	|	0.34
336.750	0.00	0.11	1.269	O	|	|	|	|	0.34
336.833	0.00	0.11	1.268	O	|	|	|	|	0.34
336.917	0.00	0.11	1.267	O	|	|	|	|	0.34
337.000	0.00	0.11	1.267	O	|	|	|	|	0.34
337.083	0.00	0.11	1.266	O	|	|	|	|	0.34
337.167	0.00	0.11	1.265	O	|	|	|	|	0.34
337.250	0.00	0.11	1.264	O	|	|	|	|	0.34
337.333	0.00	0.11	1.263	O	|	|	|	|	0.34
337.417	0.00	0.11	1.263	O	|	|	|	|	0.34
337.500	0.00	0.11	1.262	O	|	|	|	|	0.34
337.583	0.00	0.11	1.261	O	|	|	|	|	0.34
337.667	0.00	0.11	1.260	O	|	|	|	|	0.34
337.750	0.00	0.11	1.260	O	|	|	|	|	0.34
337.833	0.00	0.11	1.259	O	|	|	|	|	0.34
337.917	0.00	0.11	1.258	O	|	|	|	|	0.34
338.000	0.00	0.11	1.257	O	|	|	|	|	0.34
338.083	0.00	0.11	1.257	O	|	|	|	|	0.34
338.167	0.00	0.11	1.256	O	|	|	|	|	0.34
338.250	0.00	0.11	1.255	O	|	|	|	|	0.34
338.333	0.00	0.11	1.254	O	|	|	|	|	0.34
338.417	0.00	0.11	1.254	O	|	|	|	|	0.34
338.500	0.00	0.11	1.253	O	|	|	|	|	0.34
338.583	0.00	0.11	1.252	O	|	|	|	|	0.34
338.667	0.00	0.11	1.252	O	|	|	|	|	0.34
338.750	0.00	0.11	1.251	O	|	|	|	|	0.34
338.833	0.00	0.11	1.250	O	|	|	|	|	0.34
338.917	0.00	0.11	1.249	O	|	|	|	|	0.34
339.000	0.00	0.11	1.249	O	|	|	|	|	0.34
339.083	0.00	0.11	1.248	O	|	|	|	|	0.34
339.167	0.00	0.11	1.247	O	|	|	|	|	0.34
339.250	0.00	0.11	1.246	O	|	|	|	|	0.34
339.333	0.00	0.11	1.246	O	|	|	|	|	0.34
339.417	0.00	0.11	1.245	O	|	|	|	|	0.34
339.500	0.00	0.11	1.244	O	|	|	|	|	0.34
339.583	0.00	0.11	1.243	O	|	|	|	|	0.34
339.667	0.00	0.11	1.243	O	|	|	|	|	0.34
339.750	0.00	0.11	1.242	O	|	|	|	|	0.34
339.833	0.00	0.11	1.241	O	|	|	|	|	0.34
339.917	0.00	0.11	1.240	O	|	|	|	|	0.34
340.000	0.00	0.11	1.240	O	|	|	|	|	0.34
340.083	0.00	0.11	1.239	O	|	|	|	|	0.33
340.167	0.00	0.11	1.238	O	|	|	|	|	0.33

340.250	0.00	0.11	1.237	O	|	|	|	|	0.33
340.333	0.00	0.11	1.237	O	|	|	|	|	0.33
340.417	0.00	0.11	1.236	O	|	|	|	|	0.33
340.500	0.00	0.11	1.235	O	|	|	|	|	0.33
340.583	0.00	0.11	1.234	O	|	|	|	|	0.33
340.667	0.00	0.11	1.234	O	|	|	|	|	0.33
340.750	0.00	0.11	1.233	O	|	|	|	|	0.33
340.833	0.00	0.11	1.232	O	|	|	|	|	0.33
340.917	0.00	0.11	1.232	O	|	|	|	|	0.33
341.000	0.00	0.11	1.231	O	|	|	|	|	0.33
341.083	0.00	0.11	1.230	O	|	|	|	|	0.33
341.167	0.00	0.11	1.229	O	|	|	|	|	0.33
341.250	0.00	0.11	1.229	O	|	|	|	|	0.33
341.333	0.00	0.11	1.228	O	|	|	|	|	0.33
341.417	0.00	0.11	1.227	O	|	|	|	|	0.33
341.500	0.00	0.11	1.226	O	|	|	|	|	0.33
341.583	0.00	0.11	1.226	O	|	|	|	|	0.33
341.667	0.00	0.11	1.225	O	|	|	|	|	0.33
341.750	0.00	0.11	1.224	O	|	|	|	|	0.33
341.833	0.00	0.11	1.223	O	|	|	|	|	0.33
341.917	0.00	0.11	1.223	O	|	|	|	|	0.33
342.000	0.00	0.11	1.222	O	|	|	|	|	0.33
342.083	0.00	0.11	1.221	O	|	|	|	|	0.33
342.167	0.00	0.11	1.221	O	|	|	|	|	0.33
342.250	0.00	0.11	1.220	O	|	|	|	|	0.33
342.333	0.00	0.11	1.219	O	|	|	|	|	0.33
342.417	0.00	0.11	1.218	O	|	|	|	|	0.33
342.500	0.00	0.11	1.218	O	|	|	|	|	0.33
342.583	0.00	0.11	1.217	O	|	|	|	|	0.33
342.667	0.00	0.11	1.216	O	|	|	|	|	0.33
342.750	0.00	0.11	1.216	O	|	|	|	|	0.33
342.833	0.00	0.11	1.215	O	|	|	|	|	0.33
342.917	0.00	0.10	1.214	O	|	|	|	|	0.33
343.000	0.00	0.10	1.213	O	|	|	|	|	0.33
343.083	0.00	0.10	1.213	O	|	|	|	|	0.33
343.167	0.00	0.10	1.212	O	|	|	|	|	0.33
343.250	0.00	0.10	1.211	O	|	|	|	|	0.33
343.333	0.00	0.10	1.210	O	|	|	|	|	0.33
343.417	0.00	0.10	1.210	O	|	|	|	|	0.33
343.500	0.00	0.10	1.209	O	|	|	|	|	0.33
343.583	0.00	0.10	1.208	O	|	|	|	|	0.33
343.667	0.00	0.10	1.208	O	|	|	|	|	0.33
343.750	0.00	0.10	1.207	O	|	|	|	|	0.33
343.833	0.00	0.10	1.206	O	|	|	|	|	0.33
343.917	0.00	0.10	1.205	O	|	|	|	|	0.33
344.000	0.00	0.10	1.205	O	|	|	|	|	0.33
344.083	0.00	0.10	1.204	O	|	|	|	|	0.33
344.167	0.00	0.10	1.203	O	|	|	|	|	0.33
344.250	0.00	0.10	1.203	O	|	|	|	|	0.33
344.333	0.00	0.10	1.202	O	|	|	|	|	0.32
344.417	0.00	0.10	1.201	O	|	|	|	|	0.32
344.500	0.00	0.10	1.200	O	|	|	|	|	0.32
344.583	0.00	0.10	1.200	O	|	|	|	|	0.32
344.667	0.00	0.10	1.199	O	|	|	|	|	0.32
344.750	0.00	0.10	1.198	O	|	|	|	|	0.32
344.833	0.00	0.10	1.198	O	|	|	|	|	0.32
344.917	0.00	0.10	1.197	O	|	|	|	|	0.32
345.000	0.00	0.10	1.196	O	|	|	|	|	0.32
345.083	0.00	0.10	1.195	O	|	|	|	|	0.32
345.167	0.00	0.10	1.195	O	|	|	|	|	0.32
345.250	0.00	0.10	1.194	O	|	|	|	|	0.32
345.333	0.00	0.10	1.193	O	|	|	|	|	0.32
345.417	0.00	0.10	1.193	O	|	|	|	|	0.32

345.500	0.00	0.10	1.192	O	|	|	|	|	0.32
345.583	0.00	0.10	1.191	O	|	|	|	|	0.32
345.667	0.00	0.10	1.190	O	|	|	|	|	0.32
345.750	0.00	0.10	1.190	O	|	|	|	|	0.32
345.833	0.00	0.10	1.189	O	|	|	|	|	0.32
345.917	0.00	0.10	1.188	O	|	|	|	|	0.32
346.000	0.00	0.10	1.188	O	|	|	|	|	0.32
346.083	0.00	0.10	1.187	O	|	|	|	|	0.32
346.167	0.00	0.10	1.186	O	|	|	|	|	0.32
346.250	0.00	0.10	1.185	O	|	|	|	|	0.32
346.333	0.00	0.10	1.185	O	|	|	|	|	0.32
346.417	0.00	0.10	1.184	O	|	|	|	|	0.32
346.500	0.00	0.10	1.183	O	|	|	|	|	0.32
346.583	0.00	0.10	1.183	O	|	|	|	|	0.32
346.667	0.00	0.10	1.182	O	|	|	|	|	0.32
346.750	0.00	0.10	1.181	O	|	|	|	|	0.32
346.833	0.00	0.10	1.181	O	|	|	|	|	0.32
346.917	0.00	0.10	1.180	O	|	|	|	|	0.32
347.000	0.00	0.10	1.179	O	|	|	|	|	0.32
347.083	0.00	0.10	1.178	O	|	|	|	|	0.32
347.167	0.00	0.10	1.178	O	|	|	|	|	0.32
347.250	0.00	0.10	1.177	O	|	|	|	|	0.32
347.333	0.00	0.10	1.176	O	|	|	|	|	0.32
347.417	0.00	0.10	1.176	O	|	|	|	|	0.32
347.500	0.00	0.10	1.175	O	|	|	|	|	0.32
347.583	0.00	0.10	1.174	O	|	|	|	|	0.32
347.667	0.00	0.10	1.174	O	|	|	|	|	0.32
347.750	0.00	0.10	1.173	O	|	|	|	|	0.32
347.833	0.00	0.10	1.172	O	|	|	|	|	0.32
347.917	0.00	0.10	1.171	O	|	|	|	|	0.32
348.000	0.00	0.10	1.171	O	|	|	|	|	0.32
348.083	0.00	0.10	1.170	O	|	|	|	|	0.32
348.167	0.00	0.10	1.169	O	|	|	|	|	0.32
348.250	0.00	0.10	1.169	O	|	|	|	|	0.32
348.333	0.00	0.10	1.168	O	|	|	|	|	0.32
348.417	0.00	0.10	1.167	O	|	|	|	|	0.32
348.500	0.00	0.10	1.167	O	|	|	|	|	0.32
348.583	0.00	0.10	1.166	O	|	|	|	|	0.32
348.667	0.00	0.10	1.165	O	|	|	|	|	0.31
348.750	0.00	0.10	1.164	O	|	|	|	|	0.31
348.833	0.00	0.10	1.164	O	|	|	|	|	0.31
348.917	0.00	0.10	1.163	O	|	|	|	|	0.31
349.000	0.00	0.10	1.162	O	|	|	|	|	0.31
349.083	0.00	0.10	1.162	O	|	|	|	|	0.31
349.167	0.00	0.10	1.161	O	|	|	|	|	0.31
349.250	0.00	0.10	1.160	O	|	|	|	|	0.31
349.333	0.00	0.10	1.160	O	|	|	|	|	0.31
349.417	0.00	0.10	1.159	O	|	|	|	|	0.31
349.500	0.00	0.10	1.158	O	|	|	|	|	0.31
349.583	0.00	0.10	1.158	O	|	|	|	|	0.31
349.667	0.00	0.10	1.157	O	|	|	|	|	0.31
349.750	0.00	0.10	1.156	O	|	|	|	|	0.31
349.833	0.00	0.10	1.155	O	|	|	|	|	0.31
349.917	0.00	0.10	1.155	O	|	|	|	|	0.31
350.000	0.00	0.10	1.154	O	|	|	|	|	0.31
350.083	0.00	0.10	1.153	O	|	|	|	|	0.31
350.167	0.00	0.10	1.153	O	|	|	|	|	0.31
350.250	0.00	0.10	1.152	O	|	|	|	|	0.31
350.333	0.00	0.10	1.151	O	|	|	|	|	0.31
350.417	0.00	0.10	1.151	O	|	|	|	|	0.31
350.500	0.00	0.10	1.150	O	|	|	|	|	0.31
350.583	0.00	0.10	1.149	O	|	|	|	|	0.31
350.667	0.00	0.10	1.149	O	|	|	|	|	0.31

350.750	0.00	0.10	1.148	O	|	|	|	|	0.31
350.833	0.00	0.10	1.147	O	|	|	|	|	0.31
350.917	0.00	0.10	1.147	O	|	|	|	|	0.31
351.000	0.00	0.10	1.146	O	|	|	|	|	0.31
351.083	0.00	0.10	1.145	O	|	|	|	|	0.31
351.167	0.00	0.10	1.145	O	|	|	|	|	0.31
351.250	0.00	0.10	1.144	O	|	|	|	|	0.31
351.333	0.00	0.10	1.143	O	|	|	|	|	0.31
351.417	0.00	0.10	1.142	O	|	|	|	|	0.31
351.500	0.00	0.10	1.142	O	|	|	|	|	0.31
351.583	0.00	0.10	1.141	O	|	|	|	|	0.31
351.667	0.00	0.10	1.140	O	|	|	|	|	0.31
351.750	0.00	0.10	1.140	O	|	|	|	|	0.31
351.833	0.00	0.10	1.139	O	|	|	|	|	0.31
351.917	0.00	0.10	1.138	O	|	|	|	|	0.31
352.000	0.00	0.10	1.138	O	|	|	|	|	0.31
352.083	0.00	0.10	1.137	O	|	|	|	|	0.31
352.167	0.00	0.10	1.136	O	|	|	|	|	0.31
352.250	0.00	0.10	1.136	O	|	|	|	|	0.31
352.333	0.00	0.10	1.135	O	|	|	|	|	0.31
352.417	0.00	0.10	1.134	O	|	|	|	|	0.31
352.500	0.00	0.10	1.134	O	|	|	|	|	0.31
352.583	0.00	0.10	1.133	O	|	|	|	|	0.31
352.667	0.00	0.10	1.132	O	|	|	|	|	0.31
352.750	0.00	0.10	1.132	O	|	|	|	|	0.31
352.833	0.00	0.10	1.131	O	|	|	|	|	0.31
352.917	0.00	0.10	1.130	O	|	|	|	|	0.31
353.000	0.00	0.10	1.130	O	|	|	|	|	0.31
353.083	0.00	0.10	1.129	O	|	|	|	|	0.31
353.167	0.00	0.10	1.128	O	|	|	|	|	0.30
353.250	0.00	0.10	1.128	O	|	|	|	|	0.30
353.333	0.00	0.10	1.127	O	|	|	|	|	0.30
353.417	0.00	0.10	1.126	O	|	|	|	|	0.30
353.500	0.00	0.10	1.126	O	|	|	|	|	0.30
353.583	0.00	0.10	1.125	O	|	|	|	|	0.30
353.667	0.00	0.10	1.124	O	|	|	|	|	0.30
353.750	0.00	0.10	1.124	O	|	|	|	|	0.30
353.833	0.00	0.10	1.123	O	|	|	|	|	0.30
353.917	0.00	0.10	1.122	O	|	|	|	|	0.30
354.000	0.00	0.10	1.122	O	|	|	|	|	0.30
354.083	0.00	0.10	1.121	O	|	|	|	|	0.30
354.167	0.00	0.10	1.120	O	|	|	|	|	0.30
354.250	0.00	0.10	1.120	O	|	|	|	|	0.30
354.333	0.00	0.10	1.119	O	|	|	|	|	0.30
354.417	0.00	0.10	1.118	O	|	|	|	|	0.30
354.500	0.00	0.10	1.118	O	|	|	|	|	0.30
354.583	0.00	0.10	1.117	O	|	|	|	|	0.30
354.667	0.00	0.10	1.116	O	|	|	|	|	0.30
354.750	0.00	0.10	1.116	O	|	|	|	|	0.30
354.833	0.00	0.10	1.115	O	|	|	|	|	0.30
354.917	0.00	0.10	1.114	O	|	|	|	|	0.30
355.000	0.00	0.10	1.114	O	|	|	|	|	0.30
355.083	0.00	0.10	1.113	O	|	|	|	|	0.30
355.167	0.00	0.10	1.112	O	|	|	|	|	0.30
355.250	0.00	0.10	1.112	O	|	|	|	|	0.30
355.333	0.00	0.10	1.111	O	|	|	|	|	0.30
355.417	0.00	0.10	1.110	O	|	|	|	|	0.30
355.500	0.00	0.10	1.110	O	|	|	|	|	0.30
355.583	0.00	0.10	1.109	O	|	|	|	|	0.30
355.667	0.00	0.10	1.108	O	|	|	|	|	0.30
355.750	0.00	0.10	1.108	O	|	|	|	|	0.30
355.833	0.00	0.10	1.107	O	|	|	|	|	0.30
355.917	0.00	0.10	1.106	O	|	|	|	|	0.30

356.000	0.00	0.10	1.106	O	|	|	|	|	0.30
356.083	0.00	0.10	1.105	O	|	|	|	|	0.30
356.167	0.00	0.10	1.104	O	|	|	|	|	0.30
356.250	0.00	0.10	1.104	O	|	|	|	|	0.30
356.333	0.00	0.10	1.103	O	|	|	|	|	0.30
356.417	0.00	0.10	1.102	O	|	|	|	|	0.30
356.500	0.00	0.10	1.102	O	|	|	|	|	0.30
356.583	0.00	0.10	1.101	O	|	|	|	|	0.30
356.667	0.00	0.10	1.100	O	|	|	|	|	0.30
356.750	0.00	0.10	1.100	O	|	|	|	|	0.30
356.833	0.00	0.10	1.099	O	|	|	|	|	0.30
356.917	0.00	0.10	1.098	O	|	|	|	|	0.30
357.000	0.00	0.09	1.098	O	|	|	|	|	0.30
357.083	0.00	0.09	1.097	O	|	|	|	|	0.30
357.167	0.00	0.09	1.096	O	|	|	|	|	0.30
357.250	0.00	0.09	1.096	O	|	|	|	|	0.30
357.333	0.00	0.09	1.095	O	|	|	|	|	0.30
357.417	0.00	0.09	1.095	O	|	|	|	|	0.30
357.500	0.00	0.09	1.094	O	|	|	|	|	0.30
357.583	0.00	0.09	1.093	O	|	|	|	|	0.30
357.667	0.00	0.09	1.093	O	|	|	|	|	0.30
357.750	0.00	0.09	1.092	O	|	|	|	|	0.30
357.833	0.00	0.09	1.091	O	|	|	|	|	0.29
357.917	0.00	0.09	1.091	O	|	|	|	|	0.29
358.000	0.00	0.09	1.090	O	|	|	|	|	0.29
358.083	0.00	0.09	1.089	O	|	|	|	|	0.29
358.167	0.00	0.09	1.089	O	|	|	|	|	0.29
358.250	0.00	0.09	1.088	O	|	|	|	|	0.29
358.333	0.00	0.09	1.087	O	|	|	|	|	0.29
358.417	0.00	0.09	1.087	O	|	|	|	|	0.29
358.500	0.00	0.09	1.086	O	|	|	|	|	0.29
358.583	0.00	0.09	1.085	O	|	|	|	|	0.29
358.667	0.00	0.09	1.085	O	|	|	|	|	0.29
358.750	0.00	0.09	1.084	O	|	|	|	|	0.29
358.833	0.00	0.09	1.084	O	|	|	|	|	0.29
358.917	0.00	0.09	1.083	O	|	|	|	|	0.29
359.000	0.00	0.09	1.082	O	|	|	|	|	0.29
359.083	0.00	0.09	1.082	O	|	|	|	|	0.29
359.167	0.00	0.09	1.081	O	|	|	|	|	0.29
359.250	0.00	0.09	1.080	O	|	|	|	|	0.29
359.333	0.00	0.09	1.080	O	|	|	|	|	0.29
359.417	0.00	0.09	1.079	O	|	|	|	|	0.29
359.500	0.00	0.09	1.078	O	|	|	|	|	0.29
359.583	0.00	0.09	1.078	O	|	|	|	|	0.29
359.667	0.00	0.09	1.077	O	|	|	|	|	0.29
359.750	0.00	0.09	1.076	O	|	|	|	|	0.29
359.833	0.00	0.09	1.076	O	|	|	|	|	0.29
359.917	0.00	0.09	1.075	O	|	|	|	|	0.29
360.000	0.00	0.09	1.075	O	|	|	|	|	0.29
360.083	0.00	0.09	1.074	O	|	|	|	|	0.29
360.167	0.00	0.09	1.073	O	|	|	|	|	0.29
360.250	0.00	0.09	1.073	O	|	|	|	|	0.29
360.333	0.00	0.09	1.072	O	|	|	|	|	0.29
360.417	0.00	0.09	1.071	O	|	|	|	|	0.29
360.500	0.00	0.09	1.071	O	|	|	|	|	0.29
360.583	0.00	0.09	1.070	O	|	|	|	|	0.29
360.667	0.00	0.09	1.069	O	|	|	|	|	0.29
360.750	0.00	0.09	1.069	O	|	|	|	|	0.29
360.833	0.00	0.09	1.068	O	|	|	|	|	0.29
360.917	0.00	0.09	1.067	O	|	|	|	|	0.29
361.000	0.00	0.09	1.067	O	|	|	|	|	0.29
361.083	0.00	0.09	1.066	O	|	|	|	|	0.29
361.167	0.00	0.09	1.066	O	|	|	|	|	0.29

361.250	0.00	0.09	1.065	O	|	|	|	|	0.29
361.333	0.00	0.09	1.064	O	|	|	|	|	0.29
361.417	0.00	0.09	1.064	O	|	|	|	|	0.29
361.500	0.00	0.09	1.063	O	|	|	|	|	0.29
361.583	0.00	0.09	1.062	O	|	|	|	|	0.29
361.667	0.00	0.09	1.062	O	|	|	|	|	0.29
361.750	0.00	0.09	1.061	O	|	|	|	|	0.29
361.833	0.00	0.09	1.061	O	|	|	|	|	0.29
361.917	0.00	0.09	1.060	O	|	|	|	|	0.29
362.000	0.00	0.09	1.059	O	|	|	|	|	0.29
362.083	0.00	0.09	1.059	O	|	|	|	|	0.29
362.167	0.00	0.09	1.058	O	|	|	|	|	0.29
362.250	0.00	0.09	1.057	O	|	|	|	|	0.29
362.333	0.00	0.09	1.057	O	|	|	|	|	0.29
362.417	0.00	0.09	1.056	O	|	|	|	|	0.29
362.500	0.00	0.09	1.055	O	|	|	|	|	0.29
362.583	0.00	0.09	1.055	O	|	|	|	|	0.29
362.667	0.00	0.09	1.054	O	|	|	|	|	0.28
362.750	0.00	0.09	1.054	O	|	|	|	|	0.28
362.833	0.00	0.09	1.053	O	|	|	|	|	0.28
362.917	0.00	0.09	1.052	O	|	|	|	|	0.28
363.000	0.00	0.09	1.052	O	|	|	|	|	0.28
363.083	0.00	0.09	1.051	O	|	|	|	|	0.28
363.167	0.00	0.09	1.050	O	|	|	|	|	0.28
363.250	0.00	0.09	1.050	O	|	|	|	|	0.28
363.333	0.00	0.09	1.049	O	|	|	|	|	0.28
363.417	0.00	0.09	1.049	O	|	|	|	|	0.28
363.500	0.00	0.09	1.048	O	|	|	|	|	0.28
363.583	0.00	0.09	1.047	O	|	|	|	|	0.28
363.667	0.00	0.09	1.047	O	|	|	|	|	0.28
363.750	0.00	0.09	1.046	O	|	|	|	|	0.28
363.833	0.00	0.09	1.045	O	|	|	|	|	0.28
363.917	0.00	0.09	1.045	O	|	|	|	|	0.28
364.000	0.00	0.09	1.044	O	|	|	|	|	0.28
364.083	0.00	0.09	1.044	O	|	|	|	|	0.28
364.167	0.00	0.09	1.043	O	|	|	|	|	0.28
364.250	0.00	0.09	1.042	O	|	|	|	|	0.28
364.333	0.00	0.09	1.042	O	|	|	|	|	0.28
364.417	0.00	0.09	1.041	O	|	|	|	|	0.28
364.500	0.00	0.09	1.040	O	|	|	|	|	0.28
364.583	0.00	0.09	1.040	O	|	|	|	|	0.28
364.667	0.00	0.09	1.039	O	|	|	|	|	0.28
364.750	0.00	0.09	1.039	O	|	|	|	|	0.28
364.833	0.00	0.09	1.038	O	|	|	|	|	0.28
364.917	0.00	0.09	1.037	O	|	|	|	|	0.28
365.000	0.00	0.09	1.037	O	|	|	|	|	0.28
365.083	0.00	0.09	1.036	O	|	|	|	|	0.28
365.167	0.00	0.09	1.036	O	|	|	|	|	0.28
365.250	0.00	0.09	1.035	O	|	|	|	|	0.28
365.333	0.00	0.09	1.034	O	|	|	|	|	0.28
365.417	0.00	0.09	1.034	O	|	|	|	|	0.28
365.500	0.00	0.09	1.033	O	|	|	|	|	0.28
365.583	0.00	0.09	1.032	O	|	|	|	|	0.28
365.667	0.00	0.09	1.032	O	|	|	|	|	0.28
365.750	0.00	0.09	1.031	O	|	|	|	|	0.28
365.833	0.00	0.09	1.031	O	|	|	|	|	0.28
365.917	0.00	0.09	1.030	O	|	|	|	|	0.28
366.000	0.00	0.09	1.029	O	|	|	|	|	0.28
366.083	0.00	0.09	1.029	O	|	|	|	|	0.28
366.167	0.00	0.09	1.028	O	|	|	|	|	0.28
366.250	0.00	0.09	1.028	O	|	|	|	|	0.28
366.333	0.00	0.09	1.027	O	|	|	|	|	0.28
366.417	0.00	0.09	1.026	O	|	|	|	|	0.28

366.500	0.00	0.09	1.026	O	|	|	|	|	0.28
366.583	0.00	0.09	1.025	O	|	|	|	|	0.28
366.667	0.00	0.09	1.025	O	|	|	|	|	0.28
366.750	0.00	0.09	1.024	O	|	|	|	|	0.28
366.833	0.00	0.09	1.023	O	|	|	|	|	0.28
366.917	0.00	0.09	1.023	O	|	|	|	|	0.28
367.000	0.00	0.09	1.022	O	|	|	|	|	0.28
367.083	0.00	0.09	1.021	O	|	|	|	|	0.28
367.167	0.00	0.09	1.021	O	|	|	|	|	0.28
367.250	0.00	0.09	1.020	O	|	|	|	|	0.28
367.333	0.00	0.09	1.020	O	|	|	|	|	0.28
367.417	0.00	0.09	1.019	O	|	|	|	|	0.28
367.500	0.00	0.09	1.018	O	|	|	|	|	0.28
367.583	0.00	0.09	1.018	O	|	|	|	|	0.28
367.667	0.00	0.09	1.017	O	|	|	|	|	0.27
367.750	0.00	0.09	1.017	O	|	|	|	|	0.27
367.833	0.00	0.09	1.016	O	|	|	|	|	0.27
367.917	0.00	0.09	1.015	O	|	|	|	|	0.27
368.000	0.00	0.09	1.015	O	|	|	|	|	0.27
368.083	0.00	0.09	1.014	O	|	|	|	|	0.27
368.167	0.00	0.09	1.014	O	|	|	|	|	0.27
368.250	0.00	0.09	1.013	O	|	|	|	|	0.27
368.333	0.00	0.09	1.012	O	|	|	|	|	0.27
368.417	0.00	0.09	1.012	O	|	|	|	|	0.27
368.500	0.00	0.09	1.011	O	|	|	|	|	0.27
368.583	0.00	0.09	1.011	O	|	|	|	|	0.27
368.667	0.00	0.09	1.010	O	|	|	|	|	0.27
368.750	0.00	0.09	1.009	O	|	|	|	|	0.27
368.833	0.00	0.09	1.009	O	|	|	|	|	0.27
368.917	0.00	0.09	1.008	O	|	|	|	|	0.27
369.000	0.00	0.09	1.008	O	|	|	|	|	0.27
369.083	0.00	0.09	1.007	O	|	|	|	|	0.27
369.167	0.00	0.09	1.006	O	|	|	|	|	0.27
369.250	0.00	0.09	1.006	O	|	|	|	|	0.27
369.333	0.00	0.09	1.005	O	|	|	|	|	0.27
369.417	0.00	0.09	1.005	O	|	|	|	|	0.27
369.500	0.00	0.09	1.004	O	|	|	|	|	0.27
369.583	0.00	0.09	1.003	O	|	|	|	|	0.27
369.667	0.00	0.09	1.003	O	|	|	|	|	0.27
369.750	0.00	0.09	1.002	O	|	|	|	|	0.27
369.833	0.00	0.09	1.002	O	|	|	|	|	0.27
369.917	0.00	0.09	1.001	O	|	|	|	|	0.27
370.000	0.00	0.09	1.000	O	|	|	|	|	0.27
370.083	0.00	0.09	1.000	O	|	|	|	|	0.27
370.167	0.00	0.09	0.999	O	|	|	|	|	0.27
370.250	0.00	0.09	0.999	O	|	|	|	|	0.27
370.333	0.00	0.09	0.998	O	|	|	|	|	0.27
370.417	0.00	0.09	0.997	O	|	|	|	|	0.27
370.500	0.00	0.09	0.997	O	|	|	|	|	0.27
370.583	0.00	0.09	0.996	O	|	|	|	|	0.27
370.667	0.00	0.09	0.996	O	|	|	|	|	0.27
370.750	0.00	0.09	0.995	O	|	|	|	|	0.27
370.833	0.00	0.09	0.994	O	|	|	|	|	0.27
370.917	0.00	0.09	0.994	O	|	|	|	|	0.27
371.000	0.00	0.09	0.993	O	|	|	|	|	0.27
371.083	0.00	0.09	0.993	O	|	|	|	|	0.27
371.167	0.00	0.09	0.992	O	|	|	|	|	0.27
371.250	0.00	0.09	0.991	O	|	|	|	|	0.27
371.333	0.00	0.09	0.991	O	|	|	|	|	0.27
371.417	0.00	0.09	0.990	O	|	|	|	|	0.27
371.500	0.00	0.09	0.990	O	|	|	|	|	0.27
371.583	0.00	0.09	0.989	O	|	|	|	|	0.27
371.667	0.00	0.09	0.989	O	|	|	|	|	0.27

371.750	0.00	0.09	0.988	O	|	|	|	|	0.27
371.833	0.00	0.09	0.987	O	|	|	|	|	0.27
371.917	0.00	0.09	0.987	O	|	|	|	|	0.27
372.000	0.00	0.09	0.986	O	|	|	|	|	0.27
372.083	0.00	0.09	0.986	O	|	|	|	|	0.27
372.167	0.00	0.09	0.985	O	|	|	|	|	0.27
372.250	0.00	0.09	0.984	O	|	|	|	|	0.27
372.333	0.00	0.09	0.984	O	|	|	|	|	0.27
372.417	0.00	0.09	0.983	O	|	|	|	|	0.27
372.500	0.00	0.08	0.983	O	|	|	|	|	0.27
372.583	0.00	0.08	0.982	O	|	|	|	|	0.27
372.667	0.00	0.08	0.981	O	|	|	|	|	0.27
372.750	0.00	0.08	0.981	O	|	|	|	|	0.27
372.833	0.00	0.08	0.980	O	|	|	|	|	0.26
372.917	0.00	0.08	0.980	O	|	|	|	|	0.26
373.000	0.00	0.08	0.979	O	|	|	|	|	0.26
373.083	0.00	0.08	0.979	O	|	|	|	|	0.26
373.167	0.00	0.08	0.978	O	|	|	|	|	0.26
373.250	0.00	0.08	0.977	O	|	|	|	|	0.26
373.333	0.00	0.08	0.977	O	|	|	|	|	0.26
373.417	0.00	0.08	0.976	O	|	|	|	|	0.26
373.500	0.00	0.08	0.976	O	|	|	|	|	0.26
373.583	0.00	0.08	0.975	O	|	|	|	|	0.26
373.667	0.00	0.08	0.975	O	|	|	|	|	0.26
373.750	0.00	0.08	0.974	O	|	|	|	|	0.26
373.833	0.00	0.08	0.973	O	|	|	|	|	0.26
373.917	0.00	0.08	0.973	O	|	|	|	|	0.26
374.000	0.00	0.08	0.972	O	|	|	|	|	0.26
374.083	0.00	0.08	0.972	O	|	|	|	|	0.26
374.167	0.00	0.08	0.971	O	|	|	|	|	0.26
374.250	0.00	0.08	0.970	O	|	|	|	|	0.26
374.333	0.00	0.08	0.970	O	|	|	|	|	0.26
374.417	0.00	0.08	0.969	O	|	|	|	|	0.26
374.500	0.00	0.08	0.969	O	|	|	|	|	0.26
374.583	0.00	0.08	0.968	O	|	|	|	|	0.26
374.667	0.00	0.08	0.968	O	|	|	|	|	0.26
374.750	0.00	0.08	0.967	O	|	|	|	|	0.26
374.833	0.00	0.08	0.966	O	|	|	|	|	0.26
374.917	0.00	0.08	0.966	O	|	|	|	|	0.26
375.000	0.00	0.08	0.965	O	|	|	|	|	0.26
375.083	0.00	0.08	0.965	O	|	|	|	|	0.26
375.167	0.00	0.08	0.964	O	|	|	|	|	0.26
375.250	0.00	0.08	0.964	O	|	|	|	|	0.26
375.333	0.00	0.08	0.963	O	|	|	|	|	0.26
375.417	0.00	0.08	0.962	O	|	|	|	|	0.26
375.500	0.00	0.08	0.962	O	|	|	|	|	0.26
375.583	0.00	0.08	0.961	O	|	|	|	|	0.26
375.667	0.00	0.08	0.961	O	|	|	|	|	0.26
375.750	0.00	0.08	0.960	O	|	|	|	|	0.26
375.833	0.00	0.08	0.960	O	|	|	|	|	0.26
375.917	0.00	0.08	0.959	O	|	|	|	|	0.26
376.000	0.00	0.08	0.958	O	|	|	|	|	0.26
376.083	0.00	0.08	0.958	O	|	|	|	|	0.26
376.167	0.00	0.08	0.957	O	|	|	|	|	0.26
376.250	0.00	0.08	0.957	O	|	|	|	|	0.26
376.333	0.00	0.08	0.956	O	|	|	|	|	0.26
376.417	0.00	0.08	0.956	O	|	|	|	|	0.26
376.500	0.00	0.08	0.955	O	|	|	|	|	0.26
376.583	0.00	0.08	0.954	O	|	|	|	|	0.26
376.667	0.00	0.08	0.954	O	|	|	|	|	0.26
376.750	0.00	0.08	0.953	O	|	|	|	|	0.26
376.833	0.00	0.08	0.953	O	|	|	|	|	0.26
376.917	0.00	0.08	0.952	O	|	|	|	|	0.26

377.000	0.00	0.08	0.952	O	|	|	|	|	0.26
377.083	0.00	0.08	0.951	O	|	|	|	|	0.26
377.167	0.00	0.08	0.950	O	|	|	|	|	0.26
377.250	0.00	0.08	0.950	O	|	|	|	|	0.26
377.333	0.00	0.08	0.949	O	|	|	|	|	0.26
377.417	0.00	0.08	0.949	O	|	|	|	|	0.26
377.500	0.00	0.08	0.948	O	|	|	|	|	0.26
377.583	0.00	0.08	0.948	O	|	|	|	|	0.26
377.667	0.00	0.08	0.947	O	|	|	|	|	0.26
377.750	0.00	0.08	0.946	O	|	|	|	|	0.26
377.833	0.00	0.08	0.946	O	|	|	|	|	0.26
377.917	0.00	0.08	0.945	O	|	|	|	|	0.26
378.000	0.00	0.08	0.945	O	|	|	|	|	0.26
378.083	0.00	0.08	0.944	O	|	|	|	|	0.26
378.167	0.00	0.08	0.944	O	|	|	|	|	0.26
378.250	0.00	0.08	0.943	O	|	|	|	|	0.25
378.333	0.00	0.08	0.943	O	|	|	|	|	0.25
378.417	0.00	0.08	0.942	O	|	|	|	|	0.25
378.500	0.00	0.08	0.941	O	|	|	|	|	0.25
378.583	0.00	0.08	0.941	O	|	|	|	|	0.25
378.667	0.00	0.08	0.940	O	|	|	|	|	0.25
378.750	0.00	0.08	0.940	O	|	|	|	|	0.25
378.833	0.00	0.08	0.939	O	|	|	|	|	0.25
378.917	0.00	0.08	0.939	O	|	|	|	|	0.25
379.000	0.00	0.08	0.938	O	|	|	|	|	0.25
379.083	0.00	0.08	0.938	O	|	|	|	|	0.25
379.167	0.00	0.08	0.937	O	|	|	|	|	0.25
379.250	0.00	0.08	0.936	O	|	|	|	|	0.25
379.333	0.00	0.08	0.936	O	|	|	|	|	0.25
379.417	0.00	0.08	0.935	O	|	|	|	|	0.25
379.500	0.00	0.08	0.935	O	|	|	|	|	0.25
379.583	0.00	0.08	0.934	O	|	|	|	|	0.25
379.667	0.00	0.08	0.934	O	|	|	|	|	0.25
379.750	0.00	0.08	0.933	O	|	|	|	|	0.25
379.833	0.00	0.08	0.932	O	|	|	|	|	0.25
379.917	0.00	0.08	0.932	O	|	|	|	|	0.25
380.000	0.00	0.08	0.931	O	|	|	|	|	0.25
380.083	0.00	0.08	0.931	O	|	|	|	|	0.25
380.167	0.00	0.08	0.930	O	|	|	|	|	0.25
380.250	0.00	0.08	0.930	O	|	|	|	|	0.25
380.333	0.00	0.08	0.929	O	|	|	|	|	0.25
380.417	0.00	0.08	0.929	O	|	|	|	|	0.25
380.500	0.00	0.08	0.928	O	|	|	|	|	0.25
380.583	0.00	0.08	0.928	O	|	|	|	|	0.25
380.667	0.00	0.08	0.927	O	|	|	|	|	0.25
380.750	0.00	0.08	0.926	O	|	|	|	|	0.25
380.833	0.00	0.08	0.926	O	|	|	|	|	0.25
380.917	0.00	0.08	0.925	O	|	|	|	|	0.25
381.000	0.00	0.08	0.925	O	|	|	|	|	0.25
381.083	0.00	0.08	0.924	O	|	|	|	|	0.25
381.167	0.00	0.08	0.924	O	|	|	|	|	0.25
381.250	0.00	0.08	0.923	O	|	|	|	|	0.25
381.333	0.00	0.08	0.923	O	|	|	|	|	0.25
381.417	0.00	0.08	0.922	O	|	|	|	|	0.25
381.500	0.00	0.08	0.921	O	|	|	|	|	0.25
381.583	0.00	0.08	0.921	O	|	|	|	|	0.25
381.667	0.00	0.08	0.920	O	|	|	|	|	0.25
381.750	0.00	0.08	0.920	O	|	|	|	|	0.25
381.833	0.00	0.08	0.919	O	|	|	|	|	0.25
381.917	0.00	0.08	0.919	O	|	|	|	|	0.25
382.000	0.00	0.08	0.918	O	|	|	|	|	0.25
382.083	0.00	0.08	0.918	O	|	|	|	|	0.25
382.167	0.00	0.08	0.917	O	|	|	|	|	0.25

382.250	0.00	0.08	0.917	O	|	|	|	|	0.25
382.333	0.00	0.08	0.916	O	|	|	|	|	0.25
382.417	0.00	0.08	0.915	O	|	|	|	|	0.25
382.500	0.00	0.08	0.915	O	|	|	|	|	0.25
382.583	0.00	0.08	0.914	O	|	|	|	|	0.25
382.667	0.00	0.08	0.914	O	|	|	|	|	0.25
382.750	0.00	0.08	0.913	O	|	|	|	|	0.25
382.833	0.00	0.08	0.913	O	|	|	|	|	0.25
382.917	0.00	0.08	0.912	O	|	|	|	|	0.25
383.000	0.00	0.08	0.912	O	|	|	|	|	0.25
383.083	0.00	0.08	0.911	O	|	|	|	|	0.25
383.167	0.00	0.08	0.911	O	|	|	|	|	0.25
383.250	0.00	0.08	0.910	O	|	|	|	|	0.25
383.333	0.00	0.08	0.909	O	|	|	|	|	0.25
383.417	0.00	0.08	0.909	O	|	|	|	|	0.25
383.500	0.00	0.08	0.908	O	|	|	|	|	0.25
383.583	0.00	0.08	0.908	O	|	|	|	|	0.25
383.667	0.00	0.08	0.907	O	|	|	|	|	0.25
383.750	0.00	0.08	0.907	O	|	|	|	|	0.25
383.833	0.00	0.08	0.906	O	|	|	|	|	0.24
383.917	0.00	0.08	0.906	O	|	|	|	|	0.24
384.000	0.00	0.08	0.905	O	|	|	|	|	0.24
384.083	0.00	0.08	0.905	O	|	|	|	|	0.24
384.167	0.00	0.08	0.904	O	|	|	|	|	0.24
384.250	0.00	0.08	0.904	O	|	|	|	|	0.24
384.333	0.00	0.08	0.903	O	|	|	|	|	0.24
384.417	0.00	0.08	0.902	O	|	|	|	|	0.24
384.500	0.00	0.08	0.902	O	|	|	|	|	0.24
384.583	0.00	0.08	0.901	O	|	|	|	|	0.24
384.667	0.00	0.08	0.901	O	|	|	|	|	0.24
384.750	0.00	0.08	0.900	O	|	|	|	|	0.24
384.833	0.00	0.08	0.900	O	|	|	|	|	0.24
384.917	0.00	0.08	0.899	O	|	|	|	|	0.24
385.000	0.00	0.08	0.899	O	|	|	|	|	0.24
385.083	0.00	0.08	0.898	O	|	|	|	|	0.24
385.167	0.00	0.08	0.898	O	|	|	|	|	0.24
385.250	0.00	0.08	0.897	O	|	|	|	|	0.24
385.333	0.00	0.08	0.897	O	|	|	|	|	0.24
385.417	0.00	0.08	0.896	O	|	|	|	|	0.24
385.500	0.00	0.08	0.895	O	|	|	|	|	0.24
385.583	0.00	0.08	0.895	O	|	|	|	|	0.24
385.667	0.00	0.08	0.894	O	|	|	|	|	0.24
385.750	0.00	0.08	0.894	O	|	|	|	|	0.24
385.833	0.00	0.08	0.893	O	|	|	|	|	0.24
385.917	0.00	0.08	0.893	O	|	|	|	|	0.24
386.000	0.00	0.08	0.892	O	|	|	|	|	0.24
386.083	0.00	0.08	0.892	O	|	|	|	|	0.24
386.167	0.00	0.08	0.891	O	|	|	|	|	0.24
386.250	0.00	0.08	0.891	O	|	|	|	|	0.24
386.333	0.00	0.08	0.890	O	|	|	|	|	0.24
386.417	0.00	0.08	0.890	O	|	|	|	|	0.24
386.500	0.00	0.08	0.889	O	|	|	|	|	0.24
386.583	0.00	0.08	0.889	O	|	|	|	|	0.24
386.667	0.00	0.08	0.888	O	|	|	|	|	0.24
386.750	0.00	0.08	0.888	O	|	|	|	|	0.24
386.833	0.00	0.08	0.887	O	|	|	|	|	0.24
386.917	0.00	0.08	0.886	O	|	|	|	|	0.24
387.000	0.00	0.08	0.886	O	|	|	|	|	0.24
387.083	0.00	0.08	0.885	O	|	|	|	|	0.24
387.167	0.00	0.08	0.885	O	|	|	|	|	0.24
387.250	0.00	0.08	0.884	O	|	|	|	|	0.24
387.333	0.00	0.08	0.884	O	|	|	|	|	0.24
387.417	0.00	0.08	0.883	O	|	|	|	|	0.24

387.500	0.00	0.08	0.883	O	|	|	|	|	0.24
387.583	0.00	0.08	0.882	O	|	|	|	|	0.24
387.667	0.00	0.08	0.882	O	|	|	|	|	0.24
387.750	0.00	0.08	0.881	O	|	|	|	|	0.24
387.833	0.00	0.08	0.881	O	|	|	|	|	0.24
387.917	0.00	0.08	0.880	O	|	|	|	|	0.24
388.000	0.00	0.08	0.880	O	|	|	|	|	0.24
388.083	0.00	0.08	0.879	O	|	|	|	|	0.24
388.167	0.00	0.08	0.879	O	|	|	|	|	0.24
388.250	0.00	0.08	0.878	O	|	|	|	|	0.24
388.333	0.00	0.08	0.878	O	|	|	|	|	0.24
388.417	0.00	0.08	0.877	O	|	|	|	|	0.24
388.500	0.00	0.08	0.876	O	|	|	|	|	0.24
388.583	0.00	0.08	0.876	O	|	|	|	|	0.24
388.667	0.00	0.08	0.875	O	|	|	|	|	0.24
388.750	0.00	0.08	0.875	O	|	|	|	|	0.24
388.833	0.00	0.08	0.874	O	|	|	|	|	0.24
388.917	0.00	0.08	0.874	O	|	|	|	|	0.24
389.000	0.00	0.08	0.873	O	|	|	|	|	0.24
389.083	0.00	0.08	0.873	O	|	|	|	|	0.24
389.167	0.00	0.08	0.872	O	|	|	|	|	0.24
389.250	0.00	0.08	0.872	O	|	|	|	|	0.24
389.333	0.00	0.08	0.871	O	|	|	|	|	0.24
389.417	0.00	0.08	0.871	O	|	|	|	|	0.24
389.500	0.00	0.08	0.870	O	|	|	|	|	0.24
389.583	0.00	0.08	0.870	O	|	|	|	|	0.24
389.667	0.00	0.08	0.869	O	|	|	|	|	0.23
389.750	0.00	0.08	0.869	O	|	|	|	|	0.23
389.833	0.00	0.08	0.868	O	|	|	|	|	0.23
389.917	0.00	0.08	0.868	O	|	|	|	|	0.23
390.000	0.00	0.07	0.867	O	|	|	|	|	0.23
390.083	0.00	0.07	0.867	O	|	|	|	|	0.23
390.167	0.00	0.07	0.866	O	|	|	|	|	0.23
390.250	0.00	0.07	0.866	O	|	|	|	|	0.23
390.333	0.00	0.07	0.865	O	|	|	|	|	0.23
390.417	0.00	0.07	0.865	O	|	|	|	|	0.23
390.500	0.00	0.07	0.864	O	|	|	|	|	0.23
390.583	0.00	0.07	0.864	O	|	|	|	|	0.23
390.667	0.00	0.07	0.863	O	|	|	|	|	0.23
390.750	0.00	0.07	0.862	O	|	|	|	|	0.23
390.833	0.00	0.07	0.862	O	|	|	|	|	0.23
390.917	0.00	0.07	0.861	O	|	|	|	|	0.23
391.000	0.00	0.07	0.861	O	|	|	|	|	0.23
391.083	0.00	0.07	0.860	O	|	|	|	|	0.23
391.167	0.00	0.07	0.860	O	|	|	|	|	0.23
391.250	0.00	0.07	0.859	O	|	|	|	|	0.23
391.333	0.00	0.07	0.859	O	|	|	|	|	0.23
391.417	0.00	0.07	0.858	O	|	|	|	|	0.23
391.500	0.00	0.07	0.858	O	|	|	|	|	0.23
391.583	0.00	0.07	0.857	O	|	|	|	|	0.23
391.667	0.00	0.07	0.857	O	|	|	|	|	0.23
391.750	0.00	0.07	0.856	O	|	|	|	|	0.23
391.833	0.00	0.07	0.856	O	|	|	|	|	0.23
391.917	0.00	0.07	0.855	O	|	|	|	|	0.23
392.000	0.00	0.07	0.855	O	|	|	|	|	0.23
392.083	0.00	0.07	0.854	O	|	|	|	|	0.23
392.167	0.00	0.07	0.854	O	|	|	|	|	0.23
392.250	0.00	0.07	0.853	O	|	|	|	|	0.23
392.333	0.00	0.07	0.853	O	|	|	|	|	0.23
392.417	0.00	0.07	0.852	O	|	|	|	|	0.23
392.500	0.00	0.07	0.852	O	|	|	|	|	0.23
392.583	0.00	0.07	0.851	O	|	|	|	|	0.23
392.667	0.00	0.07	0.851	O	|	|	|	|	0.23

392.750	0.00	0.07	0.850	O	|	|	|	|	0.23
392.833	0.00	0.07	0.850	O	|	|	|	|	0.23
392.917	0.00	0.07	0.849	O	|	|	|	|	0.23
393.000	0.00	0.07	0.849	O	|	|	|	|	0.23
393.083	0.00	0.07	0.848	O	|	|	|	|	0.23
393.167	0.00	0.07	0.848	O	|	|	|	|	0.23
393.250	0.00	0.07	0.847	O	|	|	|	|	0.23
393.333	0.00	0.07	0.847	O	|	|	|	|	0.23
393.417	0.00	0.07	0.846	O	|	|	|	|	0.23
393.500	0.00	0.07	0.846	O	|	|	|	|	0.23
393.583	0.00	0.07	0.845	O	|	|	|	|	0.23
393.667	0.00	0.07	0.845	O	|	|	|	|	0.23
393.750	0.00	0.07	0.844	O	|	|	|	|	0.23
393.833	0.00	0.07	0.844	O	|	|	|	|	0.23
393.917	0.00	0.07	0.843	O	|	|	|	|	0.23
394.000	0.00	0.07	0.843	O	|	|	|	|	0.23
394.083	0.00	0.07	0.842	O	|	|	|	|	0.23
394.167	0.00	0.07	0.842	O	|	|	|	|	0.23
394.250	0.00	0.07	0.841	O	|	|	|	|	0.23
394.333	0.00	0.07	0.841	O	|	|	|	|	0.23
394.417	0.00	0.07	0.840	O	|	|	|	|	0.23
394.500	0.00	0.07	0.840	O	|	|	|	|	0.23
394.583	0.00	0.07	0.839	O	|	|	|	|	0.23
394.667	0.00	0.07	0.839	O	|	|	|	|	0.23
394.750	0.00	0.07	0.838	O	|	|	|	|	0.23
394.833	0.00	0.07	0.838	O	|	|	|	|	0.23
394.917	0.00	0.07	0.837	O	|	|	|	|	0.23
395.000	0.00	0.07	0.837	O	|	|	|	|	0.23
395.083	0.00	0.07	0.836	O	|	|	|	|	0.23
395.167	0.00	0.07	0.836	O	|	|	|	|	0.23
395.250	0.00	0.07	0.835	O	|	|	|	|	0.23
395.333	0.00	0.07	0.835	O	|	|	|	|	0.23
395.417	0.00	0.07	0.834	O	|	|	|	|	0.23
395.500	0.00	0.07	0.834	O	|	|	|	|	0.23
395.583	0.00	0.07	0.833	O	|	|	|	|	0.23
395.667	0.00	0.07	0.833	O	|	|	|	|	0.23
395.750	0.00	0.07	0.832	O	|	|	|	|	0.22
395.833	0.00	0.07	0.832	O	|	|	|	|	0.22
395.917	0.00	0.07	0.831	O	|	|	|	|	0.22
396.000	0.00	0.07	0.831	O	|	|	|	|	0.22
396.083	0.00	0.07	0.830	O	|	|	|	|	0.22
396.167	0.00	0.07	0.830	O	|	|	|	|	0.22
396.250	0.00	0.07	0.829	O	|	|	|	|	0.22
396.333	0.00	0.07	0.829	O	|	|	|	|	0.22
396.417	0.00	0.07	0.828	O	|	|	|	|	0.22
396.500	0.00	0.07	0.828	O	|	|	|	|	0.22
396.583	0.00	0.07	0.827	O	|	|	|	|	0.22
396.667	0.00	0.07	0.827	O	|	|	|	|	0.22
396.750	0.00	0.07	0.826	O	|	|	|	|	0.22
396.833	0.00	0.07	0.826	O	|	|	|	|	0.22
396.917	0.00	0.07	0.825	O	|	|	|	|	0.22
397.000	0.00	0.07	0.825	O	|	|	|	|	0.22
397.083	0.00	0.07	0.824	O	|	|	|	|	0.22
397.167	0.00	0.07	0.824	O	|	|	|	|	0.22
397.250	0.00	0.07	0.823	O	|	|	|	|	0.22
397.333	0.00	0.07	0.823	O	|	|	|	|	0.22
397.417	0.00	0.07	0.822	O	|	|	|	|	0.22
397.500	0.00	0.07	0.822	O	|	|	|	|	0.22
397.583	0.00	0.07	0.821	O	|	|	|	|	0.22
397.667	0.00	0.07	0.821	O	|	|	|	|	0.22
397.750	0.00	0.07	0.820	O	|	|	|	|	0.22
397.833	0.00	0.07	0.820	O	|	|	|	|	0.22
397.917	0.00	0.07	0.819	O	|	|	|	|	0.22

398.000	0.00	0.07	0.819	O	|	|	|	|	0.22
398.083	0.00	0.07	0.818	O	|	|	|	|	0.22
398.167	0.00	0.07	0.818	O	|	|	|	|	0.22
398.250	0.00	0.07	0.817	O	|	|	|	|	0.22
398.333	0.00	0.07	0.817	O	|	|	|	|	0.22
398.417	0.00	0.07	0.817	O	|	|	|	|	0.22
398.500	0.00	0.07	0.816	O	|	|	|	|	0.22
398.583	0.00	0.07	0.816	O	|	|	|	|	0.22
398.667	0.00	0.07	0.815	O	|	|	|	|	0.22
398.750	0.00	0.07	0.815	O	|	|	|	|	0.22
398.833	0.00	0.07	0.814	O	|	|	|	|	0.22
398.917	0.00	0.07	0.814	O	|	|	|	|	0.22
399.000	0.00	0.07	0.813	O	|	|	|	|	0.22
399.083	0.00	0.07	0.813	O	|	|	|	|	0.22
399.167	0.00	0.07	0.812	O	|	|	|	|	0.22
399.250	0.00	0.07	0.812	O	|	|	|	|	0.22
399.333	0.00	0.07	0.811	O	|	|	|	|	0.22
399.417	0.00	0.07	0.811	O	|	|	|	|	0.22
399.500	0.00	0.07	0.810	O	|	|	|	|	0.22
399.583	0.00	0.07	0.810	O	|	|	|	|	0.22
399.667	0.00	0.07	0.809	O	|	|	|	|	0.22
399.750	0.00	0.07	0.809	O	|	|	|	|	0.22
399.833	0.00	0.07	0.808	O	|	|	|	|	0.22
399.917	0.00	0.07	0.808	O	|	|	|	|	0.22
400.000	0.00	0.07	0.807	O	|	|	|	|	0.22
400.083	0.00	0.07	0.807	O	|	|	|	|	0.22
400.167	0.00	0.07	0.806	O	|	|	|	|	0.22
400.250	0.00	0.07	0.806	O	|	|	|	|	0.22
400.333	0.00	0.07	0.805	O	|	|	|	|	0.22
400.417	0.00	0.07	0.805	O	|	|	|	|	0.22
400.500	0.00	0.07	0.804	O	|	|	|	|	0.22
400.583	0.00	0.07	0.804	O	|	|	|	|	0.22
400.667	0.00	0.07	0.803	O	|	|	|	|	0.22
400.750	0.00	0.07	0.803	O	|	|	|	|	0.22
400.833	0.00	0.07	0.803	O	|	|	|	|	0.22
400.917	0.00	0.07	0.802	O	|	|	|	|	0.22
401.000	0.00	0.07	0.802	O	|	|	|	|	0.22
401.083	0.00	0.07	0.801	O	|	|	|	|	0.22
401.167	0.00	0.07	0.801	O	|	|	|	|	0.22
401.250	0.00	0.07	0.800	O	|	|	|	|	0.22
401.333	0.00	0.07	0.800	O	|	|	|	|	0.22
401.417	0.00	0.07	0.799	O	|	|	|	|	0.22
401.500	0.00	0.07	0.799	O	|	|	|	|	0.22
401.583	0.00	0.07	0.798	O	|	|	|	|	0.22
401.667	0.00	0.07	0.798	O	|	|	|	|	0.22
401.750	0.00	0.07	0.797	O	|	|	|	|	0.22
401.833	0.00	0.07	0.797	O	|	|	|	|	0.22
401.917	0.00	0.07	0.796	O	|	|	|	|	0.22
402.000	0.00	0.07	0.796	O	|	|	|	|	0.22
402.083	0.00	0.07	0.795	O	|	|	|	|	0.21
402.167	0.00	0.07	0.795	O	|	|	|	|	0.21
402.250	0.00	0.07	0.794	O	|	|	|	|	0.21
402.333	0.00	0.07	0.794	O	|	|	|	|	0.21
402.417	0.00	0.07	0.793	O	|	|	|	|	0.21
402.500	0.00	0.07	0.793	O	|	|	|	|	0.21
402.583	0.00	0.07	0.793	O	|	|	|	|	0.21
402.667	0.00	0.07	0.792	O	|	|	|	|	0.21
402.750	0.00	0.07	0.792	O	|	|	|	|	0.21
402.833	0.00	0.07	0.791	O	|	|	|	|	0.21
402.917	0.00	0.07	0.791	O	|	|	|	|	0.21
403.000	0.00	0.07	0.790	O	|	|	|	|	0.21
403.083	0.00	0.07	0.790	O	|	|	|	|	0.21
403.167	0.00	0.07	0.789	O	|	|	|	|	0.21

403.250	0.00	0.07	0.789	O	|	|	|	|	0.21
403.333	0.00	0.07	0.788	O	|	|	|	|	0.21
403.417	0.00	0.07	0.788	O	|	|	|	|	0.21
403.500	0.00	0.07	0.787	O	|	|	|	|	0.21
403.583	0.00	0.07	0.787	O	|	|	|	|	0.21
403.667	0.00	0.07	0.786	O	|	|	|	|	0.21
403.750	0.00	0.07	0.786	O	|	|	|	|	0.21
403.833	0.00	0.07	0.785	O	|	|	|	|	0.21
403.917	0.00	0.07	0.785	O	|	|	|	|	0.21
404.000	0.00	0.07	0.785	O	|	|	|	|	0.21
404.083	0.00	0.07	0.784	O	|	|	|	|	0.21
404.167	0.00	0.07	0.784	O	|	|	|	|	0.21
404.250	0.00	0.07	0.783	O	|	|	|	|	0.21
404.333	0.00	0.07	0.783	O	|	|	|	|	0.21
404.417	0.00	0.07	0.782	O	|	|	|	|	0.21
404.500	0.00	0.07	0.782	O	|	|	|	|	0.21
404.583	0.00	0.07	0.781	O	|	|	|	|	0.21
404.667	0.00	0.07	0.781	O	|	|	|	|	0.21
404.750	0.00	0.07	0.780	O	|	|	|	|	0.21
404.833	0.00	0.07	0.780	O	|	|	|	|	0.21
404.917	0.00	0.07	0.779	O	|	|	|	|	0.21
405.000	0.00	0.07	0.779	O	|	|	|	|	0.21
405.083	0.00	0.07	0.779	O	|	|	|	|	0.21
405.167	0.00	0.07	0.778	O	|	|	|	|	0.21
405.250	0.00	0.07	0.778	O	|	|	|	|	0.21
405.333	0.00	0.07	0.777	O	|	|	|	|	0.21
405.417	0.00	0.07	0.777	O	|	|	|	|	0.21
405.500	0.00	0.07	0.776	O	|	|	|	|	0.21
405.583	0.00	0.07	0.776	O	|	|	|	|	0.21
405.667	0.00	0.07	0.775	O	|	|	|	|	0.21
405.750	0.00	0.07	0.775	O	|	|	|	|	0.21
405.833	0.00	0.07	0.774	O	|	|	|	|	0.21
405.917	0.00	0.07	0.774	O	|	|	|	|	0.21
406.000	0.00	0.07	0.773	O	|	|	|	|	0.21
406.083	0.00	0.07	0.773	O	|	|	|	|	0.21
406.167	0.00	0.07	0.773	O	|	|	|	|	0.21
406.250	0.00	0.07	0.772	O	|	|	|	|	0.21
406.333	0.00	0.07	0.772	O	|	|	|	|	0.21
406.417	0.00	0.07	0.771	O	|	|	|	|	0.21
406.500	0.00	0.07	0.771	O	|	|	|	|	0.21
406.583	0.00	0.07	0.770	O	|	|	|	|	0.21
406.667	0.00	0.07	0.770	O	|	|	|	|	0.21
406.750	0.00	0.07	0.769	O	|	|	|	|	0.21
406.833	0.00	0.07	0.769	O	|	|	|	|	0.21
406.917	0.00	0.07	0.768	O	|	|	|	|	0.21
407.000	0.00	0.07	0.768	O	|	|	|	|	0.21
407.083	0.00	0.07	0.767	O	|	|	|	|	0.21
407.167	0.00	0.07	0.767	O	|	|	|	|	0.21
407.250	0.00	0.07	0.767	O	|	|	|	|	0.21
407.333	0.00	0.07	0.766	O	|	|	|	|	0.21
407.417	0.00	0.07	0.766	O	|	|	|	|	0.21
407.500	0.00	0.07	0.765	O	|	|	|	|	0.21
407.583	0.00	0.07	0.765	O	|	|	|	|	0.21
407.667	0.00	0.07	0.764	O	|	|	|	|	0.21
407.750	0.00	0.07	0.764	O	|	|	|	|	0.21
407.833	0.00	0.07	0.763	O	|	|	|	|	0.21
407.917	0.00	0.07	0.763	O	|	|	|	|	0.21
408.000	0.00	0.07	0.762	O	|	|	|	|	0.21
408.083	0.00	0.07	0.762	O	|	|	|	|	0.21
408.167	0.00	0.07	0.762	O	|	|	|	|	0.21
408.250	0.00	0.07	0.761	O	|	|	|	|	0.21
408.333	0.00	0.07	0.761	O	|	|	|	|	0.21
408.417	0.00	0.07	0.760	O	|	|	|	|	0.21

408.500	0.00	0.07	0.760	O	|	|	|	|	0.21
408.583	0.00	0.07	0.759	O	|	|	|	|	0.21
408.667	0.00	0.07	0.759	O	|	|	|	|	0.21
408.750	0.00	0.07	0.758	O	|	|	|	|	0.20
408.833	0.00	0.07	0.758	O	|	|	|	|	0.20
408.917	0.00	0.07	0.757	O	|	|	|	|	0.20
409.000	0.00	0.07	0.757	O	|	|	|	|	0.20
409.083	0.00	0.07	0.757	O	|	|	|	|	0.20
409.167	0.00	0.07	0.756	O	|	|	|	|	0.20
409.250	0.00	0.07	0.756	O	|	|	|	|	0.20
409.333	0.00	0.07	0.755	O	|	|	|	|	0.20
409.417	0.00	0.07	0.755	O	|	|	|	|	0.20
409.500	0.00	0.07	0.754	O	|	|	|	|	0.20
409.583	0.00	0.07	0.754	O	|	|	|	|	0.20
409.667	0.00	0.07	0.753	O	|	|	|	|	0.20
409.750	0.00	0.07	0.753	O	|	|	|	|	0.20
409.833	0.00	0.07	0.753	O	|	|	|	|	0.20
409.917	0.00	0.07	0.752	O	|	|	|	|	0.20
410.000	0.00	0.07	0.752	O	|	|	|	|	0.20
410.083	0.00	0.06	0.751	O	|	|	|	|	0.20
410.167	0.00	0.06	0.751	O	|	|	|	|	0.20
410.250	0.00	0.06	0.750	O	|	|	|	|	0.20
410.333	0.00	0.06	0.750	O	|	|	|	|	0.20
410.417	0.00	0.06	0.749	O	|	|	|	|	0.20
410.500	0.00	0.06	0.749	O	|	|	|	|	0.20
410.583	0.00	0.06	0.748	O	|	|	|	|	0.20
410.667	0.00	0.06	0.748	O	|	|	|	|	0.20
410.750	0.00	0.06	0.748	O	|	|	|	|	0.20
410.833	0.00	0.06	0.747	O	|	|	|	|	0.20
410.917	0.00	0.06	0.747	O	|	|	|	|	0.20
411.000	0.00	0.06	0.746	O	|	|	|	|	0.20
411.083	0.00	0.06	0.746	O	|	|	|	|	0.20
411.167	0.00	0.06	0.745	O	|	|	|	|	0.20
411.250	0.00	0.06	0.745	O	|	|	|	|	0.20
411.333	0.00	0.06	0.744	O	|	|	|	|	0.20
411.417	0.00	0.06	0.744	O	|	|	|	|	0.20
411.500	0.00	0.06	0.744	O	|	|	|	|	0.20
411.583	0.00	0.06	0.743	O	|	|	|	|	0.20
411.667	0.00	0.06	0.743	O	|	|	|	|	0.20
411.750	0.00	0.06	0.742	O	|	|	|	|	0.20
411.833	0.00	0.06	0.742	O	|	|	|	|	0.20
411.917	0.00	0.06	0.741	O	|	|	|	|	0.20
412.000	0.00	0.06	0.741	O	|	|	|	|	0.20
412.083	0.00	0.06	0.741	O	|	|	|	|	0.20
412.167	0.00	0.06	0.740	O	|	|	|	|	0.20
412.250	0.00	0.06	0.740	O	|	|	|	|	0.20
412.333	0.00	0.06	0.739	O	|	|	|	|	0.20
412.417	0.00	0.06	0.739	O	|	|	|	|	0.20
412.500	0.00	0.06	0.738	O	|	|	|	|	0.20
412.583	0.00	0.06	0.738	O	|	|	|	|	0.20
412.667	0.00	0.06	0.737	O	|	|	|	|	0.20
412.750	0.00	0.06	0.737	O	|	|	|	|	0.20
412.833	0.00	0.06	0.737	O	|	|	|	|	0.20
412.917	0.00	0.06	0.736	O	|	|	|	|	0.20
413.000	0.00	0.06	0.736	O	|	|	|	|	0.20
413.083	0.00	0.06	0.735	O	|	|	|	|	0.20
413.167	0.00	0.06	0.735	O	|	|	|	|	0.20
413.250	0.00	0.06	0.734	O	|	|	|	|	0.20
413.333	0.00	0.06	0.734	O	|	|	|	|	0.20
413.417	0.00	0.06	0.733	O	|	|	|	|	0.20
413.500	0.00	0.06	0.733	O	|	|	|	|	0.20
413.583	0.00	0.06	0.733	O	|	|	|	|	0.20
413.667	0.00	0.06	0.732	O	|	|	|	|	0.20

413.750	0.00	0.06	0.732	O	|	|	|	|	0.20
413.833	0.00	0.06	0.731	O	|	|	|	|	0.20
413.917	0.00	0.06	0.731	O	|	|	|	|	0.20
414.000	0.00	0.06	0.730	O	|	|	|	|	0.20
414.083	0.00	0.06	0.730	O	|	|	|	|	0.20
414.167	0.00	0.06	0.730	O	|	|	|	|	0.20
414.250	0.00	0.06	0.729	O	|	|	|	|	0.20
414.333	0.00	0.06	0.729	O	|	|	|	|	0.20
414.417	0.00	0.06	0.728	O	|	|	|	|	0.20
414.500	0.00	0.06	0.728	O	|	|	|	|	0.20
414.583	0.00	0.06	0.727	O	|	|	|	|	0.20
414.667	0.00	0.06	0.727	O	|	|	|	|	0.20
414.750	0.00	0.06	0.727	O	|	|	|	|	0.20
414.833	0.00	0.06	0.726	O	|	|	|	|	0.20
414.917	0.00	0.06	0.726	O	|	|	|	|	0.20
415.000	0.00	0.06	0.725	O	|	|	|	|	0.20
415.083	0.00	0.06	0.725	O	|	|	|	|	0.20
415.167	0.00	0.06	0.724	O	|	|	|	|	0.20
415.250	0.00	0.06	0.724	O	|	|	|	|	0.20
415.333	0.00	0.06	0.724	O	|	|	|	|	0.20
415.417	0.00	0.06	0.723	O	|	|	|	|	0.20
415.500	0.00	0.06	0.723	O	|	|	|	|	0.20
415.583	0.00	0.06	0.722	O	|	|	|	|	0.20
415.667	0.00	0.06	0.722	O	|	|	|	|	0.20
415.750	0.00	0.06	0.721	O	|	|	|	|	0.19
415.833	0.00	0.06	0.721	O	|	|	|	|	0.19
415.917	0.00	0.06	0.721	O	|	|	|	|	0.19
416.000	0.00	0.06	0.720	O	|	|	|	|	0.19
416.083	0.00	0.06	0.720	O	|	|	|	|	0.19
416.167	0.00	0.06	0.719	O	|	|	|	|	0.19
416.250	0.00	0.06	0.719	O	|	|	|	|	0.19
416.333	0.00	0.06	0.718	O	|	|	|	|	0.19
416.417	0.00	0.06	0.718	O	|	|	|	|	0.19
416.500	0.00	0.06	0.718	O	|	|	|	|	0.19
416.583	0.00	0.06	0.717	O	|	|	|	|	0.19
416.667	0.00	0.06	0.717	O	|	|	|	|	0.19

Remaining water in basin = 0.72 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 5001
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 10.655 (CFS)
Total volume = 33.550 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

APPENDIX I.4: BASIN “A” 2 – YEAR ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/26/15

TRACT NO. 36294
BASIN A
2YR-24HR
FN: BASINA224

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: APR242.rte

**********HYDROGRAPH DATA**********

Number of intervals = 298
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 36.832 (CFS)
Total volume = 22.614 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++

Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 298
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
1.000	3.700	0.320	3.699	3.701
2.000	7.260	0.730	7.257	7.263
3.000	10.970	1.680	10.964	10.976
4.000	14.830	3.750	14.817	14.843
5.000	18.840	6.600	18.817	18.863
6.000	23.010	8.310	22.981	23.039

7.000	27.330	9.700	27.297	27.363	
8.000	31.820	69.480	31.581	32.059	
9.000	36.470	153.260	35.942	36.998	
10.000	40.880	229.980	40.088	41.672	
12.000	51.430	1331.420	46.845	56.015	

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 9.2 18.42 27.62 36.83	Depth (Ft.)
0.083	0.27	0.00	0.001	O | | | |	0.00
0.167	1.21	0.00	0.006	OI | | | |	0.00
0.250	1.67	0.00	0.016	OI | | | |	0.00
0.333	1.99	0.00	0.029	OI | | | |	0.01
0.417	2.58	0.00	0.044	O I | | | |	0.01
0.500	2.88	0.01	0.063	O I | | | |	0.02
0.583	3.02	0.01	0.083	O I | | | |	0.02
0.667	3.12	0.01	0.104	O I | | | |	0.03
0.750	3.18	0.01	0.126	O I | | | |	0.03
0.833	3.36	0.01	0.148	O I | | | |	0.04
0.917	3.86	0.01	0.173	O I | | | |	0.05
1.000	4.10	0.02	0.201	O I | | | |	0.05
1.083	4.07	0.02	0.229	O I | | | |	0.06
1.167	3.66	0.02	0.255	O I | | | |	0.07
1.250	3.47	0.02	0.279	O I | | | |	0.08
1.333	3.40	0.03	0.303	O I | | | |	0.08
1.417	3.36	0.03	0.326	O I | | | |	0.09
1.500	3.34	0.03	0.349	O I | | | |	0.09
1.583	3.32	0.03	0.372	O I | | | |	0.10
1.667	3.31	0.03	0.394	O I | | | |	0.11
1.750	3.30	0.04	0.417	O I | | | |	0.11
1.833	3.43	0.04	0.440	O I | | | |	0.12
1.917	3.89	0.04	0.465	O I | | | |	0.13
2.000	4.12	0.04	0.492	O I | | | |	0.13
2.083	4.21	0.05	0.520	O I | | | |	0.14
2.167	4.27	0.05	0.549	O I | | | |	0.15
2.250	4.31	0.05	0.578	O I | | | |	0.16
2.333	4.33	0.05	0.608	O I | | | |	0.16
2.417	4.35	0.06	0.637	O I | | | |	0.17
2.500	4.36	0.06	0.667	O I | | | |	0.18
2.583	4.51	0.06	0.697	O I | | | |	0.19
2.667	4.99	0.06	0.729	O I | | | |	0.20
2.750	5.21	0.07	0.764	O I | | | |	0.21
2.833	5.31	0.07	0.800	O I | | | |	0.22
2.917	5.36	0.07	0.836	O I | | | |	0.23
3.000	5.40	0.08	0.873	O I | | | |	0.24
3.083	5.43	0.08	0.909	O I | | | |	0.25
3.167	5.44	0.08	0.946	O I | | | |	0.26
3.250	5.46	0.09	0.983	O I | | | |	0.27
3.333	5.46	0.09	1.020	O I | | | |	0.28
3.417	5.47	0.09	1.057	O I | | | |	0.29
3.500	5.47	0.09	1.094	O I | | | |	0.30
3.583	5.47	0.10	1.131	O I | | | |	0.31
3.667	5.47	0.10	1.168	O I | | | |	0.32
3.750	5.47	0.10	1.205	O I | | | |	0.33
3.833	5.61	0.11	1.243	O I | | | |	0.34
3.917	6.08	0.11	1.282	O I | | | |	0.35
4.000	6.31	0.11	1.324	O I | | | |	0.36
4.083	6.40	0.12	1.367	O I | | | |	0.37
4.167	6.46	0.12	1.410	O I | | | |	0.38

4.250	6.49	0.13	1.454	O	I	|	|	|	|	0.39
4.333	6.65	0.13	1.499	O	I	|	|	|	|	0.41
4.417	7.14	0.13	1.545	O	I	|	|	|	|	0.42
4.500	7.39	0.14	1.594	O	I	|	|	|	|	0.43
4.583	7.49	0.14	1.645	O	I	|	|	|	|	0.44
4.667	7.55	0.15	1.695	O	I	|	|	|	|	0.46
4.750	7.59	0.15	1.747	O	I	|	|	|	|	0.47
4.833	7.75	0.16	1.798	O	I	|	|	|	|	0.49
4.917	8.24	0.16	1.852	O	I	|	|	|	|	0.50
5.000	8.48	0.17	1.909	O	I	|	|	|	|	0.52
5.083	8.31	0.17	1.965	O	I	|	|	|	|	0.53
5.167	7.43	0.17	2.018	O	I	|	|	|	|	0.55
5.250	7.01	0.18	2.067	O	I	|	|	|	|	0.56
5.333	6.98	0.18	2.114	O	I	|	|	|	|	0.57
5.417	7.36	0.19	2.162	O	I	|	|	|	|	0.58
5.500	7.53	0.19	2.212	O	I	|	|	|	|	0.60
5.583	7.72	0.20	2.263	O	I	|	|	|	|	0.61
5.667	8.22	0.20	2.317	O	I	|	|	|	|	0.63
5.750	8.46	0.21	2.373	O	I	|	|	|	|	0.64
5.833	8.56	0.21	2.430	O	I	|	|	|	|	0.66
5.917	8.62	0.22	2.488	O	I	|	|	|	|	0.67
6.000	8.67	0.22	2.546	O	I	|	|	|	|	0.69
6.083	8.84	0.23	2.604	O	I	|	|	|	|	0.70
6.167	9.33	0.23	2.665	O	I	|	|	|	|	0.72
6.250	9.58	0.24	2.729	O	I	|	|	|	|	0.74
6.333	9.68	0.24	2.794	O	I	|	|	|	|	0.76
6.417	9.74	0.25	2.859	O	I	|	|	|	|	0.77
6.500	9.78	0.25	2.924	O	I	|	|	|	|	0.79
6.583	9.94	0.26	2.990	O	I	|	|	|	|	0.81
6.667	10.43	0.26	3.059	O	I	|	|	|	|	0.83
6.750	10.67	0.27	3.129	O	I	|	|	|	|	0.85
6.833	10.77	0.28	3.201	O	I	|	|	|	|	0.87
6.917	10.84	0.28	3.274	O	I	|	|	|	|	0.88
7.000	10.87	0.29	3.347	O	I	|	|	|	|	0.90
7.083	10.90	0.30	3.420	O	I	|	|	|	|	0.92
7.167	10.92	0.30	3.493	O	I	|	|	|	|	0.94
7.250	10.93	0.31	3.566	O	I	|	|	|	|	0.96
7.333	11.07	0.31	3.639	O	I	|	|	|	|	0.98
7.417	11.55	0.32	3.715	O	I	|	|	|	|	1.00
7.500	11.78	0.33	3.793	O	I	|	|	|	|	1.03
7.583	12.01	0.34	3.873	O	I	|	|	|	|	1.05
7.667	12.54	0.35	3.955	O	I	|	|	|	|	1.07
7.750	12.80	0.36	4.040	O	I	|	|	|	|	1.10
7.833	13.06	0.37	4.126	O	I	|	|	|	|	1.12
7.917	13.60	0.38	4.216	O	I	|	|	|	|	1.14
8.000	13.88	0.39	4.308	O	I	|	|	|	|	1.17
8.083	14.28	0.40	4.402	O	I	|	|	|	|	1.20
8.167	15.30	0.41	4.501	O	I	|	|	|	|	1.22
8.250	15.81	0.42	4.605	O	I	|	|	|	|	1.25
8.333	16.03	0.44	4.712	O	I	|	|	|	|	1.28
8.417	16.17	0.45	4.820	O	I	|	|	|	|	1.31
8.500	16.26	0.46	4.928	O	I	|	|	|	|	1.35
8.583	16.45	0.47	5.038	O	I	|	|	|	|	1.38
8.667	16.97	0.49	5.149	O	I	|	|	|	|	1.41
8.750	17.22	0.50	5.264	O	I	|	|	|	|	1.44
8.833	17.47	0.51	5.380	O	I	|	|	|	|	1.47
8.917	18.01	0.53	5.498	O	I	|	|	|	|	1.51
9.000	18.28	0.54	5.620	O	I	|	|	|	|	1.54
9.083	18.66	0.56	5.743	O	I	|	|	|	|	1.57
9.167	19.68	0.57	5.871	O	I	|	|	|	|	1.61
9.250	20.19	0.59	6.004	O	I	|	|	|	|	1.65
9.333	20.55	0.60	6.141	O	I	|	|	|	|	1.69
9.417	21.16	0.62	6.280	O	I	|	|	|	|	1.72

9.500	21.47	0.63	6.423	O	|	| I |	|	1.76
9.583	21.76	0.65	6.567	O	|	| I |	|	1.81
9.667	22.33	0.67	6.714	O	|	| I |	|	1.85
9.750	22.62	0.68	6.864	O	|	| I |	|	1.89
9.833	22.89	0.70	7.016	O	|	| I |	|	1.93
9.917	23.45	0.72	7.171	O	|	| I |	|	1.98
10.000	23.73	0.75	7.328	O	|	| I |	|	2.02
10.083	22.91	0.79	7.484	O	|	| I |	|	2.06
10.167	19.69	0.82	7.625	O	|	|I |	|	2.10
10.250	18.13	0.86	7.749	O	|	I| |	|	2.13
10.333	17.52	0.89	7.866	O	|	I| |	|	2.16
10.417	17.15	0.91	7.979	O	|	I | |	|	2.19
10.500	16.91	0.94	8.090	O	|	I | |	|	2.22
10.583	17.42	0.97	8.202	O	|	I| |	|	2.25
10.667	19.66	1.00	8.323	O	|	|I |	|	2.29
10.750	20.72	1.04	8.455	O	|	| I |	|	2.32
10.833	21.12	1.07	8.592	O	|	| I |	|	2.36
10.917	21.35	1.11	8.730	O	|	| I |	|	2.40
11.000	21.53	1.14	8.870	O	|	| I |	|	2.43
11.083	21.52	1.18	9.011	|O	|	| I |	|	2.47
11.167	21.14	1.21	9.149	|O	|	| I |	|	2.51
11.250	20.97	1.25	9.286	|O	|	| I |	|	2.55
11.333	20.92	1.28	9.421	|O	|	| I |	|	2.58
11.417	20.90	1.32	9.556	|O	|	| I |	|	2.62
11.500	20.87	1.35	9.691	|O	|	| I |	|	2.66
11.583	20.57	1.39	9.824	|O	|	|I |	|	2.69
11.667	19.61	1.42	9.953	|O	|	|I |	|	2.73
11.750	19.14	1.45	10.076	|O	|	I |	|	2.76
11.833	19.08	1.48	10.198	|O	|	I |	|	2.79
11.917	19.43	1.51	10.320	|O	|	I |	|	2.82
12.000	19.59	1.55	10.444	|O	|	|I |	|	2.86
12.083	20.58	1.58	10.572	|O	|	|I |	|	2.89
12.167	23.90	1.61	10.714	|O	|	| I |	|	2.93
12.250	25.52	1.66	10.873	|O	|	| I | |	|	2.97
12.333	26.31	1.72	11.040	|O	|	| I | |	|	3.02
12.417	27.18	1.81	11.212	|O	|	| I| |	|	3.06
12.500	27.67	1.90	11.388	|O	|	| I |	|	3.11
12.583	28.22	2.00	11.567	|O	|	| I |	|	3.15
12.667	29.36	2.10	11.751	|O	|	|I |	|	3.20
12.750	29.94	2.20	11.940	|O	|	| I |	|	3.25
12.833	30.35	2.30	12.132	| O	|	| I |	|	3.30
12.917	31.01	2.41	12.327	| O	|	| I |	|	3.35
13.000	31.32	2.51	12.525	| O	|	| I |	|	3.40
13.083	32.15	2.62	12.726	| O	|	| I |	|	3.45
13.167	34.61	2.74	12.937	| O	|	| I |	|	3.51
13.250	35.82	2.85	13.161	| O	|	| I|	|	3.57
13.333	36.33	2.98	13.389	| O	|	| I|	|	3.63
13.417	36.64	3.10	13.619	| O	|	| I|	|	3.69
13.500	36.83	3.22	13.851	| O	|	| I	|	3.75
13.583	35.48	3.35	14.077	| O	|	| I |	|	3.80
13.667	30.39	3.46	14.280	| O	|	| I |	|	3.86
13.750	27.93	3.55	14.457	| O	|	| I |	|	3.90
13.833	26.95	3.64	14.621	| O	|	| I| |	|	3.95
13.917	26.37	3.72	14.780	| O	|	| I | |	|	3.99
14.000	25.98	3.82	14.934	| O	|	| I | |	|	4.03
14.083	26.24	3.93	15.087	| O	|	| I | |	|	4.06
14.167	27.92	4.05	15.246	| O	|	| I |	|	4.10
14.250	28.71	4.16	15.413	| O	|	| I |	|	4.15
14.333	28.85	4.28	15.582	| O	|	| I |	|	4.19
14.417	28.51	4.40	15.749	| O	|	| I |	|	4.23
14.500	28.42	4.52	15.915	| O	|	| I |	|	4.27
14.583	28.43	4.64	16.079	| O	|	| I |	|	4.31
14.667	28.45	4.75	16.242	| O	|	| I |	|	4.35

14.750	28.46	4.87	16.405	| O |	|	| I |	4.39
14.833	28.34	4.98	16.567	| O |	|	| I |	4.43
14.917	27.88	5.10	16.726	| O |	|	| I |	4.47
15.000	27.64	5.21	16.882	| O |	|	| I |	4.51
15.083	27.40	5.32	17.035	| O |	|	| I|	4.55
15.167	26.86	5.42	17.185	| O |	|	| I|	4.59
15.250	26.60	5.53	17.331	| O |	|	| I|	4.62
15.333	26.35	5.63	17.475	| O |	|	| I |	4.66
15.417	25.80	5.73	17.615	| O |	|	| I |	4.69
15.500	25.52	5.83	17.752	| O |	|	| I |	4.73
15.583	24.85	5.92	17.885	| O |	|	| I |	4.76
15.667	22.88	6.01	18.009	| O |	|	| I |	4.79
15.750	21.92	6.09	18.121	| O |	|	| I |	4.82
15.833	21.51	6.17	18.229	| O |	|	| I |	4.85
15.917	21.26	6.24	18.333	| O |	|	| I |	4.87
16.000	21.10	6.31	18.436	| O |	|	| I |	4.90
16.083	18.97	6.38	18.530	| O |	| I |	|	4.92
16.167	11.81	6.42	18.592	| O |	I |	|	4.94
16.250	8.31	6.44	18.617	| O I|	|	|	4.94
16.333	6.88	6.45	18.625	| O |	|	|	4.95
16.417	6.01	6.45	18.625	| O |	|	|	4.95
16.500	5.47	6.44	18.620	| IO |	|	|	4.95
16.583	4.96	6.44	18.612	| IO |	|	|	4.94
16.667	4.21	6.43	18.599	| I O |	|	|	4.94
16.750	3.79	6.42	18.582	| I O |	|	|	4.94
16.833	3.57	6.40	18.563	| I O |	|	|	4.93
16.917	3.39	6.39	18.543	| I O |	|	|	4.93
17.000	3.36	6.37	18.523	| I O |	|	|	4.92
17.083	3.60	6.36	18.503	| I O |	|	|	4.92
17.167	4.53	6.35	18.487	| I O |	|	|	4.91
17.250	4.97	6.34	18.476	| IO |	|	|	4.91
17.333	5.15	6.34	18.467	| IO |	|	|	4.91
17.417	5.25	6.33	18.459	| IO |	|	|	4.91
17.500	5.33	6.32	18.452	| IO |	|	|	4.90
17.583	5.38	6.32	18.446	| IO |	|	|	4.90
17.667	5.41	6.32	18.439	| IO |	|	|	4.90
17.750	5.44	6.31	18.433	| IO |	|	|	4.90
17.833	5.32	6.31	18.427	| IO |	|	|	4.90
17.917	4.87	6.30	18.418	| IO |	|	|	4.89
18.000	4.64	6.29	18.408	| IO |	|	|	4.89
18.083	4.54	6.28	18.396	| I O |	|	|	4.89
18.167	4.49	6.28	18.384	| I O |	|	|	4.89
18.250	4.45	6.27	18.371	| I O |	|	|	4.88
18.333	4.43	6.26	18.359	| I O |	|	|	4.88
18.417	4.41	6.25	18.346	| I O |	|	|	4.88
18.500	4.39	6.24	18.334	| I O |	|	|	4.87
18.583	4.25	6.23	18.320	| I O |	|	|	4.87
18.667	3.77	6.22	18.305	| I O |	|	|	4.87
18.750	3.54	6.21	18.288	| I O |	|	|	4.86
18.833	3.31	6.19	18.268	| I O |	|	|	4.86
18.917	2.79	6.18	18.247	| I O |	|	|	4.85
19.000	2.52	6.16	18.223	| I O |	|	|	4.85
19.083	2.54	6.14	18.198	| I O |	|	|	4.84
19.167	2.93	6.13	18.174	| I O |	|	|	4.83
19.250	3.12	6.11	18.153	| I O |	|	|	4.83
19.333	3.31	6.10	18.133	| I O |	|	|	4.82
19.417	3.81	6.09	18.116	| I O |	|	|	4.82
19.500	4.06	6.07	18.101	| I O |	|	|	4.82
19.583	4.04	6.06	18.087	| I O |	|	|	4.81
19.667	3.63	6.05	18.072	| I O |	|	|	4.81
19.750	3.45	6.04	18.054	| I O |	|	|	4.80
19.833	3.26	6.03	18.036	| I O |	|	|	4.80
19.917	2.76	6.01	18.015	| I O |	|	|	4.79

20.000	2.50	6.00	17.992	I	O				4.79
20.083	2.53	5.98	17.968	I	O				4.78
20.167	2.93	5.96	17.946	I	O				4.78
20.250	3.12	5.95	17.925	I	O				4.77
20.333	3.17	5.94	17.906	I	O				4.77
20.417	3.20	5.92	17.887	I	O				4.76
20.500	3.23	5.91	17.869	I	O				4.76
20.583	3.24	5.90	17.850	I	O				4.75
20.667	3.25	5.88	17.832	I	O				4.75
20.750	3.27	5.87	17.814	I	O				4.74
20.833	3.14	5.86	17.796	I	O				4.74
20.917	2.68	5.84	17.776	I	O				4.73
21.000	2.45	5.83	17.753	I	O				4.73
21.083	2.49	5.81	17.730	I	O				4.72
21.167	2.91	5.80	17.708	I	O				4.72
21.250	3.10	5.78	17.689	I	O				4.71
21.333	3.03	5.77	17.671	I	O				4.71
21.417	2.60	5.75	17.650	I	O				4.70
21.500	2.39	5.74	17.628	I	O				4.70
21.583	2.45	5.72	17.605	I	O				4.69
21.667	2.88	5.71	17.584	I	O				4.69
21.750	3.08	5.69	17.565	I	O				4.68
21.833	3.02	5.68	17.547	I	O				4.68
21.917	2.60	5.67	17.527	I	O				4.67
22.000	2.39	5.65	17.506	I	O				4.67
22.083	2.45	5.64	17.483	I	O				4.66
22.167	2.88	5.62	17.463	I	O				4.66
22.250	3.08	5.61	17.445	I	O				4.65
22.333	3.02	5.60	17.427	I	O				4.65
22.417	2.60	5.58	17.408	I	O				4.64
22.500	2.39	5.57	17.387	I	O				4.64
22.583	2.31	5.55	17.365	I	O				4.63
22.667	2.27	5.54	17.342	I	O				4.63
22.750	2.25	5.52	17.320	I	O				4.62
22.833	2.23	5.50	17.297	I	O				4.62
22.917	2.22	5.49	17.275	I	O				4.61
23.000	2.21	5.47	17.252	I	O				4.60
23.083	2.20	5.46	17.230	I	O				4.60
23.167	2.19	5.44	17.207	I	O				4.59
23.250	2.19	5.42	17.185	I	O				4.59
23.333	2.19	5.41	17.163	I	O				4.58
23.417	2.19	5.39	17.141	I	O				4.58
23.500	2.19	5.38	17.119	I	O				4.57
23.583	2.19	5.36	17.097	I	O				4.57
23.667	2.19	5.35	17.075	I	O				4.56
23.750	2.19	5.33	17.053	I	O				4.55
23.833	2.19	5.31	17.032	I	O				4.55
23.917	2.19	5.30	17.010	I	O				4.54
24.000	2.19	5.28	16.989	I	O				4.54
24.083	1.92	5.27	16.967	I	O				4.53
24.167	0.97	5.25	16.941	I	O				4.53
24.250	0.52	5.23	16.910	I	O				4.52
24.333	0.33	5.20	16.877	I	O				4.51
24.417	0.22	5.18	16.843	I	O				4.50
24.500	0.15	5.16	16.808	I	O				4.49
24.583	0.10	5.13	16.774	I	O				4.48
24.667	0.06	5.11	16.739	I	O				4.48
24.750	0.03	5.08	16.704	I	O				4.47
24.833	0.02	5.06	16.670	I	O				4.46
24.917	0.00	5.03	16.635	I	O				4.45
25.000	0.00	5.01	16.600	I	O				4.44
25.083	0.00	4.98	16.566	I	O				4.43
25.167	0.00	4.96	16.532	I	O				4.42

25.250	0.00	4.94	16.498	I	O	|	|	|	|	4.42
25.333	0.00	4.91	16.464	I	O	|	|	|	|	4.41
25.417	0.00	4.89	16.430	I	O	|	|	|	|	4.40
25.500	0.00	4.86	16.396	I	O	|	|	|	|	4.39
25.583	0.00	4.84	16.363	I	O	|	|	|	|	4.38
25.667	0.00	4.82	16.330	I	O	|	|	|	|	4.37
25.750	0.00	4.79	16.297	I	O	|	|	|	|	4.37
25.833	0.00	4.77	16.264	I	O	|	|	|	|	4.36
25.917	0.00	4.75	16.231	I	O	|	|	|	|	4.35
26.000	0.00	4.72	16.198	I	O	|	|	|	|	4.34
26.083	0.00	4.70	16.166	I	O	|	|	|	|	4.33
26.167	0.00	4.68	16.134	I	O	|	|	|	|	4.33
26.250	0.00	4.65	16.101	I	O	|	|	|	|	4.32
26.333	0.00	4.63	16.069	I	O	|	|	|	|	4.31
26.417	0.00	4.61	16.038	I	O	|	|	|	|	4.30
26.500	0.00	4.59	16.006	I	O	|	|	|	|	4.29
26.583	0.00	4.56	15.974	I	O	|	|	|	|	4.29
26.667	0.00	4.54	15.943	I	O	|	|	|	|	4.28
26.750	0.00	4.52	15.912	I	O	|	|	|	|	4.27
26.833	0.00	4.50	15.881	I	O	|	|	|	|	4.26
26.917	0.00	4.47	15.850	I	O	|	|	|	|	4.25
27.000	0.00	4.45	15.819	I	O	|	|	|	|	4.25
27.083	0.00	4.43	15.789	I	O	|	|	|	|	4.24
27.167	0.00	4.41	15.758	I	O	|	|	|	|	4.23
27.250	0.00	4.39	15.728	I	O	|	|	|	|	4.22
27.333	0.00	4.37	15.698	I	O	|	|	|	|	4.22
27.417	0.00	4.35	15.668	I	O	|	|	|	|	4.21
27.500	0.00	4.32	15.638	I	O	|	|	|	|	4.20
27.583	0.00	4.30	15.608	I	O	|	|	|	|	4.19
27.667	0.00	4.28	15.579	I	O	|	|	|	|	4.19
27.750	0.00	4.26	15.549	I	O	|	|	|	|	4.18
27.833	0.00	4.24	15.520	I	O	|	|	|	|	4.17
27.917	0.00	4.22	15.491	I	O	|	|	|	|	4.16
28.000	0.00	4.20	15.462	I	O	|	|	|	|	4.16
28.083	0.00	4.18	15.433	I	O	|	|	|	|	4.15
28.167	0.00	4.16	15.404	I	O	|	|	|	|	4.14
28.250	0.00	4.14	15.376	I	O	|	|	|	|	4.14
28.333	0.00	4.12	15.347	I	O	|	|	|	|	4.13
28.417	0.00	4.10	15.319	I	O	|	|	|	|	4.12
28.500	0.00	4.08	15.291	I	O	|	|	|	|	4.11
28.583	0.00	4.06	15.263	I	O	|	|	|	|	4.11
28.667	0.00	4.04	15.235	I	O	|	|	|	|	4.10
28.750	0.00	4.02	15.207	I	O	|	|	|	|	4.09
28.833	0.00	4.00	15.180	I	O	|	|	|	|	4.09
28.917	0.00	3.98	15.152	I	O	|	|	|	|	4.08
29.000	0.00	3.96	15.125	I	O	|	|	|	|	4.07
29.083	0.00	3.94	15.098	I	O	|	|	|	|	4.07
29.167	0.00	3.92	15.071	I	O	|	|	|	|	4.06
29.250	0.00	3.90	15.044	I	O	|	|	|	|	4.05
29.333	0.00	3.88	15.017	I	O	|	|	|	|	4.05
29.417	0.00	3.86	14.990	I	O	|	|	|	|	4.04
29.500	0.00	3.84	14.964	I	O	|	|	|	|	4.03
29.583	0.00	3.83	14.937	I	O	|	|	|	|	4.03
29.667	0.00	3.81	14.911	I	O	|	|	|	|	4.02
29.750	0.00	3.79	14.885	I	O	|	|	|	|	4.01
29.833	0.00	3.77	14.859	I	O	|	|	|	|	4.01
29.917	0.00	3.75	14.833	I	O	|	|	|	|	4.00
30.000	0.00	3.74	14.807	I	O	|	|	|	|	3.99
30.083	0.00	3.72	14.781	I	O	|	|	|	|	3.99
30.167	0.00	3.71	14.756	I	O	|	|	|	|	3.98
30.250	0.00	3.70	14.730	I	O	|	|	|	|	3.97
30.333	0.00	3.68	14.705	I	O	|	|	|	|	3.97
30.417	0.00	3.67	14.679	I	O	|	|	|	|	3.96

30.500	0.00	3.66	14.654	I	O	|	|	|	3.95
30.583	0.00	3.64	14.629	I	O	|	|	|	3.95
30.667	0.00	3.63	14.604	I	O	|	|	|	3.94
30.750	0.00	3.62	14.579	I	O	|	|	|	3.93
30.833	0.00	3.60	14.554	I	O	|	|	|	3.93
30.917	0.00	3.59	14.529	I	O	|	|	|	3.92
31.000	0.00	3.58	14.505	I	O	|	|	|	3.92
31.083	0.00	3.56	14.480	I	O	|	|	|	3.91
31.167	0.00	3.55	14.456	I	O	|	|	|	3.90
31.250	0.00	3.54	14.431	I	O	|	|	|	3.90
31.333	0.00	3.52	14.407	I	O	|	|	|	3.89
31.417	0.00	3.51	14.383	I	O	|	|	|	3.88
31.500	0.00	3.50	14.359	I	O	|	|	|	3.88
31.583	0.00	3.48	14.335	I	O	|	|	|	3.87
31.667	0.00	3.47	14.311	I	O	|	|	|	3.87
31.750	0.00	3.46	14.287	I	O	|	|	|	3.86
31.833	0.00	3.45	14.263	I	O	|	|	|	3.85
31.917	0.00	3.43	14.239	I	O	|	|	|	3.85
32.000	0.00	3.42	14.216	I	O	|	|	|	3.84
32.083	0.00	3.41	14.192	I	O	|	|	|	3.83
32.167	0.00	3.40	14.169	I	O	|	|	|	3.83
32.250	0.00	3.38	14.145	I	O	|	|	|	3.82
32.333	0.00	3.37	14.122	I	O	|	|	|	3.82
32.417	0.00	3.36	14.099	I	O	|	|	|	3.81
32.500	0.00	3.35	14.076	I	O	|	|	|	3.80
32.583	0.00	3.33	14.053	I	O	|	|	|	3.80
32.667	0.00	3.32	14.030	I	O	|	|	|	3.79
32.750	0.00	3.31	14.007	I	O	|	|	|	3.79
32.833	0.00	3.30	13.984	I	O	|	|	|	3.78
32.917	0.00	3.28	13.962	I	O	|	|	|	3.78
33.000	0.00	3.27	13.939	I	O	|	|	|	3.77
33.083	0.00	3.26	13.917	I	O	|	|	|	3.76
33.167	0.00	3.25	13.894	I	O	|	|	|	3.76
33.250	0.00	3.24	13.872	I	O	|	|	|	3.75
33.333	0.00	3.22	13.850	I	O	|	|	|	3.75
33.417	0.00	3.21	13.828	I	O	|	|	|	3.74
33.500	0.00	3.20	13.806	I	O	|	|	|	3.73
33.583	0.00	3.19	13.784	I	O	|	|	|	3.73
33.667	0.00	3.18	13.762	I	O	|	|	|	3.72
33.750	0.00	3.17	13.740	I	O	|	|	|	3.72
33.833	0.00	3.15	13.718	I	O	|	|	|	3.71
33.917	0.00	3.14	13.696	I	O	|	|	|	3.71
34.000	0.00	3.13	13.675	I	O	|	|	|	3.70
34.083	0.00	3.12	13.653	I	O	|	|	|	3.70
34.167	0.00	3.11	13.632	I	O	|	|	|	3.69
34.250	0.00	3.10	13.610	I	O	|	|	|	3.68
34.333	0.00	3.08	13.589	I	O	|	|	|	3.68
34.417	0.00	3.07	13.568	I	O	|	|	|	3.67
34.500	0.00	3.06	13.547	I	O	|	|	|	3.67
34.583	0.00	3.05	13.526	I	O	|	|	|	3.66
34.667	0.00	3.04	13.505	I	O	|	|	|	3.66
34.750	0.00	3.03	13.484	I	O	|	|	|	3.65
34.833	0.00	3.02	13.463	I	O	|	|	|	3.65
34.917	0.00	3.01	13.442	I	O	|	|	|	3.64
35.000	0.00	2.99	13.422	I	O	|	|	|	3.64
35.083	0.00	2.98	13.401	I	O	|	|	|	3.63
35.167	0.00	2.97	13.381	I	O	|	|	|	3.62
35.250	0.00	2.96	13.360	I	O	|	|	|	3.62
35.333	0.00	2.95	13.340	I	O	|	|	|	3.61
35.417	0.00	2.94	13.319	I	O	|	|	|	3.61
35.500	0.00	2.93	13.299	I	O	|	|	|	3.60
35.583	0.00	2.92	13.279	I	O	|	|	|	3.60
35.667	0.00	2.91	13.259	I	O	|	|	|	3.59

35.750	0.00	2.90	13.239	I	O	|	|	|	3.59
35.833	0.00	2.89	13.219	I	O	|	|	|	3.58
35.917	0.00	2.88	13.199	I	O	|	|	|	3.58
36.000	0.00	2.86	13.180	I	O	|	|	|	3.57
36.083	0.00	2.85	13.160	I	O	|	|	|	3.57
36.167	0.00	2.84	13.140	I	O	|	|	|	3.56
36.250	0.00	2.83	13.121	I	O	|	|	|	3.56
36.333	0.00	2.82	13.101	I	O	|	|	|	3.55
36.417	0.00	2.81	13.082	I	O	|	|	|	3.55
36.500	0.00	2.80	13.062	I	O	|	|	|	3.54
36.583	0.00	2.79	13.043	I	O	|	|	|	3.54
36.667	0.00	2.78	13.024	I	O	|	|	|	3.53
36.750	0.00	2.77	13.005	I	O	|	|	|	3.53
36.833	0.00	2.76	12.986	I	O	|	|	|	3.52
36.917	0.00	2.75	12.967	I	O	|	|	|	3.52
37.000	0.00	2.74	12.948	I	O	|	|	|	3.51
37.083	0.00	2.73	12.929	I	O	|	|	|	3.51
37.167	0.00	2.72	12.910	I	O	|	|	|	3.50
37.250	0.00	2.71	12.892	I	O	|	|	|	3.50
37.333	0.00	2.70	12.873	I	O	|	|	|	3.49
37.417	0.00	2.69	12.854	I	O	|	|	|	3.49
37.500	0.00	2.68	12.836	I	O	|	|	|	3.48
37.583	0.00	2.67	12.818	I	O	|	|	|	3.48
37.667	0.00	2.66	12.799	I	O	|	|	|	3.47
37.750	0.00	2.65	12.781	I	O	|	|	|	3.47
37.833	0.00	2.64	12.763	I	O	|	|	|	3.46
37.917	0.00	2.63	12.744	I	O	|	|	|	3.46
38.000	0.00	2.62	12.726	I	O	|	|	|	3.46
38.083	0.00	2.61	12.708	I	O	|	|	|	3.45
38.167	0.00	2.60	12.690	I	O	|	|	|	3.45
38.250	0.00	2.59	12.673	I	O	|	|	|	3.44
38.333	0.00	2.58	12.655	I	O	|	|	|	3.44
38.417	0.00	2.57	12.637	I	O	|	|	|	3.43
38.500	0.00	2.56	12.619	I	O	|	|	|	3.43
38.583	0.00	2.55	12.602	I	O	|	|	|	3.42
38.667	0.00	2.55	12.584	I	O	|	|	|	3.42
38.750	0.00	2.54	12.567	I	O	|	|	|	3.41
38.833	0.00	2.53	12.549	I	O	|	|	|	3.41
38.917	0.00	2.52	12.532	I	O	|	|	|	3.40
39.000	0.00	2.51	12.514	I	O	|	|	|	3.40
39.083	0.00	2.50	12.497	I	O	|	|	|	3.40
39.167	0.00	2.49	12.480	I	O	|	|	|	3.39
39.250	0.00	2.48	12.463	I	O	|	|	|	3.39
39.333	0.00	2.47	12.446	I	O	|	|	|	3.38
39.417	0.00	2.46	12.429	I	O	|	|	|	3.38
39.500	0.00	2.45	12.412	I	O	|	|	|	3.37
39.583	0.00	2.44	12.395	I	O	|	|	|	3.37
39.667	0.00	2.44	12.378	I	O	|	|	|	3.36
39.750	0.00	2.43	12.362	I	O	|	|	|	3.36
39.833	0.00	2.42	12.345	I	O	|	|	|	3.36
39.917	0.00	2.41	12.328	I	O	|	|	|	3.35
40.000	0.00	2.40	12.312	I	O	|	|	|	3.35
40.083	0.00	2.39	12.295	I	O	|	|	|	3.34
40.167	0.00	2.38	12.279	I	O	|	|	|	3.34
40.250	0.00	2.37	12.262	I	O	|	|	|	3.33
40.333	0.00	2.36	12.246	I	O	|	|	|	3.33
40.417	0.00	2.36	12.230	I	O	|	|	|	3.33
40.500	0.00	2.35	12.214	I	O	|	|	|	3.32
40.583	0.00	2.34	12.197	I	O	|	|	|	3.32
40.667	0.00	2.33	12.181	I	O	|	|	|	3.31
40.750	0.00	2.32	12.165	I	O	|	|	|	3.31
40.833	0.00	2.31	12.149	I	O	|	|	|	3.31
40.917	0.00	2.30	12.134	I	O	|	|	|	3.30

41.000	0.00	2.30	12.118	IO	|	|	|	3.30
41.083	0.00	2.29	12.102	IO	|	|	|	3.29
41.167	0.00	2.28	12.086	IO	|	|	|	3.29
41.250	0.00	2.27	12.071	IO	|	|	|	3.29
41.333	0.00	2.26	12.055	IO	|	|	|	3.28
41.417	0.00	2.25	12.039	IO	|	|	|	3.28
41.500	0.00	2.25	12.024	IO	|	|	|	3.27
41.583	0.00	2.24	12.008	IO	|	|	|	3.27
41.667	0.00	2.23	11.993	IO	|	|	|	3.27
41.750	0.00	2.22	11.978	IO	|	|	|	3.26
41.833	0.00	2.21	11.962	IO	|	|	|	3.26
41.917	0.00	2.20	11.947	IO	|	|	|	3.25
42.000	0.00	2.20	11.932	IO	|	|	|	3.25
42.083	0.00	2.19	11.917	IO	|	|	|	3.25
42.167	0.00	2.18	11.902	IO	|	|	|	3.24
42.250	0.00	2.17	11.887	IO	|	|	|	3.24
42.333	0.00	2.16	11.872	IO	|	|	|	3.23
42.417	0.00	2.16	11.857	IO	|	|	|	3.23
42.500	0.00	2.15	11.842	IO	|	|	|	3.23
42.583	0.00	2.14	11.828	IO	|	|	|	3.22
42.667	0.00	2.13	11.813	IO	|	|	|	3.22
42.750	0.00	2.12	11.798	IO	|	|	|	3.21
42.833	0.00	2.12	11.784	IO	|	|	|	3.21
42.917	0.00	2.11	11.769	IO	|	|	|	3.21
43.000	0.00	2.10	11.755	IO	|	|	|	3.20
43.083	0.00	2.09	11.740	IO	|	|	|	3.20
43.167	0.00	2.09	11.726	IO	|	|	|	3.20
43.250	0.00	2.08	11.711	IO	|	|	|	3.19
43.333	0.00	2.07	11.697	IO	|	|	|	3.19
43.417	0.00	2.06	11.683	IO	|	|	|	3.18
43.500	0.00	2.05	11.669	IO	|	|	|	3.18
43.583	0.00	2.05	11.655	IO	|	|	|	3.18
43.667	0.00	2.04	11.641	IO	|	|	|	3.17
43.750	0.00	2.03	11.627	IO	|	|	|	3.17
43.833	0.00	2.02	11.613	IO	|	|	|	3.17
43.917	0.00	2.02	11.599	IO	|	|	|	3.16
44.000	0.00	2.01	11.585	IO	|	|	|	3.16
44.083	0.00	2.00	11.571	IO	|	|	|	3.16
44.167	0.00	1.99	11.557	IO	|	|	|	3.15
44.250	0.00	1.99	11.543	IO	|	|	|	3.15
44.333	0.00	1.98	11.530	IO	|	|	|	3.15
44.417	0.00	1.97	11.516	IO	|	|	|	3.14
44.500	0.00	1.97	11.503	IO	|	|	|	3.14
44.583	0.00	1.96	11.489	IO	|	|	|	3.13
44.667	0.00	1.95	11.476	IO	|	|	|	3.13
44.750	0.00	1.94	11.462	IO	|	|	|	3.13
44.833	0.00	1.94	11.449	IO	|	|	|	3.12
44.917	0.00	1.93	11.436	IO	|	|	|	3.12
45.000	0.00	1.92	11.422	IO	|	|	|	3.12
45.083	0.00	1.92	11.409	IO	|	|	|	3.11
45.167	0.00	1.91	11.396	IO	|	|	|	3.11
45.250	0.00	1.90	11.383	IO	|	|	|	3.11
45.333	0.00	1.89	11.370	IO	|	|	|	3.10
45.417	0.00	1.89	11.357	IO	|	|	|	3.10
45.500	0.00	1.88	11.344	IO	|	|	|	3.10
45.583	0.00	1.87	11.331	IO	|	|	|	3.09
45.667	0.00	1.87	11.318	IO	|	|	|	3.09
45.750	0.00	1.86	11.305	IO	|	|	|	3.09
45.833	0.00	1.85	11.292	IO	|	|	|	3.08
45.917	0.00	1.85	11.280	IO	|	|	|	3.08
46.000	0.00	1.84	11.267	IO	|	|	|	3.08
46.083	0.00	1.83	11.254	IO	|	|	|	3.07
46.167	0.00	1.83	11.242	IO	|	|	|	3.07

46.250	0.00	1.82	11.229	IO				3.07
46.333	0.00	1.81	11.217	IO				3.06
46.417	0.00	1.81	11.204	IO				3.06
46.500	0.00	1.80	11.192	IO				3.06
46.583	0.00	1.79	11.179	IO				3.05
46.667	0.00	1.79	11.167	IO				3.05
46.750	0.00	1.78	11.155	IO				3.05
46.833	0.00	1.77	11.143	IO				3.04
46.917	0.00	1.77	11.130	IO				3.04
47.000	0.00	1.76	11.118	IO				3.04
47.083	0.00	1.75	11.106	IO				3.04
47.167	0.00	1.75	11.094	IO				3.03
47.250	0.00	1.74	11.082	IO				3.03
47.333	0.00	1.73	11.070	IO				3.03
47.417	0.00	1.73	11.058	IO				3.02
47.500	0.00	1.72	11.046	IO				3.02
47.583	0.00	1.71	11.034	IO				3.02
47.667	0.00	1.71	11.023	IO				3.01
47.750	0.00	1.70	11.011	IO				3.01
47.833	0.00	1.70	10.999	IO				3.01
47.917	0.00	1.69	10.988	IO				3.00
48.000	0.00	1.68	10.976	IO				3.00
48.083	0.00	1.68	10.964	IO				3.00
48.167	0.00	1.68	10.953	IO				3.00
48.250	0.00	1.67	10.941	IO				2.99
48.333	0.00	1.67	10.930	IO				2.99
48.417	0.00	1.67	10.918	IO				2.99
48.500	0.00	1.66	10.907	IO				2.98
48.583	0.00	1.66	10.895	IO				2.98
48.667	0.00	1.66	10.884	IO				2.98
48.750	0.00	1.66	10.873	IO				2.97
48.833	0.00	1.65	10.861	IO				2.97
48.917	0.00	1.65	10.850	IO				2.97
49.000	0.00	1.65	10.838	IO				2.96
49.083	0.00	1.64	10.827	IO				2.96
49.167	0.00	1.64	10.816	IO				2.96
49.250	0.00	1.64	10.805	IO				2.96
49.333	0.00	1.63	10.793	IO				2.95
49.417	0.00	1.63	10.782	IO				2.95
49.500	0.00	1.63	10.771	IO				2.95
49.583	0.00	1.63	10.760	IO				2.94
49.667	0.00	1.62	10.748	IO				2.94
49.750	0.00	1.62	10.737	IO				2.94
49.833	0.00	1.62	10.726	IO				2.93
49.917	0.00	1.61	10.715	IO				2.93
50.000	0.00	1.61	10.704	IO				2.93
50.083	0.00	1.61	10.693	IO				2.93
50.167	0.00	1.61	10.682	IO				2.92
50.250	0.00	1.60	10.671	IO				2.92
50.333	0.00	1.60	10.660	IO				2.92
50.417	0.00	1.60	10.649	IO				2.91
50.500	0.00	1.59	10.638	IO				2.91
50.583	0.00	1.59	10.627	IO				2.91
50.667	0.00	1.59	10.616	IO				2.90
50.750	0.00	1.59	10.605	IO				2.90
50.833	0.00	1.58	10.594	IO				2.90
50.917	0.00	1.58	10.583	IO				2.90
51.000	0.00	1.58	10.572	IO				2.89
51.083	0.00	1.58	10.561	IO				2.89
51.167	0.00	1.57	10.550	IO				2.89
51.250	0.00	1.57	10.539	IO				2.88
51.333	0.00	1.57	10.529	IO				2.88
51.417	0.00	1.56	10.518	IO				2.88

51.500	0.00	1.56	10.507	IO					2.88
51.583	0.00	1.56	10.496	IO					2.87
51.667	0.00	1.56	10.486	IO					2.87
51.750	0.00	1.55	10.475	IO					2.87
51.833	0.00	1.55	10.464	IO					2.86
51.917	0.00	1.55	10.454	IO					2.86
52.000	0.00	1.55	10.443	IO					2.86
52.083	0.00	1.54	10.432	IO					2.86
52.167	0.00	1.54	10.422	IO					2.85
52.250	0.00	1.54	10.411	IO					2.85
52.333	0.00	1.53	10.401	IO					2.85
52.417	0.00	1.53	10.390	IO					2.84
52.500	0.00	1.53	10.379	IO					2.84
52.583	0.00	1.53	10.369	IO					2.84
52.667	0.00	1.52	10.358	IO					2.84
52.750	0.00	1.52	10.348	IO					2.83
52.833	0.00	1.52	10.337	IO					2.83
52.917	0.00	1.52	10.327	IO					2.83
53.000	0.00	1.51	10.317	IO					2.82
53.083	0.00	1.51	10.306	IO					2.82
53.167	0.00	1.51	10.296	IO					2.82
53.250	0.00	1.50	10.285	IO					2.82
53.333	0.00	1.50	10.275	IO					2.81
53.417	0.00	1.50	10.265	IO					2.81
53.500	0.00	1.50	10.254	IO					2.81
53.583	0.00	1.49	10.244	IO					2.80
53.667	0.00	1.49	10.234	IO					2.80
53.750	0.00	1.49	10.224	IO					2.80
53.833	0.00	1.49	10.213	IO					2.80
53.917	0.00	1.48	10.203	IO					2.79
54.000	0.00	1.48	10.193	IO					2.79
54.083	0.00	1.48	10.183	IO					2.79
54.167	0.00	1.48	10.173	IO					2.79
54.250	0.00	1.47	10.162	IO					2.78
54.333	0.00	1.47	10.152	IO					2.78
54.417	0.00	1.47	10.142	IO					2.78
54.500	0.00	1.47	10.132	IO					2.77
54.583	0.00	1.46	10.122	IO					2.77
54.667	0.00	1.46	10.112	IO					2.77
54.750	0.00	1.46	10.102	IO					2.77
54.833	0.00	1.46	10.092	IO					2.76
54.917	0.00	1.45	10.082	IO					2.76
55.000	0.00	1.45	10.072	IO					2.76
55.083	0.00	1.45	10.062	IO					2.76
55.167	0.00	1.44	10.052	IO					2.75
55.250	0.00	1.44	10.042	IO					2.75
55.333	0.00	1.44	10.032	IO					2.75
55.417	0.00	1.44	10.022	IO					2.74
55.500	0.00	1.43	10.012	IO					2.74
55.583	0.00	1.43	10.002	IO					2.74
55.667	0.00	1.43	9.992	IO					2.74
55.750	0.00	1.43	9.983	IO					2.73
55.833	0.00	1.42	9.973	IO					2.73
55.917	0.00	1.42	9.963	IO					2.73
56.000	0.00	1.42	9.953	IO					2.73
56.083	0.00	1.42	9.943	IO					2.72
56.167	0.00	1.41	9.934	IO					2.72
56.250	0.00	1.41	9.924	IO					2.72
56.333	0.00	1.41	9.914	IO					2.72
56.417	0.00	1.41	9.905	IO					2.71
56.500	0.00	1.40	9.895	IO					2.71
56.583	0.00	1.40	9.885	IO					2.71
56.667	0.00	1.40	9.876	IO					2.71

56.750	0.00	1.40	9.866	IO					2.70
56.833	0.00	1.39	9.856	IO					2.70
56.917	0.00	1.39	9.847	IO					2.70
57.000	0.00	1.39	9.837	IO					2.69
57.083	0.00	1.39	9.828	IO					2.69
57.167	0.00	1.39	9.818	IO					2.69
57.250	0.00	1.38	9.808	IO					2.69
57.333	0.00	1.38	9.799	IO					2.68
57.417	0.00	1.38	9.789	IO					2.68
57.500	0.00	1.38	9.780	IO					2.68
57.583	0.00	1.37	9.771	IO					2.68
57.667	0.00	1.37	9.761	IO					2.67
57.750	0.00	1.37	9.752	IO					2.67
57.833	0.00	1.37	9.742	IO					2.67
57.917	0.00	1.36	9.733	IO					2.67
58.000	0.00	1.36	9.723	IO					2.66
58.083	0.00	1.36	9.714	IO					2.66
58.167	0.00	1.36	9.705	IO					2.66
58.250	0.00	1.35	9.695	IO					2.66
58.333	0.00	1.35	9.686	IO					2.65
58.417	0.00	1.35	9.677	IO					2.65
58.500	0.00	1.35	9.668	IO					2.65
58.583	0.00	1.34	9.658	IO					2.65
58.667	0.00	1.34	9.649	IO					2.64
58.750	0.00	1.34	9.640	IO					2.64
58.833	0.00	1.34	9.631	IO					2.64
58.917	0.00	1.33	9.621	IO					2.64
59.000	0.00	1.33	9.612	IO					2.63
59.083	0.00	1.33	9.603	IO					2.63
59.167	0.00	1.33	9.594	IO					2.63
59.250	0.00	1.33	9.585	IO					2.63
59.333	0.00	1.32	9.576	IO					2.62
59.417	0.00	1.32	9.567	IO					2.62
59.500	0.00	1.32	9.557	IO					2.62
59.583	0.00	1.32	9.548	IO					2.62
59.667	0.00	1.31	9.539	IO					2.61
59.750	0.00	1.31	9.530	IO					2.61
59.833	0.00	1.31	9.521	IO					2.61
59.917	0.00	1.31	9.512	IO					2.61
60.000	0.00	1.30	9.503	IO					2.60
60.083	0.00	1.30	9.494	IO					2.60
60.167	0.00	1.30	9.485	IO					2.60
60.250	0.00	1.30	9.476	IO					2.60
60.333	0.00	1.30	9.467	IO					2.59
60.417	0.00	1.29	9.459	IO					2.59
60.500	0.00	1.29	9.450	IO					2.59
60.583	0.00	1.29	9.441	IO					2.59
60.667	0.00	1.29	9.432	IO					2.59
60.750	0.00	1.28	9.423	IO					2.58
60.833	0.00	1.28	9.414	IO					2.58
60.917	0.00	1.28	9.405	IO					2.58
61.000	0.00	1.28	9.397	IO					2.58
61.083	0.00	1.27	9.388	IO					2.57
61.167	0.00	1.27	9.379	IO					2.57
61.250	0.00	1.27	9.370	IO					2.57
61.333	0.00	1.27	9.362	IO					2.57
61.417	0.00	1.27	9.353	IO					2.56
61.500	0.00	1.26	9.344	IO					2.56
61.583	0.00	1.26	9.335	IO					2.56
61.667	0.00	1.26	9.327	IO					2.56
61.750	0.00	1.26	9.318	IO					2.55
61.833	0.00	1.25	9.309	IO					2.55
61.917	0.00	1.25	9.301	IO					2.55

62.000	0.00	1.25	9.292	IO				2.55
62.083	0.00	1.25	9.284	IO				2.55
62.167	0.00	1.25	9.275	IO				2.54
62.250	0.00	1.24	9.266	IO				2.54
62.333	0.00	1.24	9.258	IO				2.54
62.417	0.00	1.24	9.249	IO				2.54
62.500	0.00	1.24	9.241	IO				2.53
62.583	0.00	1.24	9.232	IO				2.53
62.667	0.00	1.23	9.224	IO				2.53
62.750	0.00	1.23	9.215	IO				2.53
62.833	0.00	1.23	9.207	IO				2.52
62.917	0.00	1.23	9.198	IO				2.52
63.000	0.00	1.22	9.190	IO				2.52
63.083	0.00	1.22	9.181	IO				2.52
63.167	0.00	1.22	9.173	IO				2.52
63.250	0.00	1.22	9.165	IO				2.51
63.333	0.00	1.22	9.156	IO				2.51
63.417	0.00	1.21	9.148	IO				2.51
63.500	0.00	1.21	9.140	IO				2.51
63.583	0.00	1.21	9.131	IO				2.50
63.667	0.00	1.21	9.123	IO				2.50
63.750	0.00	1.20	9.115	IO				2.50
63.833	0.00	1.20	9.106	IO				2.50
63.917	0.00	1.20	9.098	IO				2.50
64.000	0.00	1.20	9.090	IO				2.49
64.083	0.00	1.20	9.082	IO				2.49
64.167	0.00	1.19	9.073	IO				2.49
64.250	0.00	1.19	9.065	IO				2.49
64.333	0.00	1.19	9.057	IO				2.48
64.417	0.00	1.19	9.049	IO				2.48
64.500	0.00	1.19	9.041	IO				2.48
64.583	0.00	1.18	9.032	IO				2.48
64.667	0.00	1.18	9.024	IO				2.48
64.750	0.00	1.18	9.016	IO				2.47
64.833	0.00	1.18	9.008	IO				2.47
64.917	0.00	1.18	9.000	IO				2.47
65.000	0.00	1.17	8.992	IO				2.47
65.083	0.00	1.17	8.984	IO				2.46
65.167	0.00	1.17	8.976	IO				2.46
65.250	0.00	1.17	8.968	IO				2.46
65.333	0.00	1.17	8.960	IO				2.46
65.417	0.00	1.16	8.952	IO				2.46
65.500	0.00	1.16	8.944	IO				2.45
65.583	0.00	1.16	8.936	IO				2.45
65.667	0.00	1.16	8.928	IO				2.45
65.750	0.00	1.15	8.920	IO				2.45
65.833	0.00	1.15	8.912	IO				2.45
65.917	0.00	1.15	8.904	O				2.44
66.000	0.00	1.15	8.896	O				2.44
66.083	0.00	1.15	8.888	O				2.44
66.167	0.00	1.14	8.880	O				2.44
66.250	0.00	1.14	8.872	O				2.43
66.333	0.00	1.14	8.864	O				2.43
66.417	0.00	1.14	8.856	O				2.43
66.500	0.00	1.14	8.849	O				2.43
66.583	0.00	1.13	8.841	O				2.43
66.667	0.00	1.13	8.833	O				2.42
66.750	0.00	1.13	8.825	O				2.42
66.833	0.00	1.13	8.817	O				2.42
66.917	0.00	1.13	8.810	O				2.42
67.000	0.00	1.12	8.802	O				2.42
67.083	0.00	1.12	8.794	O				2.41
67.167	0.00	1.12	8.786	O				2.41

67.250	0.00	1.12	8.779	O	|	|	|	|	2.41
67.333	0.00	1.12	8.771	O	|	|	|	|	2.41
67.417	0.00	1.11	8.763	O	|	|	|	|	2.41
67.500	0.00	1.11	8.756	O	|	|	|	|	2.40
67.583	0.00	1.11	8.748	O	|	|	|	|	2.40
67.667	0.00	1.11	8.740	O	|	|	|	|	2.40
67.750	0.00	1.11	8.733	O	|	|	|	|	2.40
67.833	0.00	1.11	8.725	O	|	|	|	|	2.39
67.917	0.00	1.10	8.717	O	|	|	|	|	2.39
68.000	0.00	1.10	8.710	O	|	|	|	|	2.39
68.083	0.00	1.10	8.702	O	|	|	|	|	2.39
68.167	0.00	1.10	8.695	O	|	|	|	|	2.39
68.250	0.00	1.10	8.687	O	|	|	|	|	2.38
68.333	0.00	1.09	8.680	O	|	|	|	|	2.38
68.417	0.00	1.09	8.672	O	|	|	|	|	2.38
68.500	0.00	1.09	8.665	O	|	|	|	|	2.38
68.583	0.00	1.09	8.657	O	|	|	|	|	2.38
68.667	0.00	1.09	8.650	O	|	|	|	|	2.37
68.750	0.00	1.08	8.642	O	|	|	|	|	2.37
68.833	0.00	1.08	8.635	O	|	|	|	|	2.37
68.917	0.00	1.08	8.627	O	|	|	|	|	2.37
69.000	0.00	1.08	8.620	O	|	|	|	|	2.37
69.083	0.00	1.08	8.612	O	|	|	|	|	2.36
69.167	0.00	1.07	8.605	O	|	|	|	|	2.36
69.250	0.00	1.07	8.598	O	|	|	|	|	2.36
69.333	0.00	1.07	8.590	O	|	|	|	|	2.36
69.417	0.00	1.07	8.583	O	|	|	|	|	2.36
69.500	0.00	1.07	8.575	O	|	|	|	|	2.35
69.583	0.00	1.06	8.568	O	|	|	|	|	2.35
69.667	0.00	1.06	8.561	O	|	|	|	|	2.35
69.750	0.00	1.06	8.554	O	|	|	|	|	2.35
69.833	0.00	1.06	8.546	O	|	|	|	|	2.35
69.917	0.00	1.06	8.539	O	|	|	|	|	2.34
70.000	0.00	1.06	8.532	O	|	|	|	|	2.34
70.083	0.00	1.05	8.524	O	|	|	|	|	2.34
70.167	0.00	1.05	8.517	O	|	|	|	|	2.34
70.250	0.00	1.05	8.510	O	|	|	|	|	2.34
70.333	0.00	1.05	8.503	O	|	|	|	|	2.33
70.417	0.00	1.05	8.495	O	|	|	|	|	2.33
70.500	0.00	1.04	8.488	O	|	|	|	|	2.33
70.583	0.00	1.04	8.481	O	|	|	|	|	2.33
70.667	0.00	1.04	8.474	O	|	|	|	|	2.33
70.750	0.00	1.04	8.467	O	|	|	|	|	2.33
70.833	0.00	1.04	8.460	O	|	|	|	|	2.32
70.917	0.00	1.04	8.452	O	|	|	|	|	2.32
71.000	0.00	1.03	8.445	O	|	|	|	|	2.32
71.083	0.00	1.03	8.438	O	|	|	|	|	2.32
71.167	0.00	1.03	8.431	O	|	|	|	|	2.32
71.250	0.00	1.03	8.424	O	|	|	|	|	2.31
71.333	0.00	1.03	8.417	O	|	|	|	|	2.31
71.417	0.00	1.02	8.410	O	|	|	|	|	2.31
71.500	0.00	1.02	8.403	O	|	|	|	|	2.31
71.583	0.00	1.02	8.396	O	|	|	|	|	2.31
71.667	0.00	1.02	8.389	O	|	|	|	|	2.30
71.750	0.00	1.02	8.382	O	|	|	|	|	2.30
71.833	0.00	1.02	8.375	O	|	|	|	|	2.30
71.917	0.00	1.01	8.368	O	|	|	|	|	2.30
72.000	0.00	1.01	8.361	O	|	|	|	|	2.30
72.083	0.00	1.01	8.354	O	|	|	|	|	2.29
72.167	0.00	1.01	8.347	O	|	|	|	|	2.29
72.250	0.00	1.01	8.340	O	|	|	|	|	2.29
72.333	0.00	1.00	8.333	O	|	|	|	|	2.29
72.417	0.00	1.00	8.326	O	|	|	|	|	2.29

72.500	0.00	1.00	8.319	O					2.29
72.583	0.00	1.00	8.312	O					2.28
72.667	0.00	1.00	8.305	O					2.28
72.750	0.00	1.00	8.299	O					2.28
72.833	0.00	0.99	8.292	O					2.28
72.917	0.00	0.99	8.285	O					2.28
73.000	0.00	0.99	8.278	O					2.27
73.083	0.00	0.99	8.271	O					2.27
73.167	0.00	0.99	8.264	O					2.27
73.250	0.00	0.99	8.258	O					2.27
73.333	0.00	0.98	8.251	O					2.27
73.417	0.00	0.98	8.244	O					2.27
73.500	0.00	0.98	8.237	O					2.26
73.583	0.00	0.98	8.231	O					2.26
73.667	0.00	0.98	8.224	O					2.26
73.750	0.00	0.98	8.217	O					2.26
73.833	0.00	0.97	8.210	O					2.26
73.917	0.00	0.97	8.204	O					2.25
74.000	0.00	0.97	8.197	O					2.25
74.083	0.00	0.97	8.190	O					2.25
74.167	0.00	0.97	8.184	O					2.25
74.250	0.00	0.96	8.177	O					2.25
74.333	0.00	0.96	8.170	O					2.25
74.417	0.00	0.96	8.164	O					2.24
74.500	0.00	0.96	8.157	O					2.24
74.583	0.00	0.96	8.151	O					2.24
74.667	0.00	0.96	8.144	O					2.24
74.750	0.00	0.95	8.137	O					2.24
74.833	0.00	0.95	8.131	O					2.23
74.917	0.00	0.95	8.124	O					2.23
75.000	0.00	0.95	8.118	O					2.23
75.083	0.00	0.95	8.111	O					2.23
75.167	0.00	0.95	8.105	O					2.23
75.250	0.00	0.94	8.098	O					2.23
75.333	0.00	0.94	8.092	O					2.22
75.417	0.00	0.94	8.085	O					2.22
75.500	0.00	0.94	8.079	O					2.22
75.583	0.00	0.94	8.072	O					2.22
75.667	0.00	0.94	8.066	O					2.22
75.750	0.00	0.93	8.059	O					2.22
75.833	0.00	0.93	8.053	O					2.21
75.917	0.00	0.93	8.046	O					2.21
76.000	0.00	0.93	8.040	O					2.21
76.083	0.00	0.93	8.034	O					2.21
76.167	0.00	0.93	8.027	O					2.21
76.250	0.00	0.92	8.021	O					2.21
76.333	0.00	0.92	8.015	O					2.20
76.417	0.00	0.92	8.008	O					2.20
76.500	0.00	0.92	8.002	O					2.20
76.583	0.00	0.92	7.996	O					2.20
76.667	0.00	0.92	7.989	O					2.20
76.750	0.00	0.92	7.983	O					2.19
76.833	0.00	0.91	7.977	O					2.19
76.917	0.00	0.91	7.970	O					2.19
77.000	0.00	0.91	7.964	O					2.19
77.083	0.00	0.91	7.958	O					2.19
77.167	0.00	0.91	7.952	O					2.19
77.250	0.00	0.91	7.945	O					2.18
77.333	0.00	0.90	7.939	O					2.18
77.417	0.00	0.90	7.933	O					2.18
77.500	0.00	0.90	7.927	O					2.18
77.583	0.00	0.90	7.920	O					2.18
77.667	0.00	0.90	7.914	O					2.18

77.750	0.00	0.90	7.908	O	|	|	|	|	2.17
77.833	0.00	0.89	7.902	O	|	|	|	|	2.17
77.917	0.00	0.89	7.896	O	|	|	|	|	2.17
78.000	0.00	0.89	7.890	O	|	|	|	|	2.17
78.083	0.00	0.89	7.883	O	|	|	|	|	2.17
78.167	0.00	0.89	7.877	O	|	|	|	|	2.17
78.250	0.00	0.89	7.871	O	|	|	|	|	2.16
78.333	0.00	0.88	7.865	O	|	|	|	|	2.16
78.417	0.00	0.88	7.859	O	|	|	|	|	2.16
78.500	0.00	0.88	7.853	O	|	|	|	|	2.16
78.583	0.00	0.88	7.847	O	|	|	|	|	2.16
78.667	0.00	0.88	7.841	O	|	|	|	|	2.16
78.750	0.00	0.88	7.835	O	|	|	|	|	2.15
78.833	0.00	0.88	7.829	O	|	|	|	|	2.15
78.917	0.00	0.87	7.823	O	|	|	|	|	2.15
79.000	0.00	0.87	7.817	O	|	|	|	|	2.15
79.083	0.00	0.87	7.811	O	|	|	|	|	2.15
79.167	0.00	0.87	7.805	O	|	|	|	|	2.15
79.250	0.00	0.87	7.799	O	|	|	|	|	2.15
79.333	0.00	0.87	7.793	O	|	|	|	|	2.14
79.417	0.00	0.86	7.787	O	|	|	|	|	2.14
79.500	0.00	0.86	7.781	O	|	|	|	|	2.14
79.583	0.00	0.86	7.775	O	|	|	|	|	2.14
79.667	0.00	0.86	7.769	O	|	|	|	|	2.14
79.750	0.00	0.86	7.763	O	|	|	|	|	2.14
79.833	0.00	0.86	7.757	O	|	|	|	|	2.13
79.917	0.00	0.86	7.751	O	|	|	|	|	2.13
80.000	0.00	0.85	7.745	O	|	|	|	|	2.13
80.083	0.00	0.85	7.739	O	|	|	|	|	2.13
80.167	0.00	0.85	7.734	O	|	|	|	|	2.13
80.250	0.00	0.85	7.728	O	|	|	|	|	2.13
80.333	0.00	0.85	7.722	O	|	|	|	|	2.12
80.417	0.00	0.85	7.716	O	|	|	|	|	2.12
80.500	0.00	0.85	7.710	O	|	|	|	|	2.12
80.583	0.00	0.84	7.704	O	|	|	|	|	2.12
80.667	0.00	0.84	7.699	O	|	|	|	|	2.12
80.750	0.00	0.84	7.693	O	|	|	|	|	2.12
80.833	0.00	0.84	7.687	O	|	|	|	|	2.12
80.917	0.00	0.84	7.681	O	|	|	|	|	2.11
81.000	0.00	0.84	7.675	O	|	|	|	|	2.11
81.083	0.00	0.83	7.670	O	|	|	|	|	2.11
81.167	0.00	0.83	7.664	O	|	|	|	|	2.11
81.250	0.00	0.83	7.658	O	|	|	|	|	2.11
81.333	0.00	0.83	7.653	O	|	|	|	|	2.11
81.417	0.00	0.83	7.647	O	|	|	|	|	2.10
81.500	0.00	0.83	7.641	O	|	|	|	|	2.10
81.583	0.00	0.83	7.635	O	|	|	|	|	2.10
81.667	0.00	0.82	7.630	O	|	|	|	|	2.10
81.750	0.00	0.82	7.624	O	|	|	|	|	2.10
81.833	0.00	0.82	7.618	O	|	|	|	|	2.10
81.917	0.00	0.82	7.613	O	|	|	|	|	2.10
82.000	0.00	0.82	7.607	O	|	|	|	|	2.09
82.083	0.00	0.82	7.601	O	|	|	|	|	2.09
82.167	0.00	0.82	7.596	O	|	|	|	|	2.09
82.250	0.00	0.81	7.590	O	|	|	|	|	2.09
82.333	0.00	0.81	7.585	O	|	|	|	|	2.09
82.417	0.00	0.81	7.579	O	|	|	|	|	2.09
82.500	0.00	0.81	7.573	O	|	|	|	|	2.08
82.583	0.00	0.81	7.568	O	|	|	|	|	2.08
82.667	0.00	0.81	7.562	O	|	|	|	|	2.08
82.750	0.00	0.81	7.557	O	|	|	|	|	2.08
82.833	0.00	0.80	7.551	O	|	|	|	|	2.08
82.917	0.00	0.80	7.546	O	|	|	|	|	2.08

83.000	0.00	0.80	7.540	O	|	|	|	2.08
83.083	0.00	0.80	7.535	O	|	|	|	2.07
83.167	0.00	0.80	7.529	O	|	|	|	2.07
83.250	0.00	0.80	7.524	O	|	|	|	2.07
83.333	0.00	0.80	7.518	O	|	|	|	2.07
83.417	0.00	0.79	7.513	O	|	|	|	2.07
83.500	0.00	0.79	7.507	O	|	|	|	2.07
83.583	0.00	0.79	7.502	O	|	|	|	2.07
83.667	0.00	0.79	7.496	O	|	|	|	2.06
83.750	0.00	0.79	7.491	O	|	|	|	2.06
83.833	0.00	0.79	7.485	O	|	|	|	2.06
83.917	0.00	0.79	7.480	O	|	|	|	2.06
84.000	0.00	0.78	7.475	O	|	|	|	2.06
84.083	0.00	0.78	7.469	O	|	|	|	2.06
84.167	0.00	0.78	7.464	O	|	|	|	2.05
84.250	0.00	0.78	7.458	O	|	|	|	2.05
84.333	0.00	0.78	7.453	O	|	|	|	2.05
84.417	0.00	0.78	7.448	O	|	|	|	2.05
84.500	0.00	0.78	7.442	O	|	|	|	2.05
84.583	0.00	0.78	7.437	O	|	|	|	2.05
84.667	0.00	0.77	7.432	O	|	|	|	2.05
84.750	0.00	0.77	7.426	O	|	|	|	2.04
84.833	0.00	0.77	7.421	O	|	|	|	2.04
84.917	0.00	0.77	7.416	O	|	|	|	2.04
85.000	0.00	0.77	7.410	O	|	|	|	2.04
85.083	0.00	0.77	7.405	O	|	|	|	2.04
85.167	0.00	0.77	7.400	O	|	|	|	2.04
85.250	0.00	0.76	7.395	O	|	|	|	2.04
85.333	0.00	0.76	7.389	O	|	|	|	2.03
85.417	0.00	0.76	7.384	O	|	|	|	2.03
85.500	0.00	0.76	7.379	O	|	|	|	2.03
85.583	0.00	0.76	7.374	O	|	|	|	2.03
85.667	0.00	0.76	7.368	O	|	|	|	2.03
85.750	0.00	0.76	7.363	O	|	|	|	2.03
85.833	0.00	0.76	7.358	O	|	|	|	2.03
85.917	0.00	0.75	7.353	O	|	|	|	2.02
86.000	0.00	0.75	7.348	O	|	|	|	2.02
86.083	0.00	0.75	7.342	O	|	|	|	2.02
86.167	0.00	0.75	7.337	O	|	|	|	2.02
86.250	0.00	0.75	7.332	O	|	|	|	2.02
86.333	0.00	0.75	7.327	O	|	|	|	2.02
86.417	0.00	0.75	7.322	O	|	|	|	2.02
86.500	0.00	0.74	7.317	O	|	|	|	2.02
86.583	0.00	0.74	7.311	O	|	|	|	2.01
86.667	0.00	0.74	7.306	O	|	|	|	2.01
86.750	0.00	0.74	7.301	O	|	|	|	2.01
86.833	0.00	0.74	7.296	O	|	|	|	2.01
86.917	0.00	0.74	7.291	O	|	|	|	2.01
87.000	0.00	0.74	7.286	O	|	|	|	2.01
87.083	0.00	0.74	7.281	O	|	|	|	2.01
87.167	0.00	0.73	7.276	O	|	|	|	2.00
87.250	0.00	0.73	7.271	O	|	|	|	2.00
87.333	0.00	0.73	7.266	O	|	|	|	2.00
87.417	0.00	0.73	7.261	O	|	|	|	2.00
87.500	0.00	0.73	7.256	O	|	|	|	2.00
87.583	0.00	0.73	7.251	O	|	|	|	2.00
87.667	0.00	0.73	7.246	O	|	|	|	2.00
87.750	0.00	0.73	7.241	O	|	|	|	1.99
87.833	0.00	0.73	7.236	O	|	|	|	1.99
87.917	0.00	0.73	7.231	O	|	|	|	1.99
88.000	0.00	0.73	7.226	O	|	|	|	1.99
88.083	0.00	0.73	7.221	O	|	|	|	1.99
88.167	0.00	0.72	7.216	O	|	|	|	1.99

88.250	0.00	0.72	7.211	O					1.99
88.333	0.00	0.72	7.206	O					1.98
88.417	0.00	0.72	7.201	O					1.98
88.500	0.00	0.72	7.196	O					1.98
88.583	0.00	0.72	7.191	O					1.98
88.667	0.00	0.72	7.186	O					1.98
88.750	0.00	0.72	7.181	O					1.98
88.833	0.00	0.72	7.176	O					1.98
88.917	0.00	0.72	7.171	O					1.97
89.000	0.00	0.72	7.166	O					1.97
89.083	0.00	0.72	7.161	O					1.97
89.167	0.00	0.72	7.156	O					1.97
89.250	0.00	0.72	7.151	O					1.97
89.333	0.00	0.72	7.146	O					1.97
89.417	0.00	0.72	7.141	O					1.97
89.500	0.00	0.72	7.136	O					1.97
89.583	0.00	0.72	7.131	O					1.96
89.667	0.00	0.71	7.126	O					1.96
89.750	0.00	0.71	7.122	O					1.96
89.833	0.00	0.71	7.117	O					1.96
89.917	0.00	0.71	7.112	O					1.96
90.000	0.00	0.71	7.107	O					1.96
90.083	0.00	0.71	7.102	O					1.96
90.167	0.00	0.71	7.097	O					1.95
90.250	0.00	0.71	7.092	O					1.95
90.333	0.00	0.71	7.087	O					1.95
90.417	0.00	0.71	7.082	O					1.95
90.500	0.00	0.71	7.077	O					1.95
90.583	0.00	0.71	7.073	O					1.95
90.667	0.00	0.71	7.068	O					1.95
90.750	0.00	0.71	7.063	O					1.94
90.833	0.00	0.71	7.058	O					1.94
90.917	0.00	0.71	7.053	O					1.94
91.000	0.00	0.71	7.048	O					1.94
91.083	0.00	0.71	7.043	O					1.94
91.167	0.00	0.70	7.038	O					1.94
91.250	0.00	0.70	7.034	O					1.94
91.333	0.00	0.70	7.029	O					1.94
91.417	0.00	0.70	7.024	O					1.93
91.500	0.00	0.70	7.019	O					1.93
91.583	0.00	0.70	7.014	O					1.93
91.667	0.00	0.70	7.009	O					1.93
91.750	0.00	0.70	7.005	O					1.93
91.833	0.00	0.70	7.000	O					1.93
91.917	0.00	0.70	6.995	O					1.93
92.000	0.00	0.70	6.990	O					1.92
92.083	0.00	0.70	6.985	O					1.92
92.167	0.00	0.70	6.981	O					1.92
92.250	0.00	0.70	6.976	O					1.92
92.333	0.00	0.70	6.971	O					1.92
92.417	0.00	0.70	6.966	O					1.92
92.500	0.00	0.70	6.961	O					1.92
92.583	0.00	0.70	6.957	O					1.91
92.667	0.00	0.69	6.952	O					1.91
92.750	0.00	0.69	6.947	O					1.91
92.833	0.00	0.69	6.942	O					1.91
92.917	0.00	0.69	6.937	O					1.91
93.000	0.00	0.69	6.933	O					1.91
93.083	0.00	0.69	6.928	O					1.91
93.167	0.00	0.69	6.923	O					1.91
93.250	0.00	0.69	6.918	O					1.90
93.333	0.00	0.69	6.914	O					1.90
93.417	0.00	0.69	6.909	O					1.90

93.500	0.00	0.69	6.904	O					1.90
93.583	0.00	0.69	6.899	O					1.90
93.667	0.00	0.69	6.895	O					1.90
93.750	0.00	0.69	6.890	O					1.90
93.833	0.00	0.69	6.885	O					1.89
93.917	0.00	0.69	6.880	O					1.89
94.000	0.00	0.69	6.876	O					1.89
94.083	0.00	0.69	6.871	O					1.89
94.167	0.00	0.68	6.866	O					1.89
94.250	0.00	0.68	6.862	O					1.89
94.333	0.00	0.68	6.857	O					1.89
94.417	0.00	0.68	6.852	O					1.89
94.500	0.00	0.68	6.847	O					1.88
94.583	0.00	0.68	6.843	O					1.88
94.667	0.00	0.68	6.838	O					1.88
94.750	0.00	0.68	6.833	O					1.88
94.833	0.00	0.68	6.829	O					1.88
94.917	0.00	0.68	6.824	O					1.88
95.000	0.00	0.68	6.819	O					1.88
95.083	0.00	0.68	6.815	O					1.87
95.167	0.00	0.68	6.810	O					1.87
95.250	0.00	0.68	6.805	O					1.87
95.333	0.00	0.68	6.801	O					1.87
95.417	0.00	0.68	6.796	O					1.87
95.500	0.00	0.68	6.791	O					1.87
95.583	0.00	0.68	6.787	O					1.87
95.667	0.00	0.67	6.782	O					1.87
95.750	0.00	0.67	6.777	O					1.86
95.833	0.00	0.67	6.773	O					1.86
95.917	0.00	0.67	6.768	O					1.86
96.000	0.00	0.67	6.763	O					1.86
96.083	0.00	0.67	6.759	O					1.86
96.167	0.00	0.67	6.754	O					1.86
96.250	0.00	0.67	6.750	O					1.86
96.333	0.00	0.67	6.745	O					1.86
96.417	0.00	0.67	6.740	O					1.85
96.500	0.00	0.67	6.736	O					1.85
96.583	0.00	0.67	6.731	O					1.85
96.667	0.00	0.67	6.726	O					1.85
96.750	0.00	0.67	6.722	O					1.85
96.833	0.00	0.67	6.717	O					1.85
96.917	0.00	0.67	6.713	O					1.85
97.000	0.00	0.67	6.708	O					1.84
97.083	0.00	0.67	6.704	O					1.84
97.167	0.00	0.67	6.699	O					1.84
97.250	0.00	0.66	6.694	O					1.84
97.333	0.00	0.66	6.690	O					1.84
97.417	0.00	0.66	6.685	O					1.84
97.500	0.00	0.66	6.681	O					1.84
97.583	0.00	0.66	6.676	O					1.84
97.667	0.00	0.66	6.672	O					1.83
97.750	0.00	0.66	6.667	O					1.83
97.833	0.00	0.66	6.662	O					1.83
97.917	0.00	0.66	6.658	O					1.83
98.000	0.00	0.66	6.653	O					1.83
98.083	0.00	0.66	6.649	O					1.83
98.167	0.00	0.66	6.644	O					1.83
98.250	0.00	0.66	6.640	O					1.83
98.333	0.00	0.66	6.635	O					1.82
98.417	0.00	0.66	6.631	O					1.82
98.500	0.00	0.66	6.626	O					1.82
98.583	0.00	0.66	6.622	O					1.82
98.667	0.00	0.66	6.617	O					1.82

98.750	0.00	0.66	6.613	O	|	|	|	|	1.82
98.833	0.00	0.65	6.608	O	|	|	|	|	1.82
98.917	0.00	0.65	6.603	O	|	|	|	|	1.82
99.000	0.00	0.65	6.599	O	|	|	|	|	1.81
99.083	0.00	0.65	6.594	O	|	|	|	|	1.81
99.167	0.00	0.65	6.590	O	|	|	|	|	1.81
99.250	0.00	0.65	6.585	O	|	|	|	|	1.81
99.333	0.00	0.65	6.581	O	|	|	|	|	1.81
99.417	0.00	0.65	6.577	O	|	|	|	|	1.81
99.500	0.00	0.65	6.572	O	|	|	|	|	1.81
99.583	0.00	0.65	6.568	O	|	|	|	|	1.81
99.667	0.00	0.65	6.563	O	|	|	|	|	1.80
99.750	0.00	0.65	6.559	O	|	|	|	|	1.80
99.833	0.00	0.65	6.554	O	|	|	|	|	1.80
99.917	0.00	0.65	6.550	O	|	|	|	|	1.80
100.000	0.00	0.65	6.545	O	|	|	|	|	1.80
100.083	0.00	0.65	6.541	O	|	|	|	|	1.80
100.167	0.00	0.65	6.536	O	|	|	|	|	1.80
100.250	0.00	0.65	6.532	O	|	|	|	|	1.80
100.333	0.00	0.65	6.527	O	|	|	|	|	1.79
100.417	0.00	0.65	6.523	O	|	|	|	|	1.79
100.500	0.00	0.64	6.519	O	|	|	|	|	1.79
100.583	0.00	0.64	6.514	O	|	|	|	|	1.79
100.667	0.00	0.64	6.510	O	|	|	|	|	1.79
100.750	0.00	0.64	6.505	O	|	|	|	|	1.79
100.833	0.00	0.64	6.501	O	|	|	|	|	1.79
100.917	0.00	0.64	6.496	O	|	|	|	|	1.79
101.000	0.00	0.64	6.492	O	|	|	|	|	1.78
101.083	0.00	0.64	6.488	O	|	|	|	|	1.78
101.167	0.00	0.64	6.483	O	|	|	|	|	1.78
101.250	0.00	0.64	6.479	O	|	|	|	|	1.78
101.333	0.00	0.64	6.474	O	|	|	|	|	1.78
101.417	0.00	0.64	6.470	O	|	|	|	|	1.78
101.500	0.00	0.64	6.465	O	|	|	|	|	1.78
101.583	0.00	0.64	6.461	O	|	|	|	|	1.78
101.667	0.00	0.64	6.457	O	|	|	|	|	1.77
101.750	0.00	0.64	6.452	O	|	|	|	|	1.77
101.833	0.00	0.64	6.448	O	|	|	|	|	1.77
101.917	0.00	0.64	6.444	O	|	|	|	|	1.77
102.000	0.00	0.64	6.439	O	|	|	|	|	1.77
102.083	0.00	0.63	6.435	O	|	|	|	|	1.77
102.167	0.00	0.63	6.430	O	|	|	|	|	1.77
102.250	0.00	0.63	6.426	O	|	|	|	|	1.77
102.333	0.00	0.63	6.422	O	|	|	|	|	1.76
102.417	0.00	0.63	6.417	O	|	|	|	|	1.76
102.500	0.00	0.63	6.413	O	|	|	|	|	1.76
102.583	0.00	0.63	6.409	O	|	|	|	|	1.76
102.667	0.00	0.63	6.404	O	|	|	|	|	1.76
102.750	0.00	0.63	6.400	O	|	|	|	|	1.76
102.833	0.00	0.63	6.396	O	|	|	|	|	1.76
102.917	0.00	0.63	6.391	O	|	|	|	|	1.76
103.000	0.00	0.63	6.387	O	|	|	|	|	1.75
103.083	0.00	0.63	6.383	O	|	|	|	|	1.75
103.167	0.00	0.63	6.378	O	|	|	|	|	1.75
103.250	0.00	0.63	6.374	O	|	|	|	|	1.75
103.333	0.00	0.63	6.370	O	|	|	|	|	1.75
103.417	0.00	0.63	6.365	O	|	|	|	|	1.75
103.500	0.00	0.63	6.361	O	|	|	|	|	1.75
103.583	0.00	0.63	6.357	O	|	|	|	|	1.75
103.667	0.00	0.63	6.352	O	|	|	|	|	1.75
103.750	0.00	0.62	6.348	O	|	|	|	|	1.74
103.833	0.00	0.62	6.344	O	|	|	|	|	1.74
103.917	0.00	0.62	6.339	O	|	|	|	|	1.74

104.000	0.00	0.62	6.335	O	|	|	|	|	1.74
104.083	0.00	0.62	6.331	O	|	|	|	|	1.74
104.167	0.00	0.62	6.327	O	|	|	|	|	1.74
104.250	0.00	0.62	6.322	O	|	|	|	|	1.74
104.333	0.00	0.62	6.318	O	|	|	|	|	1.74
104.417	0.00	0.62	6.314	O	|	|	|	|	1.73
104.500	0.00	0.62	6.309	O	|	|	|	|	1.73
104.583	0.00	0.62	6.305	O	|	|	|	|	1.73
104.667	0.00	0.62	6.301	O	|	|	|	|	1.73
104.750	0.00	0.62	6.297	O	|	|	|	|	1.73
104.833	0.00	0.62	6.292	O	|	|	|	|	1.73
104.917	0.00	0.62	6.288	O	|	|	|	|	1.73
105.000	0.00	0.62	6.284	O	|	|	|	|	1.73
105.083	0.00	0.62	6.280	O	|	|	|	|	1.72
105.167	0.00	0.62	6.275	O	|	|	|	|	1.72
105.250	0.00	0.62	6.271	O	|	|	|	|	1.72
105.333	0.00	0.62	6.267	O	|	|	|	|	1.72
105.417	0.00	0.62	6.263	O	|	|	|	|	1.72
105.500	0.00	0.61	6.258	O	|	|	|	|	1.72
105.583	0.00	0.61	6.254	O	|	|	|	|	1.72
105.667	0.00	0.61	6.250	O	|	|	|	|	1.72
105.750	0.00	0.61	6.246	O	|	|	|	|	1.72
105.833	0.00	0.61	6.241	O	|	|	|	|	1.71
105.917	0.00	0.61	6.237	O	|	|	|	|	1.71
106.000	0.00	0.61	6.233	O	|	|	|	|	1.71
106.083	0.00	0.61	6.229	O	|	|	|	|	1.71
106.167	0.00	0.61	6.225	O	|	|	|	|	1.71
106.250	0.00	0.61	6.220	O	|	|	|	|	1.71
106.333	0.00	0.61	6.216	O	|	|	|	|	1.71
106.417	0.00	0.61	6.212	O	|	|	|	|	1.71
106.500	0.00	0.61	6.208	O	|	|	|	|	1.70
106.583	0.00	0.61	6.204	O	|	|	|	|	1.70
106.667	0.00	0.61	6.199	O	|	|	|	|	1.70
106.750	0.00	0.61	6.195	O	|	|	|	|	1.70
106.833	0.00	0.61	6.191	O	|	|	|	|	1.70
106.917	0.00	0.61	6.187	O	|	|	|	|	1.70
107.000	0.00	0.61	6.183	O	|	|	|	|	1.70
107.083	0.00	0.61	6.179	O	|	|	|	|	1.70
107.167	0.00	0.60	6.174	O	|	|	|	|	1.70
107.250	0.00	0.60	6.170	O	|	|	|	|	1.69
107.333	0.00	0.60	6.166	O	|	|	|	|	1.69
107.417	0.00	0.60	6.162	O	|	|	|	|	1.69
107.500	0.00	0.60	6.158	O	|	|	|	|	1.69
107.583	0.00	0.60	6.154	O	|	|	|	|	1.69
107.667	0.00	0.60	6.149	O	|	|	|	|	1.69
107.750	0.00	0.60	6.145	O	|	|	|	|	1.69
107.833	0.00	0.60	6.141	O	|	|	|	|	1.69
107.917	0.00	0.60	6.137	O	|	|	|	|	1.68
108.000	0.00	0.60	6.133	O	|	|	|	|	1.68
108.083	0.00	0.60	6.129	O	|	|	|	|	1.68
108.167	0.00	0.60	6.125	O	|	|	|	|	1.68
108.250	0.00	0.60	6.121	O	|	|	|	|	1.68
108.333	0.00	0.60	6.116	O	|	|	|	|	1.68
108.417	0.00	0.60	6.112	O	|	|	|	|	1.68
108.500	0.00	0.60	6.108	O	|	|	|	|	1.68
108.583	0.00	0.60	6.104	O	|	|	|	|	1.68
108.667	0.00	0.60	6.100	O	|	|	|	|	1.67
108.750	0.00	0.60	6.096	O	|	|	|	|	1.67
108.833	0.00	0.60	6.092	O	|	|	|	|	1.67
108.917	0.00	0.59	6.088	O	|	|	|	|	1.67
109.000	0.00	0.59	6.084	O	|	|	|	|	1.67
109.083	0.00	0.59	6.079	O	|	|	|	|	1.67
109.167	0.00	0.59	6.075	O	|	|	|	|	1.67

109.250	0.00	0.59	6.071	O	|	|	|	|	1.67
109.333	0.00	0.59	6.067	O	|	|	|	|	1.66
109.417	0.00	0.59	6.063	O	|	|	|	|	1.66
109.500	0.00	0.59	6.059	O	|	|	|	|	1.66
109.583	0.00	0.59	6.055	O	|	|	|	|	1.66
109.667	0.00	0.59	6.051	O	|	|	|	|	1.66
109.750	0.00	0.59	6.047	O	|	|	|	|	1.66
109.833	0.00	0.59	6.043	O	|	|	|	|	1.66
109.917	0.00	0.59	6.039	O	|	|	|	|	1.66
110.000	0.00	0.59	6.035	O	|	|	|	|	1.66
110.083	0.00	0.59	6.031	O	|	|	|	|	1.65
110.167	0.00	0.59	6.027	O	|	|	|	|	1.65
110.250	0.00	0.59	6.022	O	|	|	|	|	1.65
110.333	0.00	0.59	6.018	O	|	|	|	|	1.65
110.417	0.00	0.59	6.014	O	|	|	|	|	1.65
110.500	0.00	0.59	6.010	O	|	|	|	|	1.65
110.583	0.00	0.59	6.006	O	|	|	|	|	1.65
110.667	0.00	0.59	6.002	O	|	|	|	|	1.65
110.750	0.00	0.58	5.998	O	|	|	|	|	1.65
110.833	0.00	0.58	5.994	O	|	|	|	|	1.64
110.917	0.00	0.58	5.990	O	|	|	|	|	1.64
111.000	0.00	0.58	5.986	O	|	|	|	|	1.64
111.083	0.00	0.58	5.982	O	|	|	|	|	1.64
111.167	0.00	0.58	5.978	O	|	|	|	|	1.64
111.250	0.00	0.58	5.974	O	|	|	|	|	1.64
111.333	0.00	0.58	5.970	O	|	|	|	|	1.64
111.417	0.00	0.58	5.966	O	|	|	|	|	1.64
111.500	0.00	0.58	5.962	O	|	|	|	|	1.64
111.583	0.00	0.58	5.958	O	|	|	|	|	1.63
111.667	0.00	0.58	5.954	O	|	|	|	|	1.63
111.750	0.00	0.58	5.950	O	|	|	|	|	1.63
111.833	0.00	0.58	5.946	O	|	|	|	|	1.63
111.917	0.00	0.58	5.942	O	|	|	|	|	1.63
112.000	0.00	0.58	5.938	O	|	|	|	|	1.63
112.083	0.00	0.58	5.934	O	|	|	|	|	1.63
112.167	0.00	0.58	5.930	O	|	|	|	|	1.63
112.250	0.00	0.58	5.926	O	|	|	|	|	1.63
112.333	0.00	0.58	5.922	O	|	|	|	|	1.62
112.417	0.00	0.58	5.918	O	|	|	|	|	1.62
112.500	0.00	0.58	5.914	O	|	|	|	|	1.62
112.583	0.00	0.57	5.910	O	|	|	|	|	1.62
112.667	0.00	0.57	5.906	O	|	|	|	|	1.62
112.750	0.00	0.57	5.903	O	|	|	|	|	1.62
112.833	0.00	0.57	5.899	O	|	|	|	|	1.62
112.917	0.00	0.57	5.895	O	|	|	|	|	1.62
113.000	0.00	0.57	5.891	O	|	|	|	|	1.62
113.083	0.00	0.57	5.887	O	|	|	|	|	1.61
113.167	0.00	0.57	5.883	O	|	|	|	|	1.61
113.250	0.00	0.57	5.879	O	|	|	|	|	1.61
113.333	0.00	0.57	5.875	O	|	|	|	|	1.61
113.417	0.00	0.57	5.871	O	|	|	|	|	1.61
113.500	0.00	0.57	5.867	O	|	|	|	|	1.61
113.583	0.00	0.57	5.863	O	|	|	|	|	1.61
113.667	0.00	0.57	5.859	O	|	|	|	|	1.61
113.750	0.00	0.57	5.855	O	|	|	|	|	1.61
113.833	0.00	0.57	5.851	O	|	|	|	|	1.60
113.917	0.00	0.57	5.848	O	|	|	|	|	1.60
114.000	0.00	0.57	5.844	O	|	|	|	|	1.60
114.083	0.00	0.57	5.840	O	|	|	|	|	1.60
114.167	0.00	0.57	5.836	O	|	|	|	|	1.60
114.250	0.00	0.57	5.832	O	|	|	|	|	1.60
114.333	0.00	0.57	5.828	O	|	|	|	|	1.60
114.417	0.00	0.56	5.824	O	|	|	|	|	1.60

114.500	0.00	0.56	5.820	O	|	|	|	|	1.60
114.583	0.00	0.56	5.816	O	|	|	|	|	1.59
114.667	0.00	0.56	5.812	O	|	|	|	|	1.59
114.750	0.00	0.56	5.809	O	|	|	|	|	1.59
114.833	0.00	0.56	5.805	O	|	|	|	|	1.59
114.917	0.00	0.56	5.801	O	|	|	|	|	1.59
115.000	0.00	0.56	5.797	O	|	|	|	|	1.59
115.083	0.00	0.56	5.793	O	|	|	|	|	1.59
115.167	0.00	0.56	5.789	O	|	|	|	|	1.59
115.250	0.00	0.56	5.785	O	|	|	|	|	1.59
115.333	0.00	0.56	5.782	O	|	|	|	|	1.58
115.417	0.00	0.56	5.778	O	|	|	|	|	1.58
115.500	0.00	0.56	5.774	O	|	|	|	|	1.58
115.583	0.00	0.56	5.770	O	|	|	|	|	1.58
115.667	0.00	0.56	5.766	O	|	|	|	|	1.58
115.750	0.00	0.56	5.762	O	|	|	|	|	1.58
115.833	0.00	0.56	5.758	O	|	|	|	|	1.58
115.917	0.00	0.56	5.755	O	|	|	|	|	1.58
116.000	0.00	0.56	5.751	O	|	|	|	|	1.58
116.083	0.00	0.56	5.747	O	|	|	|	|	1.57
116.167	0.00	0.56	5.743	O	|	|	|	|	1.57
116.250	0.00	0.55	5.739	O	|	|	|	|	1.57
116.333	0.00	0.55	5.735	O	|	|	|	|	1.57
116.417	0.00	0.55	5.732	O	|	|	|	|	1.57
116.500	0.00	0.55	5.728	O	|	|	|	|	1.57
116.583	0.00	0.55	5.724	O	|	|	|	|	1.57
116.667	0.00	0.55	5.720	O	|	|	|	|	1.57
116.750	0.00	0.55	5.716	O	|	|	|	|	1.57
116.833	0.00	0.55	5.713	O	|	|	|	|	1.57
116.917	0.00	0.55	5.709	O	|	|	|	|	1.56
117.000	0.00	0.55	5.705	O	|	|	|	|	1.56
117.083	0.00	0.55	5.701	O	|	|	|	|	1.56
117.167	0.00	0.55	5.697	O	|	|	|	|	1.56
117.250	0.00	0.55	5.694	O	|	|	|	|	1.56
117.333	0.00	0.55	5.690	O	|	|	|	|	1.56
117.417	0.00	0.55	5.686	O	|	|	|	|	1.56
117.500	0.00	0.55	5.682	O	|	|	|	|	1.56
117.583	0.00	0.55	5.679	O	|	|	|	|	1.56
117.667	0.00	0.55	5.675	O	|	|	|	|	1.55
117.750	0.00	0.55	5.671	O	|	|	|	|	1.55
117.833	0.00	0.55	5.667	O	|	|	|	|	1.55
117.917	0.00	0.55	5.663	O	|	|	|	|	1.55
118.000	0.00	0.55	5.660	O	|	|	|	|	1.55
118.083	0.00	0.55	5.656	O	|	|	|	|	1.55
118.167	0.00	0.54	5.652	O	|	|	|	|	1.55
118.250	0.00	0.54	5.648	O	|	|	|	|	1.55
118.333	0.00	0.54	5.645	O	|	|	|	|	1.55
118.417	0.00	0.54	5.641	O	|	|	|	|	1.55
118.500	0.00	0.54	5.637	O	|	|	|	|	1.54
118.583	0.00	0.54	5.633	O	|	|	|	|	1.54
118.667	0.00	0.54	5.630	O	|	|	|	|	1.54
118.750	0.00	0.54	5.626	O	|	|	|	|	1.54
118.833	0.00	0.54	5.622	O	|	|	|	|	1.54
118.917	0.00	0.54	5.619	O	|	|	|	|	1.54
119.000	0.00	0.54	5.615	O	|	|	|	|	1.54
119.083	0.00	0.54	5.611	O	|	|	|	|	1.54
119.167	0.00	0.54	5.607	O	|	|	|	|	1.54
119.250	0.00	0.54	5.604	O	|	|	|	|	1.53
119.333	0.00	0.54	5.600	O	|	|	|	|	1.53
119.417	0.00	0.54	5.596	O	|	|	|	|	1.53
119.500	0.00	0.54	5.593	O	|	|	|	|	1.53
119.583	0.00	0.54	5.589	O	|	|	|	|	1.53
119.667	0.00	0.54	5.585	O	|	|	|	|	1.53

119.750	0.00	0.54	5.581	O	|	|	|	|	1.53
119.833	0.00	0.54	5.578	O	|	|	|	|	1.53
119.917	0.00	0.54	5.574	O	|	|	|	|	1.53
120.000	0.00	0.54	5.570	O	|	|	|	|	1.53
120.083	0.00	0.53	5.567	O	|	|	|	|	1.52
120.167	0.00	0.53	5.563	O	|	|	|	|	1.52
120.250	0.00	0.53	5.559	O	|	|	|	|	1.52
120.333	0.00	0.53	5.556	O	|	|	|	|	1.52
120.417	0.00	0.53	5.552	O	|	|	|	|	1.52
120.500	0.00	0.53	5.548	O	|	|	|	|	1.52
120.583	0.00	0.53	5.545	O	|	|	|	|	1.52
120.667	0.00	0.53	5.541	O	|	|	|	|	1.52
120.750	0.00	0.53	5.537	O	|	|	|	|	1.52
120.833	0.00	0.53	5.534	O	|	|	|	|	1.52
120.917	0.00	0.53	5.530	O	|	|	|	|	1.51
121.000	0.00	0.53	5.526	O	|	|	|	|	1.51
121.083	0.00	0.53	5.523	O	|	|	|	|	1.51
121.167	0.00	0.53	5.519	O	|	|	|	|	1.51
121.250	0.00	0.53	5.515	O	|	|	|	|	1.51
121.333	0.00	0.53	5.512	O	|	|	|	|	1.51
121.417	0.00	0.53	5.508	O	|	|	|	|	1.51
121.500	0.00	0.53	5.504	O	|	|	|	|	1.51
121.583	0.00	0.53	5.501	O	|	|	|	|	1.51
121.667	0.00	0.53	5.497	O	|	|	|	|	1.50
121.750	0.00	0.53	5.494	O	|	|	|	|	1.50
121.833	0.00	0.53	5.490	O	|	|	|	|	1.50
121.917	0.00	0.53	5.486	O	|	|	|	|	1.50
122.000	0.00	0.53	5.483	O	|	|	|	|	1.50
122.083	0.00	0.52	5.479	O	|	|	|	|	1.50
122.167	0.00	0.52	5.475	O	|	|	|	|	1.50
122.250	0.00	0.52	5.472	O	|	|	|	|	1.50
122.333	0.00	0.52	5.468	O	|	|	|	|	1.50
122.417	0.00	0.52	5.465	O	|	|	|	|	1.50
122.500	0.00	0.52	5.461	O	|	|	|	|	1.49
122.583	0.00	0.52	5.457	O	|	|	|	|	1.49
122.667	0.00	0.52	5.454	O	|	|	|	|	1.49
122.750	0.00	0.52	5.450	O	|	|	|	|	1.49
122.833	0.00	0.52	5.447	O	|	|	|	|	1.49
122.917	0.00	0.52	5.443	O	|	|	|	|	1.49
123.000	0.00	0.52	5.440	O	|	|	|	|	1.49
123.083	0.00	0.52	5.436	O	|	|	|	|	1.49
123.167	0.00	0.52	5.432	O	|	|	|	|	1.49
123.250	0.00	0.52	5.429	O	|	|	|	|	1.49
123.333	0.00	0.52	5.425	O	|	|	|	|	1.48
123.417	0.00	0.52	5.422	O	|	|	|	|	1.48
123.500	0.00	0.52	5.418	O	|	|	|	|	1.48
123.583	0.00	0.52	5.415	O	|	|	|	|	1.48
123.667	0.00	0.52	5.411	O	|	|	|	|	1.48
123.750	0.00	0.52	5.407	O	|	|	|	|	1.48
123.833	0.00	0.52	5.404	O	|	|	|	|	1.48
123.917	0.00	0.52	5.400	O	|	|	|	|	1.48
124.000	0.00	0.52	5.397	O	|	|	|	|	1.48
124.083	0.00	0.52	5.393	O	|	|	|	|	1.48
124.167	0.00	0.51	5.390	O	|	|	|	|	1.47
124.250	0.00	0.51	5.386	O	|	|	|	|	1.47
124.333	0.00	0.51	5.383	O	|	|	|	|	1.47
124.417	0.00	0.51	5.379	O	|	|	|	|	1.47
124.500	0.00	0.51	5.375	O	|	|	|	|	1.47
124.583	0.00	0.51	5.372	O	|	|	|	|	1.47
124.667	0.00	0.51	5.368	O	|	|	|	|	1.47
124.750	0.00	0.51	5.365	O	|	|	|	|	1.47
124.833	0.00	0.51	5.361	O	|	|	|	|	1.47
124.917	0.00	0.51	5.358	O	|	|	|	|	1.47

125.000	0.00	0.51	5.354	O	|	|	|	|	1.46
125.083	0.00	0.51	5.351	O	|	|	|	|	1.46
125.167	0.00	0.51	5.347	O	|	|	|	|	1.46
125.250	0.00	0.51	5.344	O	|	|	|	|	1.46
125.333	0.00	0.51	5.340	O	|	|	|	|	1.46
125.417	0.00	0.51	5.337	O	|	|	|	|	1.46
125.500	0.00	0.51	5.333	O	|	|	|	|	1.46
125.583	0.00	0.51	5.330	O	|	|	|	|	1.46
125.667	0.00	0.51	5.326	O	|	|	|	|	1.46
125.750	0.00	0.51	5.323	O	|	|	|	|	1.46
125.833	0.00	0.51	5.319	O	|	|	|	|	1.45
125.917	0.00	0.51	5.316	O	|	|	|	|	1.45
126.000	0.00	0.51	5.312	O	|	|	|	|	1.45
126.083	0.00	0.51	5.309	O	|	|	|	|	1.45
126.167	0.00	0.50	5.305	O	|	|	|	|	1.45
126.250	0.00	0.50	5.302	O	|	|	|	|	1.45
126.333	0.00	0.50	5.298	O	|	|	|	|	1.45
126.417	0.00	0.50	5.295	O	|	|	|	|	1.45
126.500	0.00	0.50	5.291	O	|	|	|	|	1.45
126.583	0.00	0.50	5.288	O	|	|	|	|	1.45
126.667	0.00	0.50	5.285	O	|	|	|	|	1.45
126.750	0.00	0.50	5.281	O	|	|	|	|	1.44
126.833	0.00	0.50	5.278	O	|	|	|	|	1.44
126.917	0.00	0.50	5.274	O	|	|	|	|	1.44
127.000	0.00	0.50	5.271	O	|	|	|	|	1.44
127.083	0.00	0.50	5.267	O	|	|	|	|	1.44
127.167	0.00	0.50	5.264	O	|	|	|	|	1.44
127.250	0.00	0.50	5.260	O	|	|	|	|	1.44
127.333	0.00	0.50	5.257	O	|	|	|	|	1.44
127.417	0.00	0.50	5.254	O	|	|	|	|	1.44
127.500	0.00	0.50	5.250	O	|	|	|	|	1.44
127.583	0.00	0.50	5.247	O	|	|	|	|	1.43
127.667	0.00	0.50	5.243	O	|	|	|	|	1.43
127.750	0.00	0.50	5.240	O	|	|	|	|	1.43
127.833	0.00	0.50	5.236	O	|	|	|	|	1.43
127.917	0.00	0.50	5.233	O	|	|	|	|	1.43
128.000	0.00	0.50	5.230	O	|	|	|	|	1.43
128.083	0.00	0.50	5.226	O	|	|	|	|	1.43
128.167	0.00	0.50	5.223	O	|	|	|	|	1.43
128.250	0.00	0.49	5.219	O	|	|	|	|	1.43
128.333	0.00	0.49	5.216	O	|	|	|	|	1.43
128.417	0.00	0.49	5.212	O	|	|	|	|	1.42
128.500	0.00	0.49	5.209	O	|	|	|	|	1.42
128.583	0.00	0.49	5.206	O	|	|	|	|	1.42
128.667	0.00	0.49	5.202	O	|	|	|	|	1.42
128.750	0.00	0.49	5.199	O	|	|	|	|	1.42
128.833	0.00	0.49	5.196	O	|	|	|	|	1.42
128.917	0.00	0.49	5.192	O	|	|	|	|	1.42
129.000	0.00	0.49	5.189	O	|	|	|	|	1.42
129.083	0.00	0.49	5.185	O	|	|	|	|	1.42
129.167	0.00	0.49	5.182	O	|	|	|	|	1.42
129.250	0.00	0.49	5.179	O	|	|	|	|	1.42
129.333	0.00	0.49	5.175	O	|	|	|	|	1.41
129.417	0.00	0.49	5.172	O	|	|	|	|	1.41
129.500	0.00	0.49	5.168	O	|	|	|	|	1.41
129.583	0.00	0.49	5.165	O	|	|	|	|	1.41
129.667	0.00	0.49	5.162	O	|	|	|	|	1.41
129.750	0.00	0.49	5.158	O	|	|	|	|	1.41
129.833	0.00	0.49	5.155	O	|	|	|	|	1.41
129.917	0.00	0.49	5.152	O	|	|	|	|	1.41
130.000	0.00	0.49	5.148	O	|	|	|	|	1.41
130.083	0.00	0.49	5.145	O	|	|	|	|	1.41
130.167	0.00	0.49	5.142	O	|	|	|	|	1.40

130.250	0.00	0.49	5.138	O	|	|	|	|	1.40
130.333	0.00	0.49	5.135	O	|	|	|	|	1.40
130.417	0.00	0.48	5.132	O	|	|	|	|	1.40
130.500	0.00	0.48	5.128	O	|	|	|	|	1.40
130.583	0.00	0.48	5.125	O	|	|	|	|	1.40
130.667	0.00	0.48	5.122	O	|	|	|	|	1.40
130.750	0.00	0.48	5.118	O	|	|	|	|	1.40
130.833	0.00	0.48	5.115	O	|	|	|	|	1.40
130.917	0.00	0.48	5.112	O	|	|	|	|	1.40
131.000	0.00	0.48	5.108	O	|	|	|	|	1.40
131.083	0.00	0.48	5.105	O	|	|	|	|	1.39
131.167	0.00	0.48	5.102	O	|	|	|	|	1.39
131.250	0.00	0.48	5.098	O	|	|	|	|	1.39
131.333	0.00	0.48	5.095	O	|	|	|	|	1.39
131.417	0.00	0.48	5.092	O	|	|	|	|	1.39
131.500	0.00	0.48	5.088	O	|	|	|	|	1.39
131.583	0.00	0.48	5.085	O	|	|	|	|	1.39
131.667	0.00	0.48	5.082	O	|	|	|	|	1.39
131.750	0.00	0.48	5.078	O	|	|	|	|	1.39
131.833	0.00	0.48	5.075	O	|	|	|	|	1.39
131.917	0.00	0.48	5.072	O	|	|	|	|	1.39
132.000	0.00	0.48	5.069	O	|	|	|	|	1.38
132.083	0.00	0.48	5.065	O	|	|	|	|	1.38
132.167	0.00	0.48	5.062	O	|	|	|	|	1.38
132.250	0.00	0.48	5.059	O	|	|	|	|	1.38
132.333	0.00	0.48	5.055	O	|	|	|	|	1.38
132.417	0.00	0.48	5.052	O	|	|	|	|	1.38
132.500	0.00	0.48	5.049	O	|	|	|	|	1.38
132.583	0.00	0.47	5.046	O	|	|	|	|	1.38
132.667	0.00	0.47	5.042	O	|	|	|	|	1.38
132.750	0.00	0.47	5.039	O	|	|	|	|	1.38
132.833	0.00	0.47	5.036	O	|	|	|	|	1.38
132.917	0.00	0.47	5.033	O	|	|	|	|	1.37
133.000	0.00	0.47	5.029	O	|	|	|	|	1.37
133.083	0.00	0.47	5.026	O	|	|	|	|	1.37
133.167	0.00	0.47	5.023	O	|	|	|	|	1.37
133.250	0.00	0.47	5.020	O	|	|	|	|	1.37
133.333	0.00	0.47	5.016	O	|	|	|	|	1.37
133.417	0.00	0.47	5.013	O	|	|	|	|	1.37
133.500	0.00	0.47	5.010	O	|	|	|	|	1.37
133.583	0.00	0.47	5.007	O	|	|	|	|	1.37
133.667	0.00	0.47	5.003	O	|	|	|	|	1.37
133.750	0.00	0.47	5.000	O	|	|	|	|	1.37
133.833	0.00	0.47	4.997	O	|	|	|	|	1.36
133.917	0.00	0.47	4.994	O	|	|	|	|	1.36
134.000	0.00	0.47	4.990	O	|	|	|	|	1.36
134.083	0.00	0.47	4.987	O	|	|	|	|	1.36
134.167	0.00	0.47	4.984	O	|	|	|	|	1.36
134.250	0.00	0.47	4.981	O	|	|	|	|	1.36
134.333	0.00	0.47	4.978	O	|	|	|	|	1.36
134.417	0.00	0.47	4.974	O	|	|	|	|	1.36
134.500	0.00	0.47	4.971	O	|	|	|	|	1.36
134.583	0.00	0.47	4.968	O	|	|	|	|	1.36
134.667	0.00	0.47	4.965	O	|	|	|	|	1.36
134.750	0.00	0.47	4.961	O	|	|	|	|	1.35
134.833	0.00	0.46	4.958	O	|	|	|	|	1.35
134.917	0.00	0.46	4.955	O	|	|	|	|	1.35
135.000	0.00	0.46	4.952	O	|	|	|	|	1.35
135.083	0.00	0.46	4.949	O	|	|	|	|	1.35
135.167	0.00	0.46	4.945	O	|	|	|	|	1.35
135.250	0.00	0.46	4.942	O	|	|	|	|	1.35
135.333	0.00	0.46	4.939	O	|	|	|	|	1.35
135.417	0.00	0.46	4.936	O	|	|	|	|	1.35

135.500	0.00	0.46	4.933	O	|	|	|	|	1.35
135.583	0.00	0.46	4.930	O	|	|	|	|	1.35
135.667	0.00	0.46	4.926	O	|	|	|	|	1.34
135.750	0.00	0.46	4.923	O	|	|	|	|	1.34
135.833	0.00	0.46	4.920	O	|	|	|	|	1.34
135.917	0.00	0.46	4.917	O	|	|	|	|	1.34
136.000	0.00	0.46	4.914	O	|	|	|	|	1.34
136.083	0.00	0.46	4.911	O	|	|	|	|	1.34
136.167	0.00	0.46	4.907	O	|	|	|	|	1.34
136.250	0.00	0.46	4.904	O	|	|	|	|	1.34
136.333	0.00	0.46	4.901	O	|	|	|	|	1.34
136.417	0.00	0.46	4.898	O	|	|	|	|	1.34
136.500	0.00	0.46	4.895	O	|	|	|	|	1.34
136.583	0.00	0.46	4.892	O	|	|	|	|	1.33
136.667	0.00	0.46	4.888	O	|	|	|	|	1.33
136.750	0.00	0.46	4.885	O	|	|	|	|	1.33
136.833	0.00	0.46	4.882	O	|	|	|	|	1.33
136.917	0.00	0.46	4.879	O	|	|	|	|	1.33
137.000	0.00	0.46	4.876	O	|	|	|	|	1.33
137.083	0.00	0.46	4.873	O	|	|	|	|	1.33
137.167	0.00	0.45	4.870	O	|	|	|	|	1.33
137.250	0.00	0.45	4.866	O	|	|	|	|	1.33
137.333	0.00	0.45	4.863	O	|	|	|	|	1.33
137.417	0.00	0.45	4.860	O	|	|	|	|	1.33
137.500	0.00	0.45	4.857	O	|	|	|	|	1.33
137.583	0.00	0.45	4.854	O	|	|	|	|	1.32
137.667	0.00	0.45	4.851	O	|	|	|	|	1.32
137.750	0.00	0.45	4.848	O	|	|	|	|	1.32
137.833	0.00	0.45	4.845	O	|	|	|	|	1.32
137.917	0.00	0.45	4.842	O	|	|	|	|	1.32
138.000	0.00	0.45	4.838	O	|	|	|	|	1.32
138.083	0.00	0.45	4.835	O	|	|	|	|	1.32
138.167	0.00	0.45	4.832	O	|	|	|	|	1.32
138.250	0.00	0.45	4.829	O	|	|	|	|	1.32
138.333	0.00	0.45	4.826	O	|	|	|	|	1.32
138.417	0.00	0.45	4.823	O	|	|	|	|	1.32
138.500	0.00	0.45	4.820	O	|	|	|	|	1.31
138.583	0.00	0.45	4.817	O	|	|	|	|	1.31
138.667	0.00	0.45	4.814	O	|	|	|	|	1.31
138.750	0.00	0.45	4.811	O	|	|	|	|	1.31
138.833	0.00	0.45	4.807	O	|	|	|	|	1.31
138.917	0.00	0.45	4.804	O	|	|	|	|	1.31
139.000	0.00	0.45	4.801	O	|	|	|	|	1.31
139.083	0.00	0.45	4.798	O	|	|	|	|	1.31
139.167	0.00	0.45	4.795	O	|	|	|	|	1.31
139.250	0.00	0.45	4.792	O	|	|	|	|	1.31
139.333	0.00	0.45	4.789	O	|	|	|	|	1.31
139.417	0.00	0.45	4.786	O	|	|	|	|	1.31
139.500	0.00	0.44	4.783	O	|	|	|	|	1.30
139.583	0.00	0.44	4.780	O	|	|	|	|	1.30
139.667	0.00	0.44	4.777	O	|	|	|	|	1.30
139.750	0.00	0.44	4.774	O	|	|	|	|	1.30
139.833	0.00	0.44	4.771	O	|	|	|	|	1.30
139.917	0.00	0.44	4.768	O	|	|	|	|	1.30
140.000	0.00	0.44	4.765	O	|	|	|	|	1.30
140.083	0.00	0.44	4.761	O	|	|	|	|	1.30
140.167	0.00	0.44	4.758	O	|	|	|	|	1.30
140.250	0.00	0.44	4.755	O	|	|	|	|	1.30
140.333	0.00	0.44	4.752	O	|	|	|	|	1.30
140.417	0.00	0.44	4.749	O	|	|	|	|	1.29
140.500	0.00	0.44	4.746	O	|	|	|	|	1.29
140.583	0.00	0.44	4.743	O	|	|	|	|	1.29
140.667	0.00	0.44	4.740	O	|	|	|	|	1.29

140.750	0.00	0.44	4.737	O	|	|	|	|	1.29
140.833	0.00	0.44	4.734	O	|	|	|	|	1.29
140.917	0.00	0.44	4.731	O	|	|	|	|	1.29
141.000	0.00	0.44	4.728	O	|	|	|	|	1.29
141.083	0.00	0.44	4.725	O	|	|	|	|	1.29
141.167	0.00	0.44	4.722	O	|	|	|	|	1.29
141.250	0.00	0.44	4.719	O	|	|	|	|	1.29
141.333	0.00	0.44	4.716	O	|	|	|	|	1.29
141.417	0.00	0.44	4.713	O	|	|	|	|	1.28
141.500	0.00	0.44	4.710	O	|	|	|	|	1.28
141.583	0.00	0.44	4.707	O	|	|	|	|	1.28
141.667	0.00	0.44	4.704	O	|	|	|	|	1.28
141.750	0.00	0.44	4.701	O	|	|	|	|	1.28
141.833	0.00	0.43	4.698	O	|	|	|	|	1.28
141.917	0.00	0.43	4.695	O	|	|	|	|	1.28
142.000	0.00	0.43	4.692	O	|	|	|	|	1.28
142.083	0.00	0.43	4.689	O	|	|	|	|	1.28
142.167	0.00	0.43	4.686	O	|	|	|	|	1.28
142.250	0.00	0.43	4.683	O	|	|	|	|	1.28
142.333	0.00	0.43	4.680	O	|	|	|	|	1.28
142.417	0.00	0.43	4.677	O	|	|	|	|	1.27
142.500	0.00	0.43	4.674	O	|	|	|	|	1.27
142.583	0.00	0.43	4.671	O	|	|	|	|	1.27
142.667	0.00	0.43	4.668	O	|	|	|	|	1.27
142.750	0.00	0.43	4.665	O	|	|	|	|	1.27
142.833	0.00	0.43	4.662	O	|	|	|	|	1.27
142.917	0.00	0.43	4.659	O	|	|	|	|	1.27
143.000	0.00	0.43	4.656	O	|	|	|	|	1.27
143.083	0.00	0.43	4.653	O	|	|	|	|	1.27
143.167	0.00	0.43	4.650	O	|	|	|	|	1.27
143.250	0.00	0.43	4.647	O	|	|	|	|	1.27
143.333	0.00	0.43	4.645	O	|	|	|	|	1.27
143.417	0.00	0.43	4.642	O	|	|	|	|	1.26
143.500	0.00	0.43	4.639	O	|	|	|	|	1.26
143.583	0.00	0.43	4.636	O	|	|	|	|	1.26
143.667	0.00	0.43	4.633	O	|	|	|	|	1.26
143.750	0.00	0.43	4.630	O	|	|	|	|	1.26
143.833	0.00	0.43	4.627	O	|	|	|	|	1.26
143.917	0.00	0.43	4.624	O	|	|	|	|	1.26
144.000	0.00	0.43	4.621	O	|	|	|	|	1.26
144.083	0.00	0.43	4.618	O	|	|	|	|	1.26
144.167	0.00	0.43	4.615	O	|	|	|	|	1.26
144.250	0.00	0.43	4.612	O	|	|	|	|	1.26
144.333	0.00	0.42	4.609	O	|	|	|	|	1.26
144.417	0.00	0.42	4.606	O	|	|	|	|	1.25
144.500	0.00	0.42	4.603	O	|	|	|	|	1.25
144.583	0.00	0.42	4.600	O	|	|	|	|	1.25
144.667	0.00	0.42	4.598	O	|	|	|	|	1.25
144.750	0.00	0.42	4.595	O	|	|	|	|	1.25
144.833	0.00	0.42	4.592	O	|	|	|	|	1.25
144.917	0.00	0.42	4.589	O	|	|	|	|	1.25
145.000	0.00	0.42	4.586	O	|	|	|	|	1.25
145.083	0.00	0.42	4.583	O	|	|	|	|	1.25
145.167	0.00	0.42	4.580	O	|	|	|	|	1.25
145.250	0.00	0.42	4.577	O	|	|	|	|	1.25
145.333	0.00	0.42	4.574	O	|	|	|	|	1.25
145.417	0.00	0.42	4.571	O	|	|	|	|	1.24
145.500	0.00	0.42	4.569	O	|	|	|	|	1.24
145.583	0.00	0.42	4.566	O	|	|	|	|	1.24
145.667	0.00	0.42	4.563	O	|	|	|	|	1.24
145.750	0.00	0.42	4.560	O	|	|	|	|	1.24
145.833	0.00	0.42	4.557	O	|	|	|	|	1.24
145.917	0.00	0.42	4.554	O	|	|	|	|	1.24

146.000	0.00	0.42	4.551	O	|	|	|	|	1.24
146.083	0.00	0.42	4.548	O	|	|	|	|	1.24
146.167	0.00	0.42	4.545	O	|	|	|	|	1.24
146.250	0.00	0.42	4.543	O	|	|	|	|	1.24
146.333	0.00	0.42	4.540	O	|	|	|	|	1.24
146.417	0.00	0.42	4.537	O	|	|	|	|	1.24
146.500	0.00	0.42	4.534	O	|	|	|	|	1.23
146.583	0.00	0.42	4.531	O	|	|	|	|	1.23
146.667	0.00	0.42	4.528	O	|	|	|	|	1.23
146.750	0.00	0.42	4.525	O	|	|	|	|	1.23
146.833	0.00	0.41	4.523	O	|	|	|	|	1.23
146.917	0.00	0.41	4.520	O	|	|	|	|	1.23
147.000	0.00	0.41	4.517	O	|	|	|	|	1.23
147.083	0.00	0.41	4.514	O	|	|	|	|	1.23
147.167	0.00	0.41	4.511	O	|	|	|	|	1.23
147.250	0.00	0.41	4.508	O	|	|	|	|	1.23
147.333	0.00	0.41	4.505	O	|	|	|	|	1.23
147.417	0.00	0.41	4.503	O	|	|	|	|	1.23
147.500	0.00	0.41	4.500	O	|	|	|	|	1.22
147.583	0.00	0.41	4.497	O	|	|	|	|	1.22
147.667	0.00	0.41	4.494	O	|	|	|	|	1.22
147.750	0.00	0.41	4.491	O	|	|	|	|	1.22
147.833	0.00	0.41	4.488	O	|	|	|	|	1.22
147.917	0.00	0.41	4.486	O	|	|	|	|	1.22
148.000	0.00	0.41	4.483	O	|	|	|	|	1.22
148.083	0.00	0.41	4.480	O	|	|	|	|	1.22
148.167	0.00	0.41	4.477	O	|	|	|	|	1.22
148.250	0.00	0.41	4.474	O	|	|	|	|	1.22
148.333	0.00	0.41	4.471	O	|	|	|	|	1.22
148.417	0.00	0.41	4.469	O	|	|	|	|	1.22
148.500	0.00	0.41	4.466	O	|	|	|	|	1.22
148.583	0.00	0.41	4.463	O	|	|	|	|	1.21
148.667	0.00	0.41	4.460	O	|	|	|	|	1.21
148.750	0.00	0.41	4.457	O	|	|	|	|	1.21
148.833	0.00	0.41	4.455	O	|	|	|	|	1.21
148.917	0.00	0.41	4.452	O	|	|	|	|	1.21
149.000	0.00	0.41	4.449	O	|	|	|	|	1.21
149.083	0.00	0.41	4.446	O	|	|	|	|	1.21
149.167	0.00	0.41	4.443	O	|	|	|	|	1.21
149.250	0.00	0.41	4.441	O	|	|	|	|	1.21
149.333	0.00	0.40	4.438	O	|	|	|	|	1.21
149.417	0.00	0.40	4.435	O	|	|	|	|	1.21
149.500	0.00	0.40	4.432	O	|	|	|	|	1.21
149.583	0.00	0.40	4.430	O	|	|	|	|	1.20
149.667	0.00	0.40	4.427	O	|	|	|	|	1.20
149.750	0.00	0.40	4.424	O	|	|	|	|	1.20
149.833	0.00	0.40	4.421	O	|	|	|	|	1.20
149.917	0.00	0.40	4.418	O	|	|	|	|	1.20
150.000	0.00	0.40	4.416	O	|	|	|	|	1.20
150.083	0.00	0.40	4.413	O	|	|	|	|	1.20
150.167	0.00	0.40	4.410	O	|	|	|	|	1.20
150.250	0.00	0.40	4.407	O	|	|	|	|	1.20
150.333	0.00	0.40	4.405	O	|	|	|	|	1.20
150.417	0.00	0.40	4.402	O	|	|	|	|	1.20
150.500	0.00	0.40	4.399	O	|	|	|	|	1.20
150.583	0.00	0.40	4.396	O	|	|	|	|	1.20
150.667	0.00	0.40	4.394	O	|	|	|	|	1.19
150.750	0.00	0.40	4.391	O	|	|	|	|	1.19
150.833	0.00	0.40	4.388	O	|	|	|	|	1.19
150.917	0.00	0.40	4.385	O	|	|	|	|	1.19
151.000	0.00	0.40	4.383	O	|	|	|	|	1.19
151.083	0.00	0.40	4.380	O	|	|	|	|	1.19
151.167	0.00	0.40	4.377	O	|	|	|	|	1.19

151.250	0.00	0.40	4.374	O	|	|	|	|	1.19
151.333	0.00	0.40	4.372	O	|	|	|	|	1.19
151.417	0.00	0.40	4.369	O	|	|	|	|	1.19
151.500	0.00	0.40	4.366	O	|	|	|	|	1.19
151.583	0.00	0.40	4.363	O	|	|	|	|	1.19
151.667	0.00	0.40	4.361	O	|	|	|	|	1.19
151.750	0.00	0.40	4.358	O	|	|	|	|	1.18
151.833	0.00	0.40	4.355	O	|	|	|	|	1.18
151.917	0.00	0.40	4.352	O	|	|	|	|	1.18
152.000	0.00	0.39	4.350	O	|	|	|	|	1.18
152.083	0.00	0.39	4.347	O	|	|	|	|	1.18
152.167	0.00	0.39	4.344	O	|	|	|	|	1.18
152.250	0.00	0.39	4.342	O	|	|	|	|	1.18
152.333	0.00	0.39	4.339	O	|	|	|	|	1.18
152.417	0.00	0.39	4.336	O	|	|	|	|	1.18
152.500	0.00	0.39	4.333	O	|	|	|	|	1.18
152.583	0.00	0.39	4.331	O	|	|	|	|	1.18
152.667	0.00	0.39	4.328	O	|	|	|	|	1.18
152.750	0.00	0.39	4.325	O	|	|	|	|	1.18
152.833	0.00	0.39	4.323	O	|	|	|	|	1.17
152.917	0.00	0.39	4.320	O	|	|	|	|	1.17
153.000	0.00	0.39	4.317	O	|	|	|	|	1.17
153.083	0.00	0.39	4.315	O	|	|	|	|	1.17
153.167	0.00	0.39	4.312	O	|	|	|	|	1.17
153.250	0.00	0.39	4.309	O	|	|	|	|	1.17
153.333	0.00	0.39	4.307	O	|	|	|	|	1.17
153.417	0.00	0.39	4.304	O	|	|	|	|	1.17
153.500	0.00	0.39	4.301	O	|	|	|	|	1.17
153.583	0.00	0.39	4.298	O	|	|	|	|	1.17
153.667	0.00	0.39	4.296	O	|	|	|	|	1.17
153.750	0.00	0.39	4.293	O	|	|	|	|	1.17
153.833	0.00	0.39	4.290	O	|	|	|	|	1.17
153.917	0.00	0.39	4.288	O	|	|	|	|	1.17
154.000	0.00	0.39	4.285	O	|	|	|	|	1.16
154.083	0.00	0.39	4.282	O	|	|	|	|	1.16
154.167	0.00	0.39	4.280	O	|	|	|	|	1.16
154.250	0.00	0.39	4.277	O	|	|	|	|	1.16
154.333	0.00	0.39	4.274	O	|	|	|	|	1.16
154.417	0.00	0.39	4.272	O	|	|	|	|	1.16
154.500	0.00	0.39	4.269	O	|	|	|	|	1.16
154.583	0.00	0.39	4.266	O	|	|	|	|	1.16
154.667	0.00	0.38	4.264	O	|	|	|	|	1.16
154.750	0.00	0.38	4.261	O	|	|	|	|	1.16
154.833	0.00	0.38	4.259	O	|	|	|	|	1.16
154.917	0.00	0.38	4.256	O	|	|	|	|	1.16
155.000	0.00	0.38	4.253	O	|	|	|	|	1.16
155.083	0.00	0.38	4.251	O	|	|	|	|	1.15
155.167	0.00	0.38	4.248	O	|	|	|	|	1.15
155.250	0.00	0.38	4.245	O	|	|	|	|	1.15
155.333	0.00	0.38	4.243	O	|	|	|	|	1.15
155.417	0.00	0.38	4.240	O	|	|	|	|	1.15
155.500	0.00	0.38	4.237	O	|	|	|	|	1.15
155.583	0.00	0.38	4.235	O	|	|	|	|	1.15
155.667	0.00	0.38	4.232	O	|	|	|	|	1.15
155.750	0.00	0.38	4.230	O	|	|	|	|	1.15
155.833	0.00	0.38	4.227	O	|	|	|	|	1.15
155.917	0.00	0.38	4.224	O	|	|	|	|	1.15
156.000	0.00	0.38	4.222	O	|	|	|	|	1.15
156.083	0.00	0.38	4.219	O	|	|	|	|	1.15
156.167	0.00	0.38	4.216	O	|	|	|	|	1.15
156.250	0.00	0.38	4.214	O	|	|	|	|	1.14
156.333	0.00	0.38	4.211	O	|	|	|	|	1.14
156.417	0.00	0.38	4.209	O	|	|	|	|	1.14

156.500	0.00	0.38	4.206	O	|	|	|	|	1.14
156.583	0.00	0.38	4.203	O	|	|	|	|	1.14
156.667	0.00	0.38	4.201	O	|	|	|	|	1.14
156.750	0.00	0.38	4.198	O	|	|	|	|	1.14
156.833	0.00	0.38	4.196	O	|	|	|	|	1.14
156.917	0.00	0.38	4.193	O	|	|	|	|	1.14
157.000	0.00	0.38	4.190	O	|	|	|	|	1.14
157.083	0.00	0.38	4.188	O	|	|	|	|	1.14
157.167	0.00	0.38	4.185	O	|	|	|	|	1.14
157.250	0.00	0.38	4.183	O	|	|	|	|	1.14
157.333	0.00	0.38	4.180	O	|	|	|	|	1.13
157.417	0.00	0.37	4.177	O	|	|	|	|	1.13
157.500	0.00	0.37	4.175	O	|	|	|	|	1.13
157.583	0.00	0.37	4.172	O	|	|	|	|	1.13
157.667	0.00	0.37	4.170	O	|	|	|	|	1.13
157.750	0.00	0.37	4.167	O	|	|	|	|	1.13
157.833	0.00	0.37	4.165	O	|	|	|	|	1.13
157.917	0.00	0.37	4.162	O	|	|	|	|	1.13
158.000	0.00	0.37	4.159	O	|	|	|	|	1.13
158.083	0.00	0.37	4.157	O	|	|	|	|	1.13
158.167	0.00	0.37	4.154	O	|	|	|	|	1.13
158.250	0.00	0.37	4.152	O	|	|	|	|	1.13
158.333	0.00	0.37	4.149	O	|	|	|	|	1.13
158.417	0.00	0.37	4.147	O	|	|	|	|	1.13
158.500	0.00	0.37	4.144	O	|	|	|	|	1.12
158.583	0.00	0.37	4.142	O	|	|	|	|	1.12
158.667	0.00	0.37	4.139	O	|	|	|	|	1.12
158.750	0.00	0.37	4.136	O	|	|	|	|	1.12
158.833	0.00	0.37	4.134	O	|	|	|	|	1.12
158.917	0.00	0.37	4.131	O	|	|	|	|	1.12
159.000	0.00	0.37	4.129	O	|	|	|	|	1.12
159.083	0.00	0.37	4.126	O	|	|	|	|	1.12
159.167	0.00	0.37	4.124	O	|	|	|	|	1.12
159.250	0.00	0.37	4.121	O	|	|	|	|	1.12
159.333	0.00	0.37	4.119	O	|	|	|	|	1.12
159.417	0.00	0.37	4.116	O	|	|	|	|	1.12
159.500	0.00	0.37	4.114	O	|	|	|	|	1.12
159.583	0.00	0.37	4.111	O	|	|	|	|	1.12
159.667	0.00	0.37	4.108	O	|	|	|	|	1.11
159.750	0.00	0.37	4.106	O	|	|	|	|	1.11
159.833	0.00	0.37	4.103	O	|	|	|	|	1.11
159.917	0.00	0.37	4.101	O	|	|	|	|	1.11
160.000	0.00	0.37	4.098	O	|	|	|	|	1.11
160.083	0.00	0.37	4.096	O	|	|	|	|	1.11
160.167	0.00	0.37	4.093	O	|	|	|	|	1.11
160.250	0.00	0.37	4.091	O	|	|	|	|	1.11
160.333	0.00	0.36	4.088	O	|	|	|	|	1.11
160.417	0.00	0.36	4.086	O	|	|	|	|	1.11
160.500	0.00	0.36	4.083	O	|	|	|	|	1.11
160.583	0.00	0.36	4.081	O	|	|	|	|	1.11
160.667	0.00	0.36	4.078	O	|	|	|	|	1.11
160.750	0.00	0.36	4.076	O	|	|	|	|	1.11
160.833	0.00	0.36	4.073	O	|	|	|	|	1.10
160.917	0.00	0.36	4.071	O	|	|	|	|	1.10
161.000	0.00	0.36	4.068	O	|	|	|	|	1.10
161.083	0.00	0.36	4.066	O	|	|	|	|	1.10
161.167	0.00	0.36	4.063	O	|	|	|	|	1.10
161.250	0.00	0.36	4.061	O	|	|	|	|	1.10
161.333	0.00	0.36	4.058	O	|	|	|	|	1.10
161.417	0.00	0.36	4.056	O	|	|	|	|	1.10
161.500	0.00	0.36	4.053	O	|	|	|	|	1.10
161.583	0.00	0.36	4.051	O	|	|	|	|	1.10
161.667	0.00	0.36	4.048	O	|	|	|	|	1.10

161.750	0.00	0.36	4.046	O	|	|	|	|	1.10
161.833	0.00	0.36	4.043	O	|	|	|	|	1.10
161.917	0.00	0.36	4.041	O	|	|	|	|	1.10
162.000	0.00	0.36	4.038	O	|	|	|	|	1.10
162.083	0.00	0.36	4.036	O	|	|	|	|	1.09
162.167	0.00	0.36	4.034	O	|	|	|	|	1.09
162.250	0.00	0.36	4.031	O	|	|	|	|	1.09
162.333	0.00	0.36	4.029	O	|	|	|	|	1.09
162.417	0.00	0.36	4.026	O	|	|	|	|	1.09
162.500	0.00	0.36	4.024	O	|	|	|	|	1.09
162.583	0.00	0.36	4.021	O	|	|	|	|	1.09
162.667	0.00	0.36	4.019	O	|	|	|	|	1.09
162.750	0.00	0.36	4.016	O	|	|	|	|	1.09
162.833	0.00	0.36	4.014	O	|	|	|	|	1.09
162.917	0.00	0.36	4.011	O	|	|	|	|	1.09
163.000	0.00	0.36	4.009	O	|	|	|	|	1.09
163.083	0.00	0.36	4.007	O	|	|	|	|	1.09
163.167	0.00	0.36	4.004	O	|	|	|	|	1.09
163.250	0.00	0.35	4.002	O	|	|	|	|	1.08
163.333	0.00	0.35	3.999	O	|	|	|	|	1.08
163.417	0.00	0.35	3.997	O	|	|	|	|	1.08
163.500	0.00	0.35	3.994	O	|	|	|	|	1.08
163.583	0.00	0.35	3.992	O	|	|	|	|	1.08
163.667	0.00	0.35	3.989	O	|	|	|	|	1.08
163.750	0.00	0.35	3.987	O	|	|	|	|	1.08
163.833	0.00	0.35	3.985	O	|	|	|	|	1.08
163.917	0.00	0.35	3.982	O	|	|	|	|	1.08
164.000	0.00	0.35	3.980	O	|	|	|	|	1.08
164.083	0.00	0.35	3.977	O	|	|	|	|	1.08
164.167	0.00	0.35	3.975	O	|	|	|	|	1.08
164.250	0.00	0.35	3.972	O	|	|	|	|	1.08
164.333	0.00	0.35	3.970	O	|	|	|	|	1.08
164.417	0.00	0.35	3.968	O	|	|	|	|	1.08
164.500	0.00	0.35	3.965	O	|	|	|	|	1.07
164.583	0.00	0.35	3.963	O	|	|	|	|	1.07
164.667	0.00	0.35	3.960	O	|	|	|	|	1.07
164.750	0.00	0.35	3.958	O	|	|	|	|	1.07
164.833	0.00	0.35	3.956	O	|	|	|	|	1.07
164.917	0.00	0.35	3.953	O	|	|	|	|	1.07
165.000	0.00	0.35	3.951	O	|	|	|	|	1.07
165.083	0.00	0.35	3.948	O	|	|	|	|	1.07
165.167	0.00	0.35	3.946	O	|	|	|	|	1.07
165.250	0.00	0.35	3.944	O	|	|	|	|	1.07
165.333	0.00	0.35	3.941	O	|	|	|	|	1.07
165.417	0.00	0.35	3.939	O	|	|	|	|	1.07
165.500	0.00	0.35	3.936	O	|	|	|	|	1.07
165.583	0.00	0.35	3.934	O	|	|	|	|	1.07
165.667	0.00	0.35	3.932	O	|	|	|	|	1.07
165.750	0.00	0.35	3.929	O	|	|	|	|	1.06
165.833	0.00	0.35	3.927	O	|	|	|	|	1.06
165.917	0.00	0.35	3.924	O	|	|	|	|	1.06
166.000	0.00	0.35	3.922	O	|	|	|	|	1.06
166.083	0.00	0.35	3.920	O	|	|	|	|	1.06
166.167	0.00	0.35	3.917	O	|	|	|	|	1.06
166.250	0.00	0.34	3.915	O	|	|	|	|	1.06
166.333	0.00	0.34	3.913	O	|	|	|	|	1.06
166.417	0.00	0.34	3.910	O	|	|	|	|	1.06
166.500	0.00	0.34	3.908	O	|	|	|	|	1.06
166.583	0.00	0.34	3.905	O	|	|	|	|	1.06
166.667	0.00	0.34	3.903	O	|	|	|	|	1.06
166.750	0.00	0.34	3.901	O	|	|	|	|	1.06
166.833	0.00	0.34	3.898	O	|	|	|	|	1.06
166.917	0.00	0.34	3.896	O	|	|	|	|	1.06

167.000	0.00	0.34	3.894	O	|	|	|	|	1.05
167.083	0.00	0.34	3.891	O	|	|	|	|	1.05
167.167	0.00	0.34	3.889	O	|	|	|	|	1.05
167.250	0.00	0.34	3.887	O	|	|	|	|	1.05
167.333	0.00	0.34	3.884	O	|	|	|	|	1.05
167.417	0.00	0.34	3.882	O	|	|	|	|	1.05
167.500	0.00	0.34	3.880	O	|	|	|	|	1.05
167.583	0.00	0.34	3.877	O	|	|	|	|	1.05
167.667	0.00	0.34	3.875	O	|	|	|	|	1.05
167.750	0.00	0.34	3.872	O	|	|	|	|	1.05
167.833	0.00	0.34	3.870	O	|	|	|	|	1.05
167.917	0.00	0.34	3.868	O	|	|	|	|	1.05
168.000	0.00	0.34	3.865	O	|	|	|	|	1.05
168.083	0.00	0.34	3.863	O	|	|	|	|	1.05
168.167	0.00	0.34	3.861	O	|	|	|	|	1.05
168.250	0.00	0.34	3.858	O	|	|	|	|	1.04
168.333	0.00	0.34	3.856	O	|	|	|	|	1.04
168.417	0.00	0.34	3.854	O	|	|	|	|	1.04
168.500	0.00	0.34	3.851	O	|	|	|	|	1.04
168.583	0.00	0.34	3.849	O	|	|	|	|	1.04
168.667	0.00	0.34	3.847	O	|	|	|	|	1.04
168.750	0.00	0.34	3.845	O	|	|	|	|	1.04
168.833	0.00	0.34	3.842	O	|	|	|	|	1.04
168.917	0.00	0.34	3.840	O	|	|	|	|	1.04
169.000	0.00	0.34	3.838	O	|	|	|	|	1.04
169.083	0.00	0.34	3.835	O	|	|	|	|	1.04
169.167	0.00	0.34	3.833	O	|	|	|	|	1.04
169.250	0.00	0.34	3.831	O	|	|	|	|	1.04
169.333	0.00	0.33	3.828	O	|	|	|	|	1.04
169.417	0.00	0.33	3.826	O	|	|	|	|	1.04
169.500	0.00	0.33	3.824	O	|	|	|	|	1.03
169.583	0.00	0.33	3.821	O	|	|	|	|	1.03
169.667	0.00	0.33	3.819	O	|	|	|	|	1.03
169.750	0.00	0.33	3.817	O	|	|	|	|	1.03
169.833	0.00	0.33	3.815	O	|	|	|	|	1.03
169.917	0.00	0.33	3.812	O	|	|	|	|	1.03
170.000	0.00	0.33	3.810	O	|	|	|	|	1.03
170.083	0.00	0.33	3.808	O	|	|	|	|	1.03
170.167	0.00	0.33	3.805	O	|	|	|	|	1.03
170.250	0.00	0.33	3.803	O	|	|	|	|	1.03
170.333	0.00	0.33	3.801	O	|	|	|	|	1.03
170.417	0.00	0.33	3.799	O	|	|	|	|	1.03
170.500	0.00	0.33	3.796	O	|	|	|	|	1.03
170.583	0.00	0.33	3.794	O	|	|	|	|	1.03
170.667	0.00	0.33	3.792	O	|	|	|	|	1.03
170.750	0.00	0.33	3.789	O	|	|	|	|	1.03
170.833	0.00	0.33	3.787	O	|	|	|	|	1.02
170.917	0.00	0.33	3.785	O	|	|	|	|	1.02
171.000	0.00	0.33	3.783	O	|	|	|	|	1.02
171.083	0.00	0.33	3.780	O	|	|	|	|	1.02
171.167	0.00	0.33	3.778	O	|	|	|	|	1.02
171.250	0.00	0.33	3.776	O	|	|	|	|	1.02
171.333	0.00	0.33	3.774	O	|	|	|	|	1.02
171.417	0.00	0.33	3.771	O	|	|	|	|	1.02
171.500	0.00	0.33	3.769	O	|	|	|	|	1.02
171.583	0.00	0.33	3.767	O	|	|	|	|	1.02
171.667	0.00	0.33	3.764	O	|	|	|	|	1.02
171.750	0.00	0.33	3.762	O	|	|	|	|	1.02
171.833	0.00	0.33	3.760	O	|	|	|	|	1.02
171.917	0.00	0.33	3.758	O	|	|	|	|	1.02
172.000	0.00	0.33	3.755	O	|	|	|	|	1.02
172.083	0.00	0.33	3.753	O	|	|	|	|	1.01
172.167	0.00	0.33	3.751	O	|	|	|	|	1.01

172.250	0.00	0.33	3.749	O	|	|	|	|	1.01
172.333	0.00	0.33	3.747	O	|	|	|	|	1.01
172.417	0.00	0.33	3.744	O	|	|	|	|	1.01
172.500	0.00	0.32	3.742	O	|	|	|	|	1.01
172.583	0.00	0.32	3.740	O	|	|	|	|	1.01
172.667	0.00	0.32	3.738	O	|	|	|	|	1.01
172.750	0.00	0.32	3.735	O	|	|	|	|	1.01
172.833	0.00	0.32	3.733	O	|	|	|	|	1.01
172.917	0.00	0.32	3.731	O	|	|	|	|	1.01
173.000	0.00	0.32	3.729	O	|	|	|	|	1.01
173.083	0.00	0.32	3.726	O	|	|	|	|	1.01
173.167	0.00	0.32	3.724	O	|	|	|	|	1.01
173.250	0.00	0.32	3.722	O	|	|	|	|	1.01
173.333	0.00	0.32	3.720	O	|	|	|	|	1.01
173.417	0.00	0.32	3.718	O	|	|	|	|	1.00
173.500	0.00	0.32	3.715	O	|	|	|	|	1.00
173.583	0.00	0.32	3.713	O	|	|	|	|	1.00
173.667	0.00	0.32	3.711	O	|	|	|	|	1.00
173.750	0.00	0.32	3.709	O	|	|	|	|	1.00
173.833	0.00	0.32	3.706	O	|	|	|	|	1.00
173.917	0.00	0.32	3.704	O	|	|	|	|	1.00
174.000	0.00	0.32	3.702	O	|	|	|	|	1.00
174.083	0.00	0.32	3.700	O	|	|	|	|	1.00
174.167	0.00	0.32	3.698	O	|	|	|	|	1.00
174.250	0.00	0.32	3.695	O	|	|	|	|	1.00
174.333	0.00	0.32	3.693	O	|	|	|	|	1.00
174.417	0.00	0.32	3.691	O	|	|	|	|	1.00
174.500	0.00	0.32	3.689	O	|	|	|	|	1.00
174.583	0.00	0.32	3.687	O	|	|	|	|	1.00
174.667	0.00	0.32	3.684	O	|	|	|	|	1.00
174.750	0.00	0.32	3.682	O	|	|	|	|	1.00
174.833	0.00	0.32	3.680	O	|	|	|	|	0.99
174.917	0.00	0.32	3.678	O	|	|	|	|	0.99
175.000	0.00	0.32	3.676	O	|	|	|	|	0.99
175.083	0.00	0.32	3.673	O	|	|	|	|	0.99
175.167	0.00	0.32	3.671	O	|	|	|	|	0.99
175.250	0.00	0.32	3.669	O	|	|	|	|	0.99
175.333	0.00	0.32	3.667	O	|	|	|	|	0.99
175.417	0.00	0.32	3.665	O	|	|	|	|	0.99
175.500	0.00	0.32	3.663	O	|	|	|	|	0.99
175.583	0.00	0.32	3.660	O	|	|	|	|	0.99
175.667	0.00	0.32	3.658	O	|	|	|	|	0.99
175.750	0.00	0.32	3.656	O	|	|	|	|	0.99
175.833	0.00	0.32	3.654	O	|	|	|	|	0.99
175.917	0.00	0.32	3.652	O	|	|	|	|	0.99
176.000	0.00	0.32	3.650	O	|	|	|	|	0.99
176.083	0.00	0.32	3.647	O	|	|	|	|	0.99
176.167	0.00	0.32	3.645	O	|	|	|	|	0.99
176.250	0.00	0.32	3.643	O	|	|	|	|	0.98
176.333	0.00	0.31	3.641	O	|	|	|	|	0.98
176.417	0.00	0.31	3.639	O	|	|	|	|	0.98
176.500	0.00	0.31	3.636	O	|	|	|	|	0.98
176.583	0.00	0.31	3.634	O	|	|	|	|	0.98
176.667	0.00	0.31	3.632	O	|	|	|	|	0.98
176.750	0.00	0.31	3.630	O	|	|	|	|	0.98
176.833	0.00	0.31	3.628	O	|	|	|	|	0.98
176.917	0.00	0.31	3.626	O	|	|	|	|	0.98
177.000	0.00	0.31	3.624	O	|	|	|	|	0.98
177.083	0.00	0.31	3.621	O	|	|	|	|	0.98
177.167	0.00	0.31	3.619	O	|	|	|	|	0.98
177.250	0.00	0.31	3.617	O	|	|	|	|	0.98
177.333	0.00	0.31	3.615	O	|	|	|	|	0.98
177.417	0.00	0.31	3.613	O	|	|	|	|	0.98

177.500	0.00	0.31	3.611	O	|	|	|	|	0.98
177.583	0.00	0.31	3.608	O	|	|	|	|	0.98
177.667	0.00	0.31	3.606	O	|	|	|	|	0.97
177.750	0.00	0.31	3.604	O	|	|	|	|	0.97
177.833	0.00	0.31	3.602	O	|	|	|	|	0.97
177.917	0.00	0.31	3.600	O	|	|	|	|	0.97
178.000	0.00	0.31	3.598	O	|	|	|	|	0.97
178.083	0.00	0.31	3.596	O	|	|	|	|	0.97
178.167	0.00	0.31	3.593	O	|	|	|	|	0.97
178.250	0.00	0.31	3.591	O	|	|	|	|	0.97
178.333	0.00	0.31	3.589	O	|	|	|	|	0.97
178.417	0.00	0.31	3.587	O	|	|	|	|	0.97
178.500	0.00	0.31	3.585	O	|	|	|	|	0.97
178.583	0.00	0.31	3.583	O	|	|	|	|	0.97
178.667	0.00	0.31	3.581	O	|	|	|	|	0.97
178.750	0.00	0.31	3.578	O	|	|	|	|	0.97
178.833	0.00	0.31	3.576	O	|	|	|	|	0.97
178.917	0.00	0.31	3.574	O	|	|	|	|	0.97
179.000	0.00	0.31	3.572	O	|	|	|	|	0.97
179.083	0.00	0.31	3.570	O	|	|	|	|	0.96
179.167	0.00	0.31	3.568	O	|	|	|	|	0.96
179.250	0.00	0.31	3.566	O	|	|	|	|	0.96
179.333	0.00	0.31	3.564	O	|	|	|	|	0.96
179.417	0.00	0.31	3.561	O	|	|	|	|	0.96
179.500	0.00	0.31	3.559	O	|	|	|	|	0.96
179.583	0.00	0.31	3.557	O	|	|	|	|	0.96
179.667	0.00	0.31	3.555	O	|	|	|	|	0.96
179.750	0.00	0.31	3.553	O	|	|	|	|	0.96
179.833	0.00	0.31	3.551	O	|	|	|	|	0.96
179.917	0.00	0.31	3.549	O	|	|	|	|	0.96
180.000	0.00	0.31	3.547	O	|	|	|	|	0.96
180.083	0.00	0.31	3.545	O	|	|	|	|	0.96
180.167	0.00	0.31	3.542	O	|	|	|	|	0.96
180.250	0.00	0.31	3.540	O	|	|	|	|	0.96
180.333	0.00	0.31	3.538	O	|	|	|	|	0.96
180.417	0.00	0.31	3.536	O	|	|	|	|	0.96
180.500	0.00	0.31	3.534	O	|	|	|	|	0.96
180.583	0.00	0.31	3.532	O	|	|	|	|	0.95
180.667	0.00	0.31	3.530	O	|	|	|	|	0.95
180.750	0.00	0.31	3.528	O	|	|	|	|	0.95
180.833	0.00	0.30	3.526	O	|	|	|	|	0.95
180.917	0.00	0.30	3.523	O	|	|	|	|	0.95
181.000	0.00	0.30	3.521	O	|	|	|	|	0.95
181.083	0.00	0.30	3.519	O	|	|	|	|	0.95
181.167	0.00	0.30	3.517	O	|	|	|	|	0.95
181.250	0.00	0.30	3.515	O	|	|	|	|	0.95
181.333	0.00	0.30	3.513	O	|	|	|	|	0.95
181.417	0.00	0.30	3.511	O	|	|	|	|	0.95
181.500	0.00	0.30	3.509	O	|	|	|	|	0.95
181.583	0.00	0.30	3.507	O	|	|	|	|	0.95
181.667	0.00	0.30	3.505	O	|	|	|	|	0.95
181.750	0.00	0.30	3.503	O	|	|	|	|	0.95
181.833	0.00	0.30	3.500	O	|	|	|	|	0.95
181.917	0.00	0.30	3.498	O	|	|	|	|	0.95
182.000	0.00	0.30	3.496	O	|	|	|	|	0.94
182.083	0.00	0.30	3.494	O	|	|	|	|	0.94
182.167	0.00	0.30	3.492	O	|	|	|	|	0.94
182.250	0.00	0.30	3.490	O	|	|	|	|	0.94
182.333	0.00	0.30	3.488	O	|	|	|	|	0.94
182.417	0.00	0.30	3.486	O	|	|	|	|	0.94
182.500	0.00	0.30	3.484	O	|	|	|	|	0.94
182.583	0.00	0.30	3.482	O	|	|	|	|	0.94
182.667	0.00	0.30	3.480	O	|	|	|	|	0.94

182.750	0.00	0.30	3.478	O	|	|	|	|	0.94
182.833	0.00	0.30	3.476	O	|	|	|	|	0.94
182.917	0.00	0.30	3.473	O	|	|	|	|	0.94
183.000	0.00	0.30	3.471	O	|	|	|	|	0.94
183.083	0.00	0.30	3.469	O	|	|	|	|	0.94
183.167	0.00	0.30	3.467	O	|	|	|	|	0.94
183.250	0.00	0.30	3.465	O	|	|	|	|	0.94
183.333	0.00	0.30	3.463	O	|	|	|	|	0.94
183.417	0.00	0.30	3.461	O	|	|	|	|	0.94
183.500	0.00	0.30	3.459	O	|	|	|	|	0.93
183.583	0.00	0.30	3.457	O	|	|	|	|	0.93
183.667	0.00	0.30	3.455	O	|	|	|	|	0.93
183.750	0.00	0.30	3.453	O	|	|	|	|	0.93
183.833	0.00	0.30	3.451	O	|	|	|	|	0.93
183.917	0.00	0.30	3.449	O	|	|	|	|	0.93
184.000	0.00	0.30	3.447	O	|	|	|	|	0.93
184.083	0.00	0.30	3.445	O	|	|	|	|	0.93
184.167	0.00	0.30	3.443	O	|	|	|	|	0.93
184.250	0.00	0.30	3.441	O	|	|	|	|	0.93
184.333	0.00	0.30	3.438	O	|	|	|	|	0.93
184.417	0.00	0.30	3.436	O	|	|	|	|	0.93
184.500	0.00	0.30	3.434	O	|	|	|	|	0.93
184.583	0.00	0.30	3.432	O	|	|	|	|	0.93
184.667	0.00	0.30	3.430	O	|	|	|	|	0.93
184.750	0.00	0.30	3.428	O	|	|	|	|	0.93
184.833	0.00	0.30	3.426	O	|	|	|	|	0.93
184.917	0.00	0.30	3.424	O	|	|	|	|	0.93
185.000	0.00	0.30	3.422	O	|	|	|	|	0.92
185.083	0.00	0.30	3.420	O	|	|	|	|	0.92
185.167	0.00	0.30	3.418	O	|	|	|	|	0.92
185.250	0.00	0.30	3.416	O	|	|	|	|	0.92
185.333	0.00	0.30	3.414	O	|	|	|	|	0.92
185.417	0.00	0.30	3.412	O	|	|	|	|	0.92
185.500	0.00	0.29	3.410	O	|	|	|	|	0.92
185.583	0.00	0.29	3.408	O	|	|	|	|	0.92
185.667	0.00	0.29	3.406	O	|	|	|	|	0.92
185.750	0.00	0.29	3.404	O	|	|	|	|	0.92
185.833	0.00	0.29	3.402	O	|	|	|	|	0.92
185.917	0.00	0.29	3.400	O	|	|	|	|	0.92
186.000	0.00	0.29	3.398	O	|	|	|	|	0.92
186.083	0.00	0.29	3.396	O	|	|	|	|	0.92
186.167	0.00	0.29	3.394	O	|	|	|	|	0.92
186.250	0.00	0.29	3.392	O	|	|	|	|	0.92
186.333	0.00	0.29	3.390	O	|	|	|	|	0.92
186.417	0.00	0.29	3.388	O	|	|	|	|	0.92
186.500	0.00	0.29	3.386	O	|	|	|	|	0.92
186.583	0.00	0.29	3.384	O	|	|	|	|	0.91
186.667	0.00	0.29	3.382	O	|	|	|	|	0.91
186.750	0.00	0.29	3.380	O	|	|	|	|	0.91
186.833	0.00	0.29	3.378	O	|	|	|	|	0.91
186.917	0.00	0.29	3.376	O	|	|	|	|	0.91
187.000	0.00	0.29	3.374	O	|	|	|	|	0.91
187.083	0.00	0.29	3.372	O	|	|	|	|	0.91
187.167	0.00	0.29	3.370	O	|	|	|	|	0.91
187.250	0.00	0.29	3.368	O	|	|	|	|	0.91
187.333	0.00	0.29	3.366	O	|	|	|	|	0.91
187.417	0.00	0.29	3.364	O	|	|	|	|	0.91
187.500	0.00	0.29	3.362	O	|	|	|	|	0.91
187.583	0.00	0.29	3.360	O	|	|	|	|	0.91
187.667	0.00	0.29	3.358	O	|	|	|	|	0.91
187.750	0.00	0.29	3.356	O	|	|	|	|	0.91
187.833	0.00	0.29	3.354	O	|	|	|	|	0.91
187.917	0.00	0.29	3.352	O	|	|	|	|	0.91

188.000	0.00	0.29	3.350	O	|	|	|	|	0.91
188.083	0.00	0.29	3.348	O	|	|	|	|	0.90
188.167	0.00	0.29	3.346	O	|	|	|	|	0.90
188.250	0.00	0.29	3.344	O	|	|	|	|	0.90
188.333	0.00	0.29	3.342	O	|	|	|	|	0.90
188.417	0.00	0.29	3.340	O	|	|	|	|	0.90
188.500	0.00	0.29	3.338	O	|	|	|	|	0.90
188.583	0.00	0.29	3.336	O	|	|	|	|	0.90
188.667	0.00	0.29	3.334	O	|	|	|	|	0.90
188.750	0.00	0.29	3.332	O	|	|	|	|	0.90
188.833	0.00	0.29	3.330	O	|	|	|	|	0.90
188.917	0.00	0.29	3.328	O	|	|	|	|	0.90
189.000	0.00	0.29	3.326	O	|	|	|	|	0.90
189.083	0.00	0.29	3.324	O	|	|	|	|	0.90
189.167	0.00	0.29	3.322	O	|	|	|	|	0.90
189.250	0.00	0.29	3.320	O	|	|	|	|	0.90
189.333	0.00	0.29	3.318	O	|	|	|	|	0.90
189.417	0.00	0.29	3.316	O	|	|	|	|	0.90
189.500	0.00	0.29	3.314	O	|	|	|	|	0.90
189.583	0.00	0.29	3.312	O	|	|	|	|	0.90
189.667	0.00	0.29	3.310	O	|	|	|	|	0.89
189.750	0.00	0.29	3.308	O	|	|	|	|	0.89
189.833	0.00	0.29	3.306	O	|	|	|	|	0.89
189.917	0.00	0.29	3.304	O	|	|	|	|	0.89
190.000	0.00	0.29	3.302	O	|	|	|	|	0.89
190.083	0.00	0.29	3.300	O	|	|	|	|	0.89
190.167	0.00	0.29	3.298	O	|	|	|	|	0.89
190.250	0.00	0.29	3.296	O	|	|	|	|	0.89
190.333	0.00	0.28	3.294	O	|	|	|	|	0.89
190.417	0.00	0.28	3.292	O	|	|	|	|	0.89
190.500	0.00	0.28	3.290	O	|	|	|	|	0.89
190.583	0.00	0.28	3.288	O	|	|	|	|	0.89
190.667	0.00	0.28	3.286	O	|	|	|	|	0.89
190.750	0.00	0.28	3.284	O	|	|	|	|	0.89
190.833	0.00	0.28	3.282	O	|	|	|	|	0.89
190.917	0.00	0.28	3.280	O	|	|	|	|	0.89
191.000	0.00	0.28	3.278	O	|	|	|	|	0.89
191.083	0.00	0.28	3.277	O	|	|	|	|	0.89
191.167	0.00	0.28	3.275	O	|	|	|	|	0.89
191.250	0.00	0.28	3.273	O	|	|	|	|	0.88
191.333	0.00	0.28	3.271	O	|	|	|	|	0.88
191.417	0.00	0.28	3.269	O	|	|	|	|	0.88
191.500	0.00	0.28	3.267	O	|	|	|	|	0.88
191.583	0.00	0.28	3.265	O	|	|	|	|	0.88
191.667	0.00	0.28	3.263	O	|	|	|	|	0.88
191.750	0.00	0.28	3.261	O	|	|	|	|	0.88
191.833	0.00	0.28	3.259	O	|	|	|	|	0.88
191.917	0.00	0.28	3.257	O	|	|	|	|	0.88
192.000	0.00	0.28	3.255	O	|	|	|	|	0.88
192.083	0.00	0.28	3.253	O	|	|	|	|	0.88
192.167	0.00	0.28	3.251	O	|	|	|	|	0.88
192.250	0.00	0.28	3.249	O	|	|	|	|	0.88
192.333	0.00	0.28	3.247	O	|	|	|	|	0.88
192.417	0.00	0.28	3.245	O	|	|	|	|	0.88
192.500	0.00	0.28	3.244	O	|	|	|	|	0.88
192.583	0.00	0.28	3.242	O	|	|	|	|	0.88
192.667	0.00	0.28	3.240	O	|	|	|	|	0.88
192.750	0.00	0.28	3.238	O	|	|	|	|	0.88
192.833	0.00	0.28	3.236	O	|	|	|	|	0.87
192.917	0.00	0.28	3.234	O	|	|	|	|	0.87
193.000	0.00	0.28	3.232	O	|	|	|	|	0.87
193.083	0.00	0.28	3.230	O	|	|	|	|	0.87
193.167	0.00	0.28	3.228	O	|	|	|	|	0.87

193.250	0.00	0.28	3.226	O	|	|	|	|	0.87
193.333	0.00	0.28	3.224	O	|	|	|	|	0.87
193.417	0.00	0.28	3.222	O	|	|	|	|	0.87
193.500	0.00	0.28	3.220	O	|	|	|	|	0.87
193.583	0.00	0.28	3.218	O	|	|	|	|	0.87
193.667	0.00	0.28	3.217	O	|	|	|	|	0.87
193.750	0.00	0.28	3.215	O	|	|	|	|	0.87
193.833	0.00	0.28	3.213	O	|	|	|	|	0.87
193.917	0.00	0.28	3.211	O	|	|	|	|	0.87
194.000	0.00	0.28	3.209	O	|	|	|	|	0.87
194.083	0.00	0.28	3.207	O	|	|	|	|	0.87
194.167	0.00	0.28	3.205	O	|	|	|	|	0.87
194.250	0.00	0.28	3.203	O	|	|	|	|	0.87
194.333	0.00	0.28	3.201	O	|	|	|	|	0.87
194.417	0.00	0.28	3.199	O	|	|	|	|	0.86
194.500	0.00	0.28	3.197	O	|	|	|	|	0.86
194.583	0.00	0.28	3.196	O	|	|	|	|	0.86
194.667	0.00	0.28	3.194	O	|	|	|	|	0.86
194.750	0.00	0.28	3.192	O	|	|	|	|	0.86
194.833	0.00	0.28	3.190	O	|	|	|	|	0.86
194.917	0.00	0.28	3.188	O	|	|	|	|	0.86
195.000	0.00	0.28	3.186	O	|	|	|	|	0.86
195.083	0.00	0.28	3.184	O	|	|	|	|	0.86
195.167	0.00	0.28	3.182	O	|	|	|	|	0.86
195.250	0.00	0.28	3.180	O	|	|	|	|	0.86
195.333	0.00	0.27	3.178	O	|	|	|	|	0.86
195.417	0.00	0.27	3.177	O	|	|	|	|	0.86
195.500	0.00	0.27	3.175	O	|	|	|	|	0.86
195.583	0.00	0.27	3.173	O	|	|	|	|	0.86
195.667	0.00	0.27	3.171	O	|	|	|	|	0.86
195.750	0.00	0.27	3.169	O	|	|	|	|	0.86
195.833	0.00	0.27	3.167	O	|	|	|	|	0.86
195.917	0.00	0.27	3.165	O	|	|	|	|	0.86
196.000	0.00	0.27	3.163	O	|	|	|	|	0.85
196.083	0.00	0.27	3.161	O	|	|	|	|	0.85
196.167	0.00	0.27	3.160	O	|	|	|	|	0.85
196.250	0.00	0.27	3.158	O	|	|	|	|	0.85
196.333	0.00	0.27	3.156	O	|	|	|	|	0.85
196.417	0.00	0.27	3.154	O	|	|	|	|	0.85
196.500	0.00	0.27	3.152	O	|	|	|	|	0.85
196.583	0.00	0.27	3.150	O	|	|	|	|	0.85
196.667	0.00	0.27	3.148	O	|	|	|	|	0.85
196.750	0.00	0.27	3.146	O	|	|	|	|	0.85
196.833	0.00	0.27	3.145	O	|	|	|	|	0.85
196.917	0.00	0.27	3.143	O	|	|	|	|	0.85
197.000	0.00	0.27	3.141	O	|	|	|	|	0.85
197.083	0.00	0.27	3.139	O	|	|	|	|	0.85
197.167	0.00	0.27	3.137	O	|	|	|	|	0.85
197.250	0.00	0.27	3.135	O	|	|	|	|	0.85
197.333	0.00	0.27	3.133	O	|	|	|	|	0.85
197.417	0.00	0.27	3.131	O	|	|	|	|	0.85
197.500	0.00	0.27	3.130	O	|	|	|	|	0.85
197.583	0.00	0.27	3.128	O	|	|	|	|	0.85
197.667	0.00	0.27	3.126	O	|	|	|	|	0.84
197.750	0.00	0.27	3.124	O	|	|	|	|	0.84
197.833	0.00	0.27	3.122	O	|	|	|	|	0.84
197.917	0.00	0.27	3.120	O	|	|	|	|	0.84
198.000	0.00	0.27	3.118	O	|	|	|	|	0.84
198.083	0.00	0.27	3.117	O	|	|	|	|	0.84
198.167	0.00	0.27	3.115	O	|	|	|	|	0.84
198.250	0.00	0.27	3.113	O	|	|	|	|	0.84
198.333	0.00	0.27	3.111	O	|	|	|	|	0.84
198.417	0.00	0.27	3.109	O	|	|	|	|	0.84

198.500	0.00	0.27	3.107	O	|	|	|	|	0.84
198.583	0.00	0.27	3.105	O	|	|	|	|	0.84
198.667	0.00	0.27	3.104	O	|	|	|	|	0.84
198.750	0.00	0.27	3.102	O	|	|	|	|	0.84
198.833	0.00	0.27	3.100	O	|	|	|	|	0.84
198.917	0.00	0.27	3.098	O	|	|	|	|	0.84
199.000	0.00	0.27	3.096	O	|	|	|	|	0.84
199.083	0.00	0.27	3.094	O	|	|	|	|	0.84
199.167	0.00	0.27	3.093	O	|	|	|	|	0.84
199.250	0.00	0.27	3.091	O	|	|	|	|	0.84
199.333	0.00	0.27	3.089	O	|	|	|	|	0.83
199.417	0.00	0.27	3.087	O	|	|	|	|	0.83
199.500	0.00	0.27	3.085	O	|	|	|	|	0.83
199.583	0.00	0.27	3.083	O	|	|	|	|	0.83
199.667	0.00	0.27	3.082	O	|	|	|	|	0.83
199.750	0.00	0.27	3.080	O	|	|	|	|	0.83
199.833	0.00	0.27	3.078	O	|	|	|	|	0.83
199.917	0.00	0.27	3.076	O	|	|	|	|	0.83
200.000	0.00	0.27	3.074	O	|	|	|	|	0.83
200.083	0.00	0.27	3.072	O	|	|	|	|	0.83
200.167	0.00	0.27	3.071	O	|	|	|	|	0.83
200.250	0.00	0.27	3.069	O	|	|	|	|	0.83
200.333	0.00	0.27	3.067	O	|	|	|	|	0.83
200.417	0.00	0.27	3.065	O	|	|	|	|	0.83
200.500	0.00	0.26	3.063	O	|	|	|	|	0.83
200.583	0.00	0.26	3.061	O	|	|	|	|	0.83
200.667	0.00	0.26	3.060	O	|	|	|	|	0.83
200.750	0.00	0.26	3.058	O	|	|	|	|	0.83
200.833	0.00	0.26	3.056	O	|	|	|	|	0.83
200.917	0.00	0.26	3.054	O	|	|	|	|	0.83
201.000	0.00	0.26	3.052	O	|	|	|	|	0.82
201.083	0.00	0.26	3.050	O	|	|	|	|	0.82
201.167	0.00	0.26	3.049	O	|	|	|	|	0.82
201.250	0.00	0.26	3.047	O	|	|	|	|	0.82
201.333	0.00	0.26	3.045	O	|	|	|	|	0.82
201.417	0.00	0.26	3.043	O	|	|	|	|	0.82
201.500	0.00	0.26	3.041	O	|	|	|	|	0.82
201.583	0.00	0.26	3.040	O	|	|	|	|	0.82
201.667	0.00	0.26	3.038	O	|	|	|	|	0.82
201.750	0.00	0.26	3.036	O	|	|	|	|	0.82
201.833	0.00	0.26	3.034	O	|	|	|	|	0.82
201.917	0.00	0.26	3.032	O	|	|	|	|	0.82
202.000	0.00	0.26	3.031	O	|	|	|	|	0.82
202.083	0.00	0.26	3.029	O	|	|	|	|	0.82
202.167	0.00	0.26	3.027	O	|	|	|	|	0.82
202.250	0.00	0.26	3.025	O	|	|	|	|	0.82
202.333	0.00	0.26	3.023	O	|	|	|	|	0.82
202.417	0.00	0.26	3.022	O	|	|	|	|	0.82
202.500	0.00	0.26	3.020	O	|	|	|	|	0.82
202.583	0.00	0.26	3.018	O	|	|	|	|	0.82
202.667	0.00	0.26	3.016	O	|	|	|	|	0.82
202.750	0.00	0.26	3.014	O	|	|	|	|	0.81
202.833	0.00	0.26	3.013	O	|	|	|	|	0.81
202.917	0.00	0.26	3.011	O	|	|	|	|	0.81
203.000	0.00	0.26	3.009	O	|	|	|	|	0.81
203.083	0.00	0.26	3.007	O	|	|	|	|	0.81
203.167	0.00	0.26	3.005	O	|	|	|	|	0.81
203.250	0.00	0.26	3.004	O	|	|	|	|	0.81
203.333	0.00	0.26	3.002	O	|	|	|	|	0.81
203.417	0.00	0.26	3.000	O	|	|	|	|	0.81
203.500	0.00	0.26	2.998	O	|	|	|	|	0.81
203.583	0.00	0.26	2.996	O	|	|	|	|	0.81
203.667	0.00	0.26	2.995	O	|	|	|	|	0.81

203.750	0.00	0.26	2.993	O	|	|	|	|	0.81
203.833	0.00	0.26	2.991	O	|	|	|	|	0.81
203.917	0.00	0.26	2.989	O	|	|	|	|	0.81
204.000	0.00	0.26	2.988	O	|	|	|	|	0.81
204.083	0.00	0.26	2.986	O	|	|	|	|	0.81
204.167	0.00	0.26	2.984	O	|	|	|	|	0.81
204.250	0.00	0.26	2.982	O	|	|	|	|	0.81
204.333	0.00	0.26	2.980	O	|	|	|	|	0.81
204.417	0.00	0.26	2.979	O	|	|	|	|	0.81
204.500	0.00	0.26	2.977	O	|	|	|	|	0.80
204.583	0.00	0.26	2.975	O	|	|	|	|	0.80
204.667	0.00	0.26	2.973	O	|	|	|	|	0.80
204.750	0.00	0.26	2.972	O	|	|	|	|	0.80
204.833	0.00	0.26	2.970	O	|	|	|	|	0.80
204.917	0.00	0.26	2.968	O	|	|	|	|	0.80
205.000	0.00	0.26	2.966	O	|	|	|	|	0.80
205.083	0.00	0.26	2.965	O	|	|	|	|	0.80
205.167	0.00	0.26	2.963	O	|	|	|	|	0.80
205.250	0.00	0.26	2.961	O	|	|	|	|	0.80
205.333	0.00	0.26	2.959	O	|	|	|	|	0.80
205.417	0.00	0.26	2.957	O	|	|	|	|	0.80
205.500	0.00	0.26	2.956	O	|	|	|	|	0.80
205.583	0.00	0.26	2.954	O	|	|	|	|	0.80
205.667	0.00	0.26	2.952	O	|	|	|	|	0.80
205.750	0.00	0.26	2.950	O	|	|	|	|	0.80
205.833	0.00	0.26	2.949	O	|	|	|	|	0.80
205.917	0.00	0.25	2.947	O	|	|	|	|	0.80
206.000	0.00	0.25	2.945	O	|	|	|	|	0.80
206.083	0.00	0.25	2.943	O	|	|	|	|	0.80
206.167	0.00	0.25	2.942	O	|	|	|	|	0.80
206.250	0.00	0.25	2.940	O	|	|	|	|	0.79
206.333	0.00	0.25	2.938	O	|	|	|	|	0.79
206.417	0.00	0.25	2.936	O	|	|	|	|	0.79
206.500	0.00	0.25	2.935	O	|	|	|	|	0.79
206.583	0.00	0.25	2.933	O	|	|	|	|	0.79
206.667	0.00	0.25	2.931	O	|	|	|	|	0.79
206.750	0.00	0.25	2.929	O	|	|	|	|	0.79
206.833	0.00	0.25	2.928	O	|	|	|	|	0.79
206.917	0.00	0.25	2.926	O	|	|	|	|	0.79
207.000	0.00	0.25	2.924	O	|	|	|	|	0.79
207.083	0.00	0.25	2.922	O	|	|	|	|	0.79
207.167	0.00	0.25	2.921	O	|	|	|	|	0.79
207.250	0.00	0.25	2.919	O	|	|	|	|	0.79
207.333	0.00	0.25	2.917	O	|	|	|	|	0.79
207.417	0.00	0.25	2.915	O	|	|	|	|	0.79
207.500	0.00	0.25	2.914	O	|	|	|	|	0.79
207.583	0.00	0.25	2.912	O	|	|	|	|	0.79
207.667	0.00	0.25	2.910	O	|	|	|	|	0.79
207.750	0.00	0.25	2.909	O	|	|	|	|	0.79
207.833	0.00	0.25	2.907	O	|	|	|	|	0.79
207.917	0.00	0.25	2.905	O	|	|	|	|	0.79
208.000	0.00	0.25	2.903	O	|	|	|	|	0.78
208.083	0.00	0.25	2.902	O	|	|	|	|	0.78
208.167	0.00	0.25	2.900	O	|	|	|	|	0.78
208.250	0.00	0.25	2.898	O	|	|	|	|	0.78
208.333	0.00	0.25	2.896	O	|	|	|	|	0.78
208.417	0.00	0.25	2.895	O	|	|	|	|	0.78
208.500	0.00	0.25	2.893	O	|	|	|	|	0.78
208.583	0.00	0.25	2.891	O	|	|	|	|	0.78
208.667	0.00	0.25	2.890	O	|	|	|	|	0.78
208.750	0.00	0.25	2.888	O	|	|	|	|	0.78
208.833	0.00	0.25	2.886	O	|	|	|	|	0.78
208.917	0.00	0.25	2.884	O	|	|	|	|	0.78

209.000	0.00	0.25	2.883	O	|	|	|	|	0.78
209.083	0.00	0.25	2.881	O	|	|	|	|	0.78
209.167	0.00	0.25	2.879	O	|	|	|	|	0.78
209.250	0.00	0.25	2.878	O	|	|	|	|	0.78
209.333	0.00	0.25	2.876	O	|	|	|	|	0.78
209.417	0.00	0.25	2.874	O	|	|	|	|	0.78
209.500	0.00	0.25	2.872	O	|	|	|	|	0.78
209.583	0.00	0.25	2.871	O	|	|	|	|	0.78
209.667	0.00	0.25	2.869	O	|	|	|	|	0.78
209.750	0.00	0.25	2.867	O	|	|	|	|	0.77
209.833	0.00	0.25	2.866	O	|	|	|	|	0.77
209.917	0.00	0.25	2.864	O	|	|	|	|	0.77
210.000	0.00	0.25	2.862	O	|	|	|	|	0.77
210.083	0.00	0.25	2.860	O	|	|	|	|	0.77
210.167	0.00	0.25	2.859	O	|	|	|	|	0.77
210.250	0.00	0.25	2.857	O	|	|	|	|	0.77
210.333	0.00	0.25	2.855	O	|	|	|	|	0.77
210.417	0.00	0.25	2.854	O	|	|	|	|	0.77
210.500	0.00	0.25	2.852	O	|	|	|	|	0.77
210.583	0.00	0.25	2.850	O	|	|	|	|	0.77
210.667	0.00	0.25	2.849	O	|	|	|	|	0.77
210.750	0.00	0.25	2.847	O	|	|	|	|	0.77
210.833	0.00	0.25	2.845	O	|	|	|	|	0.77
210.917	0.00	0.25	2.843	O	|	|	|	|	0.77
211.000	0.00	0.25	2.842	O	|	|	|	|	0.77
211.083	0.00	0.25	2.840	O	|	|	|	|	0.77
211.167	0.00	0.25	2.838	O	|	|	|	|	0.77
211.250	0.00	0.25	2.837	O	|	|	|	|	0.77
211.333	0.00	0.25	2.835	O	|	|	|	|	0.77
211.417	0.00	0.25	2.833	O	|	|	|	|	0.77
211.500	0.00	0.24	2.832	O	|	|	|	|	0.77
211.583	0.00	0.24	2.830	O	|	|	|	|	0.76
211.667	0.00	0.24	2.828	O	|	|	|	|	0.76
211.750	0.00	0.24	2.827	O	|	|	|	|	0.76
211.833	0.00	0.24	2.825	O	|	|	|	|	0.76
211.917	0.00	0.24	2.823	O	|	|	|	|	0.76
212.000	0.00	0.24	2.822	O	|	|	|	|	0.76
212.083	0.00	0.24	2.820	O	|	|	|	|	0.76
212.167	0.00	0.24	2.818	O	|	|	|	|	0.76
212.250	0.00	0.24	2.816	O	|	|	|	|	0.76
212.333	0.00	0.24	2.815	O	|	|	|	|	0.76
212.417	0.00	0.24	2.813	O	|	|	|	|	0.76
212.500	0.00	0.24	2.811	O	|	|	|	|	0.76
212.583	0.00	0.24	2.810	O	|	|	|	|	0.76
212.667	0.00	0.24	2.808	O	|	|	|	|	0.76
212.750	0.00	0.24	2.806	O	|	|	|	|	0.76
212.833	0.00	0.24	2.805	O	|	|	|	|	0.76
212.917	0.00	0.24	2.803	O	|	|	|	|	0.76
213.000	0.00	0.24	2.801	O	|	|	|	|	0.76
213.083	0.00	0.24	2.800	O	|	|	|	|	0.76
213.167	0.00	0.24	2.798	O	|	|	|	|	0.76
213.250	0.00	0.24	2.796	O	|	|	|	|	0.76
213.333	0.00	0.24	2.795	O	|	|	|	|	0.76
213.417	0.00	0.24	2.793	O	|	|	|	|	0.75
213.500	0.00	0.24	2.791	O	|	|	|	|	0.75
213.583	0.00	0.24	2.790	O	|	|	|	|	0.75
213.667	0.00	0.24	2.788	O	|	|	|	|	0.75
213.750	0.00	0.24	2.786	O	|	|	|	|	0.75
213.833	0.00	0.24	2.785	O	|	|	|	|	0.75
213.917	0.00	0.24	2.783	O	|	|	|	|	0.75
214.000	0.00	0.24	2.781	O	|	|	|	|	0.75
214.083	0.00	0.24	2.780	O	|	|	|	|	0.75
214.167	0.00	0.24	2.778	O	|	|	|	|	0.75

214.250	0.00	0.24	2.777	O	|	|	|	|	0.75
214.333	0.00	0.24	2.775	O	|	|	|	|	0.75
214.417	0.00	0.24	2.773	O	|	|	|	|	0.75
214.500	0.00	0.24	2.772	O	|	|	|	|	0.75
214.583	0.00	0.24	2.770	O	|	|	|	|	0.75
214.667	0.00	0.24	2.768	O	|	|	|	|	0.75
214.750	0.00	0.24	2.767	O	|	|	|	|	0.75
214.833	0.00	0.24	2.765	O	|	|	|	|	0.75
214.917	0.00	0.24	2.763	O	|	|	|	|	0.75
215.000	0.00	0.24	2.762	O	|	|	|	|	0.75
215.083	0.00	0.24	2.760	O	|	|	|	|	0.75
215.167	0.00	0.24	2.758	O	|	|	|	|	0.75
215.250	0.00	0.24	2.757	O	|	|	|	|	0.75
215.333	0.00	0.24	2.755	O	|	|	|	|	0.74
215.417	0.00	0.24	2.753	O	|	|	|	|	0.74
215.500	0.00	0.24	2.752	O	|	|	|	|	0.74
215.583	0.00	0.24	2.750	O	|	|	|	|	0.74
215.667	0.00	0.24	2.749	O	|	|	|	|	0.74
215.750	0.00	0.24	2.747	O	|	|	|	|	0.74
215.833	0.00	0.24	2.745	O	|	|	|	|	0.74
215.917	0.00	0.24	2.744	O	|	|	|	|	0.74
216.000	0.00	0.24	2.742	O	|	|	|	|	0.74
216.083	0.00	0.24	2.740	O	|	|	|	|	0.74
216.167	0.00	0.24	2.739	O	|	|	|	|	0.74
216.250	0.00	0.24	2.737	O	|	|	|	|	0.74
216.333	0.00	0.24	2.735	O	|	|	|	|	0.74
216.417	0.00	0.24	2.734	O	|	|	|	|	0.74
216.500	0.00	0.24	2.732	O	|	|	|	|	0.74
216.583	0.00	0.24	2.731	O	|	|	|	|	0.74
216.667	0.00	0.24	2.729	O	|	|	|	|	0.74
216.750	0.00	0.24	2.727	O	|	|	|	|	0.74
216.833	0.00	0.24	2.726	O	|	|	|	|	0.74
216.917	0.00	0.24	2.724	O	|	|	|	|	0.74
217.000	0.00	0.24	2.722	O	|	|	|	|	0.74
217.083	0.00	0.24	2.721	O	|	|	|	|	0.74
217.167	0.00	0.24	2.719	O	|	|	|	|	0.73
217.250	0.00	0.24	2.718	O	|	|	|	|	0.73
217.333	0.00	0.23	2.716	O	|	|	|	|	0.73
217.417	0.00	0.23	2.714	O	|	|	|	|	0.73
217.500	0.00	0.23	2.713	O	|	|	|	|	0.73
217.583	0.00	0.23	2.711	O	|	|	|	|	0.73
217.667	0.00	0.23	2.710	O	|	|	|	|	0.73
217.750	0.00	0.23	2.708	O	|	|	|	|	0.73
217.833	0.00	0.23	2.706	O	|	|	|	|	0.73
217.917	0.00	0.23	2.705	O	|	|	|	|	0.73
218.000	0.00	0.23	2.703	O	|	|	|	|	0.73
218.083	0.00	0.23	2.701	O	|	|	|	|	0.73
218.167	0.00	0.23	2.700	O	|	|	|	|	0.73
218.250	0.00	0.23	2.698	O	|	|	|	|	0.73
218.333	0.00	0.23	2.697	O	|	|	|	|	0.73
218.417	0.00	0.23	2.695	O	|	|	|	|	0.73
218.500	0.00	0.23	2.693	O	|	|	|	|	0.73
218.583	0.00	0.23	2.692	O	|	|	|	|	0.73
218.667	0.00	0.23	2.690	O	|	|	|	|	0.73
218.750	0.00	0.23	2.689	O	|	|	|	|	0.73
218.833	0.00	0.23	2.687	O	|	|	|	|	0.73
218.917	0.00	0.23	2.685	O	|	|	|	|	0.73
219.000	0.00	0.23	2.684	O	|	|	|	|	0.73
219.083	0.00	0.23	2.682	O	|	|	|	|	0.72
219.167	0.00	0.23	2.681	O	|	|	|	|	0.72
219.250	0.00	0.23	2.679	O	|	|	|	|	0.72
219.333	0.00	0.23	2.677	O	|	|	|	|	0.72
219.417	0.00	0.23	2.676	O	|	|	|	|	0.72

219.500	0.00	0.23	2.674	O	|	|	|	|	0.72
219.583	0.00	0.23	2.673	O	|	|	|	|	0.72
219.667	0.00	0.23	2.671	O	|	|	|	|	0.72
219.750	0.00	0.23	2.669	O	|	|	|	|	0.72
219.833	0.00	0.23	2.668	O	|	|	|	|	0.72
219.917	0.00	0.23	2.666	O	|	|	|	|	0.72
220.000	0.00	0.23	2.665	O	|	|	|	|	0.72
220.083	0.00	0.23	2.663	O	|	|	|	|	0.72
220.167	0.00	0.23	2.662	O	|	|	|	|	0.72
220.250	0.00	0.23	2.660	O	|	|	|	|	0.72
220.333	0.00	0.23	2.658	O	|	|	|	|	0.72
220.417	0.00	0.23	2.657	O	|	|	|	|	0.72
220.500	0.00	0.23	2.655	O	|	|	|	|	0.72
220.583	0.00	0.23	2.654	O	|	|	|	|	0.72
220.667	0.00	0.23	2.652	O	|	|	|	|	0.72
220.750	0.00	0.23	2.650	O	|	|	|	|	0.72
220.833	0.00	0.23	2.649	O	|	|	|	|	0.72
220.917	0.00	0.23	2.647	O	|	|	|	|	0.72
221.000	0.00	0.23	2.646	O	|	|	|	|	0.72
221.083	0.00	0.23	2.644	O	|	|	|	|	0.71
221.167	0.00	0.23	2.643	O	|	|	|	|	0.71
221.250	0.00	0.23	2.641	O	|	|	|	|	0.71
221.333	0.00	0.23	2.639	O	|	|	|	|	0.71
221.417	0.00	0.23	2.638	O	|	|	|	|	0.71
221.500	0.00	0.23	2.636	O	|	|	|	|	0.71
221.583	0.00	0.23	2.635	O	|	|	|	|	0.71
221.667	0.00	0.23	2.633	O	|	|	|	|	0.71
221.750	0.00	0.23	2.632	O	|	|	|	|	0.71
221.833	0.00	0.23	2.630	O	|	|	|	|	0.71
221.917	0.00	0.23	2.628	O	|	|	|	|	0.71
222.000	0.00	0.23	2.627	O	|	|	|	|	0.71
222.083	0.00	0.23	2.625	O	|	|	|	|	0.71
222.167	0.00	0.23	2.624	O	|	|	|	|	0.71
222.250	0.00	0.23	2.622	O	|	|	|	|	0.71
222.333	0.00	0.23	2.621	O	|	|	|	|	0.71
222.417	0.00	0.23	2.619	O	|	|	|	|	0.71
222.500	0.00	0.23	2.618	O	|	|	|	|	0.71
222.583	0.00	0.23	2.616	O	|	|	|	|	0.71
222.667	0.00	0.23	2.614	O	|	|	|	|	0.71
222.750	0.00	0.23	2.613	O	|	|	|	|	0.71
222.833	0.00	0.23	2.611	O	|	|	|	|	0.71
222.917	0.00	0.23	2.610	O	|	|	|	|	0.71
223.000	0.00	0.23	2.608	O	|	|	|	|	0.70
223.083	0.00	0.23	2.607	O	|	|	|	|	0.70
223.167	0.00	0.23	2.605	O	|	|	|	|	0.70
223.250	0.00	0.23	2.604	O	|	|	|	|	0.70
223.333	0.00	0.23	2.602	O	|	|	|	|	0.70
223.417	0.00	0.22	2.600	O	|	|	|	|	0.70
223.500	0.00	0.22	2.599	O	|	|	|	|	0.70
223.583	0.00	0.22	2.597	O	|	|	|	|	0.70
223.667	0.00	0.22	2.596	O	|	|	|	|	0.70
223.750	0.00	0.22	2.594	O	|	|	|	|	0.70
223.833	0.00	0.22	2.593	O	|	|	|	|	0.70
223.917	0.00	0.22	2.591	O	|	|	|	|	0.70
224.000	0.00	0.22	2.590	O	|	|	|	|	0.70
224.083	0.00	0.22	2.588	O	|	|	|	|	0.70
224.167	0.00	0.22	2.587	O	|	|	|	|	0.70
224.250	0.00	0.22	2.585	O	|	|	|	|	0.70
224.333	0.00	0.22	2.583	O	|	|	|	|	0.70
224.417	0.00	0.22	2.582	O	|	|	|	|	0.70
224.500	0.00	0.22	2.580	O	|	|	|	|	0.70
224.583	0.00	0.22	2.579	O	|	|	|	|	0.70
224.667	0.00	0.22	2.577	O	|	|	|	|	0.70

224.750	0.00	0.22	2.576	O	|	|	|	|	0.70
224.833	0.00	0.22	2.574	O	|	|	|	|	0.70
224.917	0.00	0.22	2.573	O	|	|	|	|	0.70
225.000	0.00	0.22	2.571	O	|	|	|	|	0.69
225.083	0.00	0.22	2.570	O	|	|	|	|	0.69
225.167	0.00	0.22	2.568	O	|	|	|	|	0.69
225.250	0.00	0.22	2.567	O	|	|	|	|	0.69
225.333	0.00	0.22	2.565	O	|	|	|	|	0.69
225.417	0.00	0.22	2.564	O	|	|	|	|	0.69
225.500	0.00	0.22	2.562	O	|	|	|	|	0.69
225.583	0.00	0.22	2.560	O	|	|	|	|	0.69
225.667	0.00	0.22	2.559	O	|	|	|	|	0.69
225.750	0.00	0.22	2.557	O	|	|	|	|	0.69
225.833	0.00	0.22	2.556	O	|	|	|	|	0.69
225.917	0.00	0.22	2.554	O	|	|	|	|	0.69
226.000	0.00	0.22	2.553	O	|	|	|	|	0.69
226.083	0.00	0.22	2.551	O	|	|	|	|	0.69
226.167	0.00	0.22	2.550	O	|	|	|	|	0.69
226.250	0.00	0.22	2.548	O	|	|	|	|	0.69
226.333	0.00	0.22	2.547	O	|	|	|	|	0.69
226.417	0.00	0.22	2.545	O	|	|	|	|	0.69
226.500	0.00	0.22	2.544	O	|	|	|	|	0.69
226.583	0.00	0.22	2.542	O	|	|	|	|	0.69
226.667	0.00	0.22	2.541	O	|	|	|	|	0.69
226.750	0.00	0.22	2.539	O	|	|	|	|	0.69
226.833	0.00	0.22	2.538	O	|	|	|	|	0.69
226.917	0.00	0.22	2.536	O	|	|	|	|	0.69
227.000	0.00	0.22	2.535	O	|	|	|	|	0.69
227.083	0.00	0.22	2.533	O	|	|	|	|	0.68
227.167	0.00	0.22	2.532	O	|	|	|	|	0.68
227.250	0.00	0.22	2.530	O	|	|	|	|	0.68
227.333	0.00	0.22	2.529	O	|	|	|	|	0.68
227.417	0.00	0.22	2.527	O	|	|	|	|	0.68
227.500	0.00	0.22	2.526	O	|	|	|	|	0.68
227.583	0.00	0.22	2.524	O	|	|	|	|	0.68
227.667	0.00	0.22	2.523	O	|	|	|	|	0.68
227.750	0.00	0.22	2.521	O	|	|	|	|	0.68
227.833	0.00	0.22	2.520	O	|	|	|	|	0.68
227.917	0.00	0.22	2.518	O	|	|	|	|	0.68
228.000	0.00	0.22	2.517	O	|	|	|	|	0.68
228.083	0.00	0.22	2.515	O	|	|	|	|	0.68
228.167	0.00	0.22	2.514	O	|	|	|	|	0.68
228.250	0.00	0.22	2.512	O	|	|	|	|	0.68
228.333	0.00	0.22	2.511	O	|	|	|	|	0.68
228.417	0.00	0.22	2.509	O	|	|	|	|	0.68
228.500	0.00	0.22	2.508	O	|	|	|	|	0.68
228.583	0.00	0.22	2.506	O	|	|	|	|	0.68
228.667	0.00	0.22	2.505	O	|	|	|	|	0.68
228.750	0.00	0.22	2.503	O	|	|	|	|	0.68
228.833	0.00	0.22	2.502	O	|	|	|	|	0.68
228.917	0.00	0.22	2.500	O	|	|	|	|	0.68
229.000	0.00	0.22	2.499	O	|	|	|	|	0.68
229.083	0.00	0.22	2.497	O	|	|	|	|	0.67
229.167	0.00	0.22	2.496	O	|	|	|	|	0.67
229.250	0.00	0.22	2.494	O	|	|	|	|	0.67
229.333	0.00	0.22	2.493	O	|	|	|	|	0.67
229.417	0.00	0.22	2.491	O	|	|	|	|	0.67
229.500	0.00	0.22	2.490	O	|	|	|	|	0.67
229.583	0.00	0.22	2.488	O	|	|	|	|	0.67
229.667	0.00	0.22	2.487	O	|	|	|	|	0.67
229.750	0.00	0.21	2.485	O	|	|	|	|	0.67
229.833	0.00	0.21	2.484	O	|	|	|	|	0.67
229.917	0.00	0.21	2.482	O	|	|	|	|	0.67

230.000	0.00	0.21	2.481	O	|	|	|	|	0.67
230.083	0.00	0.21	2.479	O	|	|	|	|	0.67
230.167	0.00	0.21	2.478	O	|	|	|	|	0.67
230.250	0.00	0.21	2.476	O	|	|	|	|	0.67
230.333	0.00	0.21	2.475	O	|	|	|	|	0.67
230.417	0.00	0.21	2.474	O	|	|	|	|	0.67
230.500	0.00	0.21	2.472	O	|	|	|	|	0.67
230.583	0.00	0.21	2.471	O	|	|	|	|	0.67
230.667	0.00	0.21	2.469	O	|	|	|	|	0.67
230.750	0.00	0.21	2.468	O	|	|	|	|	0.67
230.833	0.00	0.21	2.466	O	|	|	|	|	0.67
230.917	0.00	0.21	2.465	O	|	|	|	|	0.67
231.000	0.00	0.21	2.463	O	|	|	|	|	0.67
231.083	0.00	0.21	2.462	O	|	|	|	|	0.67
231.167	0.00	0.21	2.460	O	|	|	|	|	0.66
231.250	0.00	0.21	2.459	O	|	|	|	|	0.66
231.333	0.00	0.21	2.457	O	|	|	|	|	0.66
231.417	0.00	0.21	2.456	O	|	|	|	|	0.66
231.500	0.00	0.21	2.454	O	|	|	|	|	0.66
231.583	0.00	0.21	2.453	O	|	|	|	|	0.66
231.667	0.00	0.21	2.452	O	|	|	|	|	0.66
231.750	0.00	0.21	2.450	O	|	|	|	|	0.66
231.833	0.00	0.21	2.449	O	|	|	|	|	0.66
231.917	0.00	0.21	2.447	O	|	|	|	|	0.66
232.000	0.00	0.21	2.446	O	|	|	|	|	0.66
232.083	0.00	0.21	2.444	O	|	|	|	|	0.66
232.167	0.00	0.21	2.443	O	|	|	|	|	0.66
232.250	0.00	0.21	2.441	O	|	|	|	|	0.66
232.333	0.00	0.21	2.440	O	|	|	|	|	0.66
232.417	0.00	0.21	2.438	O	|	|	|	|	0.66
232.500	0.00	0.21	2.437	O	|	|	|	|	0.66
232.583	0.00	0.21	2.436	O	|	|	|	|	0.66
232.667	0.00	0.21	2.434	O	|	|	|	|	0.66
232.750	0.00	0.21	2.433	O	|	|	|	|	0.66
232.833	0.00	0.21	2.431	O	|	|	|	|	0.66
232.917	0.00	0.21	2.430	O	|	|	|	|	0.66
233.000	0.00	0.21	2.428	O	|	|	|	|	0.66
233.083	0.00	0.21	2.427	O	|	|	|	|	0.66
233.167	0.00	0.21	2.425	O	|	|	|	|	0.66
233.250	0.00	0.21	2.424	O	|	|	|	|	0.66
233.333	0.00	0.21	2.422	O	|	|	|	|	0.65
233.417	0.00	0.21	2.421	O	|	|	|	|	0.65
233.500	0.00	0.21	2.420	O	|	|	|	|	0.65
233.583	0.00	0.21	2.418	O	|	|	|	|	0.65
233.667	0.00	0.21	2.417	O	|	|	|	|	0.65
233.750	0.00	0.21	2.415	O	|	|	|	|	0.65
233.833	0.00	0.21	2.414	O	|	|	|	|	0.65
233.917	0.00	0.21	2.412	O	|	|	|	|	0.65
234.000	0.00	0.21	2.411	O	|	|	|	|	0.65
234.083	0.00	0.21	2.410	O	|	|	|	|	0.65
234.167	0.00	0.21	2.408	O	|	|	|	|	0.65
234.250	0.00	0.21	2.407	O	|	|	|	|	0.65
234.333	0.00	0.21	2.405	O	|	|	|	|	0.65
234.417	0.00	0.21	2.404	O	|	|	|	|	0.65
234.500	0.00	0.21	2.402	O	|	|	|	|	0.65
234.583	0.00	0.21	2.401	O	|	|	|	|	0.65
234.667	0.00	0.21	2.400	O	|	|	|	|	0.65
234.750	0.00	0.21	2.398	O	|	|	|	|	0.65
234.833	0.00	0.21	2.397	O	|	|	|	|	0.65
234.917	0.00	0.21	2.395	O	|	|	|	|	0.65
235.000	0.00	0.21	2.394	O	|	|	|	|	0.65
235.083	0.00	0.21	2.392	O	|	|	|	|	0.65
235.167	0.00	0.21	2.391	O	|	|	|	|	0.65

235.250	0.00	0.21	2.390	O	|	|	|	|	0.65
235.333	0.00	0.21	2.388	O	|	|	|	|	0.65
235.417	0.00	0.21	2.387	O	|	|	|	|	0.65
235.500	0.00	0.21	2.385	O	|	|	|	|	0.64
235.583	0.00	0.21	2.384	O	|	|	|	|	0.64
235.667	0.00	0.21	2.382	O	|	|	|	|	0.64
235.750	0.00	0.21	2.381	O	|	|	|	|	0.64
235.833	0.00	0.21	2.380	O	|	|	|	|	0.64
235.917	0.00	0.21	2.378	O	|	|	|	|	0.64
236.000	0.00	0.21	2.377	O	|	|	|	|	0.64
236.083	0.00	0.21	2.375	O	|	|	|	|	0.64
236.167	0.00	0.21	2.374	O	|	|	|	|	0.64
236.250	0.00	0.21	2.373	O	|	|	|	|	0.64
236.333	0.00	0.21	2.371	O	|	|	|	|	0.64
236.417	0.00	0.20	2.370	O	|	|	|	|	0.64
236.500	0.00	0.20	2.368	O	|	|	|	|	0.64
236.583	0.00	0.20	2.367	O	|	|	|	|	0.64
236.667	0.00	0.20	2.365	O	|	|	|	|	0.64
236.750	0.00	0.20	2.364	O	|	|	|	|	0.64
236.833	0.00	0.20	2.363	O	|	|	|	|	0.64
236.917	0.00	0.20	2.361	O	|	|	|	|	0.64
237.000	0.00	0.20	2.360	O	|	|	|	|	0.64
237.083	0.00	0.20	2.358	O	|	|	|	|	0.64
237.167	0.00	0.20	2.357	O	|	|	|	|	0.64
237.250	0.00	0.20	2.356	O	|	|	|	|	0.64
237.333	0.00	0.20	2.354	O	|	|	|	|	0.64
237.417	0.00	0.20	2.353	O	|	|	|	|	0.64
237.500	0.00	0.20	2.351	O	|	|	|	|	0.64
237.583	0.00	0.20	2.350	O	|	|	|	|	0.64
237.667	0.00	0.20	2.349	O	|	|	|	|	0.63
237.750	0.00	0.20	2.347	O	|	|	|	|	0.63
237.833	0.00	0.20	2.346	O	|	|	|	|	0.63
237.917	0.00	0.20	2.344	O	|	|	|	|	0.63
238.000	0.00	0.20	2.343	O	|	|	|	|	0.63
238.083	0.00	0.20	2.342	O	|	|	|	|	0.63
238.167	0.00	0.20	2.340	O	|	|	|	|	0.63
238.250	0.00	0.20	2.339	O	|	|	|	|	0.63
238.333	0.00	0.20	2.337	O	|	|	|	|	0.63
238.417	0.00	0.20	2.336	O	|	|	|	|	0.63
238.500	0.00	0.20	2.335	O	|	|	|	|	0.63
238.583	0.00	0.20	2.333	O	|	|	|	|	0.63
238.667	0.00	0.20	2.332	O	|	|	|	|	0.63
238.750	0.00	0.20	2.330	O	|	|	|	|	0.63
238.833	0.00	0.20	2.329	O	|	|	|	|	0.63
238.917	0.00	0.20	2.328	O	|	|	|	|	0.63
239.000	0.00	0.20	2.326	O	|	|	|	|	0.63
239.083	0.00	0.20	2.325	O	|	|	|	|	0.63
239.167	0.00	0.20	2.324	O	|	|	|	|	0.63
239.250	0.00	0.20	2.322	O	|	|	|	|	0.63
239.333	0.00	0.20	2.321	O	|	|	|	|	0.63
239.417	0.00	0.20	2.319	O	|	|	|	|	0.63
239.500	0.00	0.20	2.318	O	|	|	|	|	0.63
239.583	0.00	0.20	2.317	O	|	|	|	|	0.63
239.667	0.00	0.20	2.315	O	|	|	|	|	0.63
239.750	0.00	0.20	2.314	O	|	|	|	|	0.63
239.833	0.00	0.20	2.313	O	|	|	|	|	0.63
239.917	0.00	0.20	2.311	O	|	|	|	|	0.62
240.000	0.00	0.20	2.310	O	|	|	|	|	0.62
240.083	0.00	0.20	2.308	O	|	|	|	|	0.62
240.167	0.00	0.20	2.307	O	|	|	|	|	0.62
240.250	0.00	0.20	2.306	O	|	|	|	|	0.62
240.333	0.00	0.20	2.304	O	|	|	|	|	0.62
240.417	0.00	0.20	2.303	O	|	|	|	|	0.62

240.500	0.00	0.20	2.302	O	|	|	|	|	0.62
240.583	0.00	0.20	2.300	O	|	|	|	|	0.62
240.667	0.00	0.20	2.299	O	|	|	|	|	0.62
240.750	0.00	0.20	2.297	O	|	|	|	|	0.62
240.833	0.00	0.20	2.296	O	|	|	|	|	0.62
240.917	0.00	0.20	2.295	O	|	|	|	|	0.62
241.000	0.00	0.20	2.293	O	|	|	|	|	0.62
241.083	0.00	0.20	2.292	O	|	|	|	|	0.62
241.167	0.00	0.20	2.291	O	|	|	|	|	0.62
241.250	0.00	0.20	2.289	O	|	|	|	|	0.62
241.333	0.00	0.20	2.288	O	|	|	|	|	0.62
241.417	0.00	0.20	2.286	O	|	|	|	|	0.62
241.500	0.00	0.20	2.285	O	|	|	|	|	0.62
241.583	0.00	0.20	2.284	O	|	|	|	|	0.62
241.667	0.00	0.20	2.282	O	|	|	|	|	0.62
241.750	0.00	0.20	2.281	O	|	|	|	|	0.62
241.833	0.00	0.20	2.280	O	|	|	|	|	0.62
241.917	0.00	0.20	2.278	O	|	|	|	|	0.62
242.000	0.00	0.20	2.277	O	|	|	|	|	0.62
242.083	0.00	0.20	2.276	O	|	|	|	|	0.62
242.167	0.00	0.20	2.274	O	|	|	|	|	0.61
242.250	0.00	0.20	2.273	O	|	|	|	|	0.61
242.333	0.00	0.20	2.272	O	|	|	|	|	0.61
242.417	0.00	0.20	2.270	O	|	|	|	|	0.61
242.500	0.00	0.20	2.269	O	|	|	|	|	0.61
242.583	0.00	0.20	2.267	O	|	|	|	|	0.61
242.667	0.00	0.20	2.266	O	|	|	|	|	0.61
242.750	0.00	0.20	2.265	O	|	|	|	|	0.61
242.833	0.00	0.20	2.263	O	|	|	|	|	0.61
242.917	0.00	0.20	2.262	O	|	|	|	|	0.61
243.000	0.00	0.20	2.261	O	|	|	|	|	0.61
243.083	0.00	0.20	2.259	O	|	|	|	|	0.61
243.167	0.00	0.20	2.258	O	|	|	|	|	0.61
243.250	0.00	0.20	2.257	O	|	|	|	|	0.61
243.333	0.00	0.20	2.255	O	|	|	|	|	0.61
243.417	0.00	0.19	2.254	O	|	|	|	|	0.61
243.500	0.00	0.19	2.253	O	|	|	|	|	0.61
243.583	0.00	0.19	2.251	O	|	|	|	|	0.61
243.667	0.00	0.19	2.250	O	|	|	|	|	0.61
243.750	0.00	0.19	2.249	O	|	|	|	|	0.61
243.833	0.00	0.19	2.247	O	|	|	|	|	0.61
243.917	0.00	0.19	2.246	O	|	|	|	|	0.61
244.000	0.00	0.19	2.245	O	|	|	|	|	0.61
244.083	0.00	0.19	2.243	O	|	|	|	|	0.61
244.167	0.00	0.19	2.242	O	|	|	|	|	0.61
244.250	0.00	0.19	2.241	O	|	|	|	|	0.61
244.333	0.00	0.19	2.239	O	|	|	|	|	0.61
244.417	0.00	0.19	2.238	O	|	|	|	|	0.60
244.500	0.00	0.19	2.237	O	|	|	|	|	0.60
244.583	0.00	0.19	2.235	O	|	|	|	|	0.60
244.667	0.00	0.19	2.234	O	|	|	|	|	0.60
244.750	0.00	0.19	2.233	O	|	|	|	|	0.60
244.833	0.00	0.19	2.231	O	|	|	|	|	0.60
244.917	0.00	0.19	2.230	O	|	|	|	|	0.60
245.000	0.00	0.19	2.229	O	|	|	|	|	0.60
245.083	0.00	0.19	2.227	O	|	|	|	|	0.60
245.167	0.00	0.19	2.226	O	|	|	|	|	0.60
245.250	0.00	0.19	2.225	O	|	|	|	|	0.60
245.333	0.00	0.19	2.223	O	|	|	|	|	0.60
245.417	0.00	0.19	2.222	O	|	|	|	|	0.60
245.500	0.00	0.19	2.221	O	|	|	|	|	0.60
245.583	0.00	0.19	2.219	O	|	|	|	|	0.60
245.667	0.00	0.19	2.218	O	|	|	|	|	0.60

245.750	0.00	0.19	2.217	O	|	|	|	|	0.60
245.833	0.00	0.19	2.215	O	|	|	|	|	0.60
245.917	0.00	0.19	2.214	O	|	|	|	|	0.60
246.000	0.00	0.19	2.213	O	|	|	|	|	0.60
246.083	0.00	0.19	2.211	O	|	|	|	|	0.60
246.167	0.00	0.19	2.210	O	|	|	|	|	0.60
246.250	0.00	0.19	2.209	O	|	|	|	|	0.60
246.333	0.00	0.19	2.208	O	|	|	|	|	0.60
246.417	0.00	0.19	2.206	O	|	|	|	|	0.60
246.500	0.00	0.19	2.205	O	|	|	|	|	0.60
246.583	0.00	0.19	2.204	O	|	|	|	|	0.60
246.667	0.00	0.19	2.202	O	|	|	|	|	0.60
246.750	0.00	0.19	2.201	O	|	|	|	|	0.59
246.833	0.00	0.19	2.200	O	|	|	|	|	0.59
246.917	0.00	0.19	2.198	O	|	|	|	|	0.59
247.000	0.00	0.19	2.197	O	|	|	|	|	0.59
247.083	0.00	0.19	2.196	O	|	|	|	|	0.59
247.167	0.00	0.19	2.194	O	|	|	|	|	0.59
247.250	0.00	0.19	2.193	O	|	|	|	|	0.59
247.333	0.00	0.19	2.192	O	|	|	|	|	0.59
247.417	0.00	0.19	2.190	O	|	|	|	|	0.59
247.500	0.00	0.19	2.189	O	|	|	|	|	0.59
247.583	0.00	0.19	2.188	O	|	|	|	|	0.59
247.667	0.00	0.19	2.187	O	|	|	|	|	0.59
247.750	0.00	0.19	2.185	O	|	|	|	|	0.59
247.833	0.00	0.19	2.184	O	|	|	|	|	0.59
247.917	0.00	0.19	2.183	O	|	|	|	|	0.59
248.000	0.00	0.19	2.181	O	|	|	|	|	0.59
248.083	0.00	0.19	2.180	O	|	|	|	|	0.59
248.167	0.00	0.19	2.179	O	|	|	|	|	0.59
248.250	0.00	0.19	2.177	O	|	|	|	|	0.59
248.333	0.00	0.19	2.176	O	|	|	|	|	0.59
248.417	0.00	0.19	2.175	O	|	|	|	|	0.59
248.500	0.00	0.19	2.174	O	|	|	|	|	0.59
248.583	0.00	0.19	2.172	O	|	|	|	|	0.59
248.667	0.00	0.19	2.171	O	|	|	|	|	0.59
248.750	0.00	0.19	2.170	O	|	|	|	|	0.59
248.833	0.00	0.19	2.168	O	|	|	|	|	0.59
248.917	0.00	0.19	2.167	O	|	|	|	|	0.59
249.000	0.00	0.19	2.166	O	|	|	|	|	0.59
249.083	0.00	0.19	2.165	O	|	|	|	|	0.59
249.167	0.00	0.19	2.163	O	|	|	|	|	0.58
249.250	0.00	0.19	2.162	O	|	|	|	|	0.58
249.333	0.00	0.19	2.161	O	|	|	|	|	0.58
249.417	0.00	0.19	2.159	O	|	|	|	|	0.58
249.500	0.00	0.19	2.158	O	|	|	|	|	0.58
249.583	0.00	0.19	2.157	O	|	|	|	|	0.58
249.667	0.00	0.19	2.156	O	|	|	|	|	0.58
249.750	0.00	0.19	2.154	O	|	|	|	|	0.58
249.833	0.00	0.19	2.153	O	|	|	|	|	0.58
249.917	0.00	0.19	2.152	O	|	|	|	|	0.58
250.000	0.00	0.19	2.150	O	|	|	|	|	0.58
250.083	0.00	0.19	2.149	O	|	|	|	|	0.58
250.167	0.00	0.19	2.148	O	|	|	|	|	0.58
250.250	0.00	0.19	2.147	O	|	|	|	|	0.58
250.333	0.00	0.19	2.145	O	|	|	|	|	0.58
250.417	0.00	0.19	2.144	O	|	|	|	|	0.58
250.500	0.00	0.19	2.143	O	|	|	|	|	0.58
250.583	0.00	0.19	2.141	O	|	|	|	|	0.58
250.667	0.00	0.19	2.140	O	|	|	|	|	0.58
250.750	0.00	0.18	2.139	O	|	|	|	|	0.58
250.833	0.00	0.18	2.138	O	|	|	|	|	0.58
250.917	0.00	0.18	2.136	O	|	|	|	|	0.58

251.000	0.00	0.18	2.135	O	|	|	|	|	0.58
251.083	0.00	0.18	2.134	O	|	|	|	|	0.58
251.167	0.00	0.18	2.133	O	|	|	|	|	0.58
251.250	0.00	0.18	2.131	O	|	|	|	|	0.58
251.333	0.00	0.18	2.130	O	|	|	|	|	0.58
251.417	0.00	0.18	2.129	O	|	|	|	|	0.58
251.500	0.00	0.18	2.127	O	|	|	|	|	0.57
251.583	0.00	0.18	2.126	O	|	|	|	|	0.57
251.667	0.00	0.18	2.125	O	|	|	|	|	0.57
251.750	0.00	0.18	2.124	O	|	|	|	|	0.57
251.833	0.00	0.18	2.122	O	|	|	|	|	0.57
251.917	0.00	0.18	2.121	O	|	|	|	|	0.57
252.000	0.00	0.18	2.120	O	|	|	|	|	0.57
252.083	0.00	0.18	2.119	O	|	|	|	|	0.57
252.167	0.00	0.18	2.117	O	|	|	|	|	0.57
252.250	0.00	0.18	2.116	O	|	|	|	|	0.57
252.333	0.00	0.18	2.115	O	|	|	|	|	0.57
252.417	0.00	0.18	2.114	O	|	|	|	|	0.57
252.500	0.00	0.18	2.112	O	|	|	|	|	0.57
252.583	0.00	0.18	2.111	O	|	|	|	|	0.57
252.667	0.00	0.18	2.110	O	|	|	|	|	0.57
252.750	0.00	0.18	2.109	O	|	|	|	|	0.57
252.833	0.00	0.18	2.107	O	|	|	|	|	0.57
252.917	0.00	0.18	2.106	O	|	|	|	|	0.57
253.000	0.00	0.18	2.105	O	|	|	|	|	0.57
253.083	0.00	0.18	2.104	O	|	|	|	|	0.57
253.167	0.00	0.18	2.102	O	|	|	|	|	0.57
253.250	0.00	0.18	2.101	O	|	|	|	|	0.57
253.333	0.00	0.18	2.100	O	|	|	|	|	0.57
253.417	0.00	0.18	2.099	O	|	|	|	|	0.57
253.500	0.00	0.18	2.097	O	|	|	|	|	0.57
253.583	0.00	0.18	2.096	O	|	|	|	|	0.57
253.667	0.00	0.18	2.095	O	|	|	|	|	0.57
253.750	0.00	0.18	2.094	O	|	|	|	|	0.57
253.833	0.00	0.18	2.092	O	|	|	|	|	0.57
253.917	0.00	0.18	2.091	O	|	|	|	|	0.57
254.000	0.00	0.18	2.090	O	|	|	|	|	0.56
254.083	0.00	0.18	2.089	O	|	|	|	|	0.56
254.167	0.00	0.18	2.087	O	|	|	|	|	0.56
254.250	0.00	0.18	2.086	O	|	|	|	|	0.56
254.333	0.00	0.18	2.085	O	|	|	|	|	0.56
254.417	0.00	0.18	2.084	O	|	|	|	|	0.56
254.500	0.00	0.18	2.082	O	|	|	|	|	0.56
254.583	0.00	0.18	2.081	O	|	|	|	|	0.56
254.667	0.00	0.18	2.080	O	|	|	|	|	0.56
254.750	0.00	0.18	2.079	O	|	|	|	|	0.56
254.833	0.00	0.18	2.077	O	|	|	|	|	0.56
254.917	0.00	0.18	2.076	O	|	|	|	|	0.56
255.000	0.00	0.18	2.075	O	|	|	|	|	0.56
255.083	0.00	0.18	2.074	O	|	|	|	|	0.56
255.167	0.00	0.18	2.072	O	|	|	|	|	0.56
255.250	0.00	0.18	2.071	O	|	|	|	|	0.56
255.333	0.00	0.18	2.070	O	|	|	|	|	0.56
255.417	0.00	0.18	2.069	O	|	|	|	|	0.56
255.500	0.00	0.18	2.068	O	|	|	|	|	0.56
255.583	0.00	0.18	2.066	O	|	|	|	|	0.56
255.667	0.00	0.18	2.065	O	|	|	|	|	0.56
255.750	0.00	0.18	2.064	O	|	|	|	|	0.56
255.833	0.00	0.18	2.063	O	|	|	|	|	0.56
255.917	0.00	0.18	2.061	O	|	|	|	|	0.56
256.000	0.00	0.18	2.060	O	|	|	|	|	0.56
256.083	0.00	0.18	2.059	O	|	|	|	|	0.56
256.167	0.00	0.18	2.058	O	|	|	|	|	0.56

256.250	0.00	0.18	2.056	O	|	|	|	|	0.56
256.333	0.00	0.18	2.055	O	|	|	|	|	0.56
256.417	0.00	0.18	2.054	O	|	|	|	|	0.56
256.500	0.00	0.18	2.053	O	|	|	|	|	0.55
256.583	0.00	0.18	2.052	O	|	|	|	|	0.55
256.667	0.00	0.18	2.050	O	|	|	|	|	0.55
256.750	0.00	0.18	2.049	O	|	|	|	|	0.55
256.833	0.00	0.18	2.048	O	|	|	|	|	0.55
256.917	0.00	0.18	2.047	O	|	|	|	|	0.55
257.000	0.00	0.18	2.045	O	|	|	|	|	0.55
257.083	0.00	0.18	2.044	O	|	|	|	|	0.55
257.167	0.00	0.18	2.043	O	|	|	|	|	0.55
257.250	0.00	0.18	2.042	O	|	|	|	|	0.55
257.333	0.00	0.18	2.041	O	|	|	|	|	0.55
257.417	0.00	0.18	2.039	O	|	|	|	|	0.55
257.500	0.00	0.18	2.038	O	|	|	|	|	0.55
257.583	0.00	0.18	2.037	O	|	|	|	|	0.55
257.667	0.00	0.18	2.036	O	|	|	|	|	0.55
257.750	0.00	0.18	2.035	O	|	|	|	|	0.55
257.833	0.00	0.18	2.033	O	|	|	|	|	0.55
257.917	0.00	0.18	2.032	O	|	|	|	|	0.55
258.000	0.00	0.18	2.031	O	|	|	|	|	0.55
258.083	0.00	0.18	2.030	O	|	|	|	|	0.55
258.167	0.00	0.18	2.028	O	|	|	|	|	0.55
258.250	0.00	0.18	2.027	O	|	|	|	|	0.55
258.333	0.00	0.18	2.026	O	|	|	|	|	0.55
258.417	0.00	0.18	2.025	O	|	|	|	|	0.55
258.500	0.00	0.18	2.024	O	|	|	|	|	0.55
258.583	0.00	0.17	2.022	O	|	|	|	|	0.55
258.667	0.00	0.17	2.021	O	|	|	|	|	0.55
258.750	0.00	0.17	2.020	O	|	|	|	|	0.55
258.833	0.00	0.17	2.019	O	|	|	|	|	0.55
258.917	0.00	0.17	2.018	O	|	|	|	|	0.55
259.000	0.00	0.17	2.016	O	|	|	|	|	0.54
259.083	0.00	0.17	2.015	O	|	|	|	|	0.54
259.167	0.00	0.17	2.014	O	|	|	|	|	0.54
259.250	0.00	0.17	2.013	O	|	|	|	|	0.54
259.333	0.00	0.17	2.012	O	|	|	|	|	0.54
259.417	0.00	0.17	2.010	O	|	|	|	|	0.54
259.500	0.00	0.17	2.009	O	|	|	|	|	0.54
259.583	0.00	0.17	2.008	O	|	|	|	|	0.54
259.667	0.00	0.17	2.007	O	|	|	|	|	0.54
259.750	0.00	0.17	2.006	O	|	|	|	|	0.54
259.833	0.00	0.17	2.004	O	|	|	|	|	0.54
259.917	0.00	0.17	2.003	O	|	|	|	|	0.54
260.000	0.00	0.17	2.002	O	|	|	|	|	0.54
260.083	0.00	0.17	2.001	O	|	|	|	|	0.54
260.167	0.00	0.17	2.000	O	|	|	|	|	0.54
260.250	0.00	0.17	1.999	O	|	|	|	|	0.54
260.333	0.00	0.17	1.997	O	|	|	|	|	0.54
260.417	0.00	0.17	1.996	O	|	|	|	|	0.54
260.500	0.00	0.17	1.995	O	|	|	|	|	0.54
260.583	0.00	0.17	1.994	O	|	|	|	|	0.54
260.667	0.00	0.17	1.993	O	|	|	|	|	0.54
260.750	0.00	0.17	1.991	O	|	|	|	|	0.54
260.833	0.00	0.17	1.990	O	|	|	|	|	0.54
260.917	0.00	0.17	1.989	O	|	|	|	|	0.54
261.000	0.00	0.17	1.988	O	|	|	|	|	0.54
261.083	0.00	0.17	1.987	O	|	|	|	|	0.54
261.167	0.00	0.17	1.985	O	|	|	|	|	0.54
261.250	0.00	0.17	1.984	O	|	|	|	|	0.54
261.333	0.00	0.17	1.983	O	|	|	|	|	0.54
261.417	0.00	0.17	1.982	O	|	|	|	|	0.54

261.500	0.00	0.17	1.981	O	|	|	|	|	0.54
261.583	0.00	0.17	1.980	O	|	|	|	|	0.54
261.667	0.00	0.17	1.978	O	|	|	|	|	0.53
261.750	0.00	0.17	1.977	O	|	|	|	|	0.53
261.833	0.00	0.17	1.976	O	|	|	|	|	0.53
261.917	0.00	0.17	1.975	O	|	|	|	|	0.53
262.000	0.00	0.17	1.974	O	|	|	|	|	0.53
262.083	0.00	0.17	1.972	O	|	|	|	|	0.53
262.167	0.00	0.17	1.971	O	|	|	|	|	0.53
262.250	0.00	0.17	1.970	O	|	|	|	|	0.53
262.333	0.00	0.17	1.969	O	|	|	|	|	0.53
262.417	0.00	0.17	1.968	O	|	|	|	|	0.53
262.500	0.00	0.17	1.967	O	|	|	|	|	0.53
262.583	0.00	0.17	1.965	O	|	|	|	|	0.53
262.667	0.00	0.17	1.964	O	|	|	|	|	0.53
262.750	0.00	0.17	1.963	O	|	|	|	|	0.53
262.833	0.00	0.17	1.962	O	|	|	|	|	0.53
262.917	0.00	0.17	1.961	O	|	|	|	|	0.53
263.000	0.00	0.17	1.960	O	|	|	|	|	0.53
263.083	0.00	0.17	1.958	O	|	|	|	|	0.53
263.167	0.00	0.17	1.957	O	|	|	|	|	0.53
263.250	0.00	0.17	1.956	O	|	|	|	|	0.53
263.333	0.00	0.17	1.955	O	|	|	|	|	0.53
263.417	0.00	0.17	1.954	O	|	|	|	|	0.53
263.500	0.00	0.17	1.953	O	|	|	|	|	0.53
263.583	0.00	0.17	1.951	O	|	|	|	|	0.53
263.667	0.00	0.17	1.950	O	|	|	|	|	0.53
263.750	0.00	0.17	1.949	O	|	|	|	|	0.53
263.833	0.00	0.17	1.948	O	|	|	|	|	0.53
263.917	0.00	0.17	1.947	O	|	|	|	|	0.53
264.000	0.00	0.17	1.946	O	|	|	|	|	0.53
264.083	0.00	0.17	1.944	O	|	|	|	|	0.53
264.167	0.00	0.17	1.943	O	|	|	|	|	0.53
264.250	0.00	0.17	1.942	O	|	|	|	|	0.52
264.333	0.00	0.17	1.941	O	|	|	|	|	0.52
264.417	0.00	0.17	1.940	O	|	|	|	|	0.52
264.500	0.00	0.17	1.939	O	|	|	|	|	0.52
264.583	0.00	0.17	1.938	O	|	|	|	|	0.52
264.667	0.00	0.17	1.936	O	|	|	|	|	0.52
264.750	0.00	0.17	1.935	O	|	|	|	|	0.52
264.833	0.00	0.17	1.934	O	|	|	|	|	0.52
264.917	0.00	0.17	1.933	O	|	|	|	|	0.52
265.000	0.00	0.17	1.932	O	|	|	|	|	0.52
265.083	0.00	0.17	1.931	O	|	|	|	|	0.52
265.167	0.00	0.17	1.929	O	|	|	|	|	0.52
265.250	0.00	0.17	1.928	O	|	|	|	|	0.52
265.333	0.00	0.17	1.927	O	|	|	|	|	0.52
265.417	0.00	0.17	1.926	O	|	|	|	|	0.52
265.500	0.00	0.17	1.925	O	|	|	|	|	0.52
265.583	0.00	0.17	1.924	O	|	|	|	|	0.52
265.667	0.00	0.17	1.923	O	|	|	|	|	0.52
265.750	0.00	0.17	1.921	O	|	|	|	|	0.52
265.833	0.00	0.17	1.920	O	|	|	|	|	0.52
265.917	0.00	0.17	1.919	O	|	|	|	|	0.52
266.000	0.00	0.17	1.918	O	|	|	|	|	0.52
266.083	0.00	0.17	1.917	O	|	|	|	|	0.52
266.167	0.00	0.17	1.916	O	|	|	|	|	0.52
266.250	0.00	0.17	1.915	O	|	|	|	|	0.52
266.333	0.00	0.17	1.913	O	|	|	|	|	0.52
266.417	0.00	0.17	1.912	O	|	|	|	|	0.52
266.500	0.00	0.17	1.911	O	|	|	|	|	0.52
266.583	0.00	0.17	1.910	O	|	|	|	|	0.52
266.667	0.00	0.17	1.909	O	|	|	|	|	0.52

266.750	0.00	0.16	1.908	O	|	|	|	|	0.52
266.833	0.00	0.16	1.907	O	|	|	|	|	0.52
266.917	0.00	0.16	1.906	O	|	|	|	|	0.52
267.000	0.00	0.16	1.904	O	|	|	|	|	0.51
267.083	0.00	0.16	1.903	O	|	|	|	|	0.51
267.167	0.00	0.16	1.902	O	|	|	|	|	0.51
267.250	0.00	0.16	1.901	O	|	|	|	|	0.51
267.333	0.00	0.16	1.900	O	|	|	|	|	0.51
267.417	0.00	0.16	1.899	O	|	|	|	|	0.51
267.500	0.00	0.16	1.898	O	|	|	|	|	0.51
267.583	0.00	0.16	1.896	O	|	|	|	|	0.51
267.667	0.00	0.16	1.895	O	|	|	|	|	0.51
267.750	0.00	0.16	1.894	O	|	|	|	|	0.51
267.833	0.00	0.16	1.893	O	|	|	|	|	0.51
267.917	0.00	0.16	1.892	O	|	|	|	|	0.51
268.000	0.00	0.16	1.891	O	|	|	|	|	0.51
268.083	0.00	0.16	1.890	O	|	|	|	|	0.51
268.167	0.00	0.16	1.889	O	|	|	|	|	0.51
268.250	0.00	0.16	1.887	O	|	|	|	|	0.51
268.333	0.00	0.16	1.886	O	|	|	|	|	0.51
268.417	0.00	0.16	1.885	O	|	|	|	|	0.51
268.500	0.00	0.16	1.884	O	|	|	|	|	0.51
268.583	0.00	0.16	1.883	O	|	|	|	|	0.51
268.667	0.00	0.16	1.882	O	|	|	|	|	0.51
268.750	0.00	0.16	1.881	O	|	|	|	|	0.51
268.833	0.00	0.16	1.880	O	|	|	|	|	0.51
268.917	0.00	0.16	1.878	O	|	|	|	|	0.51
269.000	0.00	0.16	1.877	O	|	|	|	|	0.51
269.083	0.00	0.16	1.876	O	|	|	|	|	0.51
269.167	0.00	0.16	1.875	O	|	|	|	|	0.51
269.250	0.00	0.16	1.874	O	|	|	|	|	0.51
269.333	0.00	0.16	1.873	O	|	|	|	|	0.51
269.417	0.00	0.16	1.872	O	|	|	|	|	0.51
269.500	0.00	0.16	1.871	O	|	|	|	|	0.51
269.583	0.00	0.16	1.870	O	|	|	|	|	0.51
269.667	0.00	0.16	1.868	O	|	|	|	|	0.50
269.750	0.00	0.16	1.867	O	|	|	|	|	0.50
269.833	0.00	0.16	1.866	O	|	|	|	|	0.50
269.917	0.00	0.16	1.865	O	|	|	|	|	0.50
270.000	0.00	0.16	1.864	O	|	|	|	|	0.50
270.083	0.00	0.16	1.863	O	|	|	|	|	0.50
270.167	0.00	0.16	1.862	O	|	|	|	|	0.50
270.250	0.00	0.16	1.861	O	|	|	|	|	0.50
270.333	0.00	0.16	1.860	O	|	|	|	|	0.50
270.417	0.00	0.16	1.858	O	|	|	|	|	0.50
270.500	0.00	0.16	1.857	O	|	|	|	|	0.50
270.583	0.00	0.16	1.856	O	|	|	|	|	0.50
270.667	0.00	0.16	1.855	O	|	|	|	|	0.50
270.750	0.00	0.16	1.854	O	|	|	|	|	0.50
270.833	0.00	0.16	1.853	O	|	|	|	|	0.50
270.917	0.00	0.16	1.852	O	|	|	|	|	0.50
271.000	0.00	0.16	1.851	O	|	|	|	|	0.50
271.083	0.00	0.16	1.850	O	|	|	|	|	0.50
271.167	0.00	0.16	1.848	O	|	|	|	|	0.50
271.250	0.00	0.16	1.847	O	|	|	|	|	0.50
271.333	0.00	0.16	1.846	O	|	|	|	|	0.50
271.417	0.00	0.16	1.845	O	|	|	|	|	0.50
271.500	0.00	0.16	1.844	O	|	|	|	|	0.50
271.583	0.00	0.16	1.843	O	|	|	|	|	0.50
271.667	0.00	0.16	1.842	O	|	|	|	|	0.50
271.750	0.00	0.16	1.841	O	|	|	|	|	0.50
271.833	0.00	0.16	1.840	O	|	|	|	|	0.50
271.917	0.00	0.16	1.839	O	|	|	|	|	0.50

272.000	0.00	0.16	1.838	O	|	|	|	|	0.50
272.083	0.00	0.16	1.836	O	|	|	|	|	0.50
272.167	0.00	0.16	1.835	O	|	|	|	|	0.50
272.250	0.00	0.16	1.834	O	|	|	|	|	0.50
272.333	0.00	0.16	1.833	O	|	|	|	|	0.50
272.417	0.00	0.16	1.832	O	|	|	|	|	0.50
272.500	0.00	0.16	1.831	O	|	|	|	|	0.49
272.583	0.00	0.16	1.830	O	|	|	|	|	0.49
272.667	0.00	0.16	1.829	O	|	|	|	|	0.49
272.750	0.00	0.16	1.828	O	|	|	|	|	0.49
272.833	0.00	0.16	1.827	O	|	|	|	|	0.49
272.917	0.00	0.16	1.826	O	|	|	|	|	0.49
273.000	0.00	0.16	1.824	O	|	|	|	|	0.49
273.083	0.00	0.16	1.823	O	|	|	|	|	0.49
273.167	0.00	0.16	1.822	O	|	|	|	|	0.49
273.250	0.00	0.16	1.821	O	|	|	|	|	0.49
273.333	0.00	0.16	1.820	O	|	|	|	|	0.49
273.417	0.00	0.16	1.819	O	|	|	|	|	0.49
273.500	0.00	0.16	1.818	O	|	|	|	|	0.49
273.583	0.00	0.16	1.817	O	|	|	|	|	0.49
273.667	0.00	0.16	1.816	O	|	|	|	|	0.49
273.750	0.00	0.16	1.815	O	|	|	|	|	0.49
273.833	0.00	0.16	1.814	O	|	|	|	|	0.49
273.917	0.00	0.16	1.813	O	|	|	|	|	0.49
274.000	0.00	0.16	1.811	O	|	|	|	|	0.49
274.083	0.00	0.16	1.810	O	|	|	|	|	0.49
274.167	0.00	0.16	1.809	O	|	|	|	|	0.49
274.250	0.00	0.16	1.808	O	|	|	|	|	0.49
274.333	0.00	0.16	1.807	O	|	|	|	|	0.49
274.417	0.00	0.16	1.806	O	|	|	|	|	0.49
274.500	0.00	0.16	1.805	O	|	|	|	|	0.49
274.583	0.00	0.16	1.804	O	|	|	|	|	0.49
274.667	0.00	0.16	1.803	O	|	|	|	|	0.49
274.750	0.00	0.16	1.802	O	|	|	|	|	0.49
274.833	0.00	0.16	1.801	O	|	|	|	|	0.49
274.917	0.00	0.16	1.800	O	|	|	|	|	0.49
275.000	0.00	0.16	1.799	O	|	|	|	|	0.49
275.083	0.00	0.16	1.797	O	|	|	|	|	0.49
275.167	0.00	0.16	1.796	O	|	|	|	|	0.49
275.250	0.00	0.16	1.795	O	|	|	|	|	0.49
275.333	0.00	0.16	1.794	O	|	|	|	|	0.48
275.417	0.00	0.16	1.793	O	|	|	|	|	0.48
275.500	0.00	0.15	1.792	O	|	|	|	|	0.48
275.583	0.00	0.15	1.791	O	|	|	|	|	0.48
275.667	0.00	0.15	1.790	O	|	|	|	|	0.48
275.750	0.00	0.15	1.789	O	|	|	|	|	0.48
275.833	0.00	0.15	1.788	O	|	|	|	|	0.48
275.917	0.00	0.15	1.787	O	|	|	|	|	0.48
276.000	0.00	0.15	1.786	O	|	|	|	|	0.48
276.083	0.00	0.15	1.785	O	|	|	|	|	0.48
276.167	0.00	0.15	1.784	O	|	|	|	|	0.48
276.250	0.00	0.15	1.783	O	|	|	|	|	0.48
276.333	0.00	0.15	1.781	O	|	|	|	|	0.48
276.417	0.00	0.15	1.780	O	|	|	|	|	0.48
276.500	0.00	0.15	1.779	O	|	|	|	|	0.48
276.583	0.00	0.15	1.778	O	|	|	|	|	0.48
276.667	0.00	0.15	1.777	O	|	|	|	|	0.48
276.750	0.00	0.15	1.776	O	|	|	|	|	0.48
276.833	0.00	0.15	1.775	O	|	|	|	|	0.48
276.917	0.00	0.15	1.774	O	|	|	|	|	0.48
277.000	0.00	0.15	1.773	O	|	|	|	|	0.48
277.083	0.00	0.15	1.772	O	|	|	|	|	0.48
277.167	0.00	0.15	1.771	O	|	|	|	|	0.48

277.250	0.00	0.15	1.770	O	|	|	|	|	0.48
277.333	0.00	0.15	1.769	O	|	|	|	|	0.48
277.417	0.00	0.15	1.768	O	|	|	|	|	0.48
277.500	0.00	0.15	1.767	O	|	|	|	|	0.48
277.583	0.00	0.15	1.766	O	|	|	|	|	0.48
277.667	0.00	0.15	1.765	O	|	|	|	|	0.48
277.750	0.00	0.15	1.764	O	|	|	|	|	0.48
277.833	0.00	0.15	1.762	O	|	|	|	|	0.48
277.917	0.00	0.15	1.761	O	|	|	|	|	0.48
278.000	0.00	0.15	1.760	O	|	|	|	|	0.48
278.083	0.00	0.15	1.759	O	|	|	|	|	0.48
278.167	0.00	0.15	1.758	O	|	|	|	|	0.48
278.250	0.00	0.15	1.757	O	|	|	|	|	0.47
278.333	0.00	0.15	1.756	O	|	|	|	|	0.47
278.417	0.00	0.15	1.755	O	|	|	|	|	0.47
278.500	0.00	0.15	1.754	O	|	|	|	|	0.47
278.583	0.00	0.15	1.753	O	|	|	|	|	0.47
278.667	0.00	0.15	1.752	O	|	|	|	|	0.47
278.750	0.00	0.15	1.751	O	|	|	|	|	0.47
278.833	0.00	0.15	1.750	O	|	|	|	|	0.47
278.917	0.00	0.15	1.749	O	|	|	|	|	0.47
279.000	0.00	0.15	1.748	O	|	|	|	|	0.47
279.083	0.00	0.15	1.747	O	|	|	|	|	0.47
279.167	0.00	0.15	1.746	O	|	|	|	|	0.47
279.250	0.00	0.15	1.745	O	|	|	|	|	0.47
279.333	0.00	0.15	1.744	O	|	|	|	|	0.47
279.417	0.00	0.15	1.743	O	|	|	|	|	0.47
279.500	0.00	0.15	1.742	O	|	|	|	|	0.47
279.583	0.00	0.15	1.741	O	|	|	|	|	0.47
279.667	0.00	0.15	1.740	O	|	|	|	|	0.47
279.750	0.00	0.15	1.738	O	|	|	|	|	0.47
279.833	0.00	0.15	1.737	O	|	|	|	|	0.47
279.917	0.00	0.15	1.736	O	|	|	|	|	0.47
280.000	0.00	0.15	1.735	O	|	|	|	|	0.47
280.083	0.00	0.15	1.734	O	|	|	|	|	0.47
280.167	0.00	0.15	1.733	O	|	|	|	|	0.47
280.250	0.00	0.15	1.732	O	|	|	|	|	0.47
280.333	0.00	0.15	1.731	O	|	|	|	|	0.47
280.417	0.00	0.15	1.730	O	|	|	|	|	0.47
280.500	0.00	0.15	1.729	O	|	|	|	|	0.47
280.583	0.00	0.15	1.728	O	|	|	|	|	0.47
280.667	0.00	0.15	1.727	O	|	|	|	|	0.47
280.750	0.00	0.15	1.726	O	|	|	|	|	0.47
280.833	0.00	0.15	1.725	O	|	|	|	|	0.47
280.917	0.00	0.15	1.724	O	|	|	|	|	0.47
281.000	0.00	0.15	1.723	O	|	|	|	|	0.47
281.083	0.00	0.15	1.722	O	|	|	|	|	0.47
281.167	0.00	0.15	1.721	O	|	|	|	|	0.47
281.250	0.00	0.15	1.720	O	|	|	|	|	0.46
281.333	0.00	0.15	1.719	O	|	|	|	|	0.46
281.417	0.00	0.15	1.718	O	|	|	|	|	0.46
281.500	0.00	0.15	1.717	O	|	|	|	|	0.46
281.583	0.00	0.15	1.716	O	|	|	|	|	0.46
281.667	0.00	0.15	1.715	O	|	|	|	|	0.46
281.750	0.00	0.15	1.714	O	|	|	|	|	0.46
281.833	0.00	0.15	1.713	O	|	|	|	|	0.46
281.917	0.00	0.15	1.712	O	|	|	|	|	0.46
282.000	0.00	0.15	1.711	O	|	|	|	|	0.46
282.083	0.00	0.15	1.710	O	|	|	|	|	0.46
282.167	0.00	0.15	1.709	O	|	|	|	|	0.46
282.250	0.00	0.15	1.708	O	|	|	|	|	0.46
282.333	0.00	0.15	1.707	O	|	|	|	|	0.46
282.417	0.00	0.15	1.706	O	|	|	|	|	0.46

282.500	0.00	0.15	1.705	O	|	|	|	|	0.46
282.583	0.00	0.15	1.704	O	|	|	|	|	0.46
282.667	0.00	0.15	1.703	O	|	|	|	|	0.46
282.750	0.00	0.15	1.702	O	|	|	|	|	0.46
282.833	0.00	0.15	1.701	O	|	|	|	|	0.46
282.917	0.00	0.15	1.700	O	|	|	|	|	0.46
283.000	0.00	0.15	1.699	O	|	|	|	|	0.46
283.083	0.00	0.15	1.698	O	|	|	|	|	0.46
283.167	0.00	0.15	1.697	O	|	|	|	|	0.46
283.250	0.00	0.15	1.696	O	|	|	|	|	0.46
283.333	0.00	0.15	1.695	O	|	|	|	|	0.46
283.417	0.00	0.15	1.694	O	|	|	|	|	0.46
283.500	0.00	0.15	1.693	O	|	|	|	|	0.46
283.583	0.00	0.15	1.692	O	|	|	|	|	0.46
283.667	0.00	0.15	1.691	O	|	|	|	|	0.46
283.750	0.00	0.15	1.689	O	|	|	|	|	0.46
283.833	0.00	0.15	1.688	O	|	|	|	|	0.46
283.917	0.00	0.15	1.687	O	|	|	|	|	0.46
284.000	0.00	0.15	1.686	O	|	|	|	|	0.46
284.083	0.00	0.15	1.685	O	|	|	|	|	0.46
284.167	0.00	0.15	1.684	O	|	|	|	|	0.46
284.250	0.00	0.15	1.683	O	|	|	|	|	0.45
284.333	0.00	0.15	1.682	O	|	|	|	|	0.45
284.417	0.00	0.15	1.681	O	|	|	|	|	0.45
284.500	0.00	0.15	1.680	O	|	|	|	|	0.45
284.583	0.00	0.15	1.679	O	|	|	|	|	0.45
284.667	0.00	0.15	1.678	O	|	|	|	|	0.45
284.750	0.00	0.15	1.677	O	|	|	|	|	0.45
284.833	0.00	0.14	1.676	O	|	|	|	|	0.45
284.917	0.00	0.14	1.675	O	|	|	|	|	0.45
285.000	0.00	0.14	1.674	O	|	|	|	|	0.45
285.083	0.00	0.14	1.673	O	|	|	|	|	0.45
285.167	0.00	0.14	1.672	O	|	|	|	|	0.45
285.250	0.00	0.14	1.671	O	|	|	|	|	0.45
285.333	0.00	0.14	1.670	O	|	|	|	|	0.45
285.417	0.00	0.14	1.669	O	|	|	|	|	0.45
285.500	0.00	0.14	1.668	O	|	|	|	|	0.45
285.583	0.00	0.14	1.668	O	|	|	|	|	0.45
285.667	0.00	0.14	1.667	O	|	|	|	|	0.45
285.750	0.00	0.14	1.666	O	|	|	|	|	0.45
285.833	0.00	0.14	1.665	O	|	|	|	|	0.45
285.917	0.00	0.14	1.664	O	|	|	|	|	0.45
286.000	0.00	0.14	1.663	O	|	|	|	|	0.45
286.083	0.00	0.14	1.662	O	|	|	|	|	0.45
286.167	0.00	0.14	1.661	O	|	|	|	|	0.45
286.250	0.00	0.14	1.660	O	|	|	|	|	0.45
286.333	0.00	0.14	1.659	O	|	|	|	|	0.45
286.417	0.00	0.14	1.658	O	|	|	|	|	0.45
286.500	0.00	0.14	1.657	O	|	|	|	|	0.45
286.583	0.00	0.14	1.656	O	|	|	|	|	0.45
286.667	0.00	0.14	1.655	O	|	|	|	|	0.45
286.750	0.00	0.14	1.654	O	|	|	|	|	0.45
286.833	0.00	0.14	1.653	O	|	|	|	|	0.45
286.917	0.00	0.14	1.652	O	|	|	|	|	0.45
287.000	0.00	0.14	1.651	O	|	|	|	|	0.45
287.083	0.00	0.14	1.650	O	|	|	|	|	0.45
287.167	0.00	0.14	1.649	O	|	|	|	|	0.45
287.250	0.00	0.14	1.648	O	|	|	|	|	0.45
287.333	0.00	0.14	1.647	O	|	|	|	|	0.45
287.417	0.00	0.14	1.646	O	|	|	|	|	0.44
287.500	0.00	0.14	1.645	O	|	|	|	|	0.44
287.583	0.00	0.14	1.644	O	|	|	|	|	0.44
287.667	0.00	0.14	1.643	O	|	|	|	|	0.44

287.750	0.00	0.14	1.642	O	|	|	|	|	0.44
287.833	0.00	0.14	1.641	O	|	|	|	|	0.44
287.917	0.00	0.14	1.640	O	|	|	|	|	0.44
288.000	0.00	0.14	1.639	O	|	|	|	|	0.44
288.083	0.00	0.14	1.638	O	|	|	|	|	0.44
288.167	0.00	0.14	1.637	O	|	|	|	|	0.44
288.250	0.00	0.14	1.636	O	|	|	|	|	0.44
288.333	0.00	0.14	1.635	O	|	|	|	|	0.44
288.417	0.00	0.14	1.634	O	|	|	|	|	0.44
288.500	0.00	0.14	1.633	O	|	|	|	|	0.44
288.583	0.00	0.14	1.632	O	|	|	|	|	0.44
288.667	0.00	0.14	1.631	O	|	|	|	|	0.44
288.750	0.00	0.14	1.630	O	|	|	|	|	0.44
288.833	0.00	0.14	1.629	O	|	|	|	|	0.44
288.917	0.00	0.14	1.628	O	|	|	|	|	0.44
289.000	0.00	0.14	1.627	O	|	|	|	|	0.44
289.083	0.00	0.14	1.626	O	|	|	|	|	0.44
289.167	0.00	0.14	1.625	O	|	|	|	|	0.44
289.250	0.00	0.14	1.624	O	|	|	|	|	0.44
289.333	0.00	0.14	1.623	O	|	|	|	|	0.44
289.417	0.00	0.14	1.622	O	|	|	|	|	0.44
289.500	0.00	0.14	1.621	O	|	|	|	|	0.44
289.583	0.00	0.14	1.621	O	|	|	|	|	0.44
289.667	0.00	0.14	1.620	O	|	|	|	|	0.44
289.750	0.00	0.14	1.619	O	|	|	|	|	0.44
289.833	0.00	0.14	1.618	O	|	|	|	|	0.44
289.917	0.00	0.14	1.617	O	|	|	|	|	0.44
290.000	0.00	0.14	1.616	O	|	|	|	|	0.44
290.083	0.00	0.14	1.615	O	|	|	|	|	0.44
290.167	0.00	0.14	1.614	O	|	|	|	|	0.44
290.250	0.00	0.14	1.613	O	|	|	|	|	0.44
290.333	0.00	0.14	1.612	O	|	|	|	|	0.44
290.417	0.00	0.14	1.611	O	|	|	|	|	0.44
290.500	0.00	0.14	1.610	O	|	|	|	|	0.44
290.583	0.00	0.14	1.609	O	|	|	|	|	0.43
290.667	0.00	0.14	1.608	O	|	|	|	|	0.43
290.750	0.00	0.14	1.607	O	|	|	|	|	0.43
290.833	0.00	0.14	1.606	O	|	|	|	|	0.43
290.917	0.00	0.14	1.605	O	|	|	|	|	0.43
291.000	0.00	0.14	1.604	O	|	|	|	|	0.43
291.083	0.00	0.14	1.603	O	|	|	|	|	0.43
291.167	0.00	0.14	1.602	O	|	|	|	|	0.43
291.250	0.00	0.14	1.601	O	|	|	|	|	0.43
291.333	0.00	0.14	1.600	O	|	|	|	|	0.43
291.417	0.00	0.14	1.599	O	|	|	|	|	0.43
291.500	0.00	0.14	1.598	O	|	|	|	|	0.43
291.583	0.00	0.14	1.598	O	|	|	|	|	0.43
291.667	0.00	0.14	1.597	O	|	|	|	|	0.43
291.750	0.00	0.14	1.596	O	|	|	|	|	0.43
291.833	0.00	0.14	1.595	O	|	|	|	|	0.43
291.917	0.00	0.14	1.594	O	|	|	|	|	0.43
292.000	0.00	0.14	1.593	O	|	|	|	|	0.43
292.083	0.00	0.14	1.592	O	|	|	|	|	0.43
292.167	0.00	0.14	1.591	O	|	|	|	|	0.43
292.250	0.00	0.14	1.590	O	|	|	|	|	0.43
292.333	0.00	0.14	1.589	O	|	|	|	|	0.43
292.417	0.00	0.14	1.588	O	|	|	|	|	0.43
292.500	0.00	0.14	1.587	O	|	|	|	|	0.43
292.583	0.00	0.14	1.586	O	|	|	|	|	0.43
292.667	0.00	0.14	1.585	O	|	|	|	|	0.43
292.750	0.00	0.14	1.584	O	|	|	|	|	0.43
292.833	0.00	0.14	1.583	O	|	|	|	|	0.43
292.917	0.00	0.14	1.582	O	|	|	|	|	0.43

293.000	0.00	0.14	1.581	O	|	|	|	|	0.43
293.083	0.00	0.14	1.580	O	|	|	|	|	0.43
293.167	0.00	0.14	1.580	O	|	|	|	|	0.43
293.250	0.00	0.14	1.579	O	|	|	|	|	0.43
293.333	0.00	0.14	1.578	O	|	|	|	|	0.43
293.417	0.00	0.14	1.577	O	|	|	|	|	0.43
293.500	0.00	0.14	1.576	O	|	|	|	|	0.43
293.583	0.00	0.14	1.575	O	|	|	|	|	0.43
293.667	0.00	0.14	1.574	O	|	|	|	|	0.43
293.750	0.00	0.14	1.573	O	|	|	|	|	0.43
293.833	0.00	0.14	1.572	O	|	|	|	|	0.42
293.917	0.00	0.14	1.571	O	|	|	|	|	0.42
294.000	0.00	0.14	1.570	O	|	|	|	|	0.42
294.083	0.00	0.14	1.569	O	|	|	|	|	0.42
294.167	0.00	0.14	1.568	O	|	|	|	|	0.42
294.250	0.00	0.14	1.567	O	|	|	|	|	0.42
294.333	0.00	0.14	1.566	O	|	|	|	|	0.42
294.417	0.00	0.14	1.565	O	|	|	|	|	0.42
294.500	0.00	0.14	1.565	O	|	|	|	|	0.42
294.583	0.00	0.14	1.564	O	|	|	|	|	0.42
294.667	0.00	0.14	1.563	O	|	|	|	|	0.42
294.750	0.00	0.14	1.562	O	|	|	|	|	0.42
294.833	0.00	0.13	1.561	O	|	|	|	|	0.42
294.917	0.00	0.13	1.560	O	|	|	|	|	0.42
295.000	0.00	0.13	1.559	O	|	|	|	|	0.42
295.083	0.00	0.13	1.558	O	|	|	|	|	0.42
295.167	0.00	0.13	1.557	O	|	|	|	|	0.42
295.250	0.00	0.13	1.556	O	|	|	|	|	0.42
295.333	0.00	0.13	1.555	O	|	|	|	|	0.42
295.417	0.00	0.13	1.554	O	|	|	|	|	0.42
295.500	0.00	0.13	1.553	O	|	|	|	|	0.42
295.583	0.00	0.13	1.552	O	|	|	|	|	0.42
295.667	0.00	0.13	1.552	O	|	|	|	|	0.42
295.750	0.00	0.13	1.551	O	|	|	|	|	0.42
295.833	0.00	0.13	1.550	O	|	|	|	|	0.42
295.917	0.00	0.13	1.549	O	|	|	|	|	0.42
296.000	0.00	0.13	1.548	O	|	|	|	|	0.42
296.083	0.00	0.13	1.547	O	|	|	|	|	0.42
296.167	0.00	0.13	1.546	O	|	|	|	|	0.42
296.250	0.00	0.13	1.545	O	|	|	|	|	0.42
296.333	0.00	0.13	1.544	O	|	|	|	|	0.42
296.417	0.00	0.13	1.543	O	|	|	|	|	0.42
296.500	0.00	0.13	1.542	O	|	|	|	|	0.42
296.583	0.00	0.13	1.541	O	|	|	|	|	0.42
296.667	0.00	0.13	1.541	O	|	|	|	|	0.42
296.750	0.00	0.13	1.540	O	|	|	|	|	0.42
296.833	0.00	0.13	1.539	O	|	|	|	|	0.42
296.917	0.00	0.13	1.538	O	|	|	|	|	0.42
297.000	0.00	0.13	1.537	O	|	|	|	|	0.42
297.083	0.00	0.13	1.536	O	|	|	|	|	0.42
297.167	0.00	0.13	1.535	O	|	|	|	|	0.41
297.250	0.00	0.13	1.534	O	|	|	|	|	0.41
297.333	0.00	0.13	1.533	O	|	|	|	|	0.41
297.417	0.00	0.13	1.532	O	|	|	|	|	0.41
297.500	0.00	0.13	1.531	O	|	|	|	|	0.41
297.583	0.00	0.13	1.530	O	|	|	|	|	0.41
297.667	0.00	0.13	1.530	O	|	|	|	|	0.41
297.750	0.00	0.13	1.529	O	|	|	|	|	0.41
297.833	0.00	0.13	1.528	O	|	|	|	|	0.41
297.917	0.00	0.13	1.527	O	|	|	|	|	0.41
298.000	0.00	0.13	1.526	O	|	|	|	|	0.41
298.083	0.00	0.13	1.525	O	|	|	|	|	0.41
298.167	0.00	0.13	1.524	O	|	|	|	|	0.41

298.250	0.00	0.13	1.523	O	|	|	|	|	0.41
298.333	0.00	0.13	1.522	O	|	|	|	|	0.41
298.417	0.00	0.13	1.521	O	|	|	|	|	0.41
298.500	0.00	0.13	1.520	O	|	|	|	|	0.41
298.583	0.00	0.13	1.520	O	|	|	|	|	0.41
298.667	0.00	0.13	1.519	O	|	|	|	|	0.41
298.750	0.00	0.13	1.518	O	|	|	|	|	0.41
298.833	0.00	0.13	1.517	O	|	|	|	|	0.41
298.917	0.00	0.13	1.516	O	|	|	|	|	0.41
299.000	0.00	0.13	1.515	O	|	|	|	|	0.41
299.083	0.00	0.13	1.514	O	|	|	|	|	0.41
299.167	0.00	0.13	1.513	O	|	|	|	|	0.41
299.250	0.00	0.13	1.512	O	|	|	|	|	0.41
299.333	0.00	0.13	1.511	O	|	|	|	|	0.41
299.417	0.00	0.13	1.511	O	|	|	|	|	0.41
299.500	0.00	0.13	1.510	O	|	|	|	|	0.41
299.583	0.00	0.13	1.509	O	|	|	|	|	0.41
299.667	0.00	0.13	1.508	O	|	|	|	|	0.41
299.750	0.00	0.13	1.507	O	|	|	|	|	0.41
299.833	0.00	0.13	1.506	O	|	|	|	|	0.41
299.917	0.00	0.13	1.505	O	|	|	|	|	0.41
300.000	0.00	0.13	1.504	O	|	|	|	|	0.41
300.083	0.00	0.13	1.503	O	|	|	|	|	0.41
300.167	0.00	0.13	1.502	O	|	|	|	|	0.41
300.250	0.00	0.13	1.502	O	|	|	|	|	0.41
300.333	0.00	0.13	1.501	O	|	|	|	|	0.41
300.417	0.00	0.13	1.500	O	|	|	|	|	0.41
300.500	0.00	0.13	1.499	O	|	|	|	|	0.41
300.583	0.00	0.13	1.498	O	|	|	|	|	0.40
300.667	0.00	0.13	1.497	O	|	|	|	|	0.40
300.750	0.00	0.13	1.496	O	|	|	|	|	0.40
300.833	0.00	0.13	1.495	O	|	|	|	|	0.40
300.917	0.00	0.13	1.494	O	|	|	|	|	0.40
301.000	0.00	0.13	1.494	O	|	|	|	|	0.40
301.083	0.00	0.13	1.493	O	|	|	|	|	0.40
301.167	0.00	0.13	1.492	O	|	|	|	|	0.40
301.250	0.00	0.13	1.491	O	|	|	|	|	0.40
301.333	0.00	0.13	1.490	O	|	|	|	|	0.40
301.417	0.00	0.13	1.489	O	|	|	|	|	0.40
301.500	0.00	0.13	1.488	O	|	|	|	|	0.40
301.583	0.00	0.13	1.487	O	|	|	|	|	0.40
301.667	0.00	0.13	1.486	O	|	|	|	|	0.40
301.750	0.00	0.13	1.486	O	|	|	|	|	0.40
301.833	0.00	0.13	1.485	O	|	|	|	|	0.40
301.917	0.00	0.13	1.484	O	|	|	|	|	0.40
302.000	0.00	0.13	1.483	O	|	|	|	|	0.40
302.083	0.00	0.13	1.482	O	|	|	|	|	0.40
302.167	0.00	0.13	1.481	O	|	|	|	|	0.40
302.250	0.00	0.13	1.480	O	|	|	|	|	0.40
302.333	0.00	0.13	1.479	O	|	|	|	|	0.40
302.417	0.00	0.13	1.478	O	|	|	|	|	0.40
302.500	0.00	0.13	1.478	O	|	|	|	|	0.40
302.583	0.00	0.13	1.477	O	|	|	|	|	0.40
302.667	0.00	0.13	1.476	O	|	|	|	|	0.40
302.750	0.00	0.13	1.475	O	|	|	|	|	0.40
302.833	0.00	0.13	1.474	O	|	|	|	|	0.40
302.917	0.00	0.13	1.473	O	|	|	|	|	0.40
303.000	0.00	0.13	1.472	O	|	|	|	|	0.40
303.083	0.00	0.13	1.471	O	|	|	|	|	0.40
303.167	0.00	0.13	1.471	O	|	|	|	|	0.40
303.250	0.00	0.13	1.470	O	|	|	|	|	0.40
303.333	0.00	0.13	1.469	O	|	|	|	|	0.40
303.417	0.00	0.13	1.468	O	|	|	|	|	0.40

303.500	0.00	0.13	1.467	O	|	|	|	|	0.40
303.583	0.00	0.13	1.466	O	|	|	|	|	0.40
303.667	0.00	0.13	1.465	O	|	|	|	|	0.40
303.750	0.00	0.13	1.464	O	|	|	|	|	0.40
303.833	0.00	0.13	1.464	O	|	|	|	|	0.40
303.917	0.00	0.13	1.463	O	|	|	|	|	0.40
304.000	0.00	0.13	1.462	O	|	|	|	|	0.40
304.083	0.00	0.13	1.461	O	|	|	|	|	0.39
304.167	0.00	0.13	1.460	O	|	|	|	|	0.39
304.250	0.00	0.13	1.459	O	|	|	|	|	0.39
304.333	0.00	0.13	1.458	O	|	|	|	|	0.39
304.417	0.00	0.13	1.457	O	|	|	|	|	0.39
304.500	0.00	0.13	1.457	O	|	|	|	|	0.39
304.583	0.00	0.13	1.456	O	|	|	|	|	0.39
304.667	0.00	0.13	1.455	O	|	|	|	|	0.39
304.750	0.00	0.13	1.454	O	|	|	|	|	0.39
304.833	0.00	0.13	1.453	O	|	|	|	|	0.39
304.917	0.00	0.13	1.452	O	|	|	|	|	0.39
305.000	0.00	0.13	1.451	O	|	|	|	|	0.39
305.083	0.00	0.13	1.451	O	|	|	|	|	0.39
305.167	0.00	0.13	1.450	O	|	|	|	|	0.39
305.250	0.00	0.13	1.449	O	|	|	|	|	0.39
305.333	0.00	0.13	1.448	O	|	|	|	|	0.39
305.417	0.00	0.13	1.447	O	|	|	|	|	0.39
305.500	0.00	0.13	1.446	O	|	|	|	|	0.39
305.583	0.00	0.13	1.445	O	|	|	|	|	0.39
305.667	0.00	0.12	1.445	O	|	|	|	|	0.39
305.750	0.00	0.12	1.444	O	|	|	|	|	0.39
305.833	0.00	0.12	1.443	O	|	|	|	|	0.39
305.917	0.00	0.12	1.442	O	|	|	|	|	0.39
306.000	0.00	0.12	1.441	O	|	|	|	|	0.39
306.083	0.00	0.12	1.440	O	|	|	|	|	0.39
306.167	0.00	0.12	1.439	O	|	|	|	|	0.39
306.250	0.00	0.12	1.439	O	|	|	|	|	0.39
306.333	0.00	0.12	1.438	O	|	|	|	|	0.39
306.417	0.00	0.12	1.437	O	|	|	|	|	0.39
306.500	0.00	0.12	1.436	O	|	|	|	|	0.39
306.583	0.00	0.12	1.435	O	|	|	|	|	0.39
306.667	0.00	0.12	1.434	O	|	|	|	|	0.39
306.750	0.00	0.12	1.433	O	|	|	|	|	0.39
306.833	0.00	0.12	1.433	O	|	|	|	|	0.39
306.917	0.00	0.12	1.432	O	|	|	|	|	0.39
307.000	0.00	0.12	1.431	O	|	|	|	|	0.39
307.083	0.00	0.12	1.430	O	|	|	|	|	0.39
307.167	0.00	0.12	1.429	O	|	|	|	|	0.39
307.250	0.00	0.12	1.428	O	|	|	|	|	0.39
307.333	0.00	0.12	1.427	O	|	|	|	|	0.39
307.417	0.00	0.12	1.427	O	|	|	|	|	0.39
307.500	0.00	0.12	1.426	O	|	|	|	|	0.39
307.583	0.00	0.12	1.425	O	|	|	|	|	0.39
307.667	0.00	0.12	1.424	O	|	|	|	|	0.38
307.750	0.00	0.12	1.423	O	|	|	|	|	0.38
307.833	0.00	0.12	1.422	O	|	|	|	|	0.38
307.917	0.00	0.12	1.421	O	|	|	|	|	0.38
308.000	0.00	0.12	1.421	O	|	|	|	|	0.38
308.083	0.00	0.12	1.420	O	|	|	|	|	0.38
308.167	0.00	0.12	1.419	O	|	|	|	|	0.38
308.250	0.00	0.12	1.418	O	|	|	|	|	0.38
308.333	0.00	0.12	1.417	O	|	|	|	|	0.38
308.417	0.00	0.12	1.416	O	|	|	|	|	0.38
308.500	0.00	0.12	1.416	O	|	|	|	|	0.38
308.583	0.00	0.12	1.415	O	|	|	|	|	0.38
308.667	0.00	0.12	1.414	O	|	|	|	|	0.38

308.750	0.00	0.12	1.413	O	|	|	|	|	0.38
308.833	0.00	0.12	1.412	O	|	|	|	|	0.38
308.917	0.00	0.12	1.411	O	|	|	|	|	0.38
309.000	0.00	0.12	1.411	O	|	|	|	|	0.38
309.083	0.00	0.12	1.410	O	|	|	|	|	0.38
309.167	0.00	0.12	1.409	O	|	|	|	|	0.38
309.250	0.00	0.12	1.408	O	|	|	|	|	0.38
309.333	0.00	0.12	1.407	O	|	|	|	|	0.38
309.417	0.00	0.12	1.406	O	|	|	|	|	0.38
309.500	0.00	0.12	1.405	O	|	|	|	|	0.38
309.583	0.00	0.12	1.405	O	|	|	|	|	0.38
309.667	0.00	0.12	1.404	O	|	|	|	|	0.38
309.750	0.00	0.12	1.403	O	|	|	|	|	0.38
309.833	0.00	0.12	1.402	O	|	|	|	|	0.38
309.917	0.00	0.12	1.401	O	|	|	|	|	0.38
310.000	0.00	0.12	1.400	O	|	|	|	|	0.38
310.083	0.00	0.12	1.400	O	|	|	|	|	0.38
310.167	0.00	0.12	1.399	O	|	|	|	|	0.38
310.250	0.00	0.12	1.398	O	|	|	|	|	0.38
310.333	0.00	0.12	1.397	O	|	|	|	|	0.38
310.417	0.00	0.12	1.396	O	|	|	|	|	0.38
310.500	0.00	0.12	1.395	O	|	|	|	|	0.38
310.583	0.00	0.12	1.395	O	|	|	|	|	0.38
310.667	0.00	0.12	1.394	O	|	|	|	|	0.38
310.750	0.00	0.12	1.393	O	|	|	|	|	0.38
310.833	0.00	0.12	1.392	O	|	|	|	|	0.38
310.917	0.00	0.12	1.391	O	|	|	|	|	0.38
311.000	0.00	0.12	1.390	O	|	|	|	|	0.38
311.083	0.00	0.12	1.390	O	|	|	|	|	0.38
311.167	0.00	0.12	1.389	O	|	|	|	|	0.38
311.250	0.00	0.12	1.388	O	|	|	|	|	0.38
311.333	0.00	0.12	1.387	O	|	|	|	|	0.37
311.417	0.00	0.12	1.386	O	|	|	|	|	0.37
311.500	0.00	0.12	1.386	O	|	|	|	|	0.37
311.583	0.00	0.12	1.385	O	|	|	|	|	0.37
311.667	0.00	0.12	1.384	O	|	|	|	|	0.37
311.750	0.00	0.12	1.383	O	|	|	|	|	0.37
311.833	0.00	0.12	1.382	O	|	|	|	|	0.37
311.917	0.00	0.12	1.381	O	|	|	|	|	0.37
312.000	0.00	0.12	1.381	O	|	|	|	|	0.37
312.083	0.00	0.12	1.380	O	|	|	|	|	0.37
312.167	0.00	0.12	1.379	O	|	|	|	|	0.37
312.250	0.00	0.12	1.378	O	|	|	|	|	0.37
312.333	0.00	0.12	1.377	O	|	|	|	|	0.37
312.417	0.00	0.12	1.376	O	|	|	|	|	0.37
312.500	0.00	0.12	1.376	O	|	|	|	|	0.37
312.583	0.00	0.12	1.375	O	|	|	|	|	0.37
312.667	0.00	0.12	1.374	O	|	|	|	|	0.37
312.750	0.00	0.12	1.373	O	|	|	|	|	0.37
312.833	0.00	0.12	1.372	O	|	|	|	|	0.37
312.917	0.00	0.12	1.372	O	|	|	|	|	0.37
313.000	0.00	0.12	1.371	O	|	|	|	|	0.37
313.083	0.00	0.12	1.370	O	|	|	|	|	0.37
313.167	0.00	0.12	1.369	O	|	|	|	|	0.37
313.250	0.00	0.12	1.368	O	|	|	|	|	0.37
313.333	0.00	0.12	1.367	O	|	|	|	|	0.37
313.417	0.00	0.12	1.367	O	|	|	|	|	0.37
313.500	0.00	0.12	1.366	O	|	|	|	|	0.37
313.583	0.00	0.12	1.365	O	|	|	|	|	0.37
313.667	0.00	0.12	1.364	O	|	|	|	|	0.37
313.750	0.00	0.12	1.363	O	|	|	|	|	0.37
313.833	0.00	0.12	1.363	O	|	|	|	|	0.37
313.917	0.00	0.12	1.362	O	|	|	|	|	0.37

314.000	0.00	0.12	1.361	O	|	|	|	|	0.37
314.083	0.00	0.12	1.360	O	|	|	|	|	0.37
314.167	0.00	0.12	1.359	O	|	|	|	|	0.37
314.250	0.00	0.12	1.359	O	|	|	|	|	0.37
314.333	0.00	0.12	1.358	O	|	|	|	|	0.37
314.417	0.00	0.12	1.357	O	|	|	|	|	0.37
314.500	0.00	0.12	1.356	O	|	|	|	|	0.37
314.583	0.00	0.12	1.355	O	|	|	|	|	0.37
314.667	0.00	0.12	1.355	O	|	|	|	|	0.37
314.750	0.00	0.12	1.354	O	|	|	|	|	0.37
314.833	0.00	0.12	1.353	O	|	|	|	|	0.37
314.917	0.00	0.12	1.352	O	|	|	|	|	0.37
315.000	0.00	0.12	1.351	O	|	|	|	|	0.37
315.083	0.00	0.12	1.350	O	|	|	|	|	0.36
315.167	0.00	0.12	1.350	O	|	|	|	|	0.36
315.250	0.00	0.12	1.349	O	|	|	|	|	0.36
315.333	0.00	0.12	1.348	O	|	|	|	|	0.36
315.417	0.00	0.12	1.347	O	|	|	|	|	0.36
315.500	0.00	0.12	1.346	O	|	|	|	|	0.36
315.583	0.00	0.12	1.346	O	|	|	|	|	0.36
315.667	0.00	0.12	1.345	O	|	|	|	|	0.36
315.750	0.00	0.12	1.344	O	|	|	|	|	0.36
315.833	0.00	0.12	1.343	O	|	|	|	|	0.36
315.917	0.00	0.12	1.342	O	|	|	|	|	0.36
316.000	0.00	0.12	1.342	O	|	|	|	|	0.36
316.083	0.00	0.12	1.341	O	|	|	|	|	0.36
316.167	0.00	0.12	1.340	O	|	|	|	|	0.36
316.250	0.00	0.12	1.339	O	|	|	|	|	0.36
316.333	0.00	0.12	1.338	O	|	|	|	|	0.36
316.417	0.00	0.12	1.338	O	|	|	|	|	0.36
316.500	0.00	0.12	1.337	O	|	|	|	|	0.36
316.583	0.00	0.12	1.336	O	|	|	|	|	0.36
316.667	0.00	0.12	1.335	O	|	|	|	|	0.36
316.750	0.00	0.12	1.335	O	|	|	|	|	0.36
316.833	0.00	0.12	1.334	O	|	|	|	|	0.36
316.917	0.00	0.12	1.333	O	|	|	|	|	0.36
317.000	0.00	0.12	1.332	O	|	|	|	|	0.36
317.083	0.00	0.12	1.331	O	|	|	|	|	0.36
317.167	0.00	0.12	1.331	O	|	|	|	|	0.36
317.250	0.00	0.12	1.330	O	|	|	|	|	0.36
317.333	0.00	0.11	1.329	O	|	|	|	|	0.36
317.417	0.00	0.11	1.328	O	|	|	|	|	0.36
317.500	0.00	0.11	1.327	O	|	|	|	|	0.36
317.583	0.00	0.11	1.327	O	|	|	|	|	0.36
317.667	0.00	0.11	1.326	O	|	|	|	|	0.36
317.750	0.00	0.11	1.325	O	|	|	|	|	0.36
317.833	0.00	0.11	1.324	O	|	|	|	|	0.36
317.917	0.00	0.11	1.323	O	|	|	|	|	0.36
318.000	0.00	0.11	1.323	O	|	|	|	|	0.36
318.083	0.00	0.11	1.322	O	|	|	|	|	0.36
318.167	0.00	0.11	1.321	O	|	|	|	|	0.36
318.250	0.00	0.11	1.320	O	|	|	|	|	0.36
318.333	0.00	0.11	1.319	O	|	|	|	|	0.36
318.417	0.00	0.11	1.319	O	|	|	|	|	0.36
318.500	0.00	0.11	1.318	O	|	|	|	|	0.36
318.583	0.00	0.11	1.317	O	|	|	|	|	0.36
318.667	0.00	0.11	1.316	O	|	|	|	|	0.36
318.750	0.00	0.11	1.316	O	|	|	|	|	0.36
318.833	0.00	0.11	1.315	O	|	|	|	|	0.36
318.917	0.00	0.11	1.314	O	|	|	|	|	0.36
319.000	0.00	0.11	1.313	O	|	|	|	|	0.35
319.083	0.00	0.11	1.312	O	|	|	|	|	0.35
319.167	0.00	0.11	1.312	O	|	|	|	|	0.35

319.250	0.00	0.11	1.311	O	|	|	|	|	0.35
319.333	0.00	0.11	1.310	O	|	|	|	|	0.35
319.417	0.00	0.11	1.309	O	|	|	|	|	0.35
319.500	0.00	0.11	1.309	O	|	|	|	|	0.35
319.583	0.00	0.11	1.308	O	|	|	|	|	0.35
319.667	0.00	0.11	1.307	O	|	|	|	|	0.35
319.750	0.00	0.11	1.306	O	|	|	|	|	0.35
319.833	0.00	0.11	1.305	O	|	|	|	|	0.35
319.917	0.00	0.11	1.305	O	|	|	|	|	0.35
320.000	0.00	0.11	1.304	O	|	|	|	|	0.35
320.083	0.00	0.11	1.303	O	|	|	|	|	0.35
320.167	0.00	0.11	1.302	O	|	|	|	|	0.35
320.250	0.00	0.11	1.302	O	|	|	|	|	0.35
320.333	0.00	0.11	1.301	O	|	|	|	|	0.35
320.417	0.00	0.11	1.300	O	|	|	|	|	0.35
320.500	0.00	0.11	1.299	O	|	|	|	|	0.35
320.583	0.00	0.11	1.298	O	|	|	|	|	0.35
320.667	0.00	0.11	1.298	O	|	|	|	|	0.35
320.750	0.00	0.11	1.297	O	|	|	|	|	0.35
320.833	0.00	0.11	1.296	O	|	|	|	|	0.35
320.917	0.00	0.11	1.295	O	|	|	|	|	0.35
321.000	0.00	0.11	1.295	O	|	|	|	|	0.35
321.083	0.00	0.11	1.294	O	|	|	|	|	0.35
321.167	0.00	0.11	1.293	O	|	|	|	|	0.35
321.250	0.00	0.11	1.292	O	|	|	|	|	0.35
321.333	0.00	0.11	1.291	O	|	|	|	|	0.35
321.417	0.00	0.11	1.291	O	|	|	|	|	0.35
321.500	0.00	0.11	1.290	O	|	|	|	|	0.35
321.583	0.00	0.11	1.289	O	|	|	|	|	0.35
321.667	0.00	0.11	1.288	O	|	|	|	|	0.35
321.750	0.00	0.11	1.288	O	|	|	|	|	0.35
321.833	0.00	0.11	1.287	O	|	|	|	|	0.35
321.917	0.00	0.11	1.286	O	|	|	|	|	0.35
322.000	0.00	0.11	1.285	O	|	|	|	|	0.35
322.083	0.00	0.11	1.285	O	|	|	|	|	0.35
322.167	0.00	0.11	1.284	O	|	|	|	|	0.35
322.250	0.00	0.11	1.283	O	|	|	|	|	0.35
322.333	0.00	0.11	1.282	O	|	|	|	|	0.35
322.417	0.00	0.11	1.282	O	|	|	|	|	0.35
322.500	0.00	0.11	1.281	O	|	|	|	|	0.35
322.583	0.00	0.11	1.280	O	|	|	|	|	0.35
322.667	0.00	0.11	1.279	O	|	|	|	|	0.35
322.750	0.00	0.11	1.278	O	|	|	|	|	0.35
322.833	0.00	0.11	1.278	O	|	|	|	|	0.35
322.917	0.00	0.11	1.277	O	|	|	|	|	0.35
323.000	0.00	0.11	1.276	O	|	|	|	|	0.34
323.083	0.00	0.11	1.275	O	|	|	|	|	0.34
323.167	0.00	0.11	1.275	O	|	|	|	|	0.34
323.250	0.00	0.11	1.274	O	|	|	|	|	0.34
323.333	0.00	0.11	1.273	O	|	|	|	|	0.34
323.417	0.00	0.11	1.272	O	|	|	|	|	0.34
323.500	0.00	0.11	1.272	O	|	|	|	|	0.34
323.583	0.00	0.11	1.271	O	|	|	|	|	0.34
323.667	0.00	0.11	1.270	O	|	|	|	|	0.34
323.750	0.00	0.11	1.269	O	|	|	|	|	0.34
323.833	0.00	0.11	1.269	O	|	|	|	|	0.34
323.917	0.00	0.11	1.268	O	|	|	|	|	0.34
324.000	0.00	0.11	1.267	O	|	|	|	|	0.34
324.083	0.00	0.11	1.266	O	|	|	|	|	0.34
324.167	0.00	0.11	1.266	O	|	|	|	|	0.34
324.250	0.00	0.11	1.265	O	|	|	|	|	0.34
324.333	0.00	0.11	1.264	O	|	|	|	|	0.34
324.417	0.00	0.11	1.263	O	|	|	|	|	0.34

324.500	0.00	0.11	1.263	O	|	|	|	|	0.34
324.583	0.00	0.11	1.262	O	|	|	|	|	0.34
324.667	0.00	0.11	1.261	O	|	|	|	|	0.34
324.750	0.00	0.11	1.260	O	|	|	|	|	0.34
324.833	0.00	0.11	1.260	O	|	|	|	|	0.34
324.917	0.00	0.11	1.259	O	|	|	|	|	0.34
325.000	0.00	0.11	1.258	O	|	|	|	|	0.34
325.083	0.00	0.11	1.257	O	|	|	|	|	0.34
325.167	0.00	0.11	1.257	O	|	|	|	|	0.34
325.250	0.00	0.11	1.256	O	|	|	|	|	0.34
325.333	0.00	0.11	1.255	O	|	|	|	|	0.34
325.417	0.00	0.11	1.254	O	|	|	|	|	0.34
325.500	0.00	0.11	1.254	O	|	|	|	|	0.34
325.583	0.00	0.11	1.253	O	|	|	|	|	0.34
325.667	0.00	0.11	1.252	O	|	|	|	|	0.34
325.750	0.00	0.11	1.251	O	|	|	|	|	0.34
325.833	0.00	0.11	1.251	O	|	|	|	|	0.34
325.917	0.00	0.11	1.250	O	|	|	|	|	0.34
326.000	0.00	0.11	1.249	O	|	|	|	|	0.34
326.083	0.00	0.11	1.248	O	|	|	|	|	0.34
326.167	0.00	0.11	1.248	O	|	|	|	|	0.34
326.250	0.00	0.11	1.247	O	|	|	|	|	0.34
326.333	0.00	0.11	1.246	O	|	|	|	|	0.34
326.417	0.00	0.11	1.245	O	|	|	|	|	0.34
326.500	0.00	0.11	1.245	O	|	|	|	|	0.34
326.583	0.00	0.11	1.244	O	|	|	|	|	0.34
326.667	0.00	0.11	1.243	O	|	|	|	|	0.34
326.750	0.00	0.11	1.242	O	|	|	|	|	0.34
326.833	0.00	0.11	1.242	O	|	|	|	|	0.34
326.917	0.00	0.11	1.241	O	|	|	|	|	0.34
327.000	0.00	0.11	1.240	O	|	|	|	|	0.34
327.083	0.00	0.11	1.239	O	|	|	|	|	0.33
327.167	0.00	0.11	1.239	O	|	|	|	|	0.33
327.250	0.00	0.11	1.238	O	|	|	|	|	0.33
327.333	0.00	0.11	1.237	O	|	|	|	|	0.33
327.417	0.00	0.11	1.237	O	|	|	|	|	0.33
327.500	0.00	0.11	1.236	O	|	|	|	|	0.33
327.583	0.00	0.11	1.235	O	|	|	|	|	0.33
327.667	0.00	0.11	1.234	O	|	|	|	|	0.33
327.750	0.00	0.11	1.234	O	|	|	|	|	0.33
327.833	0.00	0.11	1.233	O	|	|	|	|	0.33
327.917	0.00	0.11	1.232	O	|	|	|	|	0.33
328.000	0.00	0.11	1.231	O	|	|	|	|	0.33
328.083	0.00	0.11	1.231	O	|	|	|	|	0.33
328.167	0.00	0.11	1.230	O	|	|	|	|	0.33
328.250	0.00	0.11	1.229	O	|	|	|	|	0.33
328.333	0.00	0.11	1.228	O	|	|	|	|	0.33
328.417	0.00	0.11	1.228	O	|	|	|	|	0.33
328.500	0.00	0.11	1.227	O	|	|	|	|	0.33
328.583	0.00	0.11	1.226	O	|	|	|	|	0.33
328.667	0.00	0.11	1.226	O	|	|	|	|	0.33
328.750	0.00	0.11	1.225	O	|	|	|	|	0.33
328.833	0.00	0.11	1.224	O	|	|	|	|	0.33
328.917	0.00	0.11	1.223	O	|	|	|	|	0.33
329.000	0.00	0.11	1.223	O	|	|	|	|	0.33
329.083	0.00	0.11	1.222	O	|	|	|	|	0.33
329.167	0.00	0.11	1.221	O	|	|	|	|	0.33
329.250	0.00	0.11	1.220	O	|	|	|	|	0.33
329.333	0.00	0.11	1.220	O	|	|	|	|	0.33
329.417	0.00	0.11	1.219	O	|	|	|	|	0.33
329.500	0.00	0.11	1.218	O	|	|	|	|	0.33
329.583	0.00	0.11	1.218	O	|	|	|	|	0.33
329.667	0.00	0.11	1.217	O	|	|	|	|	0.33

329.750	0.00	0.11	1.216	O	|	|	|	|	0.33
329.833	0.00	0.11	1.215	O	|	|	|	|	0.33
329.917	0.00	0.11	1.215	O	|	|	|	|	0.33
330.000	0.00	0.10	1.214	O	|	|	|	|	0.33
330.083	0.00	0.10	1.213	O	|	|	|	|	0.33
330.167	0.00	0.10	1.212	O	|	|	|	|	0.33
330.250	0.00	0.10	1.212	O	|	|	|	|	0.33
330.333	0.00	0.10	1.211	O	|	|	|	|	0.33
330.417	0.00	0.10	1.210	O	|	|	|	|	0.33
330.500	0.00	0.10	1.210	O	|	|	|	|	0.33
330.583	0.00	0.10	1.209	O	|	|	|	|	0.33
330.667	0.00	0.10	1.208	O	|	|	|	|	0.33
330.750	0.00	0.10	1.207	O	|	|	|	|	0.33
330.833	0.00	0.10	1.207	O	|	|	|	|	0.33
330.917	0.00	0.10	1.206	O	|	|	|	|	0.33
331.000	0.00	0.10	1.205	O	|	|	|	|	0.33
331.083	0.00	0.10	1.205	O	|	|	|	|	0.33
331.167	0.00	0.10	1.204	O	|	|	|	|	0.33
331.250	0.00	0.10	1.203	O	|	|	|	|	0.33
331.333	0.00	0.10	1.202	O	|	|	|	|	0.32
331.417	0.00	0.10	1.202	O	|	|	|	|	0.32
331.500	0.00	0.10	1.201	O	|	|	|	|	0.32
331.583	0.00	0.10	1.200	O	|	|	|	|	0.32
331.667	0.00	0.10	1.200	O	|	|	|	|	0.32
331.750	0.00	0.10	1.199	O	|	|	|	|	0.32
331.833	0.00	0.10	1.198	O	|	|	|	|	0.32
331.917	0.00	0.10	1.197	O	|	|	|	|	0.32
332.000	0.00	0.10	1.197	O	|	|	|	|	0.32
332.083	0.00	0.10	1.196	O	|	|	|	|	0.32
332.167	0.00	0.10	1.195	O	|	|	|	|	0.32
332.250	0.00	0.10	1.195	O	|	|	|	|	0.32
332.333	0.00	0.10	1.194	O	|	|	|	|	0.32
332.417	0.00	0.10	1.193	O	|	|	|	|	0.32
332.500	0.00	0.10	1.192	O	|	|	|	|	0.32
332.583	0.00	0.10	1.192	O	|	|	|	|	0.32
332.667	0.00	0.10	1.191	O	|	|	|	|	0.32
332.750	0.00	0.10	1.190	O	|	|	|	|	0.32
332.833	0.00	0.10	1.190	O	|	|	|	|	0.32
332.917	0.00	0.10	1.189	O	|	|	|	|	0.32
333.000	0.00	0.10	1.188	O	|	|	|	|	0.32
333.083	0.00	0.10	1.187	O	|	|	|	|	0.32
333.167	0.00	0.10	1.187	O	|	|	|	|	0.32
333.250	0.00	0.10	1.186	O	|	|	|	|	0.32
333.333	0.00	0.10	1.185	O	|	|	|	|	0.32
333.417	0.00	0.10	1.185	O	|	|	|	|	0.32
333.500	0.00	0.10	1.184	O	|	|	|	|	0.32
333.583	0.00	0.10	1.183	O	|	|	|	|	0.32
333.667	0.00	0.10	1.183	O	|	|	|	|	0.32
333.750	0.00	0.10	1.182	O	|	|	|	|	0.32
333.833	0.00	0.10	1.181	O	|	|	|	|	0.32
333.917	0.00	0.10	1.180	O	|	|	|	|	0.32
334.000	0.00	0.10	1.180	O	|	|	|	|	0.32
334.083	0.00	0.10	1.179	O	|	|	|	|	0.32
334.167	0.00	0.10	1.178	O	|	|	|	|	0.32
334.250	0.00	0.10	1.178	O	|	|	|	|	0.32
334.333	0.00	0.10	1.177	O	|	|	|	|	0.32
334.417	0.00	0.10	1.176	O	|	|	|	|	0.32
334.500	0.00	0.10	1.175	O	|	|	|	|	0.32
334.583	0.00	0.10	1.175	O	|	|	|	|	0.32
334.667	0.00	0.10	1.174	O	|	|	|	|	0.32
334.750	0.00	0.10	1.173	O	|	|	|	|	0.32
334.833	0.00	0.10	1.173	O	|	|	|	|	0.32
334.917	0.00	0.10	1.172	O	|	|	|	|	0.32

335.000	0.00	0.10	1.171	O	|	|	|	|	0.32
335.083	0.00	0.10	1.171	O	|	|	|	|	0.32
335.167	0.00	0.10	1.170	O	|	|	|	|	0.32
335.250	0.00	0.10	1.169	O	|	|	|	|	0.32
335.333	0.00	0.10	1.169	O	|	|	|	|	0.32
335.417	0.00	0.10	1.168	O	|	|	|	|	0.32
335.500	0.00	0.10	1.167	O	|	|	|	|	0.32
335.583	0.00	0.10	1.166	O	|	|	|	|	0.32
335.667	0.00	0.10	1.166	O	|	|	|	|	0.32
335.750	0.00	0.10	1.165	O	|	|	|	|	0.31
335.833	0.00	0.10	1.164	O	|	|	|	|	0.31
335.917	0.00	0.10	1.164	O	|	|	|	|	0.31
336.000	0.00	0.10	1.163	O	|	|	|	|	0.31
336.083	0.00	0.10	1.162	O	|	|	|	|	0.31
336.167	0.00	0.10	1.162	O	|	|	|	|	0.31
336.250	0.00	0.10	1.161	O	|	|	|	|	0.31
336.333	0.00	0.10	1.160	O	|	|	|	|	0.31
336.417	0.00	0.10	1.160	O	|	|	|	|	0.31
336.500	0.00	0.10	1.159	O	|	|	|	|	0.31
336.583	0.00	0.10	1.158	O	|	|	|	|	0.31
336.667	0.00	0.10	1.157	O	|	|	|	|	0.31
336.750	0.00	0.10	1.157	O	|	|	|	|	0.31
336.833	0.00	0.10	1.156	O	|	|	|	|	0.31
336.917	0.00	0.10	1.155	O	|	|	|	|	0.31
337.000	0.00	0.10	1.155	O	|	|	|	|	0.31
337.083	0.00	0.10	1.154	O	|	|	|	|	0.31
337.167	0.00	0.10	1.153	O	|	|	|	|	0.31
337.250	0.00	0.10	1.153	O	|	|	|	|	0.31
337.333	0.00	0.10	1.152	O	|	|	|	|	0.31
337.417	0.00	0.10	1.151	O	|	|	|	|	0.31
337.500	0.00	0.10	1.151	O	|	|	|	|	0.31
337.583	0.00	0.10	1.150	O	|	|	|	|	0.31
337.667	0.00	0.10	1.149	O	|	|	|	|	0.31
337.750	0.00	0.10	1.149	O	|	|	|	|	0.31
337.833	0.00	0.10	1.148	O	|	|	|	|	0.31
337.917	0.00	0.10	1.147	O	|	|	|	|	0.31
338.000	0.00	0.10	1.146	O	|	|	|	|	0.31
338.083	0.00	0.10	1.146	O	|	|	|	|	0.31
338.167	0.00	0.10	1.145	O	|	|	|	|	0.31
338.250	0.00	0.10	1.144	O	|	|	|	|	0.31
338.333	0.00	0.10	1.144	O	|	|	|	|	0.31
338.417	0.00	0.10	1.143	O	|	|	|	|	0.31
338.500	0.00	0.10	1.142	O	|	|	|	|	0.31
338.583	0.00	0.10	1.142	O	|	|	|	|	0.31
338.667	0.00	0.10	1.141	O	|	|	|	|	0.31
338.750	0.00	0.10	1.140	O	|	|	|	|	0.31
338.833	0.00	0.10	1.140	O	|	|	|	|	0.31
338.917	0.00	0.10	1.139	O	|	|	|	|	0.31
339.000	0.00	0.10	1.138	O	|	|	|	|	0.31
339.083	0.00	0.10	1.138	O	|	|	|	|	0.31
339.167	0.00	0.10	1.137	O	|	|	|	|	0.31
339.250	0.00	0.10	1.136	O	|	|	|	|	0.31
339.333	0.00	0.10	1.136	O	|	|	|	|	0.31
339.417	0.00	0.10	1.135	O	|	|	|	|	0.31
339.500	0.00	0.10	1.134	O	|	|	|	|	0.31
339.583	0.00	0.10	1.134	O	|	|	|	|	0.31
339.667	0.00	0.10	1.133	O	|	|	|	|	0.31
339.750	0.00	0.10	1.132	O	|	|	|	|	0.31
339.833	0.00	0.10	1.132	O	|	|	|	|	0.31
339.917	0.00	0.10	1.131	O	|	|	|	|	0.31
340.000	0.00	0.10	1.130	O	|	|	|	|	0.31
340.083	0.00	0.10	1.130	O	|	|	|	|	0.31
340.167	0.00	0.10	1.129	O	|	|	|	|	0.31

340.250	0.00	0.10	1.128	O	|	|	|	|	0.30
340.333	0.00	0.10	1.127	O	|	|	|	|	0.30
340.417	0.00	0.10	1.127	O	|	|	|	|	0.30
340.500	0.00	0.10	1.126	O	|	|	|	|	0.30
340.583	0.00	0.10	1.125	O	|	|	|	|	0.30
340.667	0.00	0.10	1.125	O	|	|	|	|	0.30
340.750	0.00	0.10	1.124	O	|	|	|	|	0.30
340.833	0.00	0.10	1.123	O	|	|	|	|	0.30
340.917	0.00	0.10	1.123	O	|	|	|	|	0.30
341.000	0.00	0.10	1.122	O	|	|	|	|	0.30
341.083	0.00	0.10	1.121	O	|	|	|	|	0.30
341.167	0.00	0.10	1.121	O	|	|	|	|	0.30
341.250	0.00	0.10	1.120	O	|	|	|	|	0.30
341.333	0.00	0.10	1.119	O	|	|	|	|	0.30
341.417	0.00	0.10	1.119	O	|	|	|	|	0.30
341.500	0.00	0.10	1.118	O	|	|	|	|	0.30
341.583	0.00	0.10	1.117	O	|	|	|	|	0.30
341.667	0.00	0.10	1.117	O	|	|	|	|	0.30
341.750	0.00	0.10	1.116	O	|	|	|	|	0.30
341.833	0.00	0.10	1.115	O	|	|	|	|	0.30
341.917	0.00	0.10	1.115	O	|	|	|	|	0.30
342.000	0.00	0.10	1.114	O	|	|	|	|	0.30
342.083	0.00	0.10	1.113	O	|	|	|	|	0.30
342.167	0.00	0.10	1.113	O	|	|	|	|	0.30
342.250	0.00	0.10	1.112	O	|	|	|	|	0.30
342.333	0.00	0.10	1.111	O	|	|	|	|	0.30
342.417	0.00	0.10	1.111	O	|	|	|	|	0.30
342.500	0.00	0.10	1.110	O	|	|	|	|	0.30
342.583	0.00	0.10	1.110	O	|	|	|	|	0.30
342.667	0.00	0.10	1.109	O	|	|	|	|	0.30
342.750	0.00	0.10	1.108	O	|	|	|	|	0.30
342.833	0.00	0.10	1.108	O	|	|	|	|	0.30
342.917	0.00	0.10	1.107	O	|	|	|	|	0.30
343.000	0.00	0.10	1.106	O	|	|	|	|	0.30
343.083	0.00	0.10	1.106	O	|	|	|	|	0.30
343.167	0.00	0.10	1.105	O	|	|	|	|	0.30
343.250	0.00	0.10	1.104	O	|	|	|	|	0.30
343.333	0.00	0.10	1.104	O	|	|	|	|	0.30
343.417	0.00	0.10	1.103	O	|	|	|	|	0.30
343.500	0.00	0.10	1.102	O	|	|	|	|	0.30
343.583	0.00	0.10	1.102	O	|	|	|	|	0.30
343.667	0.00	0.10	1.101	O	|	|	|	|	0.30
343.750	0.00	0.10	1.100	O	|	|	|	|	0.30
343.833	0.00	0.10	1.100	O	|	|	|	|	0.30
343.917	0.00	0.10	1.099	O	|	|	|	|	0.30
344.000	0.00	0.09	1.098	O	|	|	|	|	0.30
344.083	0.00	0.09	1.098	O	|	|	|	|	0.30
344.167	0.00	0.09	1.097	O	|	|	|	|	0.30
344.250	0.00	0.09	1.096	O	|	|	|	|	0.30
344.333	0.00	0.09	1.096	O	|	|	|	|	0.30
344.417	0.00	0.09	1.095	O	|	|	|	|	0.30
344.500	0.00	0.09	1.094	O	|	|	|	|	0.30
344.583	0.00	0.09	1.094	O	|	|	|	|	0.30
344.667	0.00	0.09	1.093	O	|	|	|	|	0.30
344.750	0.00	0.09	1.092	O	|	|	|	|	0.30
344.833	0.00	0.09	1.092	O	|	|	|	|	0.30
344.917	0.00	0.09	1.091	O	|	|	|	|	0.29
345.000	0.00	0.09	1.091	O	|	|	|	|	0.29
345.083	0.00	0.09	1.090	O	|	|	|	|	0.29
345.167	0.00	0.09	1.089	O	|	|	|	|	0.29
345.250	0.00	0.09	1.089	O	|	|	|	|	0.29
345.333	0.00	0.09	1.088	O	|	|	|	|	0.29
345.417	0.00	0.09	1.087	O	|	|	|	|	0.29

345.500	0.00	0.09	1.087	O	|	|	|	|	0.29
345.583	0.00	0.09	1.086	O	|	|	|	|	0.29
345.667	0.00	0.09	1.085	O	|	|	|	|	0.29
345.750	0.00	0.09	1.085	O	|	|	|	|	0.29
345.833	0.00	0.09	1.084	O	|	|	|	|	0.29
345.917	0.00	0.09	1.083	O	|	|	|	|	0.29
346.000	0.00	0.09	1.083	O	|	|	|	|	0.29
346.083	0.00	0.09	1.082	O	|	|	|	|	0.29
346.167	0.00	0.09	1.081	O	|	|	|	|	0.29
346.250	0.00	0.09	1.081	O	|	|	|	|	0.29
346.333	0.00	0.09	1.080	O	|	|	|	|	0.29
346.417	0.00	0.09	1.080	O	|	|	|	|	0.29
346.500	0.00	0.09	1.079	O	|	|	|	|	0.29
346.583	0.00	0.09	1.078	O	|	|	|	|	0.29
346.667	0.00	0.09	1.078	O	|	|	|	|	0.29
346.750	0.00	0.09	1.077	O	|	|	|	|	0.29
346.833	0.00	0.09	1.076	O	|	|	|	|	0.29
346.917	0.00	0.09	1.076	O	|	|	|	|	0.29
347.000	0.00	0.09	1.075	O	|	|	|	|	0.29
347.083	0.00	0.09	1.074	O	|	|	|	|	0.29
347.167	0.00	0.09	1.074	O	|	|	|	|	0.29
347.250	0.00	0.09	1.073	O	|	|	|	|	0.29
347.333	0.00	0.09	1.072	O	|	|	|	|	0.29
347.417	0.00	0.09	1.072	O	|	|	|	|	0.29
347.500	0.00	0.09	1.071	O	|	|	|	|	0.29
347.583	0.00	0.09	1.071	O	|	|	|	|	0.29
347.667	0.00	0.09	1.070	O	|	|	|	|	0.29
347.750	0.00	0.09	1.069	O	|	|	|	|	0.29
347.833	0.00	0.09	1.069	O	|	|	|	|	0.29
347.917	0.00	0.09	1.068	O	|	|	|	|	0.29
348.000	0.00	0.09	1.067	O	|	|	|	|	0.29
348.083	0.00	0.09	1.067	O	|	|	|	|	0.29
348.167	0.00	0.09	1.066	O	|	|	|	|	0.29
348.250	0.00	0.09	1.065	O	|	|	|	|	0.29
348.333	0.00	0.09	1.065	O	|	|	|	|	0.29
348.417	0.00	0.09	1.064	O	|	|	|	|	0.29
348.500	0.00	0.09	1.064	O	|	|	|	|	0.29
348.583	0.00	0.09	1.063	O	|	|	|	|	0.29
348.667	0.00	0.09	1.062	O	|	|	|	|	0.29
348.750	0.00	0.09	1.062	O	|	|	|	|	0.29
348.833	0.00	0.09	1.061	O	|	|	|	|	0.29
348.917	0.00	0.09	1.060	O	|	|	|	|	0.29
349.000	0.00	0.09	1.060	O	|	|	|	|	0.29
349.083	0.00	0.09	1.059	O	|	|	|	|	0.29
349.167	0.00	0.09	1.059	O	|	|	|	|	0.29
349.250	0.00	0.09	1.058	O	|	|	|	|	0.29
349.333	0.00	0.09	1.057	O	|	|	|	|	0.29
349.417	0.00	0.09	1.057	O	|	|	|	|	0.29
349.500	0.00	0.09	1.056	O	|	|	|	|	0.29
349.583	0.00	0.09	1.055	O	|	|	|	|	0.29
349.667	0.00	0.09	1.055	O	|	|	|	|	0.29
349.750	0.00	0.09	1.054	O	|	|	|	|	0.28
349.833	0.00	0.09	1.053	O	|	|	|	|	0.28
349.917	0.00	0.09	1.053	O	|	|	|	|	0.28
350.000	0.00	0.09	1.052	O	|	|	|	|	0.28
350.083	0.00	0.09	1.052	O	|	|	|	|	0.28
350.167	0.00	0.09	1.051	O	|	|	|	|	0.28
350.250	0.00	0.09	1.050	O	|	|	|	|	0.28
350.333	0.00	0.09	1.050	O	|	|	|	|	0.28
350.417	0.00	0.09	1.049	O	|	|	|	|	0.28
350.500	0.00	0.09	1.048	O	|	|	|	|	0.28
350.583	0.00	0.09	1.048	O	|	|	|	|	0.28
350.667	0.00	0.09	1.047	O	|	|	|	|	0.28

350.750	0.00	0.09	1.047	O	|	|	|	|	0.28
350.833	0.00	0.09	1.046	O	|	|	|	|	0.28
350.917	0.00	0.09	1.045	O	|	|	|	|	0.28
351.000	0.00	0.09	1.045	O	|	|	|	|	0.28
351.083	0.00	0.09	1.044	O	|	|	|	|	0.28
351.167	0.00	0.09	1.043	O	|	|	|	|	0.28
351.250	0.00	0.09	1.043	O	|	|	|	|	0.28
351.333	0.00	0.09	1.042	O	|	|	|	|	0.28
351.417	0.00	0.09	1.042	O	|	|	|	|	0.28
351.500	0.00	0.09	1.041	O	|	|	|	|	0.28
351.583	0.00	0.09	1.040	O	|	|	|	|	0.28
351.667	0.00	0.09	1.040	O	|	|	|	|	0.28
351.750	0.00	0.09	1.039	O	|	|	|	|	0.28
351.833	0.00	0.09	1.039	O	|	|	|	|	0.28
351.917	0.00	0.09	1.038	O	|	|	|	|	0.28
352.000	0.00	0.09	1.037	O	|	|	|	|	0.28
352.083	0.00	0.09	1.037	O	|	|	|	|	0.28
352.167	0.00	0.09	1.036	O	|	|	|	|	0.28
352.250	0.00	0.09	1.035	O	|	|	|	|	0.28
352.333	0.00	0.09	1.035	O	|	|	|	|	0.28
352.417	0.00	0.09	1.034	O	|	|	|	|	0.28
352.500	0.00	0.09	1.034	O	|	|	|	|	0.28
352.583	0.00	0.09	1.033	O	|	|	|	|	0.28
352.667	0.00	0.09	1.032	O	|	|	|	|	0.28
352.750	0.00	0.09	1.032	O	|	|	|	|	0.28
352.833	0.00	0.09	1.031	O	|	|	|	|	0.28
352.917	0.00	0.09	1.031	O	|	|	|	|	0.28
353.000	0.00	0.09	1.030	O	|	|	|	|	0.28
353.083	0.00	0.09	1.029	O	|	|	|	|	0.28
353.167	0.00	0.09	1.029	O	|	|	|	|	0.28
353.250	0.00	0.09	1.028	O	|	|	|	|	0.28
353.333	0.00	0.09	1.027	O	|	|	|	|	0.28
353.417	0.00	0.09	1.027	O	|	|	|	|	0.28
353.500	0.00	0.09	1.026	O	|	|	|	|	0.28
353.583	0.00	0.09	1.026	O	|	|	|	|	0.28
353.667	0.00	0.09	1.025	O	|	|	|	|	0.28
353.750	0.00	0.09	1.024	O	|	|	|	|	0.28
353.833	0.00	0.09	1.024	O	|	|	|	|	0.28
353.917	0.00	0.09	1.023	O	|	|	|	|	0.28
354.000	0.00	0.09	1.023	O	|	|	|	|	0.28
354.083	0.00	0.09	1.022	O	|	|	|	|	0.28
354.167	0.00	0.09	1.021	O	|	|	|	|	0.28
354.250	0.00	0.09	1.021	O	|	|	|	|	0.28
354.333	0.00	0.09	1.020	O	|	|	|	|	0.28
354.417	0.00	0.09	1.020	O	|	|	|	|	0.28
354.500	0.00	0.09	1.019	O	|	|	|	|	0.28
354.583	0.00	0.09	1.018	O	|	|	|	|	0.28
354.667	0.00	0.09	1.018	O	|	|	|	|	0.28
354.750	0.00	0.09	1.017	O	|	|	|	|	0.27
354.833	0.00	0.09	1.016	O	|	|	|	|	0.27
354.917	0.00	0.09	1.016	O	|	|	|	|	0.27
355.000	0.00	0.09	1.015	O	|	|	|	|	0.27
355.083	0.00	0.09	1.015	O	|	|	|	|	0.27
355.167	0.00	0.09	1.014	O	|	|	|	|	0.27
355.250	0.00	0.09	1.013	O	|	|	|	|	0.27
355.333	0.00	0.09	1.013	O	|	|	|	|	0.27
355.417	0.00	0.09	1.012	O	|	|	|	|	0.27
355.500	0.00	0.09	1.012	O	|	|	|	|	0.27
355.583	0.00	0.09	1.011	O	|	|	|	|	0.27
355.667	0.00	0.09	1.010	O	|	|	|	|	0.27
355.750	0.00	0.09	1.010	O	|	|	|	|	0.27
355.833	0.00	0.09	1.009	O	|	|	|	|	0.27
355.917	0.00	0.09	1.009	O	|	|	|	|	0.27

356.000	0.00	0.09	1.008	O	|	|	|	|	0.27
356.083	0.00	0.09	1.007	O	|	|	|	|	0.27
356.167	0.00	0.09	1.007	O	|	|	|	|	0.27
356.250	0.00	0.09	1.006	O	|	|	|	|	0.27
356.333	0.00	0.09	1.006	O	|	|	|	|	0.27
356.417	0.00	0.09	1.005	O	|	|	|	|	0.27
356.500	0.00	0.09	1.004	O	|	|	|	|	0.27
356.583	0.00	0.09	1.004	O	|	|	|	|	0.27
356.667	0.00	0.09	1.003	O	|	|	|	|	0.27
356.750	0.00	0.09	1.003	O	|	|	|	|	0.27
356.833	0.00	0.09	1.002	O	|	|	|	|	0.27
356.917	0.00	0.09	1.001	O	|	|	|	|	0.27
357.000	0.00	0.09	1.001	O	|	|	|	|	0.27
357.083	0.00	0.09	1.000	O	|	|	|	|	0.27
357.167	0.00	0.09	1.000	O	|	|	|	|	0.27
357.250	0.00	0.09	0.999	O	|	|	|	|	0.27
357.333	0.00	0.09	0.998	O	|	|	|	|	0.27
357.417	0.00	0.09	0.998	O	|	|	|	|	0.27
357.500	0.00	0.09	0.997	O	|	|	|	|	0.27
357.583	0.00	0.09	0.997	O	|	|	|	|	0.27
357.667	0.00	0.09	0.996	O	|	|	|	|	0.27
357.750	0.00	0.09	0.996	O	|	|	|	|	0.27
357.833	0.00	0.09	0.995	O	|	|	|	|	0.27
357.917	0.00	0.09	0.994	O	|	|	|	|	0.27
358.000	0.00	0.09	0.994	O	|	|	|	|	0.27
358.083	0.00	0.09	0.993	O	|	|	|	|	0.27
358.167	0.00	0.09	0.993	O	|	|	|	|	0.27
358.250	0.00	0.09	0.992	O	|	|	|	|	0.27
358.333	0.00	0.09	0.991	O	|	|	|	|	0.27
358.417	0.00	0.09	0.991	O	|	|	|	|	0.27
358.500	0.00	0.09	0.990	O	|	|	|	|	0.27
358.583	0.00	0.09	0.990	O	|	|	|	|	0.27
358.667	0.00	0.09	0.989	O	|	|	|	|	0.27
358.750	0.00	0.09	0.988	O	|	|	|	|	0.27
358.833	0.00	0.09	0.988	O	|	|	|	|	0.27
358.917	0.00	0.09	0.987	O	|	|	|	|	0.27
359.000	0.00	0.09	0.987	O	|	|	|	|	0.27
359.083	0.00	0.09	0.986	O	|	|	|	|	0.27
359.167	0.00	0.09	0.985	O	|	|	|	|	0.27
359.250	0.00	0.09	0.985	O	|	|	|	|	0.27
359.333	0.00	0.09	0.984	O	|	|	|	|	0.27
359.417	0.00	0.09	0.984	O	|	|	|	|	0.27
359.500	0.00	0.09	0.983	O	|	|	|	|	0.27
359.583	0.00	0.08	0.983	O	|	|	|	|	0.27
359.667	0.00	0.08	0.982	O	|	|	|	|	0.27
359.750	0.00	0.08	0.981	O	|	|	|	|	0.27
359.833	0.00	0.08	0.981	O	|	|	|	|	0.27
359.917	0.00	0.08	0.980	O	|	|	|	|	0.26
360.000	0.00	0.08	0.980	O	|	|	|	|	0.26
360.083	0.00	0.08	0.979	O	|	|	|	|	0.26
360.167	0.00	0.08	0.978	O	|	|	|	|	0.26
360.250	0.00	0.08	0.978	O	|	|	|	|	0.26
360.333	0.00	0.08	0.977	O	|	|	|	|	0.26
360.417	0.00	0.08	0.977	O	|	|	|	|	0.26
360.500	0.00	0.08	0.976	O	|	|	|	|	0.26
360.583	0.00	0.08	0.976	O	|	|	|	|	0.26
360.667	0.00	0.08	0.975	O	|	|	|	|	0.26
360.750	0.00	0.08	0.974	O	|	|	|	|	0.26
360.833	0.00	0.08	0.974	O	|	|	|	|	0.26
360.917	0.00	0.08	0.973	O	|	|	|	|	0.26
361.000	0.00	0.08	0.973	O	|	|	|	|	0.26
361.083	0.00	0.08	0.972	O	|	|	|	|	0.26
361.167	0.00	0.08	0.971	O	|	|	|	|	0.26

361.250	0.00	0.08	0.971	O	|	|	|	|	0.26
361.333	0.00	0.08	0.970	O	|	|	|	|	0.26
361.417	0.00	0.08	0.970	O	|	|	|	|	0.26
361.500	0.00	0.08	0.969	O	|	|	|	|	0.26
361.583	0.00	0.08	0.969	O	|	|	|	|	0.26
361.667	0.00	0.08	0.968	O	|	|	|	|	0.26
361.750	0.00	0.08	0.967	O	|	|	|	|	0.26
361.833	0.00	0.08	0.967	O	|	|	|	|	0.26
361.917	0.00	0.08	0.966	O	|	|	|	|	0.26
362.000	0.00	0.08	0.966	O	|	|	|	|	0.26
362.083	0.00	0.08	0.965	O	|	|	|	|	0.26
362.167	0.00	0.08	0.965	O	|	|	|	|	0.26
362.250	0.00	0.08	0.964	O	|	|	|	|	0.26
362.333	0.00	0.08	0.963	O	|	|	|	|	0.26
362.417	0.00	0.08	0.963	O	|	|	|	|	0.26
362.500	0.00	0.08	0.962	O	|	|	|	|	0.26
362.583	0.00	0.08	0.962	O	|	|	|	|	0.26
362.667	0.00	0.08	0.961	O	|	|	|	|	0.26
362.750	0.00	0.08	0.961	O	|	|	|	|	0.26
362.833	0.00	0.08	0.960	O	|	|	|	|	0.26
362.917	0.00	0.08	0.959	O	|	|	|	|	0.26
363.000	0.00	0.08	0.959	O	|	|	|	|	0.26
363.083	0.00	0.08	0.958	O	|	|	|	|	0.26
363.167	0.00	0.08	0.958	O	|	|	|	|	0.26
363.250	0.00	0.08	0.957	O	|	|	|	|	0.26
363.333	0.00	0.08	0.957	O	|	|	|	|	0.26
363.417	0.00	0.08	0.956	O	|	|	|	|	0.26
363.500	0.00	0.08	0.955	O	|	|	|	|	0.26
363.583	0.00	0.08	0.955	O	|	|	|	|	0.26
363.667	0.00	0.08	0.954	O	|	|	|	|	0.26
363.750	0.00	0.08	0.954	O	|	|	|	|	0.26
363.833	0.00	0.08	0.953	O	|	|	|	|	0.26
363.917	0.00	0.08	0.953	O	|	|	|	|	0.26
364.000	0.00	0.08	0.952	O	|	|	|	|	0.26
364.083	0.00	0.08	0.951	O	|	|	|	|	0.26
364.167	0.00	0.08	0.951	O	|	|	|	|	0.26
364.250	0.00	0.08	0.950	O	|	|	|	|	0.26
364.333	0.00	0.08	0.950	O	|	|	|	|	0.26
364.417	0.00	0.08	0.949	O	|	|	|	|	0.26
364.500	0.00	0.08	0.949	O	|	|	|	|	0.26
364.583	0.00	0.08	0.948	O	|	|	|	|	0.26
364.667	0.00	0.08	0.947	O	|	|	|	|	0.26
364.750	0.00	0.08	0.947	O	|	|	|	|	0.26
364.833	0.00	0.08	0.946	O	|	|	|	|	0.26
364.917	0.00	0.08	0.946	O	|	|	|	|	0.26
365.000	0.00	0.08	0.945	O	|	|	|	|	0.26
365.083	0.00	0.08	0.945	O	|	|	|	|	0.26
365.167	0.00	0.08	0.944	O	|	|	|	|	0.26
365.250	0.00	0.08	0.944	O	|	|	|	|	0.26
365.333	0.00	0.08	0.943	O	|	|	|	|	0.25
365.417	0.00	0.08	0.942	O	|	|	|	|	0.25
365.500	0.00	0.08	0.942	O	|	|	|	|	0.25
365.583	0.00	0.08	0.941	O	|	|	|	|	0.25
365.667	0.00	0.08	0.941	O	|	|	|	|	0.25
365.750	0.00	0.08	0.940	O	|	|	|	|	0.25
365.833	0.00	0.08	0.940	O	|	|	|	|	0.25
365.917	0.00	0.08	0.939	O	|	|	|	|	0.25
366.000	0.00	0.08	0.939	O	|	|	|	|	0.25
366.083	0.00	0.08	0.938	O	|	|	|	|	0.25
366.167	0.00	0.08	0.937	O	|	|	|	|	0.25
366.250	0.00	0.08	0.937	O	|	|	|	|	0.25
366.333	0.00	0.08	0.936	O	|	|	|	|	0.25
366.417	0.00	0.08	0.936	O	|	|	|	|	0.25

366.500	0.00	0.08	0.935	O	|	|	|	|	0.25
366.583	0.00	0.08	0.935	O	|	|	|	|	0.25
366.667	0.00	0.08	0.934	O	|	|	|	|	0.25
366.750	0.00	0.08	0.933	O	|	|	|	|	0.25
366.833	0.00	0.08	0.933	O	|	|	|	|	0.25
366.917	0.00	0.08	0.932	O	|	|	|	|	0.25
367.000	0.00	0.08	0.932	O	|	|	|	|	0.25
367.083	0.00	0.08	0.931	O	|	|	|	|	0.25
367.167	0.00	0.08	0.931	O	|	|	|	|	0.25
367.250	0.00	0.08	0.930	O	|	|	|	|	0.25
367.333	0.00	0.08	0.930	O	|	|	|	|	0.25
367.417	0.00	0.08	0.929	O	|	|	|	|	0.25
367.500	0.00	0.08	0.929	O	|	|	|	|	0.25
367.583	0.00	0.08	0.928	O	|	|	|	|	0.25
367.667	0.00	0.08	0.927	O	|	|	|	|	0.25
367.750	0.00	0.08	0.927	O	|	|	|	|	0.25
367.833	0.00	0.08	0.926	O	|	|	|	|	0.25
367.917	0.00	0.08	0.926	O	|	|	|	|	0.25
368.000	0.00	0.08	0.925	O	|	|	|	|	0.25
368.083	0.00	0.08	0.925	O	|	|	|	|	0.25
368.167	0.00	0.08	0.924	O	|	|	|	|	0.25
368.250	0.00	0.08	0.924	O	|	|	|	|	0.25
368.333	0.00	0.08	0.923	O	|	|	|	|	0.25
368.417	0.00	0.08	0.922	O	|	|	|	|	0.25
368.500	0.00	0.08	0.922	O	|	|	|	|	0.25
368.583	0.00	0.08	0.921	O	|	|	|	|	0.25
368.667	0.00	0.08	0.921	O	|	|	|	|	0.25
368.750	0.00	0.08	0.920	O	|	|	|	|	0.25
368.833	0.00	0.08	0.920	O	|	|	|	|	0.25
368.917	0.00	0.08	0.919	O	|	|	|	|	0.25
369.000	0.00	0.08	0.919	O	|	|	|	|	0.25
369.083	0.00	0.08	0.918	O	|	|	|	|	0.25
369.167	0.00	0.08	0.918	O	|	|	|	|	0.25
369.250	0.00	0.08	0.917	O	|	|	|	|	0.25
369.333	0.00	0.08	0.916	O	|	|	|	|	0.25
369.417	0.00	0.08	0.916	O	|	|	|	|	0.25
369.500	0.00	0.08	0.915	O	|	|	|	|	0.25
369.583	0.00	0.08	0.915	O	|	|	|	|	0.25
369.667	0.00	0.08	0.914	O	|	|	|	|	0.25
369.750	0.00	0.08	0.914	O	|	|	|	|	0.25
369.833	0.00	0.08	0.913	O	|	|	|	|	0.25
369.917	0.00	0.08	0.913	O	|	|	|	|	0.25
370.000	0.00	0.08	0.912	O	|	|	|	|	0.25
370.083	0.00	0.08	0.912	O	|	|	|	|	0.25
370.167	0.00	0.08	0.911	O	|	|	|	|	0.25
370.250	0.00	0.08	0.910	O	|	|	|	|	0.25
370.333	0.00	0.08	0.910	O	|	|	|	|	0.25
370.417	0.00	0.08	0.909	O	|	|	|	|	0.25
370.500	0.00	0.08	0.909	O	|	|	|	|	0.25
370.583	0.00	0.08	0.908	O	|	|	|	|	0.25
370.667	0.00	0.08	0.908	O	|	|	|	|	0.25
370.750	0.00	0.08	0.907	O	|	|	|	|	0.25
370.833	0.00	0.08	0.907	O	|	|	|	|	0.25
370.917	0.00	0.08	0.906	O	|	|	|	|	0.24
371.000	0.00	0.08	0.906	O	|	|	|	|	0.24
371.083	0.00	0.08	0.905	O	|	|	|	|	0.24
371.167	0.00	0.08	0.904	O	|	|	|	|	0.24
371.250	0.00	0.08	0.904	O	|	|	|	|	0.24
371.333	0.00	0.08	0.903	O	|	|	|	|	0.24
371.417	0.00	0.08	0.903	O	|	|	|	|	0.24
371.500	0.00	0.08	0.902	O	|	|	|	|	0.24
371.583	0.00	0.08	0.902	O	|	|	|	|	0.24
371.667	0.00	0.08	0.901	O	|	|	|	|	0.24

371.750	0.00	0.08	0.901	O	|	|	|	|	0.24
371.833	0.00	0.08	0.900	O	|	|	|	|	0.24
371.917	0.00	0.08	0.900	O	|	|	|	|	0.24
372.000	0.00	0.08	0.899	O	|	|	|	|	0.24
372.083	0.00	0.08	0.899	O	|	|	|	|	0.24
372.167	0.00	0.08	0.898	O	|	|	|	|	0.24
372.250	0.00	0.08	0.898	O	|	|	|	|	0.24
372.333	0.00	0.08	0.897	O	|	|	|	|	0.24
372.417	0.00	0.08	0.896	O	|	|	|	|	0.24
372.500	0.00	0.08	0.896	O	|	|	|	|	0.24
372.583	0.00	0.08	0.895	O	|	|	|	|	0.24
372.667	0.00	0.08	0.895	O	|	|	|	|	0.24
372.750	0.00	0.08	0.894	O	|	|	|	|	0.24
372.833	0.00	0.08	0.894	O	|	|	|	|	0.24
372.917	0.00	0.08	0.893	O	|	|	|	|	0.24
373.000	0.00	0.08	0.893	O	|	|	|	|	0.24
373.083	0.00	0.08	0.892	O	|	|	|	|	0.24
373.167	0.00	0.08	0.892	O	|	|	|	|	0.24
373.250	0.00	0.08	0.891	O	|	|	|	|	0.24
373.333	0.00	0.08	0.891	O	|	|	|	|	0.24
373.417	0.00	0.08	0.890	O	|	|	|	|	0.24
373.500	0.00	0.08	0.890	O	|	|	|	|	0.24
373.583	0.00	0.08	0.889	O	|	|	|	|	0.24
373.667	0.00	0.08	0.888	O	|	|	|	|	0.24
373.750	0.00	0.08	0.888	O	|	|	|	|	0.24
373.833	0.00	0.08	0.887	O	|	|	|	|	0.24
373.917	0.00	0.08	0.887	O	|	|	|	|	0.24
374.000	0.00	0.08	0.886	O	|	|	|	|	0.24
374.083	0.00	0.08	0.886	O	|	|	|	|	0.24
374.167	0.00	0.08	0.885	O	|	|	|	|	0.24
374.250	0.00	0.08	0.885	O	|	|	|	|	0.24
374.333	0.00	0.08	0.884	O	|	|	|	|	0.24
374.417	0.00	0.08	0.884	O	|	|	|	|	0.24
374.500	0.00	0.08	0.883	O	|	|	|	|	0.24
374.583	0.00	0.08	0.883	O	|	|	|	|	0.24
374.667	0.00	0.08	0.882	O	|	|	|	|	0.24
374.750	0.00	0.08	0.882	O	|	|	|	|	0.24
374.833	0.00	0.08	0.881	O	|	|	|	|	0.24
374.917	0.00	0.08	0.881	O	|	|	|	|	0.24
375.000	0.00	0.08	0.880	O	|	|	|	|	0.24
375.083	0.00	0.08	0.880	O	|	|	|	|	0.24
375.167	0.00	0.08	0.879	O	|	|	|	|	0.24
375.250	0.00	0.08	0.878	O	|	|	|	|	0.24
375.333	0.00	0.08	0.878	O	|	|	|	|	0.24
375.417	0.00	0.08	0.877	O	|	|	|	|	0.24
375.500	0.00	0.08	0.877	O	|	|	|	|	0.24
375.583	0.00	0.08	0.876	O	|	|	|	|	0.24
375.667	0.00	0.08	0.876	O	|	|	|	|	0.24
375.750	0.00	0.08	0.875	O	|	|	|	|	0.24
375.833	0.00	0.08	0.875	O	|	|	|	|	0.24
375.917	0.00	0.08	0.874	O	|	|	|	|	0.24
376.000	0.00	0.08	0.874	O	|	|	|	|	0.24
376.083	0.00	0.08	0.873	O	|	|	|	|	0.24
376.167	0.00	0.08	0.873	O	|	|	|	|	0.24
376.250	0.00	0.08	0.872	O	|	|	|	|	0.24
376.333	0.00	0.08	0.872	O	|	|	|	|	0.24
376.417	0.00	0.08	0.871	O	|	|	|	|	0.24
376.500	0.00	0.08	0.871	O	|	|	|	|	0.24
376.583	0.00	0.08	0.870	O	|	|	|	|	0.24
376.667	0.00	0.08	0.870	O	|	|	|	|	0.24
376.750	0.00	0.08	0.869	O	|	|	|	|	0.23
376.833	0.00	0.08	0.869	O	|	|	|	|	0.23
376.917	0.00	0.08	0.868	O	|	|	|	|	0.23

377.000	0.00	0.08	0.868	O	|	|	|	|	0.23
377.083	0.00	0.07	0.867	O	|	|	|	|	0.23
377.167	0.00	0.07	0.867	O	|	|	|	|	0.23
377.250	0.00	0.07	0.866	O	|	|	|	|	0.23
377.333	0.00	0.07	0.865	O	|	|	|	|	0.23
377.417	0.00	0.07	0.865	O	|	|	|	|	0.23
377.500	0.00	0.07	0.864	O	|	|	|	|	0.23
377.583	0.00	0.07	0.864	O	|	|	|	|	0.23
377.667	0.00	0.07	0.863	O	|	|	|	|	0.23
377.750	0.00	0.07	0.863	O	|	|	|	|	0.23
377.833	0.00	0.07	0.862	O	|	|	|	|	0.23
377.917	0.00	0.07	0.862	O	|	|	|	|	0.23
378.000	0.00	0.07	0.861	O	|	|	|	|	0.23
378.083	0.00	0.07	0.861	O	|	|	|	|	0.23
378.167	0.00	0.07	0.860	O	|	|	|	|	0.23
378.250	0.00	0.07	0.860	O	|	|	|	|	0.23
378.333	0.00	0.07	0.859	O	|	|	|	|	0.23
378.417	0.00	0.07	0.859	O	|	|	|	|	0.23
378.500	0.00	0.07	0.858	O	|	|	|	|	0.23
378.583	0.00	0.07	0.858	O	|	|	|	|	0.23
378.667	0.00	0.07	0.857	O	|	|	|	|	0.23
378.750	0.00	0.07	0.857	O	|	|	|	|	0.23
378.833	0.00	0.07	0.856	O	|	|	|	|	0.23
378.917	0.00	0.07	0.856	O	|	|	|	|	0.23
379.000	0.00	0.07	0.855	O	|	|	|	|	0.23
379.083	0.00	0.07	0.855	O	|	|	|	|	0.23
379.167	0.00	0.07	0.854	O	|	|	|	|	0.23
379.250	0.00	0.07	0.854	O	|	|	|	|	0.23
379.333	0.00	0.07	0.853	O	|	|	|	|	0.23
379.417	0.00	0.07	0.853	O	|	|	|	|	0.23
379.500	0.00	0.07	0.852	O	|	|	|	|	0.23
379.583	0.00	0.07	0.852	O	|	|	|	|	0.23
379.667	0.00	0.07	0.851	O	|	|	|	|	0.23
379.750	0.00	0.07	0.851	O	|	|	|	|	0.23
379.833	0.00	0.07	0.850	O	|	|	|	|	0.23
379.917	0.00	0.07	0.850	O	|	|	|	|	0.23
380.000	0.00	0.07	0.849	O	|	|	|	|	0.23
380.083	0.00	0.07	0.849	O	|	|	|	|	0.23
380.167	0.00	0.07	0.848	O	|	|	|	|	0.23
380.250	0.00	0.07	0.848	O	|	|	|	|	0.23
380.333	0.00	0.07	0.847	O	|	|	|	|	0.23
380.417	0.00	0.07	0.847	O	|	|	|	|	0.23
380.500	0.00	0.07	0.846	O	|	|	|	|	0.23
380.583	0.00	0.07	0.846	O	|	|	|	|	0.23
380.667	0.00	0.07	0.845	O	|	|	|	|	0.23
380.750	0.00	0.07	0.845	O	|	|	|	|	0.23
380.833	0.00	0.07	0.844	O	|	|	|	|	0.23
380.917	0.00	0.07	0.844	O	|	|	|	|	0.23
381.000	0.00	0.07	0.843	O	|	|	|	|	0.23
381.083	0.00	0.07	0.843	O	|	|	|	|	0.23
381.167	0.00	0.07	0.842	O	|	|	|	|	0.23
381.250	0.00	0.07	0.842	O	|	|	|	|	0.23
381.333	0.00	0.07	0.841	O	|	|	|	|	0.23
381.417	0.00	0.07	0.841	O	|	|	|	|	0.23
381.500	0.00	0.07	0.840	O	|	|	|	|	0.23
381.583	0.00	0.07	0.840	O	|	|	|	|	0.23
381.667	0.00	0.07	0.839	O	|	|	|	|	0.23
381.750	0.00	0.07	0.839	O	|	|	|	|	0.23
381.833	0.00	0.07	0.838	O	|	|	|	|	0.23
381.917	0.00	0.07	0.838	O	|	|	|	|	0.23
382.000	0.00	0.07	0.837	O	|	|	|	|	0.23
382.083	0.00	0.07	0.837	O	|	|	|	|	0.23
382.167	0.00	0.07	0.836	O	|	|	|	|	0.23

382.250	0.00	0.07	0.836	O	|	|	|	|	0.23
382.333	0.00	0.07	0.835	O	|	|	|	|	0.23
382.417	0.00	0.07	0.835	O	|	|	|	|	0.23
382.500	0.00	0.07	0.834	O	|	|	|	|	0.23
382.583	0.00	0.07	0.834	O	|	|	|	|	0.23
382.667	0.00	0.07	0.833	O	|	|	|	|	0.23
382.750	0.00	0.07	0.833	O	|	|	|	|	0.23
382.833	0.00	0.07	0.832	O	|	|	|	|	0.22
382.917	0.00	0.07	0.832	O	|	|	|	|	0.22
383.000	0.00	0.07	0.831	O	|	|	|	|	0.22
383.083	0.00	0.07	0.831	O	|	|	|	|	0.22
383.167	0.00	0.07	0.830	O	|	|	|	|	0.22
383.250	0.00	0.07	0.830	O	|	|	|	|	0.22
383.333	0.00	0.07	0.829	O	|	|	|	|	0.22
383.417	0.00	0.07	0.829	O	|	|	|	|	0.22
383.500	0.00	0.07	0.828	O	|	|	|	|	0.22
383.583	0.00	0.07	0.828	O	|	|	|	|	0.22
383.667	0.00	0.07	0.827	O	|	|	|	|	0.22
383.750	0.00	0.07	0.827	O	|	|	|	|	0.22
383.833	0.00	0.07	0.826	O	|	|	|	|	0.22
383.917	0.00	0.07	0.826	O	|	|	|	|	0.22
384.000	0.00	0.07	0.825	O	|	|	|	|	0.22
384.083	0.00	0.07	0.825	O	|	|	|	|	0.22
384.167	0.00	0.07	0.824	O	|	|	|	|	0.22
384.250	0.00	0.07	0.824	O	|	|	|	|	0.22
384.333	0.00	0.07	0.823	O	|	|	|	|	0.22
384.417	0.00	0.07	0.823	O	|	|	|	|	0.22
384.500	0.00	0.07	0.822	O	|	|	|	|	0.22
384.583	0.00	0.07	0.822	O	|	|	|	|	0.22
384.667	0.00	0.07	0.821	O	|	|	|	|	0.22
384.750	0.00	0.07	0.821	O	|	|	|	|	0.22
384.833	0.00	0.07	0.820	O	|	|	|	|	0.22
384.917	0.00	0.07	0.820	O	|	|	|	|	0.22
385.000	0.00	0.07	0.819	O	|	|	|	|	0.22
385.083	0.00	0.07	0.819	O	|	|	|	|	0.22
385.167	0.00	0.07	0.818	O	|	|	|	|	0.22
385.250	0.00	0.07	0.818	O	|	|	|	|	0.22
385.333	0.00	0.07	0.817	O	|	|	|	|	0.22
385.417	0.00	0.07	0.817	O	|	|	|	|	0.22
385.500	0.00	0.07	0.816	O	|	|	|	|	0.22
385.583	0.00	0.07	0.816	O	|	|	|	|	0.22
385.667	0.00	0.07	0.815	O	|	|	|	|	0.22
385.750	0.00	0.07	0.815	O	|	|	|	|	0.22
385.833	0.00	0.07	0.814	O	|	|	|	|	0.22
385.917	0.00	0.07	0.814	O	|	|	|	|	0.22
386.000	0.00	0.07	0.813	O	|	|	|	|	0.22
386.083	0.00	0.07	0.813	O	|	|	|	|	0.22
386.167	0.00	0.07	0.813	O	|	|	|	|	0.22
386.250	0.00	0.07	0.812	O	|	|	|	|	0.22
386.333	0.00	0.07	0.812	O	|	|	|	|	0.22
386.417	0.00	0.07	0.811	O	|	|	|	|	0.22
386.500	0.00	0.07	0.811	O	|	|	|	|	0.22
386.583	0.00	0.07	0.810	O	|	|	|	|	0.22
386.667	0.00	0.07	0.810	O	|	|	|	|	0.22
386.750	0.00	0.07	0.809	O	|	|	|	|	0.22
386.833	0.00	0.07	0.809	O	|	|	|	|	0.22
386.917	0.00	0.07	0.808	O	|	|	|	|	0.22
387.000	0.00	0.07	0.808	O	|	|	|	|	0.22
387.083	0.00	0.07	0.807	O	|	|	|	|	0.22
387.167	0.00	0.07	0.807	O	|	|	|	|	0.22
387.250	0.00	0.07	0.806	O	|	|	|	|	0.22
387.333	0.00	0.07	0.806	O	|	|	|	|	0.22
387.417	0.00	0.07	0.805	O	|	|	|	|	0.22

387.500	0.00	0.07	0.805	O	|	|	|	|	0.22
387.583	0.00	0.07	0.804	O	|	|	|	|	0.22
387.667	0.00	0.07	0.804	O	|	|	|	|	0.22
387.750	0.00	0.07	0.803	O	|	|	|	|	0.22
387.833	0.00	0.07	0.803	O	|	|	|	|	0.22
387.917	0.00	0.07	0.802	O	|	|	|	|	0.22
388.000	0.00	0.07	0.802	O	|	|	|	|	0.22
388.083	0.00	0.07	0.801	O	|	|	|	|	0.22
388.167	0.00	0.07	0.801	O	|	|	|	|	0.22
388.250	0.00	0.07	0.801	O	|	|	|	|	0.22
388.333	0.00	0.07	0.800	O	|	|	|	|	0.22
388.417	0.00	0.07	0.800	O	|	|	|	|	0.22
388.500	0.00	0.07	0.799	O	|	|	|	|	0.22
388.583	0.00	0.07	0.799	O	|	|	|	|	0.22
388.667	0.00	0.07	0.798	O	|	|	|	|	0.22
388.750	0.00	0.07	0.798	O	|	|	|	|	0.22
388.833	0.00	0.07	0.797	O	|	|	|	|	0.22
388.917	0.00	0.07	0.797	O	|	|	|	|	0.22
389.000	0.00	0.07	0.796	O	|	|	|	|	0.22
389.083	0.00	0.07	0.796	O	|	|	|	|	0.22
389.167	0.00	0.07	0.795	O	|	|	|	|	0.21
389.250	0.00	0.07	0.795	O	|	|	|	|	0.21
389.333	0.00	0.07	0.794	O	|	|	|	|	0.21
389.417	0.00	0.07	0.794	O	|	|	|	|	0.21
389.500	0.00	0.07	0.793	O	|	|	|	|	0.21
389.583	0.00	0.07	0.793	O	|	|	|	|	0.21
389.667	0.00	0.07	0.792	O	|	|	|	|	0.21
389.750	0.00	0.07	0.792	O	|	|	|	|	0.21
389.833	0.00	0.07	0.792	O	|	|	|	|	0.21
389.917	0.00	0.07	0.791	O	|	|	|	|	0.21
390.000	0.00	0.07	0.791	O	|	|	|	|	0.21
390.083	0.00	0.07	0.790	O	|	|	|	|	0.21
390.167	0.00	0.07	0.790	O	|	|	|	|	0.21
390.250	0.00	0.07	0.789	O	|	|	|	|	0.21
390.333	0.00	0.07	0.789	O	|	|	|	|	0.21
390.417	0.00	0.07	0.788	O	|	|	|	|	0.21
390.500	0.00	0.07	0.788	O	|	|	|	|	0.21
390.583	0.00	0.07	0.787	O	|	|	|	|	0.21
390.667	0.00	0.07	0.787	O	|	|	|	|	0.21
390.750	0.00	0.07	0.786	O	|	|	|	|	0.21
390.833	0.00	0.07	0.786	O	|	|	|	|	0.21
390.917	0.00	0.07	0.785	O	|	|	|	|	0.21
391.000	0.00	0.07	0.785	O	|	|	|	|	0.21
391.083	0.00	0.07	0.784	O	|	|	|	|	0.21
391.167	0.00	0.07	0.784	O	|	|	|	|	0.21
391.250	0.00	0.07	0.784	O	|	|	|	|	0.21
391.333	0.00	0.07	0.783	O	|	|	|	|	0.21
391.417	0.00	0.07	0.783	O	|	|	|	|	0.21
391.500	0.00	0.07	0.782	O	|	|	|	|	0.21
391.583	0.00	0.07	0.782	O	|	|	|	|	0.21
391.667	0.00	0.07	0.781	O	|	|	|	|	0.21
391.750	0.00	0.07	0.781	O	|	|	|	|	0.21
391.833	0.00	0.07	0.780	O	|	|	|	|	0.21
391.917	0.00	0.07	0.780	O	|	|	|	|	0.21
392.000	0.00	0.07	0.779	O	|	|	|	|	0.21
392.083	0.00	0.07	0.779	O	|	|	|	|	0.21
392.167	0.00	0.07	0.778	O	|	|	|	|	0.21
392.250	0.00	0.07	0.778	O	|	|	|	|	0.21
392.333	0.00	0.07	0.777	O	|	|	|	|	0.21
392.417	0.00	0.07	0.777	O	|	|	|	|	0.21
392.500	0.00	0.07	0.777	O	|	|	|	|	0.21
392.583	0.00	0.07	0.776	O	|	|	|	|	0.21
392.667	0.00	0.07	0.776	O	|	|	|	|	0.21

392.750	0.00	0.07	0.775	O	|	|	|	|	0.21
392.833	0.00	0.07	0.775	O	|	|	|	|	0.21
392.917	0.00	0.07	0.774	O	|	|	|	|	0.21
393.000	0.00	0.07	0.774	O	|	|	|	|	0.21
393.083	0.00	0.07	0.773	O	|	|	|	|	0.21
393.167	0.00	0.07	0.773	O	|	|	|	|	0.21
393.250	0.00	0.07	0.772	O	|	|	|	|	0.21
393.333	0.00	0.07	0.772	O	|	|	|	|	0.21
393.417	0.00	0.07	0.771	O	|	|	|	|	0.21
393.500	0.00	0.07	0.771	O	|	|	|	|	0.21
393.583	0.00	0.07	0.771	O	|	|	|	|	0.21
393.667	0.00	0.07	0.770	O	|	|	|	|	0.21
393.750	0.00	0.07	0.770	O	|	|	|	|	0.21
393.833	0.00	0.07	0.769	O	|	|	|	|	0.21
393.917	0.00	0.07	0.769	O	|	|	|	|	0.21
394.000	0.00	0.07	0.768	O	|	|	|	|	0.21
394.083	0.00	0.07	0.768	O	|	|	|	|	0.21
394.167	0.00	0.07	0.767	O	|	|	|	|	0.21
394.250	0.00	0.07	0.767	O	|	|	|	|	0.21
394.333	0.00	0.07	0.766	O	|	|	|	|	0.21
394.417	0.00	0.07	0.766	O	|	|	|	|	0.21
394.500	0.00	0.07	0.766	O	|	|	|	|	0.21
394.583	0.00	0.07	0.765	O	|	|	|	|	0.21
394.667	0.00	0.07	0.765	O	|	|	|	|	0.21
394.750	0.00	0.07	0.764	O	|	|	|	|	0.21
394.833	0.00	0.07	0.764	O	|	|	|	|	0.21
394.917	0.00	0.07	0.763	O	|	|	|	|	0.21
395.000	0.00	0.07	0.763	O	|	|	|	|	0.21
395.083	0.00	0.07	0.762	O	|	|	|	|	0.21
395.167	0.00	0.07	0.762	O	|	|	|	|	0.21
395.250	0.00	0.07	0.761	O	|	|	|	|	0.21
395.333	0.00	0.07	0.761	O	|	|	|	|	0.21
395.417	0.00	0.07	0.761	O	|	|	|	|	0.21
395.500	0.00	0.07	0.760	O	|	|	|	|	0.21
395.583	0.00	0.07	0.760	O	|	|	|	|	0.21
395.667	0.00	0.07	0.759	O	|	|	|	|	0.21
395.750	0.00	0.07	0.759	O	|	|	|	|	0.21
395.833	0.00	0.07	0.758	O	|	|	|	|	0.20
395.917	0.00	0.07	0.758	O	|	|	|	|	0.20
396.000	0.00	0.07	0.757	O	|	|	|	|	0.20
396.083	0.00	0.07	0.757	O	|	|	|	|	0.20
396.167	0.00	0.07	0.756	O	|	|	|	|	0.20
396.250	0.00	0.07	0.756	O	|	|	|	|	0.20
396.333	0.00	0.07	0.756	O	|	|	|	|	0.20
396.417	0.00	0.07	0.755	O	|	|	|	|	0.20
396.500	0.00	0.07	0.755	O	|	|	|	|	0.20
396.583	0.00	0.07	0.754	O	|	|	|	|	0.20
396.667	0.00	0.07	0.754	O	|	|	|	|	0.20
396.750	0.00	0.07	0.753	O	|	|	|	|	0.20
396.833	0.00	0.07	0.753	O	|	|	|	|	0.20
396.917	0.00	0.07	0.752	O	|	|	|	|	0.20
397.000	0.00	0.07	0.752	O	|	|	|	|	0.20
397.083	0.00	0.06	0.752	O	|	|	|	|	0.20
397.167	0.00	0.06	0.751	O	|	|	|	|	0.20
397.250	0.00	0.06	0.751	O	|	|	|	|	0.20
397.333	0.00	0.06	0.750	O	|	|	|	|	0.20
397.417	0.00	0.06	0.750	O	|	|	|	|	0.20
397.500	0.00	0.06	0.749	O	|	|	|	|	0.20
397.583	0.00	0.06	0.749	O	|	|	|	|	0.20
397.667	0.00	0.06	0.748	O	|	|	|	|	0.20
397.750	0.00	0.06	0.748	O	|	|	|	|	0.20
397.833	0.00	0.06	0.748	O	|	|	|	|	0.20
397.917	0.00	0.06	0.747	O	|	|	|	|	0.20

398.000	0.00	0.06	0.747	O	|	|	|	|	0.20
398.083	0.00	0.06	0.746	O	|	|	|	|	0.20
398.167	0.00	0.06	0.746	O	|	|	|	|	0.20
398.250	0.00	0.06	0.745	O	|	|	|	|	0.20
398.333	0.00	0.06	0.745	O	|	|	|	|	0.20
398.417	0.00	0.06	0.744	O	|	|	|	|	0.20
398.500	0.00	0.06	0.744	O	|	|	|	|	0.20
398.583	0.00	0.06	0.744	O	|	|	|	|	0.20
398.667	0.00	0.06	0.743	O	|	|	|	|	0.20
398.750	0.00	0.06	0.743	O	|	|	|	|	0.20
398.833	0.00	0.06	0.742	O	|	|	|	|	0.20
398.917	0.00	0.06	0.742	O	|	|	|	|	0.20
399.000	0.00	0.06	0.741	O	|	|	|	|	0.20
399.083	0.00	0.06	0.741	O	|	|	|	|	0.20
399.167	0.00	0.06	0.740	O	|	|	|	|	0.20
399.250	0.00	0.06	0.740	O	|	|	|	|	0.20
399.333	0.00	0.06	0.740	O	|	|	|	|	0.20
399.417	0.00	0.06	0.739	O	|	|	|	|	0.20
399.500	0.00	0.06	0.739	O	|	|	|	|	0.20
399.583	0.00	0.06	0.738	O	|	|	|	|	0.20
399.667	0.00	0.06	0.738	O	|	|	|	|	0.20
399.750	0.00	0.06	0.737	O	|	|	|	|	0.20
399.833	0.00	0.06	0.737	O	|	|	|	|	0.20
399.917	0.00	0.06	0.736	O	|	|	|	|	0.20
400.000	0.00	0.06	0.736	O	|	|	|	|	0.20
400.083	0.00	0.06	0.736	O	|	|	|	|	0.20
400.167	0.00	0.06	0.735	O	|	|	|	|	0.20
400.250	0.00	0.06	0.735	O	|	|	|	|	0.20
400.333	0.00	0.06	0.734	O	|	|	|	|	0.20
400.417	0.00	0.06	0.734	O	|	|	|	|	0.20
400.500	0.00	0.06	0.733	O	|	|	|	|	0.20
400.583	0.00	0.06	0.733	O	|	|	|	|	0.20
400.667	0.00	0.06	0.733	O	|	|	|	|	0.20
400.750	0.00	0.06	0.732	O	|	|	|	|	0.20
400.833	0.00	0.06	0.732	O	|	|	|	|	0.20
400.917	0.00	0.06	0.731	O	|	|	|	|	0.20
401.000	0.00	0.06	0.731	O	|	|	|	|	0.20
401.083	0.00	0.06	0.730	O	|	|	|	|	0.20
401.167	0.00	0.06	0.730	O	|	|	|	|	0.20
401.250	0.00	0.06	0.729	O	|	|	|	|	0.20
401.333	0.00	0.06	0.729	O	|	|	|	|	0.20
401.417	0.00	0.06	0.729	O	|	|	|	|	0.20
401.500	0.00	0.06	0.728	O	|	|	|	|	0.20
401.583	0.00	0.06	0.728	O	|	|	|	|	0.20
401.667	0.00	0.06	0.727	O	|	|	|	|	0.20
401.750	0.00	0.06	0.727	O	|	|	|	|	0.20
401.833	0.00	0.06	0.726	O	|	|	|	|	0.20
401.917	0.00	0.06	0.726	O	|	|	|	|	0.20
402.000	0.00	0.06	0.726	O	|	|	|	|	0.20
402.083	0.00	0.06	0.725	O	|	|	|	|	0.20
402.167	0.00	0.06	0.725	O	|	|	|	|	0.20
402.250	0.00	0.06	0.724	O	|	|	|	|	0.20
402.333	0.00	0.06	0.724	O	|	|	|	|	0.20
402.417	0.00	0.06	0.723	O	|	|	|	|	0.20
402.500	0.00	0.06	0.723	O	|	|	|	|	0.20
402.583	0.00	0.06	0.723	O	|	|	|	|	0.20
402.667	0.00	0.06	0.722	O	|	|	|	|	0.20
402.750	0.00	0.06	0.722	O	|	|	|	|	0.20
402.833	0.00	0.06	0.721	O	|	|	|	|	0.19
402.917	0.00	0.06	0.721	O	|	|	|	|	0.19
403.000	0.00	0.06	0.720	O	|	|	|	|	0.19
403.083	0.00	0.06	0.720	O	|	|	|	|	0.19
403.167	0.00	0.06	0.720	O	|	|	|	|	0.19

403.250	0.00	0.06	0.719	O	|	|	|	|	0.19
403.333	0.00	0.06	0.719	O	|	|	|	|	0.19
403.417	0.00	0.06	0.718	O	|	|	|	|	0.19
403.500	0.00	0.06	0.718	O	|	|	|	|	0.19
403.583	0.00	0.06	0.717	O	|	|	|	|	0.19
403.667	0.00	0.06	0.717	O	|	|	|	|	0.19
403.750	0.00	0.06	0.717	O	|	|	|	|	0.19
403.833	0.00	0.06	0.716	O	|	|	|	|	0.19
403.917	0.00	0.06	0.716	O	|	|	|	|	0.19
404.000	0.00	0.06	0.715	O	|	|	|	|	0.19
404.083	0.00	0.06	0.715	O	|	|	|	|	0.19
404.167	0.00	0.06	0.714	O	|	|	|	|	0.19
404.250	0.00	0.06	0.714	O	|	|	|	|	0.19
404.333	0.00	0.06	0.714	O	|	|	|	|	0.19
404.417	0.00	0.06	0.713	O	|	|	|	|	0.19
404.500	0.00	0.06	0.713	O	|	|	|	|	0.19
404.583	0.00	0.06	0.712	O	|	|	|	|	0.19
404.667	0.00	0.06	0.712	O	|	|	|	|	0.19
404.750	0.00	0.06	0.711	O	|	|	|	|	0.19
404.833	0.00	0.06	0.711	O	|	|	|	|	0.19
404.917	0.00	0.06	0.711	O	|	|	|	|	0.19
405.000	0.00	0.06	0.710	O	|	|	|	|	0.19
405.083	0.00	0.06	0.710	O	|	|	|	|	0.19
405.167	0.00	0.06	0.709	O	|	|	|	|	0.19
405.250	0.00	0.06	0.709	O	|	|	|	|	0.19
405.333	0.00	0.06	0.709	O	|	|	|	|	0.19
405.417	0.00	0.06	0.708	O	|	|	|	|	0.19
405.500	0.00	0.06	0.708	O	|	|	|	|	0.19
405.583	0.00	0.06	0.707	O	|	|	|	|	0.19
405.667	0.00	0.06	0.707	O	|	|	|	|	0.19
405.750	0.00	0.06	0.706	O	|	|	|	|	0.19
405.833	0.00	0.06	0.706	O	|	|	|	|	0.19
405.917	0.00	0.06	0.706	O	|	|	|	|	0.19
406.000	0.00	0.06	0.705	O	|	|	|	|	0.19
406.083	0.00	0.06	0.705	O	|	|	|	|	0.19
406.167	0.00	0.06	0.704	O	|	|	|	|	0.19
406.250	0.00	0.06	0.704	O	|	|	|	|	0.19
406.333	0.00	0.06	0.703	O	|	|	|	|	0.19
406.417	0.00	0.06	0.703	O	|	|	|	|	0.19
406.500	0.00	0.06	0.703	O	|	|	|	|	0.19
406.583	0.00	0.06	0.702	O	|	|	|	|	0.19
406.667	0.00	0.06	0.702	O	|	|	|	|	0.19
406.750	0.00	0.06	0.701	O	|	|	|	|	0.19
406.833	0.00	0.06	0.701	O	|	|	|	|	0.19
406.917	0.00	0.06	0.701	O	|	|	|	|	0.19
407.000	0.00	0.06	0.700	O	|	|	|	|	0.19
407.083	0.00	0.06	0.700	O	|	|	|	|	0.19
407.167	0.00	0.06	0.699	O	|	|	|	|	0.19
407.250	0.00	0.06	0.699	O	|	|	|	|	0.19
407.333	0.00	0.06	0.698	O	|	|	|	|	0.19
407.417	0.00	0.06	0.698	O	|	|	|	|	0.19
407.500	0.00	0.06	0.698	O	|	|	|	|	0.19
407.583	0.00	0.06	0.697	O	|	|	|	|	0.19
407.667	0.00	0.06	0.697	O	|	|	|	|	0.19
407.750	0.00	0.06	0.696	O	|	|	|	|	0.19
407.833	0.00	0.06	0.696	O	|	|	|	|	0.19
407.917	0.00	0.06	0.696	O	|	|	|	|	0.19
408.000	0.00	0.06	0.695	O	|	|	|	|	0.19
408.083	0.00	0.06	0.695	O	|	|	|	|	0.19
408.167	0.00	0.06	0.694	O	|	|	|	|	0.19
408.250	0.00	0.06	0.694	O	|	|	|	|	0.19
408.333	0.00	0.06	0.693	O	|	|	|	|	0.19
408.417	0.00	0.06	0.693	O	|	|	|	|	0.19

408.500	0.00	0.06	0.693	O	|	|	|	|	0.19
408.583	0.00	0.06	0.692	O	|	|	|	|	0.19
408.667	0.00	0.06	0.692	O	|	|	|	|	0.19
408.750	0.00	0.06	0.691	O	|	|	|	|	0.19
408.833	0.00	0.06	0.691	O	|	|	|	|	0.19
408.917	0.00	0.06	0.691	O	|	|	|	|	0.19
409.000	0.00	0.06	0.690	O	|	|	|	|	0.19
409.083	0.00	0.06	0.690	O	|	|	|	|	0.19
409.167	0.00	0.06	0.689	O	|	|	|	|	0.19
409.250	0.00	0.06	0.689	O	|	|	|	|	0.19
409.333	0.00	0.06	0.689	O	|	|	|	|	0.19
409.417	0.00	0.06	0.688	O	|	|	|	|	0.19
409.500	0.00	0.06	0.688	O	|	|	|	|	0.19
409.583	0.00	0.06	0.687	O	|	|	|	|	0.19
409.667	0.00	0.06	0.687	O	|	|	|	|	0.19
409.750	0.00	0.06	0.686	O	|	|	|	|	0.19
409.833	0.00	0.06	0.686	O	|	|	|	|	0.19
409.917	0.00	0.06	0.686	O	|	|	|	|	0.19
410.000	0.00	0.06	0.685	O	|	|	|	|	0.19
410.083	0.00	0.06	0.685	O	|	|	|	|	0.19
410.167	0.00	0.06	0.684	O	|	|	|	|	0.18
410.250	0.00	0.06	0.684	O	|	|	|	|	0.18
410.333	0.00	0.06	0.684	O	|	|	|	|	0.18
410.417	0.00	0.06	0.683	O	|	|	|	|	0.18
410.500	0.00	0.06	0.683	O	|	|	|	|	0.18
410.583	0.00	0.06	0.682	O	|	|	|	|	0.18
410.667	0.00	0.06	0.682	O	|	|	|	|	0.18
410.750	0.00	0.06	0.682	O	|	|	|	|	0.18
410.833	0.00	0.06	0.681	O	|	|	|	|	0.18
410.917	0.00	0.06	0.681	O	|	|	|	|	0.18
411.000	0.00	0.06	0.680	O	|	|	|	|	0.18
411.083	0.00	0.06	0.680	O	|	|	|	|	0.18
411.167	0.00	0.06	0.680	O	|	|	|	|	0.18
411.250	0.00	0.06	0.679	O	|	|	|	|	0.18
411.333	0.00	0.06	0.679	O	|	|	|	|	0.18
411.417	0.00	0.06	0.678	O	|	|	|	|	0.18
411.500	0.00	0.06	0.678	O	|	|	|	|	0.18
411.583	0.00	0.06	0.678	O	|	|	|	|	0.18
411.667	0.00	0.06	0.677	O	|	|	|	|	0.18
411.750	0.00	0.06	0.677	O	|	|	|	|	0.18
411.833	0.00	0.06	0.676	O	|	|	|	|	0.18
411.917	0.00	0.06	0.676	O	|	|	|	|	0.18
412.000	0.00	0.06	0.676	O	|	|	|	|	0.18
412.083	0.00	0.06	0.675	O	|	|	|	|	0.18
412.167	0.00	0.06	0.675	O	|	|	|	|	0.18
412.250	0.00	0.06	0.674	O	|	|	|	|	0.18
412.333	0.00	0.06	0.674	O	|	|	|	|	0.18
412.417	0.00	0.06	0.674	O	|	|	|	|	0.18
412.500	0.00	0.06	0.673	O	|	|	|	|	0.18
412.583	0.00	0.06	0.673	O	|	|	|	|	0.18
412.667	0.00	0.06	0.672	O	|	|	|	|	0.18
412.750	0.00	0.06	0.672	O	|	|	|	|	0.18
412.833	0.00	0.06	0.672	O	|	|	|	|	0.18
412.917	0.00	0.06	0.671	O	|	|	|	|	0.18
413.000	0.00	0.06	0.671	O	|	|	|	|	0.18
413.083	0.00	0.06	0.670	O	|	|	|	|	0.18
413.167	0.00	0.06	0.670	O	|	|	|	|	0.18
413.250	0.00	0.06	0.670	O	|	|	|	|	0.18
413.333	0.00	0.06	0.669	O	|	|	|	|	0.18
413.417	0.00	0.06	0.669	O	|	|	|	|	0.18
413.500	0.00	0.06	0.668	O	|	|	|	|	0.18
413.583	0.00	0.06	0.668	O	|	|	|	|	0.18
413.667	0.00	0.06	0.668	O	|	|	|	|	0.18

413.750	0.00	0.06	0.667	O	|	|	|	|	0.18
413.833	0.00	0.06	0.667	O	|	|	|	|	0.18
413.917	0.00	0.06	0.666	O	|	|	|	|	0.18
414.000	0.00	0.06	0.666	O	|	|	|	|	0.18
414.083	0.00	0.06	0.666	O	|	|	|	|	0.18
414.167	0.00	0.06	0.665	O	|	|	|	|	0.18
414.250	0.00	0.06	0.665	O	|	|	|	|	0.18
414.333	0.00	0.06	0.664	O	|	|	|	|	0.18
414.417	0.00	0.06	0.664	O	|	|	|	|	0.18
414.500	0.00	0.06	0.664	O	|	|	|	|	0.18
414.583	0.00	0.06	0.663	O	|	|	|	|	0.18
414.667	0.00	0.06	0.663	O	|	|	|	|	0.18
414.750	0.00	0.06	0.662	O	|	|	|	|	0.18
414.833	0.00	0.06	0.662	O	|	|	|	|	0.18
414.917	0.00	0.06	0.662	O	|	|	|	|	0.18
415.000	0.00	0.06	0.661	O	|	|	|	|	0.18
415.083	0.00	0.06	0.661	O	|	|	|	|	0.18
415.167	0.00	0.06	0.660	O	|	|	|	|	0.18
415.250	0.00	0.06	0.660	O	|	|	|	|	0.18
415.333	0.00	0.06	0.660	O	|	|	|	|	0.18
415.417	0.00	0.06	0.659	O	|	|	|	|	0.18
415.500	0.00	0.06	0.659	O	|	|	|	|	0.18
415.583	0.00	0.06	0.658	O	|	|	|	|	0.18
415.667	0.00	0.06	0.658	O	|	|	|	|	0.18
415.750	0.00	0.06	0.658	O	|	|	|	|	0.18
415.833	0.00	0.06	0.657	O	|	|	|	|	0.18
415.917	0.00	0.06	0.657	O	|	|	|	|	0.18
416.000	0.00	0.06	0.656	O	|	|	|	|	0.18
416.083	0.00	0.06	0.656	O	|	|	|	|	0.18
416.167	0.00	0.06	0.656	O	|	|	|	|	0.18
416.250	0.00	0.06	0.655	O	|	|	|	|	0.18
416.333	0.00	0.06	0.655	O	|	|	|	|	0.18
416.417	0.00	0.06	0.655	O	|	|	|	|	0.18
416.500	0.00	0.06	0.654	O	|	|	|	|	0.18
416.583	0.00	0.06	0.654	O	|	|	|	|	0.18
416.667	0.00	0.06	0.653	O	|	|	|	|	0.18

Remaining water in basin = 0.65 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 5001
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 6.447 (CFS)
Total volume = 21.961 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

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APPENDIX J: BASIN ROUTING CALCULATIONS FOR DETENTION BASIN “B”

APPENDIX J.1: BASIN “B” 100 – YEAR BASIN ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/24/15

TRACT NO. 36294
BASIN B
100YR-24HR
FN: BASINB10024

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: BPR24100.rte
**********HYDROGRAPH DATA**********
Number of intervals = 292
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 16.350 (CFS)
Total volume = 7.537 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 292
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.520	0.230	0.519	0.521
1.000	0.990	0.320	0.989	0.991
1.500	1.480	0.600	1.478	1.482
2.000	2.000	0.900	1.997	2.003
2.500	2.530	1.150	2.526	2.534
3.000	3.090	1.550	3.085	3.095

3.500	3.670	8.600	3.640	3.700
4.000	4.270	24.700	4.185	4.355
4.500	4.900	40.760	4.760	5.040
5.000	5.440	54.110	5.254	5.626
6.000	6.860	126.240	6.425	7.295

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 4.1 8.18 12.26 16.35	Depth (Ft.)
0.083	0.25	0.00	0.001	O	0.00
0.167	0.51	0.00	0.003	O	0.00
0.250	0.56	0.00	0.007	OI	0.01
0.333	0.71	0.01	0.011	OI	0.01
0.417	0.84	0.01	0.017	OI	0.02
0.500	0.87	0.01	0.023	OI	0.02
0.583	0.88	0.01	0.029	OI	0.03
0.667	0.88	0.02	0.034	OI	0.03
0.750	0.88	0.02	0.040	OI	0.04
0.833	1.01	0.02	0.047	OI	0.05
0.917	1.14	0.02	0.054	O I	0.05
1.000	1.16	0.03	0.062	O I	0.06
1.083	1.05	0.03	0.069	O I	0.07
1.167	0.92	0.03	0.076	OI	0.07
1.250	0.89	0.04	0.082	OI	0.08
1.333	0.88	0.04	0.088	OI	0.08
1.417	0.88	0.04	0.093	OI	0.09
1.500	0.88	0.04	0.099	OI	0.10
1.583	0.88	0.05	0.105	OI	0.10
1.667	0.88	0.05	0.111	OI	0.11
1.750	0.88	0.05	0.116	OI	0.11
1.833	1.01	0.05	0.123	OI	0.12
1.917	1.14	0.06	0.130	O I	0.12
2.000	1.16	0.06	0.137	O I	0.13
2.083	1.17	0.06	0.145	O I	0.14
2.167	1.18	0.07	0.152	O I	0.15
2.250	1.18	0.07	0.160	O I	0.15
2.333	1.18	0.07	0.168	O I	0.16
2.417	1.18	0.08	0.175	O I	0.17
2.500	1.18	0.08	0.183	O I	0.18
2.583	1.30	0.08	0.191	O I	0.18
2.667	1.43	0.09	0.199	O I	0.19
2.750	1.46	0.09	0.209	O I	0.20
2.833	1.47	0.10	0.218	O I	0.21
2.917	1.47	0.10	0.228	O I	0.22
3.000	1.47	0.10	0.237	O I	0.23
3.083	1.47	0.11	0.246	O I	0.24
3.167	1.47	0.11	0.256	O I	0.25
3.250	1.47	0.12	0.265	O I	0.25
3.333	1.47	0.12	0.274	O I	0.26
3.417	1.47	0.13	0.284	O I	0.27
3.500	1.47	0.13	0.293	O I	0.28
3.583	1.47	0.13	0.302	O I	0.29
3.667	1.47	0.14	0.311	O I	0.30
3.750	1.47	0.14	0.320	O I	0.31
3.833	1.59	0.15	0.330	O I	0.32
3.917	1.72	0.15	0.340	O I	0.33
4.000	1.75	0.16	0.351	O I	0.34
4.083	1.76	0.16	0.362	O I	0.35
4.167	1.76	0.17	0.373	O I	0.36

4.250	1.76	0.17	0.384	O	I	|	|	|	|	0.37
4.333	1.89	0.17	0.396	O	I	|	|	|	|	0.38
4.417	2.02	0.18	0.408	O	I	|	|	|	|	0.39
4.500	2.04	0.19	0.421	O	I	|	|	|	|	0.40
4.583	2.05	0.19	0.433	O	I	|	|	|	|	0.42
4.667	2.06	0.20	0.446	O	I	|	|	|	|	0.43
4.750	2.06	0.20	0.459	O	I	|	|	|	|	0.44
4.833	2.18	0.21	0.472	O	I	|	|	|	|	0.45
4.917	2.31	0.22	0.486	O	I	|	|	|	|	0.47
5.000	2.34	0.22	0.501	O	I	|	|	|	|	0.48
5.083	2.10	0.23	0.514	O	I	|	|	|	|	0.49
5.167	1.84	0.23	0.526	O	I	|	|	|	|	0.51
5.250	1.79	0.23	0.537	O	I	|	|	|	|	0.52
5.333	1.90	0.24	0.548	O	I	|	|	|	|	0.53
5.417	2.02	0.24	0.560	O	I	|	|	|	|	0.54
5.500	2.04	0.24	0.572	O	I	|	|	|	|	0.56
5.583	2.18	0.24	0.585	O	I	|	|	|	|	0.57
5.667	2.31	0.25	0.599	O	I	|	|	|	|	0.58
5.750	2.34	0.25	0.613	O	I	|	|	|	|	0.60
5.833	2.35	0.25	0.628	O	I	|	|	|	|	0.61
5.917	2.35	0.25	0.642	O	I	|	|	|	|	0.63
6.000	2.35	0.26	0.657	O	I	|	|	|	|	0.65
6.083	2.48	0.26	0.672	O	I	|	|	|	|	0.66
6.167	2.60	0.26	0.687	O	I	|	|	|	|	0.68
6.250	2.63	0.27	0.704	O	I	|	|	|	|	0.70
6.333	2.64	0.27	0.720	O	I	|	|	|	|	0.71
6.417	2.64	0.27	0.736	O	I	|	|	|	|	0.73
6.500	2.64	0.27	0.752	O	I	|	|	|	|	0.75
6.583	2.77	0.28	0.769	O	I	|	|	|	|	0.77
6.667	2.90	0.28	0.787	O	I	|	|	|	|	0.78
6.750	2.92	0.28	0.805	O	I	|	|	|	|	0.80
6.833	2.93	0.29	0.823	O	I	|	|	|	|	0.82
6.917	2.94	0.29	0.841	O	I	|	|	|	|	0.84
7.000	2.94	0.30	0.860	O	I	|	|	|	|	0.86
7.083	2.94	0.30	0.878	O	I	|	|	|	|	0.88
7.167	2.94	0.30	0.896	O	I	|	|	|	|	0.90
7.250	2.94	0.31	0.914	O	I	|	|	|	|	0.92
7.333	3.06	0.31	0.933	O	I	|	|	|	|	0.94
7.417	3.19	0.31	0.952	O	I	|	|	|	|	0.96
7.500	3.22	0.32	0.972	O	I	|	|	|	|	0.98
7.583	3.35	0.32	0.992	O	I	|	|	|	|	1.00
7.667	3.49	0.33	1.014	O	I	|	|	|	|	1.02
7.750	3.51	0.35	1.035	O	I	|	|	|	|	1.05
7.833	3.65	0.36	1.058	O	I	|	|	|	|	1.07
7.917	3.78	0.37	1.081	O	I	|	|	|	|	1.09
8.000	3.81	0.39	1.104	O	I	|	|	|	|	1.12
8.083	4.07	0.40	1.129	O	I	|	|	|	|	1.14
8.167	4.33	0.41	1.155	O	I	|	|	|	|	1.17
8.250	4.38	0.43	1.182	O	I	|	|	|	|	1.20
8.333	4.40	0.45	1.209	O	I	|	|	|	|	1.22
8.417	4.41	0.46	1.236	O	I	|	|	|	|	1.25
8.500	4.41	0.48	1.263	O	I	|	|	|	|	1.28
8.583	4.53	0.49	1.291	O	I	|	|	|	|	1.31
8.667	4.66	0.51	1.319	O	|	I	|	|	|	1.34
8.750	4.69	0.52	1.348	|	O	I	|	|	|	1.36
8.833	4.82	0.54	1.377	|	O	I	|	|	|	1.39
8.917	4.95	0.56	1.407	|	O	I	|	|	|	1.43
9.000	4.98	0.58	1.437	|	O	I	|	|	|	1.46
9.083	5.36	0.59	1.469	|	O	|	I	|	|	1.49
9.167	5.75	0.61	1.503	|	O	|	I	|	|	1.52
9.250	5.85	0.63	1.538	|	O	|	I	|	|	1.56
9.333	6.17	0.65	1.575	|	O	|	I	|	|	1.59
9.417	6.47	0.68	1.614	|	O	|	I	|	|	1.63

9.500	6.55	0.70	1.654	O	I			1.67
9.583	6.86	0.72	1.696	O	I			1.71
9.667	7.17	0.75	1.739	O	I			1.75
9.750	7.25	0.77	1.783	O	I			1.79
9.833	7.56	0.80	1.829	O	I			1.84
9.917	7.86	0.83	1.876	O	I			1.88
10.000	7.94	0.86	1.925	O	I			1.93
10.083	6.44	0.88	1.968	O	I			1.97
10.167	4.89	0.90	2.001	O	I			2.00
10.250	4.57	0.91	2.028	O	I			2.03
10.333	4.45	0.92	2.052	O	I			2.05
10.417	4.41	0.94	2.076	O	I			2.07
10.500	4.41	0.95	2.100	O	I			2.09
10.583	5.50	0.96	2.128	O	I			2.12
10.667	6.61	0.98	2.163	O	I			2.15
10.750	6.86	1.00	2.202	O	I			2.19
10.833	6.98	1.01	2.243	O	I			2.23
10.917	7.03	1.03	2.284	O	I			2.27
11.000	7.06	1.05	2.326	O	I			2.31
11.083	6.82	1.07	2.366	O	I			2.35
11.167	6.58	1.09	2.405	O	I			2.38
11.250	6.55	1.11	2.442	O	I			2.42
11.333	6.55	1.13	2.480	O	I			2.45
11.417	6.57	1.14	2.517	O	I			2.49
11.500	6.60	1.17	2.555	O	I			2.52
11.583	6.10	1.19	2.590	O	I			2.55
11.667	5.59	1.22	2.622	O	I			2.58
11.750	5.50	1.24	2.652	O	I			2.61
11.833	5.75	1.26	2.682	O	I			2.64
11.917	6.02	1.28	2.714	O	I			2.66
12.000	6.10	1.30	2.747	O	I			2.69
12.083	7.99	1.33	2.786	O	I			2.73
12.167	9.88	1.37	2.838	O	I			2.78
12.250	10.29	1.41	2.898	O	I			2.83
12.333	10.73	1.46	2.961	O	I			2.88
12.417	11.07	1.50	3.026	O	I			2.94
12.500	11.15	1.57	3.091	O	I			3.00
12.583	11.72	2.36	3.157	O	I			3.06
12.667	12.28	3.13	3.220	O	I			3.11
12.750	12.41	3.87	3.281	O	I			3.16
12.833	12.74	4.57	3.339	O	I			3.21
12.917	13.05	5.24	3.394	O	I			3.26
13.000	13.12	5.87	3.446	O	I			3.31
13.083	14.48	6.51	3.498	O	I			3.35
13.167	15.84	7.20	3.555	O	I			3.40
13.250	16.14	7.91	3.613	O	I			3.45
13.333	16.27	8.58	3.668	O	I			3.50
13.417	16.33	9.86	3.717	O	I			3.54
13.500	16.35	10.95	3.758	O	I			3.57
13.583	13.49	11.63	3.783	O	I			3.59
13.667	10.57	11.69	3.785	O	I			3.60
13.750	10.00	11.46	3.776	O	I			3.59
13.833	9.78	11.19	3.767	O	I			3.58
13.917	9.73	10.95	3.758	O	I			3.57
14.000	9.75	10.74	3.750	O	I			3.57
14.083	10.82	10.67	3.747	O	I			3.56
14.167	11.91	10.79	3.751	O	I			3.57
14.250	12.15	11.00	3.759	O	I			3.57
14.333	12.00	11.18	3.766	O	I			3.58
14.417	11.78	11.30	3.771	O	I			3.58
14.500	11.75	11.38	3.774	O	I			3.59
14.583	11.75	11.44	3.776	O	I			3.59
14.667	11.76	11.49	3.778	O	I			3.59

14.750	11.78	11.54	3.780	|	|	|	OI|	|	3.59
14.833	11.54	11.56	3.780	|	|	|	O |	|	3.59
14.917	11.30	11.54	3.779	|	|	|	O |	|	3.59
15.000	11.26	11.49	3.778	|	|	|	O |	|	3.59
15.083	11.00	11.43	3.776	|	|	|	IO |	|	3.59
15.167	10.75	11.34	3.772	|	|	|	IO |	|	3.59
15.250	10.71	11.23	3.768	|	|	|	IO |	|	3.58
15.333	10.45	11.12	3.764	|	|	|	IO |	|	3.58
15.417	10.20	10.99	3.759	|	|	|	I O |	|	3.57
15.500	10.16	10.85	3.754	|	|	|	I O |	|	3.57
15.583	9.11	10.65	3.746	|	|	|	I O |	|	3.56
15.667	8.06	10.30	3.733	|	|	I	O |	|	3.55
15.750	7.86	9.90	3.719	|	|	I	O |	|	3.54
15.833	7.79	9.55	3.705	|	|	I	O |	|	3.53
15.917	7.79	9.25	3.694	|	|	I	O |	|	3.52
16.000	7.81	9.01	3.685	|	|	I	O |	|	3.51
16.083	4.97	8.58	3.669	|	I	O	|	|	3.50
16.167	2.07	8.18	3.635	| I |	|	O	|	|	3.47
16.250	1.48	7.66	3.593	| I |	|	O	|	|	3.43
16.333	1.25	7.16	3.551	| I |	|	O	|	|	3.40
16.417	1.18	6.68	3.512	| I |	|	O |	|	|	3.36
16.500	1.18	6.24	3.476	| I |	|	O |	|	|	3.33
16.583	1.05	5.82	3.442	| I |	|	O |	|	|	3.30
16.667	0.92	5.44	3.410	|I |	|	O |	|	|	3.28
16.750	0.89	5.07	3.380	|I |	|	O |	|	|	3.25
16.833	0.88	4.74	3.352	|I |	|	O |	|	|	3.23
16.917	0.88	4.43	3.327	|I |	|	O |	|	|	3.20
17.000	0.88	4.14	3.303	|I |	|	O |	|	|	3.18
17.083	1.13	3.89	3.282	| I |	O|	|	|	|	3.17
17.167	1.39	3.68	3.265	| I |	O|	|	|	|	3.15
17.250	1.44	3.50	3.250	| I |	O |	|	|	|	3.14
17.333	1.46	3.33	3.237	| I |	O |	|	|	|	3.13
17.417	1.47	3.18	3.224	| I |	O |	|	|	|	3.12
17.500	1.47	3.04	3.213	| I | O |	|	|	|	|	3.11
17.583	1.47	2.92	3.203	| I | O |	|	|	|	|	3.10
17.667	1.47	2.80	3.193	| I | O |	|	|	|	|	3.09
17.750	1.47	2.69	3.184	| I | O |	|	|	|	|	3.08
17.833	1.34	2.59	3.176	| I | O |	|	|	|	|	3.07
17.917	1.21	2.49	3.167	| I O |	|	|	|	|	3.07
18.000	1.19	2.38	3.158	| I O |	|	|	|	|	3.06
18.083	1.18	2.29	3.151	| I O |	|	|	|	|	3.05
18.167	1.18	2.20	3.143	| I O |	|	|	|	|	3.05
18.250	1.18	2.11	3.136	| I O |	|	|	|	|	3.04
18.333	1.18	2.04	3.130	| IO |	|	|	|	|	3.03
18.417	1.18	1.97	3.125	| IO |	|	|	|	|	3.03
18.500	1.18	1.91	3.119	| IO |	|	|	|	|	3.03
18.583	1.05	1.84	3.114	| IO |	|	|	|	|	3.02
18.667	0.92	1.77	3.108	|I O |	|	|	|	|	3.02
18.750	0.89	1.70	3.103	|I O |	|	|	|	|	3.01
18.833	0.76	1.63	3.097	|I O |	|	|	|	|	3.01
18.917	0.63	1.56	3.091	|I O |	|	|	|	|	3.00
19.000	0.60	1.55	3.084	|I O |	|	|	|	|	2.99
19.083	0.72	1.54	3.078	|I O |	|	|	|	|	2.99
19.167	0.84	1.54	3.073	|I O |	|	|	|	|	2.98
19.250	0.87	1.53	3.068	|I O |	|	|	|	|	2.98
19.333	1.00	1.53	3.064	|IO |	|	|	|	|	2.98
19.417	1.14	1.53	3.061	| O |	|	|	|	|	2.97
19.500	1.16	1.53	3.058	| O |	|	|	|	|	2.97
19.583	1.05	1.53	3.055	| O |	|	|	|	|	2.97
19.667	0.92	1.52	3.052	|IO |	|	|	|	|	2.97
19.750	0.89	1.52	3.047	|IO |	|	|	|	|	2.96
19.833	0.76	1.52	3.043	|IO |	|	|	|	|	2.96
19.917	0.63	1.51	3.037	|IO |	|	|	|	|	2.95

20.000	0.60	1.51	3.031	IO				2.95
20.083	0.72	1.50	3.025	IO				2.94
20.167	0.84	1.50	3.020	IO				2.94
20.250	0.87	1.50	3.016	IO				2.93
20.333	0.88	1.49	3.011	IO				2.93
20.417	0.88	1.49	3.007	IO				2.93
20.500	0.88	1.49	3.003	IO				2.92
20.583	0.88	1.48	2.999	IO				2.92
20.667	0.88	1.48	2.995	IO				2.91
20.750	0.88	1.48	2.990	IO				2.91
20.833	0.76	1.48	2.986	IO				2.91
20.917	0.63	1.47	2.981	IO				2.90
21.000	0.60	1.47	2.975	IO				2.90
21.083	0.72	1.46	2.969	IO				2.89
21.167	0.84	1.46	2.964	IO				2.89
21.250	0.87	1.46	2.960	IO				2.88
21.333	0.75	1.45	2.956	IO				2.88
21.417	0.63	1.45	2.951	IO				2.88
21.500	0.60	1.45	2.945	IO				2.87
21.583	0.72	1.44	2.939	IO				2.87
21.667	0.84	1.44	2.935	IO				2.86
21.750	0.87	1.44	2.931	IO				2.86
21.833	0.75	1.43	2.927	IO				2.85
21.917	0.63	1.43	2.921	IO				2.85
22.000	0.60	1.43	2.916	IO				2.84
22.083	0.72	1.42	2.911	IO				2.84
22.167	0.84	1.42	2.906	IO				2.84
22.250	0.87	1.42	2.902	IO				2.83
22.333	0.75	1.41	2.898	IO				2.83
22.417	0.63	1.41	2.893	IO				2.82
22.500	0.60	1.41	2.888	IO				2.82
22.583	0.59	1.40	2.882	IO				2.81
22.667	0.59	1.40	2.877	IO				2.81
22.750	0.59	1.39	2.871	IO				2.80
22.833	0.59	1.39	2.865	IO				2.80
22.917	0.59	1.39	2.860	IO				2.79
23.000	0.59	1.38	2.854	IO				2.79
23.083	0.59	1.38	2.849	IO				2.78
23.167	0.59	1.37	2.844	IO				2.78
23.250	0.59	1.37	2.838	IO				2.78
23.333	0.59	1.37	2.833	IO				2.77
23.417	0.59	1.36	2.827	IO				2.77
23.500	0.59	1.36	2.822	IO				2.76
23.583	0.59	1.35	2.817	IO				2.76
23.667	0.59	1.35	2.812	IO				2.75
23.750	0.59	1.35	2.806	IO				2.75
23.833	0.59	1.34	2.801	IO				2.74
23.917	0.59	1.34	2.796	IO				2.74
24.000	0.59	1.34	2.791	IO				2.73
24.083	0.34	1.33	2.785	I O				2.73
24.167	0.08	1.33	2.777	I O				2.72
24.250	0.03	1.32	2.768	I O				2.71
24.333	0.01	1.31	2.759	I O				2.70
24.417	0.00	1.31	2.750	I O				2.70
24.500	0.00	1.30	2.741	I O				2.69
24.583	0.00	1.29	2.732	I O				2.68
24.667	0.00	1.29	2.723	I O				2.67
24.750	0.00	1.28	2.715	I O				2.66
24.833	0.00	1.28	2.706	I O				2.66
24.917	0.00	1.27	2.697	I O				2.65
25.000	0.00	1.26	2.688	I O				2.64
25.083	0.00	1.26	2.680	I O				2.63
25.167	0.00	1.25	2.671	I O				2.63

25.250	0.00	1.24	2.662	I O	|	|	|	|	2.62
25.333	0.00	1.24	2.654	I O	|	|	|	|	2.61
25.417	0.00	1.23	2.645	I O	|	|	|	|	2.60
25.500	0.00	1.23	2.637	I O	|	|	|	|	2.60
25.583	0.00	1.22	2.628	I O	|	|	|	|	2.59
25.667	0.00	1.21	2.620	I O	|	|	|	|	2.58
25.750	0.00	1.21	2.612	I O	|	|	|	|	2.57
25.833	0.00	1.20	2.603	I O	|	|	|	|	2.57
25.917	0.00	1.20	2.595	I O	|	|	|	|	2.56
26.000	0.00	1.19	2.587	I O	|	|	|	|	2.55
26.083	0.00	1.18	2.579	I O	|	|	|	|	2.54
26.167	0.00	1.18	2.571	I O	|	|	|	|	2.54
26.250	0.00	1.17	2.563	I O	|	|	|	|	2.53
26.333	0.00	1.17	2.554	I O	|	|	|	|	2.52
26.417	0.00	1.16	2.546	I O	|	|	|	|	2.51
26.500	0.00	1.16	2.538	I O	|	|	|	|	2.51
26.583	0.00	1.15	2.531	I O	|	|	|	|	2.50
26.667	0.00	1.15	2.523	I O	|	|	|	|	2.49
26.750	0.00	1.14	2.515	I O	|	|	|	|	2.49
26.833	0.00	1.14	2.507	I O	|	|	|	|	2.48
26.917	0.00	1.14	2.499	I O	|	|	|	|	2.47
27.000	0.00	1.13	2.491	I O	|	|	|	|	2.46
27.083	0.00	1.13	2.483	I O	|	|	|	|	2.46
27.167	0.00	1.12	2.476	I O	|	|	|	|	2.45
27.250	0.00	1.12	2.468	I O	|	|	|	|	2.44
27.333	0.00	1.12	2.460	I O	|	|	|	|	2.43
27.417	0.00	1.11	2.453	I O	|	|	|	|	2.43
27.500	0.00	1.11	2.445	I O	|	|	|	|	2.42
27.583	0.00	1.11	2.437	I O	|	|	|	|	2.41
27.667	0.00	1.10	2.430	I O	|	|	|	|	2.41
27.750	0.00	1.10	2.422	I O	|	|	|	|	2.40
27.833	0.00	1.10	2.415	I O	|	|	|	|	2.39
27.917	0.00	1.09	2.407	I O	|	|	|	|	2.38
28.000	0.00	1.09	2.399	I O	|	|	|	|	2.38
28.083	0.00	1.08	2.392	I O	|	|	|	|	2.37
28.167	0.00	1.08	2.385	I O	|	|	|	|	2.36
28.250	0.00	1.08	2.377	I O	|	|	|	|	2.36
28.333	0.00	1.07	2.370	I O	|	|	|	|	2.35
28.417	0.00	1.07	2.362	I O	|	|	|	|	2.34
28.500	0.00	1.07	2.355	I O	|	|	|	|	2.33
28.583	0.00	1.06	2.348	I O	|	|	|	|	2.33
28.667	0.00	1.06	2.340	I O	|	|	|	|	2.32
28.750	0.00	1.06	2.333	I O	|	|	|	|	2.31
28.833	0.00	1.05	2.326	I O	|	|	|	|	2.31
28.917	0.00	1.05	2.318	I O	|	|	|	|	2.30
29.000	0.00	1.05	2.311	I O	|	|	|	|	2.29
29.083	0.00	1.04	2.304	I O	|	|	|	|	2.29
29.167	0.00	1.04	2.297	I O	|	|	|	|	2.28
29.250	0.00	1.04	2.290	I O	|	|	|	|	2.27
29.333	0.00	1.03	2.283	I O	|	|	|	|	2.27
29.417	0.00	1.03	2.276	I O	|	|	|	|	2.26
29.500	0.00	1.03	2.268	I O	|	|	|	|	2.25
29.583	0.00	1.02	2.261	I O	|	|	|	|	2.25
29.667	0.00	1.02	2.254	IO	|	|	|	|	2.24
29.750	0.00	1.02	2.247	IO	|	|	|	|	2.23
29.833	0.00	1.01	2.240	IO	|	|	|	|	2.23
29.917	0.00	1.01	2.233	IO	|	|	|	|	2.22
30.000	0.00	1.01	2.226	IO	|	|	|	|	2.21
30.083	0.00	1.00	2.219	IO	|	|	|	|	2.21
30.167	0.00	1.00	2.213	IO	|	|	|	|	2.20
30.250	0.00	1.00	2.206	IO	|	|	|	|	2.19
30.333	0.00	0.99	2.199	IO	|	|	|	|	2.19
30.417	0.00	0.99	2.192	IO	|	|	|	|	2.18

30.500	0.00	0.99	2.185	IO				2.17
30.583	0.00	0.98	2.178	IO				2.17
30.667	0.00	0.98	2.172	IO				2.16
30.750	0.00	0.98	2.165	IO				2.16
30.833	0.00	0.97	2.158	IO				2.15
30.917	0.00	0.97	2.151	IO				2.14
31.000	0.00	0.97	2.145	IO				2.14
31.083	0.00	0.97	2.138	IO				2.13
31.167	0.00	0.96	2.132	IO				2.12
31.250	0.00	0.96	2.125	IO				2.12
31.333	0.00	0.96	2.118	IO				2.11
31.417	0.00	0.95	2.112	IO				2.11
31.500	0.00	0.95	2.105	IO				2.10
31.583	0.00	0.95	2.099	IO				2.09
31.667	0.00	0.94	2.092	IO				2.09
31.750	0.00	0.94	2.086	IO				2.08
31.833	0.00	0.94	2.079	IO				2.07
31.917	0.00	0.93	2.073	IO				2.07
32.000	0.00	0.93	2.066	IO				2.06
32.083	0.00	0.93	2.060	IO				2.06
32.167	0.00	0.93	2.054	IO				2.05
32.250	0.00	0.92	2.047	IO				2.04
32.333	0.00	0.92	2.041	IO				2.04
32.417	0.00	0.92	2.035	IO				2.03
32.500	0.00	0.91	2.028	IO				2.03
32.583	0.00	0.91	2.022	IO				2.02
32.667	0.00	0.91	2.016	IO				2.01
32.750	0.00	0.90	2.009	IO				2.01
32.833	0.00	0.90	2.003	IO				2.00
32.917	0.00	0.90	1.997	IO				2.00
33.000	0.00	0.89	1.991	IO				1.99
33.083	0.00	0.89	1.985	IO				1.99
33.167	0.00	0.89	1.979	IO				1.98
33.250	0.00	0.88	1.972	IO				1.97
33.333	0.00	0.88	1.966	IO				1.97
33.417	0.00	0.88	1.960	IO				1.96
33.500	0.00	0.87	1.954	IO				1.96
33.583	0.00	0.87	1.948	IO				1.95
33.667	0.00	0.87	1.942	IO				1.94
33.750	0.00	0.86	1.936	IO				1.94
33.833	0.00	0.86	1.930	IO				1.93
33.917	0.00	0.86	1.925	IO				1.93
34.000	0.00	0.85	1.919	IO				1.92
34.083	0.00	0.85	1.913	IO				1.92
34.167	0.00	0.85	1.907	IO				1.91
34.250	0.00	0.84	1.901	IO				1.90
34.333	0.00	0.84	1.895	IO				1.90
34.417	0.00	0.84	1.890	IO				1.89
34.500	0.00	0.83	1.884	IO				1.89
34.583	0.00	0.83	1.878	IO				1.88
34.667	0.00	0.83	1.872	IO				1.88
34.750	0.00	0.82	1.867	IO				1.87
34.833	0.00	0.82	1.861	IO				1.87
34.917	0.00	0.82	1.855	IO				1.86
35.000	0.00	0.81	1.850	IO				1.86
35.083	0.00	0.81	1.844	IO				1.85
35.167	0.00	0.81	1.839	IO				1.84
35.250	0.00	0.80	1.833	IO				1.84
35.333	0.00	0.80	1.828	IO				1.83
35.417	0.00	0.80	1.822	IO				1.83
35.500	0.00	0.79	1.817	IO				1.82
35.583	0.00	0.79	1.811	IO				1.82
35.667	0.00	0.79	1.806	IO				1.81

35.750	0.00	0.78	1.800	IO				1.81
35.833	0.00	0.78	1.795	IO				1.80
35.917	0.00	0.78	1.789	IO				1.80
36.000	0.00	0.78	1.784	IO				1.79
36.083	0.00	0.77	1.779	IO				1.79
36.167	0.00	0.77	1.774	IO				1.78
36.250	0.00	0.77	1.768	IO				1.78
36.333	0.00	0.76	1.763	IO				1.77
36.417	0.00	0.76	1.758	IO				1.77
36.500	0.00	0.76	1.752	IO				1.76
36.583	0.00	0.75	1.747	IO				1.76
36.667	0.00	0.75	1.742	IO				1.75
36.750	0.00	0.75	1.737	IO				1.75
36.833	0.00	0.75	1.732	IO				1.74
36.917	0.00	0.74	1.727	IO				1.74
37.000	0.00	0.74	1.722	IO				1.73
37.083	0.00	0.74	1.716	IO				1.73
37.167	0.00	0.73	1.711	IO				1.72
37.250	0.00	0.73	1.706	IO				1.72
37.333	0.00	0.73	1.701	IO				1.71
37.417	0.00	0.72	1.696	IO				1.71
37.500	0.00	0.72	1.691	IO				1.70
37.583	0.00	0.72	1.686	IO				1.70
37.667	0.00	0.72	1.681	IO				1.69
37.750	0.00	0.71	1.677	IO				1.69
37.833	0.00	0.71	1.672	IO				1.68
37.917	0.00	0.71	1.667	IO				1.68
38.000	0.00	0.70	1.662	IO				1.67
38.083	0.00	0.70	1.657	IO				1.67
38.167	0.00	0.70	1.652	IO				1.67
38.250	0.00	0.70	1.647	IO				1.66
38.333	0.00	0.69	1.643	IO				1.66
38.417	0.00	0.69	1.638	IO				1.65
38.500	0.00	0.69	1.633	IO				1.65
38.583	0.00	0.69	1.628	IO				1.64
38.667	0.00	0.68	1.624	IO				1.64
38.750	0.00	0.68	1.619	IO				1.63
38.833	0.00	0.68	1.614	IO				1.63
38.917	0.00	0.67	1.610	IO				1.62
39.000	0.00	0.67	1.605	IO				1.62
39.083	0.00	0.67	1.600	IO				1.62
39.167	0.00	0.67	1.596	IO				1.61
39.250	0.00	0.66	1.591	IO				1.61
39.333	0.00	0.66	1.587	IO				1.60
39.417	0.00	0.66	1.582	IO				1.60
39.500	0.00	0.66	1.578	IO				1.59
39.583	0.00	0.65	1.573	IO				1.59
39.667	0.00	0.65	1.569	IO				1.59
39.750	0.00	0.65	1.564	IO				1.58
39.833	0.00	0.65	1.560	IO				1.58
39.917	0.00	0.64	1.555	IO				1.57
40.000	0.00	0.64	1.551	IO				1.57
40.083	0.00	0.64	1.546	IO				1.56
40.167	0.00	0.64	1.542	IO				1.56
40.250	0.00	0.63	1.538	IO				1.56
40.333	0.00	0.63	1.533	IO				1.55
40.417	0.00	0.63	1.529	IO				1.55
40.500	0.00	0.63	1.525	IO				1.54
40.583	0.00	0.62	1.520	IO				1.54
40.667	0.00	0.62	1.516	IO				1.53
40.750	0.00	0.62	1.512	IO				1.53
40.833	0.00	0.62	1.507	IO				1.53
40.917	0.00	0.61	1.503	IO				1.52

41.000	0.00	0.61	1.499	IO				1.52
41.083	0.00	0.61	1.495	IO				1.51
41.167	0.00	0.61	1.491	IO				1.51
41.250	0.00	0.60	1.486	IO				1.51
41.333	0.00	0.60	1.482	IO				1.50
41.417	0.00	0.60	1.478	IO				1.50
41.500	0.00	0.60	1.474	IO				1.49
41.583	0.00	0.59	1.470	IO				1.49
41.667	0.00	0.59	1.466	IO				1.49
41.750	0.00	0.59	1.462	IO				1.48
41.833	0.00	0.59	1.458	IO				1.48
41.917	0.00	0.58	1.454	IO				1.47
42.000	0.00	0.58	1.450	IO				1.47
42.083	0.00	0.58	1.446	IO				1.47
42.167	0.00	0.58	1.442	IO				1.46
42.250	0.00	0.58	1.438	IO				1.46
42.333	0.00	0.57	1.434	IO				1.45
42.417	0.00	0.57	1.430	IO				1.45
42.500	0.00	0.57	1.426	IO				1.44
42.583	0.00	0.57	1.422	IO				1.44
42.667	0.00	0.56	1.418	IO				1.44
42.750	0.00	0.56	1.414	IO				1.43
42.833	0.00	0.56	1.410	IO				1.43
42.917	0.00	0.56	1.407	IO				1.43
43.000	0.00	0.56	1.403	IO				1.42
43.083	0.00	0.55	1.399	IO				1.42
43.167	0.00	0.55	1.395	IO				1.41
43.250	0.00	0.55	1.391	IO				1.41
43.333	0.00	0.55	1.387	IO				1.41
43.417	0.00	0.54	1.384	IO				1.40
43.500	0.00	0.54	1.380	IO				1.40
43.583	0.00	0.54	1.376	IO				1.39
43.667	0.00	0.54	1.373	IO				1.39
43.750	0.00	0.54	1.369	IO				1.39
43.833	0.00	0.53	1.365	IO				1.38
43.917	0.00	0.53	1.361	IO				1.38
44.000	0.00	0.53	1.358	IO				1.38
44.083	0.00	0.53	1.354	IO				1.37
44.167	0.00	0.53	1.351	IO				1.37
44.250	0.00	0.52	1.347	IO				1.36
44.333	0.00	0.52	1.343	IO				1.36
44.417	0.00	0.52	1.340	IO				1.36
44.500	0.00	0.52	1.336	IO				1.35
44.583	0.00	0.52	1.333	IO				1.35
44.667	0.00	0.51	1.329	IO				1.35
44.750	0.00	0.51	1.326	IO				1.34
44.833	0.00	0.51	1.322	O				1.34
44.917	0.00	0.51	1.319	O				1.34
45.000	0.00	0.51	1.315	O				1.33
45.083	0.00	0.50	1.312	O				1.33
45.167	0.00	0.50	1.308	O				1.32
45.250	0.00	0.50	1.305	O				1.32
45.333	0.00	0.50	1.301	O				1.32
45.417	0.00	0.50	1.298	O				1.31
45.500	0.00	0.49	1.294	O				1.31
45.583	0.00	0.49	1.291	O				1.31
45.667	0.00	0.49	1.288	O				1.30
45.750	0.00	0.49	1.284	O				1.30
45.833	0.00	0.49	1.281	O				1.30
45.917	0.00	0.48	1.278	O				1.29
46.000	0.00	0.48	1.274	O				1.29
46.083	0.00	0.48	1.271	O				1.29
46.167	0.00	0.48	1.268	O				1.28

46.250	0.00	0.48	1.264	O	|	|	|	|	1.28
46.333	0.00	0.47	1.261	O	|	|	|	|	1.28
46.417	0.00	0.47	1.258	O	|	|	|	|	1.27
46.500	0.00	0.47	1.254	O	|	|	|	|	1.27
46.583	0.00	0.47	1.251	O	|	|	|	|	1.27
46.667	0.00	0.47	1.248	O	|	|	|	|	1.26
46.750	0.00	0.47	1.245	O	|	|	|	|	1.26
46.833	0.00	0.46	1.242	O	|	|	|	|	1.26
46.917	0.00	0.46	1.238	O	|	|	|	|	1.25
47.000	0.00	0.46	1.235	O	|	|	|	|	1.25
47.083	0.00	0.46	1.232	O	|	|	|	|	1.25
47.167	0.00	0.46	1.229	O	|	|	|	|	1.24
47.250	0.00	0.45	1.226	O	|	|	|	|	1.24
47.333	0.00	0.45	1.223	O	|	|	|	|	1.24
47.417	0.00	0.45	1.220	O	|	|	|	|	1.23
47.500	0.00	0.45	1.216	O	|	|	|	|	1.23
47.583	0.00	0.45	1.213	O	|	|	|	|	1.23
47.667	0.00	0.45	1.210	O	|	|	|	|	1.22
47.750	0.00	0.44	1.207	O	|	|	|	|	1.22
47.833	0.00	0.44	1.204	O	|	|	|	|	1.22
47.917	0.00	0.44	1.201	O	|	|	|	|	1.22
48.000	0.00	0.44	1.198	O	|	|	|	|	1.21
48.083	0.00	0.44	1.195	O	|	|	|	|	1.21
48.167	0.00	0.44	1.192	O	|	|	|	|	1.21
48.250	0.00	0.43	1.189	O	|	|	|	|	1.20
48.333	0.00	0.43	1.186	O	|	|	|	|	1.20
48.417	0.00	0.43	1.183	O	|	|	|	|	1.20
48.500	0.00	0.43	1.180	O	|	|	|	|	1.19
48.583	0.00	0.43	1.177	O	|	|	|	|	1.19
48.667	0.00	0.43	1.174	O	|	|	|	|	1.19
48.750	0.00	0.42	1.171	O	|	|	|	|	1.19
48.833	0.00	0.42	1.168	O	|	|	|	|	1.18
48.917	0.00	0.42	1.166	O	|	|	|	|	1.18
49.000	0.00	0.42	1.163	O	|	|	|	|	1.18
49.083	0.00	0.42	1.160	O	|	|	|	|	1.17
49.167	0.00	0.42	1.157	O	|	|	|	|	1.17
49.250	0.00	0.41	1.154	O	|	|	|	|	1.17
49.333	0.00	0.41	1.151	O	|	|	|	|	1.16
49.417	0.00	0.41	1.148	O	|	|	|	|	1.16
49.500	0.00	0.41	1.146	O	|	|	|	|	1.16
49.583	0.00	0.41	1.143	O	|	|	|	|	1.16
49.667	0.00	0.41	1.140	O	|	|	|	|	1.15
49.750	0.00	0.40	1.137	O	|	|	|	|	1.15
49.833	0.00	0.40	1.134	O	|	|	|	|	1.15
49.917	0.00	0.40	1.132	O	|	|	|	|	1.14
50.000	0.00	0.40	1.129	O	|	|	|	|	1.14
50.083	0.00	0.40	1.126	O	|	|	|	|	1.14
50.167	0.00	0.40	1.123	O	|	|	|	|	1.14
50.250	0.00	0.39	1.121	O	|	|	|	|	1.13
50.333	0.00	0.39	1.118	O	|	|	|	|	1.13
50.417	0.00	0.39	1.115	O	|	|	|	|	1.13
50.500	0.00	0.39	1.113	O	|	|	|	|	1.13
50.583	0.00	0.39	1.110	O	|	|	|	|	1.12
50.667	0.00	0.39	1.107	O	|	|	|	|	1.12
50.750	0.00	0.39	1.105	O	|	|	|	|	1.12
50.833	0.00	0.38	1.102	O	|	|	|	|	1.11
50.917	0.00	0.38	1.099	O	|	|	|	|	1.11
51.000	0.00	0.38	1.097	O	|	|	|	|	1.11
51.083	0.00	0.38	1.094	O	|	|	|	|	1.11
51.167	0.00	0.38	1.091	O	|	|	|	|	1.10
51.250	0.00	0.38	1.089	O	|	|	|	|	1.10
51.333	0.00	0.37	1.086	O	|	|	|	|	1.10
51.417	0.00	0.37	1.084	O	|	|	|	|	1.10

51.500	0.00	0.37	1.081	O	|	|	|	|	1.09
51.583	0.00	0.37	1.079	O	|	|	|	|	1.09
51.667	0.00	0.37	1.076	O	|	|	|	|	1.09
51.750	0.00	0.37	1.073	O	|	|	|	|	1.09
51.833	0.00	0.37	1.071	O	|	|	|	|	1.08
51.917	0.00	0.36	1.068	O	|	|	|	|	1.08
52.000	0.00	0.36	1.066	O	|	|	|	|	1.08
52.083	0.00	0.36	1.063	O	|	|	|	|	1.07
52.167	0.00	0.36	1.061	O	|	|	|	|	1.07
52.250	0.00	0.36	1.058	O	|	|	|	|	1.07
52.333	0.00	0.36	1.056	O	|	|	|	|	1.07
52.417	0.00	0.36	1.054	O	|	|	|	|	1.06
52.500	0.00	0.35	1.051	O	|	|	|	|	1.06
52.583	0.00	0.35	1.049	O	|	|	|	|	1.06
52.667	0.00	0.35	1.046	O	|	|	|	|	1.06
52.750	0.00	0.35	1.044	O	|	|	|	|	1.05
52.833	0.00	0.35	1.041	O	|	|	|	|	1.05
52.917	0.00	0.35	1.039	O	|	|	|	|	1.05
53.000	0.00	0.35	1.037	O	|	|	|	|	1.05
53.083	0.00	0.35	1.034	O	|	|	|	|	1.05
53.167	0.00	0.34	1.032	O	|	|	|	|	1.04
53.250	0.00	0.34	1.029	O	|	|	|	|	1.04
53.333	0.00	0.34	1.027	O	|	|	|	|	1.04
53.417	0.00	0.34	1.025	O	|	|	|	|	1.04
53.500	0.00	0.34	1.022	O	|	|	|	|	1.03
53.583	0.00	0.34	1.020	O	|	|	|	|	1.03
53.667	0.00	0.34	1.018	O	|	|	|	|	1.03
53.750	0.00	0.33	1.015	O	|	|	|	|	1.03
53.833	0.00	0.33	1.013	O	|	|	|	|	1.02
53.917	0.00	0.33	1.011	O	|	|	|	|	1.02
54.000	0.00	0.33	1.009	O	|	|	|	|	1.02
54.083	0.00	0.33	1.006	O	|	|	|	|	1.02
54.167	0.00	0.33	1.004	O	|	|	|	|	1.01
54.250	0.00	0.33	1.002	O	|	|	|	|	1.01
54.333	0.00	0.33	1.000	O	|	|	|	|	1.01
54.417	0.00	0.32	0.997	O	|	|	|	|	1.01
54.500	0.00	0.32	0.995	O	|	|	|	|	1.01
54.583	0.00	0.32	0.993	O	|	|	|	|	1.00
54.667	0.00	0.32	0.991	O	|	|	|	|	1.00
54.750	0.00	0.32	0.988	O	|	|	|	|	1.00
54.833	0.00	0.32	0.986	O	|	|	|	|	1.00
54.917	0.00	0.32	0.984	O	|	|	|	|	0.99
55.000	0.00	0.32	0.982	O	|	|	|	|	0.99
55.083	0.00	0.32	0.980	O	|	|	|	|	0.99
55.167	0.00	0.32	0.977	O	|	|	|	|	0.99
55.250	0.00	0.32	0.975	O	|	|	|	|	0.98
55.333	0.00	0.32	0.973	O	|	|	|	|	0.98
55.417	0.00	0.32	0.971	O	|	|	|	|	0.98
55.500	0.00	0.32	0.969	O	|	|	|	|	0.98
55.583	0.00	0.32	0.967	O	|	|	|	|	0.98
55.667	0.00	0.32	0.964	O	|	|	|	|	0.97
55.750	0.00	0.31	0.962	O	|	|	|	|	0.97
55.833	0.00	0.31	0.960	O	|	|	|	|	0.97
55.917	0.00	0.31	0.958	O	|	|	|	|	0.97
56.000	0.00	0.31	0.956	O	|	|	|	|	0.96
56.083	0.00	0.31	0.954	O	|	|	|	|	0.96
56.167	0.00	0.31	0.951	O	|	|	|	|	0.96
56.250	0.00	0.31	0.949	O	|	|	|	|	0.96
56.333	0.00	0.31	0.947	O	|	|	|	|	0.95
56.417	0.00	0.31	0.945	O	|	|	|	|	0.95
56.500	0.00	0.31	0.943	O	|	|	|	|	0.95
56.583	0.00	0.31	0.941	O	|	|	|	|	0.95
56.667	0.00	0.31	0.939	O	|	|	|	|	0.95

56.750	0.00	0.31	0.936	O	|	|	|	|	0.94
56.833	0.00	0.31	0.934	O	|	|	|	|	0.94
56.917	0.00	0.31	0.932	O	|	|	|	|	0.94
57.000	0.00	0.31	0.930	O	|	|	|	|	0.94
57.083	0.00	0.31	0.928	O	|	|	|	|	0.93
57.167	0.00	0.31	0.926	O	|	|	|	|	0.93
57.250	0.00	0.31	0.924	O	|	|	|	|	0.93
57.333	0.00	0.31	0.922	O	|	|	|	|	0.93
57.417	0.00	0.31	0.919	O	|	|	|	|	0.92
57.500	0.00	0.31	0.917	O	|	|	|	|	0.92
57.583	0.00	0.31	0.915	O	|	|	|	|	0.92
57.667	0.00	0.31	0.913	O	|	|	|	|	0.92
57.750	0.00	0.30	0.911	O	|	|	|	|	0.92
57.833	0.00	0.30	0.909	O	|	|	|	|	0.91
57.917	0.00	0.30	0.907	O	|	|	|	|	0.91
58.000	0.00	0.30	0.905	O	|	|	|	|	0.91
58.083	0.00	0.30	0.903	O	|	|	|	|	0.91
58.167	0.00	0.30	0.901	O	|	|	|	|	0.90
58.250	0.00	0.30	0.898	O	|	|	|	|	0.90
58.333	0.00	0.30	0.896	O	|	|	|	|	0.90
58.417	0.00	0.30	0.894	O	|	|	|	|	0.90
58.500	0.00	0.30	0.892	O	|	|	|	|	0.90
58.583	0.00	0.30	0.890	O	|	|	|	|	0.89
58.667	0.00	0.30	0.888	O	|	|	|	|	0.89
58.750	0.00	0.30	0.886	O	|	|	|	|	0.89
58.833	0.00	0.30	0.884	O	|	|	|	|	0.89
58.917	0.00	0.30	0.882	O	|	|	|	|	0.89
59.000	0.00	0.30	0.880	O	|	|	|	|	0.88
59.083	0.00	0.30	0.878	O	|	|	|	|	0.88
59.167	0.00	0.30	0.876	O	|	|	|	|	0.88
59.250	0.00	0.30	0.874	O	|	|	|	|	0.88
59.333	0.00	0.30	0.872	O	|	|	|	|	0.87
59.417	0.00	0.30	0.870	O	|	|	|	|	0.87
59.500	0.00	0.30	0.868	O	|	|	|	|	0.87
59.583	0.00	0.30	0.866	O	|	|	|	|	0.87
59.667	0.00	0.30	0.863	O	|	|	|	|	0.87
59.750	0.00	0.30	0.861	O	|	|	|	|	0.86
59.833	0.00	0.29	0.859	O	|	|	|	|	0.86
59.917	0.00	0.29	0.857	O	|	|	|	|	0.86
60.000	0.00	0.29	0.855	O	|	|	|	|	0.86
60.083	0.00	0.29	0.853	O	|	|	|	|	0.85
60.167	0.00	0.29	0.851	O	|	|	|	|	0.85
60.250	0.00	0.29	0.849	O	|	|	|	|	0.85
60.333	0.00	0.29	0.847	O	|	|	|	|	0.85
60.417	0.00	0.29	0.845	O	|	|	|	|	0.85
60.500	0.00	0.29	0.843	O	|	|	|	|	0.84
60.583	0.00	0.29	0.841	O	|	|	|	|	0.84
60.667	0.00	0.29	0.839	O	|	|	|	|	0.84
60.750	0.00	0.29	0.837	O	|	|	|	|	0.84
60.833	0.00	0.29	0.835	O	|	|	|	|	0.84
60.917	0.00	0.29	0.833	O	|	|	|	|	0.83
61.000	0.00	0.29	0.831	O	|	|	|	|	0.83
61.083	0.00	0.29	0.829	O	|	|	|	|	0.83
61.167	0.00	0.29	0.827	O	|	|	|	|	0.83
61.250	0.00	0.29	0.825	O	|	|	|	|	0.82
61.333	0.00	0.29	0.823	O	|	|	|	|	0.82
61.417	0.00	0.29	0.821	O	|	|	|	|	0.82
61.500	0.00	0.29	0.819	O	|	|	|	|	0.82
61.583	0.00	0.29	0.817	O	|	|	|	|	0.82
61.667	0.00	0.29	0.815	O	|	|	|	|	0.81
61.750	0.00	0.29	0.813	O	|	|	|	|	0.81
61.833	0.00	0.29	0.811	O	|	|	|	|	0.81
61.917	0.00	0.29	0.809	O	|	|	|	|	0.81

62.000	0.00	0.29	0.807	O	|	|	|	|	0.81
62.083	0.00	0.28	0.806	O	|	|	|	|	0.80
62.167	0.00	0.28	0.804	O	|	|	|	|	0.80
62.250	0.00	0.28	0.802	O	|	|	|	|	0.80
62.333	0.00	0.28	0.800	O	|	|	|	|	0.80
62.417	0.00	0.28	0.798	O	|	|	|	|	0.80
62.500	0.00	0.28	0.796	O	|	|	|	|	0.79
62.583	0.00	0.28	0.794	O	|	|	|	|	0.79
62.667	0.00	0.28	0.792	O	|	|	|	|	0.79
62.750	0.00	0.28	0.790	O	|	|	|	|	0.79
62.833	0.00	0.28	0.788	O	|	|	|	|	0.79
62.917	0.00	0.28	0.786	O	|	|	|	|	0.78
63.000	0.00	0.28	0.784	O	|	|	|	|	0.78
63.083	0.00	0.28	0.782	O	|	|	|	|	0.78
63.167	0.00	0.28	0.780	O	|	|	|	|	0.78
63.250	0.00	0.28	0.778	O	|	|	|	|	0.77
63.333	0.00	0.28	0.776	O	|	|	|	|	0.77
63.417	0.00	0.28	0.774	O	|	|	|	|	0.77
63.500	0.00	0.28	0.773	O	|	|	|	|	0.77
63.583	0.00	0.28	0.771	O	|	|	|	|	0.77
63.667	0.00	0.28	0.769	O	|	|	|	|	0.76
63.750	0.00	0.28	0.767	O	|	|	|	|	0.76
63.833	0.00	0.28	0.765	O	|	|	|	|	0.76
63.917	0.00	0.28	0.763	O	|	|	|	|	0.76
64.000	0.00	0.28	0.761	O	|	|	|	|	0.76
64.083	0.00	0.28	0.759	O	|	|	|	|	0.75
64.167	0.00	0.28	0.757	O	|	|	|	|	0.75
64.250	0.00	0.28	0.755	O	|	|	|	|	0.75
64.333	0.00	0.27	0.754	O	|	|	|	|	0.75
64.417	0.00	0.27	0.752	O	|	|	|	|	0.75
64.500	0.00	0.27	0.750	O	|	|	|	|	0.74
64.583	0.00	0.27	0.748	O	|	|	|	|	0.74
64.667	0.00	0.27	0.746	O	|	|	|	|	0.74
64.750	0.00	0.27	0.744	O	|	|	|	|	0.74
64.833	0.00	0.27	0.742	O	|	|	|	|	0.74
64.917	0.00	0.27	0.740	O	|	|	|	|	0.73
65.000	0.00	0.27	0.738	O	|	|	|	|	0.73
65.083	0.00	0.27	0.737	O	|	|	|	|	0.73
65.167	0.00	0.27	0.735	O	|	|	|	|	0.73
65.250	0.00	0.27	0.733	O	|	|	|	|	0.73
65.333	0.00	0.27	0.731	O	|	|	|	|	0.72
65.417	0.00	0.27	0.729	O	|	|	|	|	0.72
65.500	0.00	0.27	0.727	O	|	|	|	|	0.72
65.583	0.00	0.27	0.725	O	|	|	|	|	0.72
65.667	0.00	0.27	0.724	O	|	|	|	|	0.72
65.750	0.00	0.27	0.722	O	|	|	|	|	0.71
65.833	0.00	0.27	0.720	O	|	|	|	|	0.71
65.917	0.00	0.27	0.718	O	|	|	|	|	0.71
66.000	0.00	0.27	0.716	O	|	|	|	|	0.71
66.083	0.00	0.27	0.714	O	|	|	|	|	0.71
66.167	0.00	0.27	0.712	O	|	|	|	|	0.70
66.250	0.00	0.27	0.711	O	|	|	|	|	0.70
66.333	0.00	0.27	0.709	O	|	|	|	|	0.70
66.417	0.00	0.27	0.707	O	|	|	|	|	0.70
66.500	0.00	0.27	0.705	O	|	|	|	|	0.70
66.583	0.00	0.27	0.703	O	|	|	|	|	0.70
66.667	0.00	0.26	0.701	O	|	|	|	|	0.69
66.750	0.00	0.26	0.700	O	|	|	|	|	0.69
66.833	0.00	0.26	0.698	O	|	|	|	|	0.69
66.917	0.00	0.26	0.696	O	|	|	|	|	0.69
67.000	0.00	0.26	0.694	O	|	|	|	|	0.69
67.083	0.00	0.26	0.692	O	|	|	|	|	0.68
67.167	0.00	0.26	0.691	O	|	|	|	|	0.68

67.250	0.00	0.26	0.689	O	|	|	|	|	0.68
67.333	0.00	0.26	0.687	O	|	|	|	|	0.68
67.417	0.00	0.26	0.685	O	|	|	|	|	0.68
67.500	0.00	0.26	0.683	O	|	|	|	|	0.67
67.583	0.00	0.26	0.682	O	|	|	|	|	0.67
67.667	0.00	0.26	0.680	O	|	|	|	|	0.67
67.750	0.00	0.26	0.678	O	|	|	|	|	0.67
67.833	0.00	0.26	0.676	O	|	|	|	|	0.67
67.917	0.00	0.26	0.674	O	|	|	|	|	0.66
68.000	0.00	0.26	0.673	O	|	|	|	|	0.66
68.083	0.00	0.26	0.671	O	|	|	|	|	0.66
68.167	0.00	0.26	0.669	O	|	|	|	|	0.66
68.250	0.00	0.26	0.667	O	|	|	|	|	0.66
68.333	0.00	0.26	0.666	O	|	|	|	|	0.65
68.417	0.00	0.26	0.664	O	|	|	|	|	0.65
68.500	0.00	0.26	0.662	O	|	|	|	|	0.65
68.583	0.00	0.26	0.660	O	|	|	|	|	0.65
68.667	0.00	0.26	0.658	O	|	|	|	|	0.65
68.750	0.00	0.26	0.657	O	|	|	|	|	0.65
68.833	0.00	0.26	0.655	O	|	|	|	|	0.64
68.917	0.00	0.26	0.653	O	|	|	|	|	0.64
69.000	0.00	0.26	0.651	O	|	|	|	|	0.64
69.083	0.00	0.25	0.650	O	|	|	|	|	0.64
69.167	0.00	0.25	0.648	O	|	|	|	|	0.64
69.250	0.00	0.25	0.646	O	|	|	|	|	0.63
69.333	0.00	0.25	0.644	O	|	|	|	|	0.63
69.417	0.00	0.25	0.643	O	|	|	|	|	0.63
69.500	0.00	0.25	0.641	O	|	|	|	|	0.63
69.583	0.00	0.25	0.639	O	|	|	|	|	0.63
69.667	0.00	0.25	0.637	O	|	|	|	|	0.62
69.750	0.00	0.25	0.636	O	|	|	|	|	0.62
69.833	0.00	0.25	0.634	O	|	|	|	|	0.62
69.917	0.00	0.25	0.632	O	|	|	|	|	0.62
70.000	0.00	0.25	0.630	O	|	|	|	|	0.62
70.083	0.00	0.25	0.629	O	|	|	|	|	0.62
70.167	0.00	0.25	0.627	O	|	|	|	|	0.61
70.250	0.00	0.25	0.625	O	|	|	|	|	0.61
70.333	0.00	0.25	0.624	O	|	|	|	|	0.61
70.417	0.00	0.25	0.622	O	|	|	|	|	0.61
70.500	0.00	0.25	0.620	O	|	|	|	|	0.61
70.583	0.00	0.25	0.618	O	|	|	|	|	0.60
70.667	0.00	0.25	0.617	O	|	|	|	|	0.60
70.750	0.00	0.25	0.615	O	|	|	|	|	0.60
70.833	0.00	0.25	0.613	O	|	|	|	|	0.60
70.917	0.00	0.25	0.612	O	|	|	|	|	0.60
71.000	0.00	0.25	0.610	O	|	|	|	|	0.60
71.083	0.00	0.25	0.608	O	|	|	|	|	0.59
71.167	0.00	0.25	0.606	O	|	|	|	|	0.59
71.250	0.00	0.25	0.605	O	|	|	|	|	0.59
71.333	0.00	0.25	0.603	O	|	|	|	|	0.59
71.417	0.00	0.25	0.601	O	|	|	|	|	0.59
71.500	0.00	0.25	0.600	O	|	|	|	|	0.58
71.583	0.00	0.24	0.598	O	|	|	|	|	0.58
71.667	0.00	0.24	0.596	O	|	|	|	|	0.58
71.750	0.00	0.24	0.595	O	|	|	|	|	0.58
71.833	0.00	0.24	0.593	O	|	|	|	|	0.58
71.917	0.00	0.24	0.591	O	|	|	|	|	0.58
72.000	0.00	0.24	0.590	O	|	|	|	|	0.57
72.083	0.00	0.24	0.588	O	|	|	|	|	0.57
72.167	0.00	0.24	0.586	O	|	|	|	|	0.57
72.250	0.00	0.24	0.585	O	|	|	|	|	0.57
72.333	0.00	0.24	0.583	O	|	|	|	|	0.57
72.417	0.00	0.24	0.581	O	|	|	|	|	0.57

72.500	0.00	0.24	0.580	O				0.56
72.583	0.00	0.24	0.578	O				0.56
72.667	0.00	0.24	0.576	O				0.56
72.750	0.00	0.24	0.575	O				0.56
72.833	0.00	0.24	0.573	O				0.56
72.917	0.00	0.24	0.571	O				0.55
73.000	0.00	0.24	0.570	O				0.55
73.083	0.00	0.24	0.568	O				0.55
73.167	0.00	0.24	0.566	O				0.55
73.250	0.00	0.24	0.565	O				0.55
73.333	0.00	0.24	0.563	O				0.55
73.417	0.00	0.24	0.561	O				0.54
73.500	0.00	0.24	0.560	O				0.54
73.583	0.00	0.24	0.558	O				0.54
73.667	0.00	0.24	0.557	O				0.54
73.750	0.00	0.24	0.555	O				0.54
73.833	0.00	0.24	0.553	O				0.54
73.917	0.00	0.24	0.552	O				0.53
74.000	0.00	0.24	0.550	O				0.53
74.083	0.00	0.24	0.548	O				0.53
74.167	0.00	0.24	0.547	O				0.53
74.250	0.00	0.23	0.545	O				0.53
74.333	0.00	0.23	0.544	O				0.53
74.417	0.00	0.23	0.542	O				0.52
74.500	0.00	0.23	0.540	O				0.52
74.583	0.00	0.23	0.539	O				0.52
74.667	0.00	0.23	0.537	O				0.52
74.750	0.00	0.23	0.535	O				0.52
74.833	0.00	0.23	0.534	O				0.51
74.917	0.00	0.23	0.532	O				0.51
75.000	0.00	0.23	0.531	O				0.51
75.083	0.00	0.23	0.529	O				0.51
75.167	0.00	0.23	0.527	O				0.51
75.250	0.00	0.23	0.526	O				0.51
75.333	0.00	0.23	0.524	O				0.50
75.417	0.00	0.23	0.523	O				0.50
75.500	0.00	0.23	0.521	O				0.50
75.583	0.00	0.23	0.520	O				0.50
75.667	0.00	0.23	0.518	O				0.50
75.750	0.00	0.23	0.516	O				0.50
75.833	0.00	0.23	0.515	O				0.50
75.917	0.00	0.23	0.513	O				0.49
76.000	0.00	0.23	0.512	O				0.49
76.083	0.00	0.23	0.510	O				0.49
76.167	0.00	0.22	0.509	O				0.49
76.250	0.00	0.22	0.507	O				0.49
76.333	0.00	0.22	0.505	O				0.49
76.417	0.00	0.22	0.504	O				0.48
76.500	0.00	0.22	0.502	O				0.48
76.583	0.00	0.22	0.501	O				0.48
76.667	0.00	0.22	0.499	O				0.48
76.750	0.00	0.22	0.498	O				0.48
76.833	0.00	0.22	0.496	O				0.48
76.917	0.00	0.22	0.495	O				0.48
77.000	0.00	0.22	0.493	O				0.47
77.083	0.00	0.22	0.492	O				0.47
77.167	0.00	0.22	0.490	O				0.47
77.250	0.00	0.22	0.489	O				0.47
77.333	0.00	0.22	0.487	O				0.47
77.417	0.00	0.21	0.486	O				0.47
77.500	0.00	0.21	0.484	O				0.47
77.583	0.00	0.21	0.483	O				0.46
77.667	0.00	0.21	0.481	O				0.46

77.750	0.00	0.21	0.480	O	|	|	|	|	0.46
77.833	0.00	0.21	0.479	O	|	|	|	|	0.46
77.917	0.00	0.21	0.477	O	|	|	|	|	0.46
78.000	0.00	0.21	0.476	O	|	|	|	|	0.46
78.083	0.00	0.21	0.474	O	|	|	|	|	0.46
78.167	0.00	0.21	0.473	O	|	|	|	|	0.45
78.250	0.00	0.21	0.471	O	|	|	|	|	0.45
78.333	0.00	0.21	0.470	O	|	|	|	|	0.45
78.417	0.00	0.21	0.468	O	|	|	|	|	0.45
78.500	0.00	0.21	0.467	O	|	|	|	|	0.45
78.583	0.00	0.21	0.466	O	|	|	|	|	0.45
78.667	0.00	0.21	0.464	O	|	|	|	|	0.45
78.750	0.00	0.20	0.463	O	|	|	|	|	0.44
78.833	0.00	0.20	0.461	O	|	|	|	|	0.44
78.917	0.00	0.20	0.460	O	|	|	|	|	0.44
79.000	0.00	0.20	0.459	O	|	|	|	|	0.44
79.083	0.00	0.20	0.457	O	|	|	|	|	0.44
79.167	0.00	0.20	0.456	O	|	|	|	|	0.44
79.250	0.00	0.20	0.454	O	|	|	|	|	0.44
79.333	0.00	0.20	0.453	O	|	|	|	|	0.44
79.417	0.00	0.20	0.452	O	|	|	|	|	0.43
79.500	0.00	0.20	0.450	O	|	|	|	|	0.43
79.583	0.00	0.20	0.449	O	|	|	|	|	0.43
79.667	0.00	0.20	0.447	O	|	|	|	|	0.43
79.750	0.00	0.20	0.446	O	|	|	|	|	0.43
79.833	0.00	0.20	0.445	O	|	|	|	|	0.43
79.917	0.00	0.20	0.443	O	|	|	|	|	0.43
80.000	0.00	0.20	0.442	O	|	|	|	|	0.43
80.083	0.00	0.19	0.441	O	|	|	|	|	0.42
80.167	0.00	0.19	0.439	O	|	|	|	|	0.42
80.250	0.00	0.19	0.438	O	|	|	|	|	0.42
80.333	0.00	0.19	0.437	O	|	|	|	|	0.42
80.417	0.00	0.19	0.435	O	|	|	|	|	0.42
80.500	0.00	0.19	0.434	O	|	|	|	|	0.42
80.583	0.00	0.19	0.433	O	|	|	|	|	0.42
80.667	0.00	0.19	0.431	O	|	|	|	|	0.41
80.750	0.00	0.19	0.430	O	|	|	|	|	0.41
80.833	0.00	0.19	0.429	O	|	|	|	|	0.41
80.917	0.00	0.19	0.428	O	|	|	|	|	0.41
81.000	0.00	0.19	0.426	O	|	|	|	|	0.41
81.083	0.00	0.19	0.425	O	|	|	|	|	0.41
81.167	0.00	0.19	0.424	O	|	|	|	|	0.41
81.250	0.00	0.19	0.422	O	|	|	|	|	0.41
81.333	0.00	0.19	0.421	O	|	|	|	|	0.40
81.417	0.00	0.19	0.420	O	|	|	|	|	0.40
81.500	0.00	0.19	0.418	O	|	|	|	|	0.40
81.583	0.00	0.18	0.417	O	|	|	|	|	0.40
81.667	0.00	0.18	0.416	O	|	|	|	|	0.40
81.750	0.00	0.18	0.415	O	|	|	|	|	0.40
81.833	0.00	0.18	0.413	O	|	|	|	|	0.40
81.917	0.00	0.18	0.412	O	|	|	|	|	0.40
82.000	0.00	0.18	0.411	O	|	|	|	|	0.40
82.083	0.00	0.18	0.410	O	|	|	|	|	0.39
82.167	0.00	0.18	0.408	O	|	|	|	|	0.39
82.250	0.00	0.18	0.407	O	|	|	|	|	0.39
82.333	0.00	0.18	0.406	O	|	|	|	|	0.39
82.417	0.00	0.18	0.405	O	|	|	|	|	0.39
82.500	0.00	0.18	0.403	O	|	|	|	|	0.39
82.583	0.00	0.18	0.402	O	|	|	|	|	0.39
82.667	0.00	0.18	0.401	O	|	|	|	|	0.39
82.750	0.00	0.18	0.400	O	|	|	|	|	0.38
82.833	0.00	0.18	0.399	O	|	|	|	|	0.38
82.917	0.00	0.18	0.397	O	|	|	|	|	0.38

83.000	0.00	0.18	0.396	O	|	|	|	|	0.38
83.083	0.00	0.17	0.395	O	|	|	|	|	0.38
83.167	0.00	0.17	0.394	O	|	|	|	|	0.38
83.250	0.00	0.17	0.393	O	|	|	|	|	0.38
83.333	0.00	0.17	0.391	O	|	|	|	|	0.38
83.417	0.00	0.17	0.390	O	|	|	|	|	0.38
83.500	0.00	0.17	0.389	O	|	|	|	|	0.37
83.583	0.00	0.17	0.388	O	|	|	|	|	0.37
83.667	0.00	0.17	0.387	O	|	|	|	|	0.37
83.750	0.00	0.17	0.385	O	|	|	|	|	0.37
83.833	0.00	0.17	0.384	O	|	|	|	|	0.37
83.917	0.00	0.17	0.383	O	|	|	|	|	0.37
84.000	0.00	0.17	0.382	O	|	|	|	|	0.37
84.083	0.00	0.17	0.381	O	|	|	|	|	0.37
84.167	0.00	0.17	0.380	O	|	|	|	|	0.37
84.250	0.00	0.17	0.378	O	|	|	|	|	0.36
84.333	0.00	0.17	0.377	O	|	|	|	|	0.36
84.417	0.00	0.17	0.376	O	|	|	|	|	0.36
84.500	0.00	0.17	0.375	O	|	|	|	|	0.36
84.583	0.00	0.17	0.374	O	|	|	|	|	0.36
84.667	0.00	0.16	0.373	O	|	|	|	|	0.36
84.750	0.00	0.16	0.372	O	|	|	|	|	0.36
84.833	0.00	0.16	0.370	O	|	|	|	|	0.36
84.917	0.00	0.16	0.369	O	|	|	|	|	0.36
85.000	0.00	0.16	0.368	O	|	|	|	|	0.35
85.083	0.00	0.16	0.367	O	|	|	|	|	0.35
85.167	0.00	0.16	0.366	O	|	|	|	|	0.35
85.250	0.00	0.16	0.365	O	|	|	|	|	0.35
85.333	0.00	0.16	0.364	O	|	|	|	|	0.35
85.417	0.00	0.16	0.363	O	|	|	|	|	0.35
85.500	0.00	0.16	0.362	O	|	|	|	|	0.35
85.583	0.00	0.16	0.360	O	|	|	|	|	0.35
85.667	0.00	0.16	0.359	O	|	|	|	|	0.35
85.750	0.00	0.16	0.358	O	|	|	|	|	0.34
85.833	0.00	0.16	0.357	O	|	|	|	|	0.34
85.917	0.00	0.16	0.356	O	|	|	|	|	0.34
86.000	0.00	0.16	0.355	O	|	|	|	|	0.34
86.083	0.00	0.16	0.354	O	|	|	|	|	0.34
86.167	0.00	0.16	0.353	O	|	|	|	|	0.34
86.250	0.00	0.16	0.352	O	|	|	|	|	0.34
86.333	0.00	0.16	0.351	O	|	|	|	|	0.34
86.417	0.00	0.15	0.350	O	|	|	|	|	0.34
86.500	0.00	0.15	0.349	O	|	|	|	|	0.34
86.583	0.00	0.15	0.348	O	|	|	|	|	0.33
86.667	0.00	0.15	0.346	O	|	|	|	|	0.33
86.750	0.00	0.15	0.345	O	|	|	|	|	0.33
86.833	0.00	0.15	0.344	O	|	|	|	|	0.33
86.917	0.00	0.15	0.343	O	|	|	|	|	0.33
87.000	0.00	0.15	0.342	O	|	|	|	|	0.33
87.083	0.00	0.15	0.341	O	|	|	|	|	0.33
87.167	0.00	0.15	0.340	O	|	|	|	|	0.33
87.250	0.00	0.15	0.339	O	|	|	|	|	0.33
87.333	0.00	0.15	0.338	O	|	|	|	|	0.33
87.417	0.00	0.15	0.337	O	|	|	|	|	0.32
87.500	0.00	0.15	0.336	O	|	|	|	|	0.32
87.583	0.00	0.15	0.335	O	|	|	|	|	0.32
87.667	0.00	0.15	0.334	O	|	|	|	|	0.32
87.750	0.00	0.15	0.333	O	|	|	|	|	0.32
87.833	0.00	0.15	0.332	O	|	|	|	|	0.32
87.917	0.00	0.15	0.331	O	|	|	|	|	0.32
88.000	0.00	0.15	0.330	O	|	|	|	|	0.32
88.083	0.00	0.15	0.329	O	|	|	|	|	0.32
88.167	0.00	0.15	0.328	O	|	|	|	|	0.32

88.250	0.00	0.14	0.327	O	|	|	|	|	0.31
88.333	0.00	0.14	0.326	O	|	|	|	|	0.31
88.417	0.00	0.14	0.325	O	|	|	|	|	0.31
88.500	0.00	0.14	0.324	O	|	|	|	|	0.31
88.583	0.00	0.14	0.323	O	|	|	|	|	0.31
88.667	0.00	0.14	0.322	O	|	|	|	|	0.31
88.750	0.00	0.14	0.321	O	|	|	|	|	0.31
88.833	0.00	0.14	0.320	O	|	|	|	|	0.31
88.917	0.00	0.14	0.319	O	|	|	|	|	0.31
89.000	0.00	0.14	0.318	O	|	|	|	|	0.31
89.083	0.00	0.14	0.317	O	|	|	|	|	0.30
89.167	0.00	0.14	0.316	O	|	|	|	|	0.30
89.250	0.00	0.14	0.315	O	|	|	|	|	0.30
89.333	0.00	0.14	0.314	O	|	|	|	|	0.30
89.417	0.00	0.14	0.313	O	|	|	|	|	0.30
89.500	0.00	0.14	0.312	O	|	|	|	|	0.30
89.583	0.00	0.14	0.311	O	|	|	|	|	0.30
89.667	0.00	0.14	0.310	O	|	|	|	|	0.30
89.750	0.00	0.14	0.310	O	|	|	|	|	0.30
89.833	0.00	0.14	0.309	O	|	|	|	|	0.30
89.917	0.00	0.14	0.308	O	|	|	|	|	0.30
90.000	0.00	0.14	0.307	O	|	|	|	|	0.29
90.083	0.00	0.14	0.306	O	|	|	|	|	0.29
90.167	0.00	0.13	0.305	O	|	|	|	|	0.29
90.250	0.00	0.13	0.304	O	|	|	|	|	0.29
90.333	0.00	0.13	0.303	O	|	|	|	|	0.29
90.417	0.00	0.13	0.302	O	|	|	|	|	0.29
90.500	0.00	0.13	0.301	O	|	|	|	|	0.29
90.583	0.00	0.13	0.300	O	|	|	|	|	0.29
90.667	0.00	0.13	0.299	O	|	|	|	|	0.29
90.750	0.00	0.13	0.298	O	|	|	|	|	0.29
90.833	0.00	0.13	0.298	O	|	|	|	|	0.29
90.917	0.00	0.13	0.297	O	|	|	|	|	0.29
91.000	0.00	0.13	0.296	O	|	|	|	|	0.28
91.083	0.00	0.13	0.295	O	|	|	|	|	0.28
91.167	0.00	0.13	0.294	O	|	|	|	|	0.28
91.250	0.00	0.13	0.293	O	|	|	|	|	0.28
91.333	0.00	0.13	0.292	O	|	|	|	|	0.28
91.417	0.00	0.13	0.291	O	|	|	|	|	0.28
91.500	0.00	0.13	0.290	O	|	|	|	|	0.28
91.583	0.00	0.13	0.289	O	|	|	|	|	0.28
91.667	0.00	0.13	0.289	O	|	|	|	|	0.28
91.750	0.00	0.13	0.288	O	|	|	|	|	0.28
91.833	0.00	0.13	0.287	O	|	|	|	|	0.28
91.917	0.00	0.13	0.286	O	|	|	|	|	0.27
92.000	0.00	0.13	0.285	O	|	|	|	|	0.27
92.083	0.00	0.13	0.284	O	|	|	|	|	0.27
92.167	0.00	0.13	0.283	O	|	|	|	|	0.27
92.250	0.00	0.12	0.283	O	|	|	|	|	0.27
92.333	0.00	0.12	0.282	O	|	|	|	|	0.27
92.417	0.00	0.12	0.281	O	|	|	|	|	0.27
92.500	0.00	0.12	0.280	O	|	|	|	|	0.27
92.583	0.00	0.12	0.279	O	|	|	|	|	0.27
92.667	0.00	0.12	0.278	O	|	|	|	|	0.27
92.750	0.00	0.12	0.277	O	|	|	|	|	0.27
92.833	0.00	0.12	0.277	O	|	|	|	|	0.27
92.917	0.00	0.12	0.276	O	|	|	|	|	0.27
93.000	0.00	0.12	0.275	O	|	|	|	|	0.26
93.083	0.00	0.12	0.274	O	|	|	|	|	0.26
93.167	0.00	0.12	0.273	O	|	|	|	|	0.26
93.250	0.00	0.12	0.272	O	|	|	|	|	0.26
93.333	0.00	0.12	0.272	O	|	|	|	|	0.26
93.417	0.00	0.12	0.271	O	|	|	|	|	0.26

93.500	0.00	0.12	0.270	O	|	|	|	|	0.26
93.583	0.00	0.12	0.269	O	|	|	|	|	0.26
93.667	0.00	0.12	0.268	O	|	|	|	|	0.26
93.750	0.00	0.12	0.267	O	|	|	|	|	0.26
93.833	0.00	0.12	0.267	O	|	|	|	|	0.26
93.917	0.00	0.12	0.266	O	|	|	|	|	0.26
94.000	0.00	0.12	0.265	O	|	|	|	|	0.25
94.083	0.00	0.12	0.264	O	|	|	|	|	0.25
94.167	0.00	0.12	0.263	O	|	|	|	|	0.25
94.250	0.00	0.12	0.263	O	|	|	|	|	0.25
94.333	0.00	0.12	0.262	O	|	|	|	|	0.25
94.417	0.00	0.12	0.261	O	|	|	|	|	0.25
94.500	0.00	0.12	0.260	O	|	|	|	|	0.25
94.583	0.00	0.11	0.259	O	|	|	|	|	0.25
94.667	0.00	0.11	0.259	O	|	|	|	|	0.25
94.750	0.00	0.11	0.258	O	|	|	|	|	0.25
94.833	0.00	0.11	0.257	O	|	|	|	|	0.25
94.917	0.00	0.11	0.256	O	|	|	|	|	0.25
95.000	0.00	0.11	0.255	O	|	|	|	|	0.25
95.083	0.00	0.11	0.255	O	|	|	|	|	0.24
95.167	0.00	0.11	0.254	O	|	|	|	|	0.24
95.250	0.00	0.11	0.253	O	|	|	|	|	0.24
95.333	0.00	0.11	0.252	O	|	|	|	|	0.24
95.417	0.00	0.11	0.252	O	|	|	|	|	0.24
95.500	0.00	0.11	0.251	O	|	|	|	|	0.24
95.583	0.00	0.11	0.250	O	|	|	|	|	0.24
95.667	0.00	0.11	0.249	O	|	|	|	|	0.24
95.750	0.00	0.11	0.249	O	|	|	|	|	0.24
95.833	0.00	0.11	0.248	O	|	|	|	|	0.24
95.917	0.00	0.11	0.247	O	|	|	|	|	0.24
96.000	0.00	0.11	0.246	O	|	|	|	|	0.24
96.083	0.00	0.11	0.246	O	|	|	|	|	0.24
96.167	0.00	0.11	0.245	O	|	|	|	|	0.24
96.250	0.00	0.11	0.244	O	|	|	|	|	0.23
96.333	0.00	0.11	0.243	O	|	|	|	|	0.23
96.417	0.00	0.11	0.243	O	|	|	|	|	0.23
96.500	0.00	0.11	0.242	O	|	|	|	|	0.23
96.583	0.00	0.11	0.241	O	|	|	|	|	0.23
96.667	0.00	0.11	0.240	O	|	|	|	|	0.23
96.750	0.00	0.11	0.240	O	|	|	|	|	0.23
96.833	0.00	0.11	0.239	O	|	|	|	|	0.23
96.917	0.00	0.11	0.238	O	|	|	|	|	0.23
97.000	0.00	0.11	0.237	O	|	|	|	|	0.23
97.083	0.00	0.10	0.237	O	|	|	|	|	0.23
97.167	0.00	0.10	0.236	O	|	|	|	|	0.23
97.250	0.00	0.10	0.235	O	|	|	|	|	0.23
97.333	0.00	0.10	0.235	O	|	|	|	|	0.23
97.417	0.00	0.10	0.234	O	|	|	|	|	0.22
97.500	0.00	0.10	0.233	O	|	|	|	|	0.22
97.583	0.00	0.10	0.232	O	|	|	|	|	0.22
97.667	0.00	0.10	0.232	O	|	|	|	|	0.22
97.750	0.00	0.10	0.231	O	|	|	|	|	0.22
97.833	0.00	0.10	0.230	O	|	|	|	|	0.22
97.917	0.00	0.10	0.230	O	|	|	|	|	0.22
98.000	0.00	0.10	0.229	O	|	|	|	|	0.22
98.083	0.00	0.10	0.228	O	|	|	|	|	0.22
98.167	0.00	0.10	0.228	O	|	|	|	|	0.22
98.250	0.00	0.10	0.227	O	|	|	|	|	0.22
98.333	0.00	0.10	0.226	O	|	|	|	|	0.22
98.417	0.00	0.10	0.225	O	|	|	|	|	0.22
98.500	0.00	0.10	0.225	O	|	|	|	|	0.22
98.583	0.00	0.10	0.224	O	|	|	|	|	0.22
98.667	0.00	0.10	0.223	O	|	|	|	|	0.21

98.750	0.00	0.10	0.223	O	|	|	|	|	0.21
98.833	0.00	0.10	0.222	O	|	|	|	|	0.21
98.917	0.00	0.10	0.221	O	|	|	|	|	0.21
99.000	0.00	0.10	0.221	O	|	|	|	|	0.21
99.083	0.00	0.10	0.220	O	|	|	|	|	0.21
99.167	0.00	0.10	0.219	O	|	|	|	|	0.21
99.250	0.00	0.10	0.219	O	|	|	|	|	0.21
99.333	0.00	0.10	0.218	O	|	|	|	|	0.21
99.417	0.00	0.10	0.217	O	|	|	|	|	0.21
99.500	0.00	0.10	0.217	O	|	|	|	|	0.21
99.583	0.00	0.10	0.216	O	|	|	|	|	0.21
99.667	0.00	0.10	0.215	O	|	|	|	|	0.21
99.750	0.00	0.09	0.215	O	|	|	|	|	0.21
99.833	0.00	0.09	0.214	O	|	|	|	|	0.21
99.917	0.00	0.09	0.213	O	|	|	|	|	0.21
100.000	0.00	0.09	0.213	O	|	|	|	|	0.20
100.083	0.00	0.09	0.212	O	|	|	|	|	0.20
100.167	0.00	0.09	0.212	O	|	|	|	|	0.20
100.250	0.00	0.09	0.211	O	|	|	|	|	0.20
100.333	0.00	0.09	0.210	O	|	|	|	|	0.20
100.417	0.00	0.09	0.210	O	|	|	|	|	0.20
100.500	0.00	0.09	0.209	O	|	|	|	|	0.20
100.583	0.00	0.09	0.208	O	|	|	|	|	0.20
100.667	0.00	0.09	0.208	O	|	|	|	|	0.20
100.750	0.00	0.09	0.207	O	|	|	|	|	0.20
100.833	0.00	0.09	0.206	O	|	|	|	|	0.20
100.917	0.00	0.09	0.206	O	|	|	|	|	0.20
101.000	0.00	0.09	0.205	O	|	|	|	|	0.20
101.083	0.00	0.09	0.205	O	|	|	|	|	0.20
101.167	0.00	0.09	0.204	O	|	|	|	|	0.20
101.250	0.00	0.09	0.203	O	|	|	|	|	0.20
101.333	0.00	0.09	0.203	O	|	|	|	|	0.19
101.417	0.00	0.09	0.202	O	|	|	|	|	0.19
101.500	0.00	0.09	0.201	O	|	|	|	|	0.19
101.583	0.00	0.09	0.201	O	|	|	|	|	0.19
101.667	0.00	0.09	0.200	O	|	|	|	|	0.19
101.750	0.00	0.09	0.200	O	|	|	|	|	0.19
101.833	0.00	0.09	0.199	O	|	|	|	|	0.19
101.917	0.00	0.09	0.198	O	|	|	|	|	0.19
102.000	0.00	0.09	0.198	O	|	|	|	|	0.19
102.083	0.00	0.09	0.197	O	|	|	|	|	0.19
102.167	0.00	0.09	0.197	O	|	|	|	|	0.19
102.250	0.00	0.09	0.196	O	|	|	|	|	0.19
102.333	0.00	0.09	0.195	O	|	|	|	|	0.19
102.417	0.00	0.09	0.195	O	|	|	|	|	0.19
102.500	0.00	0.09	0.194	O	|	|	|	|	0.19
102.583	0.00	0.09	0.194	O	|	|	|	|	0.19
102.667	0.00	0.09	0.193	O	|	|	|	|	0.19
102.750	0.00	0.09	0.192	O	|	|	|	|	0.19
102.833	0.00	0.08	0.192	O	|	|	|	|	0.18
102.917	0.00	0.08	0.191	O	|	|	|	|	0.18
103.000	0.00	0.08	0.191	O	|	|	|	|	0.18
103.083	0.00	0.08	0.190	O	|	|	|	|	0.18
103.167	0.00	0.08	0.190	O	|	|	|	|	0.18
103.250	0.00	0.08	0.189	O	|	|	|	|	0.18
103.333	0.00	0.08	0.188	O	|	|	|	|	0.18
103.417	0.00	0.08	0.188	O	|	|	|	|	0.18
103.500	0.00	0.08	0.187	O	|	|	|	|	0.18
103.583	0.00	0.08	0.187	O	|	|	|	|	0.18
103.667	0.00	0.08	0.186	O	|	|	|	|	0.18
103.750	0.00	0.08	0.186	O	|	|	|	|	0.18
103.833	0.00	0.08	0.185	O	|	|	|	|	0.18
103.917	0.00	0.08	0.184	O	|	|	|	|	0.18

104.000	0.00	0.08	0.184	O	|	|	|	|	0.18
104.083	0.00	0.08	0.183	O	|	|	|	|	0.18
104.167	0.00	0.08	0.183	O	|	|	|	|	0.18
104.250	0.00	0.08	0.182	O	|	|	|	|	0.18
104.333	0.00	0.08	0.182	O	|	|	|	|	0.17
104.417	0.00	0.08	0.181	O	|	|	|	|	0.17
104.500	0.00	0.08	0.181	O	|	|	|	|	0.17
104.583	0.00	0.08	0.180	O	|	|	|	|	0.17
104.667	0.00	0.08	0.179	O	|	|	|	|	0.17
104.750	0.00	0.08	0.179	O	|	|	|	|	0.17
104.833	0.00	0.08	0.178	O	|	|	|	|	0.17
104.917	0.00	0.08	0.178	O	|	|	|	|	0.17
105.000	0.00	0.08	0.177	O	|	|	|	|	0.17
105.083	0.00	0.08	0.177	O	|	|	|	|	0.17
105.167	0.00	0.08	0.176	O	|	|	|	|	0.17
105.250	0.00	0.08	0.176	O	|	|	|	|	0.17
105.333	0.00	0.08	0.175	O	|	|	|	|	0.17
105.417	0.00	0.08	0.175	O	|	|	|	|	0.17
105.500	0.00	0.08	0.174	O	|	|	|	|	0.17
105.583	0.00	0.08	0.174	O	|	|	|	|	0.17
105.667	0.00	0.08	0.173	O	|	|	|	|	0.17
105.750	0.00	0.08	0.172	O	|	|	|	|	0.17
105.833	0.00	0.08	0.172	O	|	|	|	|	0.17
105.917	0.00	0.08	0.171	O	|	|	|	|	0.16
106.000	0.00	0.08	0.171	O	|	|	|	|	0.16
106.083	0.00	0.08	0.170	O	|	|	|	|	0.16
106.167	0.00	0.08	0.170	O	|	|	|	|	0.16
106.250	0.00	0.07	0.169	O	|	|	|	|	0.16
106.333	0.00	0.07	0.169	O	|	|	|	|	0.16
106.417	0.00	0.07	0.168	O	|	|	|	|	0.16
106.500	0.00	0.07	0.168	O	|	|	|	|	0.16
106.583	0.00	0.07	0.167	O	|	|	|	|	0.16
106.667	0.00	0.07	0.167	O	|	|	|	|	0.16
106.750	0.00	0.07	0.166	O	|	|	|	|	0.16
106.833	0.00	0.07	0.166	O	|	|	|	|	0.16
106.917	0.00	0.07	0.165	O	|	|	|	|	0.16
107.000	0.00	0.07	0.165	O	|	|	|	|	0.16
107.083	0.00	0.07	0.164	O	|	|	|	|	0.16
107.167	0.00	0.07	0.164	O	|	|	|	|	0.16
107.250	0.00	0.07	0.163	O	|	|	|	|	0.16
107.333	0.00	0.07	0.163	O	|	|	|	|	0.16
107.417	0.00	0.07	0.162	O	|	|	|	|	0.16
107.500	0.00	0.07	0.162	O	|	|	|	|	0.16
107.583	0.00	0.07	0.161	O	|	|	|	|	0.16
107.667	0.00	0.07	0.161	O	|	|	|	|	0.15
107.750	0.00	0.07	0.160	O	|	|	|	|	0.15
107.833	0.00	0.07	0.160	O	|	|	|	|	0.15
107.917	0.00	0.07	0.159	O	|	|	|	|	0.15
108.000	0.00	0.07	0.159	O	|	|	|	|	0.15
108.083	0.00	0.07	0.158	O	|	|	|	|	0.15
108.167	0.00	0.07	0.158	O	|	|	|	|	0.15
108.250	0.00	0.07	0.157	O	|	|	|	|	0.15
108.333	0.00	0.07	0.157	O	|	|	|	|	0.15
108.417	0.00	0.07	0.156	O	|	|	|	|	0.15
108.500	0.00	0.07	0.156	O	|	|	|	|	0.15
108.583	0.00	0.07	0.155	O	|	|	|	|	0.15
108.667	0.00	0.07	0.155	O	|	|	|	|	0.15
108.750	0.00	0.07	0.155	O	|	|	|	|	0.15
108.833	0.00	0.07	0.154	O	|	|	|	|	0.15
108.917	0.00	0.07	0.154	O	|	|	|	|	0.15
109.000	0.00	0.07	0.153	O	|	|	|	|	0.15
109.083	0.00	0.07	0.153	O	|	|	|	|	0.15
109.167	0.00	0.07	0.152	O	|	|	|	|	0.15

109.250	0.00	0.07	0.152	O	|	|	|	|	0.15
109.333	0.00	0.07	0.151	O	|	|	|	|	0.15
109.417	0.00	0.07	0.151	O	|	|	|	|	0.15
109.500	0.00	0.07	0.150	O	|	|	|	|	0.14
109.583	0.00	0.07	0.150	O	|	|	|	|	0.14
109.667	0.00	0.07	0.149	O	|	|	|	|	0.14
109.750	0.00	0.07	0.149	O	|	|	|	|	0.14
109.833	0.00	0.07	0.149	O	|	|	|	|	0.14
109.917	0.00	0.07	0.148	O	|	|	|	|	0.14
110.000	0.00	0.07	0.148	O	|	|	|	|	0.14
110.083	0.00	0.07	0.147	O	|	|	|	|	0.14
110.167	0.00	0.06	0.147	O	|	|	|	|	0.14
110.250	0.00	0.06	0.146	O	|	|	|	|	0.14
110.333	0.00	0.06	0.146	O	|	|	|	|	0.14
110.417	0.00	0.06	0.145	O	|	|	|	|	0.14
110.500	0.00	0.06	0.145	O	|	|	|	|	0.14
110.583	0.00	0.06	0.145	O	|	|	|	|	0.14
110.667	0.00	0.06	0.144	O	|	|	|	|	0.14
110.750	0.00	0.06	0.144	O	|	|	|	|	0.14
110.833	0.00	0.06	0.143	O	|	|	|	|	0.14
110.917	0.00	0.06	0.143	O	|	|	|	|	0.14
111.000	0.00	0.06	0.142	O	|	|	|	|	0.14
111.083	0.00	0.06	0.142	O	|	|	|	|	0.14
111.167	0.00	0.06	0.141	O	|	|	|	|	0.14
111.250	0.00	0.06	0.141	O	|	|	|	|	0.14
111.333	0.00	0.06	0.141	O	|	|	|	|	0.14
111.417	0.00	0.06	0.140	O	|	|	|	|	0.13
111.500	0.00	0.06	0.140	O	|	|	|	|	0.13
111.583	0.00	0.06	0.139	O	|	|	|	|	0.13
111.667	0.00	0.06	0.139	O	|	|	|	|	0.13
111.750	0.00	0.06	0.139	O	|	|	|	|	0.13
111.833	0.00	0.06	0.138	O	|	|	|	|	0.13
111.917	0.00	0.06	0.138	O	|	|	|	|	0.13
112.000	0.00	0.06	0.137	O	|	|	|	|	0.13
112.083	0.00	0.06	0.137	O	|	|	|	|	0.13
112.167	0.00	0.06	0.136	O	|	|	|	|	0.13
112.250	0.00	0.06	0.136	O	|	|	|	|	0.13
112.333	0.00	0.06	0.136	O	|	|	|	|	0.13
112.417	0.00	0.06	0.135	O	|	|	|	|	0.13
112.500	0.00	0.06	0.135	O	|	|	|	|	0.13
112.583	0.00	0.06	0.134	O	|	|	|	|	0.13
112.667	0.00	0.06	0.134	O	|	|	|	|	0.13
112.750	0.00	0.06	0.134	O	|	|	|	|	0.13
112.833	0.00	0.06	0.133	O	|	|	|	|	0.13
112.917	0.00	0.06	0.133	O	|	|	|	|	0.13
113.000	0.00	0.06	0.132	O	|	|	|	|	0.13
113.083	0.00	0.06	0.132	O	|	|	|	|	0.13
113.167	0.00	0.06	0.132	O	|	|	|	|	0.13
113.250	0.00	0.06	0.131	O	|	|	|	|	0.13
113.333	0.00	0.06	0.131	O	|	|	|	|	0.13
113.417	0.00	0.06	0.130	O	|	|	|	|	0.13
113.500	0.00	0.06	0.130	O	|	|	|	|	0.12
113.583	0.00	0.06	0.130	O	|	|	|	|	0.12
113.667	0.00	0.06	0.129	O	|	|	|	|	0.12
113.750	0.00	0.06	0.129	O	|	|	|	|	0.12
113.833	0.00	0.06	0.128	O	|	|	|	|	0.12
113.917	0.00	0.06	0.128	O	|	|	|	|	0.12
114.000	0.00	0.06	0.128	O	|	|	|	|	0.12
114.083	0.00	0.06	0.127	O	|	|	|	|	0.12
114.167	0.00	0.06	0.127	O	|	|	|	|	0.12
114.250	0.00	0.06	0.126	O	|	|	|	|	0.12
114.333	0.00	0.06	0.126	O	|	|	|	|	0.12
114.417	0.00	0.06	0.126	O	|	|	|	|	0.12

114.500	0.00	0.06	0.125	O	|	|	|	|	0.12
114.583	0.00	0.06	0.125	O	|	|	|	|	0.12
114.667	0.00	0.06	0.124	O	|	|	|	|	0.12
114.750	0.00	0.05	0.124	O	|	|	|	|	0.12
114.833	0.00	0.05	0.124	O	|	|	|	|	0.12
114.917	0.00	0.05	0.123	O	|	|	|	|	0.12
115.000	0.00	0.05	0.123	O	|	|	|	|	0.12
115.083	0.00	0.05	0.123	O	|	|	|	|	0.12
115.167	0.00	0.05	0.122	O	|	|	|	|	0.12
115.250	0.00	0.05	0.122	O	|	|	|	|	0.12
115.333	0.00	0.05	0.121	O	|	|	|	|	0.12
115.417	0.00	0.05	0.121	O	|	|	|	|	0.12
115.500	0.00	0.05	0.121	O	|	|	|	|	0.12
115.583	0.00	0.05	0.120	O	|	|	|	|	0.12
115.667	0.00	0.05	0.120	O	|	|	|	|	0.12
115.750	0.00	0.05	0.120	O	|	|	|	|	0.12
115.833	0.00	0.05	0.119	O	|	|	|	|	0.11
115.917	0.00	0.05	0.119	O	|	|	|	|	0.11
116.000	0.00	0.05	0.119	O	|	|	|	|	0.11
116.083	0.00	0.05	0.118	O	|	|	|	|	0.11
116.167	0.00	0.05	0.118	O	|	|	|	|	0.11
116.250	0.00	0.05	0.117	O	|	|	|	|	0.11
116.333	0.00	0.05	0.117	O	|	|	|	|	0.11
116.417	0.00	0.05	0.117	O	|	|	|	|	0.11
116.500	0.00	0.05	0.116	O	|	|	|	|	0.11
116.583	0.00	0.05	0.116	O	|	|	|	|	0.11
116.667	0.00	0.05	0.116	O	|	|	|	|	0.11
116.750	0.00	0.05	0.115	O	|	|	|	|	0.11
116.833	0.00	0.05	0.115	O	|	|	|	|	0.11
116.917	0.00	0.05	0.115	O	|	|	|	|	0.11
117.000	0.00	0.05	0.114	O	|	|	|	|	0.11
117.083	0.00	0.05	0.114	O	|	|	|	|	0.11
117.167	0.00	0.05	0.114	O	|	|	|	|	0.11
117.250	0.00	0.05	0.113	O	|	|	|	|	0.11
117.333	0.00	0.05	0.113	O	|	|	|	|	0.11
117.417	0.00	0.05	0.113	O	|	|	|	|	0.11
117.500	0.00	0.05	0.112	O	|	|	|	|	0.11
117.583	0.00	0.05	0.112	O	|	|	|	|	0.11
117.667	0.00	0.05	0.112	O	|	|	|	|	0.11
117.750	0.00	0.05	0.111	O	|	|	|	|	0.11
117.833	0.00	0.05	0.111	O	|	|	|	|	0.11
117.917	0.00	0.05	0.111	O	|	|	|	|	0.11
118.000	0.00	0.05	0.110	O	|	|	|	|	0.11
118.083	0.00	0.05	0.110	O	|	|	|	|	0.11
118.167	0.00	0.05	0.110	O	|	|	|	|	0.11
118.250	0.00	0.05	0.109	O	|	|	|	|	0.11
118.333	0.00	0.05	0.109	O	|	|	|	|	0.10
118.417	0.00	0.05	0.109	O	|	|	|	|	0.10
118.500	0.00	0.05	0.108	O	|	|	|	|	0.10
118.583	0.00	0.05	0.108	O	|	|	|	|	0.10
118.667	0.00	0.05	0.108	O	|	|	|	|	0.10
118.750	0.00	0.05	0.107	O	|	|	|	|	0.10
118.833	0.00	0.05	0.107	O	|	|	|	|	0.10
118.917	0.00	0.05	0.107	O	|	|	|	|	0.10
119.000	0.00	0.05	0.106	O	|	|	|	|	0.10
119.083	0.00	0.05	0.106	O	|	|	|	|	0.10
119.167	0.00	0.05	0.106	O	|	|	|	|	0.10
119.250	0.00	0.05	0.105	O	|	|	|	|	0.10
119.333	0.00	0.05	0.105	O	|	|	|	|	0.10
119.417	0.00	0.05	0.105	O	|	|	|	|	0.10
119.500	0.00	0.05	0.104	O	|	|	|	|	0.10
119.583	0.00	0.05	0.104	O	|	|	|	|	0.10
119.667	0.00	0.05	0.104	O	|	|	|	|	0.10

119.750	0.00	0.05	0.103	O	|	|	|	|	0.10
119.833	0.00	0.05	0.103	O	|	|	|	|	0.10
119.917	0.00	0.05	0.103	O	|	|	|	|	0.10
120.000	0.00	0.05	0.102	O	|	|	|	|	0.10
120.083	0.00	0.05	0.102	O	|	|	|	|	0.10
120.167	0.00	0.05	0.102	O	|	|	|	|	0.10
120.250	0.00	0.04	0.102	O	|	|	|	|	0.10
120.333	0.00	0.04	0.101	O	|	|	|	|	0.10
120.417	0.00	0.04	0.101	O	|	|	|	|	0.10
120.500	0.00	0.04	0.101	O	|	|	|	|	0.10
120.583	0.00	0.04	0.100	O	|	|	|	|	0.10
120.667	0.00	0.04	0.100	O	|	|	|	|	0.10
120.750	0.00	0.04	0.100	O	|	|	|	|	0.10
120.833	0.00	0.04	0.099	O	|	|	|	|	0.10
120.917	0.00	0.04	0.099	O	|	|	|	|	0.10
121.000	0.00	0.04	0.099	O	|	|	|	|	0.09
121.083	0.00	0.04	0.098	O	|	|	|	|	0.09
121.167	0.00	0.04	0.098	O	|	|	|	|	0.09
121.250	0.00	0.04	0.098	O	|	|	|	|	0.09
121.333	0.00	0.04	0.098	O	|	|	|	|	0.09
121.417	0.00	0.04	0.097	O	|	|	|	|	0.09
121.500	0.00	0.04	0.097	O	|	|	|	|	0.09
121.583	0.00	0.04	0.097	O	|	|	|	|	0.09
121.667	0.00	0.04	0.096	O	|	|	|	|	0.09
121.750	0.00	0.04	0.096	O	|	|	|	|	0.09
121.833	0.00	0.04	0.096	O	|	|	|	|	0.09
121.917	0.00	0.04	0.096	O	|	|	|	|	0.09
122.000	0.00	0.04	0.095	O	|	|	|	|	0.09
122.083	0.00	0.04	0.095	O	|	|	|	|	0.09
122.167	0.00	0.04	0.095	O	|	|	|	|	0.09
122.250	0.00	0.04	0.094	O	|	|	|	|	0.09
122.333	0.00	0.04	0.094	O	|	|	|	|	0.09
122.417	0.00	0.04	0.094	O	|	|	|	|	0.09
122.500	0.00	0.04	0.093	O	|	|	|	|	0.09
122.583	0.00	0.04	0.093	O	|	|	|	|	0.09
122.667	0.00	0.04	0.093	O	|	|	|	|	0.09
122.750	0.00	0.04	0.093	O	|	|	|	|	0.09
122.833	0.00	0.04	0.092	O	|	|	|	|	0.09
122.917	0.00	0.04	0.092	O	|	|	|	|	0.09
123.000	0.00	0.04	0.092	O	|	|	|	|	0.09
123.083	0.00	0.04	0.092	O	|	|	|	|	0.09
123.167	0.00	0.04	0.091	O	|	|	|	|	0.09
123.250	0.00	0.04	0.091	O	|	|	|	|	0.09
123.333	0.00	0.04	0.091	O	|	|	|	|	0.09
123.417	0.00	0.04	0.090	O	|	|	|	|	0.09
123.500	0.00	0.04	0.090	O	|	|	|	|	0.09
123.583	0.00	0.04	0.090	O	|	|	|	|	0.09
123.667	0.00	0.04	0.090	O	|	|	|	|	0.09
123.750	0.00	0.04	0.089	O	|	|	|	|	0.09
123.833	0.00	0.04	0.089	O	|	|	|	|	0.09
123.917	0.00	0.04	0.089	O	|	|	|	|	0.09
124.000	0.00	0.04	0.089	O	|	|	|	|	0.09
124.083	0.00	0.04	0.088	O	|	|	|	|	0.08
124.167	0.00	0.04	0.088	O	|	|	|	|	0.08
124.250	0.00	0.04	0.088	O	|	|	|	|	0.08
124.333	0.00	0.04	0.087	O	|	|	|	|	0.08
124.417	0.00	0.04	0.087	O	|	|	|	|	0.08
124.500	0.00	0.04	0.087	O	|	|	|	|	0.08
124.583	0.00	0.04	0.087	O	|	|	|	|	0.08
124.667	0.00	0.04	0.086	O	|	|	|	|	0.08
124.750	0.00	0.04	0.086	O	|	|	|	|	0.08
124.833	0.00	0.04	0.086	O	|	|	|	|	0.08
124.917	0.00	0.04	0.086	O	|	|	|	|	0.08

125.000	0.00	0.04	0.085	O	|	|	|	|	0.08
125.083	0.00	0.04	0.085	O	|	|	|	|	0.08
125.167	0.00	0.04	0.085	O	|	|	|	|	0.08
125.250	0.00	0.04	0.085	O	|	|	|	|	0.08
125.333	0.00	0.04	0.084	O	|	|	|	|	0.08
125.417	0.00	0.04	0.084	O	|	|	|	|	0.08
125.500	0.00	0.04	0.084	O	|	|	|	|	0.08
125.583	0.00	0.04	0.084	O	|	|	|	|	0.08
125.667	0.00	0.04	0.083	O	|	|	|	|	0.08
125.750	0.00	0.04	0.083	O	|	|	|	|	0.08
125.833	0.00	0.04	0.083	O	|	|	|	|	0.08
125.917	0.00	0.04	0.083	O	|	|	|	|	0.08
126.000	0.00	0.04	0.082	O	|	|	|	|	0.08
126.083	0.00	0.04	0.082	O	|	|	|	|	0.08
126.167	0.00	0.04	0.082	O	|	|	|	|	0.08
126.250	0.00	0.04	0.082	O	|	|	|	|	0.08
126.333	0.00	0.04	0.081	O	|	|	|	|	0.08
126.417	0.00	0.04	0.081	O	|	|	|	|	0.08
126.500	0.00	0.04	0.081	O	|	|	|	|	0.08
126.583	0.00	0.04	0.081	O	|	|	|	|	0.08
126.667	0.00	0.04	0.080	O	|	|	|	|	0.08
126.750	0.00	0.04	0.080	O	|	|	|	|	0.08
126.833	0.00	0.04	0.080	O	|	|	|	|	0.08
126.917	0.00	0.04	0.080	O	|	|	|	|	0.08
127.000	0.00	0.04	0.079	O	|	|	|	|	0.08
127.083	0.00	0.03	0.079	O	|	|	|	|	0.08
127.167	0.00	0.03	0.079	O	|	|	|	|	0.08
127.250	0.00	0.03	0.079	O	|	|	|	|	0.08
127.333	0.00	0.03	0.078	O	|	|	|	|	0.08
127.417	0.00	0.03	0.078	O	|	|	|	|	0.08
127.500	0.00	0.03	0.078	O	|	|	|	|	0.07
127.583	0.00	0.03	0.078	O	|	|	|	|	0.07
127.667	0.00	0.03	0.077	O	|	|	|	|	0.07
127.750	0.00	0.03	0.077	O	|	|	|	|	0.07
127.833	0.00	0.03	0.077	O	|	|	|	|	0.07
127.917	0.00	0.03	0.077	O	|	|	|	|	0.07
128.000	0.00	0.03	0.076	O	|	|	|	|	0.07
128.083	0.00	0.03	0.076	O	|	|	|	|	0.07
128.167	0.00	0.03	0.076	O	|	|	|	|	0.07
128.250	0.00	0.03	0.076	O	|	|	|	|	0.07
128.333	0.00	0.03	0.076	O	|	|	|	|	0.07
128.417	0.00	0.03	0.075	O	|	|	|	|	0.07
128.500	0.00	0.03	0.075	O	|	|	|	|	0.07
128.583	0.00	0.03	0.075	O	|	|	|	|	0.07
128.667	0.00	0.03	0.075	O	|	|	|	|	0.07
128.750	0.00	0.03	0.074	O	|	|	|	|	0.07
128.833	0.00	0.03	0.074	O	|	|	|	|	0.07
128.917	0.00	0.03	0.074	O	|	|	|	|	0.07
129.000	0.00	0.03	0.074	O	|	|	|	|	0.07
129.083	0.00	0.03	0.073	O	|	|	|	|	0.07
129.167	0.00	0.03	0.073	O	|	|	|	|	0.07
129.250	0.00	0.03	0.073	O	|	|	|	|	0.07
129.333	0.00	0.03	0.073	O	|	|	|	|	0.07
129.417	0.00	0.03	0.073	O	|	|	|	|	0.07
129.500	0.00	0.03	0.072	O	|	|	|	|	0.07
129.583	0.00	0.03	0.072	O	|	|	|	|	0.07
129.667	0.00	0.03	0.072	O	|	|	|	|	0.07
129.750	0.00	0.03	0.072	O	|	|	|	|	0.07
129.833	0.00	0.03	0.072	O	|	|	|	|	0.07
129.917	0.00	0.03	0.071	O	|	|	|	|	0.07
130.000	0.00	0.03	0.071	O	|	|	|	|	0.07
130.083	0.00	0.03	0.071	O	|	|	|	|	0.07
130.167	0.00	0.03	0.071	O	|	|	|	|	0.07

130.250	0.00	0.03	0.070	O	|	|	|	|	0.07
130.333	0.00	0.03	0.070	O	|	|	|	|	0.07
130.417	0.00	0.03	0.070	O	|	|	|	|	0.07
130.500	0.00	0.03	0.070	O	|	|	|	|	0.07
130.583	0.00	0.03	0.070	O	|	|	|	|	0.07
130.667	0.00	0.03	0.069	O	|	|	|	|	0.07
130.750	0.00	0.03	0.069	O	|	|	|	|	0.07
130.833	0.00	0.03	0.069	O	|	|	|	|	0.07
130.917	0.00	0.03	0.069	O	|	|	|	|	0.07
131.000	0.00	0.03	0.069	O	|	|	|	|	0.07
131.083	0.00	0.03	0.068	O	|	|	|	|	0.07
131.167	0.00	0.03	0.068	O	|	|	|	|	0.07
131.250	0.00	0.03	0.068	O	|	|	|	|	0.07
131.333	0.00	0.03	0.068	O	|	|	|	|	0.07
131.417	0.00	0.03	0.067	O	|	|	|	|	0.06
131.500	0.00	0.03	0.067	O	|	|	|	|	0.06
131.583	0.00	0.03	0.067	O	|	|	|	|	0.06
131.667	0.00	0.03	0.067	O	|	|	|	|	0.06
131.750	0.00	0.03	0.067	O	|	|	|	|	0.06
131.833	0.00	0.03	0.066	O	|	|	|	|	0.06
131.917	0.00	0.03	0.066	O	|	|	|	|	0.06
132.000	0.00	0.03	0.066	O	|	|	|	|	0.06
132.083	0.00	0.03	0.066	O	|	|	|	|	0.06
132.167	0.00	0.03	0.066	O	|	|	|	|	0.06
132.250	0.00	0.03	0.065	O	|	|	|	|	0.06
132.333	0.00	0.03	0.065	O	|	|	|	|	0.06
132.417	0.00	0.03	0.065	O	|	|	|	|	0.06
132.500	0.00	0.03	0.065	O	|	|	|	|	0.06
132.583	0.00	0.03	0.065	O	|	|	|	|	0.06
132.667	0.00	0.03	0.064	O	|	|	|	|	0.06
132.750	0.00	0.03	0.064	O	|	|	|	|	0.06
132.833	0.00	0.03	0.064	O	|	|	|	|	0.06
132.917	0.00	0.03	0.064	O	|	|	|	|	0.06
133.000	0.00	0.03	0.064	O	|	|	|	|	0.06
133.083	0.00	0.03	0.064	O	|	|	|	|	0.06
133.167	0.00	0.03	0.063	O	|	|	|	|	0.06
133.250	0.00	0.03	0.063	O	|	|	|	|	0.06
133.333	0.00	0.03	0.063	O	|	|	|	|	0.06
133.417	0.00	0.03	0.063	O	|	|	|	|	0.06
133.500	0.00	0.03	0.063	O	|	|	|	|	0.06
133.583	0.00	0.03	0.062	O	|	|	|	|	0.06
133.667	0.00	0.03	0.062	O	|	|	|	|	0.06
133.750	0.00	0.03	0.062	O	|	|	|	|	0.06
133.833	0.00	0.03	0.062	O	|	|	|	|	0.06
133.917	0.00	0.03	0.062	O	|	|	|	|	0.06
134.000	0.00	0.03	0.061	O	|	|	|	|	0.06
134.083	0.00	0.03	0.061	O	|	|	|	|	0.06
134.167	0.00	0.03	0.061	O	|	|	|	|	0.06
134.250	0.00	0.03	0.061	O	|	|	|	|	0.06
134.333	0.00	0.03	0.061	O	|	|	|	|	0.06
134.417	0.00	0.03	0.060	O	|	|	|	|	0.06
134.500	0.00	0.03	0.060	O	|	|	|	|	0.06
134.583	0.00	0.03	0.060	O	|	|	|	|	0.06
134.667	0.00	0.03	0.060	O	|	|	|	|	0.06
134.750	0.00	0.03	0.060	O	|	|	|	|	0.06
134.833	0.00	0.03	0.060	O	|	|	|	|	0.06
134.917	0.00	0.03	0.059	O	|	|	|	|	0.06
135.000	0.00	0.03	0.059	O	|	|	|	|	0.06
135.083	0.00	0.03	0.059	O	|	|	|	|	0.06
135.167	0.00	0.03	0.059	O	|	|	|	|	0.06
135.250	0.00	0.03	0.059	O	|	|	|	|	0.06
135.333	0.00	0.03	0.058	O	|	|	|	|	0.06
135.417	0.00	0.03	0.058	O	|	|	|	|	0.06

135.500	0.00	0.03	0.058	O	|	|	|	|	0.06
135.583	0.00	0.03	0.058	O	|	|	|	|	0.06
135.667	0.00	0.03	0.058	O	|	|	|	|	0.06
135.750	0.00	0.03	0.058	O	|	|	|	|	0.06
135.833	0.00	0.03	0.057	O	|	|	|	|	0.06
135.917	0.00	0.03	0.057	O	|	|	|	|	0.06
136.000	0.00	0.03	0.057	O	|	|	|	|	0.05
136.083	0.00	0.03	0.057	O	|	|	|	|	0.05
136.167	0.00	0.03	0.057	O	|	|	|	|	0.05
136.250	0.00	0.03	0.057	O	|	|	|	|	0.05
136.333	0.00	0.02	0.056	O	|	|	|	|	0.05
136.417	0.00	0.02	0.056	O	|	|	|	|	0.05
136.500	0.00	0.02	0.056	O	|	|	|	|	0.05
136.583	0.00	0.02	0.056	O	|	|	|	|	0.05
136.667	0.00	0.02	0.056	O	|	|	|	|	0.05
136.750	0.00	0.02	0.056	O	|	|	|	|	0.05
136.833	0.00	0.02	0.055	O	|	|	|	|	0.05
136.917	0.00	0.02	0.055	O	|	|	|	|	0.05
137.000	0.00	0.02	0.055	O	|	|	|	|	0.05
137.083	0.00	0.02	0.055	O	|	|	|	|	0.05
137.167	0.00	0.02	0.055	O	|	|	|	|	0.05
137.250	0.00	0.02	0.055	O	|	|	|	|	0.05
137.333	0.00	0.02	0.054	O	|	|	|	|	0.05
137.417	0.00	0.02	0.054	O	|	|	|	|	0.05
137.500	0.00	0.02	0.054	O	|	|	|	|	0.05
137.583	0.00	0.02	0.054	O	|	|	|	|	0.05
137.667	0.00	0.02	0.054	O	|	|	|	|	0.05
137.750	0.00	0.02	0.054	O	|	|	|	|	0.05
137.833	0.00	0.02	0.053	O	|	|	|	|	0.05
137.917	0.00	0.02	0.053	O	|	|	|	|	0.05
138.000	0.00	0.02	0.053	O	|	|	|	|	0.05
138.083	0.00	0.02	0.053	O	|	|	|	|	0.05
138.167	0.00	0.02	0.053	O	|	|	|	|	0.05
138.250	0.00	0.02	0.053	O	|	|	|	|	0.05
138.333	0.00	0.02	0.052	O	|	|	|	|	0.05
138.417	0.00	0.02	0.052	O	|	|	|	|	0.05
138.500	0.00	0.02	0.052	O	|	|	|	|	0.05
138.583	0.00	0.02	0.052	O	|	|	|	|	0.05
138.667	0.00	0.02	0.052	O	|	|	|	|	0.05
138.750	0.00	0.02	0.052	O	|	|	|	|	0.05
138.833	0.00	0.02	0.051	O	|	|	|	|	0.05
138.917	0.00	0.02	0.051	O	|	|	|	|	0.05
139.000	0.00	0.02	0.051	O	|	|	|	|	0.05
139.083	0.00	0.02	0.051	O	|	|	|	|	0.05
139.167	0.00	0.02	0.051	O	|	|	|	|	0.05
139.250	0.00	0.02	0.051	O	|	|	|	|	0.05
139.333	0.00	0.02	0.051	O	|	|	|	|	0.05
139.417	0.00	0.02	0.050	O	|	|	|	|	0.05
139.500	0.00	0.02	0.050	O	|	|	|	|	0.05
139.583	0.00	0.02	0.050	O	|	|	|	|	0.05
139.667	0.00	0.02	0.050	O	|	|	|	|	0.05
139.750	0.00	0.02	0.050	O	|	|	|	|	0.05
139.833	0.00	0.02	0.050	O	|	|	|	|	0.05
139.917	0.00	0.02	0.049	O	|	|	|	|	0.05
140.000	0.00	0.02	0.049	O	|	|	|	|	0.05
140.083	0.00	0.02	0.049	O	|	|	|	|	0.05
140.167	0.00	0.02	0.049	O	|	|	|	|	0.05
140.250	0.00	0.02	0.049	O	|	|	|	|	0.05
140.333	0.00	0.02	0.049	O	|	|	|	|	0.05
140.417	0.00	0.02	0.049	O	|	|	|	|	0.05
140.500	0.00	0.02	0.048	O	|	|	|	|	0.05
140.583	0.00	0.02	0.048	O	|	|	|	|	0.05
140.667	0.00	0.02	0.048	O	|	|	|	|	0.05

140.750	0.00	0.02	0.048	O	|	|	|	|	0.05
140.833	0.00	0.02	0.048	O	|	|	|	|	0.05
140.917	0.00	0.02	0.048	O	|	|	|	|	0.05
141.000	0.00	0.02	0.048	O	|	|	|	|	0.05
141.083	0.00	0.02	0.047	O	|	|	|	|	0.05
141.167	0.00	0.02	0.047	O	|	|	|	|	0.05
141.250	0.00	0.02	0.047	O	|	|	|	|	0.05
141.333	0.00	0.02	0.047	O	|	|	|	|	0.05
141.417	0.00	0.02	0.047	O	|	|	|	|	0.05
141.500	0.00	0.02	0.047	O	|	|	|	|	0.04
141.583	0.00	0.02	0.047	O	|	|	|	|	0.04
141.667	0.00	0.02	0.046	O	|	|	|	|	0.04
141.750	0.00	0.02	0.046	O	|	|	|	|	0.04
141.833	0.00	0.02	0.046	O	|	|	|	|	0.04
141.917	0.00	0.02	0.046	O	|	|	|	|	0.04
142.000	0.00	0.02	0.046	O	|	|	|	|	0.04
142.083	0.00	0.02	0.046	O	|	|	|	|	0.04
142.167	0.00	0.02	0.046	O	|	|	|	|	0.04
142.250	0.00	0.02	0.045	O	|	|	|	|	0.04
142.333	0.00	0.02	0.045	O	|	|	|	|	0.04
142.417	0.00	0.02	0.045	O	|	|	|	|	0.04
142.500	0.00	0.02	0.045	O	|	|	|	|	0.04
142.583	0.00	0.02	0.045	O	|	|	|	|	0.04
142.667	0.00	0.02	0.045	O	|	|	|	|	0.04
142.750	0.00	0.02	0.045	O	|	|	|	|	0.04
142.833	0.00	0.02	0.044	O	|	|	|	|	0.04
142.917	0.00	0.02	0.044	O	|	|	|	|	0.04
143.000	0.00	0.02	0.044	O	|	|	|	|	0.04
143.083	0.00	0.02	0.044	O	|	|	|	|	0.04
143.167	0.00	0.02	0.044	O	|	|	|	|	0.04
143.250	0.00	0.02	0.044	O	|	|	|	|	0.04
143.333	0.00	0.02	0.044	O	|	|	|	|	0.04
143.417	0.00	0.02	0.044	O	|	|	|	|	0.04
143.500	0.00	0.02	0.043	O	|	|	|	|	0.04
143.583	0.00	0.02	0.043	O	|	|	|	|	0.04
143.667	0.00	0.02	0.043	O	|	|	|	|	0.04
143.750	0.00	0.02	0.043	O	|	|	|	|	0.04
143.833	0.00	0.02	0.043	O	|	|	|	|	0.04
143.917	0.00	0.02	0.043	O	|	|	|	|	0.04
144.000	0.00	0.02	0.043	O	|	|	|	|	0.04
144.083	0.00	0.02	0.042	O	|	|	|	|	0.04
144.167	0.00	0.02	0.042	O	|	|	|	|	0.04
144.250	0.00	0.02	0.042	O	|	|	|	|	0.04
144.333	0.00	0.02	0.042	O	|	|	|	|	0.04
144.417	0.00	0.02	0.042	O	|	|	|	|	0.04
144.500	0.00	0.02	0.042	O	|	|	|	|	0.04
144.583	0.00	0.02	0.042	O	|	|	|	|	0.04
144.667	0.00	0.02	0.042	O	|	|	|	|	0.04
144.750	0.00	0.02	0.041	O	|	|	|	|	0.04
144.833	0.00	0.02	0.041	O	|	|	|	|	0.04
144.917	0.00	0.02	0.041	O	|	|	|	|	0.04
145.000	0.00	0.02	0.041	O	|	|	|	|	0.04
145.083	0.00	0.02	0.041	O	|	|	|	|	0.04
145.167	0.00	0.02	0.041	O	|	|	|	|	0.04
145.250	0.00	0.02	0.041	O	|	|	|	|	0.04
145.333	0.00	0.02	0.041	O	|	|	|	|	0.04
145.417	0.00	0.02	0.040	O	|	|	|	|	0.04
145.500	0.00	0.02	0.040	O	|	|	|	|	0.04
145.583	0.00	0.02	0.040	O	|	|	|	|	0.04
145.667	0.00	0.02	0.040	O	|	|	|	|	0.04
145.750	0.00	0.02	0.040	O	|	|	|	|	0.04
145.833	0.00	0.02	0.040	O	|	|	|	|	0.04
145.917	0.00	0.02	0.040	O	|	|	|	|	0.04

146.000	0.00	0.02	0.040	O	|	|	|	|	0.04
146.083	0.00	0.02	0.039	O	|	|	|	|	0.04
146.167	0.00	0.02	0.039	O	|	|	|	|	0.04
146.250	0.00	0.02	0.039	O	|	|	|	|	0.04
146.333	0.00	0.02	0.039	O	|	|	|	|	0.04
146.417	0.00	0.02	0.039	O	|	|	|	|	0.04
146.500	0.00	0.02	0.039	O	|	|	|	|	0.04
146.583	0.00	0.02	0.039	O	|	|	|	|	0.04
146.667	0.00	0.02	0.039	O	|	|	|	|	0.04
146.750	0.00	0.02	0.039	O	|	|	|	|	0.04
146.833	0.00	0.02	0.038	O	|	|	|	|	0.04
146.917	0.00	0.02	0.038	O	|	|	|	|	0.04
147.000	0.00	0.02	0.038	O	|	|	|	|	0.04
147.083	0.00	0.02	0.038	O	|	|	|	|	0.04
147.167	0.00	0.02	0.038	O	|	|	|	|	0.04
147.250	0.00	0.02	0.038	O	|	|	|	|	0.04
147.333	0.00	0.02	0.038	O	|	|	|	|	0.04
147.417	0.00	0.02	0.038	O	|	|	|	|	0.04
147.500	0.00	0.02	0.037	O	|	|	|	|	0.04
147.583	0.00	0.02	0.037	O	|	|	|	|	0.04
147.667	0.00	0.02	0.037	O	|	|	|	|	0.04
147.750	0.00	0.02	0.037	O	|	|	|	|	0.04
147.833	0.00	0.02	0.037	O	|	|	|	|	0.04
147.917	0.00	0.02	0.037	O	|	|	|	|	0.04
148.000	0.00	0.02	0.037	O	|	|	|	|	0.04
148.083	0.00	0.02	0.037	O	|	|	|	|	0.04
148.167	0.00	0.02	0.037	O	|	|	|	|	0.04
148.250	0.00	0.02	0.036	O	|	|	|	|	0.04
148.333	0.00	0.02	0.036	O	|	|	|	|	0.03
148.417	0.00	0.02	0.036	O	|	|	|	|	0.03
148.500	0.00	0.02	0.036	O	|	|	|	|	0.03
148.583	0.00	0.02	0.036	O	|	|	|	|	0.03
148.667	0.00	0.02	0.036	O	|	|	|	|	0.03
148.750	0.00	0.02	0.036	O	|	|	|	|	0.03
148.833	0.00	0.02	0.036	O	|	|	|	|	0.03
148.917	0.00	0.02	0.036	O	|	|	|	|	0.03
149.000	0.00	0.02	0.035	O	|	|	|	|	0.03
149.083	0.00	0.02	0.035	O	|	|	|	|	0.03
149.167	0.00	0.02	0.035	O	|	|	|	|	0.03
149.250	0.00	0.02	0.035	O	|	|	|	|	0.03
149.333	0.00	0.02	0.035	O	|	|	|	|	0.03
149.417	0.00	0.02	0.035	O	|	|	|	|	0.03
149.500	0.00	0.02	0.035	O	|	|	|	|	0.03
149.583	0.00	0.02	0.035	O	|	|	|	|	0.03
149.667	0.00	0.02	0.035	O	|	|	|	|	0.03
149.750	0.00	0.02	0.035	O	|	|	|	|	0.03
149.833	0.00	0.02	0.034	O	|	|	|	|	0.03
149.917	0.00	0.02	0.034	O	|	|	|	|	0.03
150.000	0.00	0.02	0.034	O	|	|	|	|	0.03
150.083	0.00	0.02	0.034	O	|	|	|	|	0.03
150.167	0.00	0.02	0.034	O	|	|	|	|	0.03
150.250	0.00	0.01	0.034	O	|	|	|	|	0.03
150.333	0.00	0.01	0.034	O	|	|	|	|	0.03
150.417	0.00	0.01	0.034	O	|	|	|	|	0.03
150.500	0.00	0.01	0.034	O	|	|	|	|	0.03
150.583	0.00	0.01	0.033	O	|	|	|	|	0.03
150.667	0.00	0.01	0.033	O	|	|	|	|	0.03
150.750	0.00	0.01	0.033	O	|	|	|	|	0.03
150.833	0.00	0.01	0.033	O	|	|	|	|	0.03
150.917	0.00	0.01	0.033	O	|	|	|	|	0.03
151.000	0.00	0.01	0.033	O	|	|	|	|	0.03
151.083	0.00	0.01	0.033	O	|	|	|	|	0.03
151.167	0.00	0.01	0.033	O	|	|	|	|	0.03

151.250	0.00	0.01	0.033	O	|	|	|	|	0.03
151.333	0.00	0.01	0.033	O	|	|	|	|	0.03
151.417	0.00	0.01	0.032	O	|	|	|	|	0.03
151.500	0.00	0.01	0.032	O	|	|	|	|	0.03
151.583	0.00	0.01	0.032	O	|	|	|	|	0.03
151.667	0.00	0.01	0.032	O	|	|	|	|	0.03
151.750	0.00	0.01	0.032	O	|	|	|	|	0.03
151.833	0.00	0.01	0.032	O	|	|	|	|	0.03
151.917	0.00	0.01	0.032	O	|	|	|	|	0.03
152.000	0.00	0.01	0.032	O	|	|	|	|	0.03
152.083	0.00	0.01	0.032	O	|	|	|	|	0.03
152.167	0.00	0.01	0.032	O	|	|	|	|	0.03
152.250	0.00	0.01	0.032	O	|	|	|	|	0.03
152.333	0.00	0.01	0.031	O	|	|	|	|	0.03
152.417	0.00	0.01	0.031	O	|	|	|	|	0.03
152.500	0.00	0.01	0.031	O	|	|	|	|	0.03
152.583	0.00	0.01	0.031	O	|	|	|	|	0.03
152.667	0.00	0.01	0.031	O	|	|	|	|	0.03
152.750	0.00	0.01	0.031	O	|	|	|	|	0.03
152.833	0.00	0.01	0.031	O	|	|	|	|	0.03
152.917	0.00	0.01	0.031	O	|	|	|	|	0.03
153.000	0.00	0.01	0.031	O	|	|	|	|	0.03
153.083	0.00	0.01	0.031	O	|	|	|	|	0.03
153.167	0.00	0.01	0.030	O	|	|	|	|	0.03
153.250	0.00	0.01	0.030	O	|	|	|	|	0.03
153.333	0.00	0.01	0.030	O	|	|	|	|	0.03
153.417	0.00	0.01	0.030	O	|	|	|	|	0.03
153.500	0.00	0.01	0.030	O	|	|	|	|	0.03
153.583	0.00	0.01	0.030	O	|	|	|	|	0.03
153.667	0.00	0.01	0.030	O	|	|	|	|	0.03
153.750	0.00	0.01	0.030	O	|	|	|	|	0.03
153.833	0.00	0.01	0.030	O	|	|	|	|	0.03
153.917	0.00	0.01	0.030	O	|	|	|	|	0.03
154.000	0.00	0.01	0.030	O	|	|	|	|	0.03
154.083	0.00	0.01	0.029	O	|	|	|	|	0.03
154.167	0.00	0.01	0.029	O	|	|	|	|	0.03
154.250	0.00	0.01	0.029	O	|	|	|	|	0.03
154.333	0.00	0.01	0.029	O	|	|	|	|	0.03
154.417	0.00	0.01	0.029	O	|	|	|	|	0.03
154.500	0.00	0.01	0.029	O	|	|	|	|	0.03
154.583	0.00	0.01	0.029	O	|	|	|	|	0.03
154.667	0.00	0.01	0.029	O	|	|	|	|	0.03
154.750	0.00	0.01	0.029	O	|	|	|	|	0.03
154.833	0.00	0.01	0.029	O	|	|	|	|	0.03
154.917	0.00	0.01	0.029	O	|	|	|	|	0.03
155.000	0.00	0.01	0.029	O	|	|	|	|	0.03
155.083	0.00	0.01	0.028	O	|	|	|	|	0.03
155.167	0.00	0.01	0.028	O	|	|	|	|	0.03
155.250	0.00	0.01	0.028	O	|	|	|	|	0.03
155.333	0.00	0.01	0.028	O	|	|	|	|	0.03
155.417	0.00	0.01	0.028	O	|	|	|	|	0.03
155.500	0.00	0.01	0.028	O	|	|	|	|	0.03
155.583	0.00	0.01	0.028	O	|	|	|	|	0.03
155.667	0.00	0.01	0.028	O	|	|	|	|	0.03
155.750	0.00	0.01	0.028	O	|	|	|	|	0.03
155.833	0.00	0.01	0.028	O	|	|	|	|	0.03
155.917	0.00	0.01	0.028	O	|	|	|	|	0.03
156.000	0.00	0.01	0.027	O	|	|	|	|	0.03
156.083	0.00	0.01	0.027	O	|	|	|	|	0.03
156.167	0.00	0.01	0.027	O	|	|	|	|	0.03
156.250	0.00	0.01	0.027	O	|	|	|	|	0.03
156.333	0.00	0.01	0.027	O	|	|	|	|	0.03
156.417	0.00	0.01	0.027	O	|	|	|	|	0.03

156.500	0.00	0.01	0.027	O	|	|	|	|	0.03
156.583	0.00	0.01	0.027	O	|	|	|	|	0.03
156.667	0.00	0.01	0.027	O	|	|	|	|	0.03
156.750	0.00	0.01	0.027	O	|	|	|	|	0.03
156.833	0.00	0.01	0.027	O	|	|	|	|	0.03
156.917	0.00	0.01	0.027	O	|	|	|	|	0.03
157.000	0.00	0.01	0.026	O	|	|	|	|	0.03
157.083	0.00	0.01	0.026	O	|	|	|	|	0.03
157.167	0.00	0.01	0.026	O	|	|	|	|	0.03
157.250	0.00	0.01	0.026	O	|	|	|	|	0.03
157.333	0.00	0.01	0.026	O	|	|	|	|	0.03
157.417	0.00	0.01	0.026	O	|	|	|	|	0.03
157.500	0.00	0.01	0.026	O	|	|	|	|	0.03
157.583	0.00	0.01	0.026	O	|	|	|	|	0.02
157.667	0.00	0.01	0.026	O	|	|	|	|	0.02
157.750	0.00	0.01	0.026	O	|	|	|	|	0.02
157.833	0.00	0.01	0.026	O	|	|	|	|	0.02
157.917	0.00	0.01	0.026	O	|	|	|	|	0.02
158.000	0.00	0.01	0.026	O	|	|	|	|	0.02
158.083	0.00	0.01	0.025	O	|	|	|	|	0.02
158.167	0.00	0.01	0.025	O	|	|	|	|	0.02
158.250	0.00	0.01	0.025	O	|	|	|	|	0.02
158.333	0.00	0.01	0.025	O	|	|	|	|	0.02
158.417	0.00	0.01	0.025	O	|	|	|	|	0.02
158.500	0.00	0.01	0.025	O	|	|	|	|	0.02
158.583	0.00	0.01	0.025	O	|	|	|	|	0.02
158.667	0.00	0.01	0.025	O	|	|	|	|	0.02
158.750	0.00	0.01	0.025	O	|	|	|	|	0.02
158.833	0.00	0.01	0.025	O	|	|	|	|	0.02
158.917	0.00	0.01	0.025	O	|	|	|	|	0.02
159.000	0.00	0.01	0.025	O	|	|	|	|	0.02
159.083	0.00	0.01	0.025	O	|	|	|	|	0.02
159.167	0.00	0.01	0.024	O	|	|	|	|	0.02
159.250	0.00	0.01	0.024	O	|	|	|	|	0.02
159.333	0.00	0.01	0.024	O	|	|	|	|	0.02
159.417	0.00	0.01	0.024	O	|	|	|	|	0.02
159.500	0.00	0.01	0.024	O	|	|	|	|	0.02
159.583	0.00	0.01	0.024	O	|	|	|	|	0.02
159.667	0.00	0.01	0.024	O	|	|	|	|	0.02
159.750	0.00	0.01	0.024	O	|	|	|	|	0.02
159.833	0.00	0.01	0.024	O	|	|	|	|	0.02
159.917	0.00	0.01	0.024	O	|	|	|	|	0.02
160.000	0.00	0.01	0.024	O	|	|	|	|	0.02
160.083	0.00	0.01	0.024	O	|	|	|	|	0.02
160.167	0.00	0.01	0.024	O	|	|	|	|	0.02
160.250	0.00	0.01	0.024	O	|	|	|	|	0.02
160.333	0.00	0.01	0.023	O	|	|	|	|	0.02
160.417	0.00	0.01	0.023	O	|	|	|	|	0.02
160.500	0.00	0.01	0.023	O	|	|	|	|	0.02
160.583	0.00	0.01	0.023	O	|	|	|	|	0.02
160.667	0.00	0.01	0.023	O	|	|	|	|	0.02
160.750	0.00	0.01	0.023	O	|	|	|	|	0.02
160.833	0.00	0.01	0.023	O	|	|	|	|	0.02
160.917	0.00	0.01	0.023	O	|	|	|	|	0.02
161.000	0.00	0.01	0.023	O	|	|	|	|	0.02
161.083	0.00	0.01	0.023	O	|	|	|	|	0.02
161.167	0.00	0.01	0.023	O	|	|	|	|	0.02
161.250	0.00	0.01	0.023	O	|	|	|	|	0.02
161.333	0.00	0.01	0.023	O	|	|	|	|	0.02
161.417	0.00	0.01	0.023	O	|	|	|	|	0.02
161.500	0.00	0.01	0.022	O	|	|	|	|	0.02
161.583	0.00	0.01	0.022	O	|	|	|	|	0.02
161.667	0.00	0.01	0.022	O	|	|	|	|	0.02

161.750	0.00	0.01	0.022	O	|	|	|	|	0.02
161.833	0.00	0.01	0.022	O	|	|	|	|	0.02
161.917	0.00	0.01	0.022	O	|	|	|	|	0.02
162.000	0.00	0.01	0.022	O	|	|	|	|	0.02
162.083	0.00	0.01	0.022	O	|	|	|	|	0.02
162.167	0.00	0.01	0.022	O	|	|	|	|	0.02
162.250	0.00	0.01	0.022	O	|	|	|	|	0.02
162.333	0.00	0.01	0.022	O	|	|	|	|	0.02
162.417	0.00	0.01	0.022	O	|	|	|	|	0.02
162.500	0.00	0.01	0.022	O	|	|	|	|	0.02
162.583	0.00	0.01	0.022	O	|	|	|	|	0.02
162.667	0.00	0.01	0.022	O	|	|	|	|	0.02
162.750	0.00	0.01	0.021	O	|	|	|	|	0.02
162.833	0.00	0.01	0.021	O	|	|	|	|	0.02
162.917	0.00	0.01	0.021	O	|	|	|	|	0.02
163.000	0.00	0.01	0.021	O	|	|	|	|	0.02
163.083	0.00	0.01	0.021	O	|	|	|	|	0.02
163.167	0.00	0.01	0.021	O	|	|	|	|	0.02
163.250	0.00	0.01	0.021	O	|	|	|	|	0.02
163.333	0.00	0.01	0.021	O	|	|	|	|	0.02
163.417	0.00	0.01	0.021	O	|	|	|	|	0.02
163.500	0.00	0.01	0.021	O	|	|	|	|	0.02
163.583	0.00	0.01	0.021	O	|	|	|	|	0.02
163.667	0.00	0.01	0.021	O	|	|	|	|	0.02
163.750	0.00	0.01	0.021	O	|	|	|	|	0.02
163.833	0.00	0.01	0.021	O	|	|	|	|	0.02
163.917	0.00	0.01	0.021	O	|	|	|	|	0.02
164.000	0.00	0.01	0.021	O	|	|	|	|	0.02
164.083	0.00	0.01	0.020	O	|	|	|	|	0.02
164.167	0.00	0.01	0.020	O	|	|	|	|	0.02
164.250	0.00	0.01	0.020	O	|	|	|	|	0.02
164.333	0.00	0.01	0.020	O	|	|	|	|	0.02
164.417	0.00	0.01	0.020	O	|	|	|	|	0.02
164.500	0.00	0.01	0.020	O	|	|	|	|	0.02
164.583	0.00	0.01	0.020	O	|	|	|	|	0.02
164.667	0.00	0.01	0.020	O	|	|	|	|	0.02
164.750	0.00	0.01	0.020	O	|	|	|	|	0.02
164.833	0.00	0.01	0.020	O	|	|	|	|	0.02
164.917	0.00	0.01	0.020	O	|	|	|	|	0.02
165.000	0.00	0.01	0.020	O	|	|	|	|	0.02
165.083	0.00	0.01	0.020	O	|	|	|	|	0.02
165.167	0.00	0.01	0.020	O	|	|	|	|	0.02
165.250	0.00	0.01	0.020	O	|	|	|	|	0.02
165.333	0.00	0.01	0.020	O	|	|	|	|	0.02
165.417	0.00	0.01	0.019	O	|	|	|	|	0.02
165.500	0.00	0.01	0.019	O	|	|	|	|	0.02
165.583	0.00	0.01	0.019	O	|	|	|	|	0.02
165.667	0.00	0.01	0.019	O	|	|	|	|	0.02
165.750	0.00	0.01	0.019	O	|	|	|	|	0.02
165.833	0.00	0.01	0.019	O	|	|	|	|	0.02
165.917	0.00	0.01	0.019	O	|	|	|	|	0.02
166.000	0.00	0.01	0.019	O	|	|	|	|	0.02
166.083	0.00	0.01	0.019	O	|	|	|	|	0.02
166.167	0.00	0.01	0.019	O	|	|	|	|	0.02
166.250	0.00	0.01	0.019	O	|	|	|	|	0.02
166.333	0.00	0.01	0.019	O	|	|	|	|	0.02
166.417	0.00	0.01	0.019	O	|	|	|	|	0.02
166.500	0.00	0.01	0.019	O	|	|	|	|	0.02
166.583	0.00	0.01	0.019	O	|	|	|	|	0.02
166.667	0.00	0.01	0.019	O	|	|	|	|	0.02
166.750	0.00	0.01	0.019	O	|	|	|	|	0.02
166.833	0.00	0.01	0.018	O	|	|	|	|	0.02
166.917	0.00	0.01	0.018	O	|	|	|	|	0.02

167.000	0.00	0.01	0.018	O	|	|	|	|	0.02
167.083	0.00	0.01	0.018	O	|	|	|	|	0.02
167.167	0.00	0.01	0.018	O	|	|	|	|	0.02
167.250	0.00	0.01	0.018	O	|	|	|	|	0.02
167.333	0.00	0.01	0.018	O	|	|	|	|	0.02
167.417	0.00	0.01	0.018	O	|	|	|	|	0.02
167.500	0.00	0.01	0.018	O	|	|	|	|	0.02
167.583	0.00	0.01	0.018	O	|	|	|	|	0.02
167.667	0.00	0.01	0.018	O	|	|	|	|	0.02
167.750	0.00	0.01	0.018	O	|	|	|	|	0.02
167.833	0.00	0.01	0.018	O	|	|	|	|	0.02
167.917	0.00	0.01	0.018	O	|	|	|	|	0.02
168.000	0.00	0.01	0.018	O	|	|	|	|	0.02
168.083	0.00	0.01	0.018	O	|	|	|	|	0.02
168.167	0.00	0.01	0.018	O	|	|	|	|	0.02
168.250	0.00	0.01	0.018	O	|	|	|	|	0.02
168.333	0.00	0.01	0.018	O	|	|	|	|	0.02
168.417	0.00	0.01	0.017	O	|	|	|	|	0.02
168.500	0.00	0.01	0.017	O	|	|	|	|	0.02
168.583	0.00	0.01	0.017	O	|	|	|	|	0.02
168.667	0.00	0.01	0.017	O	|	|	|	|	0.02
168.750	0.00	0.01	0.017	O	|	|	|	|	0.02
168.833	0.00	0.01	0.017	O	|	|	|	|	0.02
168.917	0.00	0.01	0.017	O	|	|	|	|	0.02
169.000	0.00	0.01	0.017	O	|	|	|	|	0.02
169.083	0.00	0.01	0.017	O	|	|	|	|	0.02
169.167	0.00	0.01	0.017	O	|	|	|	|	0.02
169.250	0.00	0.01	0.017	O	|	|	|	|	0.02
169.333	0.00	0.01	0.017	O	|	|	|	|	0.02
169.417	0.00	0.01	0.017	O	|	|	|	|	0.02
169.500	0.00	0.01	0.017	O	|	|	|	|	0.02
169.583	0.00	0.01	0.017	O	|	|	|	|	0.02
169.667	0.00	0.01	0.017	O	|	|	|	|	0.02
169.750	0.00	0.01	0.017	O	|	|	|	|	0.02
169.833	0.00	0.01	0.017	O	|	|	|	|	0.02
169.917	0.00	0.01	0.017	O	|	|	|	|	0.02
170.000	0.00	0.01	0.016	O	|	|	|	|	0.02
170.083	0.00	0.01	0.016	O	|	|	|	|	0.02
170.167	0.00	0.01	0.016	O	|	|	|	|	0.02
170.250	0.00	0.01	0.016	O	|	|	|	|	0.02
170.333	0.00	0.01	0.016	O	|	|	|	|	0.02
170.417	0.00	0.01	0.016	O	|	|	|	|	0.02
170.500	0.00	0.01	0.016	O	|	|	|	|	0.02
170.583	0.00	0.01	0.016	O	|	|	|	|	0.02
170.667	0.00	0.01	0.016	O	|	|	|	|	0.02
170.750	0.00	0.01	0.016	O	|	|	|	|	0.02
170.833	0.00	0.01	0.016	O	|	|	|	|	0.02
170.917	0.00	0.01	0.016	O	|	|	|	|	0.02
171.000	0.00	0.01	0.016	O	|	|	|	|	0.02
171.083	0.00	0.01	0.016	O	|	|	|	|	0.02
171.167	0.00	0.01	0.016	O	|	|	|	|	0.02
171.250	0.00	0.01	0.016	O	|	|	|	|	0.02
171.333	0.00	0.01	0.016	O	|	|	|	|	0.02
171.417	0.00	0.01	0.016	O	|	|	|	|	0.02
171.500	0.00	0.01	0.016	O	|	|	|	|	0.01
171.583	0.00	0.01	0.016	O	|	|	|	|	0.01
171.667	0.00	0.01	0.015	O	|	|	|	|	0.01
171.750	0.00	0.01	0.015	O	|	|	|	|	0.01
171.833	0.00	0.01	0.015	O	|	|	|	|	0.01
171.917	0.00	0.01	0.015	O	|	|	|	|	0.01
172.000	0.00	0.01	0.015	O	|	|	|	|	0.01
172.083	0.00	0.01	0.015	O	|	|	|	|	0.01
172.167	0.00	0.01	0.015	O	|	|	|	|	0.01

172.250	0.00	0.01	0.015	O	|	|	|	|	0.01
172.333	0.00	0.01	0.015	O	|	|	|	|	0.01
172.417	0.00	0.01	0.015	O	|	|	|	|	0.01
172.500	0.00	0.01	0.015	O	|	|	|	|	0.01
172.583	0.00	0.01	0.015	O	|	|	|	|	0.01
172.667	0.00	0.01	0.015	O	|	|	|	|	0.01
172.750	0.00	0.01	0.015	O	|	|	|	|	0.01
172.833	0.00	0.01	0.015	O	|	|	|	|	0.01
172.917	0.00	0.01	0.015	O	|	|	|	|	0.01
173.000	0.00	0.01	0.015	O	|	|	|	|	0.01
173.083	0.00	0.01	0.015	O	|	|	|	|	0.01
173.167	0.00	0.01	0.015	O	|	|	|	|	0.01
173.250	0.00	0.01	0.015	O	|	|	|	|	0.01
173.333	0.00	0.01	0.015	O	|	|	|	|	0.01
173.417	0.00	0.01	0.015	O	|	|	|	|	0.01
173.500	0.00	0.01	0.014	O	|	|	|	|	0.01
173.583	0.00	0.01	0.014	O	|	|	|	|	0.01
173.667	0.00	0.01	0.014	O	|	|	|	|	0.01
173.750	0.00	0.01	0.014	O	|	|	|	|	0.01
173.833	0.00	0.01	0.014	O	|	|	|	|	0.01
173.917	0.00	0.01	0.014	O	|	|	|	|	0.01
174.000	0.00	0.01	0.014	O	|	|	|	|	0.01
174.083	0.00	0.01	0.014	O	|	|	|	|	0.01
174.167	0.00	0.01	0.014	O	|	|	|	|	0.01
174.250	0.00	0.01	0.014	O	|	|	|	|	0.01
174.333	0.00	0.01	0.014	O	|	|	|	|	0.01
174.417	0.00	0.01	0.014	O	|	|	|	|	0.01
174.500	0.00	0.01	0.014	O	|	|	|	|	0.01
174.583	0.00	0.01	0.014	O	|	|	|	|	0.01
174.667	0.00	0.01	0.014	O	|	|	|	|	0.01
174.750	0.00	0.01	0.014	O	|	|	|	|	0.01
174.833	0.00	0.01	0.014	O	|	|	|	|	0.01
174.917	0.00	0.01	0.014	O	|	|	|	|	0.01
175.000	0.00	0.01	0.014	O	|	|	|	|	0.01
175.083	0.00	0.01	0.014	O	|	|	|	|	0.01
175.167	0.00	0.01	0.014	O	|	|	|	|	0.01
175.250	0.00	0.01	0.014	O	|	|	|	|	0.01
175.333	0.00	0.01	0.014	O	|	|	|	|	0.01
175.417	0.00	0.01	0.014	O	|	|	|	|	0.01
175.500	0.00	0.01	0.013	O	|	|	|	|	0.01
175.583	0.00	0.01	0.013	O	|	|	|	|	0.01
175.667	0.00	0.01	0.013	O	|	|	|	|	0.01
175.750	0.00	0.01	0.013	O	|	|	|	|	0.01
175.833	0.00	0.01	0.013	O	|	|	|	|	0.01
175.917	0.00	0.01	0.013	O	|	|	|	|	0.01
176.000	0.00	0.01	0.013	O	|	|	|	|	0.01
176.083	0.00	0.01	0.013	O	|	|	|	|	0.01
176.167	0.00	0.01	0.013	O	|	|	|	|	0.01
176.250	0.00	0.01	0.013	O	|	|	|	|	0.01
176.333	0.00	0.01	0.013	O	|	|	|	|	0.01
176.417	0.00	0.01	0.013	O	|	|	|	|	0.01
176.500	0.00	0.01	0.013	O	|	|	|	|	0.01
176.583	0.00	0.01	0.013	O	|	|	|	|	0.01
176.667	0.00	0.01	0.013	O	|	|	|	|	0.01
176.750	0.00	0.01	0.013	O	|	|	|	|	0.01
176.833	0.00	0.01	0.013	O	|	|	|	|	0.01
176.917	0.00	0.01	0.013	O	|	|	|	|	0.01
177.000	0.00	0.01	0.013	O	|	|	|	|	0.01
177.083	0.00	0.01	0.013	O	|	|	|	|	0.01
177.167	0.00	0.01	0.013	O	|	|	|	|	0.01
177.250	0.00	0.01	0.013	O	|	|	|	|	0.01
177.333	0.00	0.01	0.013	O	|	|	|	|	0.01
177.417	0.00	0.01	0.013	O	|	|	|	|	0.01

177.500	0.00	0.01	0.013	O	|	|	|	|	0.01
177.583	0.00	0.01	0.012	O	|	|	|	|	0.01
177.667	0.00	0.01	0.012	O	|	|	|	|	0.01
177.750	0.00	0.01	0.012	O	|	|	|	|	0.01
177.833	0.00	0.01	0.012	O	|	|	|	|	0.01
177.917	0.00	0.01	0.012	O	|	|	|	|	0.01
178.000	0.00	0.01	0.012	O	|	|	|	|	0.01
178.083	0.00	0.01	0.012	O	|	|	|	|	0.01
178.167	0.00	0.01	0.012	O	|	|	|	|	0.01
178.250	0.00	0.01	0.012	O	|	|	|	|	0.01
178.333	0.00	0.01	0.012	O	|	|	|	|	0.01
178.417	0.00	0.01	0.012	O	|	|	|	|	0.01
178.500	0.00	0.01	0.012	O	|	|	|	|	0.01
178.583	0.00	0.01	0.012	O	|	|	|	|	0.01
178.667	0.00	0.01	0.012	O	|	|	|	|	0.01
178.750	0.00	0.01	0.012	O	|	|	|	|	0.01
178.833	0.00	0.01	0.012	O	|	|	|	|	0.01
178.917	0.00	0.01	0.012	O	|	|	|	|	0.01
179.000	0.00	0.01	0.012	O	|	|	|	|	0.01
179.083	0.00	0.01	0.012	O	|	|	|	|	0.01
179.167	0.00	0.01	0.012	O	|	|	|	|	0.01
179.250	0.00	0.01	0.012	O	|	|	|	|	0.01
179.333	0.00	0.01	0.012	O	|	|	|	|	0.01
179.417	0.00	0.01	0.012	O	|	|	|	|	0.01
179.500	0.00	0.01	0.012	O	|	|	|	|	0.01
179.583	0.00	0.01	0.012	O	|	|	|	|	0.01
179.667	0.00	0.01	0.012	O	|	|	|	|	0.01
179.750	0.00	0.01	0.012	O	|	|	|	|	0.01
179.833	0.00	0.01	0.011	O	|	|	|	|	0.01
179.917	0.00	0.01	0.011	O	|	|	|	|	0.01
180.000	0.00	0.01	0.011	O	|	|	|	|	0.01
180.083	0.00	0.01	0.011	O	|	|	|	|	0.01
180.167	0.00	0.01	0.011	O	|	|	|	|	0.01
180.250	0.00	0.01	0.011	O	|	|	|	|	0.01
180.333	0.00	0.00	0.011	O	|	|	|	|	0.01
180.417	0.00	0.00	0.011	O	|	|	|	|	0.01
180.500	0.00	0.00	0.011	O	|	|	|	|	0.01
180.583	0.00	0.00	0.011	O	|	|	|	|	0.01
180.667	0.00	0.00	0.011	O	|	|	|	|	0.01
180.750	0.00	0.00	0.011	O	|	|	|	|	0.01
180.833	0.00	0.00	0.011	O	|	|	|	|	0.01
180.917	0.00	0.00	0.011	O	|	|	|	|	0.01
181.000	0.00	0.00	0.011	O	|	|	|	|	0.01
181.083	0.00	0.00	0.011	O	|	|	|	|	0.01
181.167	0.00	0.00	0.011	O	|	|	|	|	0.01
181.250	0.00	0.00	0.011	O	|	|	|	|	0.01
181.333	0.00	0.00	0.011	O	|	|	|	|	0.01
181.417	0.00	0.00	0.011	O	|	|	|	|	0.01
181.500	0.00	0.00	0.011	O	|	|	|	|	0.01
181.583	0.00	0.00	0.011	O	|	|	|	|	0.01
181.667	0.00	0.00	0.011	O	|	|	|	|	0.01
181.750	0.00	0.00	0.011	O	|	|	|	|	0.01
181.833	0.00	0.00	0.011	O	|	|	|	|	0.01
181.917	0.00	0.00	0.011	O	|	|	|	|	0.01
182.000	0.00	0.00	0.011	O	|	|	|	|	0.01
182.083	0.00	0.00	0.011	O	|	|	|	|	0.01
182.167	0.00	0.00	0.011	O	|	|	|	|	0.01
182.250	0.00	0.00	0.011	O	|	|	|	|	0.01
182.333	0.00	0.00	0.010	O	|	|	|	|	0.01
182.417	0.00	0.00	0.010	O	|	|	|	|	0.01
182.500	0.00	0.00	0.010	O	|	|	|	|	0.01
182.583	0.00	0.00	0.010	O	|	|	|	|	0.01
182.667	0.00	0.00	0.010	O	|	|	|	|	0.01

182.750	0.00	0.00	0.010	O	|	|	|	|	0.01
182.833	0.00	0.00	0.010	O	|	|	|	|	0.01
182.917	0.00	0.00	0.010	O	|	|	|	|	0.01
183.000	0.00	0.00	0.010	O	|	|	|	|	0.01
183.083	0.00	0.00	0.010	O	|	|	|	|	0.01
183.167	0.00	0.00	0.010	O	|	|	|	|	0.01
183.250	0.00	0.00	0.010	O	|	|	|	|	0.01
183.333	0.00	0.00	0.010	O	|	|	|	|	0.01
183.417	0.00	0.00	0.010	O	|	|	|	|	0.01
183.500	0.00	0.00	0.010	O	|	|	|	|	0.01
183.583	0.00	0.00	0.010	O	|	|	|	|	0.01
183.667	0.00	0.00	0.010	O	|	|	|	|	0.01
183.750	0.00	0.00	0.010	O	|	|	|	|	0.01
183.833	0.00	0.00	0.010	O	|	|	|	|	0.01
183.917	0.00	0.00	0.010	O	|	|	|	|	0.01
184.000	0.00	0.00	0.010	O	|	|	|	|	0.01
184.083	0.00	0.00	0.010	O	|	|	|	|	0.01
184.167	0.00	0.00	0.010	O	|	|	|	|	0.01
184.250	0.00	0.00	0.010	O	|	|	|	|	0.01
184.333	0.00	0.00	0.010	O	|	|	|	|	0.01
184.417	0.00	0.00	0.010	O	|	|	|	|	0.01
184.500	0.00	0.00	0.010	O	|	|	|	|	0.01
184.583	0.00	0.00	0.010	O	|	|	|	|	0.01
184.667	0.00	0.00	0.010	O	|	|	|	|	0.01
184.750	0.00	0.00	0.010	O	|	|	|	|	0.01
184.833	0.00	0.00	0.010	O	|	|	|	|	0.01
184.917	0.00	0.00	0.010	O	|	|	|	|	0.01
185.000	0.00	0.00	0.010	O	|	|	|	|	0.01
185.083	0.00	0.00	0.009	O	|	|	|	|	0.01
185.167	0.00	0.00	0.009	O	|	|	|	|	0.01
185.250	0.00	0.00	0.009	O	|	|	|	|	0.01
185.333	0.00	0.00	0.009	O	|	|	|	|	0.01
185.417	0.00	0.00	0.009	O	|	|	|	|	0.01
185.500	0.00	0.00	0.009	O	|	|	|	|	0.01
185.583	0.00	0.00	0.009	O	|	|	|	|	0.01
185.667	0.00	0.00	0.009	O	|	|	|	|	0.01
185.750	0.00	0.00	0.009	O	|	|	|	|	0.01
185.833	0.00	0.00	0.009	O	|	|	|	|	0.01
185.917	0.00	0.00	0.009	O	|	|	|	|	0.01
186.000	0.00	0.00	0.009	O	|	|	|	|	0.01
186.083	0.00	0.00	0.009	O	|	|	|	|	0.01
186.167	0.00	0.00	0.009	O	|	|	|	|	0.01
186.250	0.00	0.00	0.009	O	|	|	|	|	0.01
186.333	0.00	0.00	0.009	O	|	|	|	|	0.01
186.417	0.00	0.00	0.009	O	|	|	|	|	0.01
186.500	0.00	0.00	0.009	O	|	|	|	|	0.01
186.583	0.00	0.00	0.009	O	|	|	|	|	0.01
186.667	0.00	0.00	0.009	O	|	|	|	|	0.01
186.750	0.00	0.00	0.009	O	|	|	|	|	0.01
186.833	0.00	0.00	0.009	O	|	|	|	|	0.01
186.917	0.00	0.00	0.009	O	|	|	|	|	0.01
187.000	0.00	0.00	0.009	O	|	|	|	|	0.01
187.083	0.00	0.00	0.009	O	|	|	|	|	0.01
187.167	0.00	0.00	0.009	O	|	|	|	|	0.01
187.250	0.00	0.00	0.009	O	|	|	|	|	0.01
187.333	0.00	0.00	0.009	O	|	|	|	|	0.01
187.417	0.00	0.00	0.009	O	|	|	|	|	0.01
187.500	0.00	0.00	0.009	O	|	|	|	|	0.01
187.583	0.00	0.00	0.009	O	|	|	|	|	0.01
187.667	0.00	0.00	0.009	O	|	|	|	|	0.01
187.750	0.00	0.00	0.009	O	|	|	|	|	0.01
187.833	0.00	0.00	0.009	O	|	|	|	|	0.01
187.917	0.00	0.00	0.009	O	|	|	|	|	0.01

188.000	0.00	0.00	0.009	O	|	|	|	|	0.01
188.083	0.00	0.00	0.009	O	|	|	|	|	0.01
188.167	0.00	0.00	0.008	O	|	|	|	|	0.01
188.250	0.00	0.00	0.008	O	|	|	|	|	0.01
188.333	0.00	0.00	0.008	O	|	|	|	|	0.01
188.417	0.00	0.00	0.008	O	|	|	|	|	0.01
188.500	0.00	0.00	0.008	O	|	|	|	|	0.01
188.583	0.00	0.00	0.008	O	|	|	|	|	0.01
188.667	0.00	0.00	0.008	O	|	|	|	|	0.01
188.750	0.00	0.00	0.008	O	|	|	|	|	0.01
188.833	0.00	0.00	0.008	O	|	|	|	|	0.01
188.917	0.00	0.00	0.008	O	|	|	|	|	0.01
189.000	0.00	0.00	0.008	O	|	|	|	|	0.01
189.083	0.00	0.00	0.008	O	|	|	|	|	0.01
189.167	0.00	0.00	0.008	O	|	|	|	|	0.01
189.250	0.00	0.00	0.008	O	|	|	|	|	0.01
189.333	0.00	0.00	0.008	O	|	|	|	|	0.01
189.417	0.00	0.00	0.008	O	|	|	|	|	0.01
189.500	0.00	0.00	0.008	O	|	|	|	|	0.01
189.583	0.00	0.00	0.008	O	|	|	|	|	0.01
189.667	0.00	0.00	0.008	O	|	|	|	|	0.01
189.750	0.00	0.00	0.008	O	|	|	|	|	0.01
189.833	0.00	0.00	0.008	O	|	|	|	|	0.01
189.917	0.00	0.00	0.008	O	|	|	|	|	0.01
190.000	0.00	0.00	0.008	O	|	|	|	|	0.01
190.083	0.00	0.00	0.008	O	|	|	|	|	0.01
190.167	0.00	0.00	0.008	O	|	|	|	|	0.01
190.250	0.00	0.00	0.008	O	|	|	|	|	0.01
190.333	0.00	0.00	0.008	O	|	|	|	|	0.01
190.417	0.00	0.00	0.008	O	|	|	|	|	0.01
190.500	0.00	0.00	0.008	O	|	|	|	|	0.01
190.583	0.00	0.00	0.008	O	|	|	|	|	0.01
190.667	0.00	0.00	0.008	O	|	|	|	|	0.01
190.750	0.00	0.00	0.008	O	|	|	|	|	0.01
190.833	0.00	0.00	0.008	O	|	|	|	|	0.01
190.917	0.00	0.00	0.008	O	|	|	|	|	0.01
191.000	0.00	0.00	0.008	O	|	|	|	|	0.01
191.083	0.00	0.00	0.008	O	|	|	|	|	0.01
191.167	0.00	0.00	0.008	O	|	|	|	|	0.01
191.250	0.00	0.00	0.008	O	|	|	|	|	0.01
191.333	0.00	0.00	0.008	O	|	|	|	|	0.01
191.417	0.00	0.00	0.008	O	|	|	|	|	0.01
191.500	0.00	0.00	0.008	O	|	|	|	|	0.01
191.583	0.00	0.00	0.007	O	|	|	|	|	0.01
191.667	0.00	0.00	0.007	O	|	|	|	|	0.01
191.750	0.00	0.00	0.007	O	|	|	|	|	0.01
191.833	0.00	0.00	0.007	O	|	|	|	|	0.01
191.917	0.00	0.00	0.007	O	|	|	|	|	0.01
192.000	0.00	0.00	0.007	O	|	|	|	|	0.01
192.083	0.00	0.00	0.007	O	|	|	|	|	0.01
192.167	0.00	0.00	0.007	O	|	|	|	|	0.01
192.250	0.00	0.00	0.007	O	|	|	|	|	0.01
192.333	0.00	0.00	0.007	O	|	|	|	|	0.01
192.417	0.00	0.00	0.007	O	|	|	|	|	0.01
192.500	0.00	0.00	0.007	O	|	|	|	|	0.01
192.583	0.00	0.00	0.007	O	|	|	|	|	0.01
192.667	0.00	0.00	0.007	O	|	|	|	|	0.01
192.750	0.00	0.00	0.007	O	|	|	|	|	0.01
192.833	0.00	0.00	0.007	O	|	|	|	|	0.01
192.917	0.00	0.00	0.007	O	|	|	|	|	0.01
193.000	0.00	0.00	0.007	O	|	|	|	|	0.01
193.083	0.00	0.00	0.007	O	|	|	|	|	0.01
193.167	0.00	0.00	0.007	O	|	|	|	|	0.01

193.250	0.00	0.00	0.007	O	|	|	|	|	0.01
193.333	0.00	0.00	0.007	O	|	|	|	|	0.01
193.417	0.00	0.00	0.007	O	|	|	|	|	0.01
193.500	0.00	0.00	0.007	O	|	|	|	|	0.01
193.583	0.00	0.00	0.007	O	|	|	|	|	0.01
193.667	0.00	0.00	0.007	O	|	|	|	|	0.01
193.750	0.00	0.00	0.007	O	|	|	|	|	0.01
193.833	0.00	0.00	0.007	O	|	|	|	|	0.01
193.917	0.00	0.00	0.007	O	|	|	|	|	0.01
194.000	0.00	0.00	0.007	O	|	|	|	|	0.01
194.083	0.00	0.00	0.007	O	|	|	|	|	0.01
194.167	0.00	0.00	0.007	O	|	|	|	|	0.01
194.250	0.00	0.00	0.007	O	|	|	|	|	0.01
194.333	0.00	0.00	0.007	O	|	|	|	|	0.01
194.417	0.00	0.00	0.007	O	|	|	|	|	0.01
194.500	0.00	0.00	0.007	O	|	|	|	|	0.01
194.583	0.00	0.00	0.007	O	|	|	|	|	0.01
194.667	0.00	0.00	0.007	O	|	|	|	|	0.01
194.750	0.00	0.00	0.007	O	|	|	|	|	0.01
194.833	0.00	0.00	0.007	O	|	|	|	|	0.01
194.917	0.00	0.00	0.007	O	|	|	|	|	0.01
195.000	0.00	0.00	0.007	O	|	|	|	|	0.01
195.083	0.00	0.00	0.007	O	|	|	|	|	0.01
195.167	0.00	0.00	0.007	O	|	|	|	|	0.01
195.250	0.00	0.00	0.007	O	|	|	|	|	0.01
195.333	0.00	0.00	0.007	O	|	|	|	|	0.01
195.417	0.00	0.00	0.007	O	|	|	|	|	0.01
195.500	0.00	0.00	0.006	O	|	|	|	|	0.01
195.583	0.00	0.00	0.006	O	|	|	|	|	0.01
195.667	0.00	0.00	0.006	O	|	|	|	|	0.01
195.750	0.00	0.00	0.006	O	|	|	|	|	0.01
195.833	0.00	0.00	0.006	O	|	|	|	|	0.01
195.917	0.00	0.00	0.006	O	|	|	|	|	0.01
196.000	0.00	0.00	0.006	O	|	|	|	|	0.01
196.083	0.00	0.00	0.006	O	|	|	|	|	0.01
196.167	0.00	0.00	0.006	O	|	|	|	|	0.01
196.250	0.00	0.00	0.006	O	|	|	|	|	0.01
196.333	0.00	0.00	0.006	O	|	|	|	|	0.01
196.417	0.00	0.00	0.006	O	|	|	|	|	0.01
196.500	0.00	0.00	0.006	O	|	|	|	|	0.01
196.583	0.00	0.00	0.006	O	|	|	|	|	0.01
196.667	0.00	0.00	0.006	O	|	|	|	|	0.01
196.750	0.00	0.00	0.006	O	|	|	|	|	0.01
196.833	0.00	0.00	0.006	O	|	|	|	|	0.01
196.917	0.00	0.00	0.006	O	|	|	|	|	0.01
197.000	0.00	0.00	0.006	O	|	|	|	|	0.01
197.083	0.00	0.00	0.006	O	|	|	|	|	0.01
197.167	0.00	0.00	0.006	O	|	|	|	|	0.01
197.250	0.00	0.00	0.006	O	|	|	|	|	0.01
197.333	0.00	0.00	0.006	O	|	|	|	|	0.01
197.417	0.00	0.00	0.006	O	|	|	|	|	0.01
197.500	0.00	0.00	0.006	O	|	|	|	|	0.01
197.583	0.00	0.00	0.006	O	|	|	|	|	0.01
197.667	0.00	0.00	0.006	O	|	|	|	|	0.01
197.750	0.00	0.00	0.006	O	|	|	|	|	0.01
197.833	0.00	0.00	0.006	O	|	|	|	|	0.01
197.917	0.00	0.00	0.006	O	|	|	|	|	0.01
198.000	0.00	0.00	0.006	O	|	|	|	|	0.01
198.083	0.00	0.00	0.006	O	|	|	|	|	0.01
198.167	0.00	0.00	0.006	O	|	|	|	|	0.01
198.250	0.00	0.00	0.006	O	|	|	|	|	0.01
198.333	0.00	0.00	0.006	O	|	|	|	|	0.01
198.417	0.00	0.00	0.006	O	|	|	|	|	0.01

198.500	0.00	0.00	0.006	O	|	|	|	|	0.01
198.583	0.00	0.00	0.006	O	|	|	|	|	0.01
198.667	0.00	0.00	0.006	O	|	|	|	|	0.01
198.750	0.00	0.00	0.006	O	|	|	|	|	0.01
198.833	0.00	0.00	0.006	O	|	|	|	|	0.01
198.917	0.00	0.00	0.006	O	|	|	|	|	0.01
199.000	0.00	0.00	0.006	O	|	|	|	|	0.01
199.083	0.00	0.00	0.006	O	|	|	|	|	0.01
199.167	0.00	0.00	0.006	O	|	|	|	|	0.01
199.250	0.00	0.00	0.006	O	|	|	|	|	0.01
199.333	0.00	0.00	0.006	O	|	|	|	|	0.01
199.417	0.00	0.00	0.006	O	|	|	|	|	0.01
199.500	0.00	0.00	0.006	O	|	|	|	|	0.01
199.583	0.00	0.00	0.006	O	|	|	|	|	0.01
199.667	0.00	0.00	0.006	O	|	|	|	|	0.01
199.750	0.00	0.00	0.006	O	|	|	|	|	0.01
199.833	0.00	0.00	0.006	O	|	|	|	|	0.01
199.917	0.00	0.00	0.006	O	|	|	|	|	0.01
200.000	0.00	0.00	0.006	O	|	|	|	|	0.01
200.083	0.00	0.00	0.005	O	|	|	|	|	0.01
200.167	0.00	0.00	0.005	O	|	|	|	|	0.01
200.250	0.00	0.00	0.005	O	|	|	|	|	0.01
200.333	0.00	0.00	0.005	O	|	|	|	|	0.01
200.417	0.00	0.00	0.005	O	|	|	|	|	0.01
200.500	0.00	0.00	0.005	O	|	|	|	|	0.01
200.583	0.00	0.00	0.005	O	|	|	|	|	0.01
200.667	0.00	0.00	0.005	O	|	|	|	|	0.01
200.750	0.00	0.00	0.005	O	|	|	|	|	0.01
200.833	0.00	0.00	0.005	O	|	|	|	|	0.01
200.917	0.00	0.00	0.005	O	|	|	|	|	0.01
201.000	0.00	0.00	0.005	O	|	|	|	|	0.01
201.083	0.00	0.00	0.005	O	|	|	|	|	0.01
201.167	0.00	0.00	0.005	O	|	|	|	|	0.01
201.250	0.00	0.00	0.005	O	|	|	|	|	0.01
201.333	0.00	0.00	0.005	O	|	|	|	|	0.01
201.417	0.00	0.00	0.005	O	|	|	|	|	0.01
201.500	0.00	0.00	0.005	O	|	|	|	|	0.01
201.583	0.00	0.00	0.005	O	|	|	|	|	0.00
201.667	0.00	0.00	0.005	O	|	|	|	|	0.00
201.750	0.00	0.00	0.005	O	|	|	|	|	0.00
201.833	0.00	0.00	0.005	O	|	|	|	|	0.00
201.917	0.00	0.00	0.005	O	|	|	|	|	0.00
202.000	0.00	0.00	0.005	O	|	|	|	|	0.00
202.083	0.00	0.00	0.005	O	|	|	|	|	0.00
202.167	0.00	0.00	0.005	O	|	|	|	|	0.00
202.250	0.00	0.00	0.005	O	|	|	|	|	0.00
202.333	0.00	0.00	0.005	O	|	|	|	|	0.00
202.417	0.00	0.00	0.005	O	|	|	|	|	0.00
202.500	0.00	0.00	0.005	O	|	|	|	|	0.00
202.583	0.00	0.00	0.005	O	|	|	|	|	0.00
202.667	0.00	0.00	0.005	O	|	|	|	|	0.00
202.750	0.00	0.00	0.005	O	|	|	|	|	0.00
202.833	0.00	0.00	0.005	O	|	|	|	|	0.00
202.917	0.00	0.00	0.005	O	|	|	|	|	0.00
203.000	0.00	0.00	0.005	O	|	|	|	|	0.00
203.083	0.00	0.00	0.005	O	|	|	|	|	0.00
203.167	0.00	0.00	0.005	O	|	|	|	|	0.00
203.250	0.00	0.00	0.005	O	|	|	|	|	0.00
203.333	0.00	0.00	0.005	O	|	|	|	|	0.00
203.417	0.00	0.00	0.005	O	|	|	|	|	0.00
203.500	0.00	0.00	0.005	O	|	|	|	|	0.00
203.583	0.00	0.00	0.005	O	|	|	|	|	0.00
203.667	0.00	0.00	0.005	O	|	|	|	|	0.00

203.750	0.00	0.00	0.005	O	|	|	|	|	0.00
203.833	0.00	0.00	0.005	O	|	|	|	|	0.00
203.917	0.00	0.00	0.005	O	|	|	|	|	0.00
204.000	0.00	0.00	0.005	O	|	|	|	|	0.00
204.083	0.00	0.00	0.005	O	|	|	|	|	0.00
204.167	0.00	0.00	0.005	O	|	|	|	|	0.00
204.250	0.00	0.00	0.005	O	|	|	|	|	0.00
204.333	0.00	0.00	0.005	O	|	|	|	|	0.00
204.417	0.00	0.00	0.005	O	|	|	|	|	0.00
204.500	0.00	0.00	0.005	O	|	|	|	|	0.00
204.583	0.00	0.00	0.005	O	|	|	|	|	0.00
204.667	0.00	0.00	0.005	O	|	|	|	|	0.00
204.750	0.00	0.00	0.005	O	|	|	|	|	0.00
204.833	0.00	0.00	0.005	O	|	|	|	|	0.00
204.917	0.00	0.00	0.005	O	|	|	|	|	0.00
205.000	0.00	0.00	0.005	O	|	|	|	|	0.00
205.083	0.00	0.00	0.005	O	|	|	|	|	0.00
205.167	0.00	0.00	0.005	O	|	|	|	|	0.00
205.250	0.00	0.00	0.005	O	|	|	|	|	0.00
205.333	0.00	0.00	0.005	O	|	|	|	|	0.00
205.417	0.00	0.00	0.005	O	|	|	|	|	0.00
205.500	0.00	0.00	0.004	O	|	|	|	|	0.00
205.583	0.00	0.00	0.004	O	|	|	|	|	0.00
205.667	0.00	0.00	0.004	O	|	|	|	|	0.00
205.750	0.00	0.00	0.004	O	|	|	|	|	0.00
205.833	0.00	0.00	0.004	O	|	|	|	|	0.00
205.917	0.00	0.00	0.004	O	|	|	|	|	0.00
206.000	0.00	0.00	0.004	O	|	|	|	|	0.00
206.083	0.00	0.00	0.004	O	|	|	|	|	0.00
206.167	0.00	0.00	0.004	O	|	|	|	|	0.00
206.250	0.00	0.00	0.004	O	|	|	|	|	0.00
206.333	0.00	0.00	0.004	O	|	|	|	|	0.00
206.417	0.00	0.00	0.004	O	|	|	|	|	0.00
206.500	0.00	0.00	0.004	O	|	|	|	|	0.00
206.583	0.00	0.00	0.004	O	|	|	|	|	0.00
206.667	0.00	0.00	0.004	O	|	|	|	|	0.00
206.750	0.00	0.00	0.004	O	|	|	|	|	0.00
206.833	0.00	0.00	0.004	O	|	|	|	|	0.00
206.917	0.00	0.00	0.004	O	|	|	|	|	0.00
207.000	0.00	0.00	0.004	O	|	|	|	|	0.00
207.083	0.00	0.00	0.004	O	|	|	|	|	0.00
207.167	0.00	0.00	0.004	O	|	|	|	|	0.00
207.250	0.00	0.00	0.004	O	|	|	|	|	0.00
207.333	0.00	0.00	0.004	O	|	|	|	|	0.00
207.417	0.00	0.00	0.004	O	|	|	|	|	0.00
207.500	0.00	0.00	0.004	O	|	|	|	|	0.00
207.583	0.00	0.00	0.004	O	|	|	|	|	0.00
207.667	0.00	0.00	0.004	O	|	|	|	|	0.00
207.750	0.00	0.00	0.004	O	|	|	|	|	0.00
207.833	0.00	0.00	0.004	O	|	|	|	|	0.00
207.917	0.00	0.00	0.004	O	|	|	|	|	0.00
208.000	0.00	0.00	0.004	O	|	|	|	|	0.00
208.083	0.00	0.00	0.004	O	|	|	|	|	0.00
208.167	0.00	0.00	0.004	O	|	|	|	|	0.00
208.250	0.00	0.00	0.004	O	|	|	|	|	0.00
208.333	0.00	0.00	0.004	O	|	|	|	|	0.00
208.417	0.00	0.00	0.004	O	|	|	|	|	0.00
208.500	0.00	0.00	0.004	O	|	|	|	|	0.00
208.583	0.00	0.00	0.004	O	|	|	|	|	0.00
208.667	0.00	0.00	0.004	O	|	|	|	|	0.00
208.750	0.00	0.00	0.004	O	|	|	|	|	0.00
208.833	0.00	0.00	0.004	O	|	|	|	|	0.00
208.917	0.00	0.00	0.004	O	|	|	|	|	0.00

209.000	0.00	0.00	0.004	O	|	|	|	|	0.00
209.083	0.00	0.00	0.004	O	|	|	|	|	0.00
209.167	0.00	0.00	0.004	O	|	|	|	|	0.00
209.250	0.00	0.00	0.004	O	|	|	|	|	0.00
209.333	0.00	0.00	0.004	O	|	|	|	|	0.00
209.417	0.00	0.00	0.004	O	|	|	|	|	0.00
209.500	0.00	0.00	0.004	O	|	|	|	|	0.00
209.583	0.00	0.00	0.004	O	|	|	|	|	0.00
209.667	0.00	0.00	0.004	O	|	|	|	|	0.00
209.750	0.00	0.00	0.004	O	|	|	|	|	0.00
209.833	0.00	0.00	0.004	O	|	|	|	|	0.00
209.917	0.00	0.00	0.004	O	|	|	|	|	0.00
210.000	0.00	0.00	0.004	O	|	|	|	|	0.00
210.083	0.00	0.00	0.004	O	|	|	|	|	0.00
210.167	0.00	0.00	0.004	O	|	|	|	|	0.00
210.250	0.00	0.00	0.004	O	|	|	|	|	0.00
210.333	0.00	0.00	0.004	O	|	|	|	|	0.00
210.417	0.00	0.00	0.004	O	|	|	|	|	0.00
210.500	0.00	0.00	0.004	O	|	|	|	|	0.00
210.583	0.00	0.00	0.004	O	|	|	|	|	0.00
210.667	0.00	0.00	0.004	O	|	|	|	|	0.00
210.750	0.00	0.00	0.004	O	|	|	|	|	0.00
210.833	0.00	0.00	0.004	O	|	|	|	|	0.00
210.917	0.00	0.00	0.004	O	|	|	|	|	0.00
211.000	0.00	0.00	0.004	O	|	|	|	|	0.00
211.083	0.00	0.00	0.004	O	|	|	|	|	0.00
211.167	0.00	0.00	0.004	O	|	|	|	|	0.00
211.250	0.00	0.00	0.004	O	|	|	|	|	0.00
211.333	0.00	0.00	0.004	O	|	|	|	|	0.00
211.417	0.00	0.00	0.004	O	|	|	|	|	0.00
211.500	0.00	0.00	0.004	O	|	|	|	|	0.00
211.583	0.00	0.00	0.004	O	|	|	|	|	0.00
211.667	0.00	0.00	0.004	O	|	|	|	|	0.00
211.750	0.00	0.00	0.004	O	|	|	|	|	0.00
211.833	0.00	0.00	0.004	O	|	|	|	|	0.00
211.917	0.00	0.00	0.004	O	|	|	|	|	0.00
212.000	0.00	0.00	0.004	O	|	|	|	|	0.00
212.083	0.00	0.00	0.004	O	|	|	|	|	0.00
212.167	0.00	0.00	0.004	O	|	|	|	|	0.00
212.250	0.00	0.00	0.004	O	|	|	|	|	0.00
212.333	0.00	0.00	0.004	O	|	|	|	|	0.00
212.417	0.00	0.00	0.003	O	|	|	|	|	0.00
212.500	0.00	0.00	0.003	O	|	|	|	|	0.00
212.583	0.00	0.00	0.003	O	|	|	|	|	0.00
212.667	0.00	0.00	0.003	O	|	|	|	|	0.00
212.750	0.00	0.00	0.003	O	|	|	|	|	0.00
212.833	0.00	0.00	0.003	O	|	|	|	|	0.00
212.917	0.00	0.00	0.003	O	|	|	|	|	0.00
213.000	0.00	0.00	0.003	O	|	|	|	|	0.00
213.083	0.00	0.00	0.003	O	|	|	|	|	0.00
213.167	0.00	0.00	0.003	O	|	|	|	|	0.00
213.250	0.00	0.00	0.003	O	|	|	|	|	0.00
213.333	0.00	0.00	0.003	O	|	|	|	|	0.00
213.417	0.00	0.00	0.003	O	|	|	|	|	0.00
213.500	0.00	0.00	0.003	O	|	|	|	|	0.00
213.583	0.00	0.00	0.003	O	|	|	|	|	0.00
213.667	0.00	0.00	0.003	O	|	|	|	|	0.00
213.750	0.00	0.00	0.003	O	|	|	|	|	0.00
213.833	0.00	0.00	0.003	O	|	|	|	|	0.00
213.917	0.00	0.00	0.003	O	|	|	|	|	0.00
214.000	0.00	0.00	0.003	O	|	|	|	|	0.00
214.083	0.00	0.00	0.003	O	|	|	|	|	0.00
214.167	0.00	0.00	0.003	O	|	|	|	|	0.00

214.250	0.00	0.00	0.003	O	|	|	|	|	0.00
214.333	0.00	0.00	0.003	O	|	|	|	|	0.00
214.417	0.00	0.00	0.003	O	|	|	|	|	0.00
214.500	0.00	0.00	0.003	O	|	|	|	|	0.00
214.583	0.00	0.00	0.003	O	|	|	|	|	0.00
214.667	0.00	0.00	0.003	O	|	|	|	|	0.00
214.750	0.00	0.00	0.003	O	|	|	|	|	0.00
214.833	0.00	0.00	0.003	O	|	|	|	|	0.00
214.917	0.00	0.00	0.003	O	|	|	|	|	0.00
215.000	0.00	0.00	0.003	O	|	|	|	|	0.00
215.083	0.00	0.00	0.003	O	|	|	|	|	0.00
215.167	0.00	0.00	0.003	O	|	|	|	|	0.00
215.250	0.00	0.00	0.003	O	|	|	|	|	0.00
215.333	0.00	0.00	0.003	O	|	|	|	|	0.00
215.417	0.00	0.00	0.003	O	|	|	|	|	0.00
215.500	0.00	0.00	0.003	O	|	|	|	|	0.00
215.583	0.00	0.00	0.003	O	|	|	|	|	0.00
215.667	0.00	0.00	0.003	O	|	|	|	|	0.00
215.750	0.00	0.00	0.003	O	|	|	|	|	0.00
215.833	0.00	0.00	0.003	O	|	|	|	|	0.00
215.917	0.00	0.00	0.003	O	|	|	|	|	0.00
216.000	0.00	0.00	0.003	O	|	|	|	|	0.00
216.083	0.00	0.00	0.003	O	|	|	|	|	0.00
216.167	0.00	0.00	0.003	O	|	|	|	|	0.00
216.250	0.00	0.00	0.003	O	|	|	|	|	0.00
216.333	0.00	0.00	0.003	O	|	|	|	|	0.00
216.417	0.00	0.00	0.003	O	|	|	|	|	0.00
216.500	0.00	0.00	0.003	O	|	|	|	|	0.00
216.583	0.00	0.00	0.003	O	|	|	|	|	0.00
216.667	0.00	0.00	0.003	O	|	|	|	|	0.00
216.750	0.00	0.00	0.003	O	|	|	|	|	0.00
216.833	0.00	0.00	0.003	O	|	|	|	|	0.00
216.917	0.00	0.00	0.003	O	|	|	|	|	0.00
217.000	0.00	0.00	0.003	O	|	|	|	|	0.00
217.083	0.00	0.00	0.003	O	|	|	|	|	0.00
217.167	0.00	0.00	0.003	O	|	|	|	|	0.00
217.250	0.00	0.00	0.003	O	|	|	|	|	0.00
217.333	0.00	0.00	0.003	O	|	|	|	|	0.00
217.417	0.00	0.00	0.003	O	|	|	|	|	0.00
217.500	0.00	0.00	0.003	O	|	|	|	|	0.00
217.583	0.00	0.00	0.003	O	|	|	|	|	0.00
217.667	0.00	0.00	0.003	O	|	|	|	|	0.00
217.750	0.00	0.00	0.003	O	|	|	|	|	0.00
217.833	0.00	0.00	0.003	O	|	|	|	|	0.00
217.917	0.00	0.00	0.003	O	|	|	|	|	0.00
218.000	0.00	0.00	0.003	O	|	|	|	|	0.00
218.083	0.00	0.00	0.003	O	|	|	|	|	0.00
218.167	0.00	0.00	0.003	O	|	|	|	|	0.00
218.250	0.00	0.00	0.003	O	|	|	|	|	0.00
218.333	0.00	0.00	0.003	O	|	|	|	|	0.00
218.417	0.00	0.00	0.003	O	|	|	|	|	0.00
218.500	0.00	0.00	0.003	O	|	|	|	|	0.00
218.583	0.00	0.00	0.003	O	|	|	|	|	0.00
218.667	0.00	0.00	0.003	O	|	|	|	|	0.00
218.750	0.00	0.00	0.003	O	|	|	|	|	0.00
218.833	0.00	0.00	0.003	O	|	|	|	|	0.00
218.917	0.00	0.00	0.003	O	|	|	|	|	0.00
219.000	0.00	0.00	0.003	O	|	|	|	|	0.00
219.083	0.00	0.00	0.003	O	|	|	|	|	0.00
219.167	0.00	0.00	0.003	O	|	|	|	|	0.00
219.250	0.00	0.00	0.003	O	|	|	|	|	0.00
219.333	0.00	0.00	0.003	O	|	|	|	|	0.00
219.417	0.00	0.00	0.003	O	|	|	|	|	0.00

219.500	0.00	0.00	0.003	O	|	|	|	|	0.00
219.583	0.00	0.00	0.003	O	|	|	|	|	0.00
219.667	0.00	0.00	0.003	O	|	|	|	|	0.00
219.750	0.00	0.00	0.003	O	|	|	|	|	0.00
219.833	0.00	0.00	0.003	O	|	|	|	|	0.00
219.917	0.00	0.00	0.003	O	|	|	|	|	0.00
220.000	0.00	0.00	0.003	O	|	|	|	|	0.00
220.083	0.00	0.00	0.003	O	|	|	|	|	0.00
220.167	0.00	0.00	0.003	O	|	|	|	|	0.00
220.250	0.00	0.00	0.003	O	|	|	|	|	0.00
220.333	0.00	0.00	0.003	O	|	|	|	|	0.00
220.417	0.00	0.00	0.003	O	|	|	|	|	0.00
220.500	0.00	0.00	0.003	O	|	|	|	|	0.00
220.583	0.00	0.00	0.003	O	|	|	|	|	0.00
220.667	0.00	0.00	0.003	O	|	|	|	|	0.00
220.750	0.00	0.00	0.003	O	|	|	|	|	0.00
220.833	0.00	0.00	0.003	O	|	|	|	|	0.00
220.917	0.00	0.00	0.003	O	|	|	|	|	0.00
221.000	0.00	0.00	0.003	O	|	|	|	|	0.00
221.083	0.00	0.00	0.003	O	|	|	|	|	0.00
221.167	0.00	0.00	0.003	O	|	|	|	|	0.00
221.250	0.00	0.00	0.003	O	|	|	|	|	0.00
221.333	0.00	0.00	0.003	O	|	|	|	|	0.00
221.417	0.00	0.00	0.003	O	|	|	|	|	0.00
221.500	0.00	0.00	0.003	O	|	|	|	|	0.00
221.583	0.00	0.00	0.002	O	|	|	|	|	0.00
221.667	0.00	0.00	0.002	O	|	|	|	|	0.00
221.750	0.00	0.00	0.002	O	|	|	|	|	0.00
221.833	0.00	0.00	0.002	O	|	|	|	|	0.00
221.917	0.00	0.00	0.002	O	|	|	|	|	0.00
222.000	0.00	0.00	0.002	O	|	|	|	|	0.00
222.083	0.00	0.00	0.002	O	|	|	|	|	0.00
222.167	0.00	0.00	0.002	O	|	|	|	|	0.00
222.250	0.00	0.00	0.002	O	|	|	|	|	0.00
222.333	0.00	0.00	0.002	O	|	|	|	|	0.00
222.417	0.00	0.00	0.002	O	|	|	|	|	0.00
222.500	0.00	0.00	0.002	O	|	|	|	|	0.00
222.583	0.00	0.00	0.002	O	|	|	|	|	0.00
222.667	0.00	0.00	0.002	O	|	|	|	|	0.00
222.750	0.00	0.00	0.002	O	|	|	|	|	0.00
222.833	0.00	0.00	0.002	O	|	|	|	|	0.00
222.917	0.00	0.00	0.002	O	|	|	|	|	0.00
223.000	0.00	0.00	0.002	O	|	|	|	|	0.00
223.083	0.00	0.00	0.002	O	|	|	|	|	0.00
223.167	0.00	0.00	0.002	O	|	|	|	|	0.00
223.250	0.00	0.00	0.002	O	|	|	|	|	0.00
223.333	0.00	0.00	0.002	O	|	|	|	|	0.00
223.417	0.00	0.00	0.002	O	|	|	|	|	0.00
223.500	0.00	0.00	0.002	O	|	|	|	|	0.00
223.583	0.00	0.00	0.002	O	|	|	|	|	0.00
223.667	0.00	0.00	0.002	O	|	|	|	|	0.00
223.750	0.00	0.00	0.002	O	|	|	|	|	0.00
223.833	0.00	0.00	0.002	O	|	|	|	|	0.00
223.917	0.00	0.00	0.002	O	|	|	|	|	0.00
224.000	0.00	0.00	0.002	O	|	|	|	|	0.00
224.083	0.00	0.00	0.002	O	|	|	|	|	0.00
224.167	0.00	0.00	0.002	O	|	|	|	|	0.00
224.250	0.00	0.00	0.002	O	|	|	|	|	0.00
224.333	0.00	0.00	0.002	O	|	|	|	|	0.00

Remaining water in basin = 0.00 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 2692
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 11.694 (CFS)
Total volume = 7.535 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

APPENDIX J.2: BASIN “B” 10 – YEAR BASIN ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/24/15

TRACT NO. 36294
BASIN B
10YR-24HR
FN: BASINB1024

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: BPR2410.rte
**********HYDROGRAPH DATA**********
Number of intervals = 292
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 7.929 (CFS)
Total volume = 3.812 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 292
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.520	0.230	0.519	0.521
1.000	0.990	0.320	0.989	0.991
1.500	1.480	0.600	1.478	1.482
2.000	2.000	0.900	1.997	2.003
2.500	2.530	1.150	2.526	2.534
3.000	3.090	1.550	3.085	3.095

3.500	3.670	8.600	3.640	3.700
4.000	4.270	24.700	4.185	4.355
4.500	4.900	40.760	4.760	5.040
5.000	5.440	54.110	5.254	5.626
6.000	6.860	126.240	6.425	7.295

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 2.0 3.96 5.95 7.93	Depth (Ft.)
0.083	0.15	0.00	0.001	O	0.00
0.167	0.30	0.00	0.002	OI	0.00
0.250	0.33	0.00	0.004	OI	0.00
0.333	0.42	0.00	0.007	OI	0.01
0.417	0.50	0.00	0.010	O I	0.01
0.500	0.52	0.01	0.013	O I	0.01
0.583	0.52	0.01	0.017	O I	0.02
0.667	0.52	0.01	0.021	O I	0.02
0.750	0.52	0.01	0.024	O I	0.02
0.833	0.60	0.01	0.028	O I	0.03
0.917	0.68	0.01	0.032	O I	0.03
1.000	0.69	0.02	0.037	O I	0.04
1.083	0.62	0.02	0.041	O I	0.04
1.167	0.55	0.02	0.045	O I	0.04
1.250	0.53	0.02	0.049	O I	0.05
1.333	0.53	0.02	0.052	O I	0.05
1.417	0.52	0.02	0.056	O I	0.05
1.500	0.52	0.03	0.059	O I	0.06
1.583	0.52	0.03	0.062	O I	0.06
1.667	0.52	0.03	0.066	O I	0.06
1.750	0.52	0.03	0.069	O I	0.07
1.833	0.60	0.03	0.073	O I	0.07
1.917	0.68	0.03	0.077	O I	0.07
2.000	0.69	0.04	0.082	O I	0.08
2.083	0.70	0.04	0.086	O I	0.08
2.167	0.70	0.04	0.091	O I	0.09
2.250	0.70	0.04	0.095	O I	0.09
2.333	0.70	0.04	0.100	O I	0.10
2.417	0.70	0.05	0.104	O I	0.10
2.500	0.70	0.05	0.109	O I	0.10
2.583	0.77	0.05	0.113	O I	0.11
2.667	0.85	0.05	0.119	O I	0.11
2.750	0.87	0.05	0.124	O I	0.12
2.833	0.87	0.06	0.130	O I	0.12
2.917	0.87	0.06	0.135	O I	0.13
3.000	0.87	0.06	0.141	O I	0.14
3.083	0.87	0.06	0.147	O I	0.14
3.167	0.87	0.07	0.152	O I	0.15
3.250	0.87	0.07	0.158	O I	0.15
3.333	0.87	0.07	0.163	O I	0.16
3.417	0.87	0.07	0.169	O I	0.16
3.500	0.87	0.08	0.174	O I	0.17
3.583	0.87	0.08	0.180	O I	0.17
3.667	0.87	0.08	0.185	O I	0.18
3.750	0.87	0.08	0.191	O I	0.18
3.833	0.95	0.09	0.196	O I	0.19
3.917	1.03	0.09	0.203	O I	0.19
4.000	1.04	0.09	0.209	O I	0.20
4.083	1.05	0.10	0.216	O I	0.21
4.167	1.05	0.10	0.222	O I	0.21

4.250	1.05	0.10	0.229	O	I	|	|	|	|	0.22
4.333	1.12	0.10	0.236	O	I	|	|	|	|	0.23
4.417	1.20	0.11	0.243	O	I	|	|	|	|	0.23
4.500	1.22	0.11	0.250	O	I	|	|	|	|	0.24
4.583	1.22	0.11	0.258	O	I	|	|	|	|	0.25
4.667	1.22	0.12	0.266	O	I	|	|	|	|	0.26
4.750	1.22	0.12	0.273	O	I	|	|	|	|	0.26
4.833	1.30	0.12	0.281	O	I	|	|	|	|	0.27
4.917	1.38	0.13	0.289	O	I	|	|	|	|	0.28
5.000	1.39	0.13	0.298	O	I	|	|	|	|	0.29
5.083	1.25	0.14	0.306	O	I	|	|	|	|	0.29
5.167	1.10	0.14	0.313	O	I	|	|	|	|	0.30
5.250	1.07	0.14	0.320	O	I	|	|	|	|	0.31
5.333	1.13	0.14	0.326	O	I	|	|	|	|	0.31
5.417	1.20	0.15	0.333	O	I	|	|	|	|	0.32
5.500	1.22	0.15	0.341	O	I	|	|	|	|	0.33
5.583	1.30	0.15	0.348	O	I	|	|	|	|	0.33
5.667	1.38	0.16	0.356	O	I	|	|	|	|	0.34
5.750	1.39	0.16	0.365	O	I	|	|	|	|	0.35
5.833	1.40	0.17	0.373	O	I	|	|	|	|	0.36
5.917	1.40	0.17	0.382	O	I	|	|	|	|	0.37
6.000	1.40	0.17	0.390	O	I	|	|	|	|	0.38
6.083	1.47	0.18	0.399	O	I	|	|	|	|	0.38
6.167	1.55	0.18	0.408	O	I	|	|	|	|	0.39
6.250	1.57	0.18	0.418	O	I	|	|	|	|	0.40
6.333	1.57	0.19	0.427	O	I	|	|	|	|	0.41
6.417	1.57	0.19	0.437	O	I	|	|	|	|	0.42
6.500	1.57	0.20	0.446	O	I	|	|	|	|	0.43
6.583	1.65	0.20	0.456	O	I	|	|	|	|	0.44
6.667	1.73	0.21	0.466	O	I	|	|	|	|	0.45
6.750	1.74	0.21	0.477	O	I	|	|	|	|	0.46
6.833	1.75	0.22	0.487	O	I	|	|	|	|	0.47
6.917	1.75	0.22	0.498	O	I	|	|	|	|	0.48
7.000	1.75	0.22	0.508	O	I	|	|	|	|	0.49
7.083	1.75	0.23	0.519	O	I	|	|	|	|	0.50
7.167	1.75	0.23	0.529	O	I	|	|	|	|	0.51
7.250	1.75	0.23	0.540	O	I	|	|	|	|	0.52
7.333	1.82	0.24	0.550	O	I	|	|	|	|	0.53
7.417	1.90	0.24	0.561	O	I	|	|	|	|	0.54
7.500	1.92	0.24	0.573	O	I	|	|	|	|	0.56
7.583	2.00	0.24	0.585	O	I	|	|	|	|	0.57
7.667	2.08	0.24	0.597	O	I	|	|	|	|	0.58
7.750	2.09	0.25	0.610	O	I	|	|	|	|	0.60
7.833	2.17	0.25	0.623	|O	I	|	|	|	|	0.61
7.917	2.25	0.25	0.636	|O	|I	|	|	|	|	0.62
8.000	2.27	0.25	0.650	|O	|I	|	|	|	|	0.64
8.083	2.42	0.26	0.664	|O	|I	|	|	|	|	0.65
8.167	2.58	0.26	0.680	|O	| I	|	|	|	|	0.67
8.250	2.61	0.26	0.696	|O	| I	|	|	|	|	0.69
8.333	2.62	0.27	0.712	|O	| I	|	|	|	|	0.70
8.417	2.62	0.27	0.728	|O	| I	|	|	|	|	0.72
8.500	2.62	0.27	0.744	|O	| I	|	|	|	|	0.74
8.583	2.70	0.28	0.761	|O	| I	|	|	|	|	0.76
8.667	2.77	0.28	0.778	|O	| I	|	|	|	|	0.77
8.750	2.79	0.28	0.795	|O	| I	|	|	|	|	0.79
8.833	2.87	0.29	0.813	|O	| I	|	|	|	|	0.81
8.917	2.95	0.29	0.831	|O	| I	|	|	|	|	0.83
9.000	2.97	0.29	0.849	|O	| I	|	|	|	|	0.85
9.083	3.12	0.30	0.868	|O	| I	|	|	|	|	0.87
9.167	3.28	0.30	0.888	|O	| I	|	|	|	|	0.89
9.250	3.31	0.30	0.909	|O	| I	|	|	|	|	0.91
9.333	3.39	0.31	0.930	|O	| I	|	|	|	|	0.94
9.417	3.47	0.31	0.951	|O	| I	|	|	|	|	0.96

9.500	3.49	0.32	0.973	O		I		0.98
9.583	3.57	0.32	0.995	O		I		1.01
9.667	3.65	0.34	1.018	O		I		1.03
9.750	3.67	0.35	1.040	O		I		1.05
9.833	3.75	0.36	1.063	O		I		1.07
9.917	3.82	0.38	1.087	O		I		1.10
10.000	3.84	0.39	1.111	O		I		1.12
10.083	3.32	0.40	1.133	O		I		1.15
10.167	2.79	0.41	1.151	O	I			1.16
10.250	2.68	0.42	1.167	O	I			1.18
10.333	2.64	0.43	1.182	O	I			1.20
10.417	2.62	0.44	1.197	O	I			1.21
10.500	2.62	0.45	1.212	O	I			1.23
10.583	3.00	0.46	1.229	O	I			1.24
10.667	3.38	0.47	1.247	O	I			1.26
10.750	3.46	0.48	1.268	O	I			1.28
10.833	3.49	0.49	1.288	O	I			1.30
10.917	3.50	0.50	1.309	O	I			1.33
11.000	3.50	0.51	1.330	O	I			1.35
11.083	3.42	0.53	1.350	O	I			1.37
11.167	3.35	0.54	1.369	O	I			1.39
11.250	3.33	0.55	1.389	O	I			1.41
11.333	3.33	0.56	1.408	O	I			1.43
11.417	3.32	0.57	1.427	O	I			1.45
11.500	3.32	0.58	1.446	O	I			1.47
11.583	3.17	0.59	1.464	O	I			1.48
11.667	3.02	0.60	1.481	O	I			1.50
11.750	2.99	0.61	1.498	O	I			1.52
11.833	3.05	0.62	1.514	O	I			1.53
11.917	3.12	0.63	1.531	O	I			1.55
12.000	3.14	0.64	1.549	O	I			1.57
12.083	3.67	0.65	1.568	O	I			1.58
12.167	4.21	0.66	1.590	O	I			1.61
12.250	4.32	0.68	1.615	O	I			1.63
12.333	4.50	0.69	1.641	O	I			1.65
12.417	4.67	0.71	1.667	O	I			1.68
12.500	4.72	0.72	1.695	O	I			1.71
12.583	5.07	0.74	1.723	O	I			1.73
12.667	5.41	0.76	1.754	O	I			1.76
12.750	5.50	0.78	1.787	O	I			1.79
12.833	5.71	0.80	1.820	O	I			1.83
12.917	5.90	0.82	1.854	O	I			1.86
13.000	5.95	0.84	1.889	O	I			1.89
13.083	6.77	0.86	1.927	O	I			1.93
13.167	7.59	0.88	1.971	O	I			1.97
13.250	7.78	0.91	2.017	O	I			2.02
13.333	7.86	0.93	2.065	O	I			2.06
13.417	7.91	0.95	2.113	O	I			2.11
13.500	7.93	0.98	2.161	O	I			2.15
13.583	6.26	1.00	2.203	O	I			2.19
13.667	4.55	1.01	2.233	O	I			2.22
13.750	4.20	1.02	2.256	O	I			2.24
13.833	4.07	1.03	2.278	O	I			2.26
13.917	4.04	1.04	2.298	O	I			2.28
14.000	4.06	1.05	2.319	O	I			2.30
14.083	4.70	1.06	2.342	O	I			2.32
14.167	5.36	1.07	2.369	O	I			2.35
14.250	5.51	1.09	2.399	O	I			2.38
14.333	5.43	1.10	2.429	O	I			2.41
14.417	5.31	1.12	2.459	O	I			2.43
14.500	5.30	1.13	2.488	O	I			2.46
14.583	5.31	1.14	2.516	O	I			2.49
14.667	5.32	1.16	2.545	O	I			2.51

14.750	5.34	1.18	2.574	| O |	| | I |	|	2.54
14.833	5.21	1.20	2.602	| O |	| | I |	|	2.56
14.917	5.07	1.22	2.629	| O |	| | I |	|	2.59
15.000	5.06	1.24	2.655	| O |	| | I |	|	2.61
15.083	4.91	1.26	2.681	| O |	| | I |	|	2.63
15.167	4.77	1.28	2.705	| O |	| | I |	|	2.66
15.250	4.76	1.29	2.729	| O |	| | I |	|	2.68
15.333	4.61	1.31	2.753	| O |	| I |	|	2.70
15.417	4.47	1.32	2.775	| O |	| I |	|	2.72
15.500	4.45	1.34	2.796	| O |	|I |	|	2.74
15.583	3.97	1.35	2.816	| O |	I |	|	2.76
15.667	3.48	1.37	2.832	| O | I |	|	|	2.77
15.750	3.38	1.38	2.847	| O | I |	|	|	2.78
15.833	3.34	1.39	2.860	| O | I |	|	|	2.79
15.917	3.32	1.40	2.874	| O | I |	|	|	2.81
16.000	3.32	1.40	2.887	| O | I |	|	|	2.82
16.083	2.20	1.41	2.896	| O I |	|	|	2.83
16.167	1.06	1.41	2.898	| IO |	|	|	2.83
16.250	0.82	1.41	2.894	| I O |	|	|	2.83
16.333	0.73	1.41	2.890	| I O |	|	|	2.82
16.417	0.70	1.40	2.885	| I O |	|	|	2.82
16.500	0.70	1.40	2.880	| I O |	|	|	2.81
16.583	0.62	1.40	2.875	| I O |	|	|	2.81
16.667	0.55	1.39	2.870	| I O |	|	|	2.80
16.750	0.53	1.39	2.864	| I O |	|	|	2.80
16.833	0.53	1.38	2.858	| I O |	|	|	2.79
16.917	0.52	1.38	2.852	| I O |	|	|	2.79
17.000	0.52	1.38	2.846	| I O |	|	|	2.78
17.083	0.67	1.37	2.841	| I O |	|	|	2.78
17.167	0.83	1.37	2.837	| I O |	|	|	2.77
17.250	0.86	1.37	2.833	| I O |	|	|	2.77
17.333	0.87	1.36	2.830	| I O |	|	|	2.77
17.417	0.87	1.36	2.826	| I O |	|	|	2.76
17.500	0.87	1.36	2.823	| I O |	|	|	2.76
17.583	0.87	1.36	2.819	| I O |	|	|	2.76
17.667	0.87	1.35	2.816	| I O |	|	|	2.76
17.750	0.87	1.35	2.813	| I O |	|	|	2.75
17.833	0.80	1.35	2.809	| I O |	|	|	2.75
17.917	0.72	1.35	2.805	| I O |	|	|	2.75
18.000	0.71	1.34	2.801	| I O |	|	|	2.74
18.083	0.70	1.34	2.797	| I O |	|	|	2.74
18.167	0.70	1.34	2.792	| I O |	|	|	2.73
18.250	0.70	1.33	2.788	| I O |	|	|	2.73
18.333	0.70	1.33	2.783	| I O |	|	|	2.73
18.417	0.70	1.33	2.779	| I O |	|	|	2.72
18.500	0.70	1.32	2.775	| I O |	|	|	2.72
18.583	0.62	1.32	2.770	| I O |	|	|	2.71
18.667	0.55	1.32	2.765	| I O |	|	|	2.71
18.750	0.53	1.31	2.760	| I O |	|	|	2.71
18.833	0.45	1.31	2.754	|I O |	|	|	2.70
18.917	0.37	1.31	2.748	|I O |	|	|	2.69
19.000	0.36	1.30	2.742	|I O |	|	|	2.69
19.083	0.43	1.30	2.735	|I O |	|	|	2.68
19.167	0.50	1.29	2.730	| I O |	|	|	2.68
19.250	0.52	1.29	2.724	| I O |	|	|	2.67
19.333	0.60	1.29	2.719	| I O |	|	|	2.67
19.417	0.68	1.28	2.715	| I O |	|	|	2.66
19.500	0.69	1.28	2.711	| I O |	|	|	2.66
19.583	0.62	1.28	2.706	| I O |	|	|	2.66
19.667	0.55	1.27	2.702	| I O |	|	|	2.65
19.750	0.53	1.27	2.697	| I O |	|	|	2.65
19.833	0.45	1.27	2.691	|I O |	|	|	2.64
19.917	0.37	1.26	2.685	|I O |	|	|	2.64

20.000	0.36	1.26	2.679	I O				2.63
20.083	0.43	1.25	2.673	I O				2.63
20.167	0.50	1.25	2.668	I O				2.62
20.250	0.52	1.24	2.663	I O				2.62
20.333	0.52	1.24	2.658	I O				2.61
20.417	0.52	1.24	2.653	I O				2.61
20.500	0.52	1.23	2.648	I O				2.61
20.583	0.52	1.23	2.643	I O				2.60
20.667	0.52	1.23	2.638	I O				2.60
20.750	0.52	1.22	2.633	I O				2.59
20.833	0.45	1.22	2.628	I O				2.59
20.917	0.37	1.22	2.623	I O				2.58
21.000	0.36	1.21	2.617	I O				2.58
21.083	0.43	1.21	2.611	I O				2.57
21.167	0.50	1.20	2.606	I O				2.57
21.250	0.52	1.20	2.601	I O				2.56
21.333	0.45	1.20	2.597	I O				2.56
21.417	0.37	1.19	2.591	I O				2.55
21.500	0.36	1.19	2.585	I O				2.55
21.583	0.43	1.19	2.580	I O				2.54
21.667	0.50	1.18	2.575	I O				2.54
21.750	0.52	1.18	2.570	I O				2.54
21.833	0.45	1.18	2.566	I O				2.53
21.917	0.37	1.17	2.560	I O				2.53
22.000	0.36	1.17	2.555	I O				2.52
22.083	0.43	1.16	2.549	I O				2.52
22.167	0.50	1.16	2.545	I O				2.51
22.250	0.52	1.16	2.540	I O				2.51
22.333	0.45	1.15	2.536	I O				2.50
22.417	0.37	1.15	2.530	I O				2.50
22.500	0.36	1.15	2.525	I O				2.50
22.583	0.35	1.15	2.520	I O				2.49
22.667	0.35	1.14	2.514	I O				2.49
22.750	0.35	1.14	2.509	I O				2.48
22.833	0.35	1.14	2.503	I O				2.47
22.917	0.35	1.13	2.498	I O				2.47
23.000	0.35	1.13	2.492	I O				2.46
23.083	0.35	1.13	2.487	I O				2.46
23.167	0.35	1.13	2.482	I O				2.45
23.250	0.35	1.12	2.476	I O				2.45
23.333	0.35	1.12	2.471	I O				2.44
23.417	0.35	1.12	2.466	I O				2.44
23.500	0.35	1.12	2.460	I O				2.43
23.583	0.35	1.11	2.455	I O				2.43
23.667	0.35	1.11	2.450	I O				2.42
23.750	0.35	1.11	2.445	I O				2.42
23.833	0.35	1.11	2.439	I O				2.41
23.917	0.35	1.10	2.434	I O				2.41
24.000	0.35	1.10	2.429	I O				2.40
24.083	0.20	1.10	2.423	I O				2.40
24.167	0.05	1.10	2.417	I O				2.39
24.250	0.02	1.09	2.409	I O				2.39
24.333	0.00	1.09	2.402	I O				2.38
24.417	0.00	1.09	2.394	I O				2.37
24.500	0.00	1.08	2.387	I O				2.36
24.583	0.00	1.08	2.379	I O				2.36
24.667	0.00	1.08	2.372	I O				2.35
24.750	0.00	1.07	2.365	I O				2.34
24.833	0.00	1.07	2.357	I O				2.34
24.917	0.00	1.07	2.350	I O				2.33
25.000	0.00	1.06	2.343	I O				2.32
25.083	0.00	1.06	2.335	I O				2.32
25.167	0.00	1.05	2.328	I O				2.31

25.250	0.00	1.05	2.321	I	O	|	|	|	|	2.30
25.333	0.00	1.05	2.314	I	O	|	|	|	|	2.30
25.417	0.00	1.04	2.306	I	O	|	|	|	|	2.29
25.500	0.00	1.04	2.299	I	O	|	|	|	|	2.28
25.583	0.00	1.04	2.292	I	O	|	|	|	|	2.28
25.667	0.00	1.03	2.285	I	O	|	|	|	|	2.27
25.750	0.00	1.03	2.278	I	O	|	|	|	|	2.26
25.833	0.00	1.03	2.271	I	O	|	|	|	|	2.26
25.917	0.00	1.02	2.264	I	O	|	|	|	|	2.25
26.000	0.00	1.02	2.257	I	O	|	|	|	|	2.24
26.083	0.00	1.02	2.250	I	O	|	|	|	|	2.24
26.167	0.00	1.01	2.243	I	O	|	|	|	|	2.23
26.250	0.00	1.01	2.236	I	O	|	|	|	|	2.22
26.333	0.00	1.01	2.229	I	O	|	|	|	|	2.22
26.417	0.00	1.00	2.222	I	O	|	|	|	|	2.21
26.500	0.00	1.00	2.215	I	O	|	|	|	|	2.20
26.583	0.00	1.00	2.208	I	O	|	|	|	|	2.20
26.667	0.00	0.99	2.201	I	O	|	|	|	|	2.19
26.750	0.00	0.99	2.194	I	O	|	|	|	|	2.18
26.833	0.00	0.99	2.187	I	O	|	|	|	|	2.18
26.917	0.00	0.99	2.181	I	O	|	|	|	|	2.17
27.000	0.00	0.98	2.174	I	O	|	|	|	|	2.16
27.083	0.00	0.98	2.167	I	O	|	|	|	|	2.16
27.167	0.00	0.98	2.160	I	O	|	|	|	|	2.15
27.250	0.00	0.97	2.154	I	O	|	|	|	|	2.14
27.333	0.00	0.97	2.147	I	O	|	|	|	|	2.14
27.417	0.00	0.97	2.140	I	O	|	|	|	|	2.13
27.500	0.00	0.96	2.134	I	O	|	|	|	|	2.13
27.583	0.00	0.96	2.127	I	O	|	|	|	|	2.12
27.667	0.00	0.96	2.120	I	O	|	|	|	|	2.11
27.750	0.00	0.95	2.114	I	O	|	|	|	|	2.11
27.833	0.00	0.95	2.107	I	O	|	|	|	|	2.10
27.917	0.00	0.95	2.101	I	O	|	|	|	|	2.10
28.000	0.00	0.94	2.094	I	O	|	|	|	|	2.09
28.083	0.00	0.94	2.088	I	O	|	|	|	|	2.08
28.167	0.00	0.94	2.081	I	O	|	|	|	|	2.08
28.250	0.00	0.94	2.075	I	O	|	|	|	|	2.07
28.333	0.00	0.93	2.068	I	O	|	|	|	|	2.06
28.417	0.00	0.93	2.062	I	O	|	|	|	|	2.06
28.500	0.00	0.93	2.056	I	O	|	|	|	|	2.05
28.583	0.00	0.92	2.049	I	O	|	|	|	|	2.05
28.667	0.00	0.92	2.043	I	O	|	|	|	|	2.04
28.750	0.00	0.92	2.037	I	O	|	|	|	|	2.03
28.833	0.00	0.91	2.030	I	O	|	|	|	|	2.03
28.917	0.00	0.91	2.024	I	O	|	|	|	|	2.02
29.000	0.00	0.91	2.018	I	O	|	|	|	|	2.02
29.083	0.00	0.91	2.011	I	O	|	|	|	|	2.01
29.167	0.00	0.90	2.005	I	O	|	|	|	|	2.00
29.250	0.00	0.90	1.999	I	O	|	|	|	|	2.00
29.333	0.00	0.90	1.993	I	O	|	|	|	|	1.99
29.417	0.00	0.89	1.987	I	O	|	|	|	|	1.99
29.500	0.00	0.89	1.980	I	O	|	|	|	|	1.98
29.583	0.00	0.89	1.974	I	O	|	|	|	|	1.98
29.667	0.00	0.88	1.968	I	O	|	|	|	|	1.97
29.750	0.00	0.88	1.962	I	O	|	|	|	|	1.96
29.833	0.00	0.87	1.956	I	O	|	|	|	|	1.96
29.917	0.00	0.87	1.950	I	O	|	|	|	|	1.95
30.000	0.00	0.87	1.944	I	O	|	|	|	|	1.95
30.083	0.00	0.86	1.938	I	O	|	|	|	|	1.94
30.167	0.00	0.86	1.932	I	O	|	|	|	|	1.93
30.250	0.00	0.86	1.926	I	O	|	|	|	|	1.93
30.333	0.00	0.85	1.920	I	O	|	|	|	|	1.92
30.417	0.00	0.85	1.915	I	O	|	|	|	|	1.92

30.500	0.00	0.85	1.909	I	O	|	|	|	|	1.91
30.583	0.00	0.84	1.903	I	O	|	|	|	|	1.91
30.667	0.00	0.84	1.897	I	O	|	|	|	|	1.90
30.750	0.00	0.84	1.891	I	O	|	|	|	|	1.90
30.833	0.00	0.83	1.886	I	O	|	|	|	|	1.89
30.917	0.00	0.83	1.880	I	O	|	|	|	|	1.88
31.000	0.00	0.83	1.874	I	O	|	|	|	|	1.88
31.083	0.00	0.82	1.868	I	O	|	|	|	|	1.87
31.167	0.00	0.82	1.863	I	O	|	|	|	|	1.87
31.250	0.00	0.82	1.857	I	O	|	|	|	|	1.86
31.333	0.00	0.81	1.852	I	O	|	|	|	|	1.86
31.417	0.00	0.81	1.846	I	O	|	|	|	|	1.85
31.500	0.00	0.81	1.840	I	O	|	|	|	|	1.85
31.583	0.00	0.80	1.835	I	O	|	|	|	|	1.84
31.667	0.00	0.80	1.829	I	O	|	|	|	|	1.84
31.750	0.00	0.80	1.824	I	O	|	|	|	|	1.83
31.833	0.00	0.80	1.818	I	O	|	|	|	|	1.83
31.917	0.00	0.79	1.813	I	O	|	|	|	|	1.82
32.000	0.00	0.79	1.807	I	O	|	|	|	|	1.81
32.083	0.00	0.79	1.802	I	O	|	|	|	|	1.81
32.167	0.00	0.78	1.797	I	O	|	|	|	|	1.80
32.250	0.00	0.78	1.791	I	O	|	|	|	|	1.80
32.333	0.00	0.78	1.786	I	O	|	|	|	|	1.79
32.417	0.00	0.77	1.780	I	O	|	|	|	|	1.79
32.500	0.00	0.77	1.775	I	O	|	|	|	|	1.78
32.583	0.00	0.77	1.770	I	O	|	|	|	|	1.78
32.667	0.00	0.76	1.765	I	O	|	|	|	|	1.77
32.750	0.00	0.76	1.759	I	O	|	|	|	|	1.77
32.833	0.00	0.76	1.754	I	O	|	|	|	|	1.76
32.917	0.00	0.76	1.749	I	O	|	|	|	|	1.76
33.000	0.00	0.75	1.744	I	O	|	|	|	|	1.75
33.083	0.00	0.75	1.739	I	O	|	|	|	|	1.75
33.167	0.00	0.75	1.733	I	O	|	|	|	|	1.74
33.250	0.00	0.74	1.728	I	O	|	|	|	|	1.74
33.333	0.00	0.74	1.723	I	O	|	|	|	|	1.73
33.417	0.00	0.74	1.718	I	O	|	|	|	|	1.73
33.500	0.00	0.73	1.713	I	O	|	|	|	|	1.72
33.583	0.00	0.73	1.708	I	O	|	|	|	|	1.72
33.667	0.00	0.73	1.703	I	O	|	|	|	|	1.71
33.750	0.00	0.73	1.698	I	O	|	|	|	|	1.71
33.833	0.00	0.72	1.693	I	O	|	|	|	|	1.70
33.917	0.00	0.72	1.688	I	O	|	|	|	|	1.70
34.000	0.00	0.72	1.683	I	O	|	|	|	|	1.70
34.083	0.00	0.71	1.678	I	O	|	|	|	|	1.69
34.167	0.00	0.71	1.673	I	O	|	|	|	|	1.69
34.250	0.00	0.71	1.668	I	O	|	|	|	|	1.68
34.333	0.00	0.71	1.663	I	O	|	|	|	|	1.68
34.417	0.00	0.70	1.659	I	O	|	|	|	|	1.67
34.500	0.00	0.70	1.654	I	O	|	|	|	|	1.67
34.583	0.00	0.70	1.649	I	O	|	|	|	|	1.66
34.667	0.00	0.69	1.644	I	O	|	|	|	|	1.66
34.750	0.00	0.69	1.639	I	O	|	|	|	|	1.65
34.833	0.00	0.69	1.635	I	O	|	|	|	|	1.65
34.917	0.00	0.69	1.630	I	O	|	|	|	|	1.64
35.000	0.00	0.68	1.625	I	O	|	|	|	|	1.64
35.083	0.00	0.68	1.620	I	O	|	|	|	|	1.64
35.167	0.00	0.68	1.616	I	O	|	|	|	|	1.63
35.250	0.00	0.68	1.611	I	O	|	|	|	|	1.63
35.333	0.00	0.67	1.606	I	O	|	|	|	|	1.62
35.417	0.00	0.67	1.602	I	O	|	|	|	|	1.62
35.500	0.00	0.67	1.597	I	O	|	|	|	|	1.61
35.583	0.00	0.66	1.593	I	O	|	|	|	|	1.61
35.667	0.00	0.66	1.588	I	O	|	|	|	|	1.60

35.750	0.00	0.66	1.584	I	O	|	|	|	1.60
35.833	0.00	0.66	1.579	I	O	|	|	|	1.60
35.917	0.00	0.65	1.574	I	O	|	|	|	1.59
36.000	0.00	0.65	1.570	I	O	|	|	|	1.59
36.083	0.00	0.65	1.565	I	O	|	|	|	1.58
36.167	0.00	0.65	1.561	I	O	|	|	|	1.58
36.250	0.00	0.64	1.557	I	O	|	|	|	1.57
36.333	0.00	0.64	1.552	I	O	|	|	|	1.57
36.417	0.00	0.64	1.548	I	O	|	|	|	1.57
36.500	0.00	0.64	1.543	I	O	|	|	|	1.56
36.583	0.00	0.63	1.539	I	O	|	|	|	1.56
36.667	0.00	0.63	1.535	I	O	|	|	|	1.55
36.750	0.00	0.63	1.530	I	O	|	|	|	1.55
36.833	0.00	0.63	1.526	I	O	|	|	|	1.54
36.917	0.00	0.62	1.522	I	O	|	|	|	1.54
37.000	0.00	0.62	1.517	I	O	|	|	|	1.54
37.083	0.00	0.62	1.513	I	O	|	|	|	1.53
37.167	0.00	0.62	1.509	I	O	|	|	|	1.53
37.250	0.00	0.61	1.505	I	O	|	|	|	1.52
37.333	0.00	0.61	1.500	I	O	|	|	|	1.52
37.417	0.00	0.61	1.496	I	O	|	|	|	1.52
37.500	0.00	0.61	1.492	I	O	|	|	|	1.51
37.583	0.00	0.60	1.488	I	O	|	|	|	1.51
37.667	0.00	0.60	1.484	I	O	|	|	|	1.50
37.750	0.00	0.60	1.480	I	O	|	|	|	1.50
37.833	0.00	0.60	1.475	I	O	|	|	|	1.50
37.917	0.00	0.60	1.471	I	O	|	|	|	1.49
38.000	0.00	0.59	1.467	I	O	|	|	|	1.49
38.083	0.00	0.59	1.463	I	O	|	|	|	1.48
38.167	0.00	0.59	1.459	I	O	|	|	|	1.48
38.250	0.00	0.59	1.455	I	O	|	|	|	1.47
38.333	0.00	0.58	1.451	I	O	|	|	|	1.47
38.417	0.00	0.58	1.447	I	O	|	|	|	1.47
38.500	0.00	0.58	1.443	I	O	|	|	|	1.46
38.583	0.00	0.58	1.439	I	O	|	|	|	1.46
38.667	0.00	0.57	1.435	I	O	|	|	|	1.45
38.750	0.00	0.57	1.431	I	O	|	|	|	1.45
38.833	0.00	0.57	1.427	I	O	|	|	|	1.45
38.917	0.00	0.57	1.423	I	O	|	|	|	1.44
39.000	0.00	0.57	1.419	I	O	|	|	|	1.44
39.083	0.00	0.56	1.415	I	O	|	|	|	1.43
39.167	0.00	0.56	1.412	I	O	|	|	|	1.43
39.250	0.00	0.56	1.408	I	O	|	|	|	1.43
39.333	0.00	0.56	1.404	I	O	|	|	|	1.42
39.417	0.00	0.55	1.400	I	O	|	|	|	1.42
39.500	0.00	0.55	1.396	I	O	|	|	|	1.41
39.583	0.00	0.55	1.392	I	O	|	|	|	1.41
39.667	0.00	0.55	1.389	I	O	|	|	|	1.41
39.750	0.00	0.55	1.385	I	O	|	|	|	1.40
39.833	0.00	0.54	1.381	I	O	|	|	|	1.40
39.917	0.00	0.54	1.377	I	O	|	|	|	1.40
40.000	0.00	0.54	1.374	I	O	|	|	|	1.39
40.083	0.00	0.54	1.370	I	O	|	|	|	1.39
40.167	0.00	0.54	1.366	I	O	|	|	|	1.38
40.250	0.00	0.53	1.363	I	O	|	|	|	1.38
40.333	0.00	0.53	1.359	I	O	|	|	|	1.38
40.417	0.00	0.53	1.355	I	O	|	|	|	1.37
40.500	0.00	0.53	1.352	I	O	|	|	|	1.37
40.583	0.00	0.52	1.348	I	O	|	|	|	1.37
40.667	0.00	0.52	1.344	I	O	|	|	|	1.36
40.750	0.00	0.52	1.341	I	O	|	|	|	1.36
40.833	0.00	0.52	1.337	I	O	|	|	|	1.35
40.917	0.00	0.52	1.334	I	O	|	|	|	1.35

41.000	0.00	0.51	1.330	I O	|	|	|	|	1.35
41.083	0.00	0.51	1.327	I O	|	|	|	|	1.34
41.167	0.00	0.51	1.323	I O	|	|	|	|	1.34
41.250	0.00	0.51	1.320	I O	|	|	|	|	1.34
41.333	0.00	0.51	1.316	I O	|	|	|	|	1.33
41.417	0.00	0.50	1.313	I O	|	|	|	|	1.33
41.500	0.00	0.50	1.309	I O	|	|	|	|	1.33
41.583	0.00	0.50	1.306	I O	|	|	|	|	1.32
41.667	0.00	0.50	1.302	I O	|	|	|	|	1.32
41.750	0.00	0.50	1.299	I O	|	|	|	|	1.32
41.833	0.00	0.49	1.295	IO	|	|	|	|	1.31
41.917	0.00	0.49	1.292	IO	|	|	|	|	1.31
42.000	0.00	0.49	1.289	IO	|	|	|	|	1.30
42.083	0.00	0.49	1.285	IO	|	|	|	|	1.30
42.167	0.00	0.49	1.282	IO	|	|	|	|	1.30
42.250	0.00	0.48	1.279	IO	|	|	|	|	1.29
42.333	0.00	0.48	1.275	IO	|	|	|	|	1.29
42.417	0.00	0.48	1.272	IO	|	|	|	|	1.29
42.500	0.00	0.48	1.269	IO	|	|	|	|	1.28
42.583	0.00	0.48	1.265	IO	|	|	|	|	1.28
42.667	0.00	0.48	1.262	IO	|	|	|	|	1.28
42.750	0.00	0.47	1.259	IO	|	|	|	|	1.27
42.833	0.00	0.47	1.256	IO	|	|	|	|	1.27
42.917	0.00	0.47	1.252	IO	|	|	|	|	1.27
43.000	0.00	0.47	1.249	IO	|	|	|	|	1.26
43.083	0.00	0.47	1.246	IO	|	|	|	|	1.26
43.167	0.00	0.46	1.243	IO	|	|	|	|	1.26
43.250	0.00	0.46	1.239	IO	|	|	|	|	1.25
43.333	0.00	0.46	1.236	IO	|	|	|	|	1.25
43.417	0.00	0.46	1.233	IO	|	|	|	|	1.25
43.500	0.00	0.46	1.230	IO	|	|	|	|	1.24
43.583	0.00	0.46	1.227	IO	|	|	|	|	1.24
43.667	0.00	0.45	1.224	IO	|	|	|	|	1.24
43.750	0.00	0.45	1.221	IO	|	|	|	|	1.24
43.833	0.00	0.45	1.217	IO	|	|	|	|	1.23
43.917	0.00	0.45	1.214	IO	|	|	|	|	1.23
44.000	0.00	0.45	1.211	IO	|	|	|	|	1.23
44.083	0.00	0.44	1.208	IO	|	|	|	|	1.22
44.167	0.00	0.44	1.205	IO	|	|	|	|	1.22
44.250	0.00	0.44	1.202	IO	|	|	|	|	1.22
44.333	0.00	0.44	1.199	IO	|	|	|	|	1.21
44.417	0.00	0.44	1.196	IO	|	|	|	|	1.21
44.500	0.00	0.44	1.193	IO	|	|	|	|	1.21
44.583	0.00	0.43	1.190	IO	|	|	|	|	1.20
44.667	0.00	0.43	1.187	IO	|	|	|	|	1.20
44.750	0.00	0.43	1.184	IO	|	|	|	|	1.20
44.833	0.00	0.43	1.181	IO	|	|	|	|	1.20
44.917	0.00	0.43	1.178	IO	|	|	|	|	1.19
45.000	0.00	0.43	1.175	IO	|	|	|	|	1.19
45.083	0.00	0.42	1.172	IO	|	|	|	|	1.19
45.167	0.00	0.42	1.169	IO	|	|	|	|	1.18
45.250	0.00	0.42	1.166	IO	|	|	|	|	1.18
45.333	0.00	0.42	1.164	IO	|	|	|	|	1.18
45.417	0.00	0.42	1.161	IO	|	|	|	|	1.17
45.500	0.00	0.42	1.158	IO	|	|	|	|	1.17
45.583	0.00	0.41	1.155	IO	|	|	|	|	1.17
45.667	0.00	0.41	1.152	IO	|	|	|	|	1.17
45.750	0.00	0.41	1.149	IO	|	|	|	|	1.16
45.833	0.00	0.41	1.146	IO	|	|	|	|	1.16
45.917	0.00	0.41	1.144	IO	|	|	|	|	1.16
46.000	0.00	0.41	1.141	IO	|	|	|	|	1.15
46.083	0.00	0.40	1.138	IO	|	|	|	|	1.15
46.167	0.00	0.40	1.135	IO	|	|	|	|	1.15

46.250	0.00	0.40	1.133	IO				1.15
46.333	0.00	0.40	1.130	IO				1.14
46.417	0.00	0.40	1.127	IO				1.14
46.500	0.00	0.40	1.124	IO				1.14
46.583	0.00	0.40	1.122	IO				1.13
46.667	0.00	0.39	1.119	IO				1.13
46.750	0.00	0.39	1.116	IO				1.13
46.833	0.00	0.39	1.113	IO				1.13
46.917	0.00	0.39	1.111	IO				1.12
47.000	0.00	0.39	1.108	IO				1.12
47.083	0.00	0.39	1.105	IO				1.12
47.167	0.00	0.38	1.103	IO				1.12
47.250	0.00	0.38	1.100	IO				1.11
47.333	0.00	0.38	1.097	IO				1.11
47.417	0.00	0.38	1.095	IO				1.11
47.500	0.00	0.38	1.092	IO				1.10
47.583	0.00	0.38	1.090	IO				1.10
47.667	0.00	0.38	1.087	IO				1.10
47.750	0.00	0.37	1.084	IO				1.10
47.833	0.00	0.37	1.082	IO				1.09
47.917	0.00	0.37	1.079	IO				1.09
48.000	0.00	0.37	1.077	IO				1.09
48.083	0.00	0.37	1.074	IO				1.09
48.167	0.00	0.37	1.072	IO				1.08
48.250	0.00	0.37	1.069	IO				1.08
48.333	0.00	0.36	1.067	IO				1.08
48.417	0.00	0.36	1.064	IO				1.08
48.500	0.00	0.36	1.062	IO				1.07
48.583	0.00	0.36	1.059	IO				1.07
48.667	0.00	0.36	1.057	IO				1.07
48.750	0.00	0.36	1.054	IO				1.07
48.833	0.00	0.36	1.052	IO				1.06
48.917	0.00	0.35	1.049	IO				1.06
49.000	0.00	0.35	1.047	IO				1.06
49.083	0.00	0.35	1.045	IO				1.06
49.167	0.00	0.35	1.042	IO				1.05
49.250	0.00	0.35	1.040	IO				1.05
49.333	0.00	0.35	1.037	IO				1.05
49.417	0.00	0.35	1.035	IO				1.05
49.500	0.00	0.34	1.033	IO				1.04
49.583	0.00	0.34	1.030	IO				1.04
49.667	0.00	0.34	1.028	IO				1.04
49.750	0.00	0.34	1.025	IO				1.04
49.833	0.00	0.34	1.023	IO				1.03
49.917	0.00	0.34	1.021	IO				1.03
50.000	0.00	0.34	1.018	IO				1.03
50.083	0.00	0.33	1.016	IO				1.03
50.167	0.00	0.33	1.014	IO				1.02
50.250	0.00	0.33	1.012	IO				1.02
50.333	0.00	0.33	1.009	IO				1.02
50.417	0.00	0.33	1.007	IO				1.02
50.500	0.00	0.33	1.005	IO				1.02
50.583	0.00	0.33	1.003	IO				1.01
50.667	0.00	0.33	1.000	IO				1.01
50.750	0.00	0.32	0.998	IO				1.01
50.833	0.00	0.32	0.996	IO				1.01
50.917	0.00	0.32	0.994	IO				1.00
51.000	0.00	0.32	0.991	IO				1.00
51.083	0.00	0.32	0.989	IO				1.00
51.167	0.00	0.32	0.987	IO				1.00
51.250	0.00	0.32	0.985	IO				0.99
51.333	0.00	0.32	0.983	IO				0.99
51.417	0.00	0.32	0.980	IO				0.99

51.500	0.00	0.32	0.978	IO				0.99
51.583	0.00	0.32	0.976	IO				0.99
51.667	0.00	0.32	0.974	IO				0.98
51.750	0.00	0.32	0.972	IO				0.98
51.833	0.00	0.32	0.969	IO				0.98
51.917	0.00	0.32	0.967	IO				0.98
52.000	0.00	0.32	0.965	IO				0.97
52.083	0.00	0.31	0.963	IO				0.97
52.167	0.00	0.31	0.961	IO				0.97
52.250	0.00	0.31	0.959	IO				0.97
52.333	0.00	0.31	0.956	IO				0.96
52.417	0.00	0.31	0.954	IO				0.96
52.500	0.00	0.31	0.952	IO				0.96
52.583	0.00	0.31	0.950	IO				0.96
52.667	0.00	0.31	0.948	IO				0.96
52.750	0.00	0.31	0.946	IO				0.95
52.833	0.00	0.31	0.944	IO				0.95
52.917	0.00	0.31	0.941	IO				0.95
53.000	0.00	0.31	0.939	IO				0.95
53.083	0.00	0.31	0.937	IO				0.94
53.167	0.00	0.31	0.935	IO				0.94
53.250	0.00	0.31	0.933	IO				0.94
53.333	0.00	0.31	0.931	IO				0.94
53.417	0.00	0.31	0.929	IO				0.93
53.500	0.00	0.31	0.926	IO				0.93
53.583	0.00	0.31	0.924	IO				0.93
53.667	0.00	0.31	0.922	IO				0.93
53.750	0.00	0.31	0.920	IO				0.93
53.833	0.00	0.31	0.918	IO				0.92
53.917	0.00	0.31	0.916	IO				0.92
54.000	0.00	0.31	0.914	IO				0.92
54.083	0.00	0.31	0.912	IO				0.92
54.167	0.00	0.30	0.910	IO				0.91
54.250	0.00	0.30	0.908	IO				0.91
54.333	0.00	0.30	0.905	IO				0.91
54.417	0.00	0.30	0.903	IO				0.91
54.500	0.00	0.30	0.901	IO				0.91
54.583	0.00	0.30	0.899	IO				0.90
54.667	0.00	0.30	0.897	IO				0.90
54.750	0.00	0.30	0.895	IO				0.90
54.833	0.00	0.30	0.893	IO				0.90
54.917	0.00	0.30	0.891	IO				0.89
55.000	0.00	0.30	0.889	IO				0.89
55.083	0.00	0.30	0.887	IO				0.89
55.167	0.00	0.30	0.885	IO				0.89
55.250	0.00	0.30	0.883	IO				0.89
55.333	0.00	0.30	0.880	IO				0.88
55.417	0.00	0.30	0.878	IO				0.88
55.500	0.00	0.30	0.876	IO				0.88
55.583	0.00	0.30	0.874	IO				0.88
55.667	0.00	0.30	0.872	IO				0.87
55.750	0.00	0.30	0.870	IO				0.87
55.833	0.00	0.30	0.868	IO				0.87
55.917	0.00	0.30	0.866	IO				0.87
56.000	0.00	0.30	0.864	IO				0.87
56.083	0.00	0.30	0.862	IO				0.86
56.167	0.00	0.30	0.860	IO				0.86
56.250	0.00	0.29	0.858	IO				0.86
56.333	0.00	0.29	0.856	IO				0.86
56.417	0.00	0.29	0.854	IO				0.86
56.500	0.00	0.29	0.852	IO				0.85
56.583	0.00	0.29	0.850	IO				0.85
56.667	0.00	0.29	0.848	IO				0.85

56.750	0.00	0.29	0.846	IO				0.85
56.833	0.00	0.29	0.844	IO				0.84
56.917	0.00	0.29	0.842	IO				0.84
57.000	0.00	0.29	0.840	IO				0.84
57.083	0.00	0.29	0.838	IO				0.84
57.167	0.00	0.29	0.836	IO				0.84
57.250	0.00	0.29	0.834	IO				0.83
57.333	0.00	0.29	0.832	IO				0.83
57.417	0.00	0.29	0.830	IO				0.83
57.500	0.00	0.29	0.828	IO				0.83
57.583	0.00	0.29	0.826	IO				0.83
57.667	0.00	0.29	0.824	IO				0.82
57.750	0.00	0.29	0.822	IO				0.82
57.833	0.00	0.29	0.820	IO				0.82
57.917	0.00	0.29	0.818	IO				0.82
58.000	0.00	0.29	0.816	IO				0.81
58.083	0.00	0.29	0.814	IO				0.81
58.167	0.00	0.29	0.812	IO				0.81
58.250	0.00	0.29	0.810	IO				0.81
58.333	0.00	0.29	0.808	IO				0.81
58.417	0.00	0.28	0.806	IO				0.80
58.500	0.00	0.28	0.804	IO				0.80
58.583	0.00	0.28	0.802	IO				0.80
58.667	0.00	0.28	0.800	IO				0.80
58.750	0.00	0.28	0.798	IO				0.80
58.833	0.00	0.28	0.796	IO				0.79
58.917	0.00	0.28	0.794	IO				0.79
59.000	0.00	0.28	0.792	IO				0.79
59.083	0.00	0.28	0.791	IO				0.79
59.167	0.00	0.28	0.789	IO				0.79
59.250	0.00	0.28	0.787	IO				0.78
59.333	0.00	0.28	0.785	IO				0.78
59.417	0.00	0.28	0.783	IO				0.78
59.500	0.00	0.28	0.781	IO				0.78
59.583	0.00	0.28	0.779	IO				0.78
59.667	0.00	0.28	0.777	IO				0.77
59.750	0.00	0.28	0.775	IO				0.77
59.833	0.00	0.28	0.773	IO				0.77
59.917	0.00	0.28	0.771	IO				0.77
60.000	0.00	0.28	0.769	IO				0.77
60.083	0.00	0.28	0.767	IO				0.76
60.167	0.00	0.28	0.766	IO				0.76
60.250	0.00	0.28	0.764	IO				0.76
60.333	0.00	0.28	0.762	IO				0.76
60.417	0.00	0.28	0.760	IO				0.76
60.500	0.00	0.28	0.758	IO				0.75
60.583	0.00	0.28	0.756	IO				0.75
60.667	0.00	0.27	0.754	IO				0.75
60.750	0.00	0.27	0.752	IO				0.75
60.833	0.00	0.27	0.750	IO				0.75
60.917	0.00	0.27	0.748	IO				0.74
61.000	0.00	0.27	0.747	IO				0.74
61.083	0.00	0.27	0.745	IO				0.74
61.167	0.00	0.27	0.743	IO				0.74
61.250	0.00	0.27	0.741	IO				0.74
61.333	0.00	0.27	0.739	IO				0.73
61.417	0.00	0.27	0.737	IO				0.73
61.500	0.00	0.27	0.735	IO				0.73
61.583	0.00	0.27	0.733	IO				0.73
61.667	0.00	0.27	0.732	IO				0.73
61.750	0.00	0.27	0.730	IO				0.72
61.833	0.00	0.27	0.728	IO				0.72
61.917	0.00	0.27	0.726	IO				0.72

62.000	0.00	0.27	0.724	IO	|	|	|	0.72
62.083	0.00	0.27	0.722	IO	|	|	|	0.72
62.167	0.00	0.27	0.720	IO	|	|	|	0.71
62.250	0.00	0.27	0.719	IO	|	|	|	0.71
62.333	0.00	0.27	0.717	IO	|	|	|	0.71
62.417	0.00	0.27	0.715	IO	|	|	|	0.71
62.500	0.00	0.27	0.713	IO	|	|	|	0.71
62.583	0.00	0.27	0.711	IO	|	|	|	0.70
62.667	0.00	0.27	0.709	IO	|	|	|	0.70
62.750	0.00	0.27	0.708	IO	|	|	|	0.70
62.833	0.00	0.27	0.706	IO	|	|	|	0.70
62.917	0.00	0.27	0.704	IO	|	|	|	0.70
63.000	0.00	0.26	0.702	IO	|	|	|	0.69
63.083	0.00	0.26	0.700	IO	|	|	|	0.69
63.167	0.00	0.26	0.698	IO	|	|	|	0.69
63.250	0.00	0.26	0.697	IO	|	|	|	0.69
63.333	0.00	0.26	0.695	IO	|	|	|	0.69
63.417	0.00	0.26	0.693	IO	|	|	|	0.68
63.500	0.00	0.26	0.691	IO	|	|	|	0.68
63.583	0.00	0.26	0.689	IO	|	|	|	0.68
63.667	0.00	0.26	0.688	IO	|	|	|	0.68
63.750	0.00	0.26	0.686	IO	|	|	|	0.68
63.833	0.00	0.26	0.684	IO	|	|	|	0.67
63.917	0.00	0.26	0.682	IO	|	|	|	0.67
64.000	0.00	0.26	0.680	IO	|	|	|	0.67
64.083	0.00	0.26	0.679	IO	|	|	|	0.67
64.167	0.00	0.26	0.677	IO	|	|	|	0.67
64.250	0.00	0.26	0.675	IO	|	|	|	0.66
64.333	0.00	0.26	0.673	IO	|	|	|	0.66
64.417	0.00	0.26	0.671	IO	|	|	|	0.66
64.500	0.00	0.26	0.670	IO	|	|	|	0.66
64.583	0.00	0.26	0.668	IO	|	|	|	0.66
64.667	0.00	0.26	0.666	IO	|	|	|	0.66
64.750	0.00	0.26	0.664	IO	|	|	|	0.65
64.833	0.00	0.26	0.663	IO	|	|	|	0.65
64.917	0.00	0.26	0.661	IO	|	|	|	0.65
65.000	0.00	0.26	0.659	IO	|	|	|	0.65
65.083	0.00	0.26	0.657	IO	|	|	|	0.65
65.167	0.00	0.26	0.655	IO	|	|	|	0.64
65.250	0.00	0.26	0.654	IO	|	|	|	0.64
65.333	0.00	0.26	0.652	IO	|	|	|	0.64
65.417	0.00	0.25	0.650	IO	|	|	|	0.64
65.500	0.00	0.25	0.648	IO	|	|	|	0.64
65.583	0.00	0.25	0.647	IO	|	|	|	0.63
65.667	0.00	0.25	0.645	IO	|	|	|	0.63
65.750	0.00	0.25	0.643	IO	|	|	|	0.63
65.833	0.00	0.25	0.641	IO	|	|	|	0.63
65.917	0.00	0.25	0.640	IO	|	|	|	0.63
66.000	0.00	0.25	0.638	IO	|	|	|	0.63
66.083	0.00	0.25	0.636	IO	|	|	|	0.62
66.167	0.00	0.25	0.634	IO	|	|	|	0.62
66.250	0.00	0.25	0.633	IO	|	|	|	0.62
66.333	0.00	0.25	0.631	IO	|	|	|	0.62
66.417	0.00	0.25	0.629	IO	|	|	|	0.62
66.500	0.00	0.25	0.628	IO	|	|	|	0.61
66.583	0.00	0.25	0.626	IO	|	|	|	0.61
66.667	0.00	0.25	0.624	IO	|	|	|	0.61
66.750	0.00	0.25	0.622	IO	|	|	|	0.61
66.833	0.00	0.25	0.621	IO	|	|	|	0.61
66.917	0.00	0.25	0.619	IO	|	|	|	0.61
67.000	0.00	0.25	0.617	IO	|	|	|	0.60
67.083	0.00	0.25	0.616	IO	|	|	|	0.60
67.167	0.00	0.25	0.614	IO	|	|	|	0.60

67.250	0.00	0.25	0.612	O	|	|	|	0.60
67.333	0.00	0.25	0.610	O	|	|	|	0.60
67.417	0.00	0.25	0.609	O	|	|	|	0.59
67.500	0.00	0.25	0.607	O	|	|	|	0.59
67.583	0.00	0.25	0.605	O	|	|	|	0.59
67.667	0.00	0.25	0.604	O	|	|	|	0.59
67.750	0.00	0.25	0.602	O	|	|	|	0.59
67.833	0.00	0.25	0.600	O	|	|	|	0.59
67.917	0.00	0.25	0.599	O	|	|	|	0.58
68.000	0.00	0.24	0.597	O	|	|	|	0.58
68.083	0.00	0.24	0.595	O	|	|	|	0.58
68.167	0.00	0.24	0.593	O	|	|	|	0.58
68.250	0.00	0.24	0.592	O	|	|	|	0.58
68.333	0.00	0.24	0.590	O	|	|	|	0.57
68.417	0.00	0.24	0.588	O	|	|	|	0.57
68.500	0.00	0.24	0.587	O	|	|	|	0.57
68.583	0.00	0.24	0.585	O	|	|	|	0.57
68.667	0.00	0.24	0.583	O	|	|	|	0.57
68.750	0.00	0.24	0.582	O	|	|	|	0.57
68.833	0.00	0.24	0.580	O	|	|	|	0.56
68.917	0.00	0.24	0.578	O	|	|	|	0.56
69.000	0.00	0.24	0.577	O	|	|	|	0.56
69.083	0.00	0.24	0.575	O	|	|	|	0.56
69.167	0.00	0.24	0.573	O	|	|	|	0.56
69.250	0.00	0.24	0.572	O	|	|	|	0.56
69.333	0.00	0.24	0.570	O	|	|	|	0.55
69.417	0.00	0.24	0.569	O	|	|	|	0.55
69.500	0.00	0.24	0.567	O	|	|	|	0.55
69.583	0.00	0.24	0.565	O	|	|	|	0.55
69.667	0.00	0.24	0.564	O	|	|	|	0.55
69.750	0.00	0.24	0.562	O	|	|	|	0.54
69.833	0.00	0.24	0.560	O	|	|	|	0.54
69.917	0.00	0.24	0.559	O	|	|	|	0.54
70.000	0.00	0.24	0.557	O	|	|	|	0.54
70.083	0.00	0.24	0.555	O	|	|	|	0.54
70.167	0.00	0.24	0.554	O	|	|	|	0.54
70.250	0.00	0.24	0.552	O	|	|	|	0.53
70.333	0.00	0.24	0.551	O	|	|	|	0.53
70.417	0.00	0.24	0.549	O	|	|	|	0.53
70.500	0.00	0.24	0.547	O	|	|	|	0.53
70.583	0.00	0.23	0.546	O	|	|	|	0.53
70.667	0.00	0.23	0.544	O	|	|	|	0.53
70.750	0.00	0.23	0.542	O	|	|	|	0.52
70.833	0.00	0.23	0.541	O	|	|	|	0.52
70.917	0.00	0.23	0.539	O	|	|	|	0.52
71.000	0.00	0.23	0.538	O	|	|	|	0.52
71.083	0.00	0.23	0.536	O	|	|	|	0.52
71.167	0.00	0.23	0.534	O	|	|	|	0.52
71.250	0.00	0.23	0.533	O	|	|	|	0.51
71.333	0.00	0.23	0.531	O	|	|	|	0.51
71.417	0.00	0.23	0.530	O	|	|	|	0.51
71.500	0.00	0.23	0.528	O	|	|	|	0.51
71.583	0.00	0.23	0.526	O	|	|	|	0.51
71.667	0.00	0.23	0.525	O	|	|	|	0.51
71.750	0.00	0.23	0.523	O	|	|	|	0.50
71.833	0.00	0.23	0.522	O	|	|	|	0.50
71.917	0.00	0.23	0.520	O	|	|	|	0.50
72.000	0.00	0.23	0.518	O	|	|	|	0.50
72.083	0.00	0.23	0.517	O	|	|	|	0.50
72.167	0.00	0.23	0.515	O	|	|	|	0.50
72.250	0.00	0.23	0.514	O	|	|	|	0.49
72.333	0.00	0.23	0.512	O	|	|	|	0.49
72.417	0.00	0.23	0.511	O	|	|	|	0.49

72.500	0.00	0.23	0.509	O	|	|	|	|	0.49
72.583	0.00	0.22	0.508	O	|	|	|	|	0.49
72.667	0.00	0.22	0.506	O	|	|	|	|	0.49
72.750	0.00	0.22	0.504	O	|	|	|	|	0.49
72.833	0.00	0.22	0.503	O	|	|	|	|	0.48
72.917	0.00	0.22	0.501	O	|	|	|	|	0.48
73.000	0.00	0.22	0.500	O	|	|	|	|	0.48
73.083	0.00	0.22	0.498	O	|	|	|	|	0.48
73.167	0.00	0.22	0.497	O	|	|	|	|	0.48
73.250	0.00	0.22	0.495	O	|	|	|	|	0.48
73.333	0.00	0.22	0.494	O	|	|	|	|	0.47
73.417	0.00	0.22	0.492	O	|	|	|	|	0.47
73.500	0.00	0.22	0.491	O	|	|	|	|	0.47
73.583	0.00	0.22	0.489	O	|	|	|	|	0.47
73.667	0.00	0.22	0.488	O	|	|	|	|	0.47
73.750	0.00	0.22	0.486	O	|	|	|	|	0.47
73.833	0.00	0.21	0.485	O	|	|	|	|	0.47
73.917	0.00	0.21	0.483	O	|	|	|	|	0.46
74.000	0.00	0.21	0.482	O	|	|	|	|	0.46
74.083	0.00	0.21	0.480	O	|	|	|	|	0.46
74.167	0.00	0.21	0.479	O	|	|	|	|	0.46
74.250	0.00	0.21	0.478	O	|	|	|	|	0.46
74.333	0.00	0.21	0.476	O	|	|	|	|	0.46
74.417	0.00	0.21	0.475	O	|	|	|	|	0.46
74.500	0.00	0.21	0.473	O	|	|	|	|	0.45
74.583	0.00	0.21	0.472	O	|	|	|	|	0.45
74.667	0.00	0.21	0.470	O	|	|	|	|	0.45
74.750	0.00	0.21	0.469	O	|	|	|	|	0.45
74.833	0.00	0.21	0.467	O	|	|	|	|	0.45
74.917	0.00	0.21	0.466	O	|	|	|	|	0.45
75.000	0.00	0.21	0.465	O	|	|	|	|	0.45
75.083	0.00	0.20	0.463	O	|	|	|	|	0.45
75.167	0.00	0.20	0.462	O	|	|	|	|	0.44
75.250	0.00	0.20	0.460	O	|	|	|	|	0.44
75.333	0.00	0.20	0.459	O	|	|	|	|	0.44
75.417	0.00	0.20	0.458	O	|	|	|	|	0.44
75.500	0.00	0.20	0.456	O	|	|	|	|	0.44
75.583	0.00	0.20	0.455	O	|	|	|	|	0.44
75.667	0.00	0.20	0.453	O	|	|	|	|	0.44
75.750	0.00	0.20	0.452	O	|	|	|	|	0.43
75.833	0.00	0.20	0.451	O	|	|	|	|	0.43
75.917	0.00	0.20	0.449	O	|	|	|	|	0.43
76.000	0.00	0.20	0.448	O	|	|	|	|	0.43
76.083	0.00	0.20	0.447	O	|	|	|	|	0.43
76.167	0.00	0.20	0.445	O	|	|	|	|	0.43
76.250	0.00	0.20	0.444	O	|	|	|	|	0.43
76.333	0.00	0.20	0.443	O	|	|	|	|	0.43
76.417	0.00	0.20	0.441	O	|	|	|	|	0.42
76.500	0.00	0.19	0.440	O	|	|	|	|	0.42
76.583	0.00	0.19	0.438	O	|	|	|	|	0.42
76.667	0.00	0.19	0.437	O	|	|	|	|	0.42
76.750	0.00	0.19	0.436	O	|	|	|	|	0.42
76.833	0.00	0.19	0.434	O	|	|	|	|	0.42
76.917	0.00	0.19	0.433	O	|	|	|	|	0.42
77.000	0.00	0.19	0.432	O	|	|	|	|	0.42
77.083	0.00	0.19	0.431	O	|	|	|	|	0.41
77.167	0.00	0.19	0.429	O	|	|	|	|	0.41
77.250	0.00	0.19	0.428	O	|	|	|	|	0.41
77.333	0.00	0.19	0.427	O	|	|	|	|	0.41
77.417	0.00	0.19	0.425	O	|	|	|	|	0.41
77.500	0.00	0.19	0.424	O	|	|	|	|	0.41
77.583	0.00	0.19	0.423	O	|	|	|	|	0.41
77.667	0.00	0.19	0.421	O	|	|	|	|	0.41

77.750	0.00	0.19	0.420	O	|	|	|	|	0.40
77.833	0.00	0.19	0.419	O	|	|	|	|	0.40
77.917	0.00	0.18	0.418	O	|	|	|	|	0.40
78.000	0.00	0.18	0.416	O	|	|	|	|	0.40
78.083	0.00	0.18	0.415	O	|	|	|	|	0.40
78.167	0.00	0.18	0.414	O	|	|	|	|	0.40
78.250	0.00	0.18	0.413	O	|	|	|	|	0.40
78.333	0.00	0.18	0.411	O	|	|	|	|	0.40
78.417	0.00	0.18	0.410	O	|	|	|	|	0.39
78.500	0.00	0.18	0.409	O	|	|	|	|	0.39
78.583	0.00	0.18	0.408	O	|	|	|	|	0.39
78.667	0.00	0.18	0.406	O	|	|	|	|	0.39
78.750	0.00	0.18	0.405	O	|	|	|	|	0.39
78.833	0.00	0.18	0.404	O	|	|	|	|	0.39
78.917	0.00	0.18	0.403	O	|	|	|	|	0.39
79.000	0.00	0.18	0.401	O	|	|	|	|	0.39
79.083	0.00	0.18	0.400	O	|	|	|	|	0.38
79.167	0.00	0.18	0.399	O	|	|	|	|	0.38
79.250	0.00	0.18	0.398	O	|	|	|	|	0.38
79.333	0.00	0.18	0.397	O	|	|	|	|	0.38
79.417	0.00	0.17	0.395	O	|	|	|	|	0.38
79.500	0.00	0.17	0.394	O	|	|	|	|	0.38
79.583	0.00	0.17	0.393	O	|	|	|	|	0.38
79.667	0.00	0.17	0.392	O	|	|	|	|	0.38
79.750	0.00	0.17	0.391	O	|	|	|	|	0.38
79.833	0.00	0.17	0.389	O	|	|	|	|	0.37
79.917	0.00	0.17	0.388	O	|	|	|	|	0.37
80.000	0.00	0.17	0.387	O	|	|	|	|	0.37
80.083	0.00	0.17	0.386	O	|	|	|	|	0.37
80.167	0.00	0.17	0.385	O	|	|	|	|	0.37
80.250	0.00	0.17	0.383	O	|	|	|	|	0.37
80.333	0.00	0.17	0.382	O	|	|	|	|	0.37
80.417	0.00	0.17	0.381	O	|	|	|	|	0.37
80.500	0.00	0.17	0.380	O	|	|	|	|	0.37
80.583	0.00	0.17	0.379	O	|	|	|	|	0.36
80.667	0.00	0.17	0.378	O	|	|	|	|	0.36
80.750	0.00	0.17	0.377	O	|	|	|	|	0.36
80.833	0.00	0.17	0.375	O	|	|	|	|	0.36
80.917	0.00	0.17	0.374	O	|	|	|	|	0.36
81.000	0.00	0.17	0.373	O	|	|	|	|	0.36
81.083	0.00	0.16	0.372	O	|	|	|	|	0.36
81.167	0.00	0.16	0.371	O	|	|	|	|	0.36
81.250	0.00	0.16	0.370	O	|	|	|	|	0.36
81.333	0.00	0.16	0.369	O	|	|	|	|	0.35
81.417	0.00	0.16	0.367	O	|	|	|	|	0.35
81.500	0.00	0.16	0.366	O	|	|	|	|	0.35
81.583	0.00	0.16	0.365	O	|	|	|	|	0.35
81.667	0.00	0.16	0.364	O	|	|	|	|	0.35
81.750	0.00	0.16	0.363	O	|	|	|	|	0.35
81.833	0.00	0.16	0.362	O	|	|	|	|	0.35
81.917	0.00	0.16	0.361	O	|	|	|	|	0.35
82.000	0.00	0.16	0.360	O	|	|	|	|	0.35
82.083	0.00	0.16	0.359	O	|	|	|	|	0.34
82.167	0.00	0.16	0.358	O	|	|	|	|	0.34
82.250	0.00	0.16	0.356	O	|	|	|	|	0.34
82.333	0.00	0.16	0.355	O	|	|	|	|	0.34
82.417	0.00	0.16	0.354	O	|	|	|	|	0.34
82.500	0.00	0.16	0.353	O	|	|	|	|	0.34
82.583	0.00	0.16	0.352	O	|	|	|	|	0.34
82.667	0.00	0.16	0.351	O	|	|	|	|	0.34
82.750	0.00	0.15	0.350	O	|	|	|	|	0.34
82.833	0.00	0.15	0.349	O	|	|	|	|	0.34
82.917	0.00	0.15	0.348	O	|	|	|	|	0.33

83.000	0.00	0.15	0.347	O	|	|	|	| 0.33
83.083	0.00	0.15	0.346	O	|	|	|	| 0.33
83.167	0.00	0.15	0.345	O	|	|	|	| 0.33
83.250	0.00	0.15	0.344	O	|	|	|	| 0.33
83.333	0.00	0.15	0.343	O	|	|	|	| 0.33
83.417	0.00	0.15	0.342	O	|	|	|	| 0.33
83.500	0.00	0.15	0.341	O	|	|	|	| 0.33
83.583	0.00	0.15	0.339	O	|	|	|	| 0.33
83.667	0.00	0.15	0.338	O	|	|	|	| 0.33
83.750	0.00	0.15	0.337	O	|	|	|	| 0.32
83.833	0.00	0.15	0.336	O	|	|	|	| 0.32
83.917	0.00	0.15	0.335	O	|	|	|	| 0.32
84.000	0.00	0.15	0.334	O	|	|	|	| 0.32
84.083	0.00	0.15	0.333	O	|	|	|	| 0.32
84.167	0.00	0.15	0.332	O	|	|	|	| 0.32
84.250	0.00	0.15	0.331	O	|	|	|	| 0.32
84.333	0.00	0.15	0.330	O	|	|	|	| 0.32
84.417	0.00	0.15	0.329	O	|	|	|	| 0.32
84.500	0.00	0.15	0.328	O	|	|	|	| 0.32
84.583	0.00	0.14	0.327	O	|	|	|	| 0.31
84.667	0.00	0.14	0.326	O	|	|	|	| 0.31
84.750	0.00	0.14	0.325	O	|	|	|	| 0.31
84.833	0.00	0.14	0.324	O	|	|	|	| 0.31
84.917	0.00	0.14	0.323	O	|	|	|	| 0.31
85.000	0.00	0.14	0.322	O	|	|	|	| 0.31
85.083	0.00	0.14	0.321	O	|	|	|	| 0.31
85.167	0.00	0.14	0.320	O	|	|	|	| 0.31
85.250	0.00	0.14	0.319	O	|	|	|	| 0.31
85.333	0.00	0.14	0.318	O	|	|	|	| 0.31
85.417	0.00	0.14	0.317	O	|	|	|	| 0.31
85.500	0.00	0.14	0.317	O	|	|	|	| 0.30
85.583	0.00	0.14	0.316	O	|	|	|	| 0.30
85.667	0.00	0.14	0.315	O	|	|	|	| 0.30
85.750	0.00	0.14	0.314	O	|	|	|	| 0.30
85.833	0.00	0.14	0.313	O	|	|	|	| 0.30
85.917	0.00	0.14	0.312	O	|	|	|	| 0.30
86.000	0.00	0.14	0.311	O	|	|	|	| 0.30
86.083	0.00	0.14	0.310	O	|	|	|	| 0.30
86.167	0.00	0.14	0.309	O	|	|	|	| 0.30
86.250	0.00	0.14	0.308	O	|	|	|	| 0.30
86.333	0.00	0.14	0.307	O	|	|	|	| 0.30
86.417	0.00	0.14	0.306	O	|	|	|	| 0.29
86.500	0.00	0.13	0.305	O	|	|	|	| 0.29
86.583	0.00	0.13	0.304	O	|	|	|	| 0.29
86.667	0.00	0.13	0.303	O	|	|	|	| 0.29
86.750	0.00	0.13	0.302	O	|	|	|	| 0.29
86.833	0.00	0.13	0.301	O	|	|	|	| 0.29
86.917	0.00	0.13	0.301	O	|	|	|	| 0.29
87.000	0.00	0.13	0.300	O	|	|	|	| 0.29
87.083	0.00	0.13	0.299	O	|	|	|	| 0.29
87.167	0.00	0.13	0.298	O	|	|	|	| 0.29
87.250	0.00	0.13	0.297	O	|	|	|	| 0.29
87.333	0.00	0.13	0.296	O	|	|	|	| 0.28
87.417	0.00	0.13	0.295	O	|	|	|	| 0.28
87.500	0.00	0.13	0.294	O	|	|	|	| 0.28
87.583	0.00	0.13	0.293	O	|	|	|	| 0.28
87.667	0.00	0.13	0.292	O	|	|	|	| 0.28
87.750	0.00	0.13	0.292	O	|	|	|	| 0.28
87.833	0.00	0.13	0.291	O	|	|	|	| 0.28
87.917	0.00	0.13	0.290	O	|	|	|	| 0.28
88.000	0.00	0.13	0.289	O	|	|	|	| 0.28
88.083	0.00	0.13	0.288	O	|	|	|	| 0.28
88.167	0.00	0.13	0.287	O	|	|	|	| 0.28

88.250	0.00	0.13	0.286	O	|	|	|	|	0.28
88.333	0.00	0.13	0.285	O	|	|	|	|	0.27
88.417	0.00	0.13	0.285	O	|	|	|	|	0.27
88.500	0.00	0.13	0.284	O	|	|	|	|	0.27
88.583	0.00	0.13	0.283	O	|	|	|	|	0.27
88.667	0.00	0.12	0.282	O	|	|	|	|	0.27
88.750	0.00	0.12	0.281	O	|	|	|	|	0.27
88.833	0.00	0.12	0.280	O	|	|	|	|	0.27
88.917	0.00	0.12	0.279	O	|	|	|	|	0.27
89.000	0.00	0.12	0.279	O	|	|	|	|	0.27
89.083	0.00	0.12	0.278	O	|	|	|	|	0.27
89.167	0.00	0.12	0.277	O	|	|	|	|	0.27
89.250	0.00	0.12	0.276	O	|	|	|	|	0.27
89.333	0.00	0.12	0.275	O	|	|	|	|	0.26
89.417	0.00	0.12	0.274	O	|	|	|	|	0.26
89.500	0.00	0.12	0.273	O	|	|	|	|	0.26
89.583	0.00	0.12	0.273	O	|	|	|	|	0.26
89.667	0.00	0.12	0.272	O	|	|	|	|	0.26
89.750	0.00	0.12	0.271	O	|	|	|	|	0.26
89.833	0.00	0.12	0.270	O	|	|	|	|	0.26
89.917	0.00	0.12	0.269	O	|	|	|	|	0.26
90.000	0.00	0.12	0.269	O	|	|	|	|	0.26
90.083	0.00	0.12	0.268	O	|	|	|	|	0.26
90.167	0.00	0.12	0.267	O	|	|	|	|	0.26
90.250	0.00	0.12	0.266	O	|	|	|	|	0.26
90.333	0.00	0.12	0.265	O	|	|	|	|	0.26
90.417	0.00	0.12	0.264	O	|	|	|	|	0.25
90.500	0.00	0.12	0.264	O	|	|	|	|	0.25
90.583	0.00	0.12	0.263	O	|	|	|	|	0.25
90.667	0.00	0.12	0.262	O	|	|	|	|	0.25
90.750	0.00	0.12	0.261	O	|	|	|	|	0.25
90.833	0.00	0.12	0.260	O	|	|	|	|	0.25
90.917	0.00	0.11	0.260	O	|	|	|	|	0.25
91.000	0.00	0.11	0.259	O	|	|	|	|	0.25
91.083	0.00	0.11	0.258	O	|	|	|	|	0.25
91.167	0.00	0.11	0.257	O	|	|	|	|	0.25
91.250	0.00	0.11	0.257	O	|	|	|	|	0.25
91.333	0.00	0.11	0.256	O	|	|	|	|	0.25
91.417	0.00	0.11	0.255	O	|	|	|	|	0.25
91.500	0.00	0.11	0.254	O	|	|	|	|	0.24
91.583	0.00	0.11	0.253	O	|	|	|	|	0.24
91.667	0.00	0.11	0.253	O	|	|	|	|	0.24
91.750	0.00	0.11	0.252	O	|	|	|	|	0.24
91.833	0.00	0.11	0.251	O	|	|	|	|	0.24
91.917	0.00	0.11	0.250	O	|	|	|	|	0.24
92.000	0.00	0.11	0.250	O	|	|	|	|	0.24
92.083	0.00	0.11	0.249	O	|	|	|	|	0.24
92.167	0.00	0.11	0.248	O	|	|	|	|	0.24
92.250	0.00	0.11	0.247	O	|	|	|	|	0.24
92.333	0.00	0.11	0.247	O	|	|	|	|	0.24
92.417	0.00	0.11	0.246	O	|	|	|	|	0.24
92.500	0.00	0.11	0.245	O	|	|	|	|	0.24
92.583	0.00	0.11	0.244	O	|	|	|	|	0.23
92.667	0.00	0.11	0.244	O	|	|	|	|	0.23
92.750	0.00	0.11	0.243	O	|	|	|	|	0.23
92.833	0.00	0.11	0.242	O	|	|	|	|	0.23
92.917	0.00	0.11	0.241	O	|	|	|	|	0.23
93.000	0.00	0.11	0.241	O	|	|	|	|	0.23
93.083	0.00	0.11	0.240	O	|	|	|	|	0.23
93.167	0.00	0.11	0.239	O	|	|	|	|	0.23
93.250	0.00	0.11	0.238	O	|	|	|	|	0.23
93.333	0.00	0.11	0.238	O	|	|	|	|	0.23
93.417	0.00	0.10	0.237	O	|	|	|	|	0.23

93.500	0.00	0.10	0.236	O	|	|	|	|	0.23
93.583	0.00	0.10	0.236	O	|	|	|	|	0.23
93.667	0.00	0.10	0.235	O	|	|	|	|	0.23
93.750	0.00	0.10	0.234	O	|	|	|	|	0.23
93.833	0.00	0.10	0.233	O	|	|	|	|	0.22
93.917	0.00	0.10	0.233	O	|	|	|	|	0.22
94.000	0.00	0.10	0.232	O	|	|	|	|	0.22
94.083	0.00	0.10	0.231	O	|	|	|	|	0.22
94.167	0.00	0.10	0.231	O	|	|	|	|	0.22
94.250	0.00	0.10	0.230	O	|	|	|	|	0.22
94.333	0.00	0.10	0.229	O	|	|	|	|	0.22
94.417	0.00	0.10	0.228	O	|	|	|	|	0.22
94.500	0.00	0.10	0.228	O	|	|	|	|	0.22
94.583	0.00	0.10	0.227	O	|	|	|	|	0.22
94.667	0.00	0.10	0.226	O	|	|	|	|	0.22
94.750	0.00	0.10	0.226	O	|	|	|	|	0.22
94.833	0.00	0.10	0.225	O	|	|	|	|	0.22
94.917	0.00	0.10	0.224	O	|	|	|	|	0.22
95.000	0.00	0.10	0.224	O	|	|	|	|	0.22
95.083	0.00	0.10	0.223	O	|	|	|	|	0.21
95.167	0.00	0.10	0.222	O	|	|	|	|	0.21
95.250	0.00	0.10	0.222	O	|	|	|	|	0.21
95.333	0.00	0.10	0.221	O	|	|	|	|	0.21
95.417	0.00	0.10	0.220	O	|	|	|	|	0.21
95.500	0.00	0.10	0.220	O	|	|	|	|	0.21
95.583	0.00	0.10	0.219	O	|	|	|	|	0.21
95.667	0.00	0.10	0.218	O	|	|	|	|	0.21
95.750	0.00	0.10	0.218	O	|	|	|	|	0.21
95.833	0.00	0.10	0.217	O	|	|	|	|	0.21
95.917	0.00	0.10	0.216	O	|	|	|	|	0.21
96.000	0.00	0.10	0.216	O	|	|	|	|	0.21
96.083	0.00	0.10	0.215	O	|	|	|	|	0.21
96.167	0.00	0.09	0.214	O	|	|	|	|	0.21
96.250	0.00	0.09	0.214	O	|	|	|	|	0.21
96.333	0.00	0.09	0.213	O	|	|	|	|	0.20
96.417	0.00	0.09	0.212	O	|	|	|	|	0.20
96.500	0.00	0.09	0.212	O	|	|	|	|	0.20
96.583	0.00	0.09	0.211	O	|	|	|	|	0.20
96.667	0.00	0.09	0.210	O	|	|	|	|	0.20
96.750	0.00	0.09	0.210	O	|	|	|	|	0.20
96.833	0.00	0.09	0.209	O	|	|	|	|	0.20
96.917	0.00	0.09	0.209	O	|	|	|	|	0.20
97.000	0.00	0.09	0.208	O	|	|	|	|	0.20
97.083	0.00	0.09	0.207	O	|	|	|	|	0.20
97.167	0.00	0.09	0.207	O	|	|	|	|	0.20
97.250	0.00	0.09	0.206	O	|	|	|	|	0.20
97.333	0.00	0.09	0.205	O	|	|	|	|	0.20
97.417	0.00	0.09	0.205	O	|	|	|	|	0.20
97.500	0.00	0.09	0.204	O	|	|	|	|	0.20
97.583	0.00	0.09	0.203	O	|	|	|	|	0.20
97.667	0.00	0.09	0.203	O	|	|	|	|	0.20
97.750	0.00	0.09	0.202	O	|	|	|	|	0.19
97.833	0.00	0.09	0.202	O	|	|	|	|	0.19
97.917	0.00	0.09	0.201	O	|	|	|	|	0.19
98.000	0.00	0.09	0.200	O	|	|	|	|	0.19
98.083	0.00	0.09	0.200	O	|	|	|	|	0.19
98.167	0.00	0.09	0.199	O	|	|	|	|	0.19
98.250	0.00	0.09	0.199	O	|	|	|	|	0.19
98.333	0.00	0.09	0.198	O	|	|	|	|	0.19
98.417	0.00	0.09	0.197	O	|	|	|	|	0.19
98.500	0.00	0.09	0.197	O	|	|	|	|	0.19
98.583	0.00	0.09	0.196	O	|	|	|	|	0.19
98.667	0.00	0.09	0.196	O	|	|	|	|	0.19

98.750	0.00	0.09	0.195	O	|	|	|	|	0.19
98.833	0.00	0.09	0.194	O	|	|	|	|	0.19
98.917	0.00	0.09	0.194	O	|	|	|	|	0.19
99.000	0.00	0.09	0.193	O	|	|	|	|	0.19
99.083	0.00	0.09	0.193	O	|	|	|	|	0.19
99.167	0.00	0.08	0.192	O	|	|	|	|	0.18
99.250	0.00	0.08	0.191	O	|	|	|	|	0.18
99.333	0.00	0.08	0.191	O	|	|	|	|	0.18
99.417	0.00	0.08	0.190	O	|	|	|	|	0.18
99.500	0.00	0.08	0.190	O	|	|	|	|	0.18
99.583	0.00	0.08	0.189	O	|	|	|	|	0.18
99.667	0.00	0.08	0.189	O	|	|	|	|	0.18
99.750	0.00	0.08	0.188	O	|	|	|	|	0.18
99.833	0.00	0.08	0.187	O	|	|	|	|	0.18
99.917	0.00	0.08	0.187	O	|	|	|	|	0.18
100.000	0.00	0.08	0.186	O	|	|	|	|	0.18
100.083	0.00	0.08	0.186	O	|	|	|	|	0.18
100.167	0.00	0.08	0.185	O	|	|	|	|	0.18
100.250	0.00	0.08	0.185	O	|	|	|	|	0.18
100.333	0.00	0.08	0.184	O	|	|	|	|	0.18
100.417	0.00	0.08	0.183	O	|	|	|	|	0.18
100.500	0.00	0.08	0.183	O	|	|	|	|	0.18
100.583	0.00	0.08	0.182	O	|	|	|	|	0.18
100.667	0.00	0.08	0.182	O	|	|	|	|	0.17
100.750	0.00	0.08	0.181	O	|	|	|	|	0.17
100.833	0.00	0.08	0.181	O	|	|	|	|	0.17
100.917	0.00	0.08	0.180	O	|	|	|	|	0.17
101.000	0.00	0.08	0.180	O	|	|	|	|	0.17
101.083	0.00	0.08	0.179	O	|	|	|	|	0.17
101.167	0.00	0.08	0.179	O	|	|	|	|	0.17
101.250	0.00	0.08	0.178	O	|	|	|	|	0.17
101.333	0.00	0.08	0.177	O	|	|	|	|	0.17
101.417	0.00	0.08	0.177	O	|	|	|	|	0.17
101.500	0.00	0.08	0.176	O	|	|	|	|	0.17
101.583	0.00	0.08	0.176	O	|	|	|	|	0.17
101.667	0.00	0.08	0.175	O	|	|	|	|	0.17
101.750	0.00	0.08	0.175	O	|	|	|	|	0.17
101.833	0.00	0.08	0.174	O	|	|	|	|	0.17
101.917	0.00	0.08	0.174	O	|	|	|	|	0.17
102.000	0.00	0.08	0.173	O	|	|	|	|	0.17
102.083	0.00	0.08	0.173	O	|	|	|	|	0.17
102.167	0.00	0.08	0.172	O	|	|	|	|	0.17
102.250	0.00	0.08	0.172	O	|	|	|	|	0.16
102.333	0.00	0.08	0.171	O	|	|	|	|	0.16
102.417	0.00	0.08	0.171	O	|	|	|	|	0.16
102.500	0.00	0.08	0.170	O	|	|	|	|	0.16
102.583	0.00	0.07	0.170	O	|	|	|	|	0.16
102.667	0.00	0.07	0.169	O	|	|	|	|	0.16
102.750	0.00	0.07	0.168	O	|	|	|	|	0.16
102.833	0.00	0.07	0.168	O	|	|	|	|	0.16
102.917	0.00	0.07	0.167	O	|	|	|	|	0.16
103.000	0.00	0.07	0.167	O	|	|	|	|	0.16
103.083	0.00	0.07	0.166	O	|	|	|	|	0.16
103.167	0.00	0.07	0.166	O	|	|	|	|	0.16
103.250	0.00	0.07	0.165	O	|	|	|	|	0.16
103.333	0.00	0.07	0.165	O	|	|	|	|	0.16
103.417	0.00	0.07	0.164	O	|	|	|	|	0.16
103.500	0.00	0.07	0.164	O	|	|	|	|	0.16
103.583	0.00	0.07	0.163	O	|	|	|	|	0.16
103.667	0.00	0.07	0.163	O	|	|	|	|	0.16
103.750	0.00	0.07	0.162	O	|	|	|	|	0.16
103.833	0.00	0.07	0.162	O	|	|	|	|	0.16
103.917	0.00	0.07	0.161	O	|	|	|	|	0.16

104.000	0.00	0.07	0.161	O	|	|	|	|	0.15
104.083	0.00	0.07	0.160	O	|	|	|	|	0.15
104.167	0.00	0.07	0.160	O	|	|	|	|	0.15
104.250	0.00	0.07	0.159	O	|	|	|	|	0.15
104.333	0.00	0.07	0.159	O	|	|	|	|	0.15
104.417	0.00	0.07	0.159	O	|	|	|	|	0.15
104.500	0.00	0.07	0.158	O	|	|	|	|	0.15
104.583	0.00	0.07	0.158	O	|	|	|	|	0.15
104.667	0.00	0.07	0.157	O	|	|	|	|	0.15
104.750	0.00	0.07	0.157	O	|	|	|	|	0.15
104.833	0.00	0.07	0.156	O	|	|	|	|	0.15
104.917	0.00	0.07	0.156	O	|	|	|	|	0.15
105.000	0.00	0.07	0.155	O	|	|	|	|	0.15
105.083	0.00	0.07	0.155	O	|	|	|	|	0.15
105.167	0.00	0.07	0.154	O	|	|	|	|	0.15
105.250	0.00	0.07	0.154	O	|	|	|	|	0.15
105.333	0.00	0.07	0.153	O	|	|	|	|	0.15
105.417	0.00	0.07	0.153	O	|	|	|	|	0.15
105.500	0.00	0.07	0.152	O	|	|	|	|	0.15
105.583	0.00	0.07	0.152	O	|	|	|	|	0.15
105.667	0.00	0.07	0.151	O	|	|	|	|	0.15
105.750	0.00	0.07	0.151	O	|	|	|	|	0.15
105.833	0.00	0.07	0.151	O	|	|	|	|	0.14
105.917	0.00	0.07	0.150	O	|	|	|	|	0.14
106.000	0.00	0.07	0.150	O	|	|	|	|	0.14
106.083	0.00	0.07	0.149	O	|	|	|	|	0.14
106.167	0.00	0.07	0.149	O	|	|	|	|	0.14
106.250	0.00	0.07	0.148	O	|	|	|	|	0.14
106.333	0.00	0.07	0.148	O	|	|	|	|	0.14
106.417	0.00	0.07	0.147	O	|	|	|	|	0.14
106.500	0.00	0.06	0.147	O	|	|	|	|	0.14
106.583	0.00	0.06	0.146	O	|	|	|	|	0.14
106.667	0.00	0.06	0.146	O	|	|	|	|	0.14
106.750	0.00	0.06	0.146	O	|	|	|	|	0.14
106.833	0.00	0.06	0.145	O	|	|	|	|	0.14
106.917	0.00	0.06	0.145	O	|	|	|	|	0.14
107.000	0.00	0.06	0.144	O	|	|	|	|	0.14
107.083	0.00	0.06	0.144	O	|	|	|	|	0.14
107.167	0.00	0.06	0.143	O	|	|	|	|	0.14
107.250	0.00	0.06	0.143	O	|	|	|	|	0.14
107.333	0.00	0.06	0.142	O	|	|	|	|	0.14
107.417	0.00	0.06	0.142	O	|	|	|	|	0.14
107.500	0.00	0.06	0.142	O	|	|	|	|	0.14
107.583	0.00	0.06	0.141	O	|	|	|	|	0.14
107.667	0.00	0.06	0.141	O	|	|	|	|	0.14
107.750	0.00	0.06	0.140	O	|	|	|	|	0.13
107.833	0.00	0.06	0.140	O	|	|	|	|	0.13
107.917	0.00	0.06	0.139	O	|	|	|	|	0.13
108.000	0.00	0.06	0.139	O	|	|	|	|	0.13
108.083	0.00	0.06	0.139	O	|	|	|	|	0.13
108.167	0.00	0.06	0.138	O	|	|	|	|	0.13
108.250	0.00	0.06	0.138	O	|	|	|	|	0.13
108.333	0.00	0.06	0.137	O	|	|	|	|	0.13
108.417	0.00	0.06	0.137	O	|	|	|	|	0.13
108.500	0.00	0.06	0.137	O	|	|	|	|	0.13
108.583	0.00	0.06	0.136	O	|	|	|	|	0.13
108.667	0.00	0.06	0.136	O	|	|	|	|	0.13
108.750	0.00	0.06	0.135	O	|	|	|	|	0.13
108.833	0.00	0.06	0.135	O	|	|	|	|	0.13
108.917	0.00	0.06	0.134	O	|	|	|	|	0.13
109.000	0.00	0.06	0.134	O	|	|	|	|	0.13
109.083	0.00	0.06	0.134	O	|	|	|	|	0.13
109.167	0.00	0.06	0.133	O	|	|	|	|	0.13

109.250	0.00	0.06	0.133	O	|	|	|	|	0.13
109.333	0.00	0.06	0.132	O	|	|	|	|	0.13
109.417	0.00	0.06	0.132	O	|	|	|	|	0.13
109.500	0.00	0.06	0.132	O	|	|	|	|	0.13
109.583	0.00	0.06	0.131	O	|	|	|	|	0.13
109.667	0.00	0.06	0.131	O	|	|	|	|	0.13
109.750	0.00	0.06	0.130	O	|	|	|	|	0.13
109.833	0.00	0.06	0.130	O	|	|	|	|	0.13
109.917	0.00	0.06	0.130	O	|	|	|	|	0.12
110.000	0.00	0.06	0.129	O	|	|	|	|	0.12
110.083	0.00	0.06	0.129	O	|	|	|	|	0.12
110.167	0.00	0.06	0.128	O	|	|	|	|	0.12
110.250	0.00	0.06	0.128	O	|	|	|	|	0.12
110.333	0.00	0.06	0.128	O	|	|	|	|	0.12
110.417	0.00	0.06	0.127	O	|	|	|	|	0.12
110.500	0.00	0.06	0.127	O	|	|	|	|	0.12
110.583	0.00	0.06	0.127	O	|	|	|	|	0.12
110.667	0.00	0.06	0.126	O	|	|	|	|	0.12
110.750	0.00	0.06	0.126	O	|	|	|	|	0.12
110.833	0.00	0.06	0.125	O	|	|	|	|	0.12
110.917	0.00	0.06	0.125	O	|	|	|	|	0.12
111.000	0.00	0.06	0.125	O	|	|	|	|	0.12
111.083	0.00	0.05	0.124	O	|	|	|	|	0.12
111.167	0.00	0.05	0.124	O	|	|	|	|	0.12
111.250	0.00	0.05	0.123	O	|	|	|	|	0.12
111.333	0.00	0.05	0.123	O	|	|	|	|	0.12
111.417	0.00	0.05	0.123	O	|	|	|	|	0.12
111.500	0.00	0.05	0.122	O	|	|	|	|	0.12
111.583	0.00	0.05	0.122	O	|	|	|	|	0.12
111.667	0.00	0.05	0.122	O	|	|	|	|	0.12
111.750	0.00	0.05	0.121	O	|	|	|	|	0.12
111.833	0.00	0.05	0.121	O	|	|	|	|	0.12
111.917	0.00	0.05	0.121	O	|	|	|	|	0.12
112.000	0.00	0.05	0.120	O	|	|	|	|	0.12
112.083	0.00	0.05	0.120	O	|	|	|	|	0.12
112.167	0.00	0.05	0.119	O	|	|	|	|	0.11
112.250	0.00	0.05	0.119	O	|	|	|	|	0.11
112.333	0.00	0.05	0.119	O	|	|	|	|	0.11
112.417	0.00	0.05	0.118	O	|	|	|	|	0.11
112.500	0.00	0.05	0.118	O	|	|	|	|	0.11
112.583	0.00	0.05	0.118	O	|	|	|	|	0.11
112.667	0.00	0.05	0.117	O	|	|	|	|	0.11
112.750	0.00	0.05	0.117	O	|	|	|	|	0.11
112.833	0.00	0.05	0.117	O	|	|	|	|	0.11
112.917	0.00	0.05	0.116	O	|	|	|	|	0.11
113.000	0.00	0.05	0.116	O	|	|	|	|	0.11
113.083	0.00	0.05	0.115	O	|	|	|	|	0.11
113.167	0.00	0.05	0.115	O	|	|	|	|	0.11
113.250	0.00	0.05	0.115	O	|	|	|	|	0.11
113.333	0.00	0.05	0.114	O	|	|	|	|	0.11
113.417	0.00	0.05	0.114	O	|	|	|	|	0.11
113.500	0.00	0.05	0.114	O	|	|	|	|	0.11
113.583	0.00	0.05	0.113	O	|	|	|	|	0.11
113.667	0.00	0.05	0.113	O	|	|	|	|	0.11
113.750	0.00	0.05	0.113	O	|	|	|	|	0.11
113.833	0.00	0.05	0.112	O	|	|	|	|	0.11
113.917	0.00	0.05	0.112	O	|	|	|	|	0.11
114.000	0.00	0.05	0.112	O	|	|	|	|	0.11
114.083	0.00	0.05	0.111	O	|	|	|	|	0.11
114.167	0.00	0.05	0.111	O	|	|	|	|	0.11
114.250	0.00	0.05	0.111	O	|	|	|	|	0.11
114.333	0.00	0.05	0.110	O	|	|	|	|	0.11
114.417	0.00	0.05	0.110	O	|	|	|	|	0.11

114.500	0.00	0.05	0.110	O	|	|	|	|	0.11
114.583	0.00	0.05	0.109	O	|	|	|	|	0.11
114.667	0.00	0.05	0.109	O	|	|	|	|	0.10
114.750	0.00	0.05	0.109	O	|	|	|	|	0.10
114.833	0.00	0.05	0.108	O	|	|	|	|	0.10
114.917	0.00	0.05	0.108	O	|	|	|	|	0.10
115.000	0.00	0.05	0.108	O	|	|	|	|	0.10
115.083	0.00	0.05	0.107	O	|	|	|	|	0.10
115.167	0.00	0.05	0.107	O	|	|	|	|	0.10
115.250	0.00	0.05	0.107	O	|	|	|	|	0.10
115.333	0.00	0.05	0.106	O	|	|	|	|	0.10
115.417	0.00	0.05	0.106	O	|	|	|	|	0.10
115.500	0.00	0.05	0.106	O	|	|	|	|	0.10
115.583	0.00	0.05	0.105	O	|	|	|	|	0.10
115.667	0.00	0.05	0.105	O	|	|	|	|	0.10
115.750	0.00	0.05	0.105	O	|	|	|	|	0.10
115.833	0.00	0.05	0.104	O	|	|	|	|	0.10
115.917	0.00	0.05	0.104	O	|	|	|	|	0.10
116.000	0.00	0.05	0.104	O	|	|	|	|	0.10
116.083	0.00	0.05	0.103	O	|	|	|	|	0.10
116.167	0.00	0.05	0.103	O	|	|	|	|	0.10
116.250	0.00	0.05	0.103	O	|	|	|	|	0.10
116.333	0.00	0.05	0.103	O	|	|	|	|	0.10
116.417	0.00	0.05	0.102	O	|	|	|	|	0.10
116.500	0.00	0.05	0.102	O	|	|	|	|	0.10
116.583	0.00	0.04	0.102	O	|	|	|	|	0.10
116.667	0.00	0.04	0.101	O	|	|	|	|	0.10
116.750	0.00	0.04	0.101	O	|	|	|	|	0.10
116.833	0.00	0.04	0.101	O	|	|	|	|	0.10
116.917	0.00	0.04	0.100	O	|	|	|	|	0.10
117.000	0.00	0.04	0.100	O	|	|	|	|	0.10
117.083	0.00	0.04	0.100	O	|	|	|	|	0.10
117.167	0.00	0.04	0.099	O	|	|	|	|	0.10
117.250	0.00	0.04	0.099	O	|	|	|	|	0.10
117.333	0.00	0.04	0.099	O	|	|	|	|	0.10
117.417	0.00	0.04	0.099	O	|	|	|	|	0.09
117.500	0.00	0.04	0.098	O	|	|	|	|	0.09
117.583	0.00	0.04	0.098	O	|	|	|	|	0.09
117.667	0.00	0.04	0.098	O	|	|	|	|	0.09
117.750	0.00	0.04	0.097	O	|	|	|	|	0.09
117.833	0.00	0.04	0.097	O	|	|	|	|	0.09
117.917	0.00	0.04	0.097	O	|	|	|	|	0.09
118.000	0.00	0.04	0.096	O	|	|	|	|	0.09
118.083	0.00	0.04	0.096	O	|	|	|	|	0.09
118.167	0.00	0.04	0.096	O	|	|	|	|	0.09
118.250	0.00	0.04	0.096	O	|	|	|	|	0.09
118.333	0.00	0.04	0.095	O	|	|	|	|	0.09
118.417	0.00	0.04	0.095	O	|	|	|	|	0.09
118.500	0.00	0.04	0.095	O	|	|	|	|	0.09
118.583	0.00	0.04	0.094	O	|	|	|	|	0.09
118.667	0.00	0.04	0.094	O	|	|	|	|	0.09
118.750	0.00	0.04	0.094	O	|	|	|	|	0.09
118.833	0.00	0.04	0.094	O	|	|	|	|	0.09
118.917	0.00	0.04	0.093	O	|	|	|	|	0.09
119.000	0.00	0.04	0.093	O	|	|	|	|	0.09
119.083	0.00	0.04	0.093	O	|	|	|	|	0.09
119.167	0.00	0.04	0.092	O	|	|	|	|	0.09
119.250	0.00	0.04	0.092	O	|	|	|	|	0.09
119.333	0.00	0.04	0.092	O	|	|	|	|	0.09
119.417	0.00	0.04	0.092	O	|	|	|	|	0.09
119.500	0.00	0.04	0.091	O	|	|	|	|	0.09
119.583	0.00	0.04	0.091	O	|	|	|	|	0.09
119.667	0.00	0.04	0.091	O	|	|	|	|	0.09

119.750	0.00	0.04	0.091	O	|	|	|	|	0.09
119.833	0.00	0.04	0.090	O	|	|	|	|	0.09
119.917	0.00	0.04	0.090	O	|	|	|	|	0.09
120.000	0.00	0.04	0.090	O	|	|	|	|	0.09
120.083	0.00	0.04	0.089	O	|	|	|	|	0.09
120.167	0.00	0.04	0.089	O	|	|	|	|	0.09
120.250	0.00	0.04	0.089	O	|	|	|	|	0.09
120.333	0.00	0.04	0.089	O	|	|	|	|	0.09
120.417	0.00	0.04	0.088	O	|	|	|	|	0.08
120.500	0.00	0.04	0.088	O	|	|	|	|	0.08
120.583	0.00	0.04	0.088	O	|	|	|	|	0.08
120.667	0.00	0.04	0.088	O	|	|	|	|	0.08
120.750	0.00	0.04	0.087	O	|	|	|	|	0.08
120.833	0.00	0.04	0.087	O	|	|	|	|	0.08
120.917	0.00	0.04	0.087	O	|	|	|	|	0.08
121.000	0.00	0.04	0.086	O	|	|	|	|	0.08
121.083	0.00	0.04	0.086	O	|	|	|	|	0.08
121.167	0.00	0.04	0.086	O	|	|	|	|	0.08
121.250	0.00	0.04	0.086	O	|	|	|	|	0.08
121.333	0.00	0.04	0.085	O	|	|	|	|	0.08
121.417	0.00	0.04	0.085	O	|	|	|	|	0.08
121.500	0.00	0.04	0.085	O	|	|	|	|	0.08
121.583	0.00	0.04	0.085	O	|	|	|	|	0.08
121.667	0.00	0.04	0.084	O	|	|	|	|	0.08
121.750	0.00	0.04	0.084	O	|	|	|	|	0.08
121.833	0.00	0.04	0.084	O	|	|	|	|	0.08
121.917	0.00	0.04	0.084	O	|	|	|	|	0.08
122.000	0.00	0.04	0.083	O	|	|	|	|	0.08
122.083	0.00	0.04	0.083	O	|	|	|	|	0.08
122.167	0.00	0.04	0.083	O	|	|	|	|	0.08
122.250	0.00	0.04	0.083	O	|	|	|	|	0.08
122.333	0.00	0.04	0.082	O	|	|	|	|	0.08
122.417	0.00	0.04	0.082	O	|	|	|	|	0.08
122.500	0.00	0.04	0.082	O	|	|	|	|	0.08
122.583	0.00	0.04	0.082	O	|	|	|	|	0.08
122.667	0.00	0.04	0.081	O	|	|	|	|	0.08
122.750	0.00	0.04	0.081	O	|	|	|	|	0.08
122.833	0.00	0.04	0.081	O	|	|	|	|	0.08
122.917	0.00	0.04	0.081	O	|	|	|	|	0.08
123.000	0.00	0.04	0.080	O	|	|	|	|	0.08
123.083	0.00	0.04	0.080	O	|	|	|	|	0.08
123.167	0.00	0.04	0.080	O	|	|	|	|	0.08
123.250	0.00	0.04	0.080	O	|	|	|	|	0.08
123.333	0.00	0.04	0.079	O	|	|	|	|	0.08
123.417	0.00	0.04	0.079	O	|	|	|	|	0.08
123.500	0.00	0.03	0.079	O	|	|	|	|	0.08
123.583	0.00	0.03	0.079	O	|	|	|	|	0.08
123.667	0.00	0.03	0.078	O	|	|	|	|	0.08
123.750	0.00	0.03	0.078	O	|	|	|	|	0.08
123.833	0.00	0.03	0.078	O	|	|	|	|	0.07
123.917	0.00	0.03	0.078	O	|	|	|	|	0.07
124.000	0.00	0.03	0.077	O	|	|	|	|	0.07
124.083	0.00	0.03	0.077	O	|	|	|	|	0.07
124.167	0.00	0.03	0.077	O	|	|	|	|	0.07
124.250	0.00	0.03	0.077	O	|	|	|	|	0.07
124.333	0.00	0.03	0.077	O	|	|	|	|	0.07
124.417	0.00	0.03	0.076	O	|	|	|	|	0.07
124.500	0.00	0.03	0.076	O	|	|	|	|	0.07
124.583	0.00	0.03	0.076	O	|	|	|	|	0.07
124.667	0.00	0.03	0.076	O	|	|	|	|	0.07
124.750	0.00	0.03	0.075	O	|	|	|	|	0.07
124.833	0.00	0.03	0.075	O	|	|	|	|	0.07
124.917	0.00	0.03	0.075	O	|	|	|	|	0.07

125.000	0.00	0.03	0.075	O	|	|	|	|	0.07
125.083	0.00	0.03	0.074	O	|	|	|	|	0.07
125.167	0.00	0.03	0.074	O	|	|	|	|	0.07
125.250	0.00	0.03	0.074	O	|	|	|	|	0.07
125.333	0.00	0.03	0.074	O	|	|	|	|	0.07
125.417	0.00	0.03	0.074	O	|	|	|	|	0.07
125.500	0.00	0.03	0.073	O	|	|	|	|	0.07
125.583	0.00	0.03	0.073	O	|	|	|	|	0.07
125.667	0.00	0.03	0.073	O	|	|	|	|	0.07
125.750	0.00	0.03	0.073	O	|	|	|	|	0.07
125.833	0.00	0.03	0.072	O	|	|	|	|	0.07
125.917	0.00	0.03	0.072	O	|	|	|	|	0.07
126.000	0.00	0.03	0.072	O	|	|	|	|	0.07
126.083	0.00	0.03	0.072	O	|	|	|	|	0.07
126.167	0.00	0.03	0.072	O	|	|	|	|	0.07
126.250	0.00	0.03	0.071	O	|	|	|	|	0.07
126.333	0.00	0.03	0.071	O	|	|	|	|	0.07
126.417	0.00	0.03	0.071	O	|	|	|	|	0.07
126.500	0.00	0.03	0.071	O	|	|	|	|	0.07
126.583	0.00	0.03	0.070	O	|	|	|	|	0.07
126.667	0.00	0.03	0.070	O	|	|	|	|	0.07
126.750	0.00	0.03	0.070	O	|	|	|	|	0.07
126.833	0.00	0.03	0.070	O	|	|	|	|	0.07
126.917	0.00	0.03	0.070	O	|	|	|	|	0.07
127.000	0.00	0.03	0.069	O	|	|	|	|	0.07
127.083	0.00	0.03	0.069	O	|	|	|	|	0.07
127.167	0.00	0.03	0.069	O	|	|	|	|	0.07
127.250	0.00	0.03	0.069	O	|	|	|	|	0.07
127.333	0.00	0.03	0.069	O	|	|	|	|	0.07
127.417	0.00	0.03	0.068	O	|	|	|	|	0.07
127.500	0.00	0.03	0.068	O	|	|	|	|	0.07
127.583	0.00	0.03	0.068	O	|	|	|	|	0.07
127.667	0.00	0.03	0.068	O	|	|	|	|	0.07
127.750	0.00	0.03	0.068	O	|	|	|	|	0.06
127.833	0.00	0.03	0.067	O	|	|	|	|	0.06
127.917	0.00	0.03	0.067	O	|	|	|	|	0.06
128.000	0.00	0.03	0.067	O	|	|	|	|	0.06
128.083	0.00	0.03	0.067	O	|	|	|	|	0.06
128.167	0.00	0.03	0.067	O	|	|	|	|	0.06
128.250	0.00	0.03	0.066	O	|	|	|	|	0.06
128.333	0.00	0.03	0.066	O	|	|	|	|	0.06
128.417	0.00	0.03	0.066	O	|	|	|	|	0.06
128.500	0.00	0.03	0.066	O	|	|	|	|	0.06
128.583	0.00	0.03	0.066	O	|	|	|	|	0.06
128.667	0.00	0.03	0.065	O	|	|	|	|	0.06
128.750	0.00	0.03	0.065	O	|	|	|	|	0.06
128.833	0.00	0.03	0.065	O	|	|	|	|	0.06
128.917	0.00	0.03	0.065	O	|	|	|	|	0.06
129.000	0.00	0.03	0.065	O	|	|	|	|	0.06
129.083	0.00	0.03	0.064	O	|	|	|	|	0.06
129.167	0.00	0.03	0.064	O	|	|	|	|	0.06
129.250	0.00	0.03	0.064	O	|	|	|	|	0.06
129.333	0.00	0.03	0.064	O	|	|	|	|	0.06
129.417	0.00	0.03	0.064	O	|	|	|	|	0.06
129.500	0.00	0.03	0.063	O	|	|	|	|	0.06
129.583	0.00	0.03	0.063	O	|	|	|	|	0.06
129.667	0.00	0.03	0.063	O	|	|	|	|	0.06
129.750	0.00	0.03	0.063	O	|	|	|	|	0.06
129.833	0.00	0.03	0.063	O	|	|	|	|	0.06
129.917	0.00	0.03	0.062	O	|	|	|	|	0.06
130.000	0.00	0.03	0.062	O	|	|	|	|	0.06
130.083	0.00	0.03	0.062	O	|	|	|	|	0.06
130.167	0.00	0.03	0.062	O	|	|	|	|	0.06

130.250	0.00	0.03	0.062	O	|	|	|	|	0.06
130.333	0.00	0.03	0.061	O	|	|	|	|	0.06
130.417	0.00	0.03	0.061	O	|	|	|	|	0.06
130.500	0.00	0.03	0.061	O	|	|	|	|	0.06
130.583	0.00	0.03	0.061	O	|	|	|	|	0.06
130.667	0.00	0.03	0.061	O	|	|	|	|	0.06
130.750	0.00	0.03	0.061	O	|	|	|	|	0.06
130.833	0.00	0.03	0.060	O	|	|	|	|	0.06
130.917	0.00	0.03	0.060	O	|	|	|	|	0.06
131.000	0.00	0.03	0.060	O	|	|	|	|	0.06
131.083	0.00	0.03	0.060	O	|	|	|	|	0.06
131.167	0.00	0.03	0.060	O	|	|	|	|	0.06
131.250	0.00	0.03	0.059	O	|	|	|	|	0.06
131.333	0.00	0.03	0.059	O	|	|	|	|	0.06
131.417	0.00	0.03	0.059	O	|	|	|	|	0.06
131.500	0.00	0.03	0.059	O	|	|	|	|	0.06
131.583	0.00	0.03	0.059	O	|	|	|	|	0.06
131.667	0.00	0.03	0.059	O	|	|	|	|	0.06
131.750	0.00	0.03	0.058	O	|	|	|	|	0.06
131.833	0.00	0.03	0.058	O	|	|	|	|	0.06
131.917	0.00	0.03	0.058	O	|	|	|	|	0.06
132.000	0.00	0.03	0.058	O	|	|	|	|	0.06
132.083	0.00	0.03	0.058	O	|	|	|	|	0.06
132.167	0.00	0.03	0.057	O	|	|	|	|	0.06
132.250	0.00	0.03	0.057	O	|	|	|	|	0.06
132.333	0.00	0.03	0.057	O	|	|	|	|	0.05
132.417	0.00	0.03	0.057	O	|	|	|	|	0.05
132.500	0.00	0.03	0.057	O	|	|	|	|	0.05
132.583	0.00	0.03	0.057	O	|	|	|	|	0.05
132.667	0.00	0.02	0.056	O	|	|	|	|	0.05
132.750	0.00	0.02	0.056	O	|	|	|	|	0.05
132.833	0.00	0.02	0.056	O	|	|	|	|	0.05
132.917	0.00	0.02	0.056	O	|	|	|	|	0.05
133.000	0.00	0.02	0.056	O	|	|	|	|	0.05
133.083	0.00	0.02	0.056	O	|	|	|	|	0.05
133.167	0.00	0.02	0.055	O	|	|	|	|	0.05
133.250	0.00	0.02	0.055	O	|	|	|	|	0.05
133.333	0.00	0.02	0.055	O	|	|	|	|	0.05
133.417	0.00	0.02	0.055	O	|	|	|	|	0.05
133.500	0.00	0.02	0.055	O	|	|	|	|	0.05
133.583	0.00	0.02	0.055	O	|	|	|	|	0.05
133.667	0.00	0.02	0.054	O	|	|	|	|	0.05
133.750	0.00	0.02	0.054	O	|	|	|	|	0.05
133.833	0.00	0.02	0.054	O	|	|	|	|	0.05
133.917	0.00	0.02	0.054	O	|	|	|	|	0.05
134.000	0.00	0.02	0.054	O	|	|	|	|	0.05
134.083	0.00	0.02	0.054	O	|	|	|	|	0.05
134.167	0.00	0.02	0.053	O	|	|	|	|	0.05
134.250	0.00	0.02	0.053	O	|	|	|	|	0.05
134.333	0.00	0.02	0.053	O	|	|	|	|	0.05
134.417	0.00	0.02	0.053	O	|	|	|	|	0.05
134.500	0.00	0.02	0.053	O	|	|	|	|	0.05
134.583	0.00	0.02	0.053	O	|	|	|	|	0.05
134.667	0.00	0.02	0.052	O	|	|	|	|	0.05
134.750	0.00	0.02	0.052	O	|	|	|	|	0.05
134.833	0.00	0.02	0.052	O	|	|	|	|	0.05
134.917	0.00	0.02	0.052	O	|	|	|	|	0.05
135.000	0.00	0.02	0.052	O	|	|	|	|	0.05
135.083	0.00	0.02	0.052	O	|	|	|	|	0.05
135.167	0.00	0.02	0.052	O	|	|	|	|	0.05
135.250	0.00	0.02	0.051	O	|	|	|	|	0.05
135.333	0.00	0.02	0.051	O	|	|	|	|	0.05
135.417	0.00	0.02	0.051	O	|	|	|	|	0.05

135.500	0.00	0.02	0.051	O	|	|	|	|	0.05
135.583	0.00	0.02	0.051	O	|	|	|	|	0.05
135.667	0.00	0.02	0.051	O	|	|	|	|	0.05
135.750	0.00	0.02	0.050	O	|	|	|	|	0.05
135.833	0.00	0.02	0.050	O	|	|	|	|	0.05
135.917	0.00	0.02	0.050	O	|	|	|	|	0.05
136.000	0.00	0.02	0.050	O	|	|	|	|	0.05
136.083	0.00	0.02	0.050	O	|	|	|	|	0.05
136.167	0.00	0.02	0.050	O	|	|	|	|	0.05
136.250	0.00	0.02	0.050	O	|	|	|	|	0.05
136.333	0.00	0.02	0.049	O	|	|	|	|	0.05
136.417	0.00	0.02	0.049	O	|	|	|	|	0.05
136.500	0.00	0.02	0.049	O	|	|	|	|	0.05
136.583	0.00	0.02	0.049	O	|	|	|	|	0.05
136.667	0.00	0.02	0.049	O	|	|	|	|	0.05
136.750	0.00	0.02	0.049	O	|	|	|	|	0.05
136.833	0.00	0.02	0.048	O	|	|	|	|	0.05
136.917	0.00	0.02	0.048	O	|	|	|	|	0.05
137.000	0.00	0.02	0.048	O	|	|	|	|	0.05
137.083	0.00	0.02	0.048	O	|	|	|	|	0.05
137.167	0.00	0.02	0.048	O	|	|	|	|	0.05
137.250	0.00	0.02	0.048	O	|	|	|	|	0.05
137.333	0.00	0.02	0.048	O	|	|	|	|	0.05
137.417	0.00	0.02	0.047	O	|	|	|	|	0.05
137.500	0.00	0.02	0.047	O	|	|	|	|	0.05
137.583	0.00	0.02	0.047	O	|	|	|	|	0.05
137.667	0.00	0.02	0.047	O	|	|	|	|	0.05
137.750	0.00	0.02	0.047	O	|	|	|	|	0.05
137.833	0.00	0.02	0.047	O	|	|	|	|	0.04
137.917	0.00	0.02	0.047	O	|	|	|	|	0.04
138.000	0.00	0.02	0.046	O	|	|	|	|	0.04
138.083	0.00	0.02	0.046	O	|	|	|	|	0.04
138.167	0.00	0.02	0.046	O	|	|	|	|	0.04
138.250	0.00	0.02	0.046	O	|	|	|	|	0.04
138.333	0.00	0.02	0.046	O	|	|	|	|	0.04
138.417	0.00	0.02	0.046	O	|	|	|	|	0.04
138.500	0.00	0.02	0.046	O	|	|	|	|	0.04
138.583	0.00	0.02	0.045	O	|	|	|	|	0.04
138.667	0.00	0.02	0.045	O	|	|	|	|	0.04
138.750	0.00	0.02	0.045	O	|	|	|	|	0.04
138.833	0.00	0.02	0.045	O	|	|	|	|	0.04
138.917	0.00	0.02	0.045	O	|	|	|	|	0.04
139.000	0.00	0.02	0.045	O	|	|	|	|	0.04
139.083	0.00	0.02	0.045	O	|	|	|	|	0.04
139.167	0.00	0.02	0.045	O	|	|	|	|	0.04
139.250	0.00	0.02	0.044	O	|	|	|	|	0.04
139.333	0.00	0.02	0.044	O	|	|	|	|	0.04
139.417	0.00	0.02	0.044	O	|	|	|	|	0.04
139.500	0.00	0.02	0.044	O	|	|	|	|	0.04
139.583	0.00	0.02	0.044	O	|	|	|	|	0.04
139.667	0.00	0.02	0.044	O	|	|	|	|	0.04
139.750	0.00	0.02	0.044	O	|	|	|	|	0.04
139.833	0.00	0.02	0.043	O	|	|	|	|	0.04
139.917	0.00	0.02	0.043	O	|	|	|	|	0.04
140.000	0.00	0.02	0.043	O	|	|	|	|	0.04
140.083	0.00	0.02	0.043	O	|	|	|	|	0.04
140.167	0.00	0.02	0.043	O	|	|	|	|	0.04
140.250	0.00	0.02	0.043	O	|	|	|	|	0.04
140.333	0.00	0.02	0.043	O	|	|	|	|	0.04
140.417	0.00	0.02	0.043	O	|	|	|	|	0.04
140.500	0.00	0.02	0.042	O	|	|	|	|	0.04
140.583	0.00	0.02	0.042	O	|	|	|	|	0.04
140.667	0.00	0.02	0.042	O	|	|	|	|	0.04

140.750	0.00	0.02	0.042	O	|	|	|	|	0.04
140.833	0.00	0.02	0.042	O	|	|	|	|	0.04
140.917	0.00	0.02	0.042	O	|	|	|	|	0.04
141.000	0.00	0.02	0.042	O	|	|	|	|	0.04
141.083	0.00	0.02	0.041	O	|	|	|	|	0.04
141.167	0.00	0.02	0.041	O	|	|	|	|	0.04
141.250	0.00	0.02	0.041	O	|	|	|	|	0.04
141.333	0.00	0.02	0.041	O	|	|	|	|	0.04
141.417	0.00	0.02	0.041	O	|	|	|	|	0.04
141.500	0.00	0.02	0.041	O	|	|	|	|	0.04
141.583	0.00	0.02	0.041	O	|	|	|	|	0.04
141.667	0.00	0.02	0.041	O	|	|	|	|	0.04
141.750	0.00	0.02	0.040	O	|	|	|	|	0.04
141.833	0.00	0.02	0.040	O	|	|	|	|	0.04
141.917	0.00	0.02	0.040	O	|	|	|	|	0.04
142.000	0.00	0.02	0.040	O	|	|	|	|	0.04
142.083	0.00	0.02	0.040	O	|	|	|	|	0.04
142.167	0.00	0.02	0.040	O	|	|	|	|	0.04
142.250	0.00	0.02	0.040	O	|	|	|	|	0.04
142.333	0.00	0.02	0.040	O	|	|	|	|	0.04
142.417	0.00	0.02	0.040	O	|	|	|	|	0.04
142.500	0.00	0.02	0.039	O	|	|	|	|	0.04
142.583	0.00	0.02	0.039	O	|	|	|	|	0.04
142.667	0.00	0.02	0.039	O	|	|	|	|	0.04
142.750	0.00	0.02	0.039	O	|	|	|	|	0.04
142.833	0.00	0.02	0.039	O	|	|	|	|	0.04
142.917	0.00	0.02	0.039	O	|	|	|	|	0.04
143.000	0.00	0.02	0.039	O	|	|	|	|	0.04
143.083	0.00	0.02	0.039	O	|	|	|	|	0.04
143.167	0.00	0.02	0.038	O	|	|	|	|	0.04
143.250	0.00	0.02	0.038	O	|	|	|	|	0.04
143.333	0.00	0.02	0.038	O	|	|	|	|	0.04
143.417	0.00	0.02	0.038	O	|	|	|	|	0.04
143.500	0.00	0.02	0.038	O	|	|	|	|	0.04
143.583	0.00	0.02	0.038	O	|	|	|	|	0.04
143.667	0.00	0.02	0.038	O	|	|	|	|	0.04
143.750	0.00	0.02	0.038	O	|	|	|	|	0.04
143.833	0.00	0.02	0.038	O	|	|	|	|	0.04
143.917	0.00	0.02	0.037	O	|	|	|	|	0.04
144.000	0.00	0.02	0.037	O	|	|	|	|	0.04
144.083	0.00	0.02	0.037	O	|	|	|	|	0.04
144.167	0.00	0.02	0.037	O	|	|	|	|	0.04
144.250	0.00	0.02	0.037	O	|	|	|	|	0.04
144.333	0.00	0.02	0.037	O	|	|	|	|	0.04
144.417	0.00	0.02	0.037	O	|	|	|	|	0.04
144.500	0.00	0.02	0.037	O	|	|	|	|	0.04
144.583	0.00	0.02	0.037	O	|	|	|	|	0.04
144.667	0.00	0.02	0.036	O	|	|	|	|	0.03
144.750	0.00	0.02	0.036	O	|	|	|	|	0.03
144.833	0.00	0.02	0.036	O	|	|	|	|	0.03
144.917	0.00	0.02	0.036	O	|	|	|	|	0.03
145.000	0.00	0.02	0.036	O	|	|	|	|	0.03
145.083	0.00	0.02	0.036	O	|	|	|	|	0.03
145.167	0.00	0.02	0.036	O	|	|	|	|	0.03
145.250	0.00	0.02	0.036	O	|	|	|	|	0.03
145.333	0.00	0.02	0.036	O	|	|	|	|	0.03
145.417	0.00	0.02	0.035	O	|	|	|	|	0.03
145.500	0.00	0.02	0.035	O	|	|	|	|	0.03
145.583	0.00	0.02	0.035	O	|	|	|	|	0.03
145.667	0.00	0.02	0.035	O	|	|	|	|	0.03
145.750	0.00	0.02	0.035	O	|	|	|	|	0.03
145.833	0.00	0.02	0.035	O	|	|	|	|	0.03
145.917	0.00	0.02	0.035	O	|	|	|	|	0.03

146.000	0.00	0.02	0.035	O	|	|	|	|	0.03
146.083	0.00	0.02	0.035	O	|	|	|	|	0.03
146.167	0.00	0.02	0.034	O	|	|	|	|	0.03
146.250	0.00	0.02	0.034	O	|	|	|	|	0.03
146.333	0.00	0.02	0.034	O	|	|	|	|	0.03
146.417	0.00	0.02	0.034	O	|	|	|	|	0.03
146.500	0.00	0.02	0.034	O	|	|	|	|	0.03
146.583	0.00	0.02	0.034	O	|	|	|	|	0.03
146.667	0.00	0.01	0.034	O	|	|	|	|	0.03
146.750	0.00	0.01	0.034	O	|	|	|	|	0.03
146.833	0.00	0.01	0.034	O	|	|	|	|	0.03
146.917	0.00	0.01	0.034	O	|	|	|	|	0.03
147.000	0.00	0.01	0.033	O	|	|	|	|	0.03
147.083	0.00	0.01	0.033	O	|	|	|	|	0.03
147.167	0.00	0.01	0.033	O	|	|	|	|	0.03
147.250	0.00	0.01	0.033	O	|	|	|	|	0.03
147.333	0.00	0.01	0.033	O	|	|	|	|	0.03
147.417	0.00	0.01	0.033	O	|	|	|	|	0.03
147.500	0.00	0.01	0.033	O	|	|	|	|	0.03
147.583	0.00	0.01	0.033	O	|	|	|	|	0.03
147.667	0.00	0.01	0.033	O	|	|	|	|	0.03
147.750	0.00	0.01	0.033	O	|	|	|	|	0.03
147.833	0.00	0.01	0.032	O	|	|	|	|	0.03
147.917	0.00	0.01	0.032	O	|	|	|	|	0.03
148.000	0.00	0.01	0.032	O	|	|	|	|	0.03
148.083	0.00	0.01	0.032	O	|	|	|	|	0.03
148.167	0.00	0.01	0.032	O	|	|	|	|	0.03
148.250	0.00	0.01	0.032	O	|	|	|	|	0.03
148.333	0.00	0.01	0.032	O	|	|	|	|	0.03
148.417	0.00	0.01	0.032	O	|	|	|	|	0.03
148.500	0.00	0.01	0.032	O	|	|	|	|	0.03
148.583	0.00	0.01	0.032	O	|	|	|	|	0.03
148.667	0.00	0.01	0.031	O	|	|	|	|	0.03
148.750	0.00	0.01	0.031	O	|	|	|	|	0.03
148.833	0.00	0.01	0.031	O	|	|	|	|	0.03
148.917	0.00	0.01	0.031	O	|	|	|	|	0.03
149.000	0.00	0.01	0.031	O	|	|	|	|	0.03
149.083	0.00	0.01	0.031	O	|	|	|	|	0.03
149.167	0.00	0.01	0.031	O	|	|	|	|	0.03
149.250	0.00	0.01	0.031	O	|	|	|	|	0.03
149.333	0.00	0.01	0.031	O	|	|	|	|	0.03
149.417	0.00	0.01	0.031	O	|	|	|	|	0.03
149.500	0.00	0.01	0.031	O	|	|	|	|	0.03
149.583	0.00	0.01	0.030	O	|	|	|	|	0.03
149.667	0.00	0.01	0.030	O	|	|	|	|	0.03
149.750	0.00	0.01	0.030	O	|	|	|	|	0.03
149.833	0.00	0.01	0.030	O	|	|	|	|	0.03
149.917	0.00	0.01	0.030	O	|	|	|	|	0.03
150.000	0.00	0.01	0.030	O	|	|	|	|	0.03
150.083	0.00	0.01	0.030	O	|	|	|	|	0.03
150.167	0.00	0.01	0.030	O	|	|	|	|	0.03
150.250	0.00	0.01	0.030	O	|	|	|	|	0.03
150.333	0.00	0.01	0.030	O	|	|	|	|	0.03
150.417	0.00	0.01	0.029	O	|	|	|	|	0.03
150.500	0.00	0.01	0.029	O	|	|	|	|	0.03
150.583	0.00	0.01	0.029	O	|	|	|	|	0.03
150.667	0.00	0.01	0.029	O	|	|	|	|	0.03
150.750	0.00	0.01	0.029	O	|	|	|	|	0.03
150.833	0.00	0.01	0.029	O	|	|	|	|	0.03
150.917	0.00	0.01	0.029	O	|	|	|	|	0.03
151.000	0.00	0.01	0.029	O	|	|	|	|	0.03
151.083	0.00	0.01	0.029	O	|	|	|	|	0.03
151.167	0.00	0.01	0.029	O	|	|	|	|	0.03

151.250	0.00	0.01	0.029	O	|	|	|	|	0.03
151.333	0.00	0.01	0.029	O	|	|	|	|	0.03
151.417	0.00	0.01	0.028	O	|	|	|	|	0.03
151.500	0.00	0.01	0.028	O	|	|	|	|	0.03
151.583	0.00	0.01	0.028	O	|	|	|	|	0.03
151.667	0.00	0.01	0.028	O	|	|	|	|	0.03
151.750	0.00	0.01	0.028	O	|	|	|	|	0.03
151.833	0.00	0.01	0.028	O	|	|	|	|	0.03
151.917	0.00	0.01	0.028	O	|	|	|	|	0.03
152.000	0.00	0.01	0.028	O	|	|	|	|	0.03
152.083	0.00	0.01	0.028	O	|	|	|	|	0.03
152.167	0.00	0.01	0.028	O	|	|	|	|	0.03
152.250	0.00	0.01	0.028	O	|	|	|	|	0.03
152.333	0.00	0.01	0.028	O	|	|	|	|	0.03
152.417	0.00	0.01	0.027	O	|	|	|	|	0.03
152.500	0.00	0.01	0.027	O	|	|	|	|	0.03
152.583	0.00	0.01	0.027	O	|	|	|	|	0.03
152.667	0.00	0.01	0.027	O	|	|	|	|	0.03
152.750	0.00	0.01	0.027	O	|	|	|	|	0.03
152.833	0.00	0.01	0.027	O	|	|	|	|	0.03
152.917	0.00	0.01	0.027	O	|	|	|	|	0.03
153.000	0.00	0.01	0.027	O	|	|	|	|	0.03
153.083	0.00	0.01	0.027	O	|	|	|	|	0.03
153.167	0.00	0.01	0.027	O	|	|	|	|	0.03
153.250	0.00	0.01	0.027	O	|	|	|	|	0.03
153.333	0.00	0.01	0.027	O	|	|	|	|	0.03
153.417	0.00	0.01	0.026	O	|	|	|	|	0.03
153.500	0.00	0.01	0.026	O	|	|	|	|	0.03
153.583	0.00	0.01	0.026	O	|	|	|	|	0.03
153.667	0.00	0.01	0.026	O	|	|	|	|	0.03
153.750	0.00	0.01	0.026	O	|	|	|	|	0.03
153.833	0.00	0.01	0.026	O	|	|	|	|	0.03
153.917	0.00	0.01	0.026	O	|	|	|	|	0.02
154.000	0.00	0.01	0.026	O	|	|	|	|	0.02
154.083	0.00	0.01	0.026	O	|	|	|	|	0.02
154.167	0.00	0.01	0.026	O	|	|	|	|	0.02
154.250	0.00	0.01	0.026	O	|	|	|	|	0.02
154.333	0.00	0.01	0.026	O	|	|	|	|	0.02
154.417	0.00	0.01	0.025	O	|	|	|	|	0.02
154.500	0.00	0.01	0.025	O	|	|	|	|	0.02
154.583	0.00	0.01	0.025	O	|	|	|	|	0.02
154.667	0.00	0.01	0.025	O	|	|	|	|	0.02
154.750	0.00	0.01	0.025	O	|	|	|	|	0.02
154.833	0.00	0.01	0.025	O	|	|	|	|	0.02
154.917	0.00	0.01	0.025	O	|	|	|	|	0.02
155.000	0.00	0.01	0.025	O	|	|	|	|	0.02
155.083	0.00	0.01	0.025	O	|	|	|	|	0.02
155.167	0.00	0.01	0.025	O	|	|	|	|	0.02
155.250	0.00	0.01	0.025	O	|	|	|	|	0.02
155.333	0.00	0.01	0.025	O	|	|	|	|	0.02
155.417	0.00	0.01	0.025	O	|	|	|	|	0.02
155.500	0.00	0.01	0.024	O	|	|	|	|	0.02
155.583	0.00	0.01	0.024	O	|	|	|	|	0.02
155.667	0.00	0.01	0.024	O	|	|	|	|	0.02
155.750	0.00	0.01	0.024	O	|	|	|	|	0.02
155.833	0.00	0.01	0.024	O	|	|	|	|	0.02
155.917	0.00	0.01	0.024	O	|	|	|	|	0.02
156.000	0.00	0.01	0.024	O	|	|	|	|	0.02
156.083	0.00	0.01	0.024	O	|	|	|	|	0.02
156.167	0.00	0.01	0.024	O	|	|	|	|	0.02
156.250	0.00	0.01	0.024	O	|	|	|	|	0.02
156.333	0.00	0.01	0.024	O	|	|	|	|	0.02
156.417	0.00	0.01	0.024	O	|	|	|	|	0.02

156.500	0.00	0.01	0.024	O	|	|	|	|	0.02
156.583	0.00	0.01	0.024	O	|	|	|	|	0.02
156.667	0.00	0.01	0.023	O	|	|	|	|	0.02
156.750	0.00	0.01	0.023	O	|	|	|	|	0.02
156.833	0.00	0.01	0.023	O	|	|	|	|	0.02
156.917	0.00	0.01	0.023	O	|	|	|	|	0.02
157.000	0.00	0.01	0.023	O	|	|	|	|	0.02
157.083	0.00	0.01	0.023	O	|	|	|	|	0.02
157.167	0.00	0.01	0.023	O	|	|	|	|	0.02
157.250	0.00	0.01	0.023	O	|	|	|	|	0.02
157.333	0.00	0.01	0.023	O	|	|	|	|	0.02
157.417	0.00	0.01	0.023	O	|	|	|	|	0.02
157.500	0.00	0.01	0.023	O	|	|	|	|	0.02
157.583	0.00	0.01	0.023	O	|	|	|	|	0.02
157.667	0.00	0.01	0.023	O	|	|	|	|	0.02
157.750	0.00	0.01	0.023	O	|	|	|	|	0.02
157.833	0.00	0.01	0.022	O	|	|	|	|	0.02
157.917	0.00	0.01	0.022	O	|	|	|	|	0.02
158.000	0.00	0.01	0.022	O	|	|	|	|	0.02
158.083	0.00	0.01	0.022	O	|	|	|	|	0.02
158.167	0.00	0.01	0.022	O	|	|	|	|	0.02
158.250	0.00	0.01	0.022	O	|	|	|	|	0.02
158.333	0.00	0.01	0.022	O	|	|	|	|	0.02
158.417	0.00	0.01	0.022	O	|	|	|	|	0.02
158.500	0.00	0.01	0.022	O	|	|	|	|	0.02
158.583	0.00	0.01	0.022	O	|	|	|	|	0.02
158.667	0.00	0.01	0.022	O	|	|	|	|	0.02
158.750	0.00	0.01	0.022	O	|	|	|	|	0.02
158.833	0.00	0.01	0.022	O	|	|	|	|	0.02
158.917	0.00	0.01	0.022	O	|	|	|	|	0.02
159.000	0.00	0.01	0.022	O	|	|	|	|	0.02
159.083	0.00	0.01	0.021	O	|	|	|	|	0.02
159.167	0.00	0.01	0.021	O	|	|	|	|	0.02
159.250	0.00	0.01	0.021	O	|	|	|	|	0.02
159.333	0.00	0.01	0.021	O	|	|	|	|	0.02
159.417	0.00	0.01	0.021	O	|	|	|	|	0.02
159.500	0.00	0.01	0.021	O	|	|	|	|	0.02
159.583	0.00	0.01	0.021	O	|	|	|	|	0.02
159.667	0.00	0.01	0.021	O	|	|	|	|	0.02
159.750	0.00	0.01	0.021	O	|	|	|	|	0.02
159.833	0.00	0.01	0.021	O	|	|	|	|	0.02
159.917	0.00	0.01	0.021	O	|	|	|	|	0.02
160.000	0.00	0.01	0.021	O	|	|	|	|	0.02
160.083	0.00	0.01	0.021	O	|	|	|	|	0.02
160.167	0.00	0.01	0.021	O	|	|	|	|	0.02
160.250	0.00	0.01	0.021	O	|	|	|	|	0.02
160.333	0.00	0.01	0.021	O	|	|	|	|	0.02
160.417	0.00	0.01	0.020	O	|	|	|	|	0.02
160.500	0.00	0.01	0.020	O	|	|	|	|	0.02
160.583	0.00	0.01	0.020	O	|	|	|	|	0.02
160.667	0.00	0.01	0.020	O	|	|	|	|	0.02
160.750	0.00	0.01	0.020	O	|	|	|	|	0.02
160.833	0.00	0.01	0.020	O	|	|	|	|	0.02
160.917	0.00	0.01	0.020	O	|	|	|	|	0.02
161.000	0.00	0.01	0.020	O	|	|	|	|	0.02
161.083	0.00	0.01	0.020	O	|	|	|	|	0.02
161.167	0.00	0.01	0.020	O	|	|	|	|	0.02
161.250	0.00	0.01	0.020	O	|	|	|	|	0.02
161.333	0.00	0.01	0.020	O	|	|	|	|	0.02
161.417	0.00	0.01	0.020	O	|	|	|	|	0.02
161.500	0.00	0.01	0.020	O	|	|	|	|	0.02
161.583	0.00	0.01	0.020	O	|	|	|	|	0.02
161.667	0.00	0.01	0.020	O	|	|	|	|	0.02

161.750	0.00	0.01	0.019	O	|	|	|	|	0.02
161.833	0.00	0.01	0.019	O	|	|	|	|	0.02
161.917	0.00	0.01	0.019	O	|	|	|	|	0.02
162.000	0.00	0.01	0.019	O	|	|	|	|	0.02
162.083	0.00	0.01	0.019	O	|	|	|	|	0.02
162.167	0.00	0.01	0.019	O	|	|	|	|	0.02
162.250	0.00	0.01	0.019	O	|	|	|	|	0.02
162.333	0.00	0.01	0.019	O	|	|	|	|	0.02
162.417	0.00	0.01	0.019	O	|	|	|	|	0.02
162.500	0.00	0.01	0.019	O	|	|	|	|	0.02
162.583	0.00	0.01	0.019	O	|	|	|	|	0.02
162.667	0.00	0.01	0.019	O	|	|	|	|	0.02
162.750	0.00	0.01	0.019	O	|	|	|	|	0.02
162.833	0.00	0.01	0.019	O	|	|	|	|	0.02
162.917	0.00	0.01	0.019	O	|	|	|	|	0.02
163.000	0.00	0.01	0.019	O	|	|	|	|	0.02
163.083	0.00	0.01	0.019	O	|	|	|	|	0.02
163.167	0.00	0.01	0.019	O	|	|	|	|	0.02
163.250	0.00	0.01	0.018	O	|	|	|	|	0.02
163.333	0.00	0.01	0.018	O	|	|	|	|	0.02
163.417	0.00	0.01	0.018	O	|	|	|	|	0.02
163.500	0.00	0.01	0.018	O	|	|	|	|	0.02
163.583	0.00	0.01	0.018	O	|	|	|	|	0.02
163.667	0.00	0.01	0.018	O	|	|	|	|	0.02
163.750	0.00	0.01	0.018	O	|	|	|	|	0.02
163.833	0.00	0.01	0.018	O	|	|	|	|	0.02
163.917	0.00	0.01	0.018	O	|	|	|	|	0.02
164.000	0.00	0.01	0.018	O	|	|	|	|	0.02
164.083	0.00	0.01	0.018	O	|	|	|	|	0.02
164.167	0.00	0.01	0.018	O	|	|	|	|	0.02
164.250	0.00	0.01	0.018	O	|	|	|	|	0.02
164.333	0.00	0.01	0.018	O	|	|	|	|	0.02
164.417	0.00	0.01	0.018	O	|	|	|	|	0.02
164.500	0.00	0.01	0.018	O	|	|	|	|	0.02
164.583	0.00	0.01	0.018	O	|	|	|	|	0.02
164.667	0.00	0.01	0.018	O	|	|	|	|	0.02
164.750	0.00	0.01	0.017	O	|	|	|	|	0.02
164.833	0.00	0.01	0.017	O	|	|	|	|	0.02
164.917	0.00	0.01	0.017	O	|	|	|	|	0.02
165.000	0.00	0.01	0.017	O	|	|	|	|	0.02
165.083	0.00	0.01	0.017	O	|	|	|	|	0.02
165.167	0.00	0.01	0.017	O	|	|	|	|	0.02
165.250	0.00	0.01	0.017	O	|	|	|	|	0.02
165.333	0.00	0.01	0.017	O	|	|	|	|	0.02
165.417	0.00	0.01	0.017	O	|	|	|	|	0.02
165.500	0.00	0.01	0.017	O	|	|	|	|	0.02
165.583	0.00	0.01	0.017	O	|	|	|	|	0.02
165.667	0.00	0.01	0.017	O	|	|	|	|	0.02
165.750	0.00	0.01	0.017	O	|	|	|	|	0.02
165.833	0.00	0.01	0.017	O	|	|	|	|	0.02
165.917	0.00	0.01	0.017	O	|	|	|	|	0.02
166.000	0.00	0.01	0.017	O	|	|	|	|	0.02
166.083	0.00	0.01	0.017	O	|	|	|	|	0.02
166.167	0.00	0.01	0.017	O	|	|	|	|	0.02
166.250	0.00	0.01	0.017	O	|	|	|	|	0.02
166.333	0.00	0.01	0.016	O	|	|	|	|	0.02
166.417	0.00	0.01	0.016	O	|	|	|	|	0.02
166.500	0.00	0.01	0.016	O	|	|	|	|	0.02
166.583	0.00	0.01	0.016	O	|	|	|	|	0.02
166.667	0.00	0.01	0.016	O	|	|	|	|	0.02
166.750	0.00	0.01	0.016	O	|	|	|	|	0.02
166.833	0.00	0.01	0.016	O	|	|	|	|	0.02
166.917	0.00	0.01	0.016	O	|	|	|	|	0.02

167.000	0.00	0.01	0.016	O	|	|	|	|	0.02
167.083	0.00	0.01	0.016	O	|	|	|	|	0.02
167.167	0.00	0.01	0.016	O	|	|	|	|	0.02
167.250	0.00	0.01	0.016	O	|	|	|	|	0.02
167.333	0.00	0.01	0.016	O	|	|	|	|	0.02
167.417	0.00	0.01	0.016	O	|	|	|	|	0.02
167.500	0.00	0.01	0.016	O	|	|	|	|	0.02
167.583	0.00	0.01	0.016	O	|	|	|	|	0.02
167.667	0.00	0.01	0.016	O	|	|	|	|	0.02
167.750	0.00	0.01	0.016	O	|	|	|	|	0.02
167.833	0.00	0.01	0.016	O	|	|	|	|	0.02
167.917	0.00	0.01	0.016	O	|	|	|	|	0.01
168.000	0.00	0.01	0.016	O	|	|	|	|	0.01
168.083	0.00	0.01	0.015	O	|	|	|	|	0.01
168.167	0.00	0.01	0.015	O	|	|	|	|	0.01
168.250	0.00	0.01	0.015	O	|	|	|	|	0.01
168.333	0.00	0.01	0.015	O	|	|	|	|	0.01
168.417	0.00	0.01	0.015	O	|	|	|	|	0.01
168.500	0.00	0.01	0.015	O	|	|	|	|	0.01
168.583	0.00	0.01	0.015	O	|	|	|	|	0.01
168.667	0.00	0.01	0.015	O	|	|	|	|	0.01
168.750	0.00	0.01	0.015	O	|	|	|	|	0.01
168.833	0.00	0.01	0.015	O	|	|	|	|	0.01
168.917	0.00	0.01	0.015	O	|	|	|	|	0.01
169.000	0.00	0.01	0.015	O	|	|	|	|	0.01
169.083	0.00	0.01	0.015	O	|	|	|	|	0.01
169.167	0.00	0.01	0.015	O	|	|	|	|	0.01
169.250	0.00	0.01	0.015	O	|	|	|	|	0.01
169.333	0.00	0.01	0.015	O	|	|	|	|	0.01
169.417	0.00	0.01	0.015	O	|	|	|	|	0.01
169.500	0.00	0.01	0.015	O	|	|	|	|	0.01
169.583	0.00	0.01	0.015	O	|	|	|	|	0.01
169.667	0.00	0.01	0.015	O	|	|	|	|	0.01
169.750	0.00	0.01	0.015	O	|	|	|	|	0.01
169.833	0.00	0.01	0.015	O	|	|	|	|	0.01
169.917	0.00	0.01	0.014	O	|	|	|	|	0.01
170.000	0.00	0.01	0.014	O	|	|	|	|	0.01
170.083	0.00	0.01	0.014	O	|	|	|	|	0.01
170.167	0.00	0.01	0.014	O	|	|	|	|	0.01
170.250	0.00	0.01	0.014	O	|	|	|	|	0.01
170.333	0.00	0.01	0.014	O	|	|	|	|	0.01
170.417	0.00	0.01	0.014	O	|	|	|	|	0.01
170.500	0.00	0.01	0.014	O	|	|	|	|	0.01
170.583	0.00	0.01	0.014	O	|	|	|	|	0.01
170.667	0.00	0.01	0.014	O	|	|	|	|	0.01
170.750	0.00	0.01	0.014	O	|	|	|	|	0.01
170.833	0.00	0.01	0.014	O	|	|	|	|	0.01
170.917	0.00	0.01	0.014	O	|	|	|	|	0.01
171.000	0.00	0.01	0.014	O	|	|	|	|	0.01
171.083	0.00	0.01	0.014	O	|	|	|	|	0.01
171.167	0.00	0.01	0.014	O	|	|	|	|	0.01
171.250	0.00	0.01	0.014	O	|	|	|	|	0.01
171.333	0.00	0.01	0.014	O	|	|	|	|	0.01
171.417	0.00	0.01	0.014	O	|	|	|	|	0.01
171.500	0.00	0.01	0.014	O	|	|	|	|	0.01
171.583	0.00	0.01	0.014	O	|	|	|	|	0.01
171.667	0.00	0.01	0.014	O	|	|	|	|	0.01
171.750	0.00	0.01	0.014	O	|	|	|	|	0.01
171.833	0.00	0.01	0.013	O	|	|	|	|	0.01
171.917	0.00	0.01	0.013	O	|	|	|	|	0.01
172.000	0.00	0.01	0.013	O	|	|	|	|	0.01
172.083	0.00	0.01	0.013	O	|	|	|	|	0.01
172.167	0.00	0.01	0.013	O	|	|	|	|	0.01

172.250	0.00	0.01	0.013	O	|	|	|	|	0.01
172.333	0.00	0.01	0.013	O	|	|	|	|	0.01
172.417	0.00	0.01	0.013	O	|	|	|	|	0.01
172.500	0.00	0.01	0.013	O	|	|	|	|	0.01
172.583	0.00	0.01	0.013	O	|	|	|	|	0.01
172.667	0.00	0.01	0.013	O	|	|	|	|	0.01
172.750	0.00	0.01	0.013	O	|	|	|	|	0.01
172.833	0.00	0.01	0.013	O	|	|	|	|	0.01
172.917	0.00	0.01	0.013	O	|	|	|	|	0.01
173.000	0.00	0.01	0.013	O	|	|	|	|	0.01
173.083	0.00	0.01	0.013	O	|	|	|	|	0.01
173.167	0.00	0.01	0.013	O	|	|	|	|	0.01
173.250	0.00	0.01	0.013	O	|	|	|	|	0.01
173.333	0.00	0.01	0.013	O	|	|	|	|	0.01
173.417	0.00	0.01	0.013	O	|	|	|	|	0.01
173.500	0.00	0.01	0.013	O	|	|	|	|	0.01
173.583	0.00	0.01	0.013	O	|	|	|	|	0.01
173.667	0.00	0.01	0.013	O	|	|	|	|	0.01
173.750	0.00	0.01	0.013	O	|	|	|	|	0.01
173.833	0.00	0.01	0.013	O	|	|	|	|	0.01
173.917	0.00	0.01	0.012	O	|	|	|	|	0.01
174.000	0.00	0.01	0.012	O	|	|	|	|	0.01
174.083	0.00	0.01	0.012	O	|	|	|	|	0.01
174.167	0.00	0.01	0.012	O	|	|	|	|	0.01
174.250	0.00	0.01	0.012	O	|	|	|	|	0.01
174.333	0.00	0.01	0.012	O	|	|	|	|	0.01
174.417	0.00	0.01	0.012	O	|	|	|	|	0.01
174.500	0.00	0.01	0.012	O	|	|	|	|	0.01
174.583	0.00	0.01	0.012	O	|	|	|	|	0.01
174.667	0.00	0.01	0.012	O	|	|	|	|	0.01
174.750	0.00	0.01	0.012	O	|	|	|	|	0.01
174.833	0.00	0.01	0.012	O	|	|	|	|	0.01
174.917	0.00	0.01	0.012	O	|	|	|	|	0.01
175.000	0.00	0.01	0.012	O	|	|	|	|	0.01
175.083	0.00	0.01	0.012	O	|	|	|	|	0.01
175.167	0.00	0.01	0.012	O	|	|	|	|	0.01
175.250	0.00	0.01	0.012	O	|	|	|	|	0.01
175.333	0.00	0.01	0.012	O	|	|	|	|	0.01
175.417	0.00	0.01	0.012	O	|	|	|	|	0.01
175.500	0.00	0.01	0.012	O	|	|	|	|	0.01
175.583	0.00	0.01	0.012	O	|	|	|	|	0.01
175.667	0.00	0.01	0.012	O	|	|	|	|	0.01
175.750	0.00	0.01	0.012	O	|	|	|	|	0.01
175.833	0.00	0.01	0.012	O	|	|	|	|	0.01
175.917	0.00	0.01	0.012	O	|	|	|	|	0.01
176.000	0.00	0.01	0.012	O	|	|	|	|	0.01
176.083	0.00	0.01	0.012	O	|	|	|	|	0.01
176.167	0.00	0.01	0.012	O	|	|	|	|	0.01
176.250	0.00	0.01	0.011	O	|	|	|	|	0.01
176.333	0.00	0.01	0.011	O	|	|	|	|	0.01
176.417	0.00	0.01	0.011	O	|	|	|	|	0.01
176.500	0.00	0.01	0.011	O	|	|	|	|	0.01
176.583	0.00	0.01	0.011	O	|	|	|	|	0.01
176.667	0.00	0.00	0.011	O	|	|	|	|	0.01
176.750	0.00	0.00	0.011	O	|	|	|	|	0.01
176.833	0.00	0.00	0.011	O	|	|	|	|	0.01
176.917	0.00	0.00	0.011	O	|	|	|	|	0.01
177.000	0.00	0.00	0.011	O	|	|	|	|	0.01
177.083	0.00	0.00	0.011	O	|	|	|	|	0.01
177.167	0.00	0.00	0.011	O	|	|	|	|	0.01
177.250	0.00	0.00	0.011	O	|	|	|	|	0.01
177.333	0.00	0.00	0.011	O	|	|	|	|	0.01
177.417	0.00	0.00	0.011	O	|	|	|	|	0.01

177.500	0.00	0.00	0.011	O	|	|	|	|	0.01
177.583	0.00	0.00	0.011	O	|	|	|	|	0.01
177.667	0.00	0.00	0.011	O	|	|	|	|	0.01
177.750	0.00	0.00	0.011	O	|	|	|	|	0.01
177.833	0.00	0.00	0.011	O	|	|	|	|	0.01
177.917	0.00	0.00	0.011	O	|	|	|	|	0.01
178.000	0.00	0.00	0.011	O	|	|	|	|	0.01
178.083	0.00	0.00	0.011	O	|	|	|	|	0.01
178.167	0.00	0.00	0.011	O	|	|	|	|	0.01
178.250	0.00	0.00	0.011	O	|	|	|	|	0.01
178.333	0.00	0.00	0.011	O	|	|	|	|	0.01
178.417	0.00	0.00	0.011	O	|	|	|	|	0.01
178.500	0.00	0.00	0.011	O	|	|	|	|	0.01
178.583	0.00	0.00	0.011	O	|	|	|	|	0.01
178.667	0.00	0.00	0.011	O	|	|	|	|	0.01
178.750	0.00	0.00	0.010	O	|	|	|	|	0.01
178.833	0.00	0.00	0.010	O	|	|	|	|	0.01
178.917	0.00	0.00	0.010	O	|	|	|	|	0.01
179.000	0.00	0.00	0.010	O	|	|	|	|	0.01
179.083	0.00	0.00	0.010	O	|	|	|	|	0.01
179.167	0.00	0.00	0.010	O	|	|	|	|	0.01
179.250	0.00	0.00	0.010	O	|	|	|	|	0.01
179.333	0.00	0.00	0.010	O	|	|	|	|	0.01
179.417	0.00	0.00	0.010	O	|	|	|	|	0.01
179.500	0.00	0.00	0.010	O	|	|	|	|	0.01
179.583	0.00	0.00	0.010	O	|	|	|	|	0.01
179.667	0.00	0.00	0.010	O	|	|	|	|	0.01
179.750	0.00	0.00	0.010	O	|	|	|	|	0.01
179.833	0.00	0.00	0.010	O	|	|	|	|	0.01
179.917	0.00	0.00	0.010	O	|	|	|	|	0.01
180.000	0.00	0.00	0.010	O	|	|	|	|	0.01
180.083	0.00	0.00	0.010	O	|	|	|	|	0.01
180.167	0.00	0.00	0.010	O	|	|	|	|	0.01
180.250	0.00	0.00	0.010	O	|	|	|	|	0.01
180.333	0.00	0.00	0.010	O	|	|	|	|	0.01
180.417	0.00	0.00	0.010	O	|	|	|	|	0.01
180.500	0.00	0.00	0.010	O	|	|	|	|	0.01
180.583	0.00	0.00	0.010	O	|	|	|	|	0.01
180.667	0.00	0.00	0.010	O	|	|	|	|	0.01
180.750	0.00	0.00	0.010	O	|	|	|	|	0.01
180.833	0.00	0.00	0.010	O	|	|	|	|	0.01
180.917	0.00	0.00	0.010	O	|	|	|	|	0.01
181.000	0.00	0.00	0.010	O	|	|	|	|	0.01
181.083	0.00	0.00	0.010	O	|	|	|	|	0.01
181.167	0.00	0.00	0.010	O	|	|	|	|	0.01
181.250	0.00	0.00	0.010	O	|	|	|	|	0.01
181.333	0.00	0.00	0.010	O	|	|	|	|	0.01
181.417	0.00	0.00	0.009	O	|	|	|	|	0.01
181.500	0.00	0.00	0.009	O	|	|	|	|	0.01
181.583	0.00	0.00	0.009	O	|	|	|	|	0.01
181.667	0.00	0.00	0.009	O	|	|	|	|	0.01
181.750	0.00	0.00	0.009	O	|	|	|	|	0.01
181.833	0.00	0.00	0.009	O	|	|	|	|	0.01
181.917	0.00	0.00	0.009	O	|	|	|	|	0.01
182.000	0.00	0.00	0.009	O	|	|	|	|	0.01
182.083	0.00	0.00	0.009	O	|	|	|	|	0.01
182.167	0.00	0.00	0.009	O	|	|	|	|	0.01
182.250	0.00	0.00	0.009	O	|	|	|	|	0.01
182.333	0.00	0.00	0.009	O	|	|	|	|	0.01
182.417	0.00	0.00	0.009	O	|	|	|	|	0.01
182.500	0.00	0.00	0.009	O	|	|	|	|	0.01
182.583	0.00	0.00	0.009	O	|	|	|	|	0.01
182.667	0.00	0.00	0.009	O	|	|	|	|	0.01

182.750	0.00	0.00	0.009	O	|	|	|	|	0.01
182.833	0.00	0.00	0.009	O	|	|	|	|	0.01
182.917	0.00	0.00	0.009	O	|	|	|	|	0.01
183.000	0.00	0.00	0.009	O	|	|	|	|	0.01
183.083	0.00	0.00	0.009	O	|	|	|	|	0.01
183.167	0.00	0.00	0.009	O	|	|	|	|	0.01
183.250	0.00	0.00	0.009	O	|	|	|	|	0.01
183.333	0.00	0.00	0.009	O	|	|	|	|	0.01
183.417	0.00	0.00	0.009	O	|	|	|	|	0.01
183.500	0.00	0.00	0.009	O	|	|	|	|	0.01
183.583	0.00	0.00	0.009	O	|	|	|	|	0.01
183.667	0.00	0.00	0.009	O	|	|	|	|	0.01
183.750	0.00	0.00	0.009	O	|	|	|	|	0.01
183.833	0.00	0.00	0.009	O	|	|	|	|	0.01
183.917	0.00	0.00	0.009	O	|	|	|	|	0.01
184.000	0.00	0.00	0.009	O	|	|	|	|	0.01
184.083	0.00	0.00	0.009	O	|	|	|	|	0.01
184.167	0.00	0.00	0.009	O	|	|	|	|	0.01
184.250	0.00	0.00	0.009	O	|	|	|	|	0.01
184.333	0.00	0.00	0.009	O	|	|	|	|	0.01
184.417	0.00	0.00	0.009	O	|	|	|	|	0.01
184.500	0.00	0.00	0.008	O	|	|	|	|	0.01
184.583	0.00	0.00	0.008	O	|	|	|	|	0.01
184.667	0.00	0.00	0.008	O	|	|	|	|	0.01
184.750	0.00	0.00	0.008	O	|	|	|	|	0.01
184.833	0.00	0.00	0.008	O	|	|	|	|	0.01
184.917	0.00	0.00	0.008	O	|	|	|	|	0.01
185.000	0.00	0.00	0.008	O	|	|	|	|	0.01
185.083	0.00	0.00	0.008	O	|	|	|	|	0.01
185.167	0.00	0.00	0.008	O	|	|	|	|	0.01
185.250	0.00	0.00	0.008	O	|	|	|	|	0.01
185.333	0.00	0.00	0.008	O	|	|	|	|	0.01
185.417	0.00	0.00	0.008	O	|	|	|	|	0.01
185.500	0.00	0.00	0.008	O	|	|	|	|	0.01
185.583	0.00	0.00	0.008	O	|	|	|	|	0.01
185.667	0.00	0.00	0.008	O	|	|	|	|	0.01
185.750	0.00	0.00	0.008	O	|	|	|	|	0.01
185.833	0.00	0.00	0.008	O	|	|	|	|	0.01
185.917	0.00	0.00	0.008	O	|	|	|	|	0.01
186.000	0.00	0.00	0.008	O	|	|	|	|	0.01
186.083	0.00	0.00	0.008	O	|	|	|	|	0.01
186.167	0.00	0.00	0.008	O	|	|	|	|	0.01
186.250	0.00	0.00	0.008	O	|	|	|	|	0.01
186.333	0.00	0.00	0.008	O	|	|	|	|	0.01
186.417	0.00	0.00	0.008	O	|	|	|	|	0.01
186.500	0.00	0.00	0.008	O	|	|	|	|	0.01
186.583	0.00	0.00	0.008	O	|	|	|	|	0.01
186.667	0.00	0.00	0.008	O	|	|	|	|	0.01
186.750	0.00	0.00	0.008	O	|	|	|	|	0.01
186.833	0.00	0.00	0.008	O	|	|	|	|	0.01
186.917	0.00	0.00	0.008	O	|	|	|	|	0.01
187.000	0.00	0.00	0.008	O	|	|	|	|	0.01
187.083	0.00	0.00	0.008	O	|	|	|	|	0.01
187.167	0.00	0.00	0.008	O	|	|	|	|	0.01
187.250	0.00	0.00	0.008	O	|	|	|	|	0.01
187.333	0.00	0.00	0.008	O	|	|	|	|	0.01
187.417	0.00	0.00	0.008	O	|	|	|	|	0.01
187.500	0.00	0.00	0.008	O	|	|	|	|	0.01
187.583	0.00	0.00	0.008	O	|	|	|	|	0.01
187.667	0.00	0.00	0.008	O	|	|	|	|	0.01
187.750	0.00	0.00	0.008	O	|	|	|	|	0.01
187.833	0.00	0.00	0.008	O	|	|	|	|	0.01
187.917	0.00	0.00	0.007	O	|	|	|	|	0.01

188.000	0.00	0.00	0.007	O	|	|	|	|	0.01
188.083	0.00	0.00	0.007	O	|	|	|	|	0.01
188.167	0.00	0.00	0.007	O	|	|	|	|	0.01
188.250	0.00	0.00	0.007	O	|	|	|	|	0.01
188.333	0.00	0.00	0.007	O	|	|	|	|	0.01
188.417	0.00	0.00	0.007	O	|	|	|	|	0.01
188.500	0.00	0.00	0.007	O	|	|	|	|	0.01
188.583	0.00	0.00	0.007	O	|	|	|	|	0.01
188.667	0.00	0.00	0.007	O	|	|	|	|	0.01
188.750	0.00	0.00	0.007	O	|	|	|	|	0.01
188.833	0.00	0.00	0.007	O	|	|	|	|	0.01
188.917	0.00	0.00	0.007	O	|	|	|	|	0.01
189.000	0.00	0.00	0.007	O	|	|	|	|	0.01
189.083	0.00	0.00	0.007	O	|	|	|	|	0.01
189.167	0.00	0.00	0.007	O	|	|	|	|	0.01
189.250	0.00	0.00	0.007	O	|	|	|	|	0.01
189.333	0.00	0.00	0.007	O	|	|	|	|	0.01
189.417	0.00	0.00	0.007	O	|	|	|	|	0.01
189.500	0.00	0.00	0.007	O	|	|	|	|	0.01
189.583	0.00	0.00	0.007	O	|	|	|	|	0.01
189.667	0.00	0.00	0.007	O	|	|	|	|	0.01
189.750	0.00	0.00	0.007	O	|	|	|	|	0.01
189.833	0.00	0.00	0.007	O	|	|	|	|	0.01
189.917	0.00	0.00	0.007	O	|	|	|	|	0.01
190.000	0.00	0.00	0.007	O	|	|	|	|	0.01
190.083	0.00	0.00	0.007	O	|	|	|	|	0.01
190.167	0.00	0.00	0.007	O	|	|	|	|	0.01
190.250	0.00	0.00	0.007	O	|	|	|	|	0.01
190.333	0.00	0.00	0.007	O	|	|	|	|	0.01
190.417	0.00	0.00	0.007	O	|	|	|	|	0.01
190.500	0.00	0.00	0.007	O	|	|	|	|	0.01
190.583	0.00	0.00	0.007	O	|	|	|	|	0.01
190.667	0.00	0.00	0.007	O	|	|	|	|	0.01
190.750	0.00	0.00	0.007	O	|	|	|	|	0.01
190.833	0.00	0.00	0.007	O	|	|	|	|	0.01
190.917	0.00	0.00	0.007	O	|	|	|	|	0.01
191.000	0.00	0.00	0.007	O	|	|	|	|	0.01
191.083	0.00	0.00	0.007	O	|	|	|	|	0.01
191.167	0.00	0.00	0.007	O	|	|	|	|	0.01
191.250	0.00	0.00	0.007	O	|	|	|	|	0.01
191.333	0.00	0.00	0.007	O	|	|	|	|	0.01
191.417	0.00	0.00	0.007	O	|	|	|	|	0.01
191.500	0.00	0.00	0.007	O	|	|	|	|	0.01
191.583	0.00	0.00	0.007	O	|	|	|	|	0.01
191.667	0.00	0.00	0.007	O	|	|	|	|	0.01
191.750	0.00	0.00	0.007	O	|	|	|	|	0.01
191.833	0.00	0.00	0.006	O	|	|	|	|	0.01
191.917	0.00	0.00	0.006	O	|	|	|	|	0.01
192.000	0.00	0.00	0.006	O	|	|	|	|	0.01
192.083	0.00	0.00	0.006	O	|	|	|	|	0.01
192.167	0.00	0.00	0.006	O	|	|	|	|	0.01
192.250	0.00	0.00	0.006	O	|	|	|	|	0.01
192.333	0.00	0.00	0.006	O	|	|	|	|	0.01
192.417	0.00	0.00	0.006	O	|	|	|	|	0.01
192.500	0.00	0.00	0.006	O	|	|	|	|	0.01
192.583	0.00	0.00	0.006	O	|	|	|	|	0.01
192.667	0.00	0.00	0.006	O	|	|	|	|	0.01
192.750	0.00	0.00	0.006	O	|	|	|	|	0.01
192.833	0.00	0.00	0.006	O	|	|	|	|	0.01
192.917	0.00	0.00	0.006	O	|	|	|	|	0.01
193.000	0.00	0.00	0.006	O	|	|	|	|	0.01
193.083	0.00	0.00	0.006	O	|	|	|	|	0.01
193.167	0.00	0.00	0.006	O	|	|	|	|	0.01

193.250	0.00	0.00	0.006	O	|	|	|	|	0.01
193.333	0.00	0.00	0.006	O	|	|	|	|	0.01
193.417	0.00	0.00	0.006	O	|	|	|	|	0.01
193.500	0.00	0.00	0.006	O	|	|	|	|	0.01
193.583	0.00	0.00	0.006	O	|	|	|	|	0.01
193.667	0.00	0.00	0.006	O	|	|	|	|	0.01
193.750	0.00	0.00	0.006	O	|	|	|	|	0.01
193.833	0.00	0.00	0.006	O	|	|	|	|	0.01
193.917	0.00	0.00	0.006	O	|	|	|	|	0.01
194.000	0.00	0.00	0.006	O	|	|	|	|	0.01
194.083	0.00	0.00	0.006	O	|	|	|	|	0.01
194.167	0.00	0.00	0.006	O	|	|	|	|	0.01
194.250	0.00	0.00	0.006	O	|	|	|	|	0.01
194.333	0.00	0.00	0.006	O	|	|	|	|	0.01
194.417	0.00	0.00	0.006	O	|	|	|	|	0.01
194.500	0.00	0.00	0.006	O	|	|	|	|	0.01
194.583	0.00	0.00	0.006	O	|	|	|	|	0.01
194.667	0.00	0.00	0.006	O	|	|	|	|	0.01
194.750	0.00	0.00	0.006	O	|	|	|	|	0.01
194.833	0.00	0.00	0.006	O	|	|	|	|	0.01
194.917	0.00	0.00	0.006	O	|	|	|	|	0.01
195.000	0.00	0.00	0.006	O	|	|	|	|	0.01
195.083	0.00	0.00	0.006	O	|	|	|	|	0.01
195.167	0.00	0.00	0.006	O	|	|	|	|	0.01
195.250	0.00	0.00	0.006	O	|	|	|	|	0.01
195.333	0.00	0.00	0.006	O	|	|	|	|	0.01
195.417	0.00	0.00	0.006	O	|	|	|	|	0.01
195.500	0.00	0.00	0.006	O	|	|	|	|	0.01
195.583	0.00	0.00	0.006	O	|	|	|	|	0.01
195.667	0.00	0.00	0.006	O	|	|	|	|	0.01
195.750	0.00	0.00	0.006	O	|	|	|	|	0.01
195.833	0.00	0.00	0.006	O	|	|	|	|	0.01
195.917	0.00	0.00	0.006	O	|	|	|	|	0.01
196.000	0.00	0.00	0.006	O	|	|	|	|	0.01
196.083	0.00	0.00	0.006	O	|	|	|	|	0.01
196.167	0.00	0.00	0.006	O	|	|	|	|	0.01
196.250	0.00	0.00	0.006	O	|	|	|	|	0.01
196.333	0.00	0.00	0.006	O	|	|	|	|	0.01
196.417	0.00	0.00	0.005	O	|	|	|	|	0.01
196.500	0.00	0.00	0.005	O	|	|	|	|	0.01
196.583	0.00	0.00	0.005	O	|	|	|	|	0.01
196.667	0.00	0.00	0.005	O	|	|	|	|	0.01
196.750	0.00	0.00	0.005	O	|	|	|	|	0.01
196.833	0.00	0.00	0.005	O	|	|	|	|	0.01
196.917	0.00	0.00	0.005	O	|	|	|	|	0.01
197.000	0.00	0.00	0.005	O	|	|	|	|	0.01
197.083	0.00	0.00	0.005	O	|	|	|	|	0.01
197.167	0.00	0.00	0.005	O	|	|	|	|	0.01
197.250	0.00	0.00	0.005	O	|	|	|	|	0.01
197.333	0.00	0.00	0.005	O	|	|	|	|	0.01
197.417	0.00	0.00	0.005	O	|	|	|	|	0.01
197.500	0.00	0.00	0.005	O	|	|	|	|	0.01
197.583	0.00	0.00	0.005	O	|	|	|	|	0.01
197.667	0.00	0.00	0.005	O	|	|	|	|	0.01
197.750	0.00	0.00	0.005	O	|	|	|	|	0.01
197.833	0.00	0.00	0.005	O	|	|	|	|	0.01
197.917	0.00	0.00	0.005	O	|	|	|	|	0.00
198.000	0.00	0.00	0.005	O	|	|	|	|	0.00
198.083	0.00	0.00	0.005	O	|	|	|	|	0.00
198.167	0.00	0.00	0.005	O	|	|	|	|	0.00
198.250	0.00	0.00	0.005	O	|	|	|	|	0.00
198.333	0.00	0.00	0.005	O	|	|	|	|	0.00
198.417	0.00	0.00	0.005	O	|	|	|	|	0.00

198.500	0.00	0.00	0.005	O	|	|	|	|	0.00
198.583	0.00	0.00	0.005	O	|	|	|	|	0.00
198.667	0.00	0.00	0.005	O	|	|	|	|	0.00
198.750	0.00	0.00	0.005	O	|	|	|	|	0.00
198.833	0.00	0.00	0.005	O	|	|	|	|	0.00
198.917	0.00	0.00	0.005	O	|	|	|	|	0.00
199.000	0.00	0.00	0.005	O	|	|	|	|	0.00
199.083	0.00	0.00	0.005	O	|	|	|	|	0.00
199.167	0.00	0.00	0.005	O	|	|	|	|	0.00
199.250	0.00	0.00	0.005	O	|	|	|	|	0.00
199.333	0.00	0.00	0.005	O	|	|	|	|	0.00
199.417	0.00	0.00	0.005	O	|	|	|	|	0.00
199.500	0.00	0.00	0.005	O	|	|	|	|	0.00
199.583	0.00	0.00	0.005	O	|	|	|	|	0.00
199.667	0.00	0.00	0.005	O	|	|	|	|	0.00
199.750	0.00	0.00	0.005	O	|	|	|	|	0.00
199.833	0.00	0.00	0.005	O	|	|	|	|	0.00
199.917	0.00	0.00	0.005	O	|	|	|	|	0.00
200.000	0.00	0.00	0.005	O	|	|	|	|	0.00
200.083	0.00	0.00	0.005	O	|	|	|	|	0.00
200.167	0.00	0.00	0.005	O	|	|	|	|	0.00
200.250	0.00	0.00	0.005	O	|	|	|	|	0.00
200.333	0.00	0.00	0.005	O	|	|	|	|	0.00
200.417	0.00	0.00	0.005	O	|	|	|	|	0.00
200.500	0.00	0.00	0.005	O	|	|	|	|	0.00
200.583	0.00	0.00	0.005	O	|	|	|	|	0.00
200.667	0.00	0.00	0.005	O	|	|	|	|	0.00
200.750	0.00	0.00	0.005	O	|	|	|	|	0.00
200.833	0.00	0.00	0.005	O	|	|	|	|	0.00
200.917	0.00	0.00	0.005	O	|	|	|	|	0.00
201.000	0.00	0.00	0.005	O	|	|	|	|	0.00
201.083	0.00	0.00	0.005	O	|	|	|	|	0.00
201.167	0.00	0.00	0.005	O	|	|	|	|	0.00
201.250	0.00	0.00	0.005	O	|	|	|	|	0.00
201.333	0.00	0.00	0.005	O	|	|	|	|	0.00
201.417	0.00	0.00	0.005	O	|	|	|	|	0.00
201.500	0.00	0.00	0.005	O	|	|	|	|	0.00
201.583	0.00	0.00	0.005	O	|	|	|	|	0.00
201.667	0.00	0.00	0.005	O	|	|	|	|	0.00
201.750	0.00	0.00	0.005	O	|	|	|	|	0.00
201.833	0.00	0.00	0.005	O	|	|	|	|	0.00
201.917	0.00	0.00	0.004	O	|	|	|	|	0.00
202.000	0.00	0.00	0.004	O	|	|	|	|	0.00
202.083	0.00	0.00	0.004	O	|	|	|	|	0.00
202.167	0.00	0.00	0.004	O	|	|	|	|	0.00
202.250	0.00	0.00	0.004	O	|	|	|	|	0.00
202.333	0.00	0.00	0.004	O	|	|	|	|	0.00
202.417	0.00	0.00	0.004	O	|	|	|	|	0.00
202.500	0.00	0.00	0.004	O	|	|	|	|	0.00
202.583	0.00	0.00	0.004	O	|	|	|	|	0.00
202.667	0.00	0.00	0.004	O	|	|	|	|	0.00
202.750	0.00	0.00	0.004	O	|	|	|	|	0.00
202.833	0.00	0.00	0.004	O	|	|	|	|	0.00
202.917	0.00	0.00	0.004	O	|	|	|	|	0.00
203.000	0.00	0.00	0.004	O	|	|	|	|	0.00
203.083	0.00	0.00	0.004	O	|	|	|	|	0.00
203.167	0.00	0.00	0.004	O	|	|	|	|	0.00
203.250	0.00	0.00	0.004	O	|	|	|	|	0.00
203.333	0.00	0.00	0.004	O	|	|	|	|	0.00
203.417	0.00	0.00	0.004	O	|	|	|	|	0.00
203.500	0.00	0.00	0.004	O	|	|	|	|	0.00
203.583	0.00	0.00	0.004	O	|	|	|	|	0.00
203.667	0.00	0.00	0.004	O	|	|	|	|	0.00

203.750	0.00	0.00	0.004	O	|	|	|	|	0.00
203.833	0.00	0.00	0.004	O	|	|	|	|	0.00
203.917	0.00	0.00	0.004	O	|	|	|	|	0.00
204.000	0.00	0.00	0.004	O	|	|	|	|	0.00
204.083	0.00	0.00	0.004	O	|	|	|	|	0.00
204.167	0.00	0.00	0.004	O	|	|	|	|	0.00
204.250	0.00	0.00	0.004	O	|	|	|	|	0.00
204.333	0.00	0.00	0.004	O	|	|	|	|	0.00
204.417	0.00	0.00	0.004	O	|	|	|	|	0.00
204.500	0.00	0.00	0.004	O	|	|	|	|	0.00
204.583	0.00	0.00	0.004	O	|	|	|	|	0.00
204.667	0.00	0.00	0.004	O	|	|	|	|	0.00
204.750	0.00	0.00	0.004	O	|	|	|	|	0.00
204.833	0.00	0.00	0.004	O	|	|	|	|	0.00
204.917	0.00	0.00	0.004	O	|	|	|	|	0.00
205.000	0.00	0.00	0.004	O	|	|	|	|	0.00
205.083	0.00	0.00	0.004	O	|	|	|	|	0.00
205.167	0.00	0.00	0.004	O	|	|	|	|	0.00
205.250	0.00	0.00	0.004	O	|	|	|	|	0.00
205.333	0.00	0.00	0.004	O	|	|	|	|	0.00
205.417	0.00	0.00	0.004	O	|	|	|	|	0.00
205.500	0.00	0.00	0.004	O	|	|	|	|	0.00
205.583	0.00	0.00	0.004	O	|	|	|	|	0.00
205.667	0.00	0.00	0.004	O	|	|	|	|	0.00
205.750	0.00	0.00	0.004	O	|	|	|	|	0.00
205.833	0.00	0.00	0.004	O	|	|	|	|	0.00
205.917	0.00	0.00	0.004	O	|	|	|	|	0.00
206.000	0.00	0.00	0.004	O	|	|	|	|	0.00
206.083	0.00	0.00	0.004	O	|	|	|	|	0.00
206.167	0.00	0.00	0.004	O	|	|	|	|	0.00
206.250	0.00	0.00	0.004	O	|	|	|	|	0.00
206.333	0.00	0.00	0.004	O	|	|	|	|	0.00
206.417	0.00	0.00	0.004	O	|	|	|	|	0.00
206.500	0.00	0.00	0.004	O	|	|	|	|	0.00
206.583	0.00	0.00	0.004	O	|	|	|	|	0.00
206.667	0.00	0.00	0.004	O	|	|	|	|	0.00
206.750	0.00	0.00	0.004	O	|	|	|	|	0.00
206.833	0.00	0.00	0.004	O	|	|	|	|	0.00
206.917	0.00	0.00	0.004	O	|	|	|	|	0.00
207.000	0.00	0.00	0.004	O	|	|	|	|	0.00
207.083	0.00	0.00	0.004	O	|	|	|	|	0.00
207.167	0.00	0.00	0.004	O	|	|	|	|	0.00
207.250	0.00	0.00	0.004	O	|	|	|	|	0.00
207.333	0.00	0.00	0.004	O	|	|	|	|	0.00
207.417	0.00	0.00	0.004	O	|	|	|	|	0.00
207.500	0.00	0.00	0.004	O	|	|	|	|	0.00
207.583	0.00	0.00	0.004	O	|	|	|	|	0.00
207.667	0.00	0.00	0.004	O	|	|	|	|	0.00
207.750	0.00	0.00	0.004	O	|	|	|	|	0.00
207.833	0.00	0.00	0.004	O	|	|	|	|	0.00
207.917	0.00	0.00	0.004	O	|	|	|	|	0.00
208.000	0.00	0.00	0.004	O	|	|	|	|	0.00
208.083	0.00	0.00	0.004	O	|	|	|	|	0.00
208.167	0.00	0.00	0.004	O	|	|	|	|	0.00
208.250	0.00	0.00	0.004	O	|	|	|	|	0.00
208.333	0.00	0.00	0.004	O	|	|	|	|	0.00
208.417	0.00	0.00	0.004	O	|	|	|	|	0.00
208.500	0.00	0.00	0.004	O	|	|	|	|	0.00
208.583	0.00	0.00	0.004	O	|	|	|	|	0.00
208.667	0.00	0.00	0.004	O	|	|	|	|	0.00
208.750	0.00	0.00	0.003	O	|	|	|	|	0.00
208.833	0.00	0.00	0.003	O	|	|	|	|	0.00
208.917	0.00	0.00	0.003	O	|	|	|	|	0.00

209.000	0.00	0.00	0.003	O	|	|	|	|	0.00
209.083	0.00	0.00	0.003	O	|	|	|	|	0.00
209.167	0.00	0.00	0.003	O	|	|	|	|	0.00
209.250	0.00	0.00	0.003	O	|	|	|	|	0.00
209.333	0.00	0.00	0.003	O	|	|	|	|	0.00
209.417	0.00	0.00	0.003	O	|	|	|	|	0.00
209.500	0.00	0.00	0.003	O	|	|	|	|	0.00
209.583	0.00	0.00	0.003	O	|	|	|	|	0.00
209.667	0.00	0.00	0.003	O	|	|	|	|	0.00
209.750	0.00	0.00	0.003	O	|	|	|	|	0.00
209.833	0.00	0.00	0.003	O	|	|	|	|	0.00
209.917	0.00	0.00	0.003	O	|	|	|	|	0.00
210.000	0.00	0.00	0.003	O	|	|	|	|	0.00
210.083	0.00	0.00	0.003	O	|	|	|	|	0.00
210.167	0.00	0.00	0.003	O	|	|	|	|	0.00
210.250	0.00	0.00	0.003	O	|	|	|	|	0.00
210.333	0.00	0.00	0.003	O	|	|	|	|	0.00
210.417	0.00	0.00	0.003	O	|	|	|	|	0.00
210.500	0.00	0.00	0.003	O	|	|	|	|	0.00
210.583	0.00	0.00	0.003	O	|	|	|	|	0.00
210.667	0.00	0.00	0.003	O	|	|	|	|	0.00
210.750	0.00	0.00	0.003	O	|	|	|	|	0.00
210.833	0.00	0.00	0.003	O	|	|	|	|	0.00
210.917	0.00	0.00	0.003	O	|	|	|	|	0.00
211.000	0.00	0.00	0.003	O	|	|	|	|	0.00
211.083	0.00	0.00	0.003	O	|	|	|	|	0.00
211.167	0.00	0.00	0.003	O	|	|	|	|	0.00
211.250	0.00	0.00	0.003	O	|	|	|	|	0.00
211.333	0.00	0.00	0.003	O	|	|	|	|	0.00
211.417	0.00	0.00	0.003	O	|	|	|	|	0.00
211.500	0.00	0.00	0.003	O	|	|	|	|	0.00
211.583	0.00	0.00	0.003	O	|	|	|	|	0.00
211.667	0.00	0.00	0.003	O	|	|	|	|	0.00
211.750	0.00	0.00	0.003	O	|	|	|	|	0.00
211.833	0.00	0.00	0.003	O	|	|	|	|	0.00
211.917	0.00	0.00	0.003	O	|	|	|	|	0.00
212.000	0.00	0.00	0.003	O	|	|	|	|	0.00
212.083	0.00	0.00	0.003	O	|	|	|	|	0.00
212.167	0.00	0.00	0.003	O	|	|	|	|	0.00
212.250	0.00	0.00	0.003	O	|	|	|	|	0.00
212.333	0.00	0.00	0.003	O	|	|	|	|	0.00
212.417	0.00	0.00	0.003	O	|	|	|	|	0.00
212.500	0.00	0.00	0.003	O	|	|	|	|	0.00
212.583	0.00	0.00	0.003	O	|	|	|	|	0.00
212.667	0.00	0.00	0.003	O	|	|	|	|	0.00
212.750	0.00	0.00	0.003	O	|	|	|	|	0.00
212.833	0.00	0.00	0.003	O	|	|	|	|	0.00
212.917	0.00	0.00	0.003	O	|	|	|	|	0.00
213.000	0.00	0.00	0.003	O	|	|	|	|	0.00
213.083	0.00	0.00	0.003	O	|	|	|	|	0.00
213.167	0.00	0.00	0.003	O	|	|	|	|	0.00
213.250	0.00	0.00	0.003	O	|	|	|	|	0.00
213.333	0.00	0.00	0.003	O	|	|	|	|	0.00
213.417	0.00	0.00	0.003	O	|	|	|	|	0.00
213.500	0.00	0.00	0.003	O	|	|	|	|	0.00
213.583	0.00	0.00	0.003	O	|	|	|	|	0.00
213.667	0.00	0.00	0.003	O	|	|	|	|	0.00
213.750	0.00	0.00	0.003	O	|	|	|	|	0.00
213.833	0.00	0.00	0.003	O	|	|	|	|	0.00
213.917	0.00	0.00	0.003	O	|	|	|	|	0.00
214.000	0.00	0.00	0.003	O	|	|	|	|	0.00
214.083	0.00	0.00	0.003	O	|	|	|	|	0.00
214.167	0.00	0.00	0.003	O	|	|	|	|	0.00

214.250	0.00	0.00	0.003	O	|	|	|	|	0.00
214.333	0.00	0.00	0.003	O	|	|	|	|	0.00
214.417	0.00	0.00	0.003	O	|	|	|	|	0.00
214.500	0.00	0.00	0.003	O	|	|	|	|	0.00
214.583	0.00	0.00	0.003	O	|	|	|	|	0.00
214.667	0.00	0.00	0.003	O	|	|	|	|	0.00
214.750	0.00	0.00	0.003	O	|	|	|	|	0.00
214.833	0.00	0.00	0.003	O	|	|	|	|	0.00
214.917	0.00	0.00	0.003	O	|	|	|	|	0.00
215.000	0.00	0.00	0.003	O	|	|	|	|	0.00
215.083	0.00	0.00	0.003	O	|	|	|	|	0.00
215.167	0.00	0.00	0.003	O	|	|	|	|	0.00
215.250	0.00	0.00	0.003	O	|	|	|	|	0.00
215.333	0.00	0.00	0.003	O	|	|	|	|	0.00
215.417	0.00	0.00	0.003	O	|	|	|	|	0.00
215.500	0.00	0.00	0.003	O	|	|	|	|	0.00
215.583	0.00	0.00	0.003	O	|	|	|	|	0.00
215.667	0.00	0.00	0.003	O	|	|	|	|	0.00
215.750	0.00	0.00	0.003	O	|	|	|	|	0.00
215.833	0.00	0.00	0.003	O	|	|	|	|	0.00
215.917	0.00	0.00	0.003	O	|	|	|	|	0.00
216.000	0.00	0.00	0.003	O	|	|	|	|	0.00
216.083	0.00	0.00	0.003	O	|	|	|	|	0.00
216.167	0.00	0.00	0.003	O	|	|	|	|	0.00
216.250	0.00	0.00	0.003	O	|	|	|	|	0.00
216.333	0.00	0.00	0.003	O	|	|	|	|	0.00
216.417	0.00	0.00	0.003	O	|	|	|	|	0.00
216.500	0.00	0.00	0.003	O	|	|	|	|	0.00
216.583	0.00	0.00	0.003	O	|	|	|	|	0.00
216.667	0.00	0.00	0.003	O	|	|	|	|	0.00
216.750	0.00	0.00	0.003	O	|	|	|	|	0.00
216.833	0.00	0.00	0.003	O	|	|	|	|	0.00
216.917	0.00	0.00	0.003	O	|	|	|	|	0.00
217.000	0.00	0.00	0.003	O	|	|	|	|	0.00
217.083	0.00	0.00	0.003	O	|	|	|	|	0.00
217.167	0.00	0.00	0.003	O	|	|	|	|	0.00
217.250	0.00	0.00	0.003	O	|	|	|	|	0.00
217.333	0.00	0.00	0.003	O	|	|	|	|	0.00
217.417	0.00	0.00	0.003	O	|	|	|	|	0.00
217.500	0.00	0.00	0.003	O	|	|	|	|	0.00
217.583	0.00	0.00	0.003	O	|	|	|	|	0.00
217.667	0.00	0.00	0.003	O	|	|	|	|	0.00
217.750	0.00	0.00	0.003	O	|	|	|	|	0.00
217.833	0.00	0.00	0.003	O	|	|	|	|	0.00
217.917	0.00	0.00	0.003	O	|	|	|	|	0.00
218.000	0.00	0.00	0.002	O	|	|	|	|	0.00
218.083	0.00	0.00	0.002	O	|	|	|	|	0.00
218.167	0.00	0.00	0.002	O	|	|	|	|	0.00
218.250	0.00	0.00	0.002	O	|	|	|	|	0.00
218.333	0.00	0.00	0.002	O	|	|	|	|	0.00
218.417	0.00	0.00	0.002	O	|	|	|	|	0.00
218.500	0.00	0.00	0.002	O	|	|	|	|	0.00
218.583	0.00	0.00	0.002	O	|	|	|	|	0.00
218.667	0.00	0.00	0.002	O	|	|	|	|	0.00
218.750	0.00	0.00	0.002	O	|	|	|	|	0.00
218.833	0.00	0.00	0.002	O	|	|	|	|	0.00
218.917	0.00	0.00	0.002	O	|	|	|	|	0.00
219.000	0.00	0.00	0.002	O	|	|	|	|	0.00
219.083	0.00	0.00	0.002	O	|	|	|	|	0.00
219.167	0.00	0.00	0.002	O	|	|	|	|	0.00
219.250	0.00	0.00	0.002	O	|	|	|	|	0.00
219.333	0.00	0.00	0.002	O	|	|	|	|	0.00
219.417	0.00	0.00	0.002	O	|	|	|	|	0.00

219.500	0.00	0.00	0.002	O	|	|	|	|	0.00
219.583	0.00	0.00	0.002	O	|	|	|	|	0.00
219.667	0.00	0.00	0.002	O	|	|	|	|	0.00
219.750	0.00	0.00	0.002	O	|	|	|	|	0.00
219.833	0.00	0.00	0.002	O	|	|	|	|	0.00
219.917	0.00	0.00	0.002	O	|	|	|	|	0.00
220.000	0.00	0.00	0.002	O	|	|	|	|	0.00
220.083	0.00	0.00	0.002	O	|	|	|	|	0.00
220.167	0.00	0.00	0.002	O	|	|	|	|	0.00
220.250	0.00	0.00	0.002	O	|	|	|	|	0.00
220.333	0.00	0.00	0.002	O	|	|	|	|	0.00
220.417	0.00	0.00	0.002	O	|	|	|	|	0.00
220.500	0.00	0.00	0.002	O	|	|	|	|	0.00
220.583	0.00	0.00	0.002	O	|	|	|	|	0.00
220.667	0.00	0.00	0.002	O	|	|	|	|	0.00
220.750	0.00	0.00	0.002	O	|	|	|	|	0.00

Remaining water in basin = 0.00 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 2649
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 1.413 (CFS)
Total volume = 3.810 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

APPENDIX J.3: BASIN “B” 5 – YEAR BASIN ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/24/15

TRACT NO. 36294
BASIN B
5YR-24HR
FN: BASINB524

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: BPR245.rte
**********HYDROGRAPH DATA**********
Number of intervals = 292
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 4.730 (CFS)
Total volume = 2.874 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 292
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.520	0.230	0.519	0.521
1.000	0.990	0.320	0.989	0.991
1.500	1.480	0.600	1.478	1.482
2.000	2.000	0.900	1.997	2.003
2.500	2.530	1.150	2.526	2.534
3.000	3.090	1.550	3.085	3.095

3.500	3.670	8.600	3.640	3.700
4.000	4.270	24.700	4.185	4.355
4.500	4.900	40.760	4.760	5.040
5.000	5.440	54.110	5.254	5.626
6.000	6.860	126.240	6.425	7.295

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 1.2 2.37 3.55 4.73	Depth (Ft.)
0.083	0.12	0.00	0.000	O | | | |	0.00
0.167	0.24	0.00	0.002	OI | | | |	0.00
0.250	0.27	0.00	0.003	OI | | | |	0.00
0.333	0.33	0.00	0.005	O I | | | |	0.01
0.417	0.40	0.00	0.008	O I | | | |	0.01
0.500	0.41	0.00	0.011	O I | | | |	0.01
0.583	0.42	0.01	0.014	O I | | | |	0.01
0.667	0.42	0.01	0.016	O I | | | |	0.02
0.750	0.42	0.01	0.019	O I | | | |	0.02
0.833	0.48	0.01	0.022	O I | | | |	0.02
0.917	0.54	0.01	0.026	O I | | | |	0.02
1.000	0.55	0.01	0.029	O I | | | |	0.03
1.083	0.50	0.01	0.033	O I | | | |	0.03
1.167	0.44	0.02	0.036	O I | | | |	0.03
1.250	0.42	0.02	0.039	O I | | | |	0.04
1.333	0.42	0.02	0.041	O I | | | |	0.04
1.417	0.42	0.02	0.044	O I | | | |	0.04
1.500	0.42	0.02	0.047	O I | | | |	0.05
1.583	0.42	0.02	0.050	O I | | | |	0.05
1.667	0.42	0.02	0.052	O I | | | |	0.05
1.750	0.42	0.02	0.055	O I | | | |	0.05
1.833	0.48	0.03	0.058	O I | | | |	0.06
1.917	0.54	0.03	0.061	O I | | | |	0.06
2.000	0.55	0.03	0.065	O I | | | |	0.06
2.083	0.55	0.03	0.069	O I | | | |	0.07
2.167	0.56	0.03	0.072	O I | | | |	0.07
2.250	0.56	0.03	0.076	O I | | | |	0.07
2.333	0.56	0.04	0.079	O I | | | |	0.08
2.417	0.56	0.04	0.083	O I | | | |	0.08
2.500	0.56	0.04	0.086	O I | | | |	0.08
2.583	0.62	0.04	0.090	O I | | | |	0.09
2.667	0.68	0.04	0.094	O I | | | |	0.09
2.750	0.69	0.04	0.099	O I | | | |	0.10
2.833	0.69	0.05	0.103	O I | | | |	0.10
2.917	0.70	0.05	0.108	O I | | | |	0.10
3.000	0.70	0.05	0.112	O I | | | |	0.11
3.083	0.70	0.05	0.117	O I | | | |	0.11
3.167	0.70	0.05	0.121	O I | | | |	0.12
3.250	0.70	0.06	0.125	O I | | | |	0.12
3.333	0.70	0.06	0.130	O I | | | |	0.12
3.417	0.70	0.06	0.134	O I | | | |	0.13
3.500	0.70	0.06	0.139	O I | | | |	0.13
3.583	0.70	0.06	0.143	O I | | | |	0.14
3.667	0.70	0.07	0.147	O I | | | |	0.14
3.750	0.70	0.07	0.152	O I | | | |	0.15
3.833	0.76	0.07	0.156	O I | | | |	0.15
3.917	0.82	0.07	0.161	O I | | | |	0.15
4.000	0.83	0.07	0.166	O I | | | |	0.16
4.083	0.83	0.08	0.172	O I | | | |	0.16
4.167	0.83	0.08	0.177	O I | | | |	0.17

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4.250    0.83    0.08      0.182  O    I  |        |        |        |     0.17
4.333    0.89    0.08      0.187  O     I |        |        |        |     0.18
4.417    0.95    0.09      0.193  O     I |        |        |        |     0.19
4.500    0.97    0.09      0.199  O     I |        |        |        |     0.19
4.583    0.97    0.09      0.205  O     I |        |        |        |     0.20
4.667    0.97    0.09      0.211  O     I |        |        |        |     0.20
4.750    0.97    0.10      0.217  O     I |        |        |        |     0.21
4.833    1.03    0.10      0.224  O     I |        |        |        |     0.21
4.917    1.09    0.10      0.230  O      I|        |        |        |     0.22
5.000    1.11    0.10      0.237  O      I|        |        |        |     0.23
5.083    0.99    0.11      0.244  O     I |        |        |        |     0.23
5.167    0.87    0.11      0.249  O    I  |        |        |        |     0.24
5.250    0.85    0.11      0.254  O    I  |        |        |        |     0.24
5.333    0.90    0.11      0.260  O     I |        |        |        |     0.25
5.417    0.95    0.12      0.265  O     I |        |        |        |     0.25
5.500    0.97    0.12      0.271  O     I |        |        |        |     0.26
5.583    1.03    0.12      0.277  O     I |        |        |        |     0.27
5.667    1.09    0.13      0.284  O      I|        |        |        |     0.27
5.750    1.11    0.13      0.290  O      I|        |        |        |     0.28
5.833    1.11    0.13      0.297  O      I|        |        |        |     0.29
5.917    1.11    0.13      0.304  O      I|        |        |        |     0.29
6.000    1.11    0.14      0.310  O      I|        |        |        |     0.30
6.083    1.17    0.14      0.317  O      I|        |        |        |     0.31
6.167    1.23    0.14      0.325  O       I        |        |        |     0.31
6.250    1.25    0.15      0.332  O       I        |        |        |     0.32
6.333    1.25    0.15      0.340  |O      I        |        |        |     0.33
6.417    1.25    0.15      0.347  |O      I        |        |        |     0.33
6.500    1.25    0.16      0.355  |O      I        |        |        |     0.34
6.583    1.31    0.16      0.363  |O      I        |        |        |     0.35
6.667    1.37    0.16      0.371  |O      |I       |        |        |     0.36
6.750    1.38    0.17      0.379  |O      |I       |        |        |     0.36
6.833    1.39    0.17      0.387  |O      |I       |        |        |     0.37
6.917    1.39    0.18      0.396  |O      |I       |        |        |     0.38
7.000    1.39    0.18      0.404  |O      |I       |        |        |     0.39
7.083    1.39    0.18      0.413  |O      |I       |        |        |     0.40
7.167    1.39    0.19      0.421  |O      |I       |        |        |     0.40
7.250    1.39    0.19      0.429  |O      |I       |        |        |     0.41
7.333    1.45    0.19      0.438  |O      |I       |        |        |     0.42
7.417    1.51    0.20      0.446  |O      | I      |        |        |     0.43
7.500    1.52    0.20      0.456  |O      | I      |        |        |     0.44
7.583    1.59    0.21      0.465  |O      | I      |        |        |     0.45
7.667    1.65    0.21      0.475  |O      |  I     |        |        |     0.46
7.750    1.66    0.21      0.485  |O      |  I     |        |        |     0.47
7.833    1.73    0.22      0.495  |O      |  I     |        |        |     0.48
7.917    1.79    0.22      0.505  |O      |   I    |        |        |     0.49
8.000    1.80    0.23      0.516  |O      |   I    |        |        |     0.50
8.083    1.93    0.23      0.527  |O      |    I   |        |        |     0.51
8.167    2.05    0.23      0.539  |O      |    I   |        |        |     0.52
8.250    2.07    0.24      0.552  |O      |     I  |        |        |     0.53
8.333    2.08    0.24      0.565  |O      |     I  |        |        |     0.55
8.417    2.09    0.24      0.577  |O      |     I  |        |        |     0.56
8.500    2.09    0.24      0.590  |O      |     I  |        |        |     0.57
8.583    2.15    0.25      0.603  |O      |     I  |        |        |     0.59
8.667    2.21    0.25      0.616  |O      |     I  |        |        |     0.60
8.750    2.22    0.25      0.630  |O      |      I |        |        |     0.62
8.833    2.28    0.25      0.644  |O      |      I |        |        |     0.63
8.917    2.35    0.26      0.658  |O      |      I |        |        |     0.65
9.000    2.36    0.26      0.672  |O      |      I |        |        |     0.66
9.083    2.48    0.26      0.687  |O      |       I        |        |     0.68
9.167    2.61    0.27      0.703  |O      |       |I       |        |     0.69
9.250    2.63    0.27      0.719  |O      |       |I       |        |     0.71
9.333    2.70    0.27      0.736  |O      |       | I      |        |     0.73
9.417    2.76    0.27      0.752  |O      |       | I      |        |     0.75
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9.500	2.78	0.28	0.770	O		I		0.77
9.583	2.84	0.28	0.787	O		I		0.78
9.667	2.90	0.28	0.805	O		I		0.80
9.750	2.92	0.29	0.823	O		I		0.82
9.833	2.98	0.29	0.841	O		I		0.84
9.917	3.04	0.30	0.860	O		I		0.86
10.000	3.05	0.30	0.879	O		I		0.88
10.083	2.64	0.30	0.896	O		I		0.90
10.167	2.22	0.30	0.911	O		I		0.92
10.250	2.13	0.31	0.924	O		I		0.93
10.333	2.10	0.31	0.936	O		I		0.94
10.417	2.09	0.31	0.949	O		I		0.96
10.500	2.09	0.31	0.961	O		I		0.97
10.583	2.39	0.32	0.974	O		I		0.98
10.667	2.69	0.32	0.989	O		I		1.00
10.750	2.75	0.33	1.006	O		I		1.02
10.833	2.77	0.34	1.023	O		I		1.03
10.917	2.78	0.35	1.039	O		I		1.05
11.000	2.78	0.36	1.056	O		I		1.07
11.083	2.72	0.37	1.073	O		I		1.08
11.167	2.66	0.38	1.089	O		I		1.10
11.250	2.65	0.39	1.104	O		I		1.12
11.333	2.64	0.39	1.120	O		I		1.13
11.417	2.64	0.40	1.135	O		I		1.15
11.500	2.64	0.41	1.151	O		I		1.16
11.583	2.52	0.42	1.166	O		I		1.18
11.667	2.40	0.43	1.180	O		I		1.19
11.750	2.38	0.44	1.193	O		I		1.21
11.833	2.43	0.44	1.207	O		I		1.22
11.917	2.49	0.45	1.220	O		I		1.24
12.000	2.50	0.46	1.234	O		I		1.25
12.083	2.92	0.47	1.250	O		I		1.27
12.167	3.35	0.48	1.268	O		I		1.28
12.250	3.43	0.49	1.288	O		I		1.30
12.333	3.53	0.50	1.309	O		I		1.33
12.417	3.60	0.51	1.330	O		I		1.35
12.500	3.61	0.53	1.351	O		I		1.37
12.583	3.73	0.54	1.373	O		I		1.39
12.667	3.86	0.55	1.395	O		I		1.41
12.750	3.88	0.56	1.418	O		I		1.44
12.833	3.95	0.58	1.441	O		I		1.46
12.917	4.02	0.59	1.464	O		I		1.48
13.000	4.03	0.60	1.488	O		I		1.51
13.083	4.33	0.62	1.513	O		I		1.53
13.167	4.64	0.63	1.539	O		I		1.56
13.250	4.70	0.65	1.567	O		I		1.58
13.333	4.72	0.67	1.595	O		I		1.61
13.417	4.73	0.68	1.623	O		I		1.64
13.500	4.73	0.70	1.650	O		I		1.66
13.583	4.07	0.71	1.676	O		I		1.69
13.667	3.41	0.73	1.697	O		I		1.71
13.750	3.27	0.74	1.715	O		I		1.73
13.833	3.22	0.75	1.732	O		I		1.74
13.917	3.20	0.76	1.749	O		I		1.76
14.000	3.20	0.76	1.766	O		I		1.77
14.083	3.44	0.77	1.783	O		I		1.79
14.167	3.68	0.79	1.802	O		I		1.81
14.250	3.73	0.80	1.822	O		I		1.83
14.333	3.69	0.81	1.842	O		I		1.85
14.417	3.64	0.82	1.862	O		I		1.87
14.500	3.62	0.83	1.881	O		I		1.89
14.583	3.62	0.84	1.901	O		I		1.90
14.667	3.62	0.85	1.920	O		I		1.92

14.750	3.62	0.86	1.939	| O |	|	| I |	1.94
14.833	3.56	0.88	1.957	| O |	|	| I |	1.96
14.917	3.50	0.89	1.976	| O |	|	| I|	1.98
15.000	3.48	0.90	1.993	| O |	|	| I|	1.99
15.083	3.42	0.91	2.011	| O |	|	| I|	2.01
15.167	3.36	0.91	2.028	| O |	|	| I |	2.03
15.250	3.35	0.92	2.045	| O |	|	| I |	2.04
15.333	3.28	0.93	2.061	| O |	|	| I |	2.06
15.417	3.22	0.94	2.077	| O |	|	| I |	2.07
15.500	3.21	0.94	2.093	| O |	|	| I |	2.09
15.583	2.96	0.95	2.108	| O |	|	| I |	2.10
15.667	2.72	0.96	2.121	| O |	|	| I |	2.11
15.750	2.67	0.96	2.133	| O |	|	| I |	2.13
15.833	2.65	0.97	2.144	| O |	|	|I |	2.14
15.917	2.64	0.97	2.156	| O |	|	|I |	2.15
16.000	2.64	0.98	2.167	| O |	|	|I |	2.16
16.083	1.75	0.98	2.176	| O |	| I |	|	2.17
16.167	0.84	0.98	2.178	| IO |	|	|	2.17
16.250	0.65	0.98	2.176	| I O |	|	|	2.17
16.333	0.58	0.98	2.174	| I O |	|	|	2.16
16.417	0.56	0.98	2.171	| I O |	|	|	2.16
16.500	0.56	0.98	2.168	| I O |	|	|	2.16
16.583	0.50	0.98	2.165	| I O |	|	|	2.16
16.667	0.44	0.98	2.161	| I O |	|	|	2.15
16.750	0.42	0.97	2.157	| I O |	|	|	2.15
16.833	0.42	0.97	2.154	| I O |	|	|	2.14
16.917	0.42	0.97	2.150	| I O |	|	|	2.14
17.000	0.42	0.97	2.146	| I O |	|	|	2.14
17.083	0.54	0.97	2.143	| I O |	|	|	2.13
17.167	0.66	0.97	2.140	| I O |	|	|	2.13
17.250	0.68	0.97	2.138	| I O |	|	|	2.13
17.333	0.69	0.96	2.136	| I O |	|	|	2.13
17.417	0.70	0.96	2.134	| I O |	|	|	2.13
17.500	0.70	0.96	2.132	| I O |	|	|	2.12
17.583	0.70	0.96	2.131	| I O |	|	|	2.12
17.667	0.70	0.96	2.129	| I O |	|	|	2.12
17.750	0.70	0.96	2.127	| I O |	|	|	2.12
17.833	0.64	0.96	2.125	| I O |	|	|	2.12
17.917	0.58	0.96	2.123	| I O |	|	|	2.12
18.000	0.56	0.96	2.120	| I O |	|	|	2.11
18.083	0.56	0.96	2.117	| I O |	|	|	2.11
18.167	0.56	0.95	2.114	| I O |	|	|	2.11
18.250	0.56	0.95	2.112	| I O |	|	|	2.11
18.333	0.56	0.95	2.109	| I O |	|	|	2.10
18.417	0.56	0.95	2.106	| I O |	|	|	2.10
18.500	0.56	0.95	2.104	| I O |	|	|	2.10
18.583	0.50	0.95	2.101	| I O |	|	|	2.09
18.667	0.44	0.95	2.097	| I O |	|	|	2.09
18.750	0.42	0.94	2.094	| I O |	|	|	2.09
18.833	0.36	0.94	2.090	| I O |	|	|	2.08
18.917	0.30	0.94	2.086	| I O |	|	|	2.08
19.000	0.28	0.94	2.081	|I O |	|	|	2.08
19.083	0.34	0.94	2.077	| I O |	|	|	2.07
19.167	0.40	0.93	2.073	| I O |	|	|	2.07
19.250	0.41	0.93	2.069	| I O |	|	|	2.07
19.333	0.48	0.93	2.066	| I O |	|	|	2.06
19.417	0.54	0.93	2.063	| I O |	|	|	2.06
19.500	0.55	0.93	2.061	| I O |	|	|	2.06
19.583	0.50	0.93	2.058	| I O |	|	|	2.05
19.667	0.44	0.93	2.055	| I O |	|	|	2.05
19.750	0.42	0.92	2.051	| I O |	|	|	2.05
19.833	0.36	0.92	2.047	| I O |	|	|	2.04
19.917	0.30	0.92	2.043	| I O |	|	|	2.04

20.000	0.28	0.92	2.039	I O				2.04
20.083	0.34	0.92	2.035	I O				2.03
20.167	0.40	0.91	2.031	I O				2.03
20.250	0.41	0.91	2.028	I O				2.03
20.333	0.42	0.91	2.024	I O				2.02
20.417	0.42	0.91	2.021	I O				2.02
20.500	0.42	0.91	2.017	I O				2.02
20.583	0.42	0.91	2.014	I O				2.01
20.667	0.42	0.91	2.011	I O				2.01
20.750	0.42	0.90	2.007	I O				2.01
20.833	0.36	0.90	2.004	I O				2.00
20.917	0.30	0.90	2.000	I O				2.00
21.000	0.28	0.90	1.996	I O				2.00
21.083	0.34	0.90	1.992	I O				1.99
21.167	0.40	0.89	1.988	I O				1.99
21.250	0.41	0.89	1.985	I O				1.99
21.333	0.36	0.89	1.981	I O				1.98
21.417	0.30	0.89	1.977	I O				1.98
21.500	0.28	0.88	1.973	I O				1.97
21.583	0.34	0.88	1.969	I O				1.97
21.667	0.40	0.88	1.966	I O				1.97
21.750	0.41	0.88	1.962	I O				1.96
21.833	0.36	0.88	1.959	I O				1.96
21.917	0.30	0.87	1.955	I O				1.96
22.000	0.28	0.87	1.951	I O				1.95
22.083	0.34	0.87	1.947	I O				1.95
22.167	0.40	0.87	1.944	I O				1.95
22.250	0.41	0.87	1.941	I O				1.94
22.333	0.36	0.86	1.937	I O				1.94
22.417	0.30	0.86	1.934	I O				1.94
22.500	0.28	0.86	1.930	I O				1.93
22.583	0.28	0.86	1.926	I O				1.93
22.667	0.28	0.85	1.922	I O				1.92
22.750	0.28	0.85	1.918	I O				1.92
22.833	0.28	0.85	1.914	I O				1.92
22.917	0.28	0.85	1.910	I O				1.91
23.000	0.28	0.85	1.906	I O				1.91
23.083	0.28	0.84	1.902	I O				1.91
23.167	0.28	0.84	1.898	I O				1.90
23.250	0.28	0.84	1.894	I O				1.90
23.333	0.28	0.84	1.891	I O				1.89
23.417	0.28	0.83	1.887	I O				1.89
23.500	0.28	0.83	1.883	I O				1.89
23.583	0.28	0.83	1.879	I O				1.88
23.667	0.28	0.83	1.875	I O				1.88
23.750	0.28	0.83	1.872	I O				1.88
23.833	0.28	0.82	1.868	I O				1.87
23.917	0.28	0.82	1.864	I O				1.87
24.000	0.28	0.82	1.860	I O				1.87
24.083	0.16	0.82	1.856	I O				1.86
24.167	0.04	0.81	1.851	I O				1.86
24.250	0.01	0.81	1.846	I O				1.85
24.333	0.00	0.81	1.840	I O				1.85
24.417	0.00	0.80	1.835	I O				1.84
24.500	0.00	0.80	1.829	I O				1.84
24.583	0.00	0.80	1.824	I O				1.83
24.667	0.00	0.80	1.818	I O				1.83
24.750	0.00	0.79	1.813	I O				1.82
24.833	0.00	0.79	1.807	I O				1.81
24.917	0.00	0.79	1.802	I O				1.81
25.000	0.00	0.78	1.797	I O				1.80
25.083	0.00	0.78	1.791	I O				1.80
25.167	0.00	0.78	1.786	I O				1.79

25.250	0.00	0.77	1.780	I	O	|	|	|	|	1.79
25.333	0.00	0.77	1.775	I	O	|	|	|	|	1.78
25.417	0.00	0.77	1.770	I	O	|	|	|	|	1.78
25.500	0.00	0.76	1.765	I	O	|	|	|	|	1.77
25.583	0.00	0.76	1.759	I	O	|	|	|	|	1.77
25.667	0.00	0.76	1.754	I	O	|	|	|	|	1.76
25.750	0.00	0.76	1.749	I	O	|	|	|	|	1.76
25.833	0.00	0.75	1.744	I	O	|	|	|	|	1.75
25.917	0.00	0.75	1.739	I	O	|	|	|	|	1.75
26.000	0.00	0.75	1.733	I	O	|	|	|	|	1.74
26.083	0.00	0.74	1.728	I	O	|	|	|	|	1.74
26.167	0.00	0.74	1.723	I	O	|	|	|	|	1.73
26.250	0.00	0.74	1.718	I	O	|	|	|	|	1.73
26.333	0.00	0.73	1.713	I	O	|	|	|	|	1.72
26.417	0.00	0.73	1.708	I	O	|	|	|	|	1.72
26.500	0.00	0.73	1.703	I	O	|	|	|	|	1.71
26.583	0.00	0.73	1.698	I	O	|	|	|	|	1.71
26.667	0.00	0.72	1.693	I	O	|	|	|	|	1.70
26.750	0.00	0.72	1.688	I	O	|	|	|	|	1.70
26.833	0.00	0.72	1.683	I	O	|	|	|	|	1.70
26.917	0.00	0.71	1.678	I	O	|	|	|	|	1.69
27.000	0.00	0.71	1.673	I	O	|	|	|	|	1.69
27.083	0.00	0.71	1.668	I	O	|	|	|	|	1.68
27.167	0.00	0.71	1.663	I	O	|	|	|	|	1.68
27.250	0.00	0.70	1.659	I	O	|	|	|	|	1.67
27.333	0.00	0.70	1.654	I	O	|	|	|	|	1.67
27.417	0.00	0.70	1.649	I	O	|	|	|	|	1.66
27.500	0.00	0.69	1.644	I	O	|	|	|	|	1.66
27.583	0.00	0.69	1.639	I	O	|	|	|	|	1.65
27.667	0.00	0.69	1.635	I	O	|	|	|	|	1.65
27.750	0.00	0.69	1.630	I	O	|	|	|	|	1.64
27.833	0.00	0.68	1.625	I	O	|	|	|	|	1.64
27.917	0.00	0.68	1.620	I	O	|	|	|	|	1.64
28.000	0.00	0.68	1.616	I	O	|	|	|	|	1.63
28.083	0.00	0.68	1.611	I	O	|	|	|	|	1.63
28.167	0.00	0.67	1.606	I	O	|	|	|	|	1.62
28.250	0.00	0.67	1.602	I	O	|	|	|	|	1.62
28.333	0.00	0.67	1.597	I	O	|	|	|	|	1.61
28.417	0.00	0.66	1.593	I	O	|	|	|	|	1.61
28.500	0.00	0.66	1.588	I	O	|	|	|	|	1.60
28.583	0.00	0.66	1.583	I	O	|	|	|	|	1.60
28.667	0.00	0.66	1.579	I	O	|	|	|	|	1.60
28.750	0.00	0.65	1.574	I	O	|	|	|	|	1.59
28.833	0.00	0.65	1.570	I	O	|	|	|	|	1.59
28.917	0.00	0.65	1.565	I	O	|	|	|	|	1.58
29.000	0.00	0.65	1.561	I	O	|	|	|	|	1.58
29.083	0.00	0.64	1.557	I	O	|	|	|	|	1.57
29.167	0.00	0.64	1.552	I	O	|	|	|	|	1.57
29.250	0.00	0.64	1.548	I	O	|	|	|	|	1.57
29.333	0.00	0.64	1.543	I	O	|	|	|	|	1.56
29.417	0.00	0.63	1.539	I	O	|	|	|	|	1.56
29.500	0.00	0.63	1.535	I	O	|	|	|	|	1.55
29.583	0.00	0.63	1.530	I	O	|	|	|	|	1.55
29.667	0.00	0.63	1.526	I	O	|	|	|	|	1.54
29.750	0.00	0.62	1.522	I	O	|	|	|	|	1.54
29.833	0.00	0.62	1.517	I	O	|	|	|	|	1.54
29.917	0.00	0.62	1.513	I	O	|	|	|	|	1.53
30.000	0.00	0.62	1.509	I	O	|	|	|	|	1.53
30.083	0.00	0.61	1.505	I	O	|	|	|	|	1.52
30.167	0.00	0.61	1.500	I	O	|	|	|	|	1.52
30.250	0.00	0.61	1.496	I	O	|	|	|	|	1.52
30.333	0.00	0.61	1.492	I	O	|	|	|	|	1.51
30.417	0.00	0.60	1.488	I	O	|	|	|	|	1.51

30.500	0.00	0.60	1.484	I	O	|	|	|	|	1.50
30.583	0.00	0.60	1.479	I	O	|	|	|	|	1.50
30.667	0.00	0.60	1.475	I	O	|	|	|	|	1.50
30.750	0.00	0.59	1.471	I	O	|	|	|	|	1.49
30.833	0.00	0.59	1.467	I	O	|	|	|	|	1.49
30.917	0.00	0.59	1.463	I	O	|	|	|	|	1.48
31.000	0.00	0.59	1.459	I	O	|	|	|	|	1.48
31.083	0.00	0.59	1.455	I	O	|	|	|	|	1.47
31.167	0.00	0.58	1.451	I	O	|	|	|	|	1.47
31.250	0.00	0.58	1.447	I	O	|	|	|	|	1.47
31.333	0.00	0.58	1.443	I	O	|	|	|	|	1.46
31.417	0.00	0.58	1.439	I	O	|	|	|	|	1.46
31.500	0.00	0.57	1.435	I	O	|	|	|	|	1.45
31.583	0.00	0.57	1.431	I	O	|	|	|	|	1.45
31.667	0.00	0.57	1.427	I	O	|	|	|	|	1.45
31.750	0.00	0.57	1.423	I	O	|	|	|	|	1.44
31.833	0.00	0.57	1.419	I	O	|	|	|	|	1.44
31.917	0.00	0.56	1.415	I	O	|	|	|	|	1.43
32.000	0.00	0.56	1.412	I	O	|	|	|	|	1.43
32.083	0.00	0.56	1.408	I	O	|	|	|	|	1.43
32.167	0.00	0.56	1.404	I	O	|	|	|	|	1.42
32.250	0.00	0.55	1.400	I	O	|	|	|	|	1.42
32.333	0.00	0.55	1.396	I	O	|	|	|	|	1.41
32.417	0.00	0.55	1.392	I	O	|	|	|	|	1.41
32.500	0.00	0.55	1.389	I	O	|	|	|	|	1.41
32.583	0.00	0.55	1.385	I	O	|	|	|	|	1.40
32.667	0.00	0.54	1.381	I	O	|	|	|	|	1.40
32.750	0.00	0.54	1.377	I	O	|	|	|	|	1.40
32.833	0.00	0.54	1.374	I	O	|	|	|	|	1.39
32.917	0.00	0.54	1.370	I	O	|	|	|	|	1.39
33.000	0.00	0.54	1.366	I	O	|	|	|	|	1.38
33.083	0.00	0.53	1.363	I	O	|	|	|	|	1.38
33.167	0.00	0.53	1.359	I	O	|	|	|	|	1.38
33.250	0.00	0.53	1.355	I	O	|	|	|	|	1.37
33.333	0.00	0.53	1.352	I	O	|	|	|	|	1.37
33.417	0.00	0.52	1.348	I	O	|	|	|	|	1.37
33.500	0.00	0.52	1.344	I	O	|	|	|	|	1.36
33.583	0.00	0.52	1.341	I	O	|	|	|	|	1.36
33.667	0.00	0.52	1.337	I	O	|	|	|	|	1.35
33.750	0.00	0.52	1.334	I	O	|	|	|	|	1.35
33.833	0.00	0.51	1.330	I	O	|	|	|	|	1.35
33.917	0.00	0.51	1.327	I	O	|	|	|	|	1.34
34.000	0.00	0.51	1.323	I	O	|	|	|	|	1.34
34.083	0.00	0.51	1.320	I	O	|	|	|	|	1.34
34.167	0.00	0.51	1.316	I	O	|	|	|	|	1.33
34.250	0.00	0.50	1.313	I	O	|	|	|	|	1.33
34.333	0.00	0.50	1.309	I	O	|	|	|	|	1.33
34.417	0.00	0.50	1.306	I	O	|	|	|	|	1.32
34.500	0.00	0.50	1.302	I	O	|	|	|	|	1.32
34.583	0.00	0.50	1.299	I	O	|	|	|	|	1.32
34.667	0.00	0.49	1.295	I	O	|	|	|	|	1.31
34.750	0.00	0.49	1.292	I	O	|	|	|	|	1.31
34.833	0.00	0.49	1.289	I	O	|	|	|	|	1.30
34.917	0.00	0.49	1.285	I	O	|	|	|	|	1.30
35.000	0.00	0.49	1.282	I	O	|	|	|	|	1.30
35.083	0.00	0.48	1.279	I	O	|	|	|	|	1.29
35.167	0.00	0.48	1.275	I	O	|	|	|	|	1.29
35.250	0.00	0.48	1.272	I	O	|	|	|	|	1.29
35.333	0.00	0.48	1.269	I	O	|	|	|	|	1.28
35.417	0.00	0.48	1.265	I	O	|	|	|	|	1.28
35.500	0.00	0.48	1.262	I	O	|	|	|	|	1.28
35.583	0.00	0.47	1.259	I	O	|	|	|	|	1.27
35.667	0.00	0.47	1.255	I	O	|	|	|	|	1.27

35.750	0.00	0.47	1.252	I	O	|	|	|	1.27
35.833	0.00	0.47	1.249	I	O	|	|	|	1.26
35.917	0.00	0.47	1.246	I	O	|	|	|	1.26
36.000	0.00	0.46	1.243	I	O	|	|	|	1.26
36.083	0.00	0.46	1.239	I	O	|	|	|	1.25
36.167	0.00	0.46	1.236	I	O	|	|	|	1.25
36.250	0.00	0.46	1.233	I	O	|	|	|	1.25
36.333	0.00	0.46	1.230	I	O	|	|	|	1.24
36.417	0.00	0.46	1.227	I	O	|	|	|	1.24
36.500	0.00	0.45	1.224	I	O	|	|	|	1.24
36.583	0.00	0.45	1.221	I	O	|	|	|	1.24
36.667	0.00	0.45	1.217	I	O	|	|	|	1.23
36.750	0.00	0.45	1.214	I	O	|	|	|	1.23
36.833	0.00	0.45	1.211	I	O	|	|	|	1.23
36.917	0.00	0.44	1.208	I	O	|	|	|	1.22
37.000	0.00	0.44	1.205	I	O	|	|	|	1.22
37.083	0.00	0.44	1.202	I	O	|	|	|	1.22
37.167	0.00	0.44	1.199	I	O	|	|	|	1.21
37.250	0.00	0.44	1.196	I	O	|	|	|	1.21
37.333	0.00	0.44	1.193	I	O	|	|	|	1.21
37.417	0.00	0.43	1.190	I	O	|	|	|	1.20
37.500	0.00	0.43	1.187	I	O	|	|	|	1.20
37.583	0.00	0.43	1.184	I	O	|	|	|	1.20
37.667	0.00	0.43	1.181	I	O	|	|	|	1.19
37.750	0.00	0.43	1.178	I	O	|	|	|	1.19
37.833	0.00	0.43	1.175	I	O	|	|	|	1.19
37.917	0.00	0.42	1.172	I	O	|	|	|	1.19
38.000	0.00	0.42	1.169	I	O	|	|	|	1.18
38.083	0.00	0.42	1.166	I	O	|	|	|	1.18
38.167	0.00	0.42	1.164	I	O	|	|	|	1.18
38.250	0.00	0.42	1.161	I	O	|	|	|	1.17
38.333	0.00	0.42	1.158	I	O	|	|	|	1.17
38.417	0.00	0.41	1.155	I	O	|	|	|	1.17
38.500	0.00	0.41	1.152	I	O	|	|	|	1.17
38.583	0.00	0.41	1.149	I	O	|	|	|	1.16
38.667	0.00	0.41	1.146	I	O	|	|	|	1.16
38.750	0.00	0.41	1.144	I	O	|	|	|	1.16
38.833	0.00	0.41	1.141	I	O	|	|	|	1.15
38.917	0.00	0.40	1.138	I	O	|	|	|	1.15
39.000	0.00	0.40	1.135	I	O	|	|	|	1.15
39.083	0.00	0.40	1.132	I	O	|	|	|	1.15
39.167	0.00	0.40	1.130	I	O	|	|	|	1.14
39.250	0.00	0.40	1.127	I	O	|	|	|	1.14
39.333	0.00	0.40	1.124	I	O	|	|	|	1.14
39.417	0.00	0.40	1.122	I	O	|	|	|	1.13
39.500	0.00	0.39	1.119	I	O	|	|	|	1.13
39.583	0.00	0.39	1.116	I	O	|	|	|	1.13
39.667	0.00	0.39	1.113	I	O	|	|	|	1.13
39.750	0.00	0.39	1.111	I	O	|	|	|	1.12
39.833	0.00	0.39	1.108	I	O	|	|	|	1.12
39.917	0.00	0.39	1.105	I	O	|	|	|	1.12
40.000	0.00	0.38	1.103	I	O	|	|	|	1.12
40.083	0.00	0.38	1.100	I	O	|	|	|	1.11
40.167	0.00	0.38	1.097	I	O	|	|	|	1.11
40.250	0.00	0.38	1.095	I	O	|	|	|	1.11
40.333	0.00	0.38	1.092	I	O	|	|	|	1.10
40.417	0.00	0.38	1.090	I	O	|	|	|	1.10
40.500	0.00	0.38	1.087	I	O	|	|	|	1.10
40.583	0.00	0.37	1.084	I	O	|	|	|	1.10
40.667	0.00	0.37	1.082	I	O	|	|	|	1.09
40.750	0.00	0.37	1.079	I	O	|	|	|	1.09
40.833	0.00	0.37	1.077	I	O	|	|	|	1.09
40.917	0.00	0.37	1.074	I	O	|	|	|	1.09

41.000	0.00	0.37	1.072	I	O	|	|	|	| 1.08
41.083	0.00	0.37	1.069	I	O	|	|	|	| 1.08
41.167	0.00	0.36	1.067	I	O	|	|	|	| 1.08
41.250	0.00	0.36	1.064	I	O	|	|	|	| 1.08
41.333	0.00	0.36	1.062	I	O	|	|	|	| 1.07
41.417	0.00	0.36	1.059	I	O	|	|	|	| 1.07
41.500	0.00	0.36	1.057	I	O	|	|	|	| 1.07
41.583	0.00	0.36	1.054	I	O	|	|	|	| 1.07
41.667	0.00	0.36	1.052	I	O	|	|	|	| 1.06
41.750	0.00	0.35	1.049	I	O	|	|	|	| 1.06
41.833	0.00	0.35	1.047	I	O	|	|	|	| 1.06
41.917	0.00	0.35	1.045	I	O	|	|	|	| 1.06
42.000	0.00	0.35	1.042	I	O	|	|	|	| 1.05
42.083	0.00	0.35	1.040	I	O	|	|	|	| 1.05
42.167	0.00	0.35	1.037	I	O	|	|	|	| 1.05
42.250	0.00	0.35	1.035	I	O	|	|	|	| 1.05
42.333	0.00	0.34	1.033	I	O	|	|	|	| 1.04
42.417	0.00	0.34	1.030	I	O	|	|	|	| 1.04
42.500	0.00	0.34	1.028	I	O	|	|	|	| 1.04
42.583	0.00	0.34	1.025	I	O	|	|	|	| 1.04
42.667	0.00	0.34	1.023	I	O	|	|	|	| 1.03
42.750	0.00	0.34	1.021	I	O	|	|	|	| 1.03
42.833	0.00	0.34	1.018	I	O	|	|	|	| 1.03
42.917	0.00	0.33	1.016	I	O	|	|	|	| 1.03
43.000	0.00	0.33	1.014	I	O	|	|	|	| 1.02
43.083	0.00	0.33	1.012	I	O	|	|	|	| 1.02
43.167	0.00	0.33	1.009	I	O	|	|	|	| 1.02
43.250	0.00	0.33	1.007	I	O	|	|	|	| 1.02
43.333	0.00	0.33	1.005	I	O	|	|	|	| 1.02
43.417	0.00	0.33	1.002	I	O	|	|	|	| 1.01
43.500	0.00	0.33	1.000	I	O	|	|	|	| 1.01
43.583	0.00	0.32	0.998	I	O	|	|	|	| 1.01
43.667	0.00	0.32	0.996	I	O	|	|	|	| 1.01
43.750	0.00	0.32	0.994	I	O	|	|	|	| 1.00
43.833	0.00	0.32	0.991	I	O	|	|	|	| 1.00
43.917	0.00	0.32	0.989	I	O	|	|	|	| 1.00
44.000	0.00	0.32	0.987	I	O	|	|	|	| 1.00
44.083	0.00	0.32	0.985	I	O	|	|	|	| 0.99
44.167	0.00	0.32	0.983	I	O	|	|	|	| 0.99
44.250	0.00	0.32	0.980	I	O	|	|	|	| 0.99
44.333	0.00	0.32	0.978	I	O	|	|	|	| 0.99
44.417	0.00	0.32	0.976	I	O	|	|	|	| 0.99
44.500	0.00	0.32	0.974	I	O	|	|	|	| 0.98
44.583	0.00	0.32	0.972	I	O	|	|	|	| 0.98
44.667	0.00	0.32	0.969	I	O	|	|	|	| 0.98
44.750	0.00	0.32	0.967	I	O	|	|	|	| 0.98
44.833	0.00	0.32	0.965	I	O	|	|	|	| 0.97
44.917	0.00	0.31	0.963	I	O	|	|	|	| 0.97
45.000	0.00	0.31	0.961	I	O	|	|	|	| 0.97
45.083	0.00	0.31	0.959	I	O	|	|	|	| 0.97
45.167	0.00	0.31	0.956	I	O	|	|	|	| 0.96
45.250	0.00	0.31	0.954	I	O	|	|	|	| 0.96
45.333	0.00	0.31	0.952	I	O	|	|	|	| 0.96
45.417	0.00	0.31	0.950	I	O	|	|	|	| 0.96
45.500	0.00	0.31	0.948	I	O	|	|	|	| 0.96
45.583	0.00	0.31	0.946	I	O	|	|	|	| 0.95
45.667	0.00	0.31	0.943	I	O	|	|	|	| 0.95
45.750	0.00	0.31	0.941	I	O	|	|	|	| 0.95
45.833	0.00	0.31	0.939	I	O	|	|	|	| 0.95
45.917	0.00	0.31	0.937	I	O	|	|	|	| 0.94
46.000	0.00	0.31	0.935	I	O	|	|	|	| 0.94
46.083	0.00	0.31	0.933	I	O	|	|	|	| 0.94
46.167	0.00	0.31	0.931	I	O	|	|	|	| 0.94

46.250	0.00	0.31	0.929	I O	|	|	|	|	0.93
46.333	0.00	0.31	0.926	I O	|	|	|	|	0.93
46.417	0.00	0.31	0.924	I O	|	|	|	|	0.93
46.500	0.00	0.31	0.922	I O	|	|	|	|	0.93
46.583	0.00	0.31	0.920	I O	|	|	|	|	0.93
46.667	0.00	0.31	0.918	I O	|	|	|	|	0.92
46.750	0.00	0.31	0.916	I O	|	|	|	|	0.92
46.833	0.00	0.31	0.914	I O	|	|	|	|	0.92
46.917	0.00	0.31	0.912	I O	|	|	|	|	0.92
47.000	0.00	0.30	0.910	I O	|	|	|	|	0.91
47.083	0.00	0.30	0.907	I O	|	|	|	|	0.91
47.167	0.00	0.30	0.905	I O	|	|	|	|	0.91
47.250	0.00	0.30	0.903	I O	|	|	|	|	0.91
47.333	0.00	0.30	0.901	I O	|	|	|	|	0.91
47.417	0.00	0.30	0.899	I O	|	|	|	|	0.90
47.500	0.00	0.30	0.897	I O	|	|	|	|	0.90
47.583	0.00	0.30	0.895	I O	|	|	|	|	0.90
47.667	0.00	0.30	0.893	I O	|	|	|	|	0.90
47.750	0.00	0.30	0.891	I O	|	|	|	|	0.89
47.833	0.00	0.30	0.889	I O	|	|	|	|	0.89
47.917	0.00	0.30	0.887	I O	|	|	|	|	0.89
48.000	0.00	0.30	0.885	I O	|	|	|	|	0.89
48.083	0.00	0.30	0.883	I O	|	|	|	|	0.89
48.167	0.00	0.30	0.880	I O	|	|	|	|	0.88
48.250	0.00	0.30	0.878	I O	|	|	|	|	0.88
48.333	0.00	0.30	0.876	I O	|	|	|	|	0.88
48.417	0.00	0.30	0.874	I O	|	|	|	|	0.88
48.500	0.00	0.30	0.872	I O	|	|	|	|	0.87
48.583	0.00	0.30	0.870	I O	|	|	|	|	0.87
48.667	0.00	0.30	0.868	I O	|	|	|	|	0.87
48.750	0.00	0.30	0.866	I O	|	|	|	|	0.87
48.833	0.00	0.30	0.864	I O	|	|	|	|	0.87
48.917	0.00	0.30	0.862	IO	|	|	|	|	0.86
49.000	0.00	0.30	0.860	IO	|	|	|	|	0.86
49.083	0.00	0.29	0.858	IO	|	|	|	|	0.86
49.167	0.00	0.29	0.856	IO	|	|	|	|	0.86
49.250	0.00	0.29	0.854	IO	|	|	|	|	0.86
49.333	0.00	0.29	0.852	IO	|	|	|	|	0.85
49.417	0.00	0.29	0.850	IO	|	|	|	|	0.85
49.500	0.00	0.29	0.848	IO	|	|	|	|	0.85
49.583	0.00	0.29	0.846	IO	|	|	|	|	0.85
49.667	0.00	0.29	0.844	IO	|	|	|	|	0.84
49.750	0.00	0.29	0.842	IO	|	|	|	|	0.84
49.833	0.00	0.29	0.840	IO	|	|	|	|	0.84
49.917	0.00	0.29	0.838	IO	|	|	|	|	0.84
50.000	0.00	0.29	0.836	IO	|	|	|	|	0.84
50.083	0.00	0.29	0.834	IO	|	|	|	|	0.83
50.167	0.00	0.29	0.832	IO	|	|	|	|	0.83
50.250	0.00	0.29	0.830	IO	|	|	|	|	0.83
50.333	0.00	0.29	0.828	IO	|	|	|	|	0.83
50.417	0.00	0.29	0.826	IO	|	|	|	|	0.83
50.500	0.00	0.29	0.824	IO	|	|	|	|	0.82
50.583	0.00	0.29	0.822	IO	|	|	|	|	0.82
50.667	0.00	0.29	0.820	IO	|	|	|	|	0.82
50.750	0.00	0.29	0.818	IO	|	|	|	|	0.82
50.833	0.00	0.29	0.816	IO	|	|	|	|	0.81
50.917	0.00	0.29	0.814	IO	|	|	|	|	0.81
51.000	0.00	0.29	0.812	IO	|	|	|	|	0.81
51.083	0.00	0.29	0.810	IO	|	|	|	|	0.81
51.167	0.00	0.29	0.808	IO	|	|	|	|	0.81
51.250	0.00	0.28	0.806	IO	|	|	|	|	0.80
51.333	0.00	0.28	0.804	IO	|	|	|	|	0.80
51.417	0.00	0.28	0.802	IO	|	|	|	|	0.80

51.500	0.00	0.28	0.800	IO	|	|	|	| 0.80
51.583	0.00	0.28	0.798	IO	|	|	|	| 0.80
51.667	0.00	0.28	0.796	IO	|	|	|	| 0.79
51.750	0.00	0.28	0.794	IO	|	|	|	| 0.79
51.833	0.00	0.28	0.792	IO	|	|	|	| 0.79
51.917	0.00	0.28	0.791	IO	|	|	|	| 0.79
52.000	0.00	0.28	0.789	IO	|	|	|	| 0.79
52.083	0.00	0.28	0.787	IO	|	|	|	| 0.78
52.167	0.00	0.28	0.785	IO	|	|	|	| 0.78
52.250	0.00	0.28	0.783	IO	|	|	|	| 0.78
52.333	0.00	0.28	0.781	IO	|	|	|	| 0.78
52.417	0.00	0.28	0.779	IO	|	|	|	| 0.78
52.500	0.00	0.28	0.777	IO	|	|	|	| 0.77
52.583	0.00	0.28	0.775	IO	|	|	|	| 0.77
52.667	0.00	0.28	0.773	IO	|	|	|	| 0.77
52.750	0.00	0.28	0.771	IO	|	|	|	| 0.77
52.833	0.00	0.28	0.769	IO	|	|	|	| 0.77
52.917	0.00	0.28	0.767	IO	|	|	|	| 0.76
53.000	0.00	0.28	0.765	IO	|	|	|	| 0.76
53.083	0.00	0.28	0.764	IO	|	|	|	| 0.76
53.167	0.00	0.28	0.762	IO	|	|	|	| 0.76
53.250	0.00	0.28	0.760	IO	|	|	|	| 0.76
53.333	0.00	0.28	0.758	IO	|	|	|	| 0.75
53.417	0.00	0.28	0.756	IO	|	|	|	| 0.75
53.500	0.00	0.27	0.754	IO	|	|	|	| 0.75
53.583	0.00	0.27	0.752	IO	|	|	|	| 0.75
53.667	0.00	0.27	0.750	IO	|	|	|	| 0.75
53.750	0.00	0.27	0.748	IO	|	|	|	| 0.74
53.833	0.00	0.27	0.747	IO	|	|	|	| 0.74
53.917	0.00	0.27	0.745	IO	|	|	|	| 0.74
54.000	0.00	0.27	0.743	IO	|	|	|	| 0.74
54.083	0.00	0.27	0.741	IO	|	|	|	| 0.73
54.167	0.00	0.27	0.739	IO	|	|	|	| 0.73
54.250	0.00	0.27	0.737	IO	|	|	|	| 0.73
54.333	0.00	0.27	0.735	IO	|	|	|	| 0.73
54.417	0.00	0.27	0.733	IO	|	|	|	| 0.73
54.500	0.00	0.27	0.732	IO	|	|	|	| 0.73
54.583	0.00	0.27	0.730	IO	|	|	|	| 0.72
54.667	0.00	0.27	0.728	IO	|	|	|	| 0.72
54.750	0.00	0.27	0.726	IO	|	|	|	| 0.72
54.833	0.00	0.27	0.724	IO	|	|	|	| 0.72
54.917	0.00	0.27	0.722	IO	|	|	|	| 0.72
55.000	0.00	0.27	0.720	IO	|	|	|	| 0.71
55.083	0.00	0.27	0.719	IO	|	|	|	| 0.71
55.167	0.00	0.27	0.717	IO	|	|	|	| 0.71
55.250	0.00	0.27	0.715	IO	|	|	|	| 0.71
55.333	0.00	0.27	0.713	IO	|	|	|	| 0.71
55.417	0.00	0.27	0.711	IO	|	|	|	| 0.70
55.500	0.00	0.27	0.709	IO	|	|	|	| 0.70
55.583	0.00	0.27	0.708	IO	|	|	|	| 0.70
55.667	0.00	0.27	0.706	IO	|	|	|	| 0.70
55.750	0.00	0.27	0.704	IO	|	|	|	| 0.70
55.833	0.00	0.26	0.702	IO	|	|	|	| 0.69
55.917	0.00	0.26	0.700	IO	|	|	|	| 0.69
56.000	0.00	0.26	0.698	IO	|	|	|	| 0.69
56.083	0.00	0.26	0.697	IO	|	|	|	| 0.69
56.167	0.00	0.26	0.695	IO	|	|	|	| 0.69
56.250	0.00	0.26	0.693	IO	|	|	|	| 0.68
56.333	0.00	0.26	0.691	IO	|	|	|	| 0.68
56.417	0.00	0.26	0.689	IO	|	|	|	| 0.68
56.500	0.00	0.26	0.688	IO	|	|	|	| 0.68
56.583	0.00	0.26	0.686	IO	|	|	|	| 0.68
56.667	0.00	0.26	0.684	IO	|	|	|	| 0.67

56.750	0.00	0.26	0.682	IO				0.67
56.833	0.00	0.26	0.680	IO				0.67
56.917	0.00	0.26	0.679	IO				0.67
57.000	0.00	0.26	0.677	IO				0.67
57.083	0.00	0.26	0.675	IO				0.66
57.167	0.00	0.26	0.673	IO				0.66
57.250	0.00	0.26	0.671	IO				0.66
57.333	0.00	0.26	0.670	IO				0.66
57.417	0.00	0.26	0.668	IO				0.66
57.500	0.00	0.26	0.666	IO				0.66
57.583	0.00	0.26	0.664	IO				0.65
57.667	0.00	0.26	0.662	IO				0.65
57.750	0.00	0.26	0.661	IO				0.65
57.833	0.00	0.26	0.659	IO				0.65
57.917	0.00	0.26	0.657	IO				0.65
58.000	0.00	0.26	0.655	IO				0.64
58.083	0.00	0.26	0.654	IO				0.64
58.167	0.00	0.26	0.652	IO				0.64
58.250	0.00	0.25	0.650	IO				0.64
58.333	0.00	0.25	0.648	IO				0.64
58.417	0.00	0.25	0.647	IO				0.63
58.500	0.00	0.25	0.645	IO				0.63
58.583	0.00	0.25	0.643	IO				0.63
58.667	0.00	0.25	0.641	IO				0.63
58.750	0.00	0.25	0.640	IO				0.63
58.833	0.00	0.25	0.638	IO				0.63
58.917	0.00	0.25	0.636	IO				0.62
59.000	0.00	0.25	0.634	IO				0.62
59.083	0.00	0.25	0.633	IO				0.62
59.167	0.00	0.25	0.631	IO				0.62
59.250	0.00	0.25	0.629	IO				0.62
59.333	0.00	0.25	0.628	IO				0.61
59.417	0.00	0.25	0.626	IO				0.61
59.500	0.00	0.25	0.624	IO				0.61
59.583	0.00	0.25	0.622	IO				0.61
59.667	0.00	0.25	0.621	IO				0.61
59.750	0.00	0.25	0.619	IO				0.61
59.833	0.00	0.25	0.617	IO				0.60
59.917	0.00	0.25	0.615	IO				0.60
60.000	0.00	0.25	0.614	IO				0.60
60.083	0.00	0.25	0.612	IO				0.60
60.167	0.00	0.25	0.610	IO				0.60
60.250	0.00	0.25	0.609	IO				0.59
60.333	0.00	0.25	0.607	IO				0.59
60.417	0.00	0.25	0.605	IO				0.59
60.500	0.00	0.25	0.604	IO				0.59
60.583	0.00	0.25	0.602	IO				0.59
60.667	0.00	0.25	0.600	IO				0.59
60.750	0.00	0.25	0.599	IO				0.58
60.833	0.00	0.24	0.597	IO				0.58
60.917	0.00	0.24	0.595	IO				0.58
61.000	0.00	0.24	0.593	IO				0.58
61.083	0.00	0.24	0.592	IO				0.58
61.167	0.00	0.24	0.590	IO				0.57
61.250	0.00	0.24	0.588	IO				0.57
61.333	0.00	0.24	0.587	IO				0.57
61.417	0.00	0.24	0.585	IO				0.57
61.500	0.00	0.24	0.583	IO				0.57
61.583	0.00	0.24	0.582	IO				0.57
61.667	0.00	0.24	0.580	IO				0.56
61.750	0.00	0.24	0.578	IO				0.56
61.833	0.00	0.24	0.577	IO				0.56
61.917	0.00	0.24	0.575	IO				0.56

62.000	0.00	0.24	0.573	IO	|	|	|	0.56
62.083	0.00	0.24	0.572	IO	|	|	|	0.56
62.167	0.00	0.24	0.570	IO	|	|	|	0.55
62.250	0.00	0.24	0.568	IO	|	|	|	0.55
62.333	0.00	0.24	0.567	IO	|	|	|	0.55
62.417	0.00	0.24	0.565	IO	|	|	|	0.55
62.500	0.00	0.24	0.564	IO	|	|	|	0.55
62.583	0.00	0.24	0.562	IO	|	|	|	0.54
62.667	0.00	0.24	0.560	IO	|	|	|	0.54
62.750	0.00	0.24	0.559	IO	|	|	|	0.54
62.833	0.00	0.24	0.557	IO	|	|	|	0.54
62.917	0.00	0.24	0.555	IO	|	|	|	0.54
63.000	0.00	0.24	0.554	IO	|	|	|	0.54
63.083	0.00	0.24	0.552	IO	|	|	|	0.53
63.167	0.00	0.24	0.550	IO	|	|	|	0.53
63.250	0.00	0.24	0.549	IO	|	|	|	0.53
63.333	0.00	0.24	0.547	IO	|	|	|	0.53
63.417	0.00	0.23	0.546	IO	|	|	|	0.53
63.500	0.00	0.23	0.544	IO	|	|	|	0.53
63.583	0.00	0.23	0.542	IO	|	|	|	0.52
63.667	0.00	0.23	0.541	IO	|	|	|	0.52
63.750	0.00	0.23	0.539	IO	|	|	|	0.52
63.833	0.00	0.23	0.538	IO	|	|	|	0.52
63.917	0.00	0.23	0.536	IO	|	|	|	0.52
64.000	0.00	0.23	0.534	IO	|	|	|	0.52
64.083	0.00	0.23	0.533	IO	|	|	|	0.51
64.167	0.00	0.23	0.531	IO	|	|	|	0.51
64.250	0.00	0.23	0.530	IO	|	|	|	0.51
64.333	0.00	0.23	0.528	IO	|	|	|	0.51
64.417	0.00	0.23	0.526	IO	|	|	|	0.51
64.500	0.00	0.23	0.525	IO	|	|	|	0.51
64.583	0.00	0.23	0.523	IO	|	|	|	0.50
64.667	0.00	0.23	0.522	IO	|	|	|	0.50
64.750	0.00	0.23	0.520	IO	|	|	|	0.50
64.833	0.00	0.23	0.518	IO	|	|	|	0.50
64.917	0.00	0.23	0.517	IO	|	|	|	0.50
65.000	0.00	0.23	0.515	IO	|	|	|	0.50
65.083	0.00	0.23	0.514	IO	|	|	|	0.49
65.167	0.00	0.23	0.512	IO	|	|	|	0.49
65.250	0.00	0.23	0.511	IO	|	|	|	0.49
65.333	0.00	0.23	0.509	IO	|	|	|	0.49
65.417	0.00	0.22	0.507	IO	|	|	|	0.49
65.500	0.00	0.22	0.506	IO	|	|	|	0.49
65.583	0.00	0.22	0.504	IO	|	|	|	0.49
65.667	0.00	0.22	0.503	IO	|	|	|	0.48
65.750	0.00	0.22	0.501	IO	|	|	|	0.48
65.833	0.00	0.22	0.500	IO	|	|	|	0.48
65.917	0.00	0.22	0.498	IO	|	|	|	0.48
66.000	0.00	0.22	0.497	IO	|	|	|	0.48
66.083	0.00	0.22	0.495	IO	|	|	|	0.48
66.167	0.00	0.22	0.494	IO	|	|	|	0.47
66.250	0.00	0.22	0.492	IO	|	|	|	0.47
66.333	0.00	0.22	0.491	IO	|	|	|	0.47
66.417	0.00	0.22	0.489	IO	|	|	|	0.47
66.500	0.00	0.22	0.488	IO	|	|	|	0.47
66.583	0.00	0.22	0.486	IO	|	|	|	0.47
66.667	0.00	0.21	0.485	IO	|	|	|	0.47
66.750	0.00	0.21	0.483	IO	|	|	|	0.46
66.833	0.00	0.21	0.482	IO	|	|	|	0.46
66.917	0.00	0.21	0.480	IO	|	|	|	0.46
67.000	0.00	0.21	0.479	IO	|	|	|	0.46
67.083	0.00	0.21	0.478	IO	|	|	|	0.46
67.167	0.00	0.21	0.476	IO	|	|	|	0.46

67.250	0.00	0.21	0.475	IO				0.46
67.333	0.00	0.21	0.473	IO				0.45
67.417	0.00	0.21	0.472	IO				0.45
67.500	0.00	0.21	0.470	IO				0.45
67.583	0.00	0.21	0.469	IO				0.45
67.667	0.00	0.21	0.467	IO				0.45
67.750	0.00	0.21	0.466	IO				0.45
67.833	0.00	0.21	0.465	IO				0.45
67.917	0.00	0.20	0.463	IO				0.45
68.000	0.00	0.20	0.462	IO				0.44
68.083	0.00	0.20	0.460	IO				0.44
68.167	0.00	0.20	0.459	IO				0.44
68.250	0.00	0.20	0.458	IO				0.44
68.333	0.00	0.20	0.456	IO				0.44
68.417	0.00	0.20	0.455	IO				0.44
68.500	0.00	0.20	0.453	IO				0.44
68.583	0.00	0.20	0.452	IO				0.43
68.667	0.00	0.20	0.451	IO				0.43
68.750	0.00	0.20	0.449	IO				0.43
68.833	0.00	0.20	0.448	IO				0.43
68.917	0.00	0.20	0.447	IO				0.43
69.000	0.00	0.20	0.445	IO				0.43
69.083	0.00	0.20	0.444	IO				0.43
69.167	0.00	0.20	0.442	IO				0.43
69.250	0.00	0.20	0.441	IO				0.42
69.333	0.00	0.19	0.440	IO				0.42
69.417	0.00	0.19	0.438	IO				0.42
69.500	0.00	0.19	0.437	IO				0.42
69.583	0.00	0.19	0.436	IO				0.42
69.667	0.00	0.19	0.434	IO				0.42
69.750	0.00	0.19	0.433	IO				0.42
69.833	0.00	0.19	0.432	IO				0.42
69.917	0.00	0.19	0.431	IO				0.41
70.000	0.00	0.19	0.429	IO				0.41
70.083	0.00	0.19	0.428	IO				0.41
70.167	0.00	0.19	0.427	IO				0.41
70.250	0.00	0.19	0.425	IO				0.41
70.333	0.00	0.19	0.424	IO				0.41
70.417	0.00	0.19	0.423	IO				0.41
70.500	0.00	0.19	0.421	IO				0.41
70.583	0.00	0.19	0.420	IO				0.40
70.667	0.00	0.19	0.419	IO				0.40
70.750	0.00	0.18	0.418	IO				0.40
70.833	0.00	0.18	0.416	IO				0.40
70.917	0.00	0.18	0.415	IO				0.40
71.000	0.00	0.18	0.414	IO				0.40
71.083	0.00	0.18	0.413	IO				0.40
71.167	0.00	0.18	0.411	IO				0.40
71.250	0.00	0.18	0.410	IO				0.39
71.333	0.00	0.18	0.409	IO				0.39
71.417	0.00	0.18	0.408	IO				0.39
71.500	0.00	0.18	0.406	IO				0.39
71.583	0.00	0.18	0.405	IO				0.39
71.667	0.00	0.18	0.404	IO				0.39
71.750	0.00	0.18	0.403	IO				0.39
71.833	0.00	0.18	0.401	IO				0.39
71.917	0.00	0.18	0.400	IO				0.38
72.000	0.00	0.18	0.399	IO				0.38
72.083	0.00	0.18	0.398	IO				0.38
72.167	0.00	0.18	0.397	IO				0.38
72.250	0.00	0.17	0.395	IO				0.38
72.333	0.00	0.17	0.394	IO				0.38
72.417	0.00	0.17	0.393	IO				0.38

72.500	0.00	0.17	0.392	IO				0.38
72.583	0.00	0.17	0.391	IO				0.38
72.667	0.00	0.17	0.389	IO				0.37
72.750	0.00	0.17	0.388	IO				0.37
72.833	0.00	0.17	0.387	IO				0.37
72.917	0.00	0.17	0.386	IO				0.37
73.000	0.00	0.17	0.385	IO				0.37
73.083	0.00	0.17	0.383	IO				0.37
73.167	0.00	0.17	0.382	IO				0.37
73.250	0.00	0.17	0.381	IO				0.37
73.333	0.00	0.17	0.380	IO				0.37
73.417	0.00	0.17	0.379	IO				0.36
73.500	0.00	0.17	0.378	IO				0.36
73.583	0.00	0.17	0.377	IO				0.36
73.667	0.00	0.17	0.375	IO				0.36
73.750	0.00	0.17	0.374	IO				0.36
73.833	0.00	0.17	0.373	IO				0.36
73.917	0.00	0.16	0.372	IO				0.36
74.000	0.00	0.16	0.371	IO				0.36
74.083	0.00	0.16	0.370	IO				0.36
74.167	0.00	0.16	0.369	IO				0.35
74.250	0.00	0.16	0.367	IO				0.35
74.333	0.00	0.16	0.366	IO				0.35
74.417	0.00	0.16	0.365	IO				0.35
74.500	0.00	0.16	0.364	IO				0.35
74.583	0.00	0.16	0.363	IO				0.35
74.667	0.00	0.16	0.362	IO				0.35
74.750	0.00	0.16	0.361	IO				0.35
74.833	0.00	0.16	0.360	IO				0.35
74.917	0.00	0.16	0.359	IO				0.34
75.000	0.00	0.16	0.358	IO				0.34
75.083	0.00	0.16	0.356	IO				0.34
75.167	0.00	0.16	0.355	IO				0.34
75.250	0.00	0.16	0.354	IO				0.34
75.333	0.00	0.16	0.353	IO				0.34
75.417	0.00	0.16	0.352	IO				0.34
75.500	0.00	0.16	0.351	IO				0.34
75.583	0.00	0.15	0.350	IO				0.34
75.667	0.00	0.15	0.349	IO				0.34
75.750	0.00	0.15	0.348	IO				0.33
75.833	0.00	0.15	0.347	IO				0.33
75.917	0.00	0.15	0.346	IO				0.33
76.000	0.00	0.15	0.345	IO				0.33
76.083	0.00	0.15	0.344	IO				0.33
76.167	0.00	0.15	0.343	IO				0.33
76.250	0.00	0.15	0.342	IO				0.33
76.333	0.00	0.15	0.341	IO				0.33
76.417	0.00	0.15	0.339	IO				0.33
76.500	0.00	0.15	0.338	IO				0.33
76.583	0.00	0.15	0.337	IO				0.32
76.667	0.00	0.15	0.336	IO				0.32
76.750	0.00	0.15	0.335	IO				0.32
76.833	0.00	0.15	0.334	IO				0.32
76.917	0.00	0.15	0.333	O				0.32
77.000	0.00	0.15	0.332	O				0.32
77.083	0.00	0.15	0.331	O				0.32
77.167	0.00	0.15	0.330	O				0.32
77.250	0.00	0.15	0.329	O				0.32
77.333	0.00	0.15	0.328	O				0.32
77.417	0.00	0.14	0.327	O				0.31
77.500	0.00	0.14	0.326	O				0.31
77.583	0.00	0.14	0.325	O				0.31
77.667	0.00	0.14	0.324	O				0.31

77.750	0.00	0.14	0.323	O	|	|	|	|	0.31
77.833	0.00	0.14	0.322	O	|	|	|	|	0.31
77.917	0.00	0.14	0.321	O	|	|	|	|	0.31
78.000	0.00	0.14	0.320	O	|	|	|	|	0.31
78.083	0.00	0.14	0.319	O	|	|	|	|	0.31
78.167	0.00	0.14	0.318	O	|	|	|	|	0.31
78.250	0.00	0.14	0.317	O	|	|	|	|	0.31
78.333	0.00	0.14	0.317	O	|	|	|	|	0.30
78.417	0.00	0.14	0.316	O	|	|	|	|	0.30
78.500	0.00	0.14	0.315	O	|	|	|	|	0.30
78.583	0.00	0.14	0.314	O	|	|	|	|	0.30
78.667	0.00	0.14	0.313	O	|	|	|	|	0.30
78.750	0.00	0.14	0.312	O	|	|	|	|	0.30
78.833	0.00	0.14	0.311	O	|	|	|	|	0.30
78.917	0.00	0.14	0.310	O	|	|	|	|	0.30
79.000	0.00	0.14	0.309	O	|	|	|	|	0.30
79.083	0.00	0.14	0.308	O	|	|	|	|	0.30
79.167	0.00	0.14	0.307	O	|	|	|	|	0.30
79.250	0.00	0.14	0.306	O	|	|	|	|	0.29
79.333	0.00	0.13	0.305	O	|	|	|	|	0.29
79.417	0.00	0.13	0.304	O	|	|	|	|	0.29
79.500	0.00	0.13	0.303	O	|	|	|	|	0.29
79.583	0.00	0.13	0.302	O	|	|	|	|	0.29
79.667	0.00	0.13	0.301	O	|	|	|	|	0.29
79.750	0.00	0.13	0.301	O	|	|	|	|	0.29
79.833	0.00	0.13	0.300	O	|	|	|	|	0.29
79.917	0.00	0.13	0.299	O	|	|	|	|	0.29
80.000	0.00	0.13	0.298	O	|	|	|	|	0.29
80.083	0.00	0.13	0.297	O	|	|	|	|	0.29
80.167	0.00	0.13	0.296	O	|	|	|	|	0.28
80.250	0.00	0.13	0.295	O	|	|	|	|	0.28
80.333	0.00	0.13	0.294	O	|	|	|	|	0.28
80.417	0.00	0.13	0.293	O	|	|	|	|	0.28
80.500	0.00	0.13	0.292	O	|	|	|	|	0.28
80.583	0.00	0.13	0.292	O	|	|	|	|	0.28
80.667	0.00	0.13	0.291	O	|	|	|	|	0.28
80.750	0.00	0.13	0.290	O	|	|	|	|	0.28
80.833	0.00	0.13	0.289	O	|	|	|	|	0.28
80.917	0.00	0.13	0.288	O	|	|	|	|	0.28
81.000	0.00	0.13	0.287	O	|	|	|	|	0.28
81.083	0.00	0.13	0.286	O	|	|	|	|	0.28
81.167	0.00	0.13	0.285	O	|	|	|	|	0.27
81.250	0.00	0.13	0.284	O	|	|	|	|	0.27
81.333	0.00	0.13	0.284	O	|	|	|	|	0.27
81.417	0.00	0.13	0.283	O	|	|	|	|	0.27
81.500	0.00	0.12	0.282	O	|	|	|	|	0.27
81.583	0.00	0.12	0.281	O	|	|	|	|	0.27
81.667	0.00	0.12	0.280	O	|	|	|	|	0.27
81.750	0.00	0.12	0.279	O	|	|	|	|	0.27
81.833	0.00	0.12	0.278	O	|	|	|	|	0.27
81.917	0.00	0.12	0.278	O	|	|	|	|	0.27
82.000	0.00	0.12	0.277	O	|	|	|	|	0.27
82.083	0.00	0.12	0.276	O	|	|	|	|	0.27
82.167	0.00	0.12	0.275	O	|	|	|	|	0.26
82.250	0.00	0.12	0.274	O	|	|	|	|	0.26
82.333	0.00	0.12	0.273	O	|	|	|	|	0.26
82.417	0.00	0.12	0.273	O	|	|	|	|	0.26
82.500	0.00	0.12	0.272	O	|	|	|	|	0.26
82.583	0.00	0.12	0.271	O	|	|	|	|	0.26
82.667	0.00	0.12	0.270	O	|	|	|	|	0.26
82.750	0.00	0.12	0.269	O	|	|	|	|	0.26
82.833	0.00	0.12	0.268	O	|	|	|	|	0.26
82.917	0.00	0.12	0.268	O	|	|	|	|	0.26

83.000	0.00	0.12	0.267	O	|	|	|	|	0.26
83.083	0.00	0.12	0.266	O	|	|	|	|	0.26
83.167	0.00	0.12	0.265	O	|	|	|	|	0.26
83.250	0.00	0.12	0.264	O	|	|	|	|	0.25
83.333	0.00	0.12	0.264	O	|	|	|	|	0.25
83.417	0.00	0.12	0.263	O	|	|	|	|	0.25
83.500	0.00	0.12	0.262	O	|	|	|	|	0.25
83.583	0.00	0.12	0.261	O	|	|	|	|	0.25
83.667	0.00	0.12	0.260	O	|	|	|	|	0.25
83.750	0.00	0.11	0.260	O	|	|	|	|	0.25
83.833	0.00	0.11	0.259	O	|	|	|	|	0.25
83.917	0.00	0.11	0.258	O	|	|	|	|	0.25
84.000	0.00	0.11	0.257	O	|	|	|	|	0.25
84.083	0.00	0.11	0.257	O	|	|	|	|	0.25
84.167	0.00	0.11	0.256	O	|	|	|	|	0.25
84.250	0.00	0.11	0.255	O	|	|	|	|	0.25
84.333	0.00	0.11	0.254	O	|	|	|	|	0.24
84.417	0.00	0.11	0.253	O	|	|	|	|	0.24
84.500	0.00	0.11	0.253	O	|	|	|	|	0.24
84.583	0.00	0.11	0.252	O	|	|	|	|	0.24
84.667	0.00	0.11	0.251	O	|	|	|	|	0.24
84.750	0.00	0.11	0.250	O	|	|	|	|	0.24
84.833	0.00	0.11	0.250	O	|	|	|	|	0.24
84.917	0.00	0.11	0.249	O	|	|	|	|	0.24
85.000	0.00	0.11	0.248	O	|	|	|	|	0.24
85.083	0.00	0.11	0.247	O	|	|	|	|	0.24
85.167	0.00	0.11	0.247	O	|	|	|	|	0.24
85.250	0.00	0.11	0.246	O	|	|	|	|	0.24
85.333	0.00	0.11	0.245	O	|	|	|	|	0.24
85.417	0.00	0.11	0.244	O	|	|	|	|	0.23
85.500	0.00	0.11	0.244	O	|	|	|	|	0.23
85.583	0.00	0.11	0.243	O	|	|	|	|	0.23
85.667	0.00	0.11	0.242	O	|	|	|	|	0.23
85.750	0.00	0.11	0.241	O	|	|	|	|	0.23
85.833	0.00	0.11	0.241	O	|	|	|	|	0.23
85.917	0.00	0.11	0.240	O	|	|	|	|	0.23
86.000	0.00	0.11	0.239	O	|	|	|	|	0.23
86.083	0.00	0.11	0.238	O	|	|	|	|	0.23
86.167	0.00	0.11	0.238	O	|	|	|	|	0.23
86.250	0.00	0.10	0.237	O	|	|	|	|	0.23
86.333	0.00	0.10	0.236	O	|	|	|	|	0.23
86.417	0.00	0.10	0.236	O	|	|	|	|	0.23
86.500	0.00	0.10	0.235	O	|	|	|	|	0.23
86.583	0.00	0.10	0.234	O	|	|	|	|	0.23
86.667	0.00	0.10	0.233	O	|	|	|	|	0.22
86.750	0.00	0.10	0.233	O	|	|	|	|	0.22
86.833	0.00	0.10	0.232	O	|	|	|	|	0.22
86.917	0.00	0.10	0.231	O	|	|	|	|	0.22
87.000	0.00	0.10	0.231	O	|	|	|	|	0.22
87.083	0.00	0.10	0.230	O	|	|	|	|	0.22
87.167	0.00	0.10	0.229	O	|	|	|	|	0.22
87.250	0.00	0.10	0.228	O	|	|	|	|	0.22
87.333	0.00	0.10	0.228	O	|	|	|	|	0.22
87.417	0.00	0.10	0.227	O	|	|	|	|	0.22
87.500	0.00	0.10	0.226	O	|	|	|	|	0.22
87.583	0.00	0.10	0.226	O	|	|	|	|	0.22
87.667	0.00	0.10	0.225	O	|	|	|	|	0.22
87.750	0.00	0.10	0.224	O	|	|	|	|	0.22
87.833	0.00	0.10	0.224	O	|	|	|	|	0.22
87.917	0.00	0.10	0.223	O	|	|	|	|	0.21
88.000	0.00	0.10	0.222	O	|	|	|	|	0.21
88.083	0.00	0.10	0.222	O	|	|	|	|	0.21
88.167	0.00	0.10	0.221	O	|	|	|	|	0.21

88.250	0.00	0.10	0.220	O	|	|	|	|	0.21
88.333	0.00	0.10	0.220	O	|	|	|	|	0.21
88.417	0.00	0.10	0.219	O	|	|	|	|	0.21
88.500	0.00	0.10	0.218	O	|	|	|	|	0.21
88.583	0.00	0.10	0.218	O	|	|	|	|	0.21
88.667	0.00	0.10	0.217	O	|	|	|	|	0.21
88.750	0.00	0.10	0.216	O	|	|	|	|	0.21
88.833	0.00	0.10	0.216	O	|	|	|	|	0.21
88.917	0.00	0.10	0.215	O	|	|	|	|	0.21
89.000	0.00	0.09	0.214	O	|	|	|	|	0.21
89.083	0.00	0.09	0.214	O	|	|	|	|	0.21
89.167	0.00	0.09	0.213	O	|	|	|	|	0.20
89.250	0.00	0.09	0.212	O	|	|	|	|	0.20
89.333	0.00	0.09	0.212	O	|	|	|	|	0.20
89.417	0.00	0.09	0.211	O	|	|	|	|	0.20
89.500	0.00	0.09	0.210	O	|	|	|	|	0.20
89.583	0.00	0.09	0.210	O	|	|	|	|	0.20
89.667	0.00	0.09	0.209	O	|	|	|	|	0.20
89.750	0.00	0.09	0.209	O	|	|	|	|	0.20
89.833	0.00	0.09	0.208	O	|	|	|	|	0.20
89.917	0.00	0.09	0.207	O	|	|	|	|	0.20
90.000	0.00	0.09	0.207	O	|	|	|	|	0.20
90.083	0.00	0.09	0.206	O	|	|	|	|	0.20
90.167	0.00	0.09	0.205	O	|	|	|	|	0.20
90.250	0.00	0.09	0.205	O	|	|	|	|	0.20
90.333	0.00	0.09	0.204	O	|	|	|	|	0.20
90.417	0.00	0.09	0.203	O	|	|	|	|	0.20
90.500	0.00	0.09	0.203	O	|	|	|	|	0.20
90.583	0.00	0.09	0.202	O	|	|	|	|	0.19
90.667	0.00	0.09	0.202	O	|	|	|	|	0.19
90.750	0.00	0.09	0.201	O	|	|	|	|	0.19
90.833	0.00	0.09	0.200	O	|	|	|	|	0.19
90.917	0.00	0.09	0.200	O	|	|	|	|	0.19
91.000	0.00	0.09	0.199	O	|	|	|	|	0.19
91.083	0.00	0.09	0.199	O	|	|	|	|	0.19
91.167	0.00	0.09	0.198	O	|	|	|	|	0.19
91.250	0.00	0.09	0.197	O	|	|	|	|	0.19
91.333	0.00	0.09	0.197	O	|	|	|	|	0.19
91.417	0.00	0.09	0.196	O	|	|	|	|	0.19
91.500	0.00	0.09	0.196	O	|	|	|	|	0.19
91.583	0.00	0.09	0.195	O	|	|	|	|	0.19
91.667	0.00	0.09	0.194	O	|	|	|	|	0.19
91.750	0.00	0.09	0.194	O	|	|	|	|	0.19
91.833	0.00	0.09	0.193	O	|	|	|	|	0.19
91.917	0.00	0.09	0.193	O	|	|	|	|	0.19
92.000	0.00	0.08	0.192	O	|	|	|	|	0.18
92.083	0.00	0.08	0.191	O	|	|	|	|	0.18
92.167	0.00	0.08	0.191	O	|	|	|	|	0.18
92.250	0.00	0.08	0.190	O	|	|	|	|	0.18
92.333	0.00	0.08	0.190	O	|	|	|	|	0.18
92.417	0.00	0.08	0.189	O	|	|	|	|	0.18
92.500	0.00	0.08	0.189	O	|	|	|	|	0.18
92.583	0.00	0.08	0.188	O	|	|	|	|	0.18
92.667	0.00	0.08	0.187	O	|	|	|	|	0.18
92.750	0.00	0.08	0.187	O	|	|	|	|	0.18
92.833	0.00	0.08	0.186	O	|	|	|	|	0.18
92.917	0.00	0.08	0.186	O	|	|	|	|	0.18
93.000	0.00	0.08	0.185	O	|	|	|	|	0.18
93.083	0.00	0.08	0.185	O	|	|	|	|	0.18
93.167	0.00	0.08	0.184	O	|	|	|	|	0.18
93.250	0.00	0.08	0.183	O	|	|	|	|	0.18
93.333	0.00	0.08	0.183	O	|	|	|	|	0.18
93.417	0.00	0.08	0.182	O	|	|	|	|	0.18

93.500	0.00	0.08	0.182	O	|	|	|	|	0.17
93.583	0.00	0.08	0.181	O	|	|	|	|	0.17
93.667	0.00	0.08	0.181	O	|	|	|	|	0.17
93.750	0.00	0.08	0.180	O	|	|	|	|	0.17
93.833	0.00	0.08	0.180	O	|	|	|	|	0.17
93.917	0.00	0.08	0.179	O	|	|	|	|	0.17
94.000	0.00	0.08	0.179	O	|	|	|	|	0.17
94.083	0.00	0.08	0.178	O	|	|	|	|	0.17
94.167	0.00	0.08	0.177	O	|	|	|	|	0.17
94.250	0.00	0.08	0.177	O	|	|	|	|	0.17
94.333	0.00	0.08	0.176	O	|	|	|	|	0.17
94.417	0.00	0.08	0.176	O	|	|	|	|	0.17
94.500	0.00	0.08	0.175	O	|	|	|	|	0.17
94.583	0.00	0.08	0.175	O	|	|	|	|	0.17
94.667	0.00	0.08	0.174	O	|	|	|	|	0.17
94.750	0.00	0.08	0.174	O	|	|	|	|	0.17
94.833	0.00	0.08	0.173	O	|	|	|	|	0.17
94.917	0.00	0.08	0.173	O	|	|	|	|	0.17
95.000	0.00	0.08	0.172	O	|	|	|	|	0.17
95.083	0.00	0.08	0.172	O	|	|	|	|	0.16
95.167	0.00	0.08	0.171	O	|	|	|	|	0.16
95.250	0.00	0.08	0.171	O	|	|	|	|	0.16
95.333	0.00	0.08	0.170	O	|	|	|	|	0.16
95.417	0.00	0.07	0.170	O	|	|	|	|	0.16
95.500	0.00	0.07	0.169	O	|	|	|	|	0.16
95.583	0.00	0.07	0.168	O	|	|	|	|	0.16
95.667	0.00	0.07	0.168	O	|	|	|	|	0.16
95.750	0.00	0.07	0.167	O	|	|	|	|	0.16
95.833	0.00	0.07	0.167	O	|	|	|	|	0.16
95.917	0.00	0.07	0.166	O	|	|	|	|	0.16
96.000	0.00	0.07	0.166	O	|	|	|	|	0.16
96.083	0.00	0.07	0.165	O	|	|	|	|	0.16
96.167	0.00	0.07	0.165	O	|	|	|	|	0.16
96.250	0.00	0.07	0.164	O	|	|	|	|	0.16
96.333	0.00	0.07	0.164	O	|	|	|	|	0.16
96.417	0.00	0.07	0.163	O	|	|	|	|	0.16
96.500	0.00	0.07	0.163	O	|	|	|	|	0.16
96.583	0.00	0.07	0.162	O	|	|	|	|	0.16
96.667	0.00	0.07	0.162	O	|	|	|	|	0.16
96.750	0.00	0.07	0.161	O	|	|	|	|	0.16
96.833	0.00	0.07	0.161	O	|	|	|	|	0.15
96.917	0.00	0.07	0.160	O	|	|	|	|	0.15
97.000	0.00	0.07	0.160	O	|	|	|	|	0.15
97.083	0.00	0.07	0.159	O	|	|	|	|	0.15
97.167	0.00	0.07	0.159	O	|	|	|	|	0.15
97.250	0.00	0.07	0.159	O	|	|	|	|	0.15
97.333	0.00	0.07	0.158	O	|	|	|	|	0.15
97.417	0.00	0.07	0.158	O	|	|	|	|	0.15
97.500	0.00	0.07	0.157	O	|	|	|	|	0.15
97.583	0.00	0.07	0.157	O	|	|	|	|	0.15
97.667	0.00	0.07	0.156	O	|	|	|	|	0.15
97.750	0.00	0.07	0.156	O	|	|	|	|	0.15
97.833	0.00	0.07	0.155	O	|	|	|	|	0.15
97.917	0.00	0.07	0.155	O	|	|	|	|	0.15
98.000	0.00	0.07	0.154	O	|	|	|	|	0.15
98.083	0.00	0.07	0.154	O	|	|	|	|	0.15
98.167	0.00	0.07	0.153	O	|	|	|	|	0.15
98.250	0.00	0.07	0.153	O	|	|	|	|	0.15
98.333	0.00	0.07	0.152	O	|	|	|	|	0.15
98.417	0.00	0.07	0.152	O	|	|	|	|	0.15
98.500	0.00	0.07	0.151	O	|	|	|	|	0.15
98.583	0.00	0.07	0.151	O	|	|	|	|	0.15
98.667	0.00	0.07	0.151	O	|	|	|	|	0.14

98.750	0.00	0.07	0.150	O	|	|	|	|	0.14
98.833	0.00	0.07	0.150	O	|	|	|	|	0.14
98.917	0.00	0.07	0.149	O	|	|	|	|	0.14
99.000	0.00	0.07	0.149	O	|	|	|	|	0.14
99.083	0.00	0.07	0.148	O	|	|	|	|	0.14
99.167	0.00	0.07	0.148	O	|	|	|	|	0.14
99.250	0.00	0.07	0.147	O	|	|	|	|	0.14
99.333	0.00	0.06	0.147	O	|	|	|	|	0.14
99.417	0.00	0.06	0.146	O	|	|	|	|	0.14
99.500	0.00	0.06	0.146	O	|	|	|	|	0.14
99.583	0.00	0.06	0.146	O	|	|	|	|	0.14
99.667	0.00	0.06	0.145	O	|	|	|	|	0.14
99.750	0.00	0.06	0.145	O	|	|	|	|	0.14
99.833	0.00	0.06	0.144	O	|	|	|	|	0.14
99.917	0.00	0.06	0.144	O	|	|	|	|	0.14
100.000	0.00	0.06	0.143	O	|	|	|	|	0.14
100.083	0.00	0.06	0.143	O	|	|	|	|	0.14
100.167	0.00	0.06	0.142	O	|	|	|	|	0.14
100.250	0.00	0.06	0.142	O	|	|	|	|	0.14
100.333	0.00	0.06	0.142	O	|	|	|	|	0.14
100.417	0.00	0.06	0.141	O	|	|	|	|	0.14
100.500	0.00	0.06	0.141	O	|	|	|	|	0.14
100.583	0.00	0.06	0.140	O	|	|	|	|	0.13
100.667	0.00	0.06	0.140	O	|	|	|	|	0.13
100.750	0.00	0.06	0.139	O	|	|	|	|	0.13
100.833	0.00	0.06	0.139	O	|	|	|	|	0.13
100.917	0.00	0.06	0.139	O	|	|	|	|	0.13
101.000	0.00	0.06	0.138	O	|	|	|	|	0.13
101.083	0.00	0.06	0.138	O	|	|	|	|	0.13
101.167	0.00	0.06	0.137	O	|	|	|	|	0.13
101.250	0.00	0.06	0.137	O	|	|	|	|	0.13
101.333	0.00	0.06	0.137	O	|	|	|	|	0.13
101.417	0.00	0.06	0.136	O	|	|	|	|	0.13
101.500	0.00	0.06	0.136	O	|	|	|	|	0.13
101.583	0.00	0.06	0.135	O	|	|	|	|	0.13
101.667	0.00	0.06	0.135	O	|	|	|	|	0.13
101.750	0.00	0.06	0.134	O	|	|	|	|	0.13
101.833	0.00	0.06	0.134	O	|	|	|	|	0.13
101.917	0.00	0.06	0.134	O	|	|	|	|	0.13
102.000	0.00	0.06	0.133	O	|	|	|	|	0.13
102.083	0.00	0.06	0.133	O	|	|	|	|	0.13
102.167	0.00	0.06	0.132	O	|	|	|	|	0.13
102.250	0.00	0.06	0.132	O	|	|	|	|	0.13
102.333	0.00	0.06	0.132	O	|	|	|	|	0.13
102.417	0.00	0.06	0.131	O	|	|	|	|	0.13
102.500	0.00	0.06	0.131	O	|	|	|	|	0.13
102.583	0.00	0.06	0.130	O	|	|	|	|	0.13
102.667	0.00	0.06	0.130	O	|	|	|	|	0.13
102.750	0.00	0.06	0.130	O	|	|	|	|	0.12
102.833	0.00	0.06	0.129	O	|	|	|	|	0.12
102.917	0.00	0.06	0.129	O	|	|	|	|	0.12
103.000	0.00	0.06	0.128	O	|	|	|	|	0.12
103.083	0.00	0.06	0.128	O	|	|	|	|	0.12
103.167	0.00	0.06	0.128	O	|	|	|	|	0.12
103.250	0.00	0.06	0.127	O	|	|	|	|	0.12
103.333	0.00	0.06	0.127	O	|	|	|	|	0.12
103.417	0.00	0.06	0.127	O	|	|	|	|	0.12
103.500	0.00	0.06	0.126	O	|	|	|	|	0.12
103.583	0.00	0.06	0.126	O	|	|	|	|	0.12
103.667	0.00	0.06	0.125	O	|	|	|	|	0.12
103.750	0.00	0.06	0.125	O	|	|	|	|	0.12
103.833	0.00	0.06	0.125	O	|	|	|	|	0.12
103.917	0.00	0.05	0.124	O	|	|	|	|	0.12

104.000	0.00	0.05	0.124	O	|	|	|	|	0.12
104.083	0.00	0.05	0.123	O	|	|	|	|	0.12
104.167	0.00	0.05	0.123	O	|	|	|	|	0.12
104.250	0.00	0.05	0.123	O	|	|	|	|	0.12
104.333	0.00	0.05	0.122	O	|	|	|	|	0.12
104.417	0.00	0.05	0.122	O	|	|	|	|	0.12
104.500	0.00	0.05	0.122	O	|	|	|	|	0.12
104.583	0.00	0.05	0.121	O	|	|	|	|	0.12
104.667	0.00	0.05	0.121	O	|	|	|	|	0.12
104.750	0.00	0.05	0.121	O	|	|	|	|	0.12
104.833	0.00	0.05	0.120	O	|	|	|	|	0.12
104.917	0.00	0.05	0.120	O	|	|	|	|	0.12
105.000	0.00	0.05	0.119	O	|	|	|	|	0.11
105.083	0.00	0.05	0.119	O	|	|	|	|	0.11
105.167	0.00	0.05	0.119	O	|	|	|	|	0.11
105.250	0.00	0.05	0.118	O	|	|	|	|	0.11
105.333	0.00	0.05	0.118	O	|	|	|	|	0.11
105.417	0.00	0.05	0.118	O	|	|	|	|	0.11
105.500	0.00	0.05	0.117	O	|	|	|	|	0.11
105.583	0.00	0.05	0.117	O	|	|	|	|	0.11
105.667	0.00	0.05	0.117	O	|	|	|	|	0.11
105.750	0.00	0.05	0.116	O	|	|	|	|	0.11
105.833	0.00	0.05	0.116	O	|	|	|	|	0.11
105.917	0.00	0.05	0.115	O	|	|	|	|	0.11
106.000	0.00	0.05	0.115	O	|	|	|	|	0.11
106.083	0.00	0.05	0.115	O	|	|	|	|	0.11
106.167	0.00	0.05	0.114	O	|	|	|	|	0.11
106.250	0.00	0.05	0.114	O	|	|	|	|	0.11
106.333	0.00	0.05	0.114	O	|	|	|	|	0.11
106.417	0.00	0.05	0.113	O	|	|	|	|	0.11
106.500	0.00	0.05	0.113	O	|	|	|	|	0.11
106.583	0.00	0.05	0.113	O	|	|	|	|	0.11
106.667	0.00	0.05	0.112	O	|	|	|	|	0.11
106.750	0.00	0.05	0.112	O	|	|	|	|	0.11
106.833	0.00	0.05	0.112	O	|	|	|	|	0.11
106.917	0.00	0.05	0.111	O	|	|	|	|	0.11
107.000	0.00	0.05	0.111	O	|	|	|	|	0.11
107.083	0.00	0.05	0.111	O	|	|	|	|	0.11
107.167	0.00	0.05	0.110	O	|	|	|	|	0.11
107.250	0.00	0.05	0.110	O	|	|	|	|	0.11
107.333	0.00	0.05	0.110	O	|	|	|	|	0.11
107.417	0.00	0.05	0.109	O	|	|	|	|	0.11
107.500	0.00	0.05	0.109	O	|	|	|	|	0.10
107.583	0.00	0.05	0.109	O	|	|	|	|	0.10
107.667	0.00	0.05	0.108	O	|	|	|	|	0.10
107.750	0.00	0.05	0.108	O	|	|	|	|	0.10
107.833	0.00	0.05	0.108	O	|	|	|	|	0.10
107.917	0.00	0.05	0.107	O	|	|	|	|	0.10
108.000	0.00	0.05	0.107	O	|	|	|	|	0.10
108.083	0.00	0.05	0.107	O	|	|	|	|	0.10
108.167	0.00	0.05	0.106	O	|	|	|	|	0.10
108.250	0.00	0.05	0.106	O	|	|	|	|	0.10
108.333	0.00	0.05	0.106	O	|	|	|	|	0.10
108.417	0.00	0.05	0.105	O	|	|	|	|	0.10
108.500	0.00	0.05	0.105	O	|	|	|	|	0.10
108.583	0.00	0.05	0.105	O	|	|	|	|	0.10
108.667	0.00	0.05	0.104	O	|	|	|	|	0.10
108.750	0.00	0.05	0.104	O	|	|	|	|	0.10
108.833	0.00	0.05	0.104	O	|	|	|	|	0.10
108.917	0.00	0.05	0.103	O	|	|	|	|	0.10
109.000	0.00	0.05	0.103	O	|	|	|	|	0.10
109.083	0.00	0.05	0.103	O	|	|	|	|	0.10
109.167	0.00	0.05	0.103	O	|	|	|	|	0.10

109.250	0.00	0.05	0.102	O	|	|	|	|	0.10
109.333	0.00	0.05	0.102	O	|	|	|	|	0.10
109.417	0.00	0.04	0.102	O	|	|	|	|	0.10
109.500	0.00	0.04	0.101	O	|	|	|	|	0.10
109.583	0.00	0.04	0.101	O	|	|	|	|	0.10
109.667	0.00	0.04	0.101	O	|	|	|	|	0.10
109.750	0.00	0.04	0.100	O	|	|	|	|	0.10
109.833	0.00	0.04	0.100	O	|	|	|	|	0.10
109.917	0.00	0.04	0.100	O	|	|	|	|	0.10
110.000	0.00	0.04	0.099	O	|	|	|	|	0.10
110.083	0.00	0.04	0.099	O	|	|	|	|	0.10
110.167	0.00	0.04	0.099	O	|	|	|	|	0.10
110.250	0.00	0.04	0.099	O	|	|	|	|	0.09
110.333	0.00	0.04	0.098	O	|	|	|	|	0.09
110.417	0.00	0.04	0.098	O	|	|	|	|	0.09
110.500	0.00	0.04	0.098	O	|	|	|	|	0.09
110.583	0.00	0.04	0.097	O	|	|	|	|	0.09
110.667	0.00	0.04	0.097	O	|	|	|	|	0.09
110.750	0.00	0.04	0.097	O	|	|	|	|	0.09
110.833	0.00	0.04	0.096	O	|	|	|	|	0.09
110.917	0.00	0.04	0.096	O	|	|	|	|	0.09
111.000	0.00	0.04	0.096	O	|	|	|	|	0.09
111.083	0.00	0.04	0.096	O	|	|	|	|	0.09
111.167	0.00	0.04	0.095	O	|	|	|	|	0.09
111.250	0.00	0.04	0.095	O	|	|	|	|	0.09
111.333	0.00	0.04	0.095	O	|	|	|	|	0.09
111.417	0.00	0.04	0.094	O	|	|	|	|	0.09
111.500	0.00	0.04	0.094	O	|	|	|	|	0.09
111.583	0.00	0.04	0.094	O	|	|	|	|	0.09
111.667	0.00	0.04	0.094	O	|	|	|	|	0.09
111.750	0.00	0.04	0.093	O	|	|	|	|	0.09
111.833	0.00	0.04	0.093	O	|	|	|	|	0.09
111.917	0.00	0.04	0.093	O	|	|	|	|	0.09
112.000	0.00	0.04	0.092	O	|	|	|	|	0.09
112.083	0.00	0.04	0.092	O	|	|	|	|	0.09
112.167	0.00	0.04	0.092	O	|	|	|	|	0.09
112.250	0.00	0.04	0.092	O	|	|	|	|	0.09
112.333	0.00	0.04	0.091	O	|	|	|	|	0.09
112.417	0.00	0.04	0.091	O	|	|	|	|	0.09
112.500	0.00	0.04	0.091	O	|	|	|	|	0.09
112.583	0.00	0.04	0.090	O	|	|	|	|	0.09
112.667	0.00	0.04	0.090	O	|	|	|	|	0.09
112.750	0.00	0.04	0.090	O	|	|	|	|	0.09
112.833	0.00	0.04	0.090	O	|	|	|	|	0.09
112.917	0.00	0.04	0.089	O	|	|	|	|	0.09
113.000	0.00	0.04	0.089	O	|	|	|	|	0.09
113.083	0.00	0.04	0.089	O	|	|	|	|	0.09
113.167	0.00	0.04	0.089	O	|	|	|	|	0.09
113.250	0.00	0.04	0.088	O	|	|	|	|	0.08
113.333	0.00	0.04	0.088	O	|	|	|	|	0.08
113.417	0.00	0.04	0.088	O	|	|	|	|	0.08
113.500	0.00	0.04	0.088	O	|	|	|	|	0.08
113.583	0.00	0.04	0.087	O	|	|	|	|	0.08
113.667	0.00	0.04	0.087	O	|	|	|	|	0.08
113.750	0.00	0.04	0.087	O	|	|	|	|	0.08
113.833	0.00	0.04	0.086	O	|	|	|	|	0.08
113.917	0.00	0.04	0.086	O	|	|	|	|	0.08
114.000	0.00	0.04	0.086	O	|	|	|	|	0.08
114.083	0.00	0.04	0.086	O	|	|	|	|	0.08
114.167	0.00	0.04	0.085	O	|	|	|	|	0.08
114.250	0.00	0.04	0.085	O	|	|	|	|	0.08
114.333	0.00	0.04	0.085	O	|	|	|	|	0.08
114.417	0.00	0.04	0.085	O	|	|	|	|	0.08

114.500	0.00	0.04	0.084	O	|	|	|	|	0.08
114.583	0.00	0.04	0.084	O	|	|	|	|	0.08
114.667	0.00	0.04	0.084	O	|	|	|	|	0.08
114.750	0.00	0.04	0.084	O	|	|	|	|	0.08
114.833	0.00	0.04	0.083	O	|	|	|	|	0.08
114.917	0.00	0.04	0.083	O	|	|	|	|	0.08
115.000	0.00	0.04	0.083	O	|	|	|	|	0.08
115.083	0.00	0.04	0.083	O	|	|	|	|	0.08
115.167	0.00	0.04	0.082	O	|	|	|	|	0.08
115.250	0.00	0.04	0.082	O	|	|	|	|	0.08
115.333	0.00	0.04	0.082	O	|	|	|	|	0.08
115.417	0.00	0.04	0.082	O	|	|	|	|	0.08
115.500	0.00	0.04	0.081	O	|	|	|	|	0.08
115.583	0.00	0.04	0.081	O	|	|	|	|	0.08
115.667	0.00	0.04	0.081	O	|	|	|	|	0.08
115.750	0.00	0.04	0.081	O	|	|	|	|	0.08
115.833	0.00	0.04	0.080	O	|	|	|	|	0.08
115.917	0.00	0.04	0.080	O	|	|	|	|	0.08
116.000	0.00	0.04	0.080	O	|	|	|	|	0.08
116.083	0.00	0.04	0.080	O	|	|	|	|	0.08
116.167	0.00	0.04	0.079	O	|	|	|	|	0.08
116.250	0.00	0.04	0.079	O	|	|	|	|	0.08
116.333	0.00	0.03	0.079	O	|	|	|	|	0.08
116.417	0.00	0.03	0.079	O	|	|	|	|	0.08
116.500	0.00	0.03	0.078	O	|	|	|	|	0.08
116.583	0.00	0.03	0.078	O	|	|	|	|	0.08
116.667	0.00	0.03	0.078	O	|	|	|	|	0.07
116.750	0.00	0.03	0.078	O	|	|	|	|	0.07
116.833	0.00	0.03	0.077	O	|	|	|	|	0.07
116.917	0.00	0.03	0.077	O	|	|	|	|	0.07
117.000	0.00	0.03	0.077	O	|	|	|	|	0.07
117.083	0.00	0.03	0.077	O	|	|	|	|	0.07
117.167	0.00	0.03	0.077	O	|	|	|	|	0.07
117.250	0.00	0.03	0.076	O	|	|	|	|	0.07
117.333	0.00	0.03	0.076	O	|	|	|	|	0.07
117.417	0.00	0.03	0.076	O	|	|	|	|	0.07
117.500	0.00	0.03	0.076	O	|	|	|	|	0.07
117.583	0.00	0.03	0.075	O	|	|	|	|	0.07
117.667	0.00	0.03	0.075	O	|	|	|	|	0.07
117.750	0.00	0.03	0.075	O	|	|	|	|	0.07
117.833	0.00	0.03	0.075	O	|	|	|	|	0.07
117.917	0.00	0.03	0.074	O	|	|	|	|	0.07
118.000	0.00	0.03	0.074	O	|	|	|	|	0.07
118.083	0.00	0.03	0.074	O	|	|	|	|	0.07
118.167	0.00	0.03	0.074	O	|	|	|	|	0.07
118.250	0.00	0.03	0.074	O	|	|	|	|	0.07
118.333	0.00	0.03	0.073	O	|	|	|	|	0.07
118.417	0.00	0.03	0.073	O	|	|	|	|	0.07
118.500	0.00	0.03	0.073	O	|	|	|	|	0.07
118.583	0.00	0.03	0.073	O	|	|	|	|	0.07
118.667	0.00	0.03	0.072	O	|	|	|	|	0.07
118.750	0.00	0.03	0.072	O	|	|	|	|	0.07
118.833	0.00	0.03	0.072	O	|	|	|	|	0.07
118.917	0.00	0.03	0.072	O	|	|	|	|	0.07
119.000	0.00	0.03	0.072	O	|	|	|	|	0.07
119.083	0.00	0.03	0.071	O	|	|	|	|	0.07
119.167	0.00	0.03	0.071	O	|	|	|	|	0.07
119.250	0.00	0.03	0.071	O	|	|	|	|	0.07
119.333	0.00	0.03	0.071	O	|	|	|	|	0.07
119.417	0.00	0.03	0.070	O	|	|	|	|	0.07
119.500	0.00	0.03	0.070	O	|	|	|	|	0.07
119.583	0.00	0.03	0.070	O	|	|	|	|	0.07
119.667	0.00	0.03	0.070	O	|	|	|	|	0.07

119.750	0.00	0.03	0.070	O	|	|	|	|	0.07
119.833	0.00	0.03	0.069	O	|	|	|	|	0.07
119.917	0.00	0.03	0.069	O	|	|	|	|	0.07
120.000	0.00	0.03	0.069	O	|	|	|	|	0.07
120.083	0.00	0.03	0.069	O	|	|	|	|	0.07
120.167	0.00	0.03	0.069	O	|	|	|	|	0.07
120.250	0.00	0.03	0.068	O	|	|	|	|	0.07
120.333	0.00	0.03	0.068	O	|	|	|	|	0.07
120.417	0.00	0.03	0.068	O	|	|	|	|	0.07
120.500	0.00	0.03	0.068	O	|	|	|	|	0.07
120.583	0.00	0.03	0.068	O	|	|	|	|	0.06
120.667	0.00	0.03	0.067	O	|	|	|	|	0.06
120.750	0.00	0.03	0.067	O	|	|	|	|	0.06
120.833	0.00	0.03	0.067	O	|	|	|	|	0.06
120.917	0.00	0.03	0.067	O	|	|	|	|	0.06
121.000	0.00	0.03	0.067	O	|	|	|	|	0.06
121.083	0.00	0.03	0.066	O	|	|	|	|	0.06
121.167	0.00	0.03	0.066	O	|	|	|	|	0.06
121.250	0.00	0.03	0.066	O	|	|	|	|	0.06
121.333	0.00	0.03	0.066	O	|	|	|	|	0.06
121.417	0.00	0.03	0.066	O	|	|	|	|	0.06
121.500	0.00	0.03	0.065	O	|	|	|	|	0.06
121.583	0.00	0.03	0.065	O	|	|	|	|	0.06
121.667	0.00	0.03	0.065	O	|	|	|	|	0.06
121.750	0.00	0.03	0.065	O	|	|	|	|	0.06
121.833	0.00	0.03	0.065	O	|	|	|	|	0.06
121.917	0.00	0.03	0.064	O	|	|	|	|	0.06
122.000	0.00	0.03	0.064	O	|	|	|	|	0.06
122.083	0.00	0.03	0.064	O	|	|	|	|	0.06
122.167	0.00	0.03	0.064	O	|	|	|	|	0.06
122.250	0.00	0.03	0.064	O	|	|	|	|	0.06
122.333	0.00	0.03	0.063	O	|	|	|	|	0.06
122.417	0.00	0.03	0.063	O	|	|	|	|	0.06
122.500	0.00	0.03	0.063	O	|	|	|	|	0.06
122.583	0.00	0.03	0.063	O	|	|	|	|	0.06
122.667	0.00	0.03	0.063	O	|	|	|	|	0.06
122.750	0.00	0.03	0.062	O	|	|	|	|	0.06
122.833	0.00	0.03	0.062	O	|	|	|	|	0.06
122.917	0.00	0.03	0.062	O	|	|	|	|	0.06
123.000	0.00	0.03	0.062	O	|	|	|	|	0.06
123.083	0.00	0.03	0.062	O	|	|	|	|	0.06
123.167	0.00	0.03	0.061	O	|	|	|	|	0.06
123.250	0.00	0.03	0.061	O	|	|	|	|	0.06
123.333	0.00	0.03	0.061	O	|	|	|	|	0.06
123.417	0.00	0.03	0.061	O	|	|	|	|	0.06
123.500	0.00	0.03	0.061	O	|	|	|	|	0.06
123.583	0.00	0.03	0.061	O	|	|	|	|	0.06
123.667	0.00	0.03	0.060	O	|	|	|	|	0.06
123.750	0.00	0.03	0.060	O	|	|	|	|	0.06
123.833	0.00	0.03	0.060	O	|	|	|	|	0.06
123.917	0.00	0.03	0.060	O	|	|	|	|	0.06
124.000	0.00	0.03	0.060	O	|	|	|	|	0.06
124.083	0.00	0.03	0.059	O	|	|	|	|	0.06
124.167	0.00	0.03	0.059	O	|	|	|	|	0.06
124.250	0.00	0.03	0.059	O	|	|	|	|	0.06
124.333	0.00	0.03	0.059	O	|	|	|	|	0.06
124.417	0.00	0.03	0.059	O	|	|	|	|	0.06
124.500	0.00	0.03	0.059	O	|	|	|	|	0.06
124.583	0.00	0.03	0.058	O	|	|	|	|	0.06
124.667	0.00	0.03	0.058	O	|	|	|	|	0.06
124.750	0.00	0.03	0.058	O	|	|	|	|	0.06
124.833	0.00	0.03	0.058	O	|	|	|	|	0.06
124.917	0.00	0.03	0.058	O	|	|	|	|	0.06

125.000	0.00	0.03	0.057	O	|	|	|	|	0.06
125.083	0.00	0.03	0.057	O	|	|	|	|	0.06
125.167	0.00	0.03	0.057	O	|	|	|	|	0.05
125.250	0.00	0.03	0.057	O	|	|	|	|	0.05
125.333	0.00	0.03	0.057	O	|	|	|	|	0.05
125.417	0.00	0.03	0.057	O	|	|	|	|	0.05
125.500	0.00	0.02	0.056	O	|	|	|	|	0.05
125.583	0.00	0.02	0.056	O	|	|	|	|	0.05
125.667	0.00	0.02	0.056	O	|	|	|	|	0.05
125.750	0.00	0.02	0.056	O	|	|	|	|	0.05
125.833	0.00	0.02	0.056	O	|	|	|	|	0.05
125.917	0.00	0.02	0.056	O	|	|	|	|	0.05
126.000	0.00	0.02	0.055	O	|	|	|	|	0.05
126.083	0.00	0.02	0.055	O	|	|	|	|	0.05
126.167	0.00	0.02	0.055	O	|	|	|	|	0.05
126.250	0.00	0.02	0.055	O	|	|	|	|	0.05
126.333	0.00	0.02	0.055	O	|	|	|	|	0.05
126.417	0.00	0.02	0.055	O	|	|	|	|	0.05
126.500	0.00	0.02	0.054	O	|	|	|	|	0.05
126.583	0.00	0.02	0.054	O	|	|	|	|	0.05
126.667	0.00	0.02	0.054	O	|	|	|	|	0.05
126.750	0.00	0.02	0.054	O	|	|	|	|	0.05
126.833	0.00	0.02	0.054	O	|	|	|	|	0.05
126.917	0.00	0.02	0.054	O	|	|	|	|	0.05
127.000	0.00	0.02	0.053	O	|	|	|	|	0.05
127.083	0.00	0.02	0.053	O	|	|	|	|	0.05
127.167	0.00	0.02	0.053	O	|	|	|	|	0.05
127.250	0.00	0.02	0.053	O	|	|	|	|	0.05
127.333	0.00	0.02	0.053	O	|	|	|	|	0.05
127.417	0.00	0.02	0.053	O	|	|	|	|	0.05
127.500	0.00	0.02	0.052	O	|	|	|	|	0.05
127.583	0.00	0.02	0.052	O	|	|	|	|	0.05
127.667	0.00	0.02	0.052	O	|	|	|	|	0.05
127.750	0.00	0.02	0.052	O	|	|	|	|	0.05
127.833	0.00	0.02	0.052	O	|	|	|	|	0.05
127.917	0.00	0.02	0.052	O	|	|	|	|	0.05
128.000	0.00	0.02	0.052	O	|	|	|	|	0.05
128.083	0.00	0.02	0.051	O	|	|	|	|	0.05
128.167	0.00	0.02	0.051	O	|	|	|	|	0.05
128.250	0.00	0.02	0.051	O	|	|	|	|	0.05
128.333	0.00	0.02	0.051	O	|	|	|	|	0.05
128.417	0.00	0.02	0.051	O	|	|	|	|	0.05
128.500	0.00	0.02	0.051	O	|	|	|	|	0.05
128.583	0.00	0.02	0.050	O	|	|	|	|	0.05
128.667	0.00	0.02	0.050	O	|	|	|	|	0.05
128.750	0.00	0.02	0.050	O	|	|	|	|	0.05
128.833	0.00	0.02	0.050	O	|	|	|	|	0.05
128.917	0.00	0.02	0.050	O	|	|	|	|	0.05
129.000	0.00	0.02	0.050	O	|	|	|	|	0.05
129.083	0.00	0.02	0.050	O	|	|	|	|	0.05
129.167	0.00	0.02	0.049	O	|	|	|	|	0.05
129.250	0.00	0.02	0.049	O	|	|	|	|	0.05
129.333	0.00	0.02	0.049	O	|	|	|	|	0.05
129.417	0.00	0.02	0.049	O	|	|	|	|	0.05
129.500	0.00	0.02	0.049	O	|	|	|	|	0.05
129.583	0.00	0.02	0.049	O	|	|	|	|	0.05
129.667	0.00	0.02	0.048	O	|	|	|	|	0.05
129.750	0.00	0.02	0.048	O	|	|	|	|	0.05
129.833	0.00	0.02	0.048	O	|	|	|	|	0.05
129.917	0.00	0.02	0.048	O	|	|	|	|	0.05
130.000	0.00	0.02	0.048	O	|	|	|	|	0.05
130.083	0.00	0.02	0.048	O	|	|	|	|	0.05
130.167	0.00	0.02	0.048	O	|	|	|	|	0.05

130.250	0.00	0.02	0.047	O	|	|	|	|	0.05
130.333	0.00	0.02	0.047	O	|	|	|	|	0.05
130.417	0.00	0.02	0.047	O	|	|	|	|	0.05
130.500	0.00	0.02	0.047	O	|	|	|	|	0.05
130.583	0.00	0.02	0.047	O	|	|	|	|	0.05
130.667	0.00	0.02	0.047	O	|	|	|	|	0.04
130.750	0.00	0.02	0.047	O	|	|	|	|	0.04
130.833	0.00	0.02	0.046	O	|	|	|	|	0.04
130.917	0.00	0.02	0.046	O	|	|	|	|	0.04
131.000	0.00	0.02	0.046	O	|	|	|	|	0.04
131.083	0.00	0.02	0.046	O	|	|	|	|	0.04
131.167	0.00	0.02	0.046	O	|	|	|	|	0.04
131.250	0.00	0.02	0.046	O	|	|	|	|	0.04
131.333	0.00	0.02	0.046	O	|	|	|	|	0.04
131.417	0.00	0.02	0.045	O	|	|	|	|	0.04
131.500	0.00	0.02	0.045	O	|	|	|	|	0.04
131.583	0.00	0.02	0.045	O	|	|	|	|	0.04
131.667	0.00	0.02	0.045	O	|	|	|	|	0.04
131.750	0.00	0.02	0.045	O	|	|	|	|	0.04
131.833	0.00	0.02	0.045	O	|	|	|	|	0.04
131.917	0.00	0.02	0.045	O	|	|	|	|	0.04
132.000	0.00	0.02	0.045	O	|	|	|	|	0.04
132.083	0.00	0.02	0.044	O	|	|	|	|	0.04
132.167	0.00	0.02	0.044	O	|	|	|	|	0.04
132.250	0.00	0.02	0.044	O	|	|	|	|	0.04
132.333	0.00	0.02	0.044	O	|	|	|	|	0.04
132.417	0.00	0.02	0.044	O	|	|	|	|	0.04
132.500	0.00	0.02	0.044	O	|	|	|	|	0.04
132.583	0.00	0.02	0.044	O	|	|	|	|	0.04
132.667	0.00	0.02	0.043	O	|	|	|	|	0.04
132.750	0.00	0.02	0.043	O	|	|	|	|	0.04
132.833	0.00	0.02	0.043	O	|	|	|	|	0.04
132.917	0.00	0.02	0.043	O	|	|	|	|	0.04
133.000	0.00	0.02	0.043	O	|	|	|	|	0.04
133.083	0.00	0.02	0.043	O	|	|	|	|	0.04
133.167	0.00	0.02	0.043	O	|	|	|	|	0.04
133.250	0.00	0.02	0.043	O	|	|	|	|	0.04
133.333	0.00	0.02	0.042	O	|	|	|	|	0.04
133.417	0.00	0.02	0.042	O	|	|	|	|	0.04
133.500	0.00	0.02	0.042	O	|	|	|	|	0.04
133.583	0.00	0.02	0.042	O	|	|	|	|	0.04
133.667	0.00	0.02	0.042	O	|	|	|	|	0.04
133.750	0.00	0.02	0.042	O	|	|	|	|	0.04
133.833	0.00	0.02	0.042	O	|	|	|	|	0.04
133.917	0.00	0.02	0.041	O	|	|	|	|	0.04
134.000	0.00	0.02	0.041	O	|	|	|	|	0.04
134.083	0.00	0.02	0.041	O	|	|	|	|	0.04
134.167	0.00	0.02	0.041	O	|	|	|	|	0.04
134.250	0.00	0.02	0.041	O	|	|	|	|	0.04
134.333	0.00	0.02	0.041	O	|	|	|	|	0.04
134.417	0.00	0.02	0.041	O	|	|	|	|	0.04
134.500	0.00	0.02	0.041	O	|	|	|	|	0.04
134.583	0.00	0.02	0.040	O	|	|	|	|	0.04
134.667	0.00	0.02	0.040	O	|	|	|	|	0.04
134.750	0.00	0.02	0.040	O	|	|	|	|	0.04
134.833	0.00	0.02	0.040	O	|	|	|	|	0.04
134.917	0.00	0.02	0.040	O	|	|	|	|	0.04
135.000	0.00	0.02	0.040	O	|	|	|	|	0.04
135.083	0.00	0.02	0.040	O	|	|	|	|	0.04
135.167	0.00	0.02	0.040	O	|	|	|	|	0.04
135.250	0.00	0.02	0.040	O	|	|	|	|	0.04
135.333	0.00	0.02	0.039	O	|	|	|	|	0.04
135.417	0.00	0.02	0.039	O	|	|	|	|	0.04

135.500	0.00	0.02	0.039	O	|	|	|	|	0.04
135.583	0.00	0.02	0.039	O	|	|	|	|	0.04
135.667	0.00	0.02	0.039	O	|	|	|	|	0.04
135.750	0.00	0.02	0.039	O	|	|	|	|	0.04
135.833	0.00	0.02	0.039	O	|	|	|	|	0.04
135.917	0.00	0.02	0.039	O	|	|	|	|	0.04
136.000	0.00	0.02	0.038	O	|	|	|	|	0.04
136.083	0.00	0.02	0.038	O	|	|	|	|	0.04
136.167	0.00	0.02	0.038	O	|	|	|	|	0.04
136.250	0.00	0.02	0.038	O	|	|	|	|	0.04
136.333	0.00	0.02	0.038	O	|	|	|	|	0.04
136.417	0.00	0.02	0.038	O	|	|	|	|	0.04
136.500	0.00	0.02	0.038	O	|	|	|	|	0.04
136.583	0.00	0.02	0.038	O	|	|	|	|	0.04
136.667	0.00	0.02	0.038	O	|	|	|	|	0.04
136.750	0.00	0.02	0.037	O	|	|	|	|	0.04
136.833	0.00	0.02	0.037	O	|	|	|	|	0.04
136.917	0.00	0.02	0.037	O	|	|	|	|	0.04
137.000	0.00	0.02	0.037	O	|	|	|	|	0.04
137.083	0.00	0.02	0.037	O	|	|	|	|	0.04
137.167	0.00	0.02	0.037	O	|	|	|	|	0.04
137.250	0.00	0.02	0.037	O	|	|	|	|	0.04
137.333	0.00	0.02	0.037	O	|	|	|	|	0.04
137.417	0.00	0.02	0.037	O	|	|	|	|	0.04
137.500	0.00	0.02	0.036	O	|	|	|	|	0.03
137.583	0.00	0.02	0.036	O	|	|	|	|	0.03
137.667	0.00	0.02	0.036	O	|	|	|	|	0.03
137.750	0.00	0.02	0.036	O	|	|	|	|	0.03
137.833	0.00	0.02	0.036	O	|	|	|	|	0.03
137.917	0.00	0.02	0.036	O	|	|	|	|	0.03
138.000	0.00	0.02	0.036	O	|	|	|	|	0.03
138.083	0.00	0.02	0.036	O	|	|	|	|	0.03
138.167	0.00	0.02	0.036	O	|	|	|	|	0.03
138.250	0.00	0.02	0.035	O	|	|	|	|	0.03
138.333	0.00	0.02	0.035	O	|	|	|	|	0.03
138.417	0.00	0.02	0.035	O	|	|	|	|	0.03
138.500	0.00	0.02	0.035	O	|	|	|	|	0.03
138.583	0.00	0.02	0.035	O	|	|	|	|	0.03
138.667	0.00	0.02	0.035	O	|	|	|	|	0.03
138.750	0.00	0.02	0.035	O	|	|	|	|	0.03
138.833	0.00	0.02	0.035	O	|	|	|	|	0.03
138.917	0.00	0.02	0.035	O	|	|	|	|	0.03
139.000	0.00	0.02	0.034	O	|	|	|	|	0.03
139.083	0.00	0.02	0.034	O	|	|	|	|	0.03
139.167	0.00	0.02	0.034	O	|	|	|	|	0.03
139.250	0.00	0.02	0.034	O	|	|	|	|	0.03
139.333	0.00	0.02	0.034	O	|	|	|	|	0.03
139.417	0.00	0.02	0.034	O	|	|	|	|	0.03
139.500	0.00	0.01	0.034	O	|	|	|	|	0.03
139.583	0.00	0.01	0.034	O	|	|	|	|	0.03
139.667	0.00	0.01	0.034	O	|	|	|	|	0.03
139.750	0.00	0.01	0.034	O	|	|	|	|	0.03
139.833	0.00	0.01	0.033	O	|	|	|	|	0.03
139.917	0.00	0.01	0.033	O	|	|	|	|	0.03
140.000	0.00	0.01	0.033	O	|	|	|	|	0.03
140.083	0.00	0.01	0.033	O	|	|	|	|	0.03
140.167	0.00	0.01	0.033	O	|	|	|	|	0.03
140.250	0.00	0.01	0.033	O	|	|	|	|	0.03
140.333	0.00	0.01	0.033	O	|	|	|	|	0.03
140.417	0.00	0.01	0.033	O	|	|	|	|	0.03
140.500	0.00	0.01	0.033	O	|	|	|	|	0.03
140.583	0.00	0.01	0.033	O	|	|	|	|	0.03
140.667	0.00	0.01	0.032	O	|	|	|	|	0.03

140.750	0.00	0.01	0.032	O	|	|	|	|	0.03
140.833	0.00	0.01	0.032	O	|	|	|	|	0.03
140.917	0.00	0.01	0.032	O	|	|	|	|	0.03
141.000	0.00	0.01	0.032	O	|	|	|	|	0.03
141.083	0.00	0.01	0.032	O	|	|	|	|	0.03
141.167	0.00	0.01	0.032	O	|	|	|	|	0.03
141.250	0.00	0.01	0.032	O	|	|	|	|	0.03
141.333	0.00	0.01	0.032	O	|	|	|	|	0.03
141.417	0.00	0.01	0.032	O	|	|	|	|	0.03
141.500	0.00	0.01	0.031	O	|	|	|	|	0.03
141.583	0.00	0.01	0.031	O	|	|	|	|	0.03
141.667	0.00	0.01	0.031	O	|	|	|	|	0.03
141.750	0.00	0.01	0.031	O	|	|	|	|	0.03
141.833	0.00	0.01	0.031	O	|	|	|	|	0.03
141.917	0.00	0.01	0.031	O	|	|	|	|	0.03
142.000	0.00	0.01	0.031	O	|	|	|	|	0.03
142.083	0.00	0.01	0.031	O	|	|	|	|	0.03
142.167	0.00	0.01	0.031	O	|	|	|	|	0.03
142.250	0.00	0.01	0.031	O	|	|	|	|	0.03
142.333	0.00	0.01	0.031	O	|	|	|	|	0.03
142.417	0.00	0.01	0.030	O	|	|	|	|	0.03
142.500	0.00	0.01	0.030	O	|	|	|	|	0.03
142.583	0.00	0.01	0.030	O	|	|	|	|	0.03
142.667	0.00	0.01	0.030	O	|	|	|	|	0.03
142.750	0.00	0.01	0.030	O	|	|	|	|	0.03
142.833	0.00	0.01	0.030	O	|	|	|	|	0.03
142.917	0.00	0.01	0.030	O	|	|	|	|	0.03
143.000	0.00	0.01	0.030	O	|	|	|	|	0.03
143.083	0.00	0.01	0.030	O	|	|	|	|	0.03
143.167	0.00	0.01	0.030	O	|	|	|	|	0.03
143.250	0.00	0.01	0.029	O	|	|	|	|	0.03
143.333	0.00	0.01	0.029	O	|	|	|	|	0.03
143.417	0.00	0.01	0.029	O	|	|	|	|	0.03
143.500	0.00	0.01	0.029	O	|	|	|	|	0.03
143.583	0.00	0.01	0.029	O	|	|	|	|	0.03
143.667	0.00	0.01	0.029	O	|	|	|	|	0.03
143.750	0.00	0.01	0.029	O	|	|	|	|	0.03
143.833	0.00	0.01	0.029	O	|	|	|	|	0.03
143.917	0.00	0.01	0.029	O	|	|	|	|	0.03
144.000	0.00	0.01	0.029	O	|	|	|	|	0.03
144.083	0.00	0.01	0.029	O	|	|	|	|	0.03
144.167	0.00	0.01	0.029	O	|	|	|	|	0.03
144.250	0.00	0.01	0.028	O	|	|	|	|	0.03
144.333	0.00	0.01	0.028	O	|	|	|	|	0.03
144.417	0.00	0.01	0.028	O	|	|	|	|	0.03
144.500	0.00	0.01	0.028	O	|	|	|	|	0.03
144.583	0.00	0.01	0.028	O	|	|	|	|	0.03
144.667	0.00	0.01	0.028	O	|	|	|	|	0.03
144.750	0.00	0.01	0.028	O	|	|	|	|	0.03
144.833	0.00	0.01	0.028	O	|	|	|	|	0.03
144.917	0.00	0.01	0.028	O	|	|	|	|	0.03
145.000	0.00	0.01	0.028	O	|	|	|	|	0.03
145.083	0.00	0.01	0.028	O	|	|	|	|	0.03
145.167	0.00	0.01	0.028	O	|	|	|	|	0.03
145.250	0.00	0.01	0.027	O	|	|	|	|	0.03
145.333	0.00	0.01	0.027	O	|	|	|	|	0.03
145.417	0.00	0.01	0.027	O	|	|	|	|	0.03
145.500	0.00	0.01	0.027	O	|	|	|	|	0.03
145.583	0.00	0.01	0.027	O	|	|	|	|	0.03
145.667	0.00	0.01	0.027	O	|	|	|	|	0.03
145.750	0.00	0.01	0.027	O	|	|	|	|	0.03
145.833	0.00	0.01	0.027	O	|	|	|	|	0.03
145.917	0.00	0.01	0.027	O	|	|	|	|	0.03

146.000	0.00	0.01	0.027	O	|	|	|	|	0.03
146.083	0.00	0.01	0.027	O	|	|	|	|	0.03
146.167	0.00	0.01	0.027	O	|	|	|	|	0.03
146.250	0.00	0.01	0.026	O	|	|	|	|	0.03
146.333	0.00	0.01	0.026	O	|	|	|	|	0.03
146.417	0.00	0.01	0.026	O	|	|	|	|	0.03
146.500	0.00	0.01	0.026	O	|	|	|	|	0.03
146.583	0.00	0.01	0.026	O	|	|	|	|	0.03
146.667	0.00	0.01	0.026	O	|	|	|	|	0.03
146.750	0.00	0.01	0.026	O	|	|	|	|	0.02
146.833	0.00	0.01	0.026	O	|	|	|	|	0.02
146.917	0.00	0.01	0.026	O	|	|	|	|	0.02
147.000	0.00	0.01	0.026	O	|	|	|	|	0.02
147.083	0.00	0.01	0.026	O	|	|	|	|	0.02
147.167	0.00	0.01	0.026	O	|	|	|	|	0.02
147.250	0.00	0.01	0.025	O	|	|	|	|	0.02
147.333	0.00	0.01	0.025	O	|	|	|	|	0.02
147.417	0.00	0.01	0.025	O	|	|	|	|	0.02
147.500	0.00	0.01	0.025	O	|	|	|	|	0.02
147.583	0.00	0.01	0.025	O	|	|	|	|	0.02
147.667	0.00	0.01	0.025	O	|	|	|	|	0.02
147.750	0.00	0.01	0.025	O	|	|	|	|	0.02
147.833	0.00	0.01	0.025	O	|	|	|	|	0.02
147.917	0.00	0.01	0.025	O	|	|	|	|	0.02
148.000	0.00	0.01	0.025	O	|	|	|	|	0.02
148.083	0.00	0.01	0.025	O	|	|	|	|	0.02
148.167	0.00	0.01	0.025	O	|	|	|	|	0.02
148.250	0.00	0.01	0.025	O	|	|	|	|	0.02
148.333	0.00	0.01	0.024	O	|	|	|	|	0.02
148.417	0.00	0.01	0.024	O	|	|	|	|	0.02
148.500	0.00	0.01	0.024	O	|	|	|	|	0.02
148.583	0.00	0.01	0.024	O	|	|	|	|	0.02
148.667	0.00	0.01	0.024	O	|	|	|	|	0.02
148.750	0.00	0.01	0.024	O	|	|	|	|	0.02
148.833	0.00	0.01	0.024	O	|	|	|	|	0.02
148.917	0.00	0.01	0.024	O	|	|	|	|	0.02
149.000	0.00	0.01	0.024	O	|	|	|	|	0.02
149.083	0.00	0.01	0.024	O	|	|	|	|	0.02
149.167	0.00	0.01	0.024	O	|	|	|	|	0.02
149.250	0.00	0.01	0.024	O	|	|	|	|	0.02
149.333	0.00	0.01	0.024	O	|	|	|	|	0.02
149.417	0.00	0.01	0.024	O	|	|	|	|	0.02
149.500	0.00	0.01	0.023	O	|	|	|	|	0.02
149.583	0.00	0.01	0.023	O	|	|	|	|	0.02
149.667	0.00	0.01	0.023	O	|	|	|	|	0.02
149.750	0.00	0.01	0.023	O	|	|	|	|	0.02
149.833	0.00	0.01	0.023	O	|	|	|	|	0.02
149.917	0.00	0.01	0.023	O	|	|	|	|	0.02
150.000	0.00	0.01	0.023	O	|	|	|	|	0.02
150.083	0.00	0.01	0.023	O	|	|	|	|	0.02
150.167	0.00	0.01	0.023	O	|	|	|	|	0.02
150.250	0.00	0.01	0.023	O	|	|	|	|	0.02
150.333	0.00	0.01	0.023	O	|	|	|	|	0.02
150.417	0.00	0.01	0.023	O	|	|	|	|	0.02
150.500	0.00	0.01	0.023	O	|	|	|	|	0.02
150.583	0.00	0.01	0.023	O	|	|	|	|	0.02
150.667	0.00	0.01	0.022	O	|	|	|	|	0.02
150.750	0.00	0.01	0.022	O	|	|	|	|	0.02
150.833	0.00	0.01	0.022	O	|	|	|	|	0.02
150.917	0.00	0.01	0.022	O	|	|	|	|	0.02
151.000	0.00	0.01	0.022	O	|	|	|	|	0.02
151.083	0.00	0.01	0.022	O	|	|	|	|	0.02
151.167	0.00	0.01	0.022	O	|	|	|	|	0.02

151.250	0.00	0.01	0.022	O	|	|	|	|	0.02
151.333	0.00	0.01	0.022	O	|	|	|	|	0.02
151.417	0.00	0.01	0.022	O	|	|	|	|	0.02
151.500	0.00	0.01	0.022	O	|	|	|	|	0.02
151.583	0.00	0.01	0.022	O	|	|	|	|	0.02
151.667	0.00	0.01	0.022	O	|	|	|	|	0.02
151.750	0.00	0.01	0.022	O	|	|	|	|	0.02
151.833	0.00	0.01	0.022	O	|	|	|	|	0.02
151.917	0.00	0.01	0.021	O	|	|	|	|	0.02
152.000	0.00	0.01	0.021	O	|	|	|	|	0.02
152.083	0.00	0.01	0.021	O	|	|	|	|	0.02
152.167	0.00	0.01	0.021	O	|	|	|	|	0.02
152.250	0.00	0.01	0.021	O	|	|	|	|	0.02
152.333	0.00	0.01	0.021	O	|	|	|	|	0.02
152.417	0.00	0.01	0.021	O	|	|	|	|	0.02
152.500	0.00	0.01	0.021	O	|	|	|	|	0.02
152.583	0.00	0.01	0.021	O	|	|	|	|	0.02
152.667	0.00	0.01	0.021	O	|	|	|	|	0.02
152.750	0.00	0.01	0.021	O	|	|	|	|	0.02
152.833	0.00	0.01	0.021	O	|	|	|	|	0.02
152.917	0.00	0.01	0.021	O	|	|	|	|	0.02
153.000	0.00	0.01	0.021	O	|	|	|	|	0.02
153.083	0.00	0.01	0.021	O	|	|	|	|	0.02
153.167	0.00	0.01	0.021	O	|	|	|	|	0.02
153.250	0.00	0.01	0.020	O	|	|	|	|	0.02
153.333	0.00	0.01	0.020	O	|	|	|	|	0.02
153.417	0.00	0.01	0.020	O	|	|	|	|	0.02
153.500	0.00	0.01	0.020	O	|	|	|	|	0.02
153.583	0.00	0.01	0.020	O	|	|	|	|	0.02
153.667	0.00	0.01	0.020	O	|	|	|	|	0.02
153.750	0.00	0.01	0.020	O	|	|	|	|	0.02
153.833	0.00	0.01	0.020	O	|	|	|	|	0.02
153.917	0.00	0.01	0.020	O	|	|	|	|	0.02
154.000	0.00	0.01	0.020	O	|	|	|	|	0.02
154.083	0.00	0.01	0.020	O	|	|	|	|	0.02
154.167	0.00	0.01	0.020	O	|	|	|	|	0.02
154.250	0.00	0.01	0.020	O	|	|	|	|	0.02
154.333	0.00	0.01	0.020	O	|	|	|	|	0.02
154.417	0.00	0.01	0.020	O	|	|	|	|	0.02
154.500	0.00	0.01	0.020	O	|	|	|	|	0.02
154.583	0.00	0.01	0.019	O	|	|	|	|	0.02
154.667	0.00	0.01	0.019	O	|	|	|	|	0.02
154.750	0.00	0.01	0.019	O	|	|	|	|	0.02
154.833	0.00	0.01	0.019	O	|	|	|	|	0.02
154.917	0.00	0.01	0.019	O	|	|	|	|	0.02
155.000	0.00	0.01	0.019	O	|	|	|	|	0.02
155.083	0.00	0.01	0.019	O	|	|	|	|	0.02
155.167	0.00	0.01	0.019	O	|	|	|	|	0.02
155.250	0.00	0.01	0.019	O	|	|	|	|	0.02
155.333	0.00	0.01	0.019	O	|	|	|	|	0.02
155.417	0.00	0.01	0.019	O	|	|	|	|	0.02
155.500	0.00	0.01	0.019	O	|	|	|	|	0.02
155.583	0.00	0.01	0.019	O	|	|	|	|	0.02
155.667	0.00	0.01	0.019	O	|	|	|	|	0.02
155.750	0.00	0.01	0.019	O	|	|	|	|	0.02
155.833	0.00	0.01	0.019	O	|	|	|	|	0.02
155.917	0.00	0.01	0.019	O	|	|	|	|	0.02
156.000	0.00	0.01	0.019	O	|	|	|	|	0.02
156.083	0.00	0.01	0.018	O	|	|	|	|	0.02
156.167	0.00	0.01	0.018	O	|	|	|	|	0.02
156.250	0.00	0.01	0.018	O	|	|	|	|	0.02
156.333	0.00	0.01	0.018	O	|	|	|	|	0.02
156.417	0.00	0.01	0.018	O	|	|	|	|	0.02

156.500	0.00	0.01	0.018	O	|	|	|	|	0.02
156.583	0.00	0.01	0.018	O	|	|	|	|	0.02
156.667	0.00	0.01	0.018	O	|	|	|	|	0.02
156.750	0.00	0.01	0.018	O	|	|	|	|	0.02
156.833	0.00	0.01	0.018	O	|	|	|	|	0.02
156.917	0.00	0.01	0.018	O	|	|	|	|	0.02
157.000	0.00	0.01	0.018	O	|	|	|	|	0.02
157.083	0.00	0.01	0.018	O	|	|	|	|	0.02
157.167	0.00	0.01	0.018	O	|	|	|	|	0.02
157.250	0.00	0.01	0.018	O	|	|	|	|	0.02
157.333	0.00	0.01	0.018	O	|	|	|	|	0.02
157.417	0.00	0.01	0.018	O	|	|	|	|	0.02
157.500	0.00	0.01	0.018	O	|	|	|	|	0.02
157.583	0.00	0.01	0.017	O	|	|	|	|	0.02
157.667	0.00	0.01	0.017	O	|	|	|	|	0.02
157.750	0.00	0.01	0.017	O	|	|	|	|	0.02
157.833	0.00	0.01	0.017	O	|	|	|	|	0.02
157.917	0.00	0.01	0.017	O	|	|	|	|	0.02
158.000	0.00	0.01	0.017	O	|	|	|	|	0.02
158.083	0.00	0.01	0.017	O	|	|	|	|	0.02
158.167	0.00	0.01	0.017	O	|	|	|	|	0.02
158.250	0.00	0.01	0.017	O	|	|	|	|	0.02
158.333	0.00	0.01	0.017	O	|	|	|	|	0.02
158.417	0.00	0.01	0.017	O	|	|	|	|	0.02
158.500	0.00	0.01	0.017	O	|	|	|	|	0.02
158.583	0.00	0.01	0.017	O	|	|	|	|	0.02
158.667	0.00	0.01	0.017	O	|	|	|	|	0.02
158.750	0.00	0.01	0.017	O	|	|	|	|	0.02
158.833	0.00	0.01	0.017	O	|	|	|	|	0.02
158.917	0.00	0.01	0.017	O	|	|	|	|	0.02
159.000	0.00	0.01	0.017	O	|	|	|	|	0.02
159.083	0.00	0.01	0.017	O	|	|	|	|	0.02
159.167	0.00	0.01	0.016	O	|	|	|	|	0.02
159.250	0.00	0.01	0.016	O	|	|	|	|	0.02
159.333	0.00	0.01	0.016	O	|	|	|	|	0.02
159.417	0.00	0.01	0.016	O	|	|	|	|	0.02
159.500	0.00	0.01	0.016	O	|	|	|	|	0.02
159.583	0.00	0.01	0.016	O	|	|	|	|	0.02
159.667	0.00	0.01	0.016	O	|	|	|	|	0.02
159.750	0.00	0.01	0.016	O	|	|	|	|	0.02
159.833	0.00	0.01	0.016	O	|	|	|	|	0.02
159.917	0.00	0.01	0.016	O	|	|	|	|	0.02
160.000	0.00	0.01	0.016	O	|	|	|	|	0.02
160.083	0.00	0.01	0.016	O	|	|	|	|	0.02
160.167	0.00	0.01	0.016	O	|	|	|	|	0.02
160.250	0.00	0.01	0.016	O	|	|	|	|	0.02
160.333	0.00	0.01	0.016	O	|	|	|	|	0.02
160.417	0.00	0.01	0.016	O	|	|	|	|	0.02
160.500	0.00	0.01	0.016	O	|	|	|	|	0.02
160.583	0.00	0.01	0.016	O	|	|	|	|	0.02
160.667	0.00	0.01	0.016	O	|	|	|	|	0.02
160.750	0.00	0.01	0.016	O	|	|	|	|	0.01
160.833	0.00	0.01	0.016	O	|	|	|	|	0.01
160.917	0.00	0.01	0.015	O	|	|	|	|	0.01
161.000	0.00	0.01	0.015	O	|	|	|	|	0.01
161.083	0.00	0.01	0.015	O	|	|	|	|	0.01
161.167	0.00	0.01	0.015	O	|	|	|	|	0.01
161.250	0.00	0.01	0.015	O	|	|	|	|	0.01
161.333	0.00	0.01	0.015	O	|	|	|	|	0.01
161.417	0.00	0.01	0.015	O	|	|	|	|	0.01
161.500	0.00	0.01	0.015	O	|	|	|	|	0.01
161.583	0.00	0.01	0.015	O	|	|	|	|	0.01
161.667	0.00	0.01	0.015	O	|	|	|	|	0.01

161.750	0.00	0.01	0.015	O	|	|	|	|	0.01
161.833	0.00	0.01	0.015	O	|	|	|	|	0.01
161.917	0.00	0.01	0.015	O	|	|	|	|	0.01
162.000	0.00	0.01	0.015	O	|	|	|	|	0.01
162.083	0.00	0.01	0.015	O	|	|	|	|	0.01
162.167	0.00	0.01	0.015	O	|	|	|	|	0.01
162.250	0.00	0.01	0.015	O	|	|	|	|	0.01
162.333	0.00	0.01	0.015	O	|	|	|	|	0.01
162.417	0.00	0.01	0.015	O	|	|	|	|	0.01
162.500	0.00	0.01	0.015	O	|	|	|	|	0.01
162.583	0.00	0.01	0.015	O	|	|	|	|	0.01
162.667	0.00	0.01	0.015	O	|	|	|	|	0.01
162.750	0.00	0.01	0.014	O	|	|	|	|	0.01
162.833	0.00	0.01	0.014	O	|	|	|	|	0.01
162.917	0.00	0.01	0.014	O	|	|	|	|	0.01
163.000	0.00	0.01	0.014	O	|	|	|	|	0.01
163.083	0.00	0.01	0.014	O	|	|	|	|	0.01
163.167	0.00	0.01	0.014	O	|	|	|	|	0.01
163.250	0.00	0.01	0.014	O	|	|	|	|	0.01
163.333	0.00	0.01	0.014	O	|	|	|	|	0.01
163.417	0.00	0.01	0.014	O	|	|	|	|	0.01
163.500	0.00	0.01	0.014	O	|	|	|	|	0.01
163.583	0.00	0.01	0.014	O	|	|	|	|	0.01
163.667	0.00	0.01	0.014	O	|	|	|	|	0.01
163.750	0.00	0.01	0.014	O	|	|	|	|	0.01
163.833	0.00	0.01	0.014	O	|	|	|	|	0.01
163.917	0.00	0.01	0.014	O	|	|	|	|	0.01
164.000	0.00	0.01	0.014	O	|	|	|	|	0.01
164.083	0.00	0.01	0.014	O	|	|	|	|	0.01
164.167	0.00	0.01	0.014	O	|	|	|	|	0.01
164.250	0.00	0.01	0.014	O	|	|	|	|	0.01
164.333	0.00	0.01	0.014	O	|	|	|	|	0.01
164.417	0.00	0.01	0.014	O	|	|	|	|	0.01
164.500	0.00	0.01	0.014	O	|	|	|	|	0.01
164.583	0.00	0.01	0.014	O	|	|	|	|	0.01
164.667	0.00	0.01	0.013	O	|	|	|	|	0.01
164.750	0.00	0.01	0.013	O	|	|	|	|	0.01
164.833	0.00	0.01	0.013	O	|	|	|	|	0.01
164.917	0.00	0.01	0.013	O	|	|	|	|	0.01
165.000	0.00	0.01	0.013	O	|	|	|	|	0.01
165.083	0.00	0.01	0.013	O	|	|	|	|	0.01
165.167	0.00	0.01	0.013	O	|	|	|	|	0.01
165.250	0.00	0.01	0.013	O	|	|	|	|	0.01
165.333	0.00	0.01	0.013	O	|	|	|	|	0.01
165.417	0.00	0.01	0.013	O	|	|	|	|	0.01
165.500	0.00	0.01	0.013	O	|	|	|	|	0.01
165.583	0.00	0.01	0.013	O	|	|	|	|	0.01
165.667	0.00	0.01	0.013	O	|	|	|	|	0.01
165.750	0.00	0.01	0.013	O	|	|	|	|	0.01
165.833	0.00	0.01	0.013	O	|	|	|	|	0.01
165.917	0.00	0.01	0.013	O	|	|	|	|	0.01
166.000	0.00	0.01	0.013	O	|	|	|	|	0.01
166.083	0.00	0.01	0.013	O	|	|	|	|	0.01
166.167	0.00	0.01	0.013	O	|	|	|	|	0.01
166.250	0.00	0.01	0.013	O	|	|	|	|	0.01
166.333	0.00	0.01	0.013	O	|	|	|	|	0.01
166.417	0.00	0.01	0.013	O	|	|	|	|	0.01
166.500	0.00	0.01	0.013	O	|	|	|	|	0.01
166.583	0.00	0.01	0.013	O	|	|	|	|	0.01
166.667	0.00	0.01	0.013	O	|	|	|	|	0.01
166.750	0.00	0.01	0.012	O	|	|	|	|	0.01
166.833	0.00	0.01	0.012	O	|	|	|	|	0.01
166.917	0.00	0.01	0.012	O	|	|	|	|	0.01

167.000	0.00	0.01	0.012	O	|	|	|	|	0.01
167.083	0.00	0.01	0.012	O	|	|	|	|	0.01
167.167	0.00	0.01	0.012	O	|	|	|	|	0.01
167.250	0.00	0.01	0.012	O	|	|	|	|	0.01
167.333	0.00	0.01	0.012	O	|	|	|	|	0.01
167.417	0.00	0.01	0.012	O	|	|	|	|	0.01
167.500	0.00	0.01	0.012	O	|	|	|	|	0.01
167.583	0.00	0.01	0.012	O	|	|	|	|	0.01
167.667	0.00	0.01	0.012	O	|	|	|	|	0.01
167.750	0.00	0.01	0.012	O	|	|	|	|	0.01
167.833	0.00	0.01	0.012	O	|	|	|	|	0.01
167.917	0.00	0.01	0.012	O	|	|	|	|	0.01
168.000	0.00	0.01	0.012	O	|	|	|	|	0.01
168.083	0.00	0.01	0.012	O	|	|	|	|	0.01
168.167	0.00	0.01	0.012	O	|	|	|	|	0.01
168.250	0.00	0.01	0.012	O	|	|	|	|	0.01
168.333	0.00	0.01	0.012	O	|	|	|	|	0.01
168.417	0.00	0.01	0.012	O	|	|	|	|	0.01
168.500	0.00	0.01	0.012	O	|	|	|	|	0.01
168.583	0.00	0.01	0.012	O	|	|	|	|	0.01
168.667	0.00	0.01	0.012	O	|	|	|	|	0.01
168.750	0.00	0.01	0.012	O	|	|	|	|	0.01
168.833	0.00	0.01	0.012	O	|	|	|	|	0.01
168.917	0.00	0.01	0.012	O	|	|	|	|	0.01
169.000	0.00	0.01	0.012	O	|	|	|	|	0.01
169.083	0.00	0.01	0.011	O	|	|	|	|	0.01
169.167	0.00	0.01	0.011	O	|	|	|	|	0.01
169.250	0.00	0.01	0.011	O	|	|	|	|	0.01
169.333	0.00	0.01	0.011	O	|	|	|	|	0.01
169.417	0.00	0.01	0.011	O	|	|	|	|	0.01
169.500	0.00	0.00	0.011	O	|	|	|	|	0.01
169.583	0.00	0.00	0.011	O	|	|	|	|	0.01
169.667	0.00	0.00	0.011	O	|	|	|	|	0.01
169.750	0.00	0.00	0.011	O	|	|	|	|	0.01
169.833	0.00	0.00	0.011	O	|	|	|	|	0.01
169.917	0.00	0.00	0.011	O	|	|	|	|	0.01
170.000	0.00	0.00	0.011	O	|	|	|	|	0.01
170.083	0.00	0.00	0.011	O	|	|	|	|	0.01
170.167	0.00	0.00	0.011	O	|	|	|	|	0.01
170.250	0.00	0.00	0.011	O	|	|	|	|	0.01
170.333	0.00	0.00	0.011	O	|	|	|	|	0.01
170.417	0.00	0.00	0.011	O	|	|	|	|	0.01
170.500	0.00	0.00	0.011	O	|	|	|	|	0.01
170.583	0.00	0.00	0.011	O	|	|	|	|	0.01
170.667	0.00	0.00	0.011	O	|	|	|	|	0.01
170.750	0.00	0.00	0.011	O	|	|	|	|	0.01
170.833	0.00	0.00	0.011	O	|	|	|	|	0.01
170.917	0.00	0.00	0.011	O	|	|	|	|	0.01
171.000	0.00	0.00	0.011	O	|	|	|	|	0.01
171.083	0.00	0.00	0.011	O	|	|	|	|	0.01
171.167	0.00	0.00	0.011	O	|	|	|	|	0.01
171.250	0.00	0.00	0.011	O	|	|	|	|	0.01
171.333	0.00	0.00	0.011	O	|	|	|	|	0.01
171.417	0.00	0.00	0.011	O	|	|	|	|	0.01
171.500	0.00	0.00	0.011	O	|	|	|	|	0.01
171.583	0.00	0.00	0.010	O	|	|	|	|	0.01
171.667	0.00	0.00	0.010	O	|	|	|	|	0.01
171.750	0.00	0.00	0.010	O	|	|	|	|	0.01
171.833	0.00	0.00	0.010	O	|	|	|	|	0.01
171.917	0.00	0.00	0.010	O	|	|	|	|	0.01
172.000	0.00	0.00	0.010	O	|	|	|	|	0.01
172.083	0.00	0.00	0.010	O	|	|	|	|	0.01
172.167	0.00	0.00	0.010	O	|	|	|	|	0.01

172.250	0.00	0.00	0.010	O	|	|	|	|	0.01
172.333	0.00	0.00	0.010	O	|	|	|	|	0.01
172.417	0.00	0.00	0.010	O	|	|	|	|	0.01
172.500	0.00	0.00	0.010	O	|	|	|	|	0.01
172.583	0.00	0.00	0.010	O	|	|	|	|	0.01
172.667	0.00	0.00	0.010	O	|	|	|	|	0.01
172.750	0.00	0.00	0.010	O	|	|	|	|	0.01
172.833	0.00	0.00	0.010	O	|	|	|	|	0.01
172.917	0.00	0.00	0.010	O	|	|	|	|	0.01
173.000	0.00	0.00	0.010	O	|	|	|	|	0.01
173.083	0.00	0.00	0.010	O	|	|	|	|	0.01
173.167	0.00	0.00	0.010	O	|	|	|	|	0.01
173.250	0.00	0.00	0.010	O	|	|	|	|	0.01
173.333	0.00	0.00	0.010	O	|	|	|	|	0.01
173.417	0.00	0.00	0.010	O	|	|	|	|	0.01
173.500	0.00	0.00	0.010	O	|	|	|	|	0.01
173.583	0.00	0.00	0.010	O	|	|	|	|	0.01
173.667	0.00	0.00	0.010	O	|	|	|	|	0.01
173.750	0.00	0.00	0.010	O	|	|	|	|	0.01
173.833	0.00	0.00	0.010	O	|	|	|	|	0.01
173.917	0.00	0.00	0.010	O	|	|	|	|	0.01
174.000	0.00	0.00	0.010	O	|	|	|	|	0.01
174.083	0.00	0.00	0.010	O	|	|	|	|	0.01
174.167	0.00	0.00	0.010	O	|	|	|	|	0.01
174.250	0.00	0.00	0.009	O	|	|	|	|	0.01
174.333	0.00	0.00	0.009	O	|	|	|	|	0.01
174.417	0.00	0.00	0.009	O	|	|	|	|	0.01
174.500	0.00	0.00	0.009	O	|	|	|	|	0.01
174.583	0.00	0.00	0.009	O	|	|	|	|	0.01
174.667	0.00	0.00	0.009	O	|	|	|	|	0.01
174.750	0.00	0.00	0.009	O	|	|	|	|	0.01
174.833	0.00	0.00	0.009	O	|	|	|	|	0.01
174.917	0.00	0.00	0.009	O	|	|	|	|	0.01
175.000	0.00	0.00	0.009	O	|	|	|	|	0.01
175.083	0.00	0.00	0.009	O	|	|	|	|	0.01
175.167	0.00	0.00	0.009	O	|	|	|	|	0.01
175.250	0.00	0.00	0.009	O	|	|	|	|	0.01
175.333	0.00	0.00	0.009	O	|	|	|	|	0.01
175.417	0.00	0.00	0.009	O	|	|	|	|	0.01
175.500	0.00	0.00	0.009	O	|	|	|	|	0.01
175.583	0.00	0.00	0.009	O	|	|	|	|	0.01
175.667	0.00	0.00	0.009	O	|	|	|	|	0.01
175.750	0.00	0.00	0.009	O	|	|	|	|	0.01
175.833	0.00	0.00	0.009	O	|	|	|	|	0.01
175.917	0.00	0.00	0.009	O	|	|	|	|	0.01
176.000	0.00	0.00	0.009	O	|	|	|	|	0.01
176.083	0.00	0.00	0.009	O	|	|	|	|	0.01
176.167	0.00	0.00	0.009	O	|	|	|	|	0.01
176.250	0.00	0.00	0.009	O	|	|	|	|	0.01
176.333	0.00	0.00	0.009	O	|	|	|	|	0.01
176.417	0.00	0.00	0.009	O	|	|	|	|	0.01
176.500	0.00	0.00	0.009	O	|	|	|	|	0.01
176.583	0.00	0.00	0.009	O	|	|	|	|	0.01
176.667	0.00	0.00	0.009	O	|	|	|	|	0.01
176.750	0.00	0.00	0.009	O	|	|	|	|	0.01
176.833	0.00	0.00	0.009	O	|	|	|	|	0.01
176.917	0.00	0.00	0.009	O	|	|	|	|	0.01
177.000	0.00	0.00	0.009	O	|	|	|	|	0.01
177.083	0.00	0.00	0.009	O	|	|	|	|	0.01
177.167	0.00	0.00	0.009	O	|	|	|	|	0.01
177.250	0.00	0.00	0.009	O	|	|	|	|	0.01
177.333	0.00	0.00	0.008	O	|	|	|	|	0.01
177.417	0.00	0.00	0.008	O	|	|	|	|	0.01

177.500	0.00	0.00	0.008	O	|	|	|	|	0.01
177.583	0.00	0.00	0.008	O	|	|	|	|	0.01
177.667	0.00	0.00	0.008	O	|	|	|	|	0.01
177.750	0.00	0.00	0.008	O	|	|	|	|	0.01
177.833	0.00	0.00	0.008	O	|	|	|	|	0.01
177.917	0.00	0.00	0.008	O	|	|	|	|	0.01
178.000	0.00	0.00	0.008	O	|	|	|	|	0.01
178.083	0.00	0.00	0.008	O	|	|	|	|	0.01
178.167	0.00	0.00	0.008	O	|	|	|	|	0.01
178.250	0.00	0.00	0.008	O	|	|	|	|	0.01
178.333	0.00	0.00	0.008	O	|	|	|	|	0.01
178.417	0.00	0.00	0.008	O	|	|	|	|	0.01
178.500	0.00	0.00	0.008	O	|	|	|	|	0.01
178.583	0.00	0.00	0.008	O	|	|	|	|	0.01
178.667	0.00	0.00	0.008	O	|	|	|	|	0.01
178.750	0.00	0.00	0.008	O	|	|	|	|	0.01
178.833	0.00	0.00	0.008	O	|	|	|	|	0.01
178.917	0.00	0.00	0.008	O	|	|	|	|	0.01
179.000	0.00	0.00	0.008	O	|	|	|	|	0.01
179.083	0.00	0.00	0.008	O	|	|	|	|	0.01
179.167	0.00	0.00	0.008	O	|	|	|	|	0.01
179.250	0.00	0.00	0.008	O	|	|	|	|	0.01
179.333	0.00	0.00	0.008	O	|	|	|	|	0.01
179.417	0.00	0.00	0.008	O	|	|	|	|	0.01
179.500	0.00	0.00	0.008	O	|	|	|	|	0.01
179.583	0.00	0.00	0.008	O	|	|	|	|	0.01
179.667	0.00	0.00	0.008	O	|	|	|	|	0.01
179.750	0.00	0.00	0.008	O	|	|	|	|	0.01
179.833	0.00	0.00	0.008	O	|	|	|	|	0.01
179.917	0.00	0.00	0.008	O	|	|	|	|	0.01
180.000	0.00	0.00	0.008	O	|	|	|	|	0.01
180.083	0.00	0.00	0.008	O	|	|	|	|	0.01
180.167	0.00	0.00	0.008	O	|	|	|	|	0.01
180.250	0.00	0.00	0.008	O	|	|	|	|	0.01
180.333	0.00	0.00	0.008	O	|	|	|	|	0.01
180.417	0.00	0.00	0.008	O	|	|	|	|	0.01
180.500	0.00	0.00	0.008	O	|	|	|	|	0.01
180.583	0.00	0.00	0.008	O	|	|	|	|	0.01
180.667	0.00	0.00	0.008	O	|	|	|	|	0.01
180.750	0.00	0.00	0.007	O	|	|	|	|	0.01
180.833	0.00	0.00	0.007	O	|	|	|	|	0.01
180.917	0.00	0.00	0.007	O	|	|	|	|	0.01
181.000	0.00	0.00	0.007	O	|	|	|	|	0.01
181.083	0.00	0.00	0.007	O	|	|	|	|	0.01
181.167	0.00	0.00	0.007	O	|	|	|	|	0.01
181.250	0.00	0.00	0.007	O	|	|	|	|	0.01
181.333	0.00	0.00	0.007	O	|	|	|	|	0.01
181.417	0.00	0.00	0.007	O	|	|	|	|	0.01
181.500	0.00	0.00	0.007	O	|	|	|	|	0.01
181.583	0.00	0.00	0.007	O	|	|	|	|	0.01
181.667	0.00	0.00	0.007	O	|	|	|	|	0.01
181.750	0.00	0.00	0.007	O	|	|	|	|	0.01
181.833	0.00	0.00	0.007	O	|	|	|	|	0.01
181.917	0.00	0.00	0.007	O	|	|	|	|	0.01
182.000	0.00	0.00	0.007	O	|	|	|	|	0.01
182.083	0.00	0.00	0.007	O	|	|	|	|	0.01
182.167	0.00	0.00	0.007	O	|	|	|	|	0.01
182.250	0.00	0.00	0.007	O	|	|	|	|	0.01
182.333	0.00	0.00	0.007	O	|	|	|	|	0.01
182.417	0.00	0.00	0.007	O	|	|	|	|	0.01
182.500	0.00	0.00	0.007	O	|	|	|	|	0.01
182.583	0.00	0.00	0.007	O	|	|	|	|	0.01
182.667	0.00	0.00	0.007	O	|	|	|	|	0.01

182.750	0.00	0.00	0.007	O	|	|	|	|	0.01
182.833	0.00	0.00	0.007	O	|	|	|	|	0.01
182.917	0.00	0.00	0.007	O	|	|	|	|	0.01
183.000	0.00	0.00	0.007	O	|	|	|	|	0.01
183.083	0.00	0.00	0.007	O	|	|	|	|	0.01
183.167	0.00	0.00	0.007	O	|	|	|	|	0.01
183.250	0.00	0.00	0.007	O	|	|	|	|	0.01
183.333	0.00	0.00	0.007	O	|	|	|	|	0.01
183.417	0.00	0.00	0.007	O	|	|	|	|	0.01
183.500	0.00	0.00	0.007	O	|	|	|	|	0.01
183.583	0.00	0.00	0.007	O	|	|	|	|	0.01
183.667	0.00	0.00	0.007	O	|	|	|	|	0.01
183.750	0.00	0.00	0.007	O	|	|	|	|	0.01
183.833	0.00	0.00	0.007	O	|	|	|	|	0.01
183.917	0.00	0.00	0.007	O	|	|	|	|	0.01
184.000	0.00	0.00	0.007	O	|	|	|	|	0.01
184.083	0.00	0.00	0.007	O	|	|	|	|	0.01
184.167	0.00	0.00	0.007	O	|	|	|	|	0.01
184.250	0.00	0.00	0.007	O	|	|	|	|	0.01
184.333	0.00	0.00	0.007	O	|	|	|	|	0.01
184.417	0.00	0.00	0.007	O	|	|	|	|	0.01
184.500	0.00	0.00	0.007	O	|	|	|	|	0.01
184.583	0.00	0.00	0.007	O	|	|	|	|	0.01
184.667	0.00	0.00	0.006	O	|	|	|	|	0.01
184.750	0.00	0.00	0.006	O	|	|	|	|	0.01
184.833	0.00	0.00	0.006	O	|	|	|	|	0.01
184.917	0.00	0.00	0.006	O	|	|	|	|	0.01
185.000	0.00	0.00	0.006	O	|	|	|	|	0.01
185.083	0.00	0.00	0.006	O	|	|	|	|	0.01
185.167	0.00	0.00	0.006	O	|	|	|	|	0.01
185.250	0.00	0.00	0.006	O	|	|	|	|	0.01
185.333	0.00	0.00	0.006	O	|	|	|	|	0.01
185.417	0.00	0.00	0.006	O	|	|	|	|	0.01
185.500	0.00	0.00	0.006	O	|	|	|	|	0.01
185.583	0.00	0.00	0.006	O	|	|	|	|	0.01
185.667	0.00	0.00	0.006	O	|	|	|	|	0.01
185.750	0.00	0.00	0.006	O	|	|	|	|	0.01
185.833	0.00	0.00	0.006	O	|	|	|	|	0.01
185.917	0.00	0.00	0.006	O	|	|	|	|	0.01
186.000	0.00	0.00	0.006	O	|	|	|	|	0.01
186.083	0.00	0.00	0.006	O	|	|	|	|	0.01
186.167	0.00	0.00	0.006	O	|	|	|	|	0.01
186.250	0.00	0.00	0.006	O	|	|	|	|	0.01
186.333	0.00	0.00	0.006	O	|	|	|	|	0.01
186.417	0.00	0.00	0.006	O	|	|	|	|	0.01
186.500	0.00	0.00	0.006	O	|	|	|	|	0.01
186.583	0.00	0.00	0.006	O	|	|	|	|	0.01
186.667	0.00	0.00	0.006	O	|	|	|	|	0.01
186.750	0.00	0.00	0.006	O	|	|	|	|	0.01
186.833	0.00	0.00	0.006	O	|	|	|	|	0.01
186.917	0.00	0.00	0.006	O	|	|	|	|	0.01
187.000	0.00	0.00	0.006	O	|	|	|	|	0.01
187.083	0.00	0.00	0.006	O	|	|	|	|	0.01
187.167	0.00	0.00	0.006	O	|	|	|	|	0.01
187.250	0.00	0.00	0.006	O	|	|	|	|	0.01
187.333	0.00	0.00	0.006	O	|	|	|	|	0.01
187.417	0.00	0.00	0.006	O	|	|	|	|	0.01
187.500	0.00	0.00	0.006	O	|	|	|	|	0.01
187.583	0.00	0.00	0.006	O	|	|	|	|	0.01
187.667	0.00	0.00	0.006	O	|	|	|	|	0.01
187.750	0.00	0.00	0.006	O	|	|	|	|	0.01
187.833	0.00	0.00	0.006	O	|	|	|	|	0.01
187.917	0.00	0.00	0.006	O	|	|	|	|	0.01

188.000	0.00	0.00	0.006	O	|	|	|	|	0.01
188.083	0.00	0.00	0.006	O	|	|	|	|	0.01
188.167	0.00	0.00	0.006	O	|	|	|	|	0.01
188.250	0.00	0.00	0.006	O	|	|	|	|	0.01
188.333	0.00	0.00	0.006	O	|	|	|	|	0.01
188.417	0.00	0.00	0.006	O	|	|	|	|	0.01
188.500	0.00	0.00	0.006	O	|	|	|	|	0.01
188.583	0.00	0.00	0.006	O	|	|	|	|	0.01
188.667	0.00	0.00	0.006	O	|	|	|	|	0.01
188.750	0.00	0.00	0.006	O	|	|	|	|	0.01
188.833	0.00	0.00	0.006	O	|	|	|	|	0.01
188.917	0.00	0.00	0.006	O	|	|	|	|	0.01
189.000	0.00	0.00	0.006	O	|	|	|	|	0.01
189.083	0.00	0.00	0.006	O	|	|	|	|	0.01
189.167	0.00	0.00	0.006	O	|	|	|	|	0.01
189.250	0.00	0.00	0.005	O	|	|	|	|	0.01
189.333	0.00	0.00	0.005	O	|	|	|	|	0.01
189.417	0.00	0.00	0.005	O	|	|	|	|	0.01
189.500	0.00	0.00	0.005	O	|	|	|	|	0.01
189.583	0.00	0.00	0.005	O	|	|	|	|	0.01
189.667	0.00	0.00	0.005	O	|	|	|	|	0.01
189.750	0.00	0.00	0.005	O	|	|	|	|	0.01
189.833	0.00	0.00	0.005	O	|	|	|	|	0.01
189.917	0.00	0.00	0.005	O	|	|	|	|	0.01
190.000	0.00	0.00	0.005	O	|	|	|	|	0.01
190.083	0.00	0.00	0.005	O	|	|	|	|	0.01
190.167	0.00	0.00	0.005	O	|	|	|	|	0.01
190.250	0.00	0.00	0.005	O	|	|	|	|	0.01
190.333	0.00	0.00	0.005	O	|	|	|	|	0.01
190.417	0.00	0.00	0.005	O	|	|	|	|	0.01
190.500	0.00	0.00	0.005	O	|	|	|	|	0.01
190.583	0.00	0.00	0.005	O	|	|	|	|	0.01
190.667	0.00	0.00	0.005	O	|	|	|	|	0.01
190.750	0.00	0.00	0.005	O	|	|	|	|	0.00
190.833	0.00	0.00	0.005	O	|	|	|	|	0.00
190.917	0.00	0.00	0.005	O	|	|	|	|	0.00
191.000	0.00	0.00	0.005	O	|	|	|	|	0.00
191.083	0.00	0.00	0.005	O	|	|	|	|	0.00
191.167	0.00	0.00	0.005	O	|	|	|	|	0.00
191.250	0.00	0.00	0.005	O	|	|	|	|	0.00
191.333	0.00	0.00	0.005	O	|	|	|	|	0.00
191.417	0.00	0.00	0.005	O	|	|	|	|	0.00
191.500	0.00	0.00	0.005	O	|	|	|	|	0.00
191.583	0.00	0.00	0.005	O	|	|	|	|	0.00
191.667	0.00	0.00	0.005	O	|	|	|	|	0.00
191.750	0.00	0.00	0.005	O	|	|	|	|	0.00
191.833	0.00	0.00	0.005	O	|	|	|	|	0.00
191.917	0.00	0.00	0.005	O	|	|	|	|	0.00
192.000	0.00	0.00	0.005	O	|	|	|	|	0.00
192.083	0.00	0.00	0.005	O	|	|	|	|	0.00
192.167	0.00	0.00	0.005	O	|	|	|	|	0.00
192.250	0.00	0.00	0.005	O	|	|	|	|	0.00
192.333	0.00	0.00	0.005	O	|	|	|	|	0.00
192.417	0.00	0.00	0.005	O	|	|	|	|	0.00
192.500	0.00	0.00	0.005	O	|	|	|	|	0.00
192.583	0.00	0.00	0.005	O	|	|	|	|	0.00
192.667	0.00	0.00	0.005	O	|	|	|	|	0.00
192.750	0.00	0.00	0.005	O	|	|	|	|	0.00
192.833	0.00	0.00	0.005	O	|	|	|	|	0.00
192.917	0.00	0.00	0.005	O	|	|	|	|	0.00
193.000	0.00	0.00	0.005	O	|	|	|	|	0.00
193.083	0.00	0.00	0.005	O	|	|	|	|	0.00
193.167	0.00	0.00	0.005	O	|	|	|	|	0.00

193.250	0.00	0.00	0.005	O	|	|	|	|	0.00
193.333	0.00	0.00	0.005	O	|	|	|	|	0.00
193.417	0.00	0.00	0.005	O	|	|	|	|	0.00
193.500	0.00	0.00	0.005	O	|	|	|	|	0.00
193.583	0.00	0.00	0.005	O	|	|	|	|	0.00
193.667	0.00	0.00	0.005	O	|	|	|	|	0.00
193.750	0.00	0.00	0.005	O	|	|	|	|	0.00
193.833	0.00	0.00	0.005	O	|	|	|	|	0.00
193.917	0.00	0.00	0.005	O	|	|	|	|	0.00
194.000	0.00	0.00	0.005	O	|	|	|	|	0.00
194.083	0.00	0.00	0.005	O	|	|	|	|	0.00
194.167	0.00	0.00	0.005	O	|	|	|	|	0.00
194.250	0.00	0.00	0.005	O	|	|	|	|	0.00
194.333	0.00	0.00	0.005	O	|	|	|	|	0.00
194.417	0.00	0.00	0.005	O	|	|	|	|	0.00
194.500	0.00	0.00	0.005	O	|	|	|	|	0.00
194.583	0.00	0.00	0.005	O	|	|	|	|	0.00
194.667	0.00	0.00	0.005	O	|	|	|	|	0.00
194.750	0.00	0.00	0.004	O	|	|	|	|	0.00
194.833	0.00	0.00	0.004	O	|	|	|	|	0.00
194.917	0.00	0.00	0.004	O	|	|	|	|	0.00
195.000	0.00	0.00	0.004	O	|	|	|	|	0.00
195.083	0.00	0.00	0.004	O	|	|	|	|	0.00
195.167	0.00	0.00	0.004	O	|	|	|	|	0.00
195.250	0.00	0.00	0.004	O	|	|	|	|	0.00
195.333	0.00	0.00	0.004	O	|	|	|	|	0.00
195.417	0.00	0.00	0.004	O	|	|	|	|	0.00
195.500	0.00	0.00	0.004	O	|	|	|	|	0.00
195.583	0.00	0.00	0.004	O	|	|	|	|	0.00
195.667	0.00	0.00	0.004	O	|	|	|	|	0.00
195.750	0.00	0.00	0.004	O	|	|	|	|	0.00
195.833	0.00	0.00	0.004	O	|	|	|	|	0.00
195.917	0.00	0.00	0.004	O	|	|	|	|	0.00
196.000	0.00	0.00	0.004	O	|	|	|	|	0.00
196.083	0.00	0.00	0.004	O	|	|	|	|	0.00
196.167	0.00	0.00	0.004	O	|	|	|	|	0.00
196.250	0.00	0.00	0.004	O	|	|	|	|	0.00
196.333	0.00	0.00	0.004	O	|	|	|	|	0.00
196.417	0.00	0.00	0.004	O	|	|	|	|	0.00
196.500	0.00	0.00	0.004	O	|	|	|	|	0.00
196.583	0.00	0.00	0.004	O	|	|	|	|	0.00
196.667	0.00	0.00	0.004	O	|	|	|	|	0.00
196.750	0.00	0.00	0.004	O	|	|	|	|	0.00
196.833	0.00	0.00	0.004	O	|	|	|	|	0.00
196.917	0.00	0.00	0.004	O	|	|	|	|	0.00
197.000	0.00	0.00	0.004	O	|	|	|	|	0.00
197.083	0.00	0.00	0.004	O	|	|	|	|	0.00
197.167	0.00	0.00	0.004	O	|	|	|	|	0.00
197.250	0.00	0.00	0.004	O	|	|	|	|	0.00
197.333	0.00	0.00	0.004	O	|	|	|	|	0.00
197.417	0.00	0.00	0.004	O	|	|	|	|	0.00
197.500	0.00	0.00	0.004	O	|	|	|	|	0.00
197.583	0.00	0.00	0.004	O	|	|	|	|	0.00
197.667	0.00	0.00	0.004	O	|	|	|	|	0.00
197.750	0.00	0.00	0.004	O	|	|	|	|	0.00
197.833	0.00	0.00	0.004	O	|	|	|	|	0.00
197.917	0.00	0.00	0.004	O	|	|	|	|	0.00
198.000	0.00	0.00	0.004	O	|	|	|	|	0.00
198.083	0.00	0.00	0.004	O	|	|	|	|	0.00
198.167	0.00	0.00	0.004	O	|	|	|	|	0.00
198.250	0.00	0.00	0.004	O	|	|	|	|	0.00
198.333	0.00	0.00	0.004	O	|	|	|	|	0.00
198.417	0.00	0.00	0.004	O	|	|	|	|	0.00

198.500	0.00	0.00	0.004	O	|	|	|	|	0.00
198.583	0.00	0.00	0.004	O	|	|	|	|	0.00
198.667	0.00	0.00	0.004	O	|	|	|	|	0.00
198.750	0.00	0.00	0.004	O	|	|	|	|	0.00
198.833	0.00	0.00	0.004	O	|	|	|	|	0.00
198.917	0.00	0.00	0.004	O	|	|	|	|	0.00
199.000	0.00	0.00	0.004	O	|	|	|	|	0.00
199.083	0.00	0.00	0.004	O	|	|	|	|	0.00
199.167	0.00	0.00	0.004	O	|	|	|	|	0.00
199.250	0.00	0.00	0.004	O	|	|	|	|	0.00
199.333	0.00	0.00	0.004	O	|	|	|	|	0.00
199.417	0.00	0.00	0.004	O	|	|	|	|	0.00
199.500	0.00	0.00	0.004	O	|	|	|	|	0.00
199.583	0.00	0.00	0.004	O	|	|	|	|	0.00
199.667	0.00	0.00	0.004	O	|	|	|	|	0.00
199.750	0.00	0.00	0.004	O	|	|	|	|	0.00
199.833	0.00	0.00	0.004	O	|	|	|	|	0.00
199.917	0.00	0.00	0.004	O	|	|	|	|	0.00
200.000	0.00	0.00	0.004	O	|	|	|	|	0.00
200.083	0.00	0.00	0.004	O	|	|	|	|	0.00
200.167	0.00	0.00	0.004	O	|	|	|	|	0.00
200.250	0.00	0.00	0.004	O	|	|	|	|	0.00
200.333	0.00	0.00	0.004	O	|	|	|	|	0.00
200.417	0.00	0.00	0.004	O	|	|	|	|	0.00
200.500	0.00	0.00	0.004	O	|	|	|	|	0.00
200.583	0.00	0.00	0.004	O	|	|	|	|	0.00
200.667	0.00	0.00	0.004	O	|	|	|	|	0.00
200.750	0.00	0.00	0.004	O	|	|	|	|	0.00
200.833	0.00	0.00	0.004	O	|	|	|	|	0.00
200.917	0.00	0.00	0.004	O	|	|	|	|	0.00
201.000	0.00	0.00	0.004	O	|	|	|	|	0.00
201.083	0.00	0.00	0.004	O	|	|	|	|	0.00
201.167	0.00	0.00	0.004	O	|	|	|	|	0.00
201.250	0.00	0.00	0.004	O	|	|	|	|	0.00
201.333	0.00	0.00	0.004	O	|	|	|	|	0.00
201.417	0.00	0.00	0.004	O	|	|	|	|	0.00
201.500	0.00	0.00	0.004	O	|	|	|	|	0.00
201.583	0.00	0.00	0.003	O	|	|	|	|	0.00
201.667	0.00	0.00	0.003	O	|	|	|	|	0.00
201.750	0.00	0.00	0.003	O	|	|	|	|	0.00
201.833	0.00	0.00	0.003	O	|	|	|	|	0.00
201.917	0.00	0.00	0.003	O	|	|	|	|	0.00
202.000	0.00	0.00	0.003	O	|	|	|	|	0.00
202.083	0.00	0.00	0.003	O	|	|	|	|	0.00
202.167	0.00	0.00	0.003	O	|	|	|	|	0.00
202.250	0.00	0.00	0.003	O	|	|	|	|	0.00
202.333	0.00	0.00	0.003	O	|	|	|	|	0.00
202.417	0.00	0.00	0.003	O	|	|	|	|	0.00
202.500	0.00	0.00	0.003	O	|	|	|	|	0.00
202.583	0.00	0.00	0.003	O	|	|	|	|	0.00
202.667	0.00	0.00	0.003	O	|	|	|	|	0.00
202.750	0.00	0.00	0.003	O	|	|	|	|	0.00
202.833	0.00	0.00	0.003	O	|	|	|	|	0.00
202.917	0.00	0.00	0.003	O	|	|	|	|	0.00
203.000	0.00	0.00	0.003	O	|	|	|	|	0.00
203.083	0.00	0.00	0.003	O	|	|	|	|	0.00
203.167	0.00	0.00	0.003	O	|	|	|	|	0.00
203.250	0.00	0.00	0.003	O	|	|	|	|	0.00
203.333	0.00	0.00	0.003	O	|	|	|	|	0.00
203.417	0.00	0.00	0.003	O	|	|	|	|	0.00
203.500	0.00	0.00	0.003	O	|	|	|	|	0.00
203.583	0.00	0.00	0.003	O	|	|	|	|	0.00
203.667	0.00	0.00	0.003	O	|	|	|	|	0.00

203.750	0.00	0.00	0.003	O	|	|	|	|	0.00
203.833	0.00	0.00	0.003	O	|	|	|	|	0.00
203.917	0.00	0.00	0.003	O	|	|	|	|	0.00
204.000	0.00	0.00	0.003	O	|	|	|	|	0.00
204.083	0.00	0.00	0.003	O	|	|	|	|	0.00
204.167	0.00	0.00	0.003	O	|	|	|	|	0.00
204.250	0.00	0.00	0.003	O	|	|	|	|	0.00
204.333	0.00	0.00	0.003	O	|	|	|	|	0.00
204.417	0.00	0.00	0.003	O	|	|	|	|	0.00
204.500	0.00	0.00	0.003	O	|	|	|	|	0.00
204.583	0.00	0.00	0.003	O	|	|	|	|	0.00
204.667	0.00	0.00	0.003	O	|	|	|	|	0.00
204.750	0.00	0.00	0.003	O	|	|	|	|	0.00
204.833	0.00	0.00	0.003	O	|	|	|	|	0.00
204.917	0.00	0.00	0.003	O	|	|	|	|	0.00
205.000	0.00	0.00	0.003	O	|	|	|	|	0.00
205.083	0.00	0.00	0.003	O	|	|	|	|	0.00
205.167	0.00	0.00	0.003	O	|	|	|	|	0.00
205.250	0.00	0.00	0.003	O	|	|	|	|	0.00
205.333	0.00	0.00	0.003	O	|	|	|	|	0.00
205.417	0.00	0.00	0.003	O	|	|	|	|	0.00
205.500	0.00	0.00	0.003	O	|	|	|	|	0.00
205.583	0.00	0.00	0.003	O	|	|	|	|	0.00
205.667	0.00	0.00	0.003	O	|	|	|	|	0.00
205.750	0.00	0.00	0.003	O	|	|	|	|	0.00
205.833	0.00	0.00	0.003	O	|	|	|	|	0.00
205.917	0.00	0.00	0.003	O	|	|	|	|	0.00
206.000	0.00	0.00	0.003	O	|	|	|	|	0.00
206.083	0.00	0.00	0.003	O	|	|	|	|	0.00
206.167	0.00	0.00	0.003	O	|	|	|	|	0.00
206.250	0.00	0.00	0.003	O	|	|	|	|	0.00
206.333	0.00	0.00	0.003	O	|	|	|	|	0.00
206.417	0.00	0.00	0.003	O	|	|	|	|	0.00
206.500	0.00	0.00	0.003	O	|	|	|	|	0.00
206.583	0.00	0.00	0.003	O	|	|	|	|	0.00
206.667	0.00	0.00	0.003	O	|	|	|	|	0.00
206.750	0.00	0.00	0.003	O	|	|	|	|	0.00
206.833	0.00	0.00	0.003	O	|	|	|	|	0.00
206.917	0.00	0.00	0.003	O	|	|	|	|	0.00
207.000	0.00	0.00	0.003	O	|	|	|	|	0.00
207.083	0.00	0.00	0.003	O	|	|	|	|	0.00
207.167	0.00	0.00	0.003	O	|	|	|	|	0.00
207.250	0.00	0.00	0.003	O	|	|	|	|	0.00
207.333	0.00	0.00	0.003	O	|	|	|	|	0.00
207.417	0.00	0.00	0.003	O	|	|	|	|	0.00
207.500	0.00	0.00	0.003	O	|	|	|	|	0.00
207.583	0.00	0.00	0.003	O	|	|	|	|	0.00
207.667	0.00	0.00	0.003	O	|	|	|	|	0.00
207.750	0.00	0.00	0.003	O	|	|	|	|	0.00
207.833	0.00	0.00	0.003	O	|	|	|	|	0.00
207.917	0.00	0.00	0.003	O	|	|	|	|	0.00
208.000	0.00	0.00	0.003	O	|	|	|	|	0.00
208.083	0.00	0.00	0.003	O	|	|	|	|	0.00
208.167	0.00	0.00	0.003	O	|	|	|	|	0.00
208.250	0.00	0.00	0.003	O	|	|	|	|	0.00
208.333	0.00	0.00	0.003	O	|	|	|	|	0.00
208.417	0.00	0.00	0.003	O	|	|	|	|	0.00
208.500	0.00	0.00	0.003	O	|	|	|	|	0.00
208.583	0.00	0.00	0.003	O	|	|	|	|	0.00
208.667	0.00	0.00	0.003	O	|	|	|	|	0.00
208.750	0.00	0.00	0.003	O	|	|	|	|	0.00
208.833	0.00	0.00	0.003	O	|	|	|	|	0.00
208.917	0.00	0.00	0.003	O	|	|	|	|	0.00

209.000	0.00	0.00	0.003	O	|	|	|	|	0.00
209.083	0.00	0.00	0.003	O	|	|	|	|	0.00
209.167	0.00	0.00	0.003	O	|	|	|	|	0.00
209.250	0.00	0.00	0.003	O	|	|	|	|	0.00
209.333	0.00	0.00	0.003	O	|	|	|	|	0.00
209.417	0.00	0.00	0.003	O	|	|	|	|	0.00
209.500	0.00	0.00	0.003	O	|	|	|	|	0.00
209.583	0.00	0.00	0.003	O	|	|	|	|	0.00
209.667	0.00	0.00	0.003	O	|	|	|	|	0.00
209.750	0.00	0.00	0.003	O	|	|	|	|	0.00
209.833	0.00	0.00	0.003	O	|	|	|	|	0.00
209.917	0.00	0.00	0.003	O	|	|	|	|	0.00
210.000	0.00	0.00	0.003	O	|	|	|	|	0.00
210.083	0.00	0.00	0.003	O	|	|	|	|	0.00
210.167	0.00	0.00	0.003	O	|	|	|	|	0.00
210.250	0.00	0.00	0.003	O	|	|	|	|	0.00
210.333	0.00	0.00	0.003	O	|	|	|	|	0.00
210.417	0.00	0.00	0.003	O	|	|	|	|	0.00
210.500	0.00	0.00	0.003	O	|	|	|	|	0.00
210.583	0.00	0.00	0.003	O	|	|	|	|	0.00
210.667	0.00	0.00	0.003	O	|	|	|	|	0.00
210.750	0.00	0.00	0.003	O	|	|	|	|	0.00
210.833	0.00	0.00	0.002	O	|	|	|	|	0.00
210.917	0.00	0.00	0.002	O	|	|	|	|	0.00
211.000	0.00	0.00	0.002	O	|	|	|	|	0.00
211.083	0.00	0.00	0.002	O	|	|	|	|	0.00
211.167	0.00	0.00	0.002	O	|	|	|	|	0.00
211.250	0.00	0.00	0.002	O	|	|	|	|	0.00
211.333	0.00	0.00	0.002	O	|	|	|	|	0.00
211.417	0.00	0.00	0.002	O	|	|	|	|	0.00
211.500	0.00	0.00	0.002	O	|	|	|	|	0.00
211.583	0.00	0.00	0.002	O	|	|	|	|	0.00
211.667	0.00	0.00	0.002	O	|	|	|	|	0.00
211.750	0.00	0.00	0.002	O	|	|	|	|	0.00
211.833	0.00	0.00	0.002	O	|	|	|	|	0.00
211.917	0.00	0.00	0.002	O	|	|	|	|	0.00
212.000	0.00	0.00	0.002	O	|	|	|	|	0.00
212.083	0.00	0.00	0.002	O	|	|	|	|	0.00
212.167	0.00	0.00	0.002	O	|	|	|	|	0.00
212.250	0.00	0.00	0.002	O	|	|	|	|	0.00
212.333	0.00	0.00	0.002	O	|	|	|	|	0.00
212.417	0.00	0.00	0.002	O	|	|	|	|	0.00
212.500	0.00	0.00	0.002	O	|	|	|	|	0.00
212.583	0.00	0.00	0.002	O	|	|	|	|	0.00
212.667	0.00	0.00	0.002	O	|	|	|	|	0.00
212.750	0.00	0.00	0.002	O	|	|	|	|	0.00
212.833	0.00	0.00	0.002	O	|	|	|	|	0.00
212.917	0.00	0.00	0.002	O	|	|	|	|	0.00
213.000	0.00	0.00	0.002	O	|	|	|	|	0.00
213.083	0.00	0.00	0.002	O	|	|	|	|	0.00
213.167	0.00	0.00	0.002	O	|	|	|	|	0.00
213.250	0.00	0.00	0.002	O	|	|	|	|	0.00
213.333	0.00	0.00	0.002	O	|	|	|	|	0.00
213.417	0.00	0.00	0.002	O	|	|	|	|	0.00
213.500	0.00	0.00	0.002	O	|	|	|	|	0.00
213.583	0.00	0.00	0.002	O	|	|	|	|	0.00

Remaining water in basin = 0.00 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 2563

```
              Time interval =    5.0 (Min.)
              Maximum/Peak flow rate =        0.984 (CFS)
              Total volume =       2.872 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
****************************************************************************

----------------------------------------------------------------------
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APPENDIX J.4: BASIN “B” 2 – YEAR BASIN ROUTING CALCULATIONS

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 06/24/15

TRACT NO. 36294
BASIN B
2YR-24HR
FN: BASINB224

Program License Serial Number 6268

********** HYDROGRAPH INFORMATION **********

From study/file name: BPR242.rte
**********HYDROGRAPH DATA**********
Number of intervals = 292
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 3.122 (CFS)
Total volume = 1.897 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 100.000 to Point/Station 101.000
**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 292
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
0.500	0.520	0.230	0.519	0.521
1.000	0.990	0.320	0.989	0.991
1.500	1.480	0.600	1.478	1.482
2.000	2.000	0.900	1.997	2.003
2.500	2.530	1.150	2.526	2.534
3.000	3.090	1.550	3.085	3.095

3.500	3.670	8.600	3.640	3.700
4.000	4.270	24.700	4.185	4.355
4.500	4.900	40.760	4.760	5.040
5.000	5.440	54.110	5.254	5.626
6.000	6.860	126.240	6.425	7.295

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 0.8 1.56 2.34 3.12	Depth (Ft.)
0.083	0.08	0.00	0.000	O | | | |	0.00
0.167	0.16	0.00	0.001	OI | | | |	0.00
0.250	0.18	0.00	0.002	OI | | | |	0.00
0.333	0.22	0.00	0.004	O I | | | |	0.00
0.417	0.26	0.00	0.005	O I | | | |	0.01
0.500	0.27	0.00	0.007	O I | | | |	0.01
0.583	0.27	0.00	0.009	O I | | | |	0.01
0.667	0.28	0.00	0.011	O I | | | |	0.01
0.750	0.28	0.01	0.013	O I | | | |	0.01
0.833	0.31	0.01	0.015	O I | | | |	0.01
0.917	0.35	0.01	0.017	O I | | | |	0.02
1.000	0.36	0.01	0.019	O I | | | |	0.02
1.083	0.33	0.01	0.022	O I | | | |	0.02
1.167	0.29	0.01	0.024	O I | | | |	0.02
1.250	0.28	0.01	0.026	O I | | | |	0.02
1.333	0.28	0.01	0.027	O I | | | |	0.03
1.417	0.28	0.01	0.029	O I | | | |	0.03
1.500	0.28	0.01	0.031	O I | | | |	0.03
1.583	0.28	0.01	0.033	O I | | | |	0.03
1.667	0.28	0.02	0.035	O I | | | |	0.03
1.750	0.28	0.02	0.036	O I | | | |	0.03
1.833	0.31	0.02	0.038	O I | | | |	0.04
1.917	0.35	0.02	0.040	O I | | | |	0.04
2.000	0.36	0.02	0.043	O I | | | |	0.04
2.083	0.37	0.02	0.045	O I | | | |	0.04
2.167	0.37	0.02	0.048	O I | | | |	0.05
2.250	0.37	0.02	0.050	O I | | | |	0.05
2.333	0.37	0.02	0.052	O I | | | |	0.05
2.417	0.37	0.02	0.055	O I | | | |	0.05
2.500	0.37	0.03	0.057	O I | | | |	0.05
2.583	0.41	0.03	0.060	O I | | | |	0.06
2.667	0.45	0.03	0.062	O I | | | |	0.06
2.750	0.45	0.03	0.065	O I | | | |	0.06
2.833	0.46	0.03	0.068	O I | | | |	0.07
2.917	0.46	0.03	0.071	O I | | | |	0.07
3.000	0.46	0.03	0.074	O I | | | |	0.07
3.083	0.46	0.03	0.077	O I | | | |	0.07
3.167	0.46	0.04	0.080	O I | | | |	0.08
3.250	0.46	0.04	0.083	O I | | | |	0.08
3.333	0.46	0.04	0.086	O I | | | |	0.08
3.417	0.46	0.04	0.089	O I | | | |	0.09
3.500	0.46	0.04	0.092	O I | | | |	0.09
3.583	0.46	0.04	0.094	O I | | | |	0.09
3.667	0.46	0.04	0.097	O I | | | |	0.09
3.750	0.46	0.04	0.100	O I | | | |	0.10
3.833	0.50	0.05	0.103	O I | | | |	0.10
3.917	0.54	0.05	0.106	O I | | | |	0.10
4.000	0.55	0.05	0.110	O I | | | |	0.11
4.083	0.55	0.05	0.113	O I | | | |	0.11
4.167	0.55	0.05	0.117	O I | | | |	0.11

4.250	0.55	0.05	0.120	O	I	|	|	|	0.12
4.333	0.59	0.05	0.124	O	I	|	|	|	0.12
4.417	0.63	0.06	0.127	O	I	|	|	|	0.12
4.500	0.64	0.06	0.131	O	I	|	|	|	0.13
4.583	0.64	0.06	0.135	O	I	|	|	|	0.13
4.667	0.64	0.06	0.139	O	I	|	|	|	0.13
4.750	0.64	0.06	0.143	O	I	|	|	|	0.14
4.833	0.68	0.07	0.148	O	I	|	|	|	0.14
4.917	0.72	0.07	0.152	O	I	|	|	|	0.15
5.000	0.73	0.07	0.156	O	I	|	|	|	0.15
5.083	0.65	0.07	0.161	O	I	|	|	|	0.15
5.167	0.58	0.07	0.164	O	I	|	|	|	0.16
5.250	0.56	0.07	0.168	O	I	|	|	|	0.16
5.333	0.59	0.08	0.171	O	I	|	|	|	0.16
5.417	0.63	0.08	0.175	O	I	|	|	|	0.17
5.500	0.64	0.08	0.179	O	I	|	|	|	0.17
5.583	0.68	0.08	0.183	O	I	|	|	|	0.18
5.667	0.72	0.08	0.187	O	I	|	|	|	0.18
5.750	0.73	0.08	0.192	O	I	|	|	|	0.18
5.833	0.73	0.09	0.196	O	I	|	|	|	0.19
5.917	0.73	0.09	0.200	O	I	|	|	|	0.19
6.000	0.73	0.09	0.205	O	I	|	|	|	0.20
6.083	0.77	0.09	0.209	O	I	|	|	|	0.20
6.167	0.81	0.09	0.214	O	I	|	|	|	0.21
6.250	0.82	0.10	0.219	O	I	|	|	|	0.21
6.333	0.83	0.10	0.224	|	O	I	|	|	0.22
6.417	0.83	0.10	0.229	|	O	I	|	|	0.22
6.500	0.83	0.10	0.234	|	O	I	|	|	0.23
6.583	0.87	0.11	0.239	|	O	I	|	|	0.23
6.667	0.91	0.11	0.245	|	O	|	I	|	0.24
6.750	0.91	0.11	0.250	|	O	|	I	|	0.24
6.833	0.92	0.11	0.256	|	O	|	I	|	0.25
6.917	0.92	0.12	0.261	|	O	|	I	|	0.25
7.000	0.92	0.12	0.267	|	O	|	I	|	0.26
7.083	0.92	0.12	0.272	|	O	|	I	|	0.26
7.167	0.92	0.12	0.278	|	O	|	I	|	0.27
7.250	0.92	0.13	0.283	|	O	|	I	|	0.27
7.333	0.96	0.13	0.289	|	O	|	I	|	0.28
7.417	1.00	0.13	0.295	|	O	|	I	|	0.28
7.500	1.01	0.13	0.301	|	O	|	I	|	0.29
7.583	1.05	0.14	0.307	|	O	|	I	|	0.29
7.667	1.09	0.14	0.313	|	O	|	I	|	0.30
7.750	1.10	0.14	0.320	|	O	|	I	|	0.31
7.833	1.14	0.14	0.326	|	O	|	I	|	0.31
7.917	1.18	0.15	0.333	|	O	|	I	|	0.32
8.000	1.19	0.15	0.341	|	O	|	I	|	0.33
8.083	1.27	0.15	0.348	|	O	|	I	|	0.33
8.167	1.35	0.16	0.356	|	O	|	I	|	0.34
8.250	1.37	0.16	0.364	|	O	|	I	|	0.35
8.333	1.38	0.16	0.373	|	O	|	I	|	0.36
8.417	1.38	0.17	0.381	|	O	|	I	|	0.37
8.500	1.38	0.17	0.389	|	O	|	I	|	0.37
8.583	1.42	0.18	0.398	|	O	|	I	|	0.38
8.667	1.46	0.18	0.406	|	O	|	I	|	0.39
8.750	1.46	0.18	0.415	|	O	|	I	|	0.40
8.833	1.51	0.19	0.424	|	O	|	I	|	0.41
8.917	1.55	0.19	0.433	|	O	|	I	|	0.42
9.000	1.56	0.20	0.443	|	O	|	I	|	0.43
9.083	1.64	0.20	0.452	|	O	|	I	|	0.43
9.167	1.72	0.20	0.462	|	O	|	I	|	0.44
9.250	1.74	0.21	0.473	|	O	|	I	|	0.45
9.333	1.78	0.21	0.484	|	O	|	I	|	0.47
9.417	1.82	0.22	0.495	|	O	|	I	|	0.48

9.500	1.83	0.22	0.506	O		I		0.49
9.583	1.87	0.23	0.517	O		I		0.50
9.667	1.92	0.23	0.528	O		I		0.51
9.750	1.92	0.23	0.540	O		I		0.52
9.833	1.97	0.24	0.552	O		I		0.53
9.917	2.01	0.24	0.564	O		I		0.55
10.000	2.02	0.24	0.576	O		I		0.56
10.083	1.74	0.24	0.587	O		I		0.57
10.167	1.46	0.24	0.597	O	I			0.58
10.250	1.41	0.25	0.605	O	I			0.59
10.333	1.38	0.25	0.613	O	I			0.60
10.417	1.38	0.25	0.620	O	I			0.61
10.500	1.38	0.25	0.628	O	I			0.62
10.583	1.57	0.25	0.637	O	I			0.62
10.667	1.77	0.25	0.646	O		I		0.63
10.750	1.81	0.26	0.657	O		I		0.65
10.833	1.83	0.26	0.668	O		I		0.66
10.917	1.84	0.26	0.679	O		I		0.67
11.000	1.84	0.26	0.690	O		I		0.68
11.083	1.80	0.26	0.700	O		I		0.69
11.167	1.76	0.27	0.711	O		I		0.70
11.250	1.75	0.27	0.721	O		I		0.71
11.333	1.75	0.27	0.731	O		I		0.72
11.417	1.74	0.27	0.741	O		I		0.74
11.500	1.74	0.27	0.751	O		I		0.75
11.583	1.67	0.28	0.761	O		I		0.76
11.667	1.59	0.28	0.770	O		I		0.77
11.750	1.57	0.28	0.779	O		I		0.78
11.833	1.60	0.28	0.788	O		I		0.79
11.917	1.64	0.28	0.798	O		I		0.80
12.000	1.65	0.28	0.807	O		I		0.81
12.083	1.93	0.29	0.817	O		I		0.82
12.167	2.21	0.29	0.830	O		I		0.83
12.250	2.27	0.29	0.843	O		I		0.84
12.333	2.33	0.29	0.857	O		I		0.86
12.417	2.37	0.30	0.871	O		I		0.87
12.500	2.38	0.30	0.885	O		I		0.89
12.583	2.46	0.30	0.900	O		I		0.90
12.667	2.55	0.31	0.915	O		I		0.92
12.750	2.56	0.31	0.931	O		I		0.94
12.833	2.61	0.31	0.946	O		I		0.95
12.917	2.65	0.31	0.962	O		I		0.97
13.000	2.66	0.32	0.978	O		I		0.99
13.083	2.86	0.32	0.995	O		I		1.01
13.167	3.06	0.33	1.013	O		I		1.02
13.250	3.10	0.34	1.032	O		I		1.04
13.333	3.12	0.35	1.051	O		I		1.06
13.417	3.12	0.37	1.070	O		I		1.08
13.500	3.12	0.38	1.089	O		I		1.10
13.583	2.69	0.39	1.106	O		I		1.12
13.667	2.25	0.39	1.121	O		I		1.13
13.750	2.16	0.40	1.133	O		I		1.15
13.833	2.12	0.41	1.145	O		I		1.16
13.917	2.11	0.42	1.157	O		I		1.17
14.000	2.11	0.42	1.168	O		I		1.18
14.083	2.27	0.43	1.181	O		I		1.19
14.167	2.43	0.44	1.194	O		I		1.21
14.250	2.46	0.44	1.208	O		I		1.22
14.333	2.44	0.45	1.221	O		I		1.24
14.417	2.40	0.46	1.235	O		I		1.25
14.500	2.39	0.47	1.248	O		I		1.26
14.583	2.39	0.48	1.261	O		I		1.28
14.667	2.39	0.48	1.275	O		I		1.29

14.750	2.39	0.49	1.288	| O |	| | I |	1.30
14.833	2.35	0.50	1.301	| O |	| | I |	1.32
14.917	2.31	0.50	1.313	| O |	| | I|	1.33
15.000	2.30	0.51	1.325	| O |	| | I|	1.34
15.083	2.26	0.52	1.338	| O |	| | I|	1.35
15.167	2.22	0.53	1.349	| O |	| I |	1.37
15.250	2.21	0.53	1.361	| O |	| I |	1.38
15.333	2.17	0.54	1.372	| O |	| I |	1.39
15.417	2.12	0.54	1.383	| O |	| I |	1.40
15.500	2.12	0.55	1.394	| O |	| I |	1.41
15.583	1.96	0.56	1.404	| O |	| I |	1.42
15.667	1.79	0.56	1.414	| O |	| I |	1.43
15.750	1.76	0.57	1.422	| O |	| I |	1.44
15.833	1.75	0.57	1.430	| O |	|I |	1.45
15.917	1.74	0.58	1.438	| O |	|I |	1.46
16.000	1.74	0.58	1.446	| O |	|I |	1.47
16.083	1.15	0.58	1.452	| O | I |	| |	1.47
16.167	0.55	0.59	1.454	| O |	| |	1.47
16.250	0.43	0.58	1.453	| IO |	| |	1.47
16.333	0.38	0.58	1.452	| I O |	| |	1.47
16.417	0.37	0.58	1.451	| I O |	| |	1.47
16.500	0.37	0.58	1.449	| I O |	| |	1.47
16.583	0.33	0.58	1.448	| I O |	| |	1.47
16.667	0.29	0.58	1.446	| I O |	| |	1.47
16.750	0.28	0.58	1.444	| I O |	| |	1.46
16.833	0.28	0.58	1.442	| I O |	| |	1.46
16.917	0.28	0.58	1.440	| I O |	| |	1.46
17.000	0.28	0.58	1.437	| I O |	| |	1.46
17.083	0.35	0.57	1.436	| I O |	| |	1.45
17.167	0.43	0.57	1.434	| IO |	| |	1.45
17.250	0.45	0.57	1.434	| IO |	| |	1.45
17.333	0.46	0.57	1.433	| IO |	| |	1.45
17.417	0.46	0.57	1.432	| IO |	| |	1.45
17.500	0.46	0.57	1.431	| IO |	| |	1.45
17.583	0.46	0.57	1.430	| IO |	| |	1.45
17.667	0.46	0.57	1.430	| IO |	| |	1.45
17.750	0.46	0.57	1.429	| IO |	| |	1.45
17.833	0.42	0.57	1.428	| IO |	| |	1.45
17.917	0.38	0.57	1.427	| I O |	| |	1.45
18.000	0.37	0.57	1.425	| I O |	| |	1.44
18.083	0.37	0.57	1.424	| I O |	| |	1.44
18.167	0.37	0.57	1.423	| I O |	| |	1.44
18.250	0.37	0.57	1.421	| I O |	| |	1.44
18.333	0.37	0.57	1.420	| I O |	| |	1.44
18.417	0.37	0.56	1.419	| I O |	| |	1.44
18.500	0.37	0.56	1.417	| I O |	| |	1.44
18.583	0.33	0.56	1.416	| I O |	| |	1.43
18.667	0.29	0.56	1.414	| I O |	| |	1.43
18.750	0.28	0.56	1.412	| I O |	| |	1.43
18.833	0.24	0.56	1.410	| I O |	| |	1.43
18.917	0.20	0.56	1.408	| I O |	| |	1.43
19.000	0.19	0.56	1.405	|I O |	| |	1.42
19.083	0.22	0.56	1.403	| I O |	| |	1.42
19.167	0.26	0.55	1.401	| I O |	| |	1.42
19.250	0.27	0.55	1.399	| I O |	| |	1.42
19.333	0.31	0.55	1.397	| I O |	| |	1.42
19.417	0.35	0.55	1.395	| I O |	| |	1.41
19.500	0.36	0.55	1.394	| I O |	| |	1.41
19.583	0.33	0.55	1.392	| I O |	| |	1.41
19.667	0.29	0.55	1.391	| I O |	| |	1.41
19.750	0.28	0.55	1.389	| I O |	| |	1.41
19.833	0.24	0.55	1.387	| I O |	| |	1.41
19.917	0.20	0.55	1.385	| I O |	| |	1.40

20.000	0.19	0.54	1.382	I O				1.40
20.083	0.22	0.54	1.380	I O				1.40
20.167	0.26	0.54	1.378	I O				1.40
20.250	0.27	0.54	1.376	I O				1.39
20.333	0.27	0.54	1.374	I O				1.39
20.417	0.28	0.54	1.372	I O				1.39
20.500	0.28	0.54	1.371	I O				1.39
20.583	0.28	0.54	1.369	I O				1.39
20.667	0.28	0.54	1.367	I O				1.38
20.750	0.28	0.53	1.365	I O				1.38
20.833	0.24	0.53	1.363	I O				1.38
20.917	0.20	0.53	1.361	I O				1.38
21.000	0.19	0.53	1.359	I O				1.38
21.083	0.22	0.53	1.357	I O				1.37
21.167	0.26	0.53	1.355	I O				1.37
21.250	0.27	0.53	1.353	I O				1.37
21.333	0.24	0.53	1.351	I O				1.37
21.417	0.20	0.53	1.349	I O				1.37
21.500	0.19	0.52	1.346	I O				1.36
21.583	0.22	0.52	1.344	I O				1.36
21.667	0.26	0.52	1.342	I O				1.36
21.750	0.27	0.52	1.341	I O				1.36
21.833	0.24	0.52	1.339	I O				1.36
21.917	0.20	0.52	1.337	I O				1.35
22.000	0.19	0.52	1.334	I O				1.35
22.083	0.22	0.52	1.332	I O				1.35
22.167	0.26	0.51	1.330	I O				1.35
22.250	0.27	0.51	1.329	I O				1.35
22.333	0.24	0.51	1.327	I O				1.34
22.417	0.20	0.51	1.325	I O				1.34
22.500	0.19	0.51	1.323	I O				1.34
22.583	0.18	0.51	1.320	I O				1.34
22.667	0.18	0.51	1.318	I O				1.33
22.750	0.18	0.51	1.316	I O				1.33
22.833	0.18	0.51	1.314	I O				1.33
22.917	0.18	0.50	1.312	I O				1.33
23.000	0.18	0.50	1.309	I O				1.33
23.083	0.18	0.50	1.307	I O				1.32
23.167	0.18	0.50	1.305	I O				1.32
23.250	0.18	0.50	1.303	I O				1.32
23.333	0.18	0.50	1.301	I O				1.32
23.417	0.18	0.50	1.299	I O				1.31
23.500	0.18	0.50	1.296	I O				1.31
23.583	0.18	0.49	1.294	I O				1.31
23.667	0.18	0.49	1.292	I O				1.31
23.750	0.18	0.49	1.290	I O				1.31
23.833	0.18	0.49	1.288	I O				1.30
23.917	0.18	0.49	1.286	I O				1.30
24.000	0.18	0.49	1.284	I O				1.30
24.083	0.10	0.49	1.281	I O				1.30
24.167	0.02	0.48	1.278	I O				1.29
24.250	0.01	0.48	1.275	I O				1.29
24.333	0.00	0.48	1.272	I O				1.29
24.417	0.00	0.48	1.269	I O				1.28
24.500	0.00	0.48	1.265	I O				1.28
24.583	0.00	0.48	1.262	I O				1.28
24.667	0.00	0.47	1.259	I O				1.27
24.750	0.00	0.47	1.255	I O				1.27
24.833	0.00	0.47	1.252	I O				1.27
24.917	0.00	0.47	1.249	I O				1.26
25.000	0.00	0.47	1.246	I O				1.26
25.083	0.00	0.46	1.243	I O				1.26
25.167	0.00	0.46	1.239	I O				1.25

25.250	0.00	0.46	1.236	I	O	|	|	|	|	1.25
25.333	0.00	0.46	1.233	I	O	|	|	|	|	1.25
25.417	0.00	0.46	1.230	I	O	|	|	|	|	1.24
25.500	0.00	0.46	1.227	I	O	|	|	|	|	1.24
25.583	0.00	0.45	1.224	I	O	|	|	|	|	1.24
25.667	0.00	0.45	1.221	I	O	|	|	|	|	1.24
25.750	0.00	0.45	1.217	I	O	|	|	|	|	1.23
25.833	0.00	0.45	1.214	I	O	|	|	|	|	1.23
25.917	0.00	0.45	1.211	I	O	|	|	|	|	1.23
26.000	0.00	0.44	1.208	I	O	|	|	|	|	1.22
26.083	0.00	0.44	1.205	I	O	|	|	|	|	1.22
26.167	0.00	0.44	1.202	I	O	|	|	|	|	1.22
26.250	0.00	0.44	1.199	I	O	|	|	|	|	1.21
26.333	0.00	0.44	1.196	I	O	|	|	|	|	1.21
26.417	0.00	0.44	1.193	I	O	|	|	|	|	1.21
26.500	0.00	0.43	1.190	I	O	|	|	|	|	1.20
26.583	0.00	0.43	1.187	I	O	|	|	|	|	1.20
26.667	0.00	0.43	1.184	I	O	|	|	|	|	1.20
26.750	0.00	0.43	1.181	I	O	|	|	|	|	1.19
26.833	0.00	0.43	1.178	I	O	|	|	|	|	1.19
26.917	0.00	0.43	1.175	I	O	|	|	|	|	1.19
27.000	0.00	0.42	1.172	I	O	|	|	|	|	1.19
27.083	0.00	0.42	1.169	I	O	|	|	|	|	1.18
27.167	0.00	0.42	1.166	I	O	|	|	|	|	1.18
27.250	0.00	0.42	1.164	I	O	|	|	|	|	1.18
27.333	0.00	0.42	1.161	I	O	|	|	|	|	1.17
27.417	0.00	0.42	1.158	I	O	|	|	|	|	1.17
27.500	0.00	0.41	1.155	I	O	|	|	|	|	1.17
27.583	0.00	0.41	1.152	I	O	|	|	|	|	1.17
27.667	0.00	0.41	1.149	I	O	|	|	|	|	1.16
27.750	0.00	0.41	1.146	I	O	|	|	|	|	1.16
27.833	0.00	0.41	1.144	I	O	|	|	|	|	1.16
27.917	0.00	0.41	1.141	I	O	|	|	|	|	1.15
28.000	0.00	0.40	1.138	I	O	|	|	|	|	1.15
28.083	0.00	0.40	1.135	I	O	|	|	|	|	1.15
28.167	0.00	0.40	1.132	I	O	|	|	|	|	1.15
28.250	0.00	0.40	1.130	I	O	|	|	|	|	1.14
28.333	0.00	0.40	1.127	I	O	|	|	|	|	1.14
28.417	0.00	0.40	1.124	I	O	|	|	|	|	1.14
28.500	0.00	0.40	1.122	I	O	|	|	|	|	1.13
28.583	0.00	0.39	1.119	I	O	|	|	|	|	1.13
28.667	0.00	0.39	1.116	I	O	|	|	|	|	1.13
28.750	0.00	0.39	1.113	I	O	|	|	|	|	1.13
28.833	0.00	0.39	1.111	I	O	|	|	|	|	1.12
28.917	0.00	0.39	1.108	I	O	|	|	|	|	1.12
29.000	0.00	0.39	1.105	I	O	|	|	|	|	1.12
29.083	0.00	0.38	1.103	I	O	|	|	|	|	1.12
29.167	0.00	0.38	1.100	I	O	|	|	|	|	1.11
29.250	0.00	0.38	1.097	I	O	|	|	|	|	1.11
29.333	0.00	0.38	1.095	I	O	|	|	|	|	1.11
29.417	0.00	0.38	1.092	I	O	|	|	|	|	1.10
29.500	0.00	0.38	1.090	I	O	|	|	|	|	1.10
29.583	0.00	0.38	1.087	I	O	|	|	|	|	1.10
29.667	0.00	0.37	1.084	I	O	|	|	|	|	1.10
29.750	0.00	0.37	1.082	I	O	|	|	|	|	1.09
29.833	0.00	0.37	1.079	I	O	|	|	|	|	1.09
29.917	0.00	0.37	1.077	I	O	|	|	|	|	1.09
30.000	0.00	0.37	1.074	I	O	|	|	|	|	1.09
30.083	0.00	0.37	1.072	I	O	|	|	|	|	1.08
30.167	0.00	0.37	1.069	I	O	|	|	|	|	1.08
30.250	0.00	0.36	1.067	I	O	|	|	|	|	1.08
30.333	0.00	0.36	1.064	I	O	|	|	|	|	1.08
30.417	0.00	0.36	1.062	I	O	|	|	|	|	1.07

30.500	0.00	0.36	1.059	I	O	|	|	|	|	1.07
30.583	0.00	0.36	1.057	I	O	|	|	|	|	1.07
30.667	0.00	0.36	1.054	I	O	|	|	|	|	1.07
30.750	0.00	0.36	1.052	I	O	|	|	|	|	1.06
30.833	0.00	0.35	1.049	I	O	|	|	|	|	1.06
30.917	0.00	0.35	1.047	I	O	|	|	|	|	1.06
31.000	0.00	0.35	1.045	I	O	|	|	|	|	1.06
31.083	0.00	0.35	1.042	I	O	|	|	|	|	1.05
31.167	0.00	0.35	1.040	I	O	|	|	|	|	1.05
31.250	0.00	0.35	1.037	I	O	|	|	|	|	1.05
31.333	0.00	0.35	1.035	I	O	|	|	|	|	1.05
31.417	0.00	0.34	1.033	I	O	|	|	|	|	1.04
31.500	0.00	0.34	1.030	I	O	|	|	|	|	1.04
31.583	0.00	0.34	1.028	I	O	|	|	|	|	1.04
31.667	0.00	0.34	1.025	I	O	|	|	|	|	1.04
31.750	0.00	0.34	1.023	I	O	|	|	|	|	1.03
31.833	0.00	0.34	1.021	I	O	|	|	|	|	1.03
31.917	0.00	0.34	1.018	I	O	|	|	|	|	1.03
32.000	0.00	0.33	1.016	I	O	|	|	|	|	1.03
32.083	0.00	0.33	1.014	I	O	|	|	|	|	1.02
32.167	0.00	0.33	1.012	I	O	|	|	|	|	1.02
32.250	0.00	0.33	1.009	I	O	|	|	|	|	1.02
32.333	0.00	0.33	1.007	I	O	|	|	|	|	1.02
32.417	0.00	0.33	1.005	I	O	|	|	|	|	1.02
32.500	0.00	0.33	1.002	I	O	|	|	|	|	1.01
32.583	0.00	0.33	1.000	I	O	|	|	|	|	1.01
32.667	0.00	0.32	0.998	I	O	|	|	|	|	1.01
32.750	0.00	0.32	0.996	I	O	|	|	|	|	1.01
32.833	0.00	0.32	0.994	I	O	|	|	|	|	1.00
32.917	0.00	0.32	0.991	I	O	|	|	|	|	1.00
33.000	0.00	0.32	0.989	I	O	|	|	|	|	1.00
33.083	0.00	0.32	0.987	I	O	|	|	|	|	1.00
33.167	0.00	0.32	0.985	I	O	|	|	|	|	0.99
33.250	0.00	0.32	0.983	I	O	|	|	|	|	0.99
33.333	0.00	0.32	0.980	I	O	|	|	|	|	0.99
33.417	0.00	0.32	0.978	I	O	|	|	|	|	0.99
33.500	0.00	0.32	0.976	I	O	|	|	|	|	0.99
33.583	0.00	0.32	0.974	I	O	|	|	|	|	0.98
33.667	0.00	0.32	0.972	I	O	|	|	|	|	0.98
33.750	0.00	0.32	0.969	I	O	|	|	|	|	0.98
33.833	0.00	0.32	0.967	I	O	|	|	|	|	0.98
33.917	0.00	0.32	0.965	I	O	|	|	|	|	0.97
34.000	0.00	0.31	0.963	I	O	|	|	|	|	0.97
34.083	0.00	0.31	0.961	I	O	|	|	|	|	0.97
34.167	0.00	0.31	0.959	I	O	|	|	|	|	0.97
34.250	0.00	0.31	0.956	I	O	|	|	|	|	0.96
34.333	0.00	0.31	0.954	I	O	|	|	|	|	0.96
34.417	0.00	0.31	0.952	I	O	|	|	|	|	0.96
34.500	0.00	0.31	0.950	I	O	|	|	|	|	0.96
34.583	0.00	0.31	0.948	I	O	|	|	|	|	0.96
34.667	0.00	0.31	0.946	I	O	|	|	|	|	0.95
34.750	0.00	0.31	0.944	I	O	|	|	|	|	0.95
34.833	0.00	0.31	0.941	I	O	|	|	|	|	0.95
34.917	0.00	0.31	0.939	I	O	|	|	|	|	0.95
35.000	0.00	0.31	0.937	I	O	|	|	|	|	0.94
35.083	0.00	0.31	0.935	I	O	|	|	|	|	0.94
35.167	0.00	0.31	0.933	I	O	|	|	|	|	0.94
35.250	0.00	0.31	0.931	I	O	|	|	|	|	0.94
35.333	0.00	0.31	0.929	I	O	|	|	|	|	0.93
35.417	0.00	0.31	0.926	I	O	|	|	|	|	0.93
35.500	0.00	0.31	0.924	I	O	|	|	|	|	0.93
35.583	0.00	0.31	0.922	I	O	|	|	|	|	0.93
35.667	0.00	0.31	0.920	I	O	|	|	|	|	0.93

35.750	0.00	0.31	0.918	I	O	|	|	|	|	0.92
35.833	0.00	0.31	0.916	I	O	|	|	|	|	0.92
35.917	0.00	0.31	0.914	I	O	|	|	|	|	0.92
36.000	0.00	0.31	0.912	I	O	|	|	|	|	0.92
36.083	0.00	0.30	0.910	I	O	|	|	|	|	0.91
36.167	0.00	0.30	0.907	I	O	|	|	|	|	0.91
36.250	0.00	0.30	0.905	I	O	|	|	|	|	0.91
36.333	0.00	0.30	0.903	I	O	|	|	|	|	0.91
36.417	0.00	0.30	0.901	I	O	|	|	|	|	0.91
36.500	0.00	0.30	0.899	I	O	|	|	|	|	0.90
36.583	0.00	0.30	0.897	I	O	|	|	|	|	0.90
36.667	0.00	0.30	0.895	I	O	|	|	|	|	0.90
36.750	0.00	0.30	0.893	I	O	|	|	|	|	0.90
36.833	0.00	0.30	0.891	I	O	|	|	|	|	0.89
36.917	0.00	0.30	0.889	I	O	|	|	|	|	0.89
37.000	0.00	0.30	0.887	I	O	|	|	|	|	0.89
37.083	0.00	0.30	0.885	I	O	|	|	|	|	0.89
37.167	0.00	0.30	0.883	I	O	|	|	|	|	0.89
37.250	0.00	0.30	0.880	I	O	|	|	|	|	0.88
37.333	0.00	0.30	0.878	I	O	|	|	|	|	0.88
37.417	0.00	0.30	0.876	I	O	|	|	|	|	0.88
37.500	0.00	0.30	0.874	I	O	|	|	|	|	0.88
37.583	0.00	0.30	0.872	I	O	|	|	|	|	0.87
37.667	0.00	0.30	0.870	I	O	|	|	|	|	0.87
37.750	0.00	0.30	0.868	I	O	|	|	|	|	0.87
37.833	0.00	0.30	0.866	I	O	|	|	|	|	0.87
37.917	0.00	0.30	0.864	I	O	|	|	|	|	0.87
38.000	0.00	0.30	0.862	I	O	|	|	|	|	0.86
38.083	0.00	0.30	0.860	I	O	|	|	|	|	0.86
38.167	0.00	0.29	0.858	I	O	|	|	|	|	0.86
38.250	0.00	0.29	0.856	I	O	|	|	|	|	0.86
38.333	0.00	0.29	0.854	I	O	|	|	|	|	0.86
38.417	0.00	0.29	0.852	I	O	|	|	|	|	0.85
38.500	0.00	0.29	0.850	I	O	|	|	|	|	0.85
38.583	0.00	0.29	0.848	I	O	|	|	|	|	0.85
38.667	0.00	0.29	0.846	I	O	|	|	|	|	0.85
38.750	0.00	0.29	0.844	I	O	|	|	|	|	0.84
38.833	0.00	0.29	0.842	I	O	|	|	|	|	0.84
38.917	0.00	0.29	0.840	I	O	|	|	|	|	0.84
39.000	0.00	0.29	0.838	I	O	|	|	|	|	0.84
39.083	0.00	0.29	0.836	I	O	|	|	|	|	0.84
39.167	0.00	0.29	0.834	I	O	|	|	|	|	0.83
39.250	0.00	0.29	0.832	I	O	|	|	|	|	0.83
39.333	0.00	0.29	0.830	I	O	|	|	|	|	0.83
39.417	0.00	0.29	0.828	I	O	|	|	|	|	0.83
39.500	0.00	0.29	0.826	I	O	|	|	|	|	0.83
39.583	0.00	0.29	0.824	I	O	|	|	|	|	0.82
39.667	0.00	0.29	0.822	I	O	|	|	|	|	0.82
39.750	0.00	0.29	0.820	I	O	|	|	|	|	0.82
39.833	0.00	0.29	0.818	I	O	|	|	|	|	0.82
39.917	0.00	0.29	0.816	I	O	|	|	|	|	0.81
40.000	0.00	0.29	0.814	I	O	|	|	|	|	0.81
40.083	0.00	0.29	0.812	I	O	|	|	|	|	0.81
40.167	0.00	0.29	0.810	I	O	|	|	|	|	0.81
40.250	0.00	0.29	0.808	I	O	|	|	|	|	0.81
40.333	0.00	0.28	0.806	I	O	|	|	|	|	0.80
40.417	0.00	0.28	0.804	I	O	|	|	|	|	0.80
40.500	0.00	0.28	0.802	I	O	|	|	|	|	0.80
40.583	0.00	0.28	0.800	I	O	|	|	|	|	0.80
40.667	0.00	0.28	0.798	I	O	|	|	|	|	0.80
40.750	0.00	0.28	0.796	I	O	|	|	|	|	0.79
40.833	0.00	0.28	0.794	I	O	|	|	|	|	0.79
40.917	0.00	0.28	0.792	I	O	|	|	|	|	0.79

41.000	0.00	0.28	0.791	I	O	|	|	|	| 0.79
41.083	0.00	0.28	0.789	I	O	|	|	|	| 0.79
41.167	0.00	0.28	0.787	I	O	|	|	|	| 0.78
41.250	0.00	0.28	0.785	I	O	|	|	|	| 0.78
41.333	0.00	0.28	0.783	I	O	|	|	|	| 0.78
41.417	0.00	0.28	0.781	I	O	|	|	|	| 0.78
41.500	0.00	0.28	0.779	I	O	|	|	|	| 0.78
41.583	0.00	0.28	0.777	I	O	|	|	|	| 0.77
41.667	0.00	0.28	0.775	I	O	|	|	|	| 0.77
41.750	0.00	0.28	0.773	I	O	|	|	|	| 0.77
41.833	0.00	0.28	0.771	I	O	|	|	|	| 0.77
41.917	0.00	0.28	0.769	I	O	|	|	|	| 0.77
42.000	0.00	0.28	0.767	I	O	|	|	|	| 0.76
42.083	0.00	0.28	0.765	I	O	|	|	|	| 0.76
42.167	0.00	0.28	0.764	I	O	|	|	|	| 0.76
42.250	0.00	0.28	0.762	I	O	|	|	|	| 0.76
42.333	0.00	0.28	0.760	I	O	|	|	|	| 0.76
42.417	0.00	0.28	0.758	I	O	|	|	|	| 0.75
42.500	0.00	0.28	0.756	I	O	|	|	|	| 0.75
42.583	0.00	0.27	0.754	I	O	|	|	|	| 0.75
42.667	0.00	0.27	0.752	I	O	|	|	|	| 0.75
42.750	0.00	0.27	0.750	I	O	|	|	|	| 0.75
42.833	0.00	0.27	0.748	I	O	|	|	|	| 0.74
42.917	0.00	0.27	0.747	I	O	|	|	|	| 0.74
43.000	0.00	0.27	0.745	I	O	|	|	|	| 0.74
43.083	0.00	0.27	0.743	I	O	|	|	|	| 0.74
43.167	0.00	0.27	0.741	I	O	|	|	|	| 0.74
43.250	0.00	0.27	0.739	I	O	|	|	|	| 0.73
43.333	0.00	0.27	0.737	I	O	|	|	|	| 0.73
43.417	0.00	0.27	0.735	I	O	|	|	|	| 0.73
43.500	0.00	0.27	0.733	I	O	|	|	|	| 0.73
43.583	0.00	0.27	0.732	I	O	|	|	|	| 0.73
43.667	0.00	0.27	0.730	I	O	|	|	|	| 0.72
43.750	0.00	0.27	0.728	I	O	|	|	|	| 0.72
43.833	0.00	0.27	0.726	I	O	|	|	|	| 0.72
43.917	0.00	0.27	0.724	I	O	|	|	|	| 0.72
44.000	0.00	0.27	0.722	I	O	|	|	|	| 0.72
44.083	0.00	0.27	0.720	I	O	|	|	|	| 0.71
44.167	0.00	0.27	0.719	I	O	|	|	|	| 0.71
44.250	0.00	0.27	0.717	I	O	|	|	|	| 0.71
44.333	0.00	0.27	0.715	I	O	|	|	|	| 0.71
44.417	0.00	0.27	0.713	I	O	|	|	|	| 0.71
44.500	0.00	0.27	0.711	I	O	|	|	|	| 0.70
44.583	0.00	0.27	0.709	I	O	|	|	|	| 0.70
44.667	0.00	0.27	0.708	I	O	|	|	|	| 0.70
44.750	0.00	0.27	0.706	I	O	|	|	|	| 0.70
44.833	0.00	0.27	0.704	I	O	|	|	|	| 0.70
44.917	0.00	0.26	0.702	I	O	|	|	|	| 0.69
45.000	0.00	0.26	0.700	I	O	|	|	|	| 0.69
45.083	0.00	0.26	0.698	I	O	|	|	|	| 0.69
45.167	0.00	0.26	0.697	I	O	|	|	|	| 0.69
45.250	0.00	0.26	0.695	I	O	|	|	|	| 0.69
45.333	0.00	0.26	0.693	I	O	|	|	|	| 0.68
45.417	0.00	0.26	0.691	I	O	|	|	|	| 0.68
45.500	0.00	0.26	0.689	I	O	|	|	|	| 0.68
45.583	0.00	0.26	0.688	I	O	|	|	|	| 0.68
45.667	0.00	0.26	0.686	I	O	|	|	|	| 0.68
45.750	0.00	0.26	0.684	I	O	|	|	|	| 0.67
45.833	0.00	0.26	0.682	I	O	|	|	|	| 0.67
45.917	0.00	0.26	0.680	I	O	|	|	|	| 0.67
46.000	0.00	0.26	0.679	I	O	|	|	|	| 0.67
46.083	0.00	0.26	0.677	I	O	|	|	|	| 0.67
46.167	0.00	0.26	0.675	I	O	|	|	|	| 0.66

46.250	0.00	0.26	0.673	I	O	|	|	|	0.66
46.333	0.00	0.26	0.671	I	O	|	|	|	0.66
46.417	0.00	0.26	0.670	I	O	|	|	|	0.66
46.500	0.00	0.26	0.668	I	O	|	|	|	0.66
46.583	0.00	0.26	0.666	I	O	|	|	|	0.66
46.667	0.00	0.26	0.664	I	O	|	|	|	0.65
46.750	0.00	0.26	0.663	I	O	|	|	|	0.65
46.833	0.00	0.26	0.661	I	O	|	|	|	0.65
46.917	0.00	0.26	0.659	I	O	|	|	|	0.65
47.000	0.00	0.26	0.657	I	O	|	|	|	0.65
47.083	0.00	0.26	0.655	I	O	|	|	|	0.64
47.167	0.00	0.26	0.654	I	O	|	|	|	0.64
47.250	0.00	0.26	0.652	I	O	|	|	|	0.64
47.333	0.00	0.25	0.650	I	O	|	|	|	0.64
47.417	0.00	0.25	0.648	I	O	|	|	|	0.64
47.500	0.00	0.25	0.647	I	O	|	|	|	0.63
47.583	0.00	0.25	0.645	I	O	|	|	|	0.63
47.667	0.00	0.25	0.643	I	O	|	|	|	0.63
47.750	0.00	0.25	0.641	I	O	|	|	|	0.63
47.833	0.00	0.25	0.640	I	O	|	|	|	0.63
47.917	0.00	0.25	0.638	I	O	|	|	|	0.63
48.000	0.00	0.25	0.636	I	O	|	|	|	0.62
48.083	0.00	0.25	0.634	I	O	|	|	|	0.62
48.167	0.00	0.25	0.633	I	O	|	|	|	0.62
48.250	0.00	0.25	0.631	I	O	|	|	|	0.62
48.333	0.00	0.25	0.629	I	O	|	|	|	0.62
48.417	0.00	0.25	0.628	I	O	|	|	|	0.61
48.500	0.00	0.25	0.626	I	O	|	|	|	0.61
48.583	0.00	0.25	0.624	I	O	|	|	|	0.61
48.667	0.00	0.25	0.622	I	O	|	|	|	0.61
48.750	0.00	0.25	0.621	I	O	|	|	|	0.61
48.833	0.00	0.25	0.619	I	O	|	|	|	0.61
48.917	0.00	0.25	0.617	I	O	|	|	|	0.60
49.000	0.00	0.25	0.616	I	O	|	|	|	0.60
49.083	0.00	0.25	0.614	I	O	|	|	|	0.60
49.167	0.00	0.25	0.612	I	O	|	|	|	0.60
49.250	0.00	0.25	0.610	I	O	|	|	|	0.60
49.333	0.00	0.25	0.609	I	O	|	|	|	0.59
49.417	0.00	0.25	0.607	I	O	|	|	|	0.59
49.500	0.00	0.25	0.605	I	O	|	|	|	0.59
49.583	0.00	0.25	0.604	I	O	|	|	|	0.59
49.667	0.00	0.25	0.602	I	O	|	|	|	0.59
49.750	0.00	0.25	0.600	I	O	|	|	|	0.59
49.833	0.00	0.25	0.599	I	O	|	|	|	0.58
49.917	0.00	0.24	0.597	I	O	|	|	|	0.58
50.000	0.00	0.24	0.595	I	O	|	|	|	0.58
50.083	0.00	0.24	0.593	I	O	|	|	|	0.58
50.167	0.00	0.24	0.592	I	O	|	|	|	0.58
50.250	0.00	0.24	0.590	I	O	|	|	|	0.57
50.333	0.00	0.24	0.588	I	O	|	|	|	0.57
50.417	0.00	0.24	0.587	I	O	|	|	|	0.57
50.500	0.00	0.24	0.585	I	O	|	|	|	0.57
50.583	0.00	0.24	0.583	I	O	|	|	|	0.57
50.667	0.00	0.24	0.582	I	O	|	|	|	0.57
50.750	0.00	0.24	0.580	I	O	|	|	|	0.56
50.833	0.00	0.24	0.578	I	O	|	|	|	0.56
50.917	0.00	0.24	0.577	I	O	|	|	|	0.56
51.000	0.00	0.24	0.575	I	O	|	|	|	0.56
51.083	0.00	0.24	0.573	I	O	|	|	|	0.56
51.167	0.00	0.24	0.572	I	O	|	|	|	0.56
51.250	0.00	0.24	0.570	I	O	|	|	|	0.55
51.333	0.00	0.24	0.568	I	O	|	|	|	0.55
51.417	0.00	0.24	0.567	I	O	|	|	|	0.55

51.500	0.00	0.24	0.565	I	O	|	|	|	| 0.55
51.583	0.00	0.24	0.564	I	O	|	|	|	| 0.55
51.667	0.00	0.24	0.562	I	O	|	|	|	| 0.54
51.750	0.00	0.24	0.560	I	O	|	|	|	| 0.54
51.833	0.00	0.24	0.559	I	O	|	|	|	| 0.54
51.917	0.00	0.24	0.557	I	O	|	|	|	| 0.54
52.000	0.00	0.24	0.555	I	O	|	|	|	| 0.54
52.083	0.00	0.24	0.554	I	O	|	|	|	| 0.54
52.167	0.00	0.24	0.552	I	O	|	|	|	| 0.53
52.250	0.00	0.24	0.551	I	O	|	|	|	| 0.53
52.333	0.00	0.24	0.549	I	O	|	|	|	| 0.53
52.417	0.00	0.24	0.547	I	O	|	|	|	| 0.53
52.500	0.00	0.23	0.546	I	O	|	|	|	| 0.53
52.583	0.00	0.23	0.544	I	O	|	|	|	| 0.53
52.667	0.00	0.23	0.542	I	O	|	|	|	| 0.52
52.750	0.00	0.23	0.541	I	O	|	|	|	| 0.52
52.833	0.00	0.23	0.539	I	O	|	|	|	| 0.52
52.917	0.00	0.23	0.538	I	O	|	|	|	| 0.52
53.000	0.00	0.23	0.536	I	O	|	|	|	| 0.52
53.083	0.00	0.23	0.534	I	O	|	|	|	| 0.52
53.167	0.00	0.23	0.533	I	O	|	|	|	| 0.51
53.250	0.00	0.23	0.531	I	O	|	|	|	| 0.51
53.333	0.00	0.23	0.530	I	O	|	|	|	| 0.51
53.417	0.00	0.23	0.528	I	O	|	|	|	| 0.51
53.500	0.00	0.23	0.526	I	O	|	|	|	| 0.51
53.583	0.00	0.23	0.525	I	O	|	|	|	| 0.51
53.667	0.00	0.23	0.523	I	O	|	|	|	| 0.50
53.750	0.00	0.23	0.522	I	O	|	|	|	| 0.50
53.833	0.00	0.23	0.520	I	O	|	|	|	| 0.50
53.917	0.00	0.23	0.518	I	O	|	|	|	| 0.50
54.000	0.00	0.23	0.517	I	O	|	|	|	| 0.50
54.083	0.00	0.23	0.515	I	O	|	|	|	| 0.50
54.167	0.00	0.23	0.514	I	O	|	|	|	| 0.49
54.250	0.00	0.23	0.512	I	O	|	|	|	| 0.49
54.333	0.00	0.23	0.511	I	O	|	|	|	| 0.49
54.417	0.00	0.23	0.509	I	O	|	|	|	| 0.49
54.500	0.00	0.22	0.508	I	O	|	|	|	| 0.49
54.583	0.00	0.22	0.506	I	O	|	|	|	| 0.49
54.667	0.00	0.22	0.504	I	O	|	|	|	| 0.49
54.750	0.00	0.22	0.503	I	O	|	|	|	| 0.48
54.833	0.00	0.22	0.501	I	O	|	|	|	| 0.48
54.917	0.00	0.22	0.500	I	O	|	|	|	| 0.48
55.000	0.00	0.22	0.498	I	O	|	|	|	| 0.48
55.083	0.00	0.22	0.497	I	O	|	|	|	| 0.48
55.167	0.00	0.22	0.495	I	O	|	|	|	| 0.48
55.250	0.00	0.22	0.494	I	O	|	|	|	| 0.47
55.333	0.00	0.22	0.492	I	O	|	|	|	| 0.47
55.417	0.00	0.22	0.491	I	O	|	|	|	| 0.47
55.500	0.00	0.22	0.489	I	O	|	|	|	| 0.47
55.583	0.00	0.22	0.488	I	O	|	|	|	| 0.47
55.667	0.00	0.22	0.486	I	O	|	|	|	| 0.47
55.750	0.00	0.21	0.485	I	O	|	|	|	| 0.47
55.833	0.00	0.21	0.483	I	O	|	|	|	| 0.46
55.917	0.00	0.21	0.482	I	O	|	|	|	| 0.46
56.000	0.00	0.21	0.480	I	O	|	|	|	| 0.46
56.083	0.00	0.21	0.479	I	O	|	|	|	| 0.46
56.167	0.00	0.21	0.478	I	O	|	|	|	| 0.46
56.250	0.00	0.21	0.476	I	O	|	|	|	| 0.46
56.333	0.00	0.21	0.475	I	O	|	|	|	| 0.46
56.417	0.00	0.21	0.473	I	O	|	|	|	| 0.45
56.500	0.00	0.21	0.472	I	O	|	|	|	| 0.45
56.583	0.00	0.21	0.470	I	O	|	|	|	| 0.45
56.667	0.00	0.21	0.469	I	O	|	|	|	| 0.45

56.750	0.00	0.21	0.467	I O	|	|	|	0.45
56.833	0.00	0.21	0.466	I O	|	|	|	0.45
56.917	0.00	0.21	0.465	I O	|	|	|	0.45
57.000	0.00	0.20	0.463	I O	|	|	|	0.45
57.083	0.00	0.20	0.462	I O	|	|	|	0.44
57.167	0.00	0.20	0.460	I O	|	|	|	0.44
57.250	0.00	0.20	0.459	I O	|	|	|	0.44
57.333	0.00	0.20	0.458	I O	|	|	|	0.44
57.417	0.00	0.20	0.456	I O	|	|	|	0.44
57.500	0.00	0.20	0.455	I O	|	|	|	0.44
57.583	0.00	0.20	0.453	I O	|	|	|	0.44
57.667	0.00	0.20	0.452	I O	|	|	|	0.43
57.750	0.00	0.20	0.451	I O	|	|	|	0.43
57.833	0.00	0.20	0.449	I O	|	|	|	0.43
57.917	0.00	0.20	0.448	I O	|	|	|	0.43
58.000	0.00	0.20	0.447	I O	|	|	|	0.43
58.083	0.00	0.20	0.445	I O	|	|	|	0.43
58.167	0.00	0.20	0.444	I O	|	|	|	0.43
58.250	0.00	0.20	0.442	I O	|	|	|	0.43
58.333	0.00	0.20	0.441	I O	|	|	|	0.42
58.417	0.00	0.19	0.440	IO	|	|	|	0.42
58.500	0.00	0.19	0.438	IO	|	|	|	0.42
58.583	0.00	0.19	0.437	IO	|	|	|	0.42
58.667	0.00	0.19	0.436	IO	|	|	|	0.42
58.750	0.00	0.19	0.434	IO	|	|	|	0.42
58.833	0.00	0.19	0.433	IO	|	|	|	0.42
58.917	0.00	0.19	0.432	IO	|	|	|	0.42
59.000	0.00	0.19	0.431	IO	|	|	|	0.41
59.083	0.00	0.19	0.429	IO	|	|	|	0.41
59.167	0.00	0.19	0.428	IO	|	|	|	0.41
59.250	0.00	0.19	0.427	IO	|	|	|	0.41
59.333	0.00	0.19	0.425	IO	|	|	|	0.41
59.417	0.00	0.19	0.424	IO	|	|	|	0.41
59.500	0.00	0.19	0.423	IO	|	|	|	0.41
59.583	0.00	0.19	0.421	IO	|	|	|	0.41
59.667	0.00	0.19	0.420	IO	|	|	|	0.40
59.750	0.00	0.19	0.419	IO	|	|	|	0.40
59.833	0.00	0.18	0.418	IO	|	|	|	0.40
59.917	0.00	0.18	0.416	IO	|	|	|	0.40
60.000	0.00	0.18	0.415	IO	|	|	|	0.40
60.083	0.00	0.18	0.414	IO	|	|	|	0.40
60.167	0.00	0.18	0.413	IO	|	|	|	0.40
60.250	0.00	0.18	0.411	IO	|	|	|	0.40
60.333	0.00	0.18	0.410	IO	|	|	|	0.39
60.417	0.00	0.18	0.409	IO	|	|	|	0.39
60.500	0.00	0.18	0.408	IO	|	|	|	0.39
60.583	0.00	0.18	0.406	IO	|	|	|	0.39
60.667	0.00	0.18	0.405	IO	|	|	|	0.39
60.750	0.00	0.18	0.404	IO	|	|	|	0.39
60.833	0.00	0.18	0.403	IO	|	|	|	0.39
60.917	0.00	0.18	0.401	IO	|	|	|	0.39
61.000	0.00	0.18	0.400	IO	|	|	|	0.38
61.083	0.00	0.18	0.399	IO	|	|	|	0.38
61.167	0.00	0.18	0.398	IO	|	|	|	0.38
61.250	0.00	0.18	0.397	IO	|	|	|	0.38
61.333	0.00	0.17	0.395	IO	|	|	|	0.38
61.417	0.00	0.17	0.394	IO	|	|	|	0.38
61.500	0.00	0.17	0.393	IO	|	|	|	0.38
61.583	0.00	0.17	0.392	IO	|	|	|	0.38
61.667	0.00	0.17	0.391	IO	|	|	|	0.38
61.750	0.00	0.17	0.389	IO	|	|	|	0.37
61.833	0.00	0.17	0.388	IO	|	|	|	0.37
61.917	0.00	0.17	0.387	IO	|	|	|	0.37

62.000	0.00	0.17	0.386	IO				0.37
62.083	0.00	0.17	0.385	IO				0.37
62.167	0.00	0.17	0.383	IO				0.37
62.250	0.00	0.17	0.382	IO				0.37
62.333	0.00	0.17	0.381	IO				0.37
62.417	0.00	0.17	0.380	IO				0.37
62.500	0.00	0.17	0.379	IO				0.36
62.583	0.00	0.17	0.378	IO				0.36
62.667	0.00	0.17	0.377	IO				0.36
62.750	0.00	0.17	0.375	IO				0.36
62.833	0.00	0.17	0.374	IO				0.36
62.917	0.00	0.17	0.373	IO				0.36
63.000	0.00	0.16	0.372	IO				0.36
63.083	0.00	0.16	0.371	IO				0.36
63.167	0.00	0.16	0.370	IO				0.36
63.250	0.00	0.16	0.369	IO				0.35
63.333	0.00	0.16	0.367	IO				0.35
63.417	0.00	0.16	0.366	IO				0.35
63.500	0.00	0.16	0.365	IO				0.35
63.583	0.00	0.16	0.364	IO				0.35
63.667	0.00	0.16	0.363	IO				0.35
63.750	0.00	0.16	0.362	IO				0.35
63.833	0.00	0.16	0.361	IO				0.35
63.917	0.00	0.16	0.360	IO				0.35
64.000	0.00	0.16	0.359	IO				0.34
64.083	0.00	0.16	0.358	IO				0.34
64.167	0.00	0.16	0.356	IO				0.34
64.250	0.00	0.16	0.355	IO				0.34
64.333	0.00	0.16	0.354	IO				0.34
64.417	0.00	0.16	0.353	IO				0.34
64.500	0.00	0.16	0.352	IO				0.34
64.583	0.00	0.16	0.351	IO				0.34
64.667	0.00	0.15	0.350	IO				0.34
64.750	0.00	0.15	0.349	IO				0.34
64.833	0.00	0.15	0.348	IO				0.33
64.917	0.00	0.15	0.347	IO				0.33
65.000	0.00	0.15	0.346	IO				0.33
65.083	0.00	0.15	0.345	IO				0.33
65.167	0.00	0.15	0.344	IO				0.33
65.250	0.00	0.15	0.343	IO				0.33
65.333	0.00	0.15	0.342	IO				0.33
65.417	0.00	0.15	0.341	IO				0.33
65.500	0.00	0.15	0.339	IO				0.33
65.583	0.00	0.15	0.338	IO				0.33
65.667	0.00	0.15	0.337	IO				0.32
65.750	0.00	0.15	0.336	IO				0.32
65.833	0.00	0.15	0.335	IO				0.32
65.917	0.00	0.15	0.334	IO				0.32
66.000	0.00	0.15	0.333	IO				0.32
66.083	0.00	0.15	0.332	IO				0.32
66.167	0.00	0.15	0.331	IO				0.32
66.250	0.00	0.15	0.330	IO				0.32
66.333	0.00	0.15	0.329	IO				0.32
66.417	0.00	0.15	0.328	IO				0.32
66.500	0.00	0.14	0.327	IO				0.31
66.583	0.00	0.14	0.326	IO				0.31
66.667	0.00	0.14	0.325	IO				0.31
66.750	0.00	0.14	0.324	IO				0.31
66.833	0.00	0.14	0.323	IO				0.31
66.917	0.00	0.14	0.322	IO				0.31
67.000	0.00	0.14	0.321	IO				0.31
67.083	0.00	0.14	0.320	IO				0.31
67.167	0.00	0.14	0.319	IO				0.31

67.250	0.00	0.14	0.318	IO				0.31
67.333	0.00	0.14	0.317	IO				0.31
67.417	0.00	0.14	0.317	IO				0.30
67.500	0.00	0.14	0.316	IO				0.30
67.583	0.00	0.14	0.315	IO				0.30
67.667	0.00	0.14	0.314	IO				0.30
67.750	0.00	0.14	0.313	IO				0.30
67.833	0.00	0.14	0.312	IO				0.30
67.917	0.00	0.14	0.311	IO				0.30
68.000	0.00	0.14	0.310	IO				0.30
68.083	0.00	0.14	0.309	IO				0.30
68.167	0.00	0.14	0.308	IO				0.30
68.250	0.00	0.14	0.307	IO				0.30
68.333	0.00	0.14	0.306	IO				0.29
68.417	0.00	0.13	0.305	IO				0.29
68.500	0.00	0.13	0.304	IO				0.29
68.583	0.00	0.13	0.303	IO				0.29
68.667	0.00	0.13	0.302	IO				0.29
68.750	0.00	0.13	0.301	IO				0.29
68.833	0.00	0.13	0.301	IO				0.29
68.917	0.00	0.13	0.300	IO				0.29
69.000	0.00	0.13	0.299	IO				0.29
69.083	0.00	0.13	0.298	IO				0.29
69.167	0.00	0.13	0.297	IO				0.29
69.250	0.00	0.13	0.296	IO				0.28
69.333	0.00	0.13	0.295	IO				0.28
69.417	0.00	0.13	0.294	IO				0.28
69.500	0.00	0.13	0.293	IO				0.28
69.583	0.00	0.13	0.292	IO				0.28
69.667	0.00	0.13	0.292	IO				0.28
69.750	0.00	0.13	0.291	IO				0.28
69.833	0.00	0.13	0.290	IO				0.28
69.917	0.00	0.13	0.289	IO				0.28
70.000	0.00	0.13	0.288	IO				0.28
70.083	0.00	0.13	0.287	IO				0.28
70.167	0.00	0.13	0.286	IO				0.28
70.250	0.00	0.13	0.285	IO				0.27
70.333	0.00	0.13	0.284	IO				0.27
70.417	0.00	0.13	0.284	IO				0.27
70.500	0.00	0.13	0.283	IO				0.27
70.583	0.00	0.12	0.282	IO				0.27
70.667	0.00	0.12	0.281	IO				0.27
70.750	0.00	0.12	0.280	IO				0.27
70.833	0.00	0.12	0.279	IO				0.27
70.917	0.00	0.12	0.278	IO				0.27
71.000	0.00	0.12	0.278	IO				0.27
71.083	0.00	0.12	0.277	IO				0.27
71.167	0.00	0.12	0.276	IO				0.27
71.250	0.00	0.12	0.275	IO				0.26
71.333	0.00	0.12	0.274	IO				0.26
71.417	0.00	0.12	0.273	IO				0.26
71.500	0.00	0.12	0.273	IO				0.26
71.583	0.00	0.12	0.272	IO				0.26
71.667	0.00	0.12	0.271	IO				0.26
71.750	0.00	0.12	0.270	IO				0.26
71.833	0.00	0.12	0.269	IO				0.26
71.917	0.00	0.12	0.268	IO				0.26
72.000	0.00	0.12	0.268	IO				0.26
72.083	0.00	0.12	0.267	IO				0.26
72.167	0.00	0.12	0.266	IO				0.26
72.250	0.00	0.12	0.265	IO				0.26
72.333	0.00	0.12	0.264	IO				0.25
72.417	0.00	0.12	0.264	IO				0.25

72.500	0.00	0.12	0.263	IO				0.25
72.583	0.00	0.12	0.262	IO				0.25
72.667	0.00	0.12	0.261	IO				0.25
72.750	0.00	0.12	0.260	IO				0.25
72.833	0.00	0.11	0.260	IO				0.25
72.917	0.00	0.11	0.259	IO				0.25
73.000	0.00	0.11	0.258	IO				0.25
73.083	0.00	0.11	0.257	IO				0.25
73.167	0.00	0.11	0.257	IO				0.25
73.250	0.00	0.11	0.256	IO				0.25
73.333	0.00	0.11	0.255	IO				0.25
73.417	0.00	0.11	0.254	IO				0.24
73.500	0.00	0.11	0.253	IO				0.24
73.583	0.00	0.11	0.253	IO				0.24
73.667	0.00	0.11	0.252	IO				0.24
73.750	0.00	0.11	0.251	IO				0.24
73.833	0.00	0.11	0.250	IO				0.24
73.917	0.00	0.11	0.250	IO				0.24
74.000	0.00	0.11	0.249	IO				0.24
74.083	0.00	0.11	0.248	IO				0.24
74.167	0.00	0.11	0.247	IO				0.24
74.250	0.00	0.11	0.247	IO				0.24
74.333	0.00	0.11	0.246	IO				0.24
74.417	0.00	0.11	0.245	IO				0.24
74.500	0.00	0.11	0.244	IO				0.23
74.583	0.00	0.11	0.244	IO				0.23
74.667	0.00	0.11	0.243	IO				0.23
74.750	0.00	0.11	0.242	IO				0.23
74.833	0.00	0.11	0.241	IO				0.23
74.917	0.00	0.11	0.241	IO				0.23
75.000	0.00	0.11	0.240	IO				0.23
75.083	0.00	0.11	0.239	IO				0.23
75.167	0.00	0.11	0.238	IO				0.23
75.250	0.00	0.11	0.238	IO				0.23
75.333	0.00	0.10	0.237	IO				0.23
75.417	0.00	0.10	0.236	IO				0.23
75.500	0.00	0.10	0.236	IO				0.23
75.583	0.00	0.10	0.235	IO				0.23
75.667	0.00	0.10	0.234	IO				0.23
75.750	0.00	0.10	0.233	IO				0.22
75.833	0.00	0.10	0.233	IO				0.22
75.917	0.00	0.10	0.232	IO				0.22
76.000	0.00	0.10	0.231	IO				0.22
76.083	0.00	0.10	0.231	IO				0.22
76.167	0.00	0.10	0.230	IO				0.22
76.250	0.00	0.10	0.229	IO				0.22
76.333	0.00	0.10	0.228	IO				0.22
76.417	0.00	0.10	0.228	IO				0.22
76.500	0.00	0.10	0.227	IO				0.22
76.583	0.00	0.10	0.226	IO				0.22
76.667	0.00	0.10	0.226	IO				0.22
76.750	0.00	0.10	0.225	IO				0.22
76.833	0.00	0.10	0.224	IO				0.22
76.917	0.00	0.10	0.224	IO				0.22
77.000	0.00	0.10	0.223	IO				0.21
77.083	0.00	0.10	0.222	IO				0.21
77.167	0.00	0.10	0.222	IO				0.21
77.250	0.00	0.10	0.221	IO				0.21
77.333	0.00	0.10	0.220	O				0.21
77.417	0.00	0.10	0.220	O				0.21
77.500	0.00	0.10	0.219	O				0.21
77.583	0.00	0.10	0.218	O				0.21
77.667	0.00	0.10	0.218	O				0.21

77.750	0.00	0.10	0.217	O	|	|	|	|	0.21
77.833	0.00	0.10	0.216	O	|	|	|	|	0.21
77.917	0.00	0.10	0.216	O	|	|	|	|	0.21
78.000	0.00	0.10	0.215	O	|	|	|	|	0.21
78.083	0.00	0.09	0.214	O	|	|	|	|	0.21
78.167	0.00	0.09	0.214	O	|	|	|	|	0.21
78.250	0.00	0.09	0.213	O	|	|	|	|	0.20
78.333	0.00	0.09	0.212	O	|	|	|	|	0.20
78.417	0.00	0.09	0.212	O	|	|	|	|	0.20
78.500	0.00	0.09	0.211	O	|	|	|	|	0.20
78.583	0.00	0.09	0.210	O	|	|	|	|	0.20
78.667	0.00	0.09	0.210	O	|	|	|	|	0.20
78.750	0.00	0.09	0.209	O	|	|	|	|	0.20
78.833	0.00	0.09	0.209	O	|	|	|	|	0.20
78.917	0.00	0.09	0.208	O	|	|	|	|	0.20
79.000	0.00	0.09	0.207	O	|	|	|	|	0.20
79.083	0.00	0.09	0.207	O	|	|	|	|	0.20
79.167	0.00	0.09	0.206	O	|	|	|	|	0.20
79.250	0.00	0.09	0.205	O	|	|	|	|	0.20
79.333	0.00	0.09	0.205	O	|	|	|	|	0.20
79.417	0.00	0.09	0.204	O	|	|	|	|	0.20
79.500	0.00	0.09	0.203	O	|	|	|	|	0.20
79.583	0.00	0.09	0.203	O	|	|	|	|	0.20
79.667	0.00	0.09	0.202	O	|	|	|	|	0.19
79.750	0.00	0.09	0.202	O	|	|	|	|	0.19
79.833	0.00	0.09	0.201	O	|	|	|	|	0.19
79.917	0.00	0.09	0.200	O	|	|	|	|	0.19
80.000	0.00	0.09	0.200	O	|	|	|	|	0.19
80.083	0.00	0.09	0.199	O	|	|	|	|	0.19
80.167	0.00	0.09	0.199	O	|	|	|	|	0.19
80.250	0.00	0.09	0.198	O	|	|	|	|	0.19
80.333	0.00	0.09	0.197	O	|	|	|	|	0.19
80.417	0.00	0.09	0.197	O	|	|	|	|	0.19
80.500	0.00	0.09	0.196	O	|	|	|	|	0.19
80.583	0.00	0.09	0.196	O	|	|	|	|	0.19
80.667	0.00	0.09	0.195	O	|	|	|	|	0.19
80.750	0.00	0.09	0.194	O	|	|	|	|	0.19
80.833	0.00	0.09	0.194	O	|	|	|	|	0.19
80.917	0.00	0.09	0.193	O	|	|	|	|	0.19
81.000	0.00	0.09	0.193	O	|	|	|	|	0.19
81.083	0.00	0.08	0.192	O	|	|	|	|	0.18
81.167	0.00	0.08	0.191	O	|	|	|	|	0.18
81.250	0.00	0.08	0.191	O	|	|	|	|	0.18
81.333	0.00	0.08	0.190	O	|	|	|	|	0.18
81.417	0.00	0.08	0.190	O	|	|	|	|	0.18
81.500	0.00	0.08	0.189	O	|	|	|	|	0.18
81.583	0.00	0.08	0.189	O	|	|	|	|	0.18
81.667	0.00	0.08	0.188	O	|	|	|	|	0.18
81.750	0.00	0.08	0.187	O	|	|	|	|	0.18
81.833	0.00	0.08	0.187	O	|	|	|	|	0.18
81.917	0.00	0.08	0.186	O	|	|	|	|	0.18
82.000	0.00	0.08	0.186	O	|	|	|	|	0.18
82.083	0.00	0.08	0.185	O	|	|	|	|	0.18
82.167	0.00	0.08	0.185	O	|	|	|	|	0.18
82.250	0.00	0.08	0.184	O	|	|	|	|	0.18
82.333	0.00	0.08	0.183	O	|	|	|	|	0.18
82.417	0.00	0.08	0.183	O	|	|	|	|	0.18
82.500	0.00	0.08	0.182	O	|	|	|	|	0.18
82.583	0.00	0.08	0.182	O	|	|	|	|	0.17
82.667	0.00	0.08	0.181	O	|	|	|	|	0.17
82.750	0.00	0.08	0.181	O	|	|	|	|	0.17
82.833	0.00	0.08	0.180	O	|	|	|	|	0.17
82.917	0.00	0.08	0.180	O	|	|	|	|	0.17

83.000	0.00	0.08	0.179	O	|	|	|	|	0.17
83.083	0.00	0.08	0.179	O	|	|	|	|	0.17
83.167	0.00	0.08	0.178	O	|	|	|	|	0.17
83.250	0.00	0.08	0.177	O	|	|	|	|	0.17
83.333	0.00	0.08	0.177	O	|	|	|	|	0.17
83.417	0.00	0.08	0.176	O	|	|	|	|	0.17
83.500	0.00	0.08	0.176	O	|	|	|	|	0.17
83.583	0.00	0.08	0.175	O	|	|	|	|	0.17
83.667	0.00	0.08	0.175	O	|	|	|	|	0.17
83.750	0.00	0.08	0.174	O	|	|	|	|	0.17
83.833	0.00	0.08	0.174	O	|	|	|	|	0.17
83.917	0.00	0.08	0.173	O	|	|	|	|	0.17
84.000	0.00	0.08	0.173	O	|	|	|	|	0.17
84.083	0.00	0.08	0.172	O	|	|	|	|	0.17
84.167	0.00	0.08	0.172	O	|	|	|	|	0.16
84.250	0.00	0.08	0.171	O	|	|	|	|	0.16
84.333	0.00	0.08	0.171	O	|	|	|	|	0.16
84.417	0.00	0.08	0.170	O	|	|	|	|	0.16
84.500	0.00	0.07	0.170	O	|	|	|	|	0.16
84.583	0.00	0.07	0.169	O	|	|	|	|	0.16
84.667	0.00	0.07	0.168	O	|	|	|	|	0.16
84.750	0.00	0.07	0.168	O	|	|	|	|	0.16
84.833	0.00	0.07	0.167	O	|	|	|	|	0.16
84.917	0.00	0.07	0.167	O	|	|	|	|	0.16
85.000	0.00	0.07	0.166	O	|	|	|	|	0.16
85.083	0.00	0.07	0.166	O	|	|	|	|	0.16
85.167	0.00	0.07	0.165	O	|	|	|	|	0.16
85.250	0.00	0.07	0.165	O	|	|	|	|	0.16
85.333	0.00	0.07	0.164	O	|	|	|	|	0.16
85.417	0.00	0.07	0.164	O	|	|	|	|	0.16
85.500	0.00	0.07	0.163	O	|	|	|	|	0.16
85.583	0.00	0.07	0.163	O	|	|	|	|	0.16
85.667	0.00	0.07	0.162	O	|	|	|	|	0.16
85.750	0.00	0.07	0.162	O	|	|	|	|	0.16
85.833	0.00	0.07	0.161	O	|	|	|	|	0.16
85.917	0.00	0.07	0.161	O	|	|	|	|	0.15
86.000	0.00	0.07	0.160	O	|	|	|	|	0.15
86.083	0.00	0.07	0.160	O	|	|	|	|	0.15
86.167	0.00	0.07	0.159	O	|	|	|	|	0.15
86.250	0.00	0.07	0.159	O	|	|	|	|	0.15
86.333	0.00	0.07	0.159	O	|	|	|	|	0.15
86.417	0.00	0.07	0.158	O	|	|	|	|	0.15
86.500	0.00	0.07	0.158	O	|	|	|	|	0.15
86.583	0.00	0.07	0.157	O	|	|	|	|	0.15
86.667	0.00	0.07	0.157	O	|	|	|	|	0.15
86.750	0.00	0.07	0.156	O	|	|	|	|	0.15
86.833	0.00	0.07	0.156	O	|	|	|	|	0.15
86.917	0.00	0.07	0.155	O	|	|	|	|	0.15
87.000	0.00	0.07	0.155	O	|	|	|	|	0.15
87.083	0.00	0.07	0.154	O	|	|	|	|	0.15
87.167	0.00	0.07	0.154	O	|	|	|	|	0.15
87.250	0.00	0.07	0.153	O	|	|	|	|	0.15
87.333	0.00	0.07	0.153	O	|	|	|	|	0.15
87.417	0.00	0.07	0.152	O	|	|	|	|	0.15
87.500	0.00	0.07	0.152	O	|	|	|	|	0.15
87.583	0.00	0.07	0.151	O	|	|	|	|	0.15
87.667	0.00	0.07	0.151	O	|	|	|	|	0.15
87.750	0.00	0.07	0.151	O	|	|	|	|	0.14
87.833	0.00	0.07	0.150	O	|	|	|	|	0.14
87.917	0.00	0.07	0.150	O	|	|	|	|	0.14
88.000	0.00	0.07	0.149	O	|	|	|	|	0.14
88.083	0.00	0.07	0.149	O	|	|	|	|	0.14
88.167	0.00	0.07	0.148	O	|	|	|	|	0.14

88.250	0.00	0.07	0.148	O	|	|	|	|	0.14
88.333	0.00	0.07	0.147	O	|	|	|	|	0.14
88.417	0.00	0.06	0.147	O	|	|	|	|	0.14
88.500	0.00	0.06	0.146	O	|	|	|	|	0.14
88.583	0.00	0.06	0.146	O	|	|	|	|	0.14
88.667	0.00	0.06	0.146	O	|	|	|	|	0.14
88.750	0.00	0.06	0.145	O	|	|	|	|	0.14
88.833	0.00	0.06	0.145	O	|	|	|	|	0.14
88.917	0.00	0.06	0.144	O	|	|	|	|	0.14
89.000	0.00	0.06	0.144	O	|	|	|	|	0.14
89.083	0.00	0.06	0.143	O	|	|	|	|	0.14
89.167	0.00	0.06	0.143	O	|	|	|	|	0.14
89.250	0.00	0.06	0.142	O	|	|	|	|	0.14
89.333	0.00	0.06	0.142	O	|	|	|	|	0.14
89.417	0.00	0.06	0.142	O	|	|	|	|	0.14
89.500	0.00	0.06	0.141	O	|	|	|	|	0.14
89.583	0.00	0.06	0.141	O	|	|	|	|	0.14
89.667	0.00	0.06	0.140	O	|	|	|	|	0.13
89.750	0.00	0.06	0.140	O	|	|	|	|	0.13
89.833	0.00	0.06	0.139	O	|	|	|	|	0.13
89.917	0.00	0.06	0.139	O	|	|	|	|	0.13
90.000	0.00	0.06	0.139	O	|	|	|	|	0.13
90.083	0.00	0.06	0.138	O	|	|	|	|	0.13
90.167	0.00	0.06	0.138	O	|	|	|	|	0.13
90.250	0.00	0.06	0.137	O	|	|	|	|	0.13
90.333	0.00	0.06	0.137	O	|	|	|	|	0.13
90.417	0.00	0.06	0.137	O	|	|	|	|	0.13
90.500	0.00	0.06	0.136	O	|	|	|	|	0.13
90.583	0.00	0.06	0.136	O	|	|	|	|	0.13
90.667	0.00	0.06	0.135	O	|	|	|	|	0.13
90.750	0.00	0.06	0.135	O	|	|	|	|	0.13
90.833	0.00	0.06	0.134	O	|	|	|	|	0.13
90.917	0.00	0.06	0.134	O	|	|	|	|	0.13
91.000	0.00	0.06	0.134	O	|	|	|	|	0.13
91.083	0.00	0.06	0.133	O	|	|	|	|	0.13
91.167	0.00	0.06	0.133	O	|	|	|	|	0.13
91.250	0.00	0.06	0.132	O	|	|	|	|	0.13
91.333	0.00	0.06	0.132	O	|	|	|	|	0.13
91.417	0.00	0.06	0.132	O	|	|	|	|	0.13
91.500	0.00	0.06	0.131	O	|	|	|	|	0.13
91.583	0.00	0.06	0.131	O	|	|	|	|	0.13
91.667	0.00	0.06	0.130	O	|	|	|	|	0.13
91.750	0.00	0.06	0.130	O	|	|	|	|	0.13
91.833	0.00	0.06	0.130	O	|	|	|	|	0.12
91.917	0.00	0.06	0.129	O	|	|	|	|	0.12
92.000	0.00	0.06	0.129	O	|	|	|	|	0.12
92.083	0.00	0.06	0.128	O	|	|	|	|	0.12
92.167	0.00	0.06	0.128	O	|	|	|	|	0.12
92.250	0.00	0.06	0.128	O	|	|	|	|	0.12
92.333	0.00	0.06	0.127	O	|	|	|	|	0.12
92.417	0.00	0.06	0.127	O	|	|	|	|	0.12
92.500	0.00	0.06	0.127	O	|	|	|	|	0.12
92.583	0.00	0.06	0.126	O	|	|	|	|	0.12
92.667	0.00	0.06	0.126	O	|	|	|	|	0.12
92.750	0.00	0.06	0.125	O	|	|	|	|	0.12
92.833	0.00	0.06	0.125	O	|	|	|	|	0.12
92.917	0.00	0.06	0.125	O	|	|	|	|	0.12
93.000	0.00	0.05	0.124	O	|	|	|	|	0.12
93.083	0.00	0.05	0.124	O	|	|	|	|	0.12
93.167	0.00	0.05	0.123	O	|	|	|	|	0.12
93.250	0.00	0.05	0.123	O	|	|	|	|	0.12
93.333	0.00	0.05	0.123	O	|	|	|	|	0.12
93.417	0.00	0.05	0.122	O	|	|	|	|	0.12

93.500	0.00	0.05	0.122	O	|	|	|	|	0.12
93.583	0.00	0.05	0.122	O	|	|	|	|	0.12
93.667	0.00	0.05	0.121	O	|	|	|	|	0.12
93.750	0.00	0.05	0.121	O	|	|	|	|	0.12
93.833	0.00	0.05	0.121	O	|	|	|	|	0.12
93.917	0.00	0.05	0.120	O	|	|	|	|	0.12
94.000	0.00	0.05	0.120	O	|	|	|	|	0.12
94.083	0.00	0.05	0.119	O	|	|	|	|	0.11
94.167	0.00	0.05	0.119	O	|	|	|	|	0.11
94.250	0.00	0.05	0.119	O	|	|	|	|	0.11
94.333	0.00	0.05	0.118	O	|	|	|	|	0.11
94.417	0.00	0.05	0.118	O	|	|	|	|	0.11
94.500	0.00	0.05	0.118	O	|	|	|	|	0.11
94.583	0.00	0.05	0.117	O	|	|	|	|	0.11
94.667	0.00	0.05	0.117	O	|	|	|	|	0.11
94.750	0.00	0.05	0.117	O	|	|	|	|	0.11
94.833	0.00	0.05	0.116	O	|	|	|	|	0.11
94.917	0.00	0.05	0.116	O	|	|	|	|	0.11
95.000	0.00	0.05	0.115	O	|	|	|	|	0.11
95.083	0.00	0.05	0.115	O	|	|	|	|	0.11
95.167	0.00	0.05	0.115	O	|	|	|	|	0.11
95.250	0.00	0.05	0.114	O	|	|	|	|	0.11
95.333	0.00	0.05	0.114	O	|	|	|	|	0.11
95.417	0.00	0.05	0.114	O	|	|	|	|	0.11
95.500	0.00	0.05	0.113	O	|	|	|	|	0.11
95.583	0.00	0.05	0.113	O	|	|	|	|	0.11
95.667	0.00	0.05	0.113	O	|	|	|	|	0.11
95.750	0.00	0.05	0.112	O	|	|	|	|	0.11
95.833	0.00	0.05	0.112	O	|	|	|	|	0.11
95.917	0.00	0.05	0.112	O	|	|	|	|	0.11
96.000	0.00	0.05	0.111	O	|	|	|	|	0.11
96.083	0.00	0.05	0.111	O	|	|	|	|	0.11
96.167	0.00	0.05	0.111	O	|	|	|	|	0.11
96.250	0.00	0.05	0.110	O	|	|	|	|	0.11
96.333	0.00	0.05	0.110	O	|	|	|	|	0.11
96.417	0.00	0.05	0.110	O	|	|	|	|	0.11
96.500	0.00	0.05	0.109	O	|	|	|	|	0.11
96.583	0.00	0.05	0.109	O	|	|	|	|	0.10
96.667	0.00	0.05	0.109	O	|	|	|	|	0.10
96.750	0.00	0.05	0.108	O	|	|	|	|	0.10
96.833	0.00	0.05	0.108	O	|	|	|	|	0.10
96.917	0.00	0.05	0.108	O	|	|	|	|	0.10
97.000	0.00	0.05	0.107	O	|	|	|	|	0.10
97.083	0.00	0.05	0.107	O	|	|	|	|	0.10
97.167	0.00	0.05	0.107	O	|	|	|	|	0.10
97.250	0.00	0.05	0.106	O	|	|	|	|	0.10
97.333	0.00	0.05	0.106	O	|	|	|	|	0.10
97.417	0.00	0.05	0.106	O	|	|	|	|	0.10
97.500	0.00	0.05	0.105	O	|	|	|	|	0.10
97.583	0.00	0.05	0.105	O	|	|	|	|	0.10
97.667	0.00	0.05	0.105	O	|	|	|	|	0.10
97.750	0.00	0.05	0.104	O	|	|	|	|	0.10
97.833	0.00	0.05	0.104	O	|	|	|	|	0.10
97.917	0.00	0.05	0.104	O	|	|	|	|	0.10
98.000	0.00	0.05	0.103	O	|	|	|	|	0.10
98.083	0.00	0.05	0.103	O	|	|	|	|	0.10
98.167	0.00	0.05	0.103	O	|	|	|	|	0.10
98.250	0.00	0.05	0.103	O	|	|	|	|	0.10
98.333	0.00	0.05	0.102	O	|	|	|	|	0.10
98.417	0.00	0.05	0.102	O	|	|	|	|	0.10
98.500	0.00	0.04	0.102	O	|	|	|	|	0.10
98.583	0.00	0.04	0.101	O	|	|	|	|	0.10
98.667	0.00	0.04	0.101	O	|	|	|	|	0.10

98.750	0.00	0.04	0.101	O	|	|	|	|	0.10
98.833	0.00	0.04	0.100	O	|	|	|	|	0.10
98.917	0.00	0.04	0.100	O	|	|	|	|	0.10
99.000	0.00	0.04	0.100	O	|	|	|	|	0.10
99.083	0.00	0.04	0.099	O	|	|	|	|	0.10
99.167	0.00	0.04	0.099	O	|	|	|	|	0.10
99.250	0.00	0.04	0.099	O	|	|	|	|	0.10
99.333	0.00	0.04	0.099	O	|	|	|	|	0.09
99.417	0.00	0.04	0.098	O	|	|	|	|	0.09
99.500	0.00	0.04	0.098	O	|	|	|	|	0.09
99.583	0.00	0.04	0.098	O	|	|	|	|	0.09
99.667	0.00	0.04	0.097	O	|	|	|	|	0.09
99.750	0.00	0.04	0.097	O	|	|	|	|	0.09
99.833	0.00	0.04	0.097	O	|	|	|	|	0.09
99.917	0.00	0.04	0.096	O	|	|	|	|	0.09
100.000	0.00	0.04	0.096	O	|	|	|	|	0.09
100.083	0.00	0.04	0.096	O	|	|	|	|	0.09
100.167	0.00	0.04	0.096	O	|	|	|	|	0.09
100.250	0.00	0.04	0.095	O	|	|	|	|	0.09
100.333	0.00	0.04	0.095	O	|	|	|	|	0.09
100.417	0.00	0.04	0.095	O	|	|	|	|	0.09
100.500	0.00	0.04	0.094	O	|	|	|	|	0.09
100.583	0.00	0.04	0.094	O	|	|	|	|	0.09
100.667	0.00	0.04	0.094	O	|	|	|	|	0.09
100.750	0.00	0.04	0.094	O	|	|	|	|	0.09
100.833	0.00	0.04	0.093	O	|	|	|	|	0.09
100.917	0.00	0.04	0.093	O	|	|	|	|	0.09
101.000	0.00	0.04	0.093	O	|	|	|	|	0.09
101.083	0.00	0.04	0.092	O	|	|	|	|	0.09
101.167	0.00	0.04	0.092	O	|	|	|	|	0.09
101.250	0.00	0.04	0.092	O	|	|	|	|	0.09
101.333	0.00	0.04	0.092	O	|	|	|	|	0.09
101.417	0.00	0.04	0.091	O	|	|	|	|	0.09
101.500	0.00	0.04	0.091	O	|	|	|	|	0.09
101.583	0.00	0.04	0.091	O	|	|	|	|	0.09
101.667	0.00	0.04	0.091	O	|	|	|	|	0.09
101.750	0.00	0.04	0.090	O	|	|	|	|	0.09
101.833	0.00	0.04	0.090	O	|	|	|	|	0.09
101.917	0.00	0.04	0.090	O	|	|	|	|	0.09
102.000	0.00	0.04	0.089	O	|	|	|	|	0.09
102.083	0.00	0.04	0.089	O	|	|	|	|	0.09
102.167	0.00	0.04	0.089	O	|	|	|	|	0.09
102.250	0.00	0.04	0.089	O	|	|	|	|	0.09
102.333	0.00	0.04	0.088	O	|	|	|	|	0.08
102.417	0.00	0.04	0.088	O	|	|	|	|	0.08
102.500	0.00	0.04	0.088	O	|	|	|	|	0.08
102.583	0.00	0.04	0.088	O	|	|	|	|	0.08
102.667	0.00	0.04	0.087	O	|	|	|	|	0.08
102.750	0.00	0.04	0.087	O	|	|	|	|	0.08
102.833	0.00	0.04	0.087	O	|	|	|	|	0.08
102.917	0.00	0.04	0.086	O	|	|	|	|	0.08
103.000	0.00	0.04	0.086	O	|	|	|	|	0.08
103.083	0.00	0.04	0.086	O	|	|	|	|	0.08
103.167	0.00	0.04	0.086	O	|	|	|	|	0.08
103.250	0.00	0.04	0.085	O	|	|	|	|	0.08
103.333	0.00	0.04	0.085	O	|	|	|	|	0.08
103.417	0.00	0.04	0.085	O	|	|	|	|	0.08
103.500	0.00	0.04	0.085	O	|	|	|	|	0.08
103.583	0.00	0.04	0.084	O	|	|	|	|	0.08
103.667	0.00	0.04	0.084	O	|	|	|	|	0.08
103.750	0.00	0.04	0.084	O	|	|	|	|	0.08
103.833	0.00	0.04	0.084	O	|	|	|	|	0.08
103.917	0.00	0.04	0.083	O	|	|	|	|	0.08

104.000	0.00	0.04	0.083	O	|	|	|	|	0.08
104.083	0.00	0.04	0.083	O	|	|	|	|	0.08
104.167	0.00	0.04	0.083	O	|	|	|	|	0.08
104.250	0.00	0.04	0.082	O	|	|	|	|	0.08
104.333	0.00	0.04	0.082	O	|	|	|	|	0.08
104.417	0.00	0.04	0.082	O	|	|	|	|	0.08
104.500	0.00	0.04	0.082	O	|	|	|	|	0.08
104.583	0.00	0.04	0.081	O	|	|	|	|	0.08
104.667	0.00	0.04	0.081	O	|	|	|	|	0.08
104.750	0.00	0.04	0.081	O	|	|	|	|	0.08
104.833	0.00	0.04	0.081	O	|	|	|	|	0.08
104.917	0.00	0.04	0.080	O	|	|	|	|	0.08
105.000	0.00	0.04	0.080	O	|	|	|	|	0.08
105.083	0.00	0.04	0.080	O	|	|	|	|	0.08
105.167	0.00	0.04	0.080	O	|	|	|	|	0.08
105.250	0.00	0.04	0.079	O	|	|	|	|	0.08
105.333	0.00	0.04	0.079	O	|	|	|	|	0.08
105.417	0.00	0.03	0.079	O	|	|	|	|	0.08
105.500	0.00	0.03	0.079	O	|	|	|	|	0.08
105.583	0.00	0.03	0.078	O	|	|	|	|	0.08
105.667	0.00	0.03	0.078	O	|	|	|	|	0.08
105.750	0.00	0.03	0.078	O	|	|	|	|	0.07
105.833	0.00	0.03	0.078	O	|	|	|	|	0.07
105.917	0.00	0.03	0.077	O	|	|	|	|	0.07
106.000	0.00	0.03	0.077	O	|	|	|	|	0.07
106.083	0.00	0.03	0.077	O	|	|	|	|	0.07
106.167	0.00	0.03	0.077	O	|	|	|	|	0.07
106.250	0.00	0.03	0.077	O	|	|	|	|	0.07
106.333	0.00	0.03	0.076	O	|	|	|	|	0.07
106.417	0.00	0.03	0.076	O	|	|	|	|	0.07
106.500	0.00	0.03	0.076	O	|	|	|	|	0.07
106.583	0.00	0.03	0.076	O	|	|	|	|	0.07
106.667	0.00	0.03	0.075	O	|	|	|	|	0.07
106.750	0.00	0.03	0.075	O	|	|	|	|	0.07
106.833	0.00	0.03	0.075	O	|	|	|	|	0.07
106.917	0.00	0.03	0.075	O	|	|	|	|	0.07
107.000	0.00	0.03	0.074	O	|	|	|	|	0.07
107.083	0.00	0.03	0.074	O	|	|	|	|	0.07
107.167	0.00	0.03	0.074	O	|	|	|	|	0.07
107.250	0.00	0.03	0.074	O	|	|	|	|	0.07
107.333	0.00	0.03	0.074	O	|	|	|	|	0.07
107.417	0.00	0.03	0.073	O	|	|	|	|	0.07
107.500	0.00	0.03	0.073	O	|	|	|	|	0.07
107.583	0.00	0.03	0.073	O	|	|	|	|	0.07
107.667	0.00	0.03	0.073	O	|	|	|	|	0.07
107.750	0.00	0.03	0.072	O	|	|	|	|	0.07
107.833	0.00	0.03	0.072	O	|	|	|	|	0.07
107.917	0.00	0.03	0.072	O	|	|	|	|	0.07
108.000	0.00	0.03	0.072	O	|	|	|	|	0.07
108.083	0.00	0.03	0.072	O	|	|	|	|	0.07
108.167	0.00	0.03	0.071	O	|	|	|	|	0.07
108.250	0.00	0.03	0.071	O	|	|	|	|	0.07
108.333	0.00	0.03	0.071	O	|	|	|	|	0.07
108.417	0.00	0.03	0.071	O	|	|	|	|	0.07
108.500	0.00	0.03	0.070	O	|	|	|	|	0.07
108.583	0.00	0.03	0.070	O	|	|	|	|	0.07
108.667	0.00	0.03	0.070	O	|	|	|	|	0.07
108.750	0.00	0.03	0.070	O	|	|	|	|	0.07
108.833	0.00	0.03	0.070	O	|	|	|	|	0.07
108.917	0.00	0.03	0.069	O	|	|	|	|	0.07
109.000	0.00	0.03	0.069	O	|	|	|	|	0.07
109.083	0.00	0.03	0.069	O	|	|	|	|	0.07
109.167	0.00	0.03	0.069	O	|	|	|	|	0.07

109.250	0.00	0.03	0.069	O	|	|	|	|	0.07
109.333	0.00	0.03	0.068	O	|	|	|	|	0.07
109.417	0.00	0.03	0.068	O	|	|	|	|	0.07
109.500	0.00	0.03	0.068	O	|	|	|	|	0.07
109.583	0.00	0.03	0.068	O	|	|	|	|	0.07
109.667	0.00	0.03	0.068	O	|	|	|	|	0.06
109.750	0.00	0.03	0.067	O	|	|	|	|	0.06
109.833	0.00	0.03	0.067	O	|	|	|	|	0.06
109.917	0.00	0.03	0.067	O	|	|	|	|	0.06
110.000	0.00	0.03	0.067	O	|	|	|	|	0.06
110.083	0.00	0.03	0.067	O	|	|	|	|	0.06
110.167	0.00	0.03	0.066	O	|	|	|	|	0.06
110.250	0.00	0.03	0.066	O	|	|	|	|	0.06
110.333	0.00	0.03	0.066	O	|	|	|	|	0.06
110.417	0.00	0.03	0.066	O	|	|	|	|	0.06
110.500	0.00	0.03	0.066	O	|	|	|	|	0.06
110.583	0.00	0.03	0.065	O	|	|	|	|	0.06
110.667	0.00	0.03	0.065	O	|	|	|	|	0.06
110.750	0.00	0.03	0.065	O	|	|	|	|	0.06
110.833	0.00	0.03	0.065	O	|	|	|	|	0.06
110.917	0.00	0.03	0.065	O	|	|	|	|	0.06
111.000	0.00	0.03	0.064	O	|	|	|	|	0.06
111.083	0.00	0.03	0.064	O	|	|	|	|	0.06
111.167	0.00	0.03	0.064	O	|	|	|	|	0.06
111.250	0.00	0.03	0.064	O	|	|	|	|	0.06
111.333	0.00	0.03	0.064	O	|	|	|	|	0.06
111.417	0.00	0.03	0.063	O	|	|	|	|	0.06
111.500	0.00	0.03	0.063	O	|	|	|	|	0.06
111.583	0.00	0.03	0.063	O	|	|	|	|	0.06
111.667	0.00	0.03	0.063	O	|	|	|	|	0.06
111.750	0.00	0.03	0.063	O	|	|	|	|	0.06
111.833	0.00	0.03	0.062	O	|	|	|	|	0.06
111.917	0.00	0.03	0.062	O	|	|	|	|	0.06
112.000	0.00	0.03	0.062	O	|	|	|	|	0.06
112.083	0.00	0.03	0.062	O	|	|	|	|	0.06
112.167	0.00	0.03	0.062	O	|	|	|	|	0.06
112.250	0.00	0.03	0.061	O	|	|	|	|	0.06
112.333	0.00	0.03	0.061	O	|	|	|	|	0.06
112.417	0.00	0.03	0.061	O	|	|	|	|	0.06
112.500	0.00	0.03	0.061	O	|	|	|	|	0.06
112.583	0.00	0.03	0.061	O	|	|	|	|	0.06
112.667	0.00	0.03	0.061	O	|	|	|	|	0.06
112.750	0.00	0.03	0.060	O	|	|	|	|	0.06
112.833	0.00	0.03	0.060	O	|	|	|	|	0.06
112.917	0.00	0.03	0.060	O	|	|	|	|	0.06
113.000	0.00	0.03	0.060	O	|	|	|	|	0.06
113.083	0.00	0.03	0.060	O	|	|	|	|	0.06
113.167	0.00	0.03	0.059	O	|	|	|	|	0.06
113.250	0.00	0.03	0.059	O	|	|	|	|	0.06
113.333	0.00	0.03	0.059	O	|	|	|	|	0.06
113.417	0.00	0.03	0.059	O	|	|	|	|	0.06
113.500	0.00	0.03	0.059	O	|	|	|	|	0.06
113.583	0.00	0.03	0.059	O	|	|	|	|	0.06
113.667	0.00	0.03	0.058	O	|	|	|	|	0.06
113.750	0.00	0.03	0.058	O	|	|	|	|	0.06
113.833	0.00	0.03	0.058	O	|	|	|	|	0.06
113.917	0.00	0.03	0.058	O	|	|	|	|	0.06
114.000	0.00	0.03	0.058	O	|	|	|	|	0.06
114.083	0.00	0.03	0.057	O	|	|	|	|	0.06
114.167	0.00	0.03	0.057	O	|	|	|	|	0.06
114.250	0.00	0.03	0.057	O	|	|	|	|	0.05
114.333	0.00	0.03	0.057	O	|	|	|	|	0.05
114.417	0.00	0.03	0.057	O	|	|	|	|	0.05

114.500	0.00	0.03	0.057	O	|	|	|	|	0.05
114.583	0.00	0.02	0.056	O	|	|	|	|	0.05
114.667	0.00	0.02	0.056	O	|	|	|	|	0.05
114.750	0.00	0.02	0.056	O	|	|	|	|	0.05
114.833	0.00	0.02	0.056	O	|	|	|	|	0.05
114.917	0.00	0.02	0.056	O	|	|	|	|	0.05
115.000	0.00	0.02	0.056	O	|	|	|	|	0.05
115.083	0.00	0.02	0.055	O	|	|	|	|	0.05
115.167	0.00	0.02	0.055	O	|	|	|	|	0.05
115.250	0.00	0.02	0.055	O	|	|	|	|	0.05
115.333	0.00	0.02	0.055	O	|	|	|	|	0.05
115.417	0.00	0.02	0.055	O	|	|	|	|	0.05
115.500	0.00	0.02	0.055	O	|	|	|	|	0.05
115.583	0.00	0.02	0.054	O	|	|	|	|	0.05
115.667	0.00	0.02	0.054	O	|	|	|	|	0.05
115.750	0.00	0.02	0.054	O	|	|	|	|	0.05
115.833	0.00	0.02	0.054	O	|	|	|	|	0.05
115.917	0.00	0.02	0.054	O	|	|	|	|	0.05
116.000	0.00	0.02	0.054	O	|	|	|	|	0.05
116.083	0.00	0.02	0.053	O	|	|	|	|	0.05
116.167	0.00	0.02	0.053	O	|	|	|	|	0.05
116.250	0.00	0.02	0.053	O	|	|	|	|	0.05
116.333	0.00	0.02	0.053	O	|	|	|	|	0.05
116.417	0.00	0.02	0.053	O	|	|	|	|	0.05
116.500	0.00	0.02	0.053	O	|	|	|	|	0.05
116.583	0.00	0.02	0.052	O	|	|	|	|	0.05
116.667	0.00	0.02	0.052	O	|	|	|	|	0.05
116.750	0.00	0.02	0.052	O	|	|	|	|	0.05
116.833	0.00	0.02	0.052	O	|	|	|	|	0.05
116.917	0.00	0.02	0.052	O	|	|	|	|	0.05
117.000	0.00	0.02	0.052	O	|	|	|	|	0.05
117.083	0.00	0.02	0.052	O	|	|	|	|	0.05
117.167	0.00	0.02	0.051	O	|	|	|	|	0.05
117.250	0.00	0.02	0.051	O	|	|	|	|	0.05
117.333	0.00	0.02	0.051	O	|	|	|	|	0.05
117.417	0.00	0.02	0.051	O	|	|	|	|	0.05
117.500	0.00	0.02	0.051	O	|	|	|	|	0.05
117.583	0.00	0.02	0.051	O	|	|	|	|	0.05
117.667	0.00	0.02	0.050	O	|	|	|	|	0.05
117.750	0.00	0.02	0.050	O	|	|	|	|	0.05
117.833	0.00	0.02	0.050	O	|	|	|	|	0.05
117.917	0.00	0.02	0.050	O	|	|	|	|	0.05
118.000	0.00	0.02	0.050	O	|	|	|	|	0.05
118.083	0.00	0.02	0.050	O	|	|	|	|	0.05
118.167	0.00	0.02	0.050	O	|	|	|	|	0.05
118.250	0.00	0.02	0.049	O	|	|	|	|	0.05
118.333	0.00	0.02	0.049	O	|	|	|	|	0.05
118.417	0.00	0.02	0.049	O	|	|	|	|	0.05
118.500	0.00	0.02	0.049	O	|	|	|	|	0.05
118.583	0.00	0.02	0.049	O	|	|	|	|	0.05
118.667	0.00	0.02	0.049	O	|	|	|	|	0.05
118.750	0.00	0.02	0.048	O	|	|	|	|	0.05
118.833	0.00	0.02	0.048	O	|	|	|	|	0.05
118.917	0.00	0.02	0.048	O	|	|	|	|	0.05
119.000	0.00	0.02	0.048	O	|	|	|	|	0.05
119.083	0.00	0.02	0.048	O	|	|	|	|	0.05
119.167	0.00	0.02	0.048	O	|	|	|	|	0.05
119.250	0.00	0.02	0.048	O	|	|	|	|	0.05
119.333	0.00	0.02	0.047	O	|	|	|	|	0.05
119.417	0.00	0.02	0.047	O	|	|	|	|	0.05
119.500	0.00	0.02	0.047	O	|	|	|	|	0.05
119.583	0.00	0.02	0.047	O	|	|	|	|	0.05
119.667	0.00	0.02	0.047	O	|	|	|	|	0.05

119.750	0.00	0.02	0.047	O	|	|	|	|	0.04
119.833	0.00	0.02	0.047	O	|	|	|	|	0.04
119.917	0.00	0.02	0.046	O	|	|	|	|	0.04
120.000	0.00	0.02	0.046	O	|	|	|	|	0.04
120.083	0.00	0.02	0.046	O	|	|	|	|	0.04
120.167	0.00	0.02	0.046	O	|	|	|	|	0.04
120.250	0.00	0.02	0.046	O	|	|	|	|	0.04
120.333	0.00	0.02	0.046	O	|	|	|	|	0.04
120.417	0.00	0.02	0.046	O	|	|	|	|	0.04
120.500	0.00	0.02	0.045	O	|	|	|	|	0.04
120.583	0.00	0.02	0.045	O	|	|	|	|	0.04
120.667	0.00	0.02	0.045	O	|	|	|	|	0.04
120.750	0.00	0.02	0.045	O	|	|	|	|	0.04
120.833	0.00	0.02	0.045	O	|	|	|	|	0.04
120.917	0.00	0.02	0.045	O	|	|	|	|	0.04
121.000	0.00	0.02	0.045	O	|	|	|	|	0.04
121.083	0.00	0.02	0.045	O	|	|	|	|	0.04
121.167	0.00	0.02	0.044	O	|	|	|	|	0.04
121.250	0.00	0.02	0.044	O	|	|	|	|	0.04
121.333	0.00	0.02	0.044	O	|	|	|	|	0.04
121.417	0.00	0.02	0.044	O	|	|	|	|	0.04
121.500	0.00	0.02	0.044	O	|	|	|	|	0.04
121.583	0.00	0.02	0.044	O	|	|	|	|	0.04
121.667	0.00	0.02	0.044	O	|	|	|	|	0.04
121.750	0.00	0.02	0.043	O	|	|	|	|	0.04
121.833	0.00	0.02	0.043	O	|	|	|	|	0.04
121.917	0.00	0.02	0.043	O	|	|	|	|	0.04
122.000	0.00	0.02	0.043	O	|	|	|	|	0.04
122.083	0.00	0.02	0.043	O	|	|	|	|	0.04
122.167	0.00	0.02	0.043	O	|	|	|	|	0.04
122.250	0.00	0.02	0.043	O	|	|	|	|	0.04
122.333	0.00	0.02	0.043	O	|	|	|	|	0.04
122.417	0.00	0.02	0.042	O	|	|	|	|	0.04
122.500	0.00	0.02	0.042	O	|	|	|	|	0.04
122.583	0.00	0.02	0.042	O	|	|	|	|	0.04
122.667	0.00	0.02	0.042	O	|	|	|	|	0.04
122.750	0.00	0.02	0.042	O	|	|	|	|	0.04
122.833	0.00	0.02	0.042	O	|	|	|	|	0.04
122.917	0.00	0.02	0.042	O	|	|	|	|	0.04
123.000	0.00	0.02	0.041	O	|	|	|	|	0.04
123.083	0.00	0.02	0.041	O	|	|	|	|	0.04
123.167	0.00	0.02	0.041	O	|	|	|	|	0.04
123.250	0.00	0.02	0.041	O	|	|	|	|	0.04
123.333	0.00	0.02	0.041	O	|	|	|	|	0.04
123.417	0.00	0.02	0.041	O	|	|	|	|	0.04
123.500	0.00	0.02	0.041	O	|	|	|	|	0.04
123.583	0.00	0.02	0.041	O	|	|	|	|	0.04
123.667	0.00	0.02	0.040	O	|	|	|	|	0.04
123.750	0.00	0.02	0.040	O	|	|	|	|	0.04
123.833	0.00	0.02	0.040	O	|	|	|	|	0.04
123.917	0.00	0.02	0.040	O	|	|	|	|	0.04
124.000	0.00	0.02	0.040	O	|	|	|	|	0.04
124.083	0.00	0.02	0.040	O	|	|	|	|	0.04
124.167	0.00	0.02	0.040	O	|	|	|	|	0.04
124.250	0.00	0.02	0.040	O	|	|	|	|	0.04
124.333	0.00	0.02	0.040	O	|	|	|	|	0.04
124.417	0.00	0.02	0.039	O	|	|	|	|	0.04
124.500	0.00	0.02	0.039	O	|	|	|	|	0.04
124.583	0.00	0.02	0.039	O	|	|	|	|	0.04
124.667	0.00	0.02	0.039	O	|	|	|	|	0.04
124.750	0.00	0.02	0.039	O	|	|	|	|	0.04
124.833	0.00	0.02	0.039	O	|	|	|	|	0.04
124.917	0.00	0.02	0.039	O	|	|	|	|	0.04

125.000	0.00	0.02	0.039	O	|	|	|	|	0.04
125.083	0.00	0.02	0.038	O	|	|	|	|	0.04
125.167	0.00	0.02	0.038	O	|	|	|	|	0.04
125.250	0.00	0.02	0.038	O	|	|	|	|	0.04
125.333	0.00	0.02	0.038	O	|	|	|	|	0.04
125.417	0.00	0.02	0.038	O	|	|	|	|	0.04
125.500	0.00	0.02	0.038	O	|	|	|	|	0.04
125.583	0.00	0.02	0.038	O	|	|	|	|	0.04
125.667	0.00	0.02	0.038	O	|	|	|	|	0.04
125.750	0.00	0.02	0.038	O	|	|	|	|	0.04
125.833	0.00	0.02	0.037	O	|	|	|	|	0.04
125.917	0.00	0.02	0.037	O	|	|	|	|	0.04
126.000	0.00	0.02	0.037	O	|	|	|	|	0.04
126.083	0.00	0.02	0.037	O	|	|	|	|	0.04
126.167	0.00	0.02	0.037	O	|	|	|	|	0.04
126.250	0.00	0.02	0.037	O	|	|	|	|	0.04
126.333	0.00	0.02	0.037	O	|	|	|	|	0.04
126.417	0.00	0.02	0.037	O	|	|	|	|	0.04
126.500	0.00	0.02	0.037	O	|	|	|	|	0.04
126.583	0.00	0.02	0.036	O	|	|	|	|	0.03
126.667	0.00	0.02	0.036	O	|	|	|	|	0.03
126.750	0.00	0.02	0.036	O	|	|	|	|	0.03
126.833	0.00	0.02	0.036	O	|	|	|	|	0.03
126.917	0.00	0.02	0.036	O	|	|	|	|	0.03
127.000	0.00	0.02	0.036	O	|	|	|	|	0.03
127.083	0.00	0.02	0.036	O	|	|	|	|	0.03
127.167	0.00	0.02	0.036	O	|	|	|	|	0.03
127.250	0.00	0.02	0.036	O	|	|	|	|	0.03
127.333	0.00	0.02	0.035	O	|	|	|	|	0.03
127.417	0.00	0.02	0.035	O	|	|	|	|	0.03
127.500	0.00	0.02	0.035	O	|	|	|	|	0.03
127.583	0.00	0.02	0.035	O	|	|	|	|	0.03
127.667	0.00	0.02	0.035	O	|	|	|	|	0.03
127.750	0.00	0.02	0.035	O	|	|	|	|	0.03
127.833	0.00	0.02	0.035	O	|	|	|	|	0.03
127.917	0.00	0.02	0.035	O	|	|	|	|	0.03
128.000	0.00	0.02	0.035	O	|	|	|	|	0.03
128.083	0.00	0.02	0.034	O	|	|	|	|	0.03
128.167	0.00	0.02	0.034	O	|	|	|	|	0.03
128.250	0.00	0.02	0.034	O	|	|	|	|	0.03
128.333	0.00	0.02	0.034	O	|	|	|	|	0.03
128.417	0.00	0.02	0.034	O	|	|	|	|	0.03
128.500	0.00	0.02	0.034	O	|	|	|	|	0.03
128.583	0.00	0.01	0.034	O	|	|	|	|	0.03
128.667	0.00	0.01	0.034	O	|	|	|	|	0.03
128.750	0.00	0.01	0.034	O	|	|	|	|	0.03
128.833	0.00	0.01	0.034	O	|	|	|	|	0.03
128.917	0.00	0.01	0.033	O	|	|	|	|	0.03
129.000	0.00	0.01	0.033	O	|	|	|	|	0.03
129.083	0.00	0.01	0.033	O	|	|	|	|	0.03
129.167	0.00	0.01	0.033	O	|	|	|	|	0.03
129.250	0.00	0.01	0.033	O	|	|	|	|	0.03
129.333	0.00	0.01	0.033	O	|	|	|	|	0.03
129.417	0.00	0.01	0.033	O	|	|	|	|	0.03
129.500	0.00	0.01	0.033	O	|	|	|	|	0.03
129.583	0.00	0.01	0.033	O	|	|	|	|	0.03
129.667	0.00	0.01	0.033	O	|	|	|	|	0.03
129.750	0.00	0.01	0.032	O	|	|	|	|	0.03
129.833	0.00	0.01	0.032	O	|	|	|	|	0.03
129.917	0.00	0.01	0.032	O	|	|	|	|	0.03
130.000	0.00	0.01	0.032	O	|	|	|	|	0.03
130.083	0.00	0.01	0.032	O	|	|	|	|	0.03
130.167	0.00	0.01	0.032	O	|	|	|	|	0.03

130.250	0.00	0.01	0.032	O	|	|	|	|	0.03
130.333	0.00	0.01	0.032	O	|	|	|	|	0.03
130.417	0.00	0.01	0.032	O	|	|	|	|	0.03
130.500	0.00	0.01	0.032	O	|	|	|	|	0.03
130.583	0.00	0.01	0.031	O	|	|	|	|	0.03
130.667	0.00	0.01	0.031	O	|	|	|	|	0.03
130.750	0.00	0.01	0.031	O	|	|	|	|	0.03
130.833	0.00	0.01	0.031	O	|	|	|	|	0.03
130.917	0.00	0.01	0.031	O	|	|	|	|	0.03
131.000	0.00	0.01	0.031	O	|	|	|	|	0.03
131.083	0.00	0.01	0.031	O	|	|	|	|	0.03
131.167	0.00	0.01	0.031	O	|	|	|	|	0.03
131.250	0.00	0.01	0.031	O	|	|	|	|	0.03
131.333	0.00	0.01	0.031	O	|	|	|	|	0.03
131.417	0.00	0.01	0.031	O	|	|	|	|	0.03
131.500	0.00	0.01	0.030	O	|	|	|	|	0.03
131.583	0.00	0.01	0.030	O	|	|	|	|	0.03
131.667	0.00	0.01	0.030	O	|	|	|	|	0.03
131.750	0.00	0.01	0.030	O	|	|	|	|	0.03
131.833	0.00	0.01	0.030	O	|	|	|	|	0.03
131.917	0.00	0.01	0.030	O	|	|	|	|	0.03
132.000	0.00	0.01	0.030	O	|	|	|	|	0.03
132.083	0.00	0.01	0.030	O	|	|	|	|	0.03
132.167	0.00	0.01	0.030	O	|	|	|	|	0.03
132.250	0.00	0.01	0.030	O	|	|	|	|	0.03
132.333	0.00	0.01	0.029	O	|	|	|	|	0.03
132.417	0.00	0.01	0.029	O	|	|	|	|	0.03
132.500	0.00	0.01	0.029	O	|	|	|	|	0.03
132.583	0.00	0.01	0.029	O	|	|	|	|	0.03
132.667	0.00	0.01	0.029	O	|	|	|	|	0.03
132.750	0.00	0.01	0.029	O	|	|	|	|	0.03
132.833	0.00	0.01	0.029	O	|	|	|	|	0.03
132.917	0.00	0.01	0.029	O	|	|	|	|	0.03
133.000	0.00	0.01	0.029	O	|	|	|	|	0.03
133.083	0.00	0.01	0.029	O	|	|	|	|	0.03
133.167	0.00	0.01	0.029	O	|	|	|	|	0.03
133.250	0.00	0.01	0.029	O	|	|	|	|	0.03
133.333	0.00	0.01	0.028	O	|	|	|	|	0.03
133.417	0.00	0.01	0.028	O	|	|	|	|	0.03
133.500	0.00	0.01	0.028	O	|	|	|	|	0.03
133.583	0.00	0.01	0.028	O	|	|	|	|	0.03
133.667	0.00	0.01	0.028	O	|	|	|	|	0.03
133.750	0.00	0.01	0.028	O	|	|	|	|	0.03
133.833	0.00	0.01	0.028	O	|	|	|	|	0.03
133.917	0.00	0.01	0.028	O	|	|	|	|	0.03
134.000	0.00	0.01	0.028	O	|	|	|	|	0.03
134.083	0.00	0.01	0.028	O	|	|	|	|	0.03
134.167	0.00	0.01	0.028	O	|	|	|	|	0.03
134.250	0.00	0.01	0.028	O	|	|	|	|	0.03
134.333	0.00	0.01	0.027	O	|	|	|	|	0.03
134.417	0.00	0.01	0.027	O	|	|	|	|	0.03
134.500	0.00	0.01	0.027	O	|	|	|	|	0.03
134.583	0.00	0.01	0.027	O	|	|	|	|	0.03
134.667	0.00	0.01	0.027	O	|	|	|	|	0.03
134.750	0.00	0.01	0.027	O	|	|	|	|	0.03
134.833	0.00	0.01	0.027	O	|	|	|	|	0.03
134.917	0.00	0.01	0.027	O	|	|	|	|	0.03
135.000	0.00	0.01	0.027	O	|	|	|	|	0.03
135.083	0.00	0.01	0.027	O	|	|	|	|	0.03
135.167	0.00	0.01	0.027	O	|	|	|	|	0.03
135.250	0.00	0.01	0.027	O	|	|	|	|	0.03
135.333	0.00	0.01	0.026	O	|	|	|	|	0.03
135.417	0.00	0.01	0.026	O	|	|	|	|	0.03

135.500	0.00	0.01	0.026	O	|	|	|	|	0.03
135.583	0.00	0.01	0.026	O	|	|	|	|	0.03
135.667	0.00	0.01	0.026	O	|	|	|	|	0.03
135.750	0.00	0.01	0.026	O	|	|	|	|	0.03
135.833	0.00	0.01	0.026	O	|	|	|	|	0.02
135.917	0.00	0.01	0.026	O	|	|	|	|	0.02
136.000	0.00	0.01	0.026	O	|	|	|	|	0.02
136.083	0.00	0.01	0.026	O	|	|	|	|	0.02
136.167	0.00	0.01	0.026	O	|	|	|	|	0.02
136.250	0.00	0.01	0.026	O	|	|	|	|	0.02
136.333	0.00	0.01	0.025	O	|	|	|	|	0.02
136.417	0.00	0.01	0.025	O	|	|	|	|	0.02
136.500	0.00	0.01	0.025	O	|	|	|	|	0.02
136.583	0.00	0.01	0.025	O	|	|	|	|	0.02
136.667	0.00	0.01	0.025	O	|	|	|	|	0.02
136.750	0.00	0.01	0.025	O	|	|	|	|	0.02
136.833	0.00	0.01	0.025	O	|	|	|	|	0.02
136.917	0.00	0.01	0.025	O	|	|	|	|	0.02
137.000	0.00	0.01	0.025	O	|	|	|	|	0.02
137.083	0.00	0.01	0.025	O	|	|	|	|	0.02
137.167	0.00	0.01	0.025	O	|	|	|	|	0.02
137.250	0.00	0.01	0.025	O	|	|	|	|	0.02
137.333	0.00	0.01	0.025	O	|	|	|	|	0.02
137.417	0.00	0.01	0.024	O	|	|	|	|	0.02
137.500	0.00	0.01	0.024	O	|	|	|	|	0.02
137.583	0.00	0.01	0.024	O	|	|	|	|	0.02
137.667	0.00	0.01	0.024	O	|	|	|	|	0.02
137.750	0.00	0.01	0.024	O	|	|	|	|	0.02
137.833	0.00	0.01	0.024	O	|	|	|	|	0.02
137.917	0.00	0.01	0.024	O	|	|	|	|	0.02
138.000	0.00	0.01	0.024	O	|	|	|	|	0.02
138.083	0.00	0.01	0.024	O	|	|	|	|	0.02
138.167	0.00	0.01	0.024	O	|	|	|	|	0.02
138.250	0.00	0.01	0.024	O	|	|	|	|	0.02
138.333	0.00	0.01	0.024	O	|	|	|	|	0.02
138.417	0.00	0.01	0.024	O	|	|	|	|	0.02
138.500	0.00	0.01	0.024	O	|	|	|	|	0.02
138.583	0.00	0.01	0.023	O	|	|	|	|	0.02
138.667	0.00	0.01	0.023	O	|	|	|	|	0.02
138.750	0.00	0.01	0.023	O	|	|	|	|	0.02
138.833	0.00	0.01	0.023	O	|	|	|	|	0.02
138.917	0.00	0.01	0.023	O	|	|	|	|	0.02
139.000	0.00	0.01	0.023	O	|	|	|	|	0.02
139.083	0.00	0.01	0.023	O	|	|	|	|	0.02
139.167	0.00	0.01	0.023	O	|	|	|	|	0.02
139.250	0.00	0.01	0.023	O	|	|	|	|	0.02
139.333	0.00	0.01	0.023	O	|	|	|	|	0.02
139.417	0.00	0.01	0.023	O	|	|	|	|	0.02
139.500	0.00	0.01	0.023	O	|	|	|	|	0.02
139.583	0.00	0.01	0.023	O	|	|	|	|	0.02
139.667	0.00	0.01	0.023	O	|	|	|	|	0.02
139.750	0.00	0.01	0.022	O	|	|	|	|	0.02
139.833	0.00	0.01	0.022	O	|	|	|	|	0.02
139.917	0.00	0.01	0.022	O	|	|	|	|	0.02
140.000	0.00	0.01	0.022	O	|	|	|	|	0.02
140.083	0.00	0.01	0.022	O	|	|	|	|	0.02
140.167	0.00	0.01	0.022	O	|	|	|	|	0.02
140.250	0.00	0.01	0.022	O	|	|	|	|	0.02
140.333	0.00	0.01	0.022	O	|	|	|	|	0.02
140.417	0.00	0.01	0.022	O	|	|	|	|	0.02
140.500	0.00	0.01	0.022	O	|	|	|	|	0.02
140.583	0.00	0.01	0.022	O	|	|	|	|	0.02
140.667	0.00	0.01	0.022	O	|	|	|	|	0.02

140.750	0.00	0.01	0.022	O	|	|	|	|	0.02
140.833	0.00	0.01	0.022	O	|	|	|	|	0.02
140.917	0.00	0.01	0.022	O	|	|	|	|	0.02
141.000	0.00	0.01	0.021	O	|	|	|	|	0.02
141.083	0.00	0.01	0.021	O	|	|	|	|	0.02
141.167	0.00	0.01	0.021	O	|	|	|	|	0.02
141.250	0.00	0.01	0.021	O	|	|	|	|	0.02
141.333	0.00	0.01	0.021	O	|	|	|	|	0.02
141.417	0.00	0.01	0.021	O	|	|	|	|	0.02
141.500	0.00	0.01	0.021	O	|	|	|	|	0.02
141.583	0.00	0.01	0.021	O	|	|	|	|	0.02
141.667	0.00	0.01	0.021	O	|	|	|	|	0.02
141.750	0.00	0.01	0.021	O	|	|	|	|	0.02
141.833	0.00	0.01	0.021	O	|	|	|	|	0.02
141.917	0.00	0.01	0.021	O	|	|	|	|	0.02
142.000	0.00	0.01	0.021	O	|	|	|	|	0.02
142.083	0.00	0.01	0.021	O	|	|	|	|	0.02
142.167	0.00	0.01	0.021	O	|	|	|	|	0.02
142.250	0.00	0.01	0.021	O	|	|	|	|	0.02
142.333	0.00	0.01	0.020	O	|	|	|	|	0.02
142.417	0.00	0.01	0.020	O	|	|	|	|	0.02
142.500	0.00	0.01	0.020	O	|	|	|	|	0.02
142.583	0.00	0.01	0.020	O	|	|	|	|	0.02
142.667	0.00	0.01	0.020	O	|	|	|	|	0.02
142.750	0.00	0.01	0.020	O	|	|	|	|	0.02
142.833	0.00	0.01	0.020	O	|	|	|	|	0.02
142.917	0.00	0.01	0.020	O	|	|	|	|	0.02
143.000	0.00	0.01	0.020	O	|	|	|	|	0.02
143.083	0.00	0.01	0.020	O	|	|	|	|	0.02
143.167	0.00	0.01	0.020	O	|	|	|	|	0.02
143.250	0.00	0.01	0.020	O	|	|	|	|	0.02
143.333	0.00	0.01	0.020	O	|	|	|	|	0.02
143.417	0.00	0.01	0.020	O	|	|	|	|	0.02
143.500	0.00	0.01	0.020	O	|	|	|	|	0.02
143.583	0.00	0.01	0.020	O	|	|	|	|	0.02
143.667	0.00	0.01	0.019	O	|	|	|	|	0.02
143.750	0.00	0.01	0.019	O	|	|	|	|	0.02
143.833	0.00	0.01	0.019	O	|	|	|	|	0.02
143.917	0.00	0.01	0.019	O	|	|	|	|	0.02
144.000	0.00	0.01	0.019	O	|	|	|	|	0.02
144.083	0.00	0.01	0.019	O	|	|	|	|	0.02
144.167	0.00	0.01	0.019	O	|	|	|	|	0.02
144.250	0.00	0.01	0.019	O	|	|	|	|	0.02
144.333	0.00	0.01	0.019	O	|	|	|	|	0.02
144.417	0.00	0.01	0.019	O	|	|	|	|	0.02
144.500	0.00	0.01	0.019	O	|	|	|	|	0.02
144.583	0.00	0.01	0.019	O	|	|	|	|	0.02
144.667	0.00	0.01	0.019	O	|	|	|	|	0.02
144.750	0.00	0.01	0.019	O	|	|	|	|	0.02
144.833	0.00	0.01	0.019	O	|	|	|	|	0.02
144.917	0.00	0.01	0.019	O	|	|	|	|	0.02
145.000	0.00	0.01	0.019	O	|	|	|	|	0.02
145.083	0.00	0.01	0.019	O	|	|	|	|	0.02
145.167	0.00	0.01	0.018	O	|	|	|	|	0.02
145.250	0.00	0.01	0.018	O	|	|	|	|	0.02
145.333	0.00	0.01	0.018	O	|	|	|	|	0.02
145.417	0.00	0.01	0.018	O	|	|	|	|	0.02
145.500	0.00	0.01	0.018	O	|	|	|	|	0.02
145.583	0.00	0.01	0.018	O	|	|	|	|	0.02
145.667	0.00	0.01	0.018	O	|	|	|	|	0.02
145.750	0.00	0.01	0.018	O	|	|	|	|	0.02
145.833	0.00	0.01	0.018	O	|	|	|	|	0.02
145.917	0.00	0.01	0.018	O	|	|	|	|	0.02

146.000	0.00	0.01	0.018	O	|	|	|	|	0.02
146.083	0.00	0.01	0.018	O	|	|	|	|	0.02
146.167	0.00	0.01	0.018	O	|	|	|	|	0.02
146.250	0.00	0.01	0.018	O	|	|	|	|	0.02
146.333	0.00	0.01	0.018	O	|	|	|	|	0.02
146.417	0.00	0.01	0.018	O	|	|	|	|	0.02
146.500	0.00	0.01	0.018	O	|	|	|	|	0.02
146.583	0.00	0.01	0.018	O	|	|	|	|	0.02
146.667	0.00	0.01	0.017	O	|	|	|	|	0.02
146.750	0.00	0.01	0.017	O	|	|	|	|	0.02
146.833	0.00	0.01	0.017	O	|	|	|	|	0.02
146.917	0.00	0.01	0.017	O	|	|	|	|	0.02
147.000	0.00	0.01	0.017	O	|	|	|	|	0.02
147.083	0.00	0.01	0.017	O	|	|	|	|	0.02
147.167	0.00	0.01	0.017	O	|	|	|	|	0.02
147.250	0.00	0.01	0.017	O	|	|	|	|	0.02
147.333	0.00	0.01	0.017	O	|	|	|	|	0.02
147.417	0.00	0.01	0.017	O	|	|	|	|	0.02
147.500	0.00	0.01	0.017	O	|	|	|	|	0.02
147.583	0.00	0.01	0.017	O	|	|	|	|	0.02
147.667	0.00	0.01	0.017	O	|	|	|	|	0.02
147.750	0.00	0.01	0.017	O	|	|	|	|	0.02
147.833	0.00	0.01	0.017	O	|	|	|	|	0.02
147.917	0.00	0.01	0.017	O	|	|	|	|	0.02
148.000	0.00	0.01	0.017	O	|	|	|	|	0.02
148.083	0.00	0.01	0.017	O	|	|	|	|	0.02
148.167	0.00	0.01	0.017	O	|	|	|	|	0.02
148.250	0.00	0.01	0.016	O	|	|	|	|	0.02
148.333	0.00	0.01	0.016	O	|	|	|	|	0.02
148.417	0.00	0.01	0.016	O	|	|	|	|	0.02
148.500	0.00	0.01	0.016	O	|	|	|	|	0.02
148.583	0.00	0.01	0.016	O	|	|	|	|	0.02
148.667	0.00	0.01	0.016	O	|	|	|	|	0.02
148.750	0.00	0.01	0.016	O	|	|	|	|	0.02
148.833	0.00	0.01	0.016	O	|	|	|	|	0.02
148.917	0.00	0.01	0.016	O	|	|	|	|	0.02
149.000	0.00	0.01	0.016	O	|	|	|	|	0.02
149.083	0.00	0.01	0.016	O	|	|	|	|	0.02
149.167	0.00	0.01	0.016	O	|	|	|	|	0.02
149.250	0.00	0.01	0.016	O	|	|	|	|	0.02
149.333	0.00	0.01	0.016	O	|	|	|	|	0.02
149.417	0.00	0.01	0.016	O	|	|	|	|	0.02
149.500	0.00	0.01	0.016	O	|	|	|	|	0.02
149.583	0.00	0.01	0.016	O	|	|	|	|	0.02
149.667	0.00	0.01	0.016	O	|	|	|	|	0.02
149.750	0.00	0.01	0.016	O	|	|	|	|	0.02
149.833	0.00	0.01	0.016	O	|	|	|	|	0.01
149.917	0.00	0.01	0.016	O	|	|	|	|	0.01
150.000	0.00	0.01	0.015	O	|	|	|	|	0.01
150.083	0.00	0.01	0.015	O	|	|	|	|	0.01
150.167	0.00	0.01	0.015	O	|	|	|	|	0.01
150.250	0.00	0.01	0.015	O	|	|	|	|	0.01
150.333	0.00	0.01	0.015	O	|	|	|	|	0.01
150.417	0.00	0.01	0.015	O	|	|	|	|	0.01
150.500	0.00	0.01	0.015	O	|	|	|	|	0.01
150.583	0.00	0.01	0.015	O	|	|	|	|	0.01
150.667	0.00	0.01	0.015	O	|	|	|	|	0.01
150.750	0.00	0.01	0.015	O	|	|	|	|	0.01
150.833	0.00	0.01	0.015	O	|	|	|	|	0.01
150.917	0.00	0.01	0.015	O	|	|	|	|	0.01
151.000	0.00	0.01	0.015	O	|	|	|	|	0.01
151.083	0.00	0.01	0.015	O	|	|	|	|	0.01
151.167	0.00	0.01	0.015	O	|	|	|	|	0.01

151.250	0.00	0.01	0.015	O	|	|	|	|	0.01
151.333	0.00	0.01	0.015	O	|	|	|	|	0.01
151.417	0.00	0.01	0.015	O	|	|	|	|	0.01
151.500	0.00	0.01	0.015	O	|	|	|	|	0.01
151.583	0.00	0.01	0.015	O	|	|	|	|	0.01
151.667	0.00	0.01	0.015	O	|	|	|	|	0.01
151.750	0.00	0.01	0.015	O	|	|	|	|	0.01
151.833	0.00	0.01	0.014	O	|	|	|	|	0.01
151.917	0.00	0.01	0.014	O	|	|	|	|	0.01
152.000	0.00	0.01	0.014	O	|	|	|	|	0.01
152.083	0.00	0.01	0.014	O	|	|	|	|	0.01
152.167	0.00	0.01	0.014	O	|	|	|	|	0.01
152.250	0.00	0.01	0.014	O	|	|	|	|	0.01
152.333	0.00	0.01	0.014	O	|	|	|	|	0.01
152.417	0.00	0.01	0.014	O	|	|	|	|	0.01
152.500	0.00	0.01	0.014	O	|	|	|	|	0.01
152.583	0.00	0.01	0.014	O	|	|	|	|	0.01
152.667	0.00	0.01	0.014	O	|	|	|	|	0.01
152.750	0.00	0.01	0.014	O	|	|	|	|	0.01
152.833	0.00	0.01	0.014	O	|	|	|	|	0.01
152.917	0.00	0.01	0.014	O	|	|	|	|	0.01
153.000	0.00	0.01	0.014	O	|	|	|	|	0.01
153.083	0.00	0.01	0.014	O	|	|	|	|	0.01
153.167	0.00	0.01	0.014	O	|	|	|	|	0.01
153.250	0.00	0.01	0.014	O	|	|	|	|	0.01
153.333	0.00	0.01	0.014	O	|	|	|	|	0.01
153.417	0.00	0.01	0.014	O	|	|	|	|	0.01
153.500	0.00	0.01	0.014	O	|	|	|	|	0.01
153.583	0.00	0.01	0.014	O	|	|	|	|	0.01
153.667	0.00	0.01	0.014	O	|	|	|	|	0.01
153.750	0.00	0.01	0.013	O	|	|	|	|	0.01
153.833	0.00	0.01	0.013	O	|	|	|	|	0.01
153.917	0.00	0.01	0.013	O	|	|	|	|	0.01
154.000	0.00	0.01	0.013	O	|	|	|	|	0.01
154.083	0.00	0.01	0.013	O	|	|	|	|	0.01
154.167	0.00	0.01	0.013	O	|	|	|	|	0.01
154.250	0.00	0.01	0.013	O	|	|	|	|	0.01
154.333	0.00	0.01	0.013	O	|	|	|	|	0.01
154.417	0.00	0.01	0.013	O	|	|	|	|	0.01
154.500	0.00	0.01	0.013	O	|	|	|	|	0.01
154.583	0.00	0.01	0.013	O	|	|	|	|	0.01
154.667	0.00	0.01	0.013	O	|	|	|	|	0.01
154.750	0.00	0.01	0.013	O	|	|	|	|	0.01
154.833	0.00	0.01	0.013	O	|	|	|	|	0.01
154.917	0.00	0.01	0.013	O	|	|	|	|	0.01
155.000	0.00	0.01	0.013	O	|	|	|	|	0.01
155.083	0.00	0.01	0.013	O	|	|	|	|	0.01
155.167	0.00	0.01	0.013	O	|	|	|	|	0.01
155.250	0.00	0.01	0.013	O	|	|	|	|	0.01
155.333	0.00	0.01	0.013	O	|	|	|	|	0.01
155.417	0.00	0.01	0.013	O	|	|	|	|	0.01
155.500	0.00	0.01	0.013	O	|	|	|	|	0.01
155.583	0.00	0.01	0.013	O	|	|	|	|	0.01
155.667	0.00	0.01	0.013	O	|	|	|	|	0.01
155.750	0.00	0.01	0.013	O	|	|	|	|	0.01
155.833	0.00	0.01	0.012	O	|	|	|	|	0.01
155.917	0.00	0.01	0.012	O	|	|	|	|	0.01
156.000	0.00	0.01	0.012	O	|	|	|	|	0.01
156.083	0.00	0.01	0.012	O	|	|	|	|	0.01
156.167	0.00	0.01	0.012	O	|	|	|	|	0.01
156.250	0.00	0.01	0.012	O	|	|	|	|	0.01
156.333	0.00	0.01	0.012	O	|	|	|	|	0.01
156.417	0.00	0.01	0.012	O	|	|	|	|	0.01

156.500	0.00	0.01	0.012	O	|	|	|	|	0.01
156.583	0.00	0.01	0.012	O	|	|	|	|	0.01
156.667	0.00	0.01	0.012	O	|	|	|	|	0.01
156.750	0.00	0.01	0.012	O	|	|	|	|	0.01
156.833	0.00	0.01	0.012	O	|	|	|	|	0.01
156.917	0.00	0.01	0.012	O	|	|	|	|	0.01
157.000	0.00	0.01	0.012	O	|	|	|	|	0.01
157.083	0.00	0.01	0.012	O	|	|	|	|	0.01
157.167	0.00	0.01	0.012	O	|	|	|	|	0.01
157.250	0.00	0.01	0.012	O	|	|	|	|	0.01
157.333	0.00	0.01	0.012	O	|	|	|	|	0.01
157.417	0.00	0.01	0.012	O	|	|	|	|	0.01
157.500	0.00	0.01	0.012	O	|	|	|	|	0.01
157.583	0.00	0.01	0.012	O	|	|	|	|	0.01
157.667	0.00	0.01	0.012	O	|	|	|	|	0.01
157.750	0.00	0.01	0.012	O	|	|	|	|	0.01
157.833	0.00	0.01	0.012	O	|	|	|	|	0.01
157.917	0.00	0.01	0.012	O	|	|	|	|	0.01
158.000	0.00	0.01	0.012	O	|	|	|	|	0.01
158.083	0.00	0.01	0.012	O	|	|	|	|	0.01
158.167	0.00	0.01	0.011	O	|	|	|	|	0.01
158.250	0.00	0.01	0.011	O	|	|	|	|	0.01
158.333	0.00	0.01	0.011	O	|	|	|	|	0.01
158.417	0.00	0.01	0.011	O	|	|	|	|	0.01
158.500	0.00	0.01	0.011	O	|	|	|	|	0.01
158.583	0.00	0.00	0.011	O	|	|	|	|	0.01
158.667	0.00	0.00	0.011	O	|	|	|	|	0.01
158.750	0.00	0.00	0.011	O	|	|	|	|	0.01
158.833	0.00	0.00	0.011	O	|	|	|	|	0.01
158.917	0.00	0.00	0.011	O	|	|	|	|	0.01
159.000	0.00	0.00	0.011	O	|	|	|	|	0.01
159.083	0.00	0.00	0.011	O	|	|	|	|	0.01
159.167	0.00	0.00	0.011	O	|	|	|	|	0.01
159.250	0.00	0.00	0.011	O	|	|	|	|	0.01
159.333	0.00	0.00	0.011	O	|	|	|	|	0.01
159.417	0.00	0.00	0.011	O	|	|	|	|	0.01
159.500	0.00	0.00	0.011	O	|	|	|	|	0.01
159.583	0.00	0.00	0.011	O	|	|	|	|	0.01
159.667	0.00	0.00	0.011	O	|	|	|	|	0.01
159.750	0.00	0.00	0.011	O	|	|	|	|	0.01
159.833	0.00	0.00	0.011	O	|	|	|	|	0.01
159.917	0.00	0.00	0.011	O	|	|	|	|	0.01
160.000	0.00	0.00	0.011	O	|	|	|	|	0.01
160.083	0.00	0.00	0.011	O	|	|	|	|	0.01
160.167	0.00	0.00	0.011	O	|	|	|	|	0.01
160.250	0.00	0.00	0.011	O	|	|	|	|	0.01
160.333	0.00	0.00	0.011	O	|	|	|	|	0.01
160.417	0.00	0.00	0.011	O	|	|	|	|	0.01
160.500	0.00	0.00	0.011	O	|	|	|	|	0.01
160.583	0.00	0.00	0.011	O	|	|	|	|	0.01
160.667	0.00	0.00	0.010	O	|	|	|	|	0.01
160.750	0.00	0.00	0.010	O	|	|	|	|	0.01
160.833	0.00	0.00	0.010	O	|	|	|	|	0.01
160.917	0.00	0.00	0.010	O	|	|	|	|	0.01
161.000	0.00	0.00	0.010	O	|	|	|	|	0.01
161.083	0.00	0.00	0.010	O	|	|	|	|	0.01
161.167	0.00	0.00	0.010	O	|	|	|	|	0.01
161.250	0.00	0.00	0.010	O	|	|	|	|	0.01
161.333	0.00	0.00	0.010	O	|	|	|	|	0.01
161.417	0.00	0.00	0.010	O	|	|	|	|	0.01
161.500	0.00	0.00	0.010	O	|	|	|	|	0.01
161.583	0.00	0.00	0.010	O	|	|	|	|	0.01
161.667	0.00	0.00	0.010	O	|	|	|	|	0.01

161.750	0.00	0.00	0.010	O	|	|	|	|	0.01
161.833	0.00	0.00	0.010	O	|	|	|	|	0.01
161.917	0.00	0.00	0.010	O	|	|	|	|	0.01
162.000	0.00	0.00	0.010	O	|	|	|	|	0.01
162.083	0.00	0.00	0.010	O	|	|	|	|	0.01
162.167	0.00	0.00	0.010	O	|	|	|	|	0.01
162.250	0.00	0.00	0.010	O	|	|	|	|	0.01
162.333	0.00	0.00	0.010	O	|	|	|	|	0.01
162.417	0.00	0.00	0.010	O	|	|	|	|	0.01
162.500	0.00	0.00	0.010	O	|	|	|	|	0.01
162.583	0.00	0.00	0.010	O	|	|	|	|	0.01
162.667	0.00	0.00	0.010	O	|	|	|	|	0.01
162.750	0.00	0.00	0.010	O	|	|	|	|	0.01
162.833	0.00	0.00	0.010	O	|	|	|	|	0.01
162.917	0.00	0.00	0.010	O	|	|	|	|	0.01
163.000	0.00	0.00	0.010	O	|	|	|	|	0.01
163.083	0.00	0.00	0.010	O	|	|	|	|	0.01
163.167	0.00	0.00	0.010	O	|	|	|	|	0.01
163.250	0.00	0.00	0.010	O	|	|	|	|	0.01
163.333	0.00	0.00	0.009	O	|	|	|	|	0.01
163.417	0.00	0.00	0.009	O	|	|	|	|	0.01
163.500	0.00	0.00	0.009	O	|	|	|	|	0.01
163.583	0.00	0.00	0.009	O	|	|	|	|	0.01
163.667	0.00	0.00	0.009	O	|	|	|	|	0.01
163.750	0.00	0.00	0.009	O	|	|	|	|	0.01
163.833	0.00	0.00	0.009	O	|	|	|	|	0.01
163.917	0.00	0.00	0.009	O	|	|	|	|	0.01
164.000	0.00	0.00	0.009	O	|	|	|	|	0.01
164.083	0.00	0.00	0.009	O	|	|	|	|	0.01
164.167	0.00	0.00	0.009	O	|	|	|	|	0.01
164.250	0.00	0.00	0.009	O	|	|	|	|	0.01
164.333	0.00	0.00	0.009	O	|	|	|	|	0.01
164.417	0.00	0.00	0.009	O	|	|	|	|	0.01
164.500	0.00	0.00	0.009	O	|	|	|	|	0.01
164.583	0.00	0.00	0.009	O	|	|	|	|	0.01
164.667	0.00	0.00	0.009	O	|	|	|	|	0.01
164.750	0.00	0.00	0.009	O	|	|	|	|	0.01
164.833	0.00	0.00	0.009	O	|	|	|	|	0.01
164.917	0.00	0.00	0.009	O	|	|	|	|	0.01
165.000	0.00	0.00	0.009	O	|	|	|	|	0.01
165.083	0.00	0.00	0.009	O	|	|	|	|	0.01
165.167	0.00	0.00	0.009	O	|	|	|	|	0.01
165.250	0.00	0.00	0.009	O	|	|	|	|	0.01
165.333	0.00	0.00	0.009	O	|	|	|	|	0.01
165.417	0.00	0.00	0.009	O	|	|	|	|	0.01
165.500	0.00	0.00	0.009	O	|	|	|	|	0.01
165.583	0.00	0.00	0.009	O	|	|	|	|	0.01
165.667	0.00	0.00	0.009	O	|	|	|	|	0.01
165.750	0.00	0.00	0.009	O	|	|	|	|	0.01
165.833	0.00	0.00	0.009	O	|	|	|	|	0.01
165.917	0.00	0.00	0.009	O	|	|	|	|	0.01
166.000	0.00	0.00	0.009	O	|	|	|	|	0.01
166.083	0.00	0.00	0.009	O	|	|	|	|	0.01
166.167	0.00	0.00	0.009	O	|	|	|	|	0.01
166.250	0.00	0.00	0.009	O	|	|	|	|	0.01
166.333	0.00	0.00	0.009	O	|	|	|	|	0.01
166.417	0.00	0.00	0.008	O	|	|	|	|	0.01
166.500	0.00	0.00	0.008	O	|	|	|	|	0.01
166.583	0.00	0.00	0.008	O	|	|	|	|	0.01
166.667	0.00	0.00	0.008	O	|	|	|	|	0.01
166.750	0.00	0.00	0.008	O	|	|	|	|	0.01
166.833	0.00	0.00	0.008	O	|	|	|	|	0.01
166.917	0.00	0.00	0.008	O	|	|	|	|	0.01

167.000	0.00	0.00	0.008	O	|	|	|	|	0.01
167.083	0.00	0.00	0.008	O	|	|	|	|	0.01
167.167	0.00	0.00	0.008	O	|	|	|	|	0.01
167.250	0.00	0.00	0.008	O	|	|	|	|	0.01
167.333	0.00	0.00	0.008	O	|	|	|	|	0.01
167.417	0.00	0.00	0.008	O	|	|	|	|	0.01
167.500	0.00	0.00	0.008	O	|	|	|	|	0.01
167.583	0.00	0.00	0.008	O	|	|	|	|	0.01
167.667	0.00	0.00	0.008	O	|	|	|	|	0.01
167.750	0.00	0.00	0.008	O	|	|	|	|	0.01
167.833	0.00	0.00	0.008	O	|	|	|	|	0.01
167.917	0.00	0.00	0.008	O	|	|	|	|	0.01
168.000	0.00	0.00	0.008	O	|	|	|	|	0.01
168.083	0.00	0.00	0.008	O	|	|	|	|	0.01
168.167	0.00	0.00	0.008	O	|	|	|	|	0.01
168.250	0.00	0.00	0.008	O	|	|	|	|	0.01
168.333	0.00	0.00	0.008	O	|	|	|	|	0.01
168.417	0.00	0.00	0.008	O	|	|	|	|	0.01
168.500	0.00	0.00	0.008	O	|	|	|	|	0.01
168.583	0.00	0.00	0.008	O	|	|	|	|	0.01
168.667	0.00	0.00	0.008	O	|	|	|	|	0.01
168.750	0.00	0.00	0.008	O	|	|	|	|	0.01
168.833	0.00	0.00	0.008	O	|	|	|	|	0.01
168.917	0.00	0.00	0.008	O	|	|	|	|	0.01
169.000	0.00	0.00	0.008	O	|	|	|	|	0.01
169.083	0.00	0.00	0.008	O	|	|	|	|	0.01
169.167	0.00	0.00	0.008	O	|	|	|	|	0.01
169.250	0.00	0.00	0.008	O	|	|	|	|	0.01
169.333	0.00	0.00	0.008	O	|	|	|	|	0.01
169.417	0.00	0.00	0.008	O	|	|	|	|	0.01
169.500	0.00	0.00	0.008	O	|	|	|	|	0.01
169.583	0.00	0.00	0.008	O	|	|	|	|	0.01
169.667	0.00	0.00	0.008	O	|	|	|	|	0.01
169.750	0.00	0.00	0.008	O	|	|	|	|	0.01
169.833	0.00	0.00	0.007	O	|	|	|	|	0.01
169.917	0.00	0.00	0.007	O	|	|	|	|	0.01
170.000	0.00	0.00	0.007	O	|	|	|	|	0.01
170.083	0.00	0.00	0.007	O	|	|	|	|	0.01
170.167	0.00	0.00	0.007	O	|	|	|	|	0.01
170.250	0.00	0.00	0.007	O	|	|	|	|	0.01
170.333	0.00	0.00	0.007	O	|	|	|	|	0.01
170.417	0.00	0.00	0.007	O	|	|	|	|	0.01
170.500	0.00	0.00	0.007	O	|	|	|	|	0.01
170.583	0.00	0.00	0.007	O	|	|	|	|	0.01
170.667	0.00	0.00	0.007	O	|	|	|	|	0.01
170.750	0.00	0.00	0.007	O	|	|	|	|	0.01
170.833	0.00	0.00	0.007	O	|	|	|	|	0.01
170.917	0.00	0.00	0.007	O	|	|	|	|	0.01
171.000	0.00	0.00	0.007	O	|	|	|	|	0.01
171.083	0.00	0.00	0.007	O	|	|	|	|	0.01
171.167	0.00	0.00	0.007	O	|	|	|	|	0.01
171.250	0.00	0.00	0.007	O	|	|	|	|	0.01
171.333	0.00	0.00	0.007	O	|	|	|	|	0.01
171.417	0.00	0.00	0.007	O	|	|	|	|	0.01
171.500	0.00	0.00	0.007	O	|	|	|	|	0.01
171.583	0.00	0.00	0.007	O	|	|	|	|	0.01
171.667	0.00	0.00	0.007	O	|	|	|	|	0.01
171.750	0.00	0.00	0.007	O	|	|	|	|	0.01
171.833	0.00	0.00	0.007	O	|	|	|	|	0.01
171.917	0.00	0.00	0.007	O	|	|	|	|	0.01
172.000	0.00	0.00	0.007	O	|	|	|	|	0.01
172.083	0.00	0.00	0.007	O	|	|	|	|	0.01
172.167	0.00	0.00	0.007	O	|	|	|	|	0.01

172.250	0.00	0.00	0.007	O	|	|	|	|	0.01
172.333	0.00	0.00	0.007	O	|	|	|	|	0.01
172.417	0.00	0.00	0.007	O	|	|	|	|	0.01
172.500	0.00	0.00	0.007	O	|	|	|	|	0.01
172.583	0.00	0.00	0.007	O	|	|	|	|	0.01
172.667	0.00	0.00	0.007	O	|	|	|	|	0.01
172.750	0.00	0.00	0.007	O	|	|	|	|	0.01
172.833	0.00	0.00	0.007	O	|	|	|	|	0.01
172.917	0.00	0.00	0.007	O	|	|	|	|	0.01
173.000	0.00	0.00	0.007	O	|	|	|	|	0.01
173.083	0.00	0.00	0.007	O	|	|	|	|	0.01
173.167	0.00	0.00	0.007	O	|	|	|	|	0.01
173.250	0.00	0.00	0.007	O	|	|	|	|	0.01
173.333	0.00	0.00	0.007	O	|	|	|	|	0.01
173.417	0.00	0.00	0.007	O	|	|	|	|	0.01
173.500	0.00	0.00	0.007	O	|	|	|	|	0.01
173.583	0.00	0.00	0.007	O	|	|	|	|	0.01
173.667	0.00	0.00	0.007	O	|	|	|	|	0.01
173.750	0.00	0.00	0.006	O	|	|	|	|	0.01
173.833	0.00	0.00	0.006	O	|	|	|	|	0.01
173.917	0.00	0.00	0.006	O	|	|	|	|	0.01
174.000	0.00	0.00	0.006	O	|	|	|	|	0.01
174.083	0.00	0.00	0.006	O	|	|	|	|	0.01
174.167	0.00	0.00	0.006	O	|	|	|	|	0.01
174.250	0.00	0.00	0.006	O	|	|	|	|	0.01
174.333	0.00	0.00	0.006	O	|	|	|	|	0.01
174.417	0.00	0.00	0.006	O	|	|	|	|	0.01
174.500	0.00	0.00	0.006	O	|	|	|	|	0.01
174.583	0.00	0.00	0.006	O	|	|	|	|	0.01
174.667	0.00	0.00	0.006	O	|	|	|	|	0.01
174.750	0.00	0.00	0.006	O	|	|	|	|	0.01
174.833	0.00	0.00	0.006	O	|	|	|	|	0.01
174.917	0.00	0.00	0.006	O	|	|	|	|	0.01
175.000	0.00	0.00	0.006	O	|	|	|	|	0.01
175.083	0.00	0.00	0.006	O	|	|	|	|	0.01
175.167	0.00	0.00	0.006	O	|	|	|	|	0.01
175.250	0.00	0.00	0.006	O	|	|	|	|	0.01
175.333	0.00	0.00	0.006	O	|	|	|	|	0.01
175.417	0.00	0.00	0.006	O	|	|	|	|	0.01
175.500	0.00	0.00	0.006	O	|	|	|	|	0.01
175.583	0.00	0.00	0.006	O	|	|	|	|	0.01
175.667	0.00	0.00	0.006	O	|	|	|	|	0.01
175.750	0.00	0.00	0.006	O	|	|	|	|	0.01
175.833	0.00	0.00	0.006	O	|	|	|	|	0.01
175.917	0.00	0.00	0.006	O	|	|	|	|	0.01
176.000	0.00	0.00	0.006	O	|	|	|	|	0.01
176.083	0.00	0.00	0.006	O	|	|	|	|	0.01
176.167	0.00	0.00	0.006	O	|	|	|	|	0.01
176.250	0.00	0.00	0.006	O	|	|	|	|	0.01
176.333	0.00	0.00	0.006	O	|	|	|	|	0.01
176.417	0.00	0.00	0.006	O	|	|	|	|	0.01
176.500	0.00	0.00	0.006	O	|	|	|	|	0.01
176.583	0.00	0.00	0.006	O	|	|	|	|	0.01
176.667	0.00	0.00	0.006	O	|	|	|	|	0.01
176.750	0.00	0.00	0.006	O	|	|	|	|	0.01
176.833	0.00	0.00	0.006	O	|	|	|	|	0.01
176.917	0.00	0.00	0.006	O	|	|	|	|	0.01
177.000	0.00	0.00	0.006	O	|	|	|	|	0.01
177.083	0.00	0.00	0.006	O	|	|	|	|	0.01
177.167	0.00	0.00	0.006	O	|	|	|	|	0.01
177.250	0.00	0.00	0.006	O	|	|	|	|	0.01
177.333	0.00	0.00	0.006	O	|	|	|	|	0.01
177.417	0.00	0.00	0.006	O	|	|	|	|	0.01

177.500	0.00	0.00	0.006	O	|	|	|	|	0.01
177.583	0.00	0.00	0.006	O	|	|	|	|	0.01
177.667	0.00	0.00	0.006	O	|	|	|	|	0.01
177.750	0.00	0.00	0.006	O	|	|	|	|	0.01
177.833	0.00	0.00	0.006	O	|	|	|	|	0.01
177.917	0.00	0.00	0.006	O	|	|	|	|	0.01
178.000	0.00	0.00	0.006	O	|	|	|	|	0.01
178.083	0.00	0.00	0.006	O	|	|	|	|	0.01
178.167	0.00	0.00	0.006	O	|	|	|	|	0.01
178.250	0.00	0.00	0.006	O	|	|	|	|	0.01
178.333	0.00	0.00	0.005	O	|	|	|	|	0.01
178.417	0.00	0.00	0.005	O	|	|	|	|	0.01
178.500	0.00	0.00	0.005	O	|	|	|	|	0.01
178.583	0.00	0.00	0.005	O	|	|	|	|	0.01
178.667	0.00	0.00	0.005	O	|	|	|	|	0.01
178.750	0.00	0.00	0.005	O	|	|	|	|	0.01
178.833	0.00	0.00	0.005	O	|	|	|	|	0.01
178.917	0.00	0.00	0.005	O	|	|	|	|	0.01
179.000	0.00	0.00	0.005	O	|	|	|	|	0.01
179.083	0.00	0.00	0.005	O	|	|	|	|	0.01
179.167	0.00	0.00	0.005	O	|	|	|	|	0.01
179.250	0.00	0.00	0.005	O	|	|	|	|	0.01
179.333	0.00	0.00	0.005	O	|	|	|	|	0.01
179.417	0.00	0.00	0.005	O	|	|	|	|	0.01
179.500	0.00	0.00	0.005	O	|	|	|	|	0.01
179.583	0.00	0.00	0.005	O	|	|	|	|	0.01
179.667	0.00	0.00	0.005	O	|	|	|	|	0.01
179.750	0.00	0.00	0.005	O	|	|	|	|	0.01
179.833	0.00	0.00	0.005	O	|	|	|	|	0.00
179.917	0.00	0.00	0.005	O	|	|	|	|	0.00
180.000	0.00	0.00	0.005	O	|	|	|	|	0.00
180.083	0.00	0.00	0.005	O	|	|	|	|	0.00
180.167	0.00	0.00	0.005	O	|	|	|	|	0.00
180.250	0.00	0.00	0.005	O	|	|	|	|	0.00
180.333	0.00	0.00	0.005	O	|	|	|	|	0.00
180.417	0.00	0.00	0.005	O	|	|	|	|	0.00
180.500	0.00	0.00	0.005	O	|	|	|	|	0.00
180.583	0.00	0.00	0.005	O	|	|	|	|	0.00
180.667	0.00	0.00	0.005	O	|	|	|	|	0.00
180.750	0.00	0.00	0.005	O	|	|	|	|	0.00
180.833	0.00	0.00	0.005	O	|	|	|	|	0.00
180.917	0.00	0.00	0.005	O	|	|	|	|	0.00
181.000	0.00	0.00	0.005	O	|	|	|	|	0.00
181.083	0.00	0.00	0.005	O	|	|	|	|	0.00
181.167	0.00	0.00	0.005	O	|	|	|	|	0.00
181.250	0.00	0.00	0.005	O	|	|	|	|	0.00
181.333	0.00	0.00	0.005	O	|	|	|	|	0.00
181.417	0.00	0.00	0.005	O	|	|	|	|	0.00
181.500	0.00	0.00	0.005	O	|	|	|	|	0.00
181.583	0.00	0.00	0.005	O	|	|	|	|	0.00
181.667	0.00	0.00	0.005	O	|	|	|	|	0.00
181.750	0.00	0.00	0.005	O	|	|	|	|	0.00
181.833	0.00	0.00	0.005	O	|	|	|	|	0.00
181.917	0.00	0.00	0.005	O	|	|	|	|	0.00
182.000	0.00	0.00	0.005	O	|	|	|	|	0.00
182.083	0.00	0.00	0.005	O	|	|	|	|	0.00
182.167	0.00	0.00	0.005	O	|	|	|	|	0.00
182.250	0.00	0.00	0.005	O	|	|	|	|	0.00
182.333	0.00	0.00	0.005	O	|	|	|	|	0.00
182.417	0.00	0.00	0.005	O	|	|	|	|	0.00
182.500	0.00	0.00	0.005	O	|	|	|	|	0.00
182.583	0.00	0.00	0.005	O	|	|	|	|	0.00
182.667	0.00	0.00	0.005	O	|	|	|	|	0.00

182.750	0.00	0.00	0.005	O	|	|	|	|	0.00
182.833	0.00	0.00	0.005	O	|	|	|	|	0.00
182.917	0.00	0.00	0.005	O	|	|	|	|	0.00
183.000	0.00	0.00	0.005	O	|	|	|	|	0.00
183.083	0.00	0.00	0.005	O	|	|	|	|	0.00
183.167	0.00	0.00	0.005	O	|	|	|	|	0.00
183.250	0.00	0.00	0.005	O	|	|	|	|	0.00
183.333	0.00	0.00	0.005	O	|	|	|	|	0.00
183.417	0.00	0.00	0.005	O	|	|	|	|	0.00
183.500	0.00	0.00	0.005	O	|	|	|	|	0.00
183.583	0.00	0.00	0.005	O	|	|	|	|	0.00
183.667	0.00	0.00	0.005	O	|	|	|	|	0.00
183.750	0.00	0.00	0.005	O	|	|	|	|	0.00
183.833	0.00	0.00	0.004	O	|	|	|	|	0.00
183.917	0.00	0.00	0.004	O	|	|	|	|	0.00
184.000	0.00	0.00	0.004	O	|	|	|	|	0.00
184.083	0.00	0.00	0.004	O	|	|	|	|	0.00
184.167	0.00	0.00	0.004	O	|	|	|	|	0.00
184.250	0.00	0.00	0.004	O	|	|	|	|	0.00
184.333	0.00	0.00	0.004	O	|	|	|	|	0.00
184.417	0.00	0.00	0.004	O	|	|	|	|	0.00
184.500	0.00	0.00	0.004	O	|	|	|	|	0.00
184.583	0.00	0.00	0.004	O	|	|	|	|	0.00
184.667	0.00	0.00	0.004	O	|	|	|	|	0.00
184.750	0.00	0.00	0.004	O	|	|	|	|	0.00
184.833	0.00	0.00	0.004	O	|	|	|	|	0.00
184.917	0.00	0.00	0.004	O	|	|	|	|	0.00
185.000	0.00	0.00	0.004	O	|	|	|	|	0.00
185.083	0.00	0.00	0.004	O	|	|	|	|	0.00
185.167	0.00	0.00	0.004	O	|	|	|	|	0.00
185.250	0.00	0.00	0.004	O	|	|	|	|	0.00
185.333	0.00	0.00	0.004	O	|	|	|	|	0.00
185.417	0.00	0.00	0.004	O	|	|	|	|	0.00
185.500	0.00	0.00	0.004	O	|	|	|	|	0.00
185.583	0.00	0.00	0.004	O	|	|	|	|	0.00
185.667	0.00	0.00	0.004	O	|	|	|	|	0.00
185.750	0.00	0.00	0.004	O	|	|	|	|	0.00
185.833	0.00	0.00	0.004	O	|	|	|	|	0.00
185.917	0.00	0.00	0.004	O	|	|	|	|	0.00
186.000	0.00	0.00	0.004	O	|	|	|	|	0.00
186.083	0.00	0.00	0.004	O	|	|	|	|	0.00
186.167	0.00	0.00	0.004	O	|	|	|	|	0.00
186.250	0.00	0.00	0.004	O	|	|	|	|	0.00
186.333	0.00	0.00	0.004	O	|	|	|	|	0.00
186.417	0.00	0.00	0.004	O	|	|	|	|	0.00
186.500	0.00	0.00	0.004	O	|	|	|	|	0.00
186.583	0.00	0.00	0.004	O	|	|	|	|	0.00
186.667	0.00	0.00	0.004	O	|	|	|	|	0.00
186.750	0.00	0.00	0.004	O	|	|	|	|	0.00
186.833	0.00	0.00	0.004	O	|	|	|	|	0.00
186.917	0.00	0.00	0.004	O	|	|	|	|	0.00
187.000	0.00	0.00	0.004	O	|	|	|	|	0.00
187.083	0.00	0.00	0.004	O	|	|	|	|	0.00
187.167	0.00	0.00	0.004	O	|	|	|	|	0.00
187.250	0.00	0.00	0.004	O	|	|	|	|	0.00
187.333	0.00	0.00	0.004	O	|	|	|	|	0.00
187.417	0.00	0.00	0.004	O	|	|	|	|	0.00
187.500	0.00	0.00	0.004	O	|	|	|	|	0.00
187.583	0.00	0.00	0.004	O	|	|	|	|	0.00
187.667	0.00	0.00	0.004	O	|	|	|	|	0.00
187.750	0.00	0.00	0.004	O	|	|	|	|	0.00
187.833	0.00	0.00	0.004	O	|	|	|	|	0.00
187.917	0.00	0.00	0.004	O	|	|	|	|	0.00

188.000	0.00	0.00	0.004	O	|	|	|	|	0.00
188.083	0.00	0.00	0.004	O	|	|	|	|	0.00
188.167	0.00	0.00	0.004	O	|	|	|	|	0.00
188.250	0.00	0.00	0.004	O	|	|	|	|	0.00
188.333	0.00	0.00	0.004	O	|	|	|	|	0.00
188.417	0.00	0.00	0.004	O	|	|	|	|	0.00
188.500	0.00	0.00	0.004	O	|	|	|	|	0.00
188.583	0.00	0.00	0.004	O	|	|	|	|	0.00
188.667	0.00	0.00	0.004	O	|	|	|	|	0.00
188.750	0.00	0.00	0.004	O	|	|	|	|	0.00
188.833	0.00	0.00	0.004	O	|	|	|	|	0.00
188.917	0.00	0.00	0.004	O	|	|	|	|	0.00
189.000	0.00	0.00	0.004	O	|	|	|	|	0.00
189.083	0.00	0.00	0.004	O	|	|	|	|	0.00
189.167	0.00	0.00	0.004	O	|	|	|	|	0.00
189.250	0.00	0.00	0.004	O	|	|	|	|	0.00
189.333	0.00	0.00	0.004	O	|	|	|	|	0.00
189.417	0.00	0.00	0.004	O	|	|	|	|	0.00
189.500	0.00	0.00	0.004	O	|	|	|	|	0.00
189.583	0.00	0.00	0.004	O	|	|	|	|	0.00
189.667	0.00	0.00	0.004	O	|	|	|	|	0.00
189.750	0.00	0.00	0.004	O	|	|	|	|	0.00
189.833	0.00	0.00	0.004	O	|	|	|	|	0.00
189.917	0.00	0.00	0.004	O	|	|	|	|	0.00
190.000	0.00	0.00	0.004	O	|	|	|	|	0.00
190.083	0.00	0.00	0.004	O	|	|	|	|	0.00
190.167	0.00	0.00	0.004	O	|	|	|	|	0.00
190.250	0.00	0.00	0.004	O	|	|	|	|	0.00
190.333	0.00	0.00	0.004	O	|	|	|	|	0.00
190.417	0.00	0.00	0.004	O	|	|	|	|	0.00
190.500	0.00	0.00	0.004	O	|	|	|	|	0.00
190.583	0.00	0.00	0.004	O	|	|	|	|	0.00
190.667	0.00	0.00	0.003	O	|	|	|	|	0.00
190.750	0.00	0.00	0.003	O	|	|	|	|	0.00
190.833	0.00	0.00	0.003	O	|	|	|	|	0.00
190.917	0.00	0.00	0.003	O	|	|	|	|	0.00
191.000	0.00	0.00	0.003	O	|	|	|	|	0.00
191.083	0.00	0.00	0.003	O	|	|	|	|	0.00
191.167	0.00	0.00	0.003	O	|	|	|	|	0.00
191.250	0.00	0.00	0.003	O	|	|	|	|	0.00
191.333	0.00	0.00	0.003	O	|	|	|	|	0.00
191.417	0.00	0.00	0.003	O	|	|	|	|	0.00
191.500	0.00	0.00	0.003	O	|	|	|	|	0.00
191.583	0.00	0.00	0.003	O	|	|	|	|	0.00
191.667	0.00	0.00	0.003	O	|	|	|	|	0.00
191.750	0.00	0.00	0.003	O	|	|	|	|	0.00
191.833	0.00	0.00	0.003	O	|	|	|	|	0.00
191.917	0.00	0.00	0.003	O	|	|	|	|	0.00
192.000	0.00	0.00	0.003	O	|	|	|	|	0.00
192.083	0.00	0.00	0.003	O	|	|	|	|	0.00
192.167	0.00	0.00	0.003	O	|	|	|	|	0.00
192.250	0.00	0.00	0.003	O	|	|	|	|	0.00
192.333	0.00	0.00	0.003	O	|	|	|	|	0.00
192.417	0.00	0.00	0.003	O	|	|	|	|	0.00
192.500	0.00	0.00	0.003	O	|	|	|	|	0.00
192.583	0.00	0.00	0.003	O	|	|	|	|	0.00
192.667	0.00	0.00	0.003	O	|	|	|	|	0.00
192.750	0.00	0.00	0.003	O	|	|	|	|	0.00
192.833	0.00	0.00	0.003	O	|	|	|	|	0.00
192.917	0.00	0.00	0.003	O	|	|	|	|	0.00
193.000	0.00	0.00	0.003	O	|	|	|	|	0.00
193.083	0.00	0.00	0.003	O	|	|	|	|	0.00
193.167	0.00	0.00	0.003	O	|	|	|	|	0.00

193.250	0.00	0.00	0.003	O	|	|	|	|	0.00
193.333	0.00	0.00	0.003	O	|	|	|	|	0.00
193.417	0.00	0.00	0.003	O	|	|	|	|	0.00
193.500	0.00	0.00	0.003	O	|	|	|	|	0.00
193.583	0.00	0.00	0.003	O	|	|	|	|	0.00
193.667	0.00	0.00	0.003	O	|	|	|	|	0.00
193.750	0.00	0.00	0.003	O	|	|	|	|	0.00
193.833	0.00	0.00	0.003	O	|	|	|	|	0.00
193.917	0.00	0.00	0.003	O	|	|	|	|	0.00
194.000	0.00	0.00	0.003	O	|	|	|	|	0.00
194.083	0.00	0.00	0.003	O	|	|	|	|	0.00
194.167	0.00	0.00	0.003	O	|	|	|	|	0.00
194.250	0.00	0.00	0.003	O	|	|	|	|	0.00
194.333	0.00	0.00	0.003	O	|	|	|	|	0.00
194.417	0.00	0.00	0.003	O	|	|	|	|	0.00
194.500	0.00	0.00	0.003	O	|	|	|	|	0.00
194.583	0.00	0.00	0.003	O	|	|	|	|	0.00
194.667	0.00	0.00	0.003	O	|	|	|	|	0.00
194.750	0.00	0.00	0.003	O	|	|	|	|	0.00
194.833	0.00	0.00	0.003	O	|	|	|	|	0.00
194.917	0.00	0.00	0.003	O	|	|	|	|	0.00
195.000	0.00	0.00	0.003	O	|	|	|	|	0.00
195.083	0.00	0.00	0.003	O	|	|	|	|	0.00
195.167	0.00	0.00	0.003	O	|	|	|	|	0.00
195.250	0.00	0.00	0.003	O	|	|	|	|	0.00
195.333	0.00	0.00	0.003	O	|	|	|	|	0.00
195.417	0.00	0.00	0.003	O	|	|	|	|	0.00
195.500	0.00	0.00	0.003	O	|	|	|	|	0.00
195.583	0.00	0.00	0.003	O	|	|	|	|	0.00
195.667	0.00	0.00	0.003	O	|	|	|	|	0.00
195.750	0.00	0.00	0.003	O	|	|	|	|	0.00
195.833	0.00	0.00	0.003	O	|	|	|	|	0.00
195.917	0.00	0.00	0.003	O	|	|	|	|	0.00
196.000	0.00	0.00	0.003	O	|	|	|	|	0.00
196.083	0.00	0.00	0.003	O	|	|	|	|	0.00
196.167	0.00	0.00	0.003	O	|	|	|	|	0.00
196.250	0.00	0.00	0.003	O	|	|	|	|	0.00
196.333	0.00	0.00	0.003	O	|	|	|	|	0.00
196.417	0.00	0.00	0.003	O	|	|	|	|	0.00
196.500	0.00	0.00	0.003	O	|	|	|	|	0.00
196.583	0.00	0.00	0.003	O	|	|	|	|	0.00
196.667	0.00	0.00	0.003	O	|	|	|	|	0.00
196.750	0.00	0.00	0.003	O	|	|	|	|	0.00
196.833	0.00	0.00	0.003	O	|	|	|	|	0.00
196.917	0.00	0.00	0.003	O	|	|	|	|	0.00
197.000	0.00	0.00	0.003	O	|	|	|	|	0.00
197.083	0.00	0.00	0.003	O	|	|	|	|	0.00
197.167	0.00	0.00	0.003	O	|	|	|	|	0.00
197.250	0.00	0.00	0.003	O	|	|	|	|	0.00
197.333	0.00	0.00	0.003	O	|	|	|	|	0.00
197.417	0.00	0.00	0.003	O	|	|	|	|	0.00
197.500	0.00	0.00	0.003	O	|	|	|	|	0.00
197.583	0.00	0.00	0.003	O	|	|	|	|	0.00
197.667	0.00	0.00	0.003	O	|	|	|	|	0.00
197.750	0.00	0.00	0.003	O	|	|	|	|	0.00
197.833	0.00	0.00	0.003	O	|	|	|	|	0.00
197.917	0.00	0.00	0.003	O	|	|	|	|	0.00
198.000	0.00	0.00	0.003	O	|	|	|	|	0.00
198.083	0.00	0.00	0.003	O	|	|	|	|	0.00
198.167	0.00	0.00	0.003	O	|	|	|	|	0.00
198.250	0.00	0.00	0.003	O	|	|	|	|	0.00
198.333	0.00	0.00	0.003	O	|	|	|	|	0.00
198.417	0.00	0.00	0.003	O	|	|	|	|	0.00

198.500	0.00	0.00	0.003	O	|	|	|	|	0.00
198.583	0.00	0.00	0.003	O	|	|	|	|	0.00
198.667	0.00	0.00	0.003	O	|	|	|	|	0.00
198.750	0.00	0.00	0.003	O	|	|	|	|	0.00
198.833	0.00	0.00	0.003	O	|	|	|	|	0.00
198.917	0.00	0.00	0.003	O	|	|	|	|	0.00
199.000	0.00	0.00	0.003	O	|	|	|	|	0.00
199.083	0.00	0.00	0.003	O	|	|	|	|	0.00
199.167	0.00	0.00	0.003	O	|	|	|	|	0.00
199.250	0.00	0.00	0.003	O	|	|	|	|	0.00
199.333	0.00	0.00	0.003	O	|	|	|	|	0.00
199.417	0.00	0.00	0.003	O	|	|	|	|	0.00
199.500	0.00	0.00	0.003	O	|	|	|	|	0.00
199.583	0.00	0.00	0.003	O	|	|	|	|	0.00
199.667	0.00	0.00	0.003	O	|	|	|	|	0.00
199.750	0.00	0.00	0.003	O	|	|	|	|	0.00
199.833	0.00	0.00	0.003	O	|	|	|	|	0.00
199.917	0.00	0.00	0.002	O	|	|	|	|	0.00
200.000	0.00	0.00	0.002	O	|	|	|	|	0.00
200.083	0.00	0.00	0.002	O	|	|	|	|	0.00
200.167	0.00	0.00	0.002	O	|	|	|	|	0.00
200.250	0.00	0.00	0.002	O	|	|	|	|	0.00
200.333	0.00	0.00	0.002	O	|	|	|	|	0.00
200.417	0.00	0.00	0.002	O	|	|	|	|	0.00
200.500	0.00	0.00	0.002	O	|	|	|	|	0.00
200.583	0.00	0.00	0.002	O	|	|	|	|	0.00
200.667	0.00	0.00	0.002	O	|	|	|	|	0.00
200.750	0.00	0.00	0.002	O	|	|	|	|	0.00
200.833	0.00	0.00	0.002	O	|	|	|	|	0.00
200.917	0.00	0.00	0.002	O	|	|	|	|	0.00
201.000	0.00	0.00	0.002	O	|	|	|	|	0.00
201.083	0.00	0.00	0.002	O	|	|	|	|	0.00
201.167	0.00	0.00	0.002	O	|	|	|	|	0.00
201.250	0.00	0.00	0.002	O	|	|	|	|	0.00
201.333	0.00	0.00	0.002	O	|	|	|	|	0.00
201.417	0.00	0.00	0.002	O	|	|	|	|	0.00
201.500	0.00	0.00	0.002	O	|	|	|	|	0.00
201.583	0.00	0.00	0.002	O	|	|	|	|	0.00
201.667	0.00	0.00	0.002	O	|	|	|	|	0.00
201.750	0.00	0.00	0.002	O	|	|	|	|	0.00
201.833	0.00	0.00	0.002	O	|	|	|	|	0.00
201.917	0.00	0.00	0.002	O	|	|	|	|	0.00
202.000	0.00	0.00	0.002	O	|	|	|	|	0.00
202.083	0.00	0.00	0.002	O	|	|	|	|	0.00
202.167	0.00	0.00	0.002	O	|	|	|	|	0.00
202.250	0.00	0.00	0.002	O	|	|	|	|	0.00
202.333	0.00	0.00	0.002	O	|	|	|	|	0.00
202.417	0.00	0.00	0.002	O	|	|	|	|	0.00
202.500	0.00	0.00	0.002	O	|	|	|	|	0.00
202.583	0.00	0.00	0.002	O	|	|	|	|	0.00
202.667	0.00	0.00	0.002	O	|	|	|	|	0.00

Remaining water in basin = 0.00 (Ac.Ft)

**********HYDROGRAPH DATA**********

Number of intervals = 2432
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 0.585 (CFS)
Total volume = 1.895 (Ac.Ft)

Status of hydrographs being held in storage

Stream 1	Stream 2	Stream 3	Stream 4	Stream 5

Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

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APPENDIX K: BACKUP CALCULATIONS
RATIONAL, UNIT HYDROGRAPH, AND BASIN ROUTING

Detention Basin Design

Arantine Hills - Detention Basin A

Basin Design Parameters	
Bottom Length (ft)	420.0
Bottom Width (ft)	346.0
Surface Length (ft)	516.0
Surface Width (ft)	442.0
Basin Depth (ft)	10.0
Basin Depth + Freeboard (ft)	12.0
Side Slope (Z:1)	4
Basin Volume @ Spillway (ft^3)	**1,866,960**
Basin Volume @ Spillway (ac-ft)	**42.86**

Orifice Factors	
Orifice Coefficient	0.6
Clogging Factor	1.0

Orifice Design Parameters	BMP	Row 1	Row 2	Row 3	Row 4
Orifice Diameter (in.)	2.00	4.00	4.00	4.00	4.00
Number of Orifices	3	1	2	4	4
Total Orifice Area (sf)	0.065	0.09	0.17	0.35	0.35
Horiz. Spacing (in.)		109.1	52.5	24.3	24.3

Riser Design Parameters		Grate Design	
Riser Dia. (in.)	36	Eff. Circumference %	95%
Riser Dia. (ft)	3.0	Eff. Circumference (ft)	8.95
Riser Circumference (ft)	9.42	Blocked Distance Req'd (ft)	0.47
		Rebar Size No.	**3**
		Bar Diameter (in.)	0.375
		Bar Diameter (ft)	0.0313
		No. of Bars	**15**
		Blocked Distance (ft)	0.47
		Rebar Spacing O.C. (in.)	**7.54**

Emergency Spillway Design		
Spillway Elevation (ft)	10.00	
Flow Depth, weir head (ft)	2.00	
Length of Spillway, weir width (ft)	107.0	
Spillway Outflow Capacity (cfs) [1]	**934.25**	≥ 363.0 cfs **OK**

	BMP	Row 1	Row 2	Row 3	Row 4	Top
Riser Head @ Spillway WSE (ft)	11.96	10.38	9.46	8.63	7.79	4.63
Riser Outflow @ Spillway WSE (cfs)	1.09	1.35	2.58	4.94	4.69	382.51
Total Riser Outflow @ Spillway WSE (cfs)	**397.16**					

Basin Max. Depth (ft)	**12.00**
Basin Max. Vol. (ac-ft)	**51.43**
Basin Max. Outflow (cfs)	**1,331.42**

References

[1] Brater and King, Eq. 5-53

Water Surface Elevation	WSE (ft)	Orifice Location	Surface Length (ft)	Surface Width (ft)	Surface Area (ft)	Layer Volume (cubic ft)	Cum. Volume (cubic ft)	Cum. Volume (ac-ft)	Orifice Head (ft)						Orifice Discharge (cfs)						Total Riser Discharge (cfs)	Layer Drain Time	Cum. Drain Time (hrs)
									BMP	ROW 1	ROW 2	ROW 3	ROW 4	TOP OF RISER	BMP	ROW 1	ROW 2	ROW 3	ROW 4	TOP OF RISER			
10' 0"	10.00		500.00	426.00	213,000																		
9' 11"	9.92		499.33	425.33	212,383	17,724	1,780,934	40.88	9.96	8.38	7.46	6.63	5.79	2.63	0.99	1.22	2.30	4.33	4.04	217.10	229.98	1.28	0.02
9' 10"	9.83		498.67	424.67	211,767	17,673	1,763,210	40.48	9.88	8.29	7.38	6.54	5.71	2.54	0.99	1.21	2.28	4.30	4.02	210.21	223.00	1.32	0.04
9' 9"	9.75		498.00	424.00	211,152	17,622	1,745,537	40.07	9.79	8.21	7.29	6.46	5.63	2.46	0.99	1.20	2.27	4.27	3.99	203.32	216.03	1.36	0.07
9' 8"	9.67		497.33	423.33	210,538	17,570	1,727,915	39.67	9.71	8.13	7.21	6.38	5.54	2.38	0.98	1.20	2.26	4.24	3.96	196.42	209.06	1.40	0.09
9' 7"	9.58		496.67	422.67	209,924	17,519	1,710,345	39.26	9.63	8.04	7.13	6.29	5.46	2.29	0.98	1.19	2.24	4.22	3.93	189.53	202.09	1.44	0.11
9' 6"	9.50		496.00	422.00	209,312	17,468	1,692,826	38.86	9.54	7.96	7.04	6.21	5.38	2.21	0.97	1.19	2.23	4.19	3.90	182.64	195.11	1.49	0.14
9' 5"	9.42		495.33	421.33	208,700	17,417	1,675,357	38.46	9.46	7.88	6.96	6.13	5.29	2.13	0.97	1.18	2.22	4.16	3.87	175.75	188.14	1.54	0.16
9' 4"	9.33		494.67	420.67	208,090	17,366	1,657,940	38.06	9.38	7.79	6.88	6.04	5.21	2.04	0.96	1.17	2.20	4.13	3.84	168.85	181.16	1.60	0.19
9' 3"	9.25		494.00	420.00	207,480	17,315	1,640,574	37.66	9.29	7.71	6.79	5.96	5.12	1.96	0.96	1.17	2.19	4.10	3.80	161.96	174.19	1.66	0.22
9' 2"	9.17		493.33	419.33	206,871	17,265	1,623,259	37.26	9.21	7.63	6.71	5.88	5.04	1.88	0.96	1.16	2.18	4.07	3.77	155.07	167.21	1.72	0.25
9' 1"	9.08		492.67	418.67	206,263	17,214	1,605,994	36.87	9.12	7.54	6.62	5.79	4.96	1.79	0.95	1.15	2.16	4.04	3.74	148.18	160.24	1.79	0.28
8' 12"	9.00		492.00	418.00	205,656	17,163	1,588,780	36.47	9.04	7.46	6.54	5.71	4.87	1.71	0.95	1.15	2.15	4.02	3.71	141.29	153.26	1.87	0.31
8' 11"	8.92		491.33	417.33	205,050	17,113	1,571,617	36.08	8.96	7.37	6.46	5.62	4.79	1.63	0.94	1.14	2.14	3.99	3.68	134.39	146.28	1.95	0.34
8' 10"	8.83		490.67	416.67	204,444	17,062	1,554,504	35.69	8.87	7.29	6.37	5.54	4.71	1.54	0.94	1.13	2.12	3.96	3.65	127.50	139.30	2.04	0.37
8' 9"	8.75		490.00	416.00	203,840	17,012	1,537,442	35.29	8.79	7.21	6.29	5.46	4.62	1.46	0.93	1.13	2.11	3.93	3.61	120.61	132.32	2.14	0.41
8' 8"	8.67		489.33	415.33	203,236	16,962	1,520,430	34.90	8.71	7.12	6.21	5.37	4.54	1.38	0.93	1.12	2.09	3.90	3.58	113.72	125.34	2.26	0.45
8' 7"	8.58		488.67	414.67	202,634	16,911	1,503,468	34.51	8.62	7.04	6.12	5.29	4.46	1.29	0.93	1.12	2.08	3.87	3.55	106.83	118.36	2.38	0.49
8' 6"	8.50		488.00	414.00	202,032	16,861	1,486,557	34.13	8.54	6.96	6.04	5.21	4.37	1.21	0.92	1.11	2.07	3.84	3.52	99.93	111.38	2.52	0.53
8' 5"	8.42		487.33	413.33	201,431	16,811	1,469,696	33.74	8.46	6.87	5.96	5.12	4.29	1.13	0.92	1.10	2.05	3.80	3.48	93.04	104.40	2.68	0.57
8' 4"	8.33		486.67	412.67	200,831	16,761	1,452,885	33.35	8.37	6.79	5.87	5.04	4.21	1.04	0.91	1.10	2.04	3.77	3.45	86.15	97.42	2.87	0.62
8' 3"	8.25		486.00	412.00	200,232	16,711	1,436,124	32.97	8.29	6.71	5.79	4.96	4.12	0.96	0.91	1.09	2.02	3.74	3.41	79.26	90.43	3.08	0.67
8' 2"	8.17		485.33	411.33	199,634	16,661	1,419,413	32.59	8.21	6.62	5.71	4.87	4.04	0.87	0.90	1.08	2.01	3.71	3.38	72.37	83.45	3.33	0.73
8' 1"	8.08		484.67	410.67	199,036	16,611	1,402,752	32.20	8.12	6.54	5.62	4.79	3.96	0.79	0.90	1.07	1.99	3.68	3.34	65.47	76.46	3.62	0.79
8' 12"	8.00		484.00	410.00	198,440	16,562	1,386,141	31.82	8.04	6.46	5.54	4.71	3.87	0.71	0.89	1.07	1.98	3.65	3.31	58.58	69.48	3.97	0.86
7' 11"	7.92		483.33	409.33	197,844	16,512	1,369,579	31.44	7.96	6.37	5.46	4.62	3.79	0.62	0.89	1.06	1.96	3.61	3.27	51.69	62.49	4.40	0.93
7' 10"	7.83		482.67	408.67	197,250	16,462	1,353,067	31.06	7.87	6.29	5.37	4.54	3.71	0.54	0.88	1.05	1.95	3.58	3.24	44.80	55.50	4.94	1.01
7' 9"	7.75		482.00	408.00	196,656	16,413	1,336,605	30.68	7.79	6.21	5.29	4.46	3.62	0.46	0.88	1.05	1.93	3.55	3.20	37.91	48.51	5.64	1.11
7' 8"	7.67		481.33	407.33	196,063	16,363	1,320,192	30.31	7.71	6.12	5.21	4.37	3.54	0.37	0.87	1.04	1.92	3.52	3.16	31.01	41.53	6.57	1.21
7' 7"	7.58		480.67	406.67	195,471	16,314	1,303,829	29.93	7.62	6.04	5.12	4.29	3.46	0.29	0.87	1.03	1.90	3.48	3.13	24.12	34.54	7.87	1.35
7' 6"	7.50		480.00	406.00	194,880	16,265	1,287,515	29.56	7.54	5.96	5.04	4.21	3.37	0.21	0.87	1.03	1.89	3.45	3.09	17.23	27.54	9.84	1.51
7' 5"	7.42		479.33	405.33	194,290	16,215	1,271,251	29.18	7.46	5.87	4.96	4.12	3.29	0.12	0.86	1.02	1.87	3.41	3.05	10.34	20.55	13.15	1.73
7' 4"	7.33	**TOP OF RISER**	478.67	404.67	193,700	16,166	1,255,035	28.81	7.37	5.79	4.87	4.04	3.21	0.04	0.86	1.01	1.86	3.38	3.01	3.45	13.56	19.87	2.06
7' 3"	7.25		478.00	404.00	193,112	16,117	1,238,869	28.44	7.29	5.71	4.79	3.96	3.12		0.85	1.00	1.84	3.34	2.97		10.01	26.84	2.51
7' 2"	7.17		477.33	403.33	192,524	16,068	1,222,752	28.07	7.21	5.62	4.71	3.87	3.04		0.85	1.00	1.82	3.31	2.93		9.91	27.03	2.96
7' 1"	7.08		476.67	402.67	191,938	16,019	1,206,684	27.70	7.12	5.54	4.62	3.79	2.96		0.84	0.99	1.81	3.27	2.89		9.80	27.24	3.41
6' 12"	7.00		476.00	402.00	191,352	15,970	1,190,664	27.33	7.04	5.46	4.54	3.71	2.87		0.84	0.98	1.79	3.24	2.85		9.70	27.45	3.87
6' 11"	6.92		475.33	401.33	190,767	15,922	1,174,694	26.97	6.96	5.37	4.46	3.62	2.79		0.83	0.97	1.77	3.20	2.81		9.59	27.68	4.33
6' 10"	6.83		474.67	400.67	190,183	15,873	1,158,772	26.60	6.87	5.29	4.37	3.54	2.71		0.83	0.97	1.76	3.16	2.77		9.48	27.91	4.80
6' 9"	6.75		474.00	400.00	189,600	15,824	1,142,899	26.24	6.79	5.21	4.29	3.46	2.62		0.82	0.96	1.74	3.13	2.72		9.37	28.15	5.27
6' 8"	6.67		473.33	399.33	189,018	15,776	1,127,075	25.87	6.71	5.12	4.21	3.37	2.54		0.82	0.95	1.72	3.09	2.68		9.26	28.40	5.74
6' 7"	6.58		472.67	398.67	188,436	15,727	1,111,299	25.51	6.62	5.04	4.12	3.29	2.46		0.81	0.94	1.71	3.05	2.64		9.15	28.66	6.22
6' 6"	6.50		472.00	398.00	187,856	15,679	1,095,572	25.15	6.54	4.96	4.04	3.21	2.37		0.81	0.94	1.69	3.01	2.59		9.03	28.93	6.70
6' 5"	6.42		471.33	397.33	187,276	15,631	1,079,893	24.79	6.46	4.87	3.96	3.12	2.29		0.80	0.93	1.67	2.97	2.54		8.92	29.22	7.19
6' 4"	6.33		470.67	396.67	186,698	15,582	1,064,263	24.43	6.37	4.79	3.87	3.04	2.21		0.80	0.92	1.65	2.93	2.50		8.80	29.52	7.68
6' 3"	6.25		470.00	396.00	186,120	15,534	1,048,680	24.07	6.29	4.71	3.79	2.96	2.12		0.79	0.91	1.64	2.89	2.45		8.68	29.83	8.17
6' 2"	6.17		469.33	395.33	185,543	15,486	1,033,146	23.72	6.21	4.63	3.71	2.87	2.04		0.79	0.90	1.62	2.85	2.40		8.56	30.16	8.68
6' 1"	6.08		468.67	394.67	184,967	15,438	1,017,660	23.36	6.12	4.54	3.62	2.79	1.96		0.78	0.90	1.60	2.81	2.35		8.44	30.50	9.19
5' 12"	6.00		468.00	394.00	184,392	15,390	1,002,222	23.01	6.04	4.46	3.54	2.71	1.87		0.77	0.89	1.58	2.77	2.30		8.31	30.86	9.70
5' 11"	5.92		467.33	393.33	183,818	15,342	986,832	22.65	5.96	4.38	3.46	2.62	1.79		0.77	0.88	1.56	2.72	2.25		8.18	31.24	10.22
5' 10"	5.83		466.67	392.67	183,244	15,294	971,490	22.30	5.88	4.29	3.38	2.54	1.71		0.76	0.87	1.54	2.68	2.20		8.05	31.65	10.75
5' 9"	5.75		466.00	392.00	182,672	15,247	956,196	21.95	5.79	4.21	3.29	2.46	1.62		0.76	0.86	1.52	2.64	2.14		7.92	32.07	11.28
5' 8"	5.67		465.33	391.33	182,100	15,199	940,950	21.60	5.71	4.13	3.21	2.38	1.54		0.75	0.85	1.51	2.59	2.09		7.79	32.52	11.82
5' 7"	5.58		464.67	390.67	181,530	15,151	925,751	21.25	5.63	4.04	3.13	2.29	1.46		0.75	0.84	1.49	2.54	2.03		7.65	33.00	12.37
5' 6"	5.50		464.00	390.00	180,960	15,104	910,599	20.90	5.54	3.96	3.04	2.21	1.38		0.74	0.84	1.47	2.50	1.97		7.51	33.51	12.93
5' 5"	5.42		463.33	389.33	180,391	15,056	895,496	20.56	5.46	3.88	2.96	2.13	1.29		0.74	0.83	1.45	2.45	1.91		7.37	34.05	10.27
5' 4"	5.33		462.67	388.67	179,823	15,009	880,439	20.21	5.38	3.79	2.88	2.04	1.21		0.73	0.82	1.42	2.40	1.85		7.22	34.63	10.84
5' 3"	5.25		462.00	388.00	179,256	14,962	865,431	19.87	5.29	3.71	2.79	1.96	1.13		0.72	0.81	1.40	2.35	1.78		7.07	35.26	11.43
5' 2"	5.17		461.33	387.33	178,690	14,914	850,469	19.52	5.21	3.63	2.71	1.88	1.04		0.72	0.80	1.38	2.30	1.72		6.92	35.93	12.03
5' 1"	5.08		460.67	386.67	178,124	14,867	835,554	19.18	5.13	3.54	2.63	1.79	0.96		0.71	0.79	1.36	2.25	1.65		6.76	36.65	12.64
5' 0"	5.00		460.00	386.00	177,560	14,820	820,687	18.84	5.04	3.46	2.54	1.71	0.87		0.71	0.78	1.34	2.20	1.57		6.60	37.44	13.27
4' 11"	4.92		459.33	385.33	176,996	14,773	805,867	18.50	4.96	3.38	2.46	1.63	0.79		0.70	0.77	1.32	2.14	1.50		6.43	38.30	7.34
4' 10"	4.83		458.67	384.67	176,434	14,726	791,094	18.16	4.88	3.29	2.38	1.54	0.71		0.70	0.76	1.30	2.09	1.41		6.25	39.24	7.99
4' 9"	4.75		458.00	384.00	175,872	14,679	776,368	17.82	4.79	3.21	2.29	1.46	0.62		0.69	0.75	1.27	2.03	1.33		6.07	40.29	8.66
4' 8"	4.67		457.33	383.33	175,311	14,633	761,688	17.49	4.71	3.13	2.21	1.38	0.54		0.68	0.74	1.25	1.97	1.24		5.88	41.45	9.35
4' 7"	4.58		456.67	382.67	174,751	14,586	747,056	17.15	4.63	3.04	2.13	1.29	0.46		0.68	0.73	1.23	1.91	1.14		5.68	42.77	10.07
4' 6"	4.50		456.00	382.00	174,192	14,539	732,470	16.82	4.54	2.96	2.04	1.21	0.37		0.67	0.72	1.20	1.85	1.03		5.47	44.28	10.80
4' 5"	4.42		455.33	381.33	173,634	14,493	717,930	16.48	4.46	2.88	1.96	1.13	0.29		0.67	0.71	1.18	1.78	0.91		5.24	46.06	11.57
4' 4"	4.33		454.67	380.67	173,076	14,446	703,438	16.15	4.38	2.79	1.88	1.04	0.21		0.66	0.70	1.15	1.72	0.77		4.99	48.21	12.37
4' 3"	4.25		454.00	380.00	172,520	14,400	688,991	15.82	4.29	2.71	1.79	0.96	0.12		0.65	0.69	1.12	1.65	0.59		4.71	50.97	13.22
4' 2"	4.17	**Row 4**	453.33	379.33	171,964	14,354	674,591	15.49	4.21	2.63	1.71	0.88	0.04		0.65	0.68	1.10	1.57	0.34		4.34	55.11	14.14
4' 1"	4.08		452.67	378.67	171,410	14,307	660,238	15.16	4.13	2.54	1.63	0.79			0.64	0.67	1.07	1.50			3.88	61.51	15.17
4' 0"	4.00		452.00	378.00	170,856	14,261	645,931	14.83	4.04	2.46	1.54	0.71			0.63	0.66	1.04	1.41			3.75	63.38	16.22
3' 11"	3.92		451.33	377.33	170,303	14,215	631,670	14.50	3.96	2.38	1.46	0.63			0.63	0.65	1.01	1.33			3.62	65.48	11.90
3' 10"	3.83		450.67	376.67	169,751	14,169	617,455	14.17	3.88	2.29	1.38	0.54			0.62	0.64	0.99	1.24			3.48	67.88	13.03
3' 9"	3.75		450.00	376.00	169,200	14,123	603,286	13.85	3.79	2.21	1.29	0.46			0.61	0.62	0.96	1.14			3.33	70.66	14.20
3' 8"	3.67		449.33	375.33	168,650	14,077	589,163	13.53	3.71	2.13	1.21	0.38			0.61	0.61	0.92	1.03			3.17	73.96	15.44
3' 7"	3.58		448.67	374.67	168,100	14,031	575,086	13.20	3.63	2.04	1.13	0.29			0.60	0.60	0.89	0.91			3.00	77.97	16.74
3' 6"	3.50		448.00	374.00	167,552	13,986	561,054	12.88	3.54	1.96	1.04	0.21			0.59	0.59	0.86	0.77			2.81	83.07	18.12
3' 5"	3.42		447.33	373.33	167,004	13,940	547,069	12.56	3.46	1.88	0.96	0.13			0.59	0.58	0.82	0.59			2.58	90.11	19.62
3' 4"	3.33	**Row 3**	446.67	372.67	166,458	13,894	533,129	12.24	3.38	1.79	0.88	0.04			0.58	0.56	0.79	0.34			2.27	101.99	21.32
3' 3"	3.25		446.00	372.00	165,912	13,849	519,235	11.92	3.29	1.71	0.79				0.57	0.55	0.75				1.87	123.52	23.38
3' 2"	3.17		445.33	371.33	165,367	13,803	505,386	11.60	3.21	1.63	0.71				0.56	0.54	0.71				1.81	127.29	25.50
3' 1"	3.08		444.67	370.67	164,823	13,758	491,583	11.29	3.13	1.54	0.63				0.56	0.52	0.66				1.74	131.54	27.69
3' 0"	3.00		444.00	370.00	164,280	13,713	477,825	10.97	3.04	1.46	0.54				0.55	0.51	0.62				1.68	136.40	29.97
2' 11"	2.92		443.33	369.33	163,738	13,667	464,112	10.65	2.96	1.38	0.46				0.54	0.49	0.57				1.60	142.04	20.49
2' 10"	2.83		442.67	368.67	163,196	13,622	450,445	10.34	2.88	1.29	0.38				0.53	0.48	0.51				1.53	148.73	22.97
2' 9"	2.75		442.00	368.00	162,656	13,577	436,823	10.03	2.79	1.21	0.29				0.53	0.46	0.45				1.44	156.89	25.58
2' 8"	2.67		441.33	367.33	162,116	13,532	423,245	9.72	2.71	1.13	0.21				0.52	0.45	0.38				1.35	167.33	28.37
2' 7"	2.58		440.67	366.67	161,578	13,487	409,713	9.41	2.63	1.04	0.13				0.51	0.43	0.30				1.24	181.79	31.40
2' 6"	2.50	**Row 2**	440.00	366.00	161,040	13,442	396,226	9.10	2.54	0.96	0.04				0.50	0.41	0.17				1.09	206.43	34.84
2' 5"	2.42		439.33	365.33	160,503	13,398	382,784	8.79	2.46	0.88					0.49	0.39					0.89	251.70	39.04
2' 4"	2.33		438.67	364.67	159,967	13,353	369,386	8.48	2.38	0.79					0.49	0.37					0.86	258.92	43.35
2' 3"	2.25		438.00	364.00	159,432	13,308	356,033	8.17	2.29	0.71					0.48	0.35					0.83	267.01	47.80
2' 2"	2.17		437.33	363.33	158,898	13,264	342,725	7.87	2.21	0.63					0.47	0.33					0.80	276.16	52.40
2' 1"	2.08		436.67	362.67	158,364	13,219	329,461	7.56	2.13	0.54					0.46	0.31					0.77	286.64	57.18
2' 0"	2.00		436.00	362.00	157,832	13,175	316,242	7.26	2.04	0.46					0.45	0.28					0.73	298.85	62.16
1' 11"	1.92		435.33	361.33	157,300	13,131	303,067	6.96	1.96	0.38					0.44	0.26					0.70	313.38	67.39
1' 10"	1.83		434.67	360.67	156,770	13,086	289,936	6.66	1.88	0.29					0.43	0.23					0.66	331.24	72.91
1' 9"	1.75		434.00	360.00	156,240	13,042	276,850	6.36	1.79	0.21					0.42	0.19					0.61	354.24	78.81
1' 8"	1.67		433.33	359.33	155,711	12,998	263,808	6.06	1.71	0.13					0.41	0.15					0.56	386.53	85.25
1' 7"	1.58	**Row 1**	432.67	358.67	155,183	12,954	250,810	5.76	1.63	0.04					0.40	0.09					0.49	442.87	92.63
1' 6"	1.50		432.00	358.00	154,656	12,910	237,856	5.46	1.54						0.39						0.39	549.89	101.80
1' 5"	1.42		431.33	357.33	154,130	12,866	224,946	5.16	1.46						0.38						0.38	563.46	111.19
1' 4"	1.33		430.67	356.67	153,604	12,822	212,080	4.87	1.38						0.37						0.37	578.31	120.83
1' 3"	1.25		430.00	356.00	153,080	12,779	199,258	4.57	1.29						0.36						0.36	594.64	130.74
1' 2"	1.17		429.33	355.33	152,556	12,735	186,479	4.28	1.21						0.35						0.35	612.70	140.95
1' 1"	1.08		428.67	354.67	152,034	12,691	173,744	3.99	1.13						0.33						0.33	632.81	151.50
0' 12"	1.00		428.00	354.00	151,512	12,648	161,053	3.70	1.04						0.32						0.32	655.38	162.42
0' 11"	0.92		427.33	353.33	150,991	12,604	148,405	3.41	0.96						0.31						0.31	680.94	173.77
0' 10"	0.83		426.67	352.67	150,471	12,561	135,801	3.12	0.88						0.29						0.29	710.17	185.60
0' 9"	0.75		426.00	352.00	149,952	12,518	123,240	2.83	0.79						0.28						0.28	744.04	198.01
0' 8"	0.67		425.33	351.33	149,434	12,474	110,723	2.54	0.71						0.27						0.27	783.88	211.07
0' 7"	0.58		424.67	350.67	148,916	12,431	98,248	2.26	0.63						0.25						0.25	831.61	224.93
0' 6"	0.50

Detention Basin Design

Arantine Hills - Detention Basin B

Basin Design Parameters	
Bottom Length (ft)	330.0
Bottom Width (ft)	115.0
Surface Length (ft)	378.0
Surface Width (ft)	163.0
Basin Depth (ft)	5.0
Basin Depth + Freeboard (ft)	6.0
Side Slope (Z:1)	4
Basin Volume @ Spillway (ft^3)	**248,910**
Basin Volume @ Spillway (ac-ft)	**5.71**

Orifice Factors	
Orifice Coefficient	0.6
Clogging Factor	1.0

Orifice Design Parameters	BMP	Row 1	Row 2	Row 3	Row 4
Orifice Diameter (in.)	2.00	2.00	2.00	2.00	2.00
Number of Orifices	3	3	3	3	3
Total Orifice Area (sf)	0.07	0.07	0.07	0.07	0.07
Horiz. Spacing (in.)		16.8	16.8	16.8	16.8

Riser Design Parameters	
Riser Dia. (in.)	18
Riser Dia. (ft)	1.5
Riser Circumference (ft)	4.71

Grate Design	
Eff. Circumference %	100%
Eff. Circumference (ft)	4.71
Blocked Distance Req'd (ft)	0.00
Rebar Size No.	**3**
Bar Diameter (in.)	0.375
Bar Diameter (ft)	0.0313
No. of Bars	**0**
Blocked Distance (ft)	0.00
Rebar Spacing O.C. (in.)	**#DIV/0!**

Emergency Spillway Design			
Spillway Elevation (ft)	5.00		
Flow Depth, weir head (ft)	1.00		
Length of Spillway, weir width (ft)	13.0		
Spillway Outflow Capacity (cfs) [1]	**40.13**	≥ 36.1 cfs	**OK**

	BMP	Row 1	Row 2	Row 3	Row 4	Top
Riser Head @ Spillway WSE (ft)	5.96	4.88	4.13	3.38	2.88	2.63
Riser Outflow @ Spillway WSE (cfs)	0.77	0.70	0.64	0.58	0.53	82.89
Total Riser Outflow @ Spillway WSE (cfs)	**86.11**					

Basin Max. Depth (ft)	**6.00**
Basin Max. Vol. (ac-ft)	**6.86**
Basin Max. Outflow (cfs)	**126.24**

References

[1] Brater and King, Eq. 5-53

Water Surface Elevation	WSE (ft)	Orifice Location	Surface Length (ft)	Surface Width (ft)	Surface Area (ft)	Layer Volume (cubic ft)	Cum. Volume (cubic ft)	Cum. Volume (ac-ft)	Orifice Head (ft)						Orifice Discharge (cfs)						Total Riser Discharge (cfs)
									BMP	ROW 1	ROW 2	ROW 3	ROW 4	TOP OF RISER	BMP	ROW 1	ROW 2	ROW 3	ROW 4	TOP OF RISER	
5' 0"	5.00		370.00	155.00	57,350																
4' 11"	4.92		369.33	154.33	57,000	4,765	236,917	5.44	4.96	3.88	3.13	2.38	1.88	1.63	0.70	0.62	0.56	0.49	0.43	51.32	54.11
4' 10"	4.83		368.67	153.67	56,652	4,736	232,152	5.33	4.88	3.79	3.04	2.29	1.79	1.54	0.70	0.61	0.55	0.48	0.42	48.68	51.44
4' 9"	4.75		368.00	153.00	56,304	4,706	227,417	5.22	4.79	3.71	2.96	2.21	1.71	1.46	0.69	0.61	0.54	0.47	0.41	46.05	48.77
4' 8"	4.67		367.33	152.33	55,957	4,678	222,710	5.11	4.71	3.63	2.88	2.13	1.63	1.38	0.68	0.60	0.53	0.46	0.40	43.42	46.10
4' 7"	4.58		366.67	151.67	55,611	4,649	218,033	5.01	4.63	3.54	2.79	2.04	1.54	1.29	0.68	0.59	0.53	0.45	0.39	40.79	43.43
4' 6"	4.50		366.00	151.00	55,266	4,620	213,384	4.90	4.54	3.46	2.71	1.96	1.46	1.21	0.67	0.59	0.52	0.44	0.38	38.16	40.76
4' 5"	4.42		365.33	150.33	54,922	4,591	208,764	4.79	4.46	3.38	2.63	1.88	1.38	1.13	0.67	0.58	0.51	0.43	0.37	35.53	38.08
4' 4"	4.33		364.67	149.67	54,578	4,563	204,173	4.69	4.38	3.29	2.54	1.79	1.29	1.04	0.66	0.57	0.50	0.42	0.36	32.89	35.41
4' 3"	4.25		364.00	149.00	54,236	4,534	199,611	4.58	4.29	3.21	2.46	1.71	1.21	0.96	0.65	0.56	0.49	0.41	0.35	30.26	32.73
4' 2"	4.17		363.33	148.33	53,894	4,505	195,077	4.48	4.21	3.13	2.38	1.63	1.13	0.88	0.65	0.56	0.49	0.40	0.33	27.63	30.06
4' 1"	4.08		362.67	147.67	53,554	4,477	190,571	4.37	4.13	3.04	2.29	1.54	1.04	0.79	0.64	0.55	0.48	0.39	0.32	25.00	27.38
4' 0"	4.00		362.00	147.00	53,214	4,449	186,094	4.27	4.04	2.96	2.21	1.46	0.96	0.71	0.63	0.54	0.47	0.38	0.31	22.37	24.70
3' 11"	3.92		361.33	146.33	52,875	4,420	181,646	4.17	3.96	2.88	2.13	1.38	0.88	0.63	0.63	0.53	0.46	0.37	0.29	19.74	22.02
3' 10"	3.83		360.67	145.67	52,537	4,392	177,225	4.07	3.88	2.79	2.04	1.29	0.79	0.54	0.62	0.53	0.45	0.36	0.28	17.11	19.34
3' 9"	3.75		360.00	145.00	52,200	4,364	172,833	3.97	3.79	2.71	1.96	1.21	0.71	0.46	0.61	0.52	0.44	0.35	0.27	14.47	16.66
3' 8"	3.67		359.33	144.33	51,864	4,336	168,469	3.87	3.71	2.63	1.88	1.13	0.63	0.38	0.61	0.51	0.43	0.33	0.25	11.84	13.97
3' 7"	3.58		358.67	143.67	51,528	4,308	164,133	3.77	3.63	2.54	1.79	1.04	0.54	0.29	0.60	0.50	0.42	0.32	0.23	9.21	11.29
3' 6"	3.50		358.00	143.00	51,194	4,280	159,825	3.67	3.54	2.46	1.71	0.96	0.46	0.21	0.59	0.49	0.41	0.31	0.21	6.58	8.60
3' 5"	3.42		357.33	142.33	50,860	4,252	155,545	3.57	3.46	2.38	1.63	0.88	0.38	0.13	0.59	0.49	0.40	0.29	0.19	3.95	5.91
3' 4"	3.33	**TOP OF RISER**	356.67	141.67	50,528	4,225	151,293	3.47	3.38	2.29	1.54	0.79	0.29	0.04	0.58	0.48	0.39	0.28	0.17	1.32	3.21
3' 3"	3.25		356.00	141.00	50,196	4,197	147,068	3.38	3.29	2.21	1.46	0.71	0.21		0.57	0.47	0.38	0.27	0.14		1.83
3' 2"	3.17		355.33	140.33	49,865	4,169	142,871	3.28	3.21	2.13	1.38	0.63	0.13		0.56	0.46	0.37	0.25	0.11		1.75
3' 1"	3.08	**Row 4**	354.67	139.67	49,535	4,142	138,702	3.18	3.13	2.04	1.29	0.54	0.04		0.56	0.45	0.36	0.23	0.06		1.66
3' 0"	3.00		354.00	139.00	49,206	4,114	134,560	3.09	3.04	1.96	1.21	0.46			0.55	0.44	0.35	0.21			1.55
2' 11"	2.92		353.33	138.33	48,878	4,087	130,446	2.99	2.96	1.88	1.13	0.38			0.54	0.43	0.33	0.19			1.50
2' 10"	2.83		352.67	137.67	48,550	4,060	126,359	2.90	2.88	1.79	1.04	0.29			0.53	0.42	0.32	0.17			1.45
2' 9"	2.75		352.00	137.00	48,224	4,032	122,300	2.81	2.79	1.71	0.96	0.21			0.53	0.41	0.31	0.14			1.39
2' 8"	2.67		351.33	136.33	47,898	4,005	118,268	2.72	2.71	1.63	0.88	0.13			0.52	0.40	0.29	0.11			1.33
2' 7"	2.58	**Row 3**	350.67	135.67	47,574	3,978	114,263	2.62	2.63	1.54	0.79	0.04			0.51	0.39	0.28	0.06			1.25
2' 6"	2.50		350.00	135.00	47,250	3,951	110,285	2.53	2.54	1.46	0.71				0.50	0.38	0.27				1.15
2' 5"	2.42		349.33	134.33	46,927	3,924	106,334	2.44	2.46	1.38	0.63				0.49	0.37	0.25				1.11
2' 4"	2.33		348.67	133.67	46,605	3,897	102,409	2.35	2.38	1.29	0.54				0.49	0.36	0.23				1.08
2' 3"	2.25		348.00	133.00	46,284	3,870	98,512	2.26	2.29	1.21	0.46				0.48	0.35	0.21				1.04
2' 2"	2.17		347.33	132.33	45,964	3,844	94,642	2.17	2.21	1.13	0.38				0.47	0.33	0.19				1.00
2' 1"	2.08		346.67	131.67	45,644	3,817	90,798	2.08	2.13	1.04	0.29				0.46	0.32	0.17				0.95
2' 0"	2.00		346.00	131.00	45,326	3,790	86,981	2.00	2.04	0.96	0.21				0.45	0.31	0.14				0.90
1' 11"	1.92		345.33	130.33	45,008	3,764	83,191	1.91	1.96	0.87	0.13				0.44	0.29	0.11				0.85
1' 10"	1.83	**Row 2**	344.67	129.67	44,692	3,738	79,427	1.82	1.88	0.79	0.04				0.43	0.28	0.06				0.78
1' 9"	1.75		344.00	129.00	44,376	3,711	75,689	1.74	1.79	0.71					0.42	0.27					0.69
1' 8"	1.67		343.33	128.33	44,061	3,685	71,978	1.65	1.71	0.62					0.41	0.25					0.66
1' 7"	1.58		342.67	127.67	43,747	3,659	68,293	1.57	1.63	0.54					0.40	0.23					0.63
1' 6"	1.50		342.00	127.00	43,434	3,633	64,635	1.48	1.54	0.46					0.39	0.21					0.60
1' 5"	1.42		341.33	126.33	43,122	3,606	61,002	1.40	1.46	0.38					0.38	0.19					0.57
1' 4"	1.33		340.67	125.67	42,810	3,581	57,396	1.32	1.38	0.29					0.37	0.17					0.54
1' 3"	1.25		340.00	125.00	42,500	3,555	53,815	1.24	1.29	0.21					0.36	0.14					0.50
1' 2"	1.17		339.33	124.33	42,190	3,529	50,261	1.15	1.21	0.13					0.35	0.11					0.46
1' 1"	1.08	**Row 1**	338.67	123.67	41,882	3,503	46,732	1.07	1.13	0.04					0.33	0.06					0.40
1' 0"	1.00		338.00	123.00	41,574	3,477	43,229	0.99	1.04						0.32						0.32
0' 11"	0.92		337.33	122.33	41,267	3,452	39,751	0.91	0.96						0.31						0.31
0' 10"	0.83		336.67	121.67	40,961	3,426	36,300	0.83	0.88						0.29						0.29
0' 9"	0.75		336.00	121.00	40,656	3,401	32,874	0.75	0.79						0.28						0.28
0' 8"	0.67		335.33	120.33	40,352	3,375	29,473	0.68	0.71						0.27						0.27
0' 7"	0.58		334.67	119.67	40,048	3,350	26,097	0.60	0.63						0.25						0.25
0' 6"	0.50		334.00	119.00	39,746	3,325	22,747	0.52	0.54						0.23						0.23
0' 5"	0.42		333.33	118.33	39,444	3,300	19,423	0.45	0.46						0.21						0.21
0' 4"	0.33		332.67	117.67	39,144	3,275	16,123	0.37	0.38						0.19						0.19
0' 3"	0.25		332.00	117.00	38,844	3,249	12,849	0.29	0.29						0.17						0.17
0' 2"	0.17		331.33	116.33	38,545	3,225	9,599	0.22	0.21						0.14						0.14
0' 1"	0.08		330.67	115.67	38,247	3,200	6,375	0.15	0.13						0.11						0.11
0' 0"	0.00	**BMP**	330.00	115.00	37,950	3,175	3,175	0.07	0.04						0.06						0.06

EXHIBIT “A”: HYDROLOGY MAP BASED ON EXISTING CONDITION
RATIONAL TABLING METHOD (SCALE: 1" = 100')

DRIVING RANGE ROAD

CASTLEPEAK DRIVE

EAGLE GLEN PARKWAY

PROJECT BOUNDARY

9.86 AC
Q_{100}=18.9 CFS
T_C=14.1 MIN
101
1103.0
Q_{10}=11.3 CFS
T_C=14.1 MIN

L=794'

L=1,071'

30.11 AC
Q_{100}=54.0 CFS
T_C=16.6 MIN
102
1059.0
Q_{10}=31.8 CFS
T_C=17.0 MIN

L=3,946'

100
1140.0

A1
9.86 AC

A2
20.25 AC

A3
38.99 AC

104
1123.0

L=998'

PROJECT BOUNDARY

9.20 AC
Q_{100}=15.7 CFS
T_C=15.7 MIN
105
1080.0
Q_{10}=9.2 CFS
T_C=15.7 MIN

A4
9.20 AC

31.23 AC
Q_{100}=50.6 CFS
T_C=18.3 MIN
106
1033.0
Q_{10}=29.1 CFS
T_C=18.7 MIN

L=1,098'

L=1,813'

A5
22.03 AC

A6
40.53 AC

BEDFORD CANYON WASH

PROJECT BOUNDARY

SEE SHEET NO. 2

LEGEND:

112 / 1058.0	NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
A3 / 3.11 AC	SUB AREA / ACRES
L=807'	FLOW DISTANCE
	FLOW PATH
	WATERSHED SUB-AREA BOUNDARY
	IMPERVIOUS AREA
A / D	HYDROLOGIC SOIL GROUP BOUNDARY

N

GRAPHIC SCALE
100 0 50 100 200
1" = 100'

CONTOUR INTERVAL=1'

CASC Engineering and Consulting
1470 EAST COOLEY DRIVE, COLTON, CA 92324
PH. (909) 783-0101 FAX (909) 783-0108
www.cel-cosc.com

Last Opened: Oct 15, 2015 - 1:58pm by amistretta

EXHIBIT "A" SHEET 1 OF 2
HYDROLOGY MAP-RATIONAL METHOD
TTM NO. 36294-EXISTING CONDITION

EAGLE GLEN PARKWAY

BEDFORD CANYON ROAD

CAJALCO ROAD

BEDFORD CANYON WASH

INTERSTATE 15

PROJECT BOUNDARY

PROJECT BOUNDARY

PROJECT BOUNDARY

PROJECT BOUNDARY

A3 — 38.99 AC

L=3,946'

103 / 921.0 — 69.10 AC; Q_{100}=114.5 CFS; T_C=24.3 MIN; Q_{10}=67.1 CFS; T_C=25.9 MIN

L=2,063'

A7 — 73.57 AC

L=1,813'

A6 — 40.53 AC

71.76 AC; Q_{100}=110.8 CFS; T_C=22.0 MIN; Q_{10}=63.3 CFS; T_C=23.1 MIN — 107 / 974.0

L=2,429'

108 / 899.0 — 214.43 AC; Q_{100}=308.3 CFS; T_C=26.2 MIN; Q_{10}=175.3 CFS; T_C=28.0 MIN

200 / 1025.0

203 / 1023.0

L=992'

B1 — 3.08 AC

B2 — 8.47 AC

B3 — 3.84 AC

201 / 974.0 — 3.08 AC; Q_{100}=6.0 CFS; T_C=15.2 MIN; Q_{10}=3.6 CFS; T_C=15.2 MIN

L=715'

L=461'

3.84 AC; Q_{100}=8.3 CFS; T_C=12.4 MIN; Q_{10}=5.1 CFS; T_C=12.4 MIN — 204 / 971.0

202 / 950.0 — 11.55 AC; Q_{100}=21.8 CFS; T_C=16.4 MIN; Q_{10}=13.2 CFS; T_C=16.6 MIN

B4 — 4.13 AC

B5 — 4.86 AC

205 / 945.0 — 7.97 AC; Q_{100}=16.5 CFS; T_C=14.7 MIN; Q_{10}=10.0 CFS; T_C=15.0 MIN

L=709'

L=379'

206 / 931.0 — 12.83 AC; Q_{100}=25.8 CFS; T_C=15.8 MIN; Q_{10}=15.7 CFS; T_C=16.3 MIN

SEE SHEET NO. 1

LEGEND:

- 112 / 1058.0 — NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
- A3 / 3.11 AC — SUB AREA / ACRES
- L=807' — FLOW DISTANCE
- FLOW PATH
- WATERSHED SUB-AREA BOUNDARY
- IMPERVIOUS AREA
- A / D — HYDROLOGIC SOIL GROUP BOUNDARY

GRAPHIC SCALE
100 0 50 100 200
1" = 100'

CONTOUR INTERVAL=1'

CASC Engineering and Consulting
1470 EAST COOLEY DRIVE, COLTON, CA 92324
PH. (909) 783-0101 FAX (909) 783-0108
www.cal-casc.com

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EXHIBIT "A" SHEET 2 OF 2
HYDROLOGY MAP-RATIONAL METHOD
TTM NO. 36294-EXISTING CONDITION

EXHIBIT “B”: HYDROLOGY MAP BASED ON PROPOSED CONDITION
RATIONAL TABLING METHOD (SCALE: 1" = 100')

DRIVING RANGE ROAD

EAGLE GLEN PARKWAY

CASTLEPEAK DRIVE

PROJECT BOUNDARY

PROJECT BOUNDARY

BEDFORD CANYON WASH

PROJECT BOUNDARY

SEE SHEET NO. 2

LINE "A"

LINE "A"

LINE "A"

108 1140.0

A6 3.60 AC

L=996'

109 1095.0

L=961'

101 1100.0

A1 4.93 AC

L=405'

A2 7.40 AC

100 1110.0

L=997'

A3 4.54 AC

104 1081.0

L=611'

103 1093.0

110 1064.0

[L=726']

102 1096.0 **1086.0

12.33 AC
Q_{100}=19.1 CFS
T_C=17.6 MIN
Q_{10}=11.5 CFS
T_C=18.0 MIN

24" RCP

CONF.
32.09 AC
Q_{100}=48.3 CFS
T_C=17.2 MIN
Q_{10}=28.9 CFS
T_C=17.5 MIN

105 1062.0 **1052.0

A4 15.22 AC

[L=376']

36" RCP

CONF.
39.67 AC
Q_{100}=61.1 CFS
T_C=17.8 MIN
Q_{10}=36.8 CFS
T_C=18.1 MIN

107 1058.0 **1048.0

L=919'

7.34 AC
Q_{100}=13.4 CFS
T_C=14.6 MIN
Q_{10}=8.3 CFS
T_C=14.6 MIN

111 1056.0 **1046.0

A8 7.34 AC

A9 4.26 AC

A5 7.58 AC

L=991'

106 1073.0

CONF.
74.69 AC
Q_{100}=116.9 CFS
T_C=19.0 MIN
Q_{10}=70.9 CFS
T_C=19.5 MIN

117 1040.0 **1030.0

A11 5.97 AC

A12 2.20 AC

CONF.
23.24 AC
Q_{100}=42.1 CFS
T_C=19.0 MIN
Q_{10}=26.0 CFS
T_C=19.5 MIN

112 1043.0 **1037.0

A7 12.30 AC

L=1,255'

[L=206']

18" RCP

36" RCP

[L=282']

113 1054.0 **1036.0

[L=443']

48" RCP

[L=285']

36" RCP

[L=614']

48" RCP

L=1,142'

[L=1,233']

48" RCP

PARK
5.2 AC GROSS
1.9 AC NET

L=925'

A10 1.55 AC

115 1105.0

131 1100.0

L=909'

A22 4.63 AC

116 1054.0

A14 16.52 AC

A13 4.75 AC

CONF.
67.17 AC
Q_{100}=103.6 CFS
T_C=18.0 MIN
Q_{10}=62.7 CFS
T_C=18.4 MIN

114 1048.0 **1034.0

21.27 AC
Q_{100}=39.5 CFS
T_C=15.4 MIN
Q_{10}=24.3 CFS
T_C=15.8 MIN

120 1000.0 **990.0

L=648'

L=578'

119 1012.0

A16 5.81 AC

118 1016.0

121 1009.0

L=637'

L=648'

A15 4.51 AC

LEGEND:

- 106 / 1040 — NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
- **1035.5 — PIPEFLOW ELEVATION
- A3 / 3.11 — SUB AREA / ACRES
- L=747' — FLOW DISTANCE
- [L=747'] — SEWER LINE DISTANCE
- FLOW PATH
- STORM DRAIN PIPE
- WATERSHED SUB-AREA BOUNDARY
- A / D — HYDROLOGIC SOIL GROUP BOUNDARY

N

GRAPHIC SCALE
100 0 50 100 200
1" = 100'

CONTOUR INTERVAL=1'

CASC Engineering and Consulting
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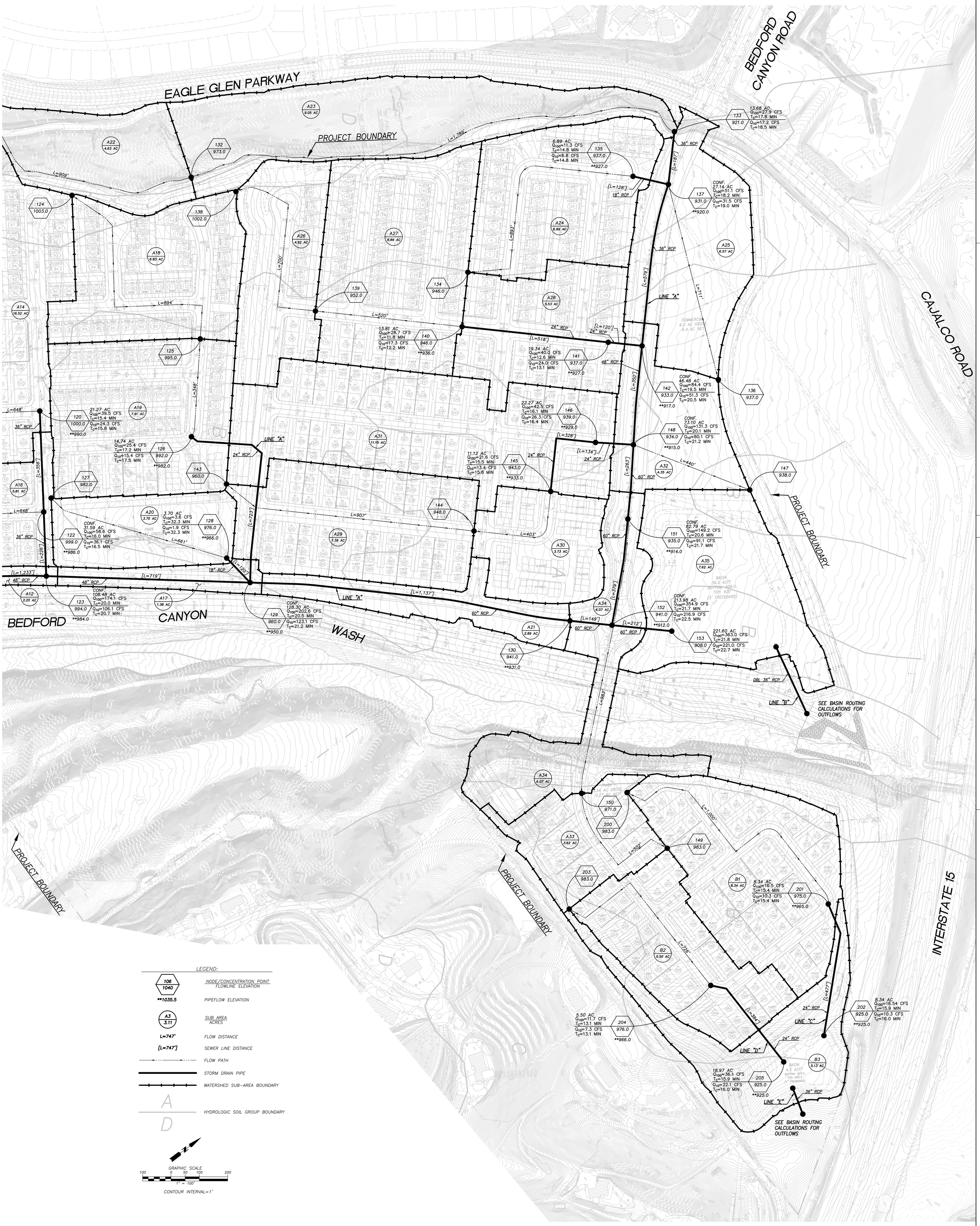
www.cal-casc.com

Drawing Name: \\Vol1-mst\civil\346-0001-TNHC\SPECIFIC PLAN AMENDMENT\HYDROLOGY MAPS\EXHIBIT_B-SPA_HYDRO_RAT_PROP_1.dwg
Last Opened: Jun 29, 2015 - 7:24am by jruiz

EXHIBIT "B" SHEET 1 OF 2

HYDROLOGY MAP-RATIONAL METHOD

TTM NO. 36294-PROPOSED CONDITION



LEGEND:

106 / 1040	NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
**1035.5	PIPEFLOW ELEVATION
A3 / 3.11	SUB AREA / ACRES
L=747'	FLOW DISTANCE
[L=747']	SEWER LINE DISTANCE
	FLOW PATH
	STORM DRAIN PIPE
	WATERSHED SUB-AREA BOUNDARY
A / D	HYDROLOGIC SOIL GROUP BOUNDARY

GRAPHIC SCALE
100 0 50 100 200
1" = 100'
CONTOUR INTERVAL=1'

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EXHIBIT "B" SHEET 2 OF 2
HYDROLOGY MAP-RATIONAL METHOD
TTM NO. 36294-PROPOSED CONDITION

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Last Opened: Jun 29, 2015 8:07am by fjuz

EXHIBIT “C”: HYDROLOGY MAP BASED ON EXISTING CONDITION
HYDROGRAPH METHOD (SCALE: 1" = 100')

DRIVING RANGE ROAD

CASTLEPEAK DRIVE

EAGLE GLEN PARKWAY

PROJECT BOUNDARY

100
1140.0

PROJECT BOUNDARY

A
214.43 AC

L=6,828'
L_{CA}=3,171'

AREA=0.08AC

BEDFORD

CANYON

WASH

PROJECT BOUNDARY

SEE SHEET NO. 2

HYDROLOGY DATA

AREA DESIGNATION		A		B	
NODAL POINT		100-101		200-201	
AREA SIZE (AC)		221.62		18.97	
EVENT FREQ./DURATION		FLOW (CFS)	VOLUME (AC-FT)	FLOW (CFS)	VOLUME (AC-FT)
2-YR	24-HR	6.9	4.5	0.8	0.5
5-YR	24-HR	11.3	6.8	3.2	0.9
10-YR	24-HR	68.9	20.5	10.6	3.3
100-YR	24-HR	158.2	59.5	21.3	8.2

LEGEND:

- 100 / 1216.0 — NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
- A3 / 3.11 AC — SUB AREA / ACRES
- L=747' — FLOW DISTANCE
- L_{CA}=200' — FLOW DISTANCE MEASURED UPSTREAM TO POINT OF CENTROID
- C.G. — MAIN CENTROID
- FLOW PATH/DIRECTION
- WATERSHED SUB-AREA BOUNDARY
- IMPERVIOUS AREA
- A / D — HYDROLOGIC SOIL GROUP BOUNDARY

N

GRAPHIC SCALE
100 0 50 100 200
1" = 100'

CONTOUR INTERVAL=1'

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EXHIBIT "C" SHEET 1 OF 2
HYDROLOGY MAP-HYDROGRAPH METHOD
TTM NO. 36294-EXISTING CONDITION

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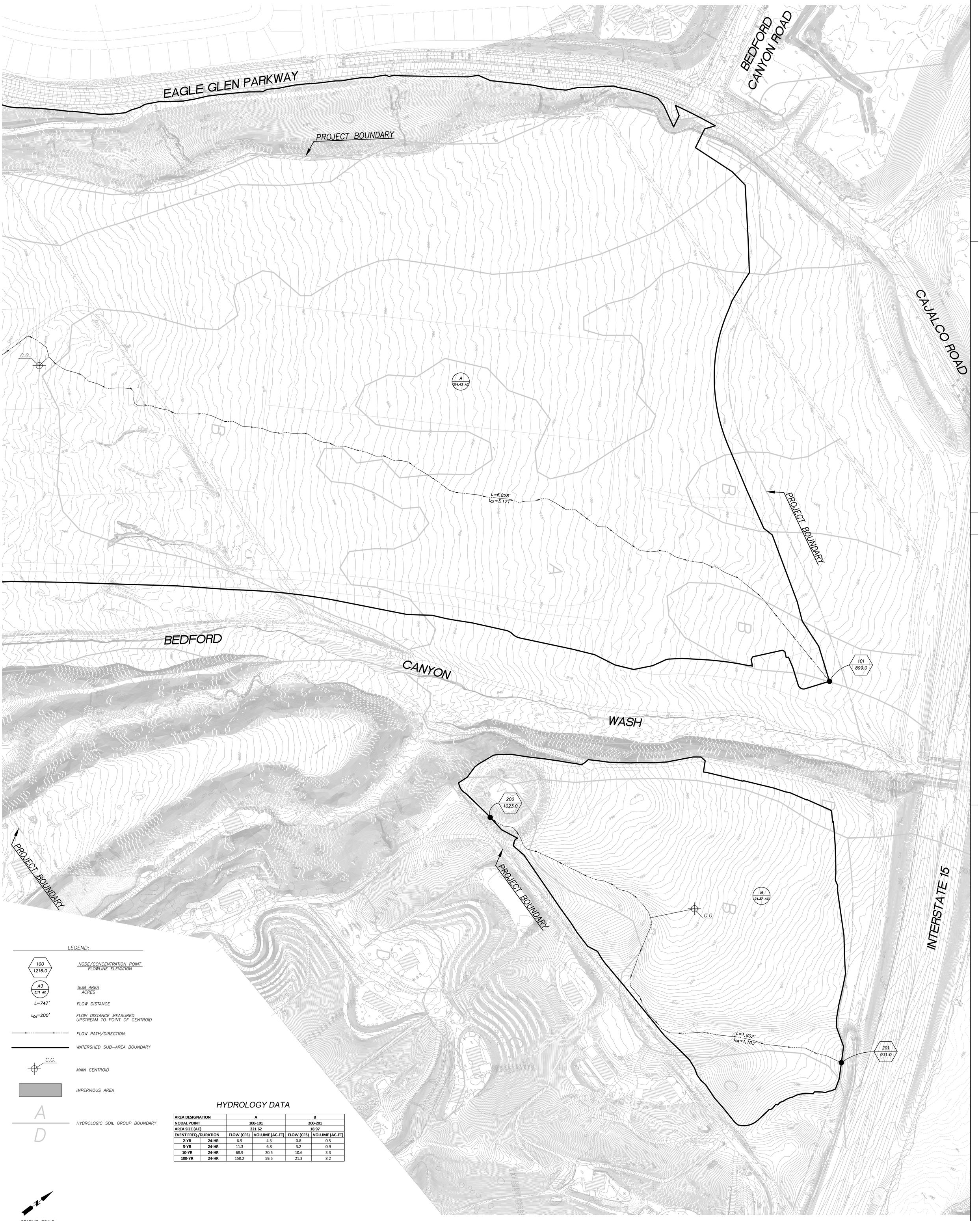
Last updated: Oct 14, 2015 - 1:50pm by pmartin



LEGEND:

100 / 1216.0	NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
A3 / 3.11 AC	SUB AREA / ACRES
L=747'	FLOW DISTANCE
L_{CA}=200'	FLOW DISTANCE MEASURED UPSTREAM TO POINT OF CENTROID
	FLOW PATH/DIRECTION
	WATERSHED SUB-AREA BOUNDARY
C.G.	MAIN CENTROID
	IMPERVIOUS AREA
A / D	HYDROLOGIC SOIL GROUP BOUNDARY

HYDROLOGY DATA

AREA DESIGNATION		A		B	
NODAL POINT		100-101		200-201	
AREA SIZE (AC)		221.62		18.97	
EVENT FREQ./DURATION		FLOW (CFS)	VOLUME (AC-FT)	FLOW (CFS)	VOLUME (AC-FT)
2-YR	24-HR	6.9	4.5	0.8	0.5
5-YR	24-HR	11.3	6.8	3.2	0.9
10-YR	24-HR	68.9	20.5	10.6	3.3
100-YR	24-HR	158.2	59.5	21.3	8.2

GRAPHIC SCALE
100 0 50 100 200
1" = 100'

CONTOUR INTERVAL=1'

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Drawing name: G:\CASC2007\TM\36294 Colorado Lane Industrial\Hydrology\Hydrology.mxd 3/4/2015 2:47pm by gmitchell
Last Updated: Oct 14, 2013

EXHIBIT "C" SHEET 2 OF 2
HYDROLOGY MAP-HYDROGRAPH METHOD
TTM NO. 36294-EXISTING CONDITION

EXHIBIT “D”: HYDROLOGY MAP BASED ON PROPOSED CONDITION
HYDROGRAPH METHOD (SCALE: 1" = 100')

SEE SHEET NO. 2

HYDROLOGY DATA

AREA DESIGNATION		A		B	
NODAL POINT		100-101		200-201	
AREA SIZE (AC)		221.62		18.97	
EVENT FREQ./DURATION		FLOW (CFS)	VOLUME (AC-FT)	FLOW (CFS)	VOLUME (AC-FT)
2-YR	24-HR	36.8	22.6	3.1	1.9
5-YR	24-HR	55.8	34.3	4.7	2.9
10-YR	24-HR	77.5	43.4	7.9	3.8
100-YR	24-HR	174.5	82.4	16.4	7.5

LEGEND:

- 106 / 1040 — NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
- A3 / 3.11 — SUB AREA / ACRES
- L=747' — FLOW DISTANCE
- L_{CA}=200' — FLOW DISTANCE MEASURED UPSTREAM TO POINT OF CENTROID
- C.G. — MAIN CENTROID
- FLOW PATH/DIRECTION
- PROPOSED STORM DRAIN
- WATERSHED SUB-AREA BOUNDARY
- A / D — HYDROLOGIC SOIL GROUP BOUNDARY

N

GRAPHIC SCALE
100 0 50 100 200
1" = 100'

CONTOUR INTERVAL=1'

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Drawing Name: \\Vel-mas\vel\1346-0001-TM\C\SPECIFIC PLAN AMENDMENT\HYDROLOGY MAPS\EXHIBIT_D-SPA_HYDRO_UH_PROP_1.dwg
Last Opened: Jun 26, 2015 - 8:41am by jruiz

EXHIBIT "D" SHEET 1 OF 2
HYDROLOGY MAP-HYDROGRAPH METHOD
TTM NO. 36294-PROPOSED CONDITION

SEE SHEET NO. 1

LEGEND:

106 / 1040	NODE/CONCENTRATION POINT / FLOWLINE ELEVATION
A3 / 3.11	SUB AREA / ACRES
L=747'	FLOW DISTANCE
L_{CA}=200'	FLOW DISTANCE MEASURED UPSTREAM TO POINT OF CENTROID
C.G.	MAIN CENTROID
	FLOW PATH/DIRECTION
	PROPOSED STORM DRAIN
	WATERSHED SUB-AREA BOUNDARY
A / D	HYDROLOGIC SOIL GROUP BOUNDARY

HYDROLOGY DATA

AREA DESIGNATION		A		B	
NODAL POINT		100-101		200-201	
AREA SIZE (AC)		221.62		18.97	
EVENT FREQ./DURATION		FLOW (CFS)	VOLUME (AC-FT)	FLOW (CFS)	VOLUME (AC-FT)
2-YR	24-HR	36.8	22.6	3.1	1.9
5-YR	24-HR	55.8	34.3	4.7	2.9
10-YR	24-HR	77.5	43.4	7.9	3.8
100-YR	24-HR	174.5	82.4	16.4	7.5

GRAPHIC SCALE
100 0 50 100 200
1" = 100'

CONTOUR INTERVAL=1'

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EXHIBIT "D" SHEET 2 OF 2
HYDROLOGY MAP-HYDROGRAPH METHOD
TTM NO. 36294-PROPOSED CONDITION

EXHIBIT “E”: RCFC & WCD PLATES

LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

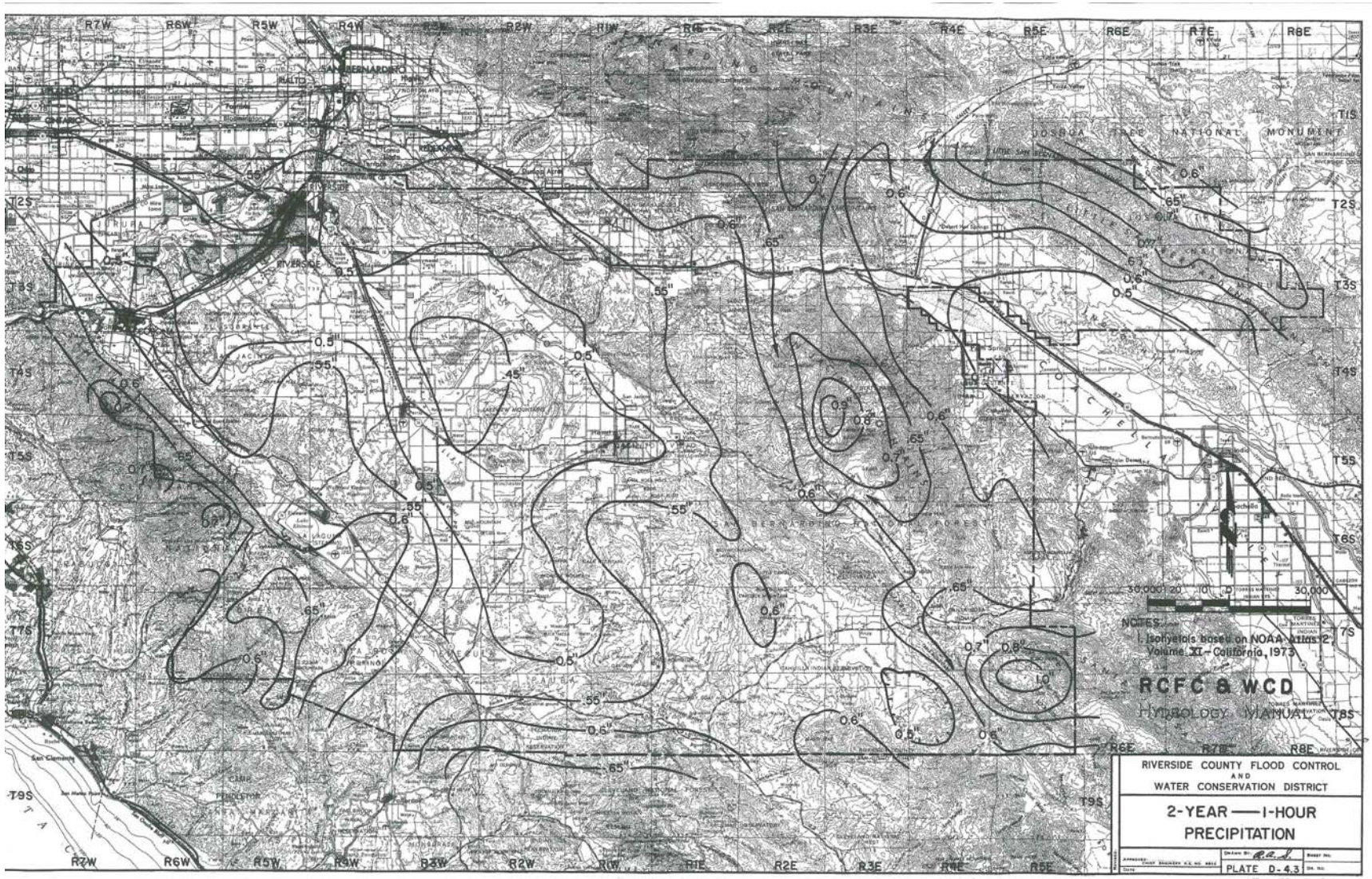
HYDROLOGY MANUAL

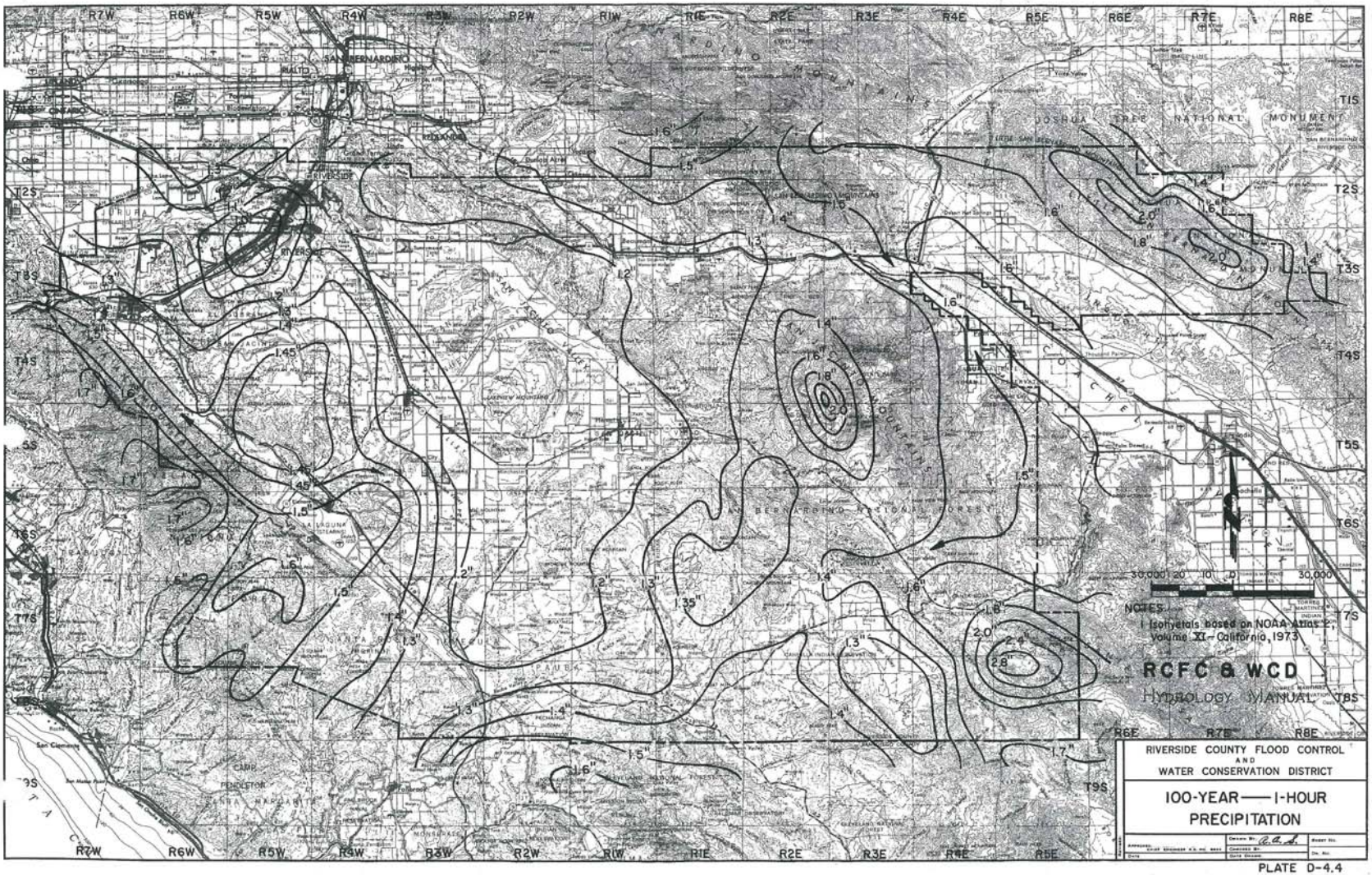
N

0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR CORONA-SOUTH

PLATE C-1.27


NOTES:
1. Isohyetals based on NOAA Atlas 2, Volume XI - California, 1973
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
2-YEAR — 1-HOUR PRECIPITATION
PLATE D-4.3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R5W
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R2E
R3E
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R7E
R8E
T1S
T2S
T3S
T4S
T5S
T6S
T7S
T8S
T9S
SAN BERNARDINO
RIVERSIDE
JOSHUA TREE NATIONAL MONUMENT
SAN BERNARDINO NATIONAL FOREST
SANTA ANA MOUNTAINS
SAN JACINTO MOUNTAINS
SAN JACINTO FAULT
SAN ANDREAS FAULT
CHUCKWALLA MOUNTAINS
1.6"
1.5"
1.4"
1.3"
1.2"
1.7"
1.8"
2.0"
2.4"
2.8"
1.45"
1.35"
NOTES:
1. Isohyetals based on NOAA Atlas 2, Volume XI - California, 1973
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
100-YEAR — 1-HOUR PRECIPITATION

PLATE D-4.4

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
NATURAL COVERS -					
Barren (Rockland, eroded and graded land)		78	86	91	93
Chaparrel, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	85
	Fair	40	63	75	81
	Good	31	57	71	78
Chaparrel, Narrowleaf (Chamise and redshank)	Poor	71	82	88	91
	Fair	55	72	81	86
Grass, Annual or Perennial	Poor	67	78	86	89
	Fair	50	69	79	84
	Good	38	61	74	80
Meadows or Cienegas (Areas with seasonally high water table, principal vegetation is sod forming grass)	Poor	63	77	85	88
	Fair	51	70	80	84
	Good	30	58	72	78
Open Brush (Soft wood shrubs - buckwheat, sage, etc.)	Poor	62	76	84	88
	Fair	46	66	77	83
	Good	41	63	75	81
Woodland (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	28	55	70	77
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	86
	Fair	44	65	77	82
	Good	33	58	72	79
URBAN COVERS -					
Residential or Commercial Landscaping (Lawn, shrubs, etc.)	Good	32	56	69	75
Turf (Irrigated and mowed grass)	Poor	58	74	83	87
	Fair	44	65	77	82
	Good	33	58	72	79
AGRICULTURAL COVERS -					
Fallow (Land plowed but not tilled or seeded)		76	85	90	92

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HYDROLOGY MANUAL

RUNOFF INDEX NUMBERS FOR PERVIOUS AREA

PLATE D-5.5 (1 of 2)

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
AGRICULTURAL COVERS (cont.) -					
Legumes, Close Seeded (Alfalfa, sweetclover, timothy, etc.)	Poor	66	77	85	89
	Good	58	72	81	85
Orchards, Deciduous (Apples, apricots, pears, walnuts, etc.)		See Note 4			
Orchards, Evergreen (Citrus, avocados, etc.)	Poor	57	73	82	86
	Fair	44	65	77	82
	Good	33	58	72	79
Pasture, Dryland (Annual grasses)	Poor	67	78	86	89
	Fair	50	69	79	84
	Good	38	61	74	80
Pasture, Irrigated (Legumes and perennial grass)	Poor	58	74	83	87
	Fair	44	65	77	82
	Good	33	58	72	79
Row Crops (Field crops - tomatoes, sugar beets, etc.)	Poor	72	81	88	91
	Good	67	78	85	89
Small Grain (Wheat, oats, barley, etc.)	Poor	65	76	84	88
	Good	63	75	83	87
Vineyard		See Note 4			

Notes:

1. All runoff index (RI) numbers are for Antecedent Moisture Condition (AMC) II.

2. Quality of cover definitions:
   Poor-Heavily grazed or regularly burned areas. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.
   Fair-Moderate cover with 50 percent to 75 percent of the ground surface protected.
   Good-Heavy or dense cover with more than 75 percent of the ground surface protected.

3. See Plate C-2 for a detailed description of cover types.

4. Use runoff index numbers based on ground cover type. See discussion under "Cover Type Descriptions" on Plate C-2.

5. Reference Bibliography item 17.

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HYDROLOGY MANUAL

RUNOFF INDEX NUMBERS FOR PERVIOUS AREA

PLATE D-5.5 (2 of 2)

ACTUAL IMPERVIOUS COVER

Land Use (1)	Range-Percent	Recommended Value For Average Conditions-Percent(2)
Natural or Agriculture	0 - 10	0
Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50
Multiple Family Residential:		
Condominiums	45 - 70	65
Apartments	65 - 90	80
Mobile Home Park	60 - 85	75
Commercial, Downtown Business or Industrial	80 -100	90

Notes:

1. Land use should be based on ultimate development of the watershed. Long range master plans for the County and incorporated cities should be reviewed to insure reasonable land use assumptions.

2. Recommended values are based on average conditions which may not apply to a particular study area. The percentage impervious may vary greatly even on comparable sized lots due to differences in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area should always be made, and a review of aerial photos, where available may assist in estimating the percentage of impervious cover in developed areas.

3. For typical horse ranch subdivisions increase impervious area 5 percent over the values recommended in the table above.

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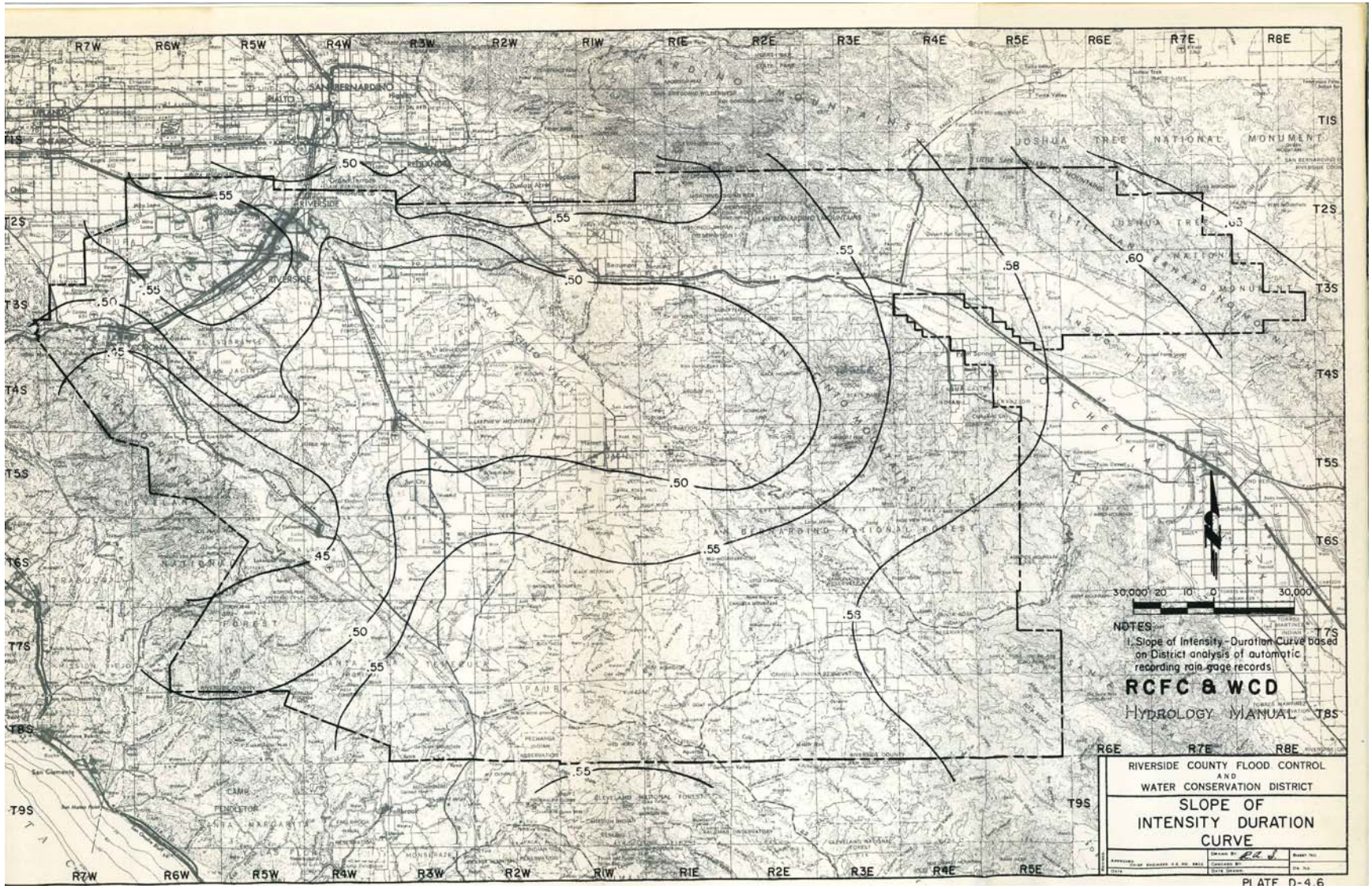
HYDROLOGY MANUAL

IMPERVIOUS COVER FOR DEVELOPED AREAS

PLATE D-5.6


R7W
R6W
R5W
R4W
R3W
R2W
R1W
R1E
R2E
R3E
R4E
R5E
R6E
R7E
R8E
T1S
T2S
T3S
T4S
T5S
T6S
T7S
T8S
T9S
SAN BERNARDINO
RIVERSIDE
JOSHUA TREE NATIONAL MONUMENT
SAN BERNARDINO NATIONAL FOREST
CLEVELAND NATIONAL FOREST
.50
.55
.45
.58
.60
.53
.63
30,000' 20 10 0 30,000
NOTES:
1. Slope of Intensity-Duration Curve based on District analysis of automatic recording rain gage records
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SLOPE OF INTENSITY DURATION CURVE
PLATE D-4.6

APPENDIX C-4:

Sediment Yield and Transport Study for Arantine Hills Baseline and With-Project Conditions, Bedford Wash

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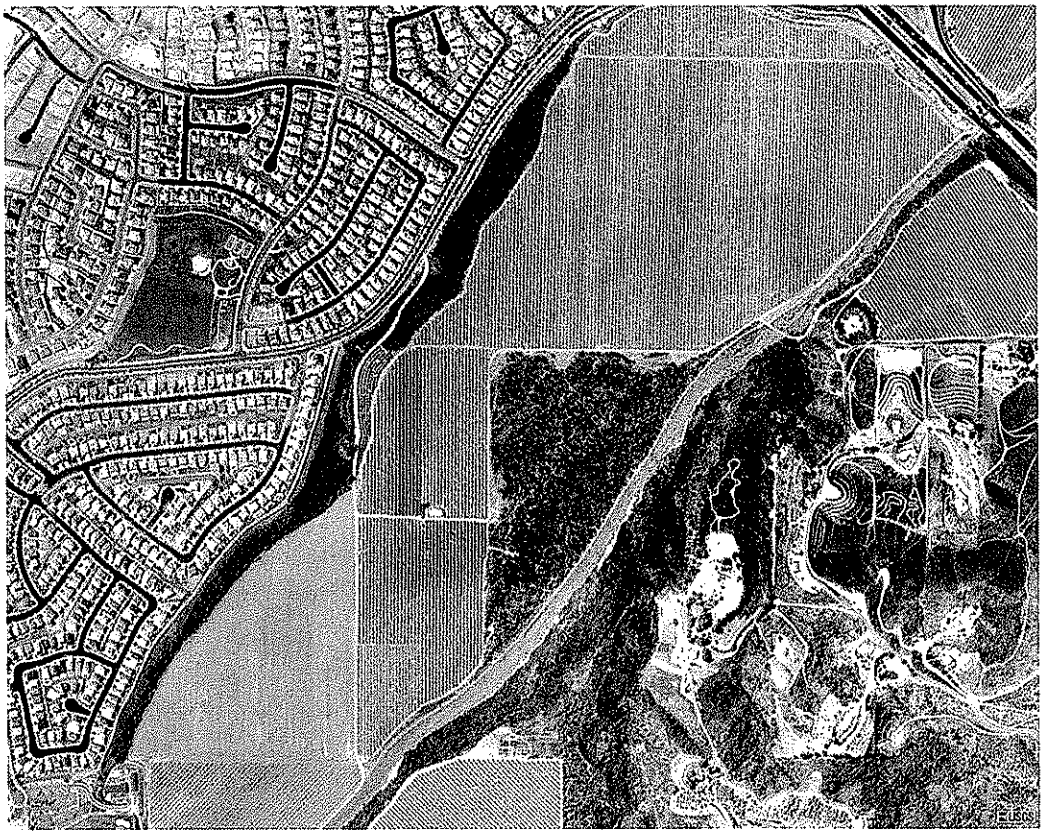
DRAFT REPORT



Sediment Yield and Transport Study for Arantine Hills Baseline and With-Project Conditions

Bedford Wash

prepared for:

AEI-CASC Engineering

prepared by:

Fehlman Consulting Services

August 20, 2010

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Hydrology 1

Watershed Sediment Yield 1

Bed Material Sediment Transport 5

Yield and Transport Summary 9

With-Project Hydraulic and Bed Material Transport Analysis 10

Floodplain Analysis 11

Facility Sizing 12

Transverse Levee 15

The I-15 Bridge 15

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Appendix 1 – Average Annual Event Determination 17

Tables

Figures

Exhibit A – Preliminary Plan, Profile and Typical Sections of the Proposed Bedford Wash Levee
Exhibit B – Proposed Grading Plan
Exhibit C – Existing Conditions Floodplain Map
Exhibit D – With-Project Conditions Floodplain Map

Attachment A – HEC-RAS Summary and Output Files
Attachment B – NRCS Soils Reports
Attachment C – SAM Computations
Attachment D – GSTARS Computations

Executive Summary

The Bedford Wash watershed is located amidst the eastern slopes of the Santa Ana Mountains. Most of the watershed is contained within the Cleveland National Forest. The watershed is predominantly undeveloped, and is characterized by steep slopes (average = 42%) and shrub coverage (chaparral). Watershed soils are approximately 34 percent fines (silts and clays), and have relatively high erodibility (average K = 0.24). Sediment yield rates from the Bedford Wash watershed are expected to be high, with unit rates of 5 to 6 acre-feet per square mile per year. Average annual sediment yields of approximately 104,000 tons are expected for the watershed. 100-year event yields of more than 500,000 tons are possible. Under full watershed burn conditions, yield rates may be up to five times higher.

The channel slope through the project reach is relatively steep, and supercritical flow conditions are expected within Bedford Wash during runoff events. Peak flow velocities of more than 20 feet per second are expected under peak 100-year flood conditions. Bed material sizes are predominantly very fine to fine gravels. These conditions enable mobilization of the alluvial material of which the channel bed and banks are composed. High rates of bed material transport are expected through the project reach. Average annual transport of up to 10,600 tons of bed material has been computed for the local wash. 100-year bed material loads of up to 58,500 tons were computed for the project reach.

The existing channel through the project reach has been artificially guided toward the high bluff on the southeast side of the subject property. An earthen berm has been graded from local materials to protect the adjacent northwest properties from watershed runoff. The materials of which both the bluff and the earthen berm are composed are transportable during runoff events, and the stability of each cannot be guaranteed without some form of armoring. Slope failure along the bluff is an added source of material to the channel, and has locally distorted the channel slope near the upstream end of the subject site.

The proposed flood control plan includes a transverse levee/collector dike at the upstream end of the development site, and an engineered levee faced with concrete to replace the existing graded berm that parallels the Bedford Wash through the site limits. In the upstream portions of the project, an inset channel is proposed adjacent to the engineered levee to help draw flow concentration away from the existing high bluff.

The hydraulic and sediment transport characteristics through Bedford Wash under improved conditions are expected to be little changed by the proposed project. Slight improvement in sediment balance will be achieved with the proposed lowering of the invert within the upper portion of the project. The proposed plan will also provide a

higher level of flood protection than the existing graded berm provides. No significant hydraulic or sediment transport impacts on adjacent properties up- and downstream of the project are expected.

Levee height and toe-down protection allowances were developed using the results of both steady-state and quasi-unsteady state hydraulic and sediment transport models. The results of these analyses were compared to typical sizing requirements for soft-bottom flood control facilities. The proposed plan has been developed in consideration of the results of these analyses and guidelines.

Introduction

This study was conducted to evaluate the hydraulic and channel stability characteristics of Bedford Wash within the proposed Arantine Hills Development in Corona, California, under both existing and with-project conditions. The watershed is located along the western edge of Riverside County, with a small portion of the headwaters located in Orange County. A regional map showing the location of the study watershed is presented in Figure 1.

This report provides baseline documentation of the existing hydraulic and sediment transport trends of the wash. With-project modeling was also completed, to aid in sizing the flood control facilities for the Arantine Hills Development. The analysis approach and major study findings are summarized in the following sections of this report. Data sources are provided in the References section at the end of this report.

Study Watershed

The Bedford Wash watershed totals 7.5 square miles at the point where it discharges into the Temescal Canyon Wash. The watershed area upstream of the project site is approximately 7.0 square miles. The topographic variation and major drainage features located within the watershed are illustrated in Figure 2. The watershed is located amidst the eastern slopes of the Santa Ana Mountains. Most of the watershed is contained within the Cleveland National Forest.

Hydrology

Peak discharges and runoff quantities for floods of 2-year, 5-year, 10-year, 25-year, 50-year and 100-year return period were provided by AEI-CASC. The peak discharges and runoff volumes used in this study are summarized in Table 1 and illustrated in Figure 3. The unbulked peak discharge for the 100-year flood at the project site is 4,370 cfs.

Watershed Sediment Yield

Watershed sediment yield is the total quantity of sediment that the watershed produces at a given concentration point, for a given flood event (e.g. 100-year flood) or average time period (e.g. average annual yield). Watershed yield includes all sediment sizes released from the watershed, including bed material sediment (sediment of which the channel bed is composed), and wash load (fines, typically silts and clay, not normally found in the bed material in appreciable quantities). Watershed yield estimation procedures have typically been developed from empirical data, such as debris basins or reservoirs, where the sediment trapping percentage is total or has been estimated.

Watershed yield estimation is used when the total amount of sediment debris yield is a factor of concern, for example, in the design of the sediment reserve for a total

impoundment or a retention basin. Watershed yield also provides an independent estimate of available sediment supply, which can be contrasted with channel sediment transport capacity to determine if the amount of sediment delivery from a study channel is supply or transport capacity controlled.

Sediment yield from the study watersheds was estimated using the Modified Universal Soils Loss Equation (MUSLE, Ref. 1), the US Army Corps of Engineers, Los Angeles District Debris Method (COE, Ref. 2) and the methodology used by the Fire and Resource Assessment Program, California Department of Forestry and Fire Protection (FRAP, Ref. 3). The first two methodologies are event-based procedures, and include variables that are best developed through calibration. The results of these event-based procedures were annualized using probability weighting (see Appendix 1), and then calibrated using the results of the FRAP analysis, which provides an average annual estimate. An additional methodology, the Flaxman Procedure (Ref. 7), was also applied to compare the local yield estimates to regional rates.

The MUSLE relates event sediment yield to event hydrologic variables and watershed parameters. The MUSLE is:

$$T = 95\ (Qp \times V)^{0.56}\ K\ LS\ CP$$

with
- T = sediment yield, in tons
- Qp = event peak discharge, cfs
- V = event runoff volume, acre-feet
- K = soil erodibility factor
- LS = length-slope term, a function of the basin geometry
- CP = cover management and practice factors

The hydrologic terms in the above equation (Qp and V) were provided as discussed above (see the Hydrology section of this report). The watershed average K factors were developed through integration of the soils characteristics information obtained from the NRCS soils surveys (Ref. 8 and Attachment B) over the contributing watersheds. The LS factor for each watershed was determined using the topographic and hydrographic information obtained from USGS topographic maps of the area, and using methodologies provided in Ref. 4. The CP factors were initially determined using the vegetation coverage information shown in Figure 4 (from FRAP, Ref. 3) and guidelines presented in Ref. 5. The CP factor was adjusted in the calibration process described further below.

The COE has developed regression equations that vary with watershed size. The regression equations were developed using information from debris basins located in the San Gabriel Range, a mountain range in Los Angeles County renown for its debris production capability.

For watersheds of 3 to 10 square miles in area, the COE equation is:

$$\text{Log Dy} = 0.85\ (\text{Log Q}) + 0.53\ (\text{Log RR}) + 0.04\ (\text{Log A}) + 0.22\ (\text{FF})$$

with:

Dy	= unit debris yield, cubic yards per square mile
Q	= unit peak runoff, cfs/square mile
RR	= relief ratio, ft/mile
A	= drainage area, acres
FF	= non-dimensional fire factor

The relief ratio RR is defined as the difference in elevation between the highest point in the watershed (measured at the end of the longest stream) and the lowest point and dividing the difference between these two by the maximum stream length as measured along the longest stream. The non-dimensional fire factor FF is a function of the years since a full watershed wildfire. For drainage areas of 200 square miles or less, FF is 3.0 for 15 or more years after a full watershed burn, and FF is 6.0 for 1 year or less since a full watershed burn.

For the study watersheds, the event peak discharge (Q) was provided as described above (see the Hydrology section of this report). Topographic factors RR and A were obtained from USGS topographic maps (see Figure 2).

It should be noted that the COE procedure includes an Adjustment-Transposition (AT) factor that is to be used in areas along the Coastal Desert Drainage outside of the San Gabriel Range. The AT factor is a linear factor used to adjust the computed unit debris yield to account for factors that make the local sediment yield different from that expected in the San Gabriel Range environment. The appropriate AT factor for the study watersheds was determined using the calibration procedure described below.

The FRAP used the Revised Universal Soil Loss Equation (RUSLE) to estimate post-wildfire annual sediment yields throughout the state of California. The variation in post-wildfire yield potential is shown in Figure 5. Also shown in this figure is the location of the Bedford Wash watershed. In this figure, one can get a relative feel for the expected erosion potential for the study watershed in contrast to the erosion potential in other portions of the southern California. As shown in Figure 5, the estimated sediment yield production potential in the Bedford Wash watershed is comparable to the rates estimated for the San Gabriel Range.

GIS procedures were used to integrate the FRAP estimates and obtain average values for study watershed. These results are presented in Table 2. For calibration of the COE equation, the fire factor FF was set to 6.0 to represent the full burn yield condition, and the AT factors for the study watersheds were adjusted to produce average annual results equal to the FRAP estimate. (Note: a unit weight of 1.5 tons per cubic yard was assumed to convert the COE volumes to tons). The calibrated AT values for each watershed are presented in Table 2. Watershed variables and debris quantities computed for normal watershed conditions (FF = 3) using the COE procedure are summarized in Table 3.

The 'calibrated' AT value for the study watershed is 0.86. This procedure would indicate that the Bedford Wash watershed has, on average, an inherent propensity for debris production (as a function of basin and hydrologic factors) that is 86 percent as large as that demonstrated in the San Gabriel Range. This ratio appears reasonable in view of the distribution of potential yields presented in Figure 5.

For calibration of the MUSLE, the fire factor FF was set to represent 3.0 to represent normal watershed conditions (the MUSLE does not include a fire factor). The CP factor in the MUSLE was adjusted to match the average annual yield provided by the COE equation under these conditions. The results of this procedure are summarized in Table 4. The calibrated MUSLE and COE yields for the 100-year and 10-year flood events are contrasted in Figure 6.

The Flaxman procedure was applied as an additional check on the sediment yield quantities derived above. The Flaxman equation is:

$$\text{Log}(Y+100) = 6.21301 - 2.19113\ \text{Log}(X1 + 100) + 0.06034\ \text{Log}(X2 + 100) - 0.01644\ \text{Log}(X3 + 100) + 0.04250\ \text{Log}(X4 + 100)$$

With:
- Y = sediment yield (acre-feet per square mile)
- X1 = ratio of average annual precipitation to average annual temperature (inches/degrees F)
- X2 = average slope of the watershed (percent)
- X3 = percent of surface soil particles coarser than 1mm
- X4 = percent of surface soil particles finer than 2 microns (positive if pH is alkaline, negative if pH is acid or base)

Average watershed precipitation values were obtained from statewide coverages obtained from the California Spatial Information Library (Ref. 10). The variation in average annual rainfall over the study watersheds is shown in Figure 7. Averages depths for the Bedford Wash watershed were obtained through aerial integration of the values shown in this figure.

Average annual temperature values were obtained from maps downloaded from NOAA's National Climate Data Center (Ref. 11). Nationwide average annual temperature variations are illustrated in Figure 8. The average annual temperature for the study watershed was obtained through aerial integration of the values shown in this figure. Average slopes were obtained from the USGS topographic maps, and the soils parameters X3 and X4 were obtained from the soils database provided by NRCS.

The watershed variables and results of the Flaxman Procedure are presented in Table 5. The Flaxman Procedure provides an average annual sediment yield total of about 32,000 tons per year, which is much less than the MUSLE and COE Procedure results (both at approximately 104,000 tons per year).

The results of the above sediment yield estimates are not in close agreement. The Flaxman procedure should be considered a rough (and likely low) estimate – it does not consider the local hydrologic and topographic variables contained within the COE and MUSLE procedures. The FRAP study results indicate that the Bedford Wash watershed has conditions conducive to sediment yield production at rates similar to those in the San Gabriel Mountains. The COE procedure was developed using measured data from debris retention facilities located in the San Gabriel's, and thus are the most reliable local data available on sediment yield. The MUSLE equation calibrates well to the COE procedure results, using CP values that are reasonable given local vegetation cover conditions, and using measured data for topographic and soils factors. Therefore, the COE and MUSLE results are judged the best estimates of yield potential from the Bedford Wash watershed.

Bed Material Sediment Transport

Bed material sediment transport computations were conducted for the lower reaches of the Bedford Wash, extending approximately 12,000 feet upstream of the confluence with Temescal Canyon Wash. The bed material sediment transport computations were conducted to quantify the rates and total volumes of bed material transported down each of the main channel during flood events. The analyses were also used to determine the erosion/sedimentation characteristics of watercourses (due to the loss or gain of bed material down the length of the streams), and to contrast the total watershed yield with the fraction associated with bed material transport.

Hydraulic Modeling

The HEC-RAS water surface profile computer model, developed by the Hydrologic Engineering Center (HEC) of the US Army Corps of Engineers, was used in estimation of the hydraulic characteristics of Bedford Wash under a range of flood conditions. The HEC's Geo-RAS extension to the ArcView GIS was used to develop the initial RAS model, which were modified to reflect local bridge information at the I-15 and Temescal Canyon Road crossings.

The channel geometry used in the hydraulic models was developed from topographic mapping provided by AEI-CASC. The mapping had a contour interval of 2 feet.

The extent of the Bedford Wash model is shown in Figures 9 and 10. Channel limits were defined using aerial photos as guides.

Major structural features along the existing wash include two grade controls and two bridges. The grade controls are located upstream of the project site, near the southerly golf course site (see Figure 11). These structures are located approximately 2,000 and 2,500 feet upstream of the south property line. The I-15 bridge and the Temescal Canyon Road bridge are both located downstream of the subject property. The I-15 bridge is located at the downstream boundary of the subject property. The Temescal Canyon Road bridge is located about 2,300 feet downstream of the I-15 crossing. The Bedford Wash

confluence with Temescal Canyon Wash is located about 1,200 feet downstream of the Temescal Canyon Road bridge. The existing wash is an unlined alluvial channel for all of its length, except for a local concrete-lined reach in the vicinity of the Temescal Canyon Road bridge, and a riprap apron located between this reach and the confluence with Temescal Canyon Wash.

Bridge information for the I-15 bridge was obtained from local surveys conducted by AEI-CASC. Bridge information for the Temescal Canyon Road bridge was obtained from as-built plans provided by the City of Corona. Cross-section views of these bridges are presented in Figures 12 and 13.

Manning n values of 0.030 and 0.045 were used for channel and overbank values, respectively, in the unlined portions of Bedford Wash. The lined sections in the vicinity of the Temescal Canyon Road bridge were assigned Manning n values of 0.015, and the riprap blanket area immediately downstream was assigned a value of 0.035.

The Manning n values assigned to the natural wash were estimated based on field review of the reaches to be modeled, considering the various components that contribute to flow resistance – i.e. bed material size, irregularity, vegetation type and density, etc. It should be noted that there is some uncertainty in assignment of Manning n values along alluvial streams. In reality, the values can change during the event being modeled, due to bedform development, changes in flow depth, loss of vegetation, and changes in geometry. The Manning n values assigned for this study are reasonable values for the purposes of this study, but are by no means exact. Future channel design studies may use higher Manning n values to ensure conservative estimates of water surface levels along the study reaches; future bank protection design studies may use lower values to ensure conservative estimates of required toe-down.

Summary and output files for the hydraulic computations are included in Attachment A.

Channel profiles obtained from the 2009 hydraulic model are contrasted with results of previous modeling efforts (in 1999 and 2002, see Refs. 14 and 15) in Figure 14. Channel slopes exceed 3 percent along the existing wash. As indicated in Figure 14, Bedford Wash undergoes a significant change in slope near the confluence with Temescal Canyon Wash.

Typical cross-sections of the Bedford Wash channel are illustrated in Figures 15 and 16. Near the south property line, the channel is perched above the ground level located directly to the northwest (see the cross-section at Sta. 8799.9, shown in Figure 15). An earthen levee separates the channel area from the adjacent ground to the left (looking downstream). Along most of the length of the project, a steep cliff forms the channel boundary on the right side. Periodic failure of portions of this cliff into the channel area (due to undercutting of the toe of the slope) has provided a significant source of sediment to the channel system, in addition to the sediments transported from channel and watershed sources upstream. The section at Sta. 9135.1 is a location of recent slope failure (see Figure 16).

Cliff failures near the location of the south boundary crossing of Bedford Wash have locally steepened the slope of the drainage downstream of the failure area, while locally flattening the slope immediately upstream.

Computed water surface profile for the peak 100-year flood condition is presented in Figure 17. Flow depths range from 4 to 6 feet along the channel under 100-year conditions, and from 2 to 3 feet under 2-year flood conditions (see Figure 18). The 100-year flood flows are expected to be largely contained by the existing graded earth levee, assuming aggradation/degradation processes do not modify the channel conditions significantly during the course of the flood passage. The existing bridges at I-15 and Temescal Canyon Road cause local changes in hydraulics, but both appear to have sufficient conveyance capacity – neither is expected to be overtopped during passage of the 100-year flood event.

The computed variations in channel velocity under 2-year through 100-year peak flood conditions for Bedford Wash are presented in Figure 19. Velocities vary from 16 to 24 feet per second along Bedford Wash under 100-year peak flow conditions (excluding the locally high velocities in the lined reach near the Temescal Canyon Road bridge). Under 10-year peak flow conditions velocities are generally about 4 feet per second slower. Channel velocities under 2-year peak flow conditions are typically between 10 and 14 feet per second along the majority of the length of the study reach.

The velocity profile plot shown in Figure 19 indicates a general decreasing trend down the length of the project, for all the peak flow levels examined. The lined channel in the vicinity of the Temescal Canyon Road crossing will generate extremely high velocities under flood conditions. A local slowing of flow velocities is expected upstream of the I-5 bridge. The grade controls near the upstream end of the model cause significant distortion in local hydraulic conditions.

Effective flow widths along the study reach under 2-year through 100-year peak flood conditions area illustrated in Figure 20. Flow widths are fairly consistent down the study channel, though widen significantly upstream of the grade controls and downstream near the confluence with Temescal Canyon Wash.

An indication of the sediment transport potential of the flows is the product of the product of the effective width and the channel velocity raised to the 3rd power. This parameter is plotted for 2-year through 100-year peak flow conditions for the study channel in Figure 21. As shown in this figure, the general trend for the study channel is decreasing sediment transport potential in the downstream direction. This tendency is upset in the vicinity of the grade controls and bridges, were the hydraulics are locally disrupted. This is particularly evident along the fully lined reach at the Temescal Canyon Road crossing, where extremely high transport potentials are evident.

Sediment Gradations

Sediment samples were obtained from the Bedford Wash channel during a field visit conducted in July of 2009. Samples were obtained from the main channel of the Wash, and were selected to represent the bed material available for the flows to transport. Figure 22 indicates the locations from which the samples were taken, and Figure 23 illustrates the size gradations obtained through sieve analysis. Size distributions for Bedford Wash are generally consistent throughout the length of the sampled area, with a median grain size of about 2 to 7 mm (very fine to fine gravel). No significant fines were evident in the collected samples. The sample collected at the upstream side of the I-15 crossing was noticeably finer than the remaining samples, indicating a local slowing in transport potential.

Additional visualization of the bed material sizes collected from the study channels is provided in Figure 24. In this figure, the percentage of each sample associated with various size classes are plotted for comparison. As indicated in this figure, the majority of the sediment from most of the Bedford Wash samples is of the Fine Gravel size class. The data plotted in Figure 24 is summarized in Table 6.

Sediment Transport Capacity Calculations

The computed hydraulics and bed material size information for the study channel were used to quantify bed material transport capacities through various reaches of the modeled channel. The results of the hydraulic analyses for each flood condition (depths, slopes, velocities, widths, etc.) were averaged over the reaches identified in Figure 22. Reach-averaged hydraulic quantities are presented in Table 7. These reach-averaged hydraulics and a representative bed material gradation were used with the SAM sediment transport analysis package developed by the US Army Corps of Engineers (Ref. 12).

The Corps' SAM package contains an assortment of bed material transport equations. The hydraulic conditions in Bedford Wash are extreme in comparison to the conditions used to develop the standard sediment transport equations provided in the SAM package – slopes are steep and flows are very rapid for the range of discharges under consideration for this study. Thus, no equation is available that directly matches the site conditions for Bedford Wash. Two procedures contained within the SAM package are known for providing reasonable results in high velocity, coarse size environments: the Toffaliti-Schoklitsch equations and the Yang equations. Both procedures allow computation over the full range of sand and gravel sizes available in the Bedford Wash, and both have a history of use in channels in the southwestern United States. Initial trial computations using Reach 1 hydraulics showed very similar results using the two procedures (see Figure 25). Given these findings, the Yang Equation was selected for further application to the Bedford Wash study. The Yang Equation is a widely used procedure, and is a standard function supplied in both the SAM and HEC-RAS computational routines. For further documentation regarding the reliability of the Yang Equation, see Ref 13).

Bed material transport computations for each reach of Bedford Wash are summarized in Table 8. Reach-specific rating curves, relating bed material transport quantity to flow rate, were developed for each of the study channels. Theses rating curves were integrated over the 2-year through 100-year hydrographs to compute total bed material transport tonnages for each of these events. Computed bed material transport tonnages flowing though the individual reaches of Bedford Wash are summarized in Table 8, and illustrated in Figure 22.

As indicated in Figure 22, the computed transport quantities vary reach by reach. As discussed above, cliff failures near the location of the south boundary crossing of Bedford Wash have locally steepened the slope of the drainage downstream of the failure area, while locally flattening the slope immediately upstream. This is reflected in the difference in transport rates between Reaches 1 and 2. Also indicated in Figure 22 is the locally high rate of transport capacity though the fully-lined reach in the vicinity of the Temescal Canyon Road crossing. The steep slopes and smooth lining produce local hydraulic conditions that are expected to easily pass the sediment supplied from the upstream channel and watershed.

Yield and Transport Summary

Computed watershed sediment yield and bed material transport quantities for the project reaches of Bedford Wash are summarized as follows:

Avg. Annual watershed yield (COE) :	104,042 tons
Avg. Annual Bed Material Supply (from Reach 1):	7,271 tons
Avg. Annual Bed Material Outflow (from Reach 3):	7,230 tons
Avg. Annual Net Accumulation Expected:	41tons
Avg. Annual Total Yield Through Project (from Reach 3):	104,001 tons
100-year watershed yield (COE) :	365,849 tons
100-year Bed Material Supply (from Reach 1):	42,642 tons
100-year Bed Material Outflow (from Reach 3):	39,873 tons
100-year Net Accumulation Expected:	2,679 tons
100-year Total Yield Through Project (from Reach 3):	363,080 tons

The computations indicate that bed material is a significant fraction of the total watershed sediment yield for both channels, representing approximately 7 percent of the total load under average annual conditions, and approximately 12 percent of the total load under 100-year flood conditions. The expected deposition along the study reach represents 0.5 to 6.3 percent of the inflowing bed material load. The existing wash is a very efficient conduit for transport of sediment through the project site.

The existing bluff along the southeast side of the wash is an additional source of material to the study channel. The quantity of material supplied from this source is unknown. However, comparison of historical channel profiles indicates that local failures have

distorted the channel slope locally, creating an artificially steepened reach near the upstream end of the project site. The channel will attempt to naturally adjust this 'bump' over time, should bluff failures cease.

With-Project Hydraulic and Bed Material Transport Analysis

Proposed Flood Control Plan

The proposed plan for control of floodwaters in Bedford Wash is to construct an engineered levee on or very near the existing graded berm that bounds the western side of the Wash through the project site (see Exhibit A). The invert and bluff side of the Wash are to remain unlined. Some grading of the channel bottom is also proposed in the upstream reach of the project, to guide flows away from the existing eastern bluff. The levee is to have 1:5 to 1 (horizontal to vertical) side slopes lined with concrete. The levee is to be designed to contain the design flow, with freeboard to allow bed deformation and other uncertainties. A transverse levee is to be constructed at the upstream end of the site to aid in funneling errant flows into the proposed facility. Plan, profile and typical section views of the proposed facility are illustrated in Exhibit A, and the proposed grading plan is presented in Exhibit B. The invert profile of the proposed plan is compared to the existing condition invert profile in Figure 27. As shown in this figure, the proposed plan will slightly decrease the slope in the upstream reach of the project, and maintain the existing slope in the lower reach of the project.

Hydraulic Modeling

A with-project conditions hydraulic model of the Wash was prepared by editing the existing conditions HEC-RAS model to reflect the proposed grading and levee construction. The Manning n value for the lined portion (the levee face) was assigned a value of 0.015 in the with-project condition model. All other Manning n values remained the same as in the existing conditions model. The new model was used to estimate of the hydraulic characteristics of the modified Bedford Wash under a range of flood conditions.

Sediment Transport Capacity Calculations

The with-project hydraulics and existing conditions bed material size information for the study channel were used to quantify bed material transport capacities through the modified channel reaches. The procedures used in the baseline analysis were repeated for the with-project case: hydraulic variables were averaged on a reach-by-reach basis, and the SAM sediment transport analysis package was used to compute transport capacities. Reach-averaged hydraulics for the with-project condition are summarized in Table 9. Computed transport capacities are summarized in Table 10, and illustrated in Figure 28. The with-project hydraulic and sediment transport conditions are very similar to those computed for the baseline condition. The slight decrease in the inset channel slope within the upper portion of the project reach results in slightly lower velocities (and

slightly reduced transport rates) compared to the existing case. These changes will aid in reducing the scour potential of the upper project reach, and will slightly improve transport balances through the project.

Dynamic Simulation

A dynamic simulation model of the Bedford Wash under with-project conditions was developed using the GSTARS computational package developed by the US Bureau of Reclamation (Ref. 16). The GSTARS computational package was created by the Bureau to enable estimation of the erosion and sedimentation processes that occur within alluvial channels during flood events. GSTARS is capable of handling the supercritical conditions present along the study reach (in contrast to the HEC-6 program developed by the Corps of Engineers, which reverts to critical conditions in reaches that are supercritical).

GSTARS is capable of simulating an alluvial channel as a series of parallel threads, to approximate the two-dimensional nature of flows in some alluvial channel situations. A single thread analysis was applied for analysis of the with-project condition for Bedford Wash, which is judged to be well represented by a one-dimensional approximation.

GSTARS performs hydraulic and sediment transport calculations at discrete intervals throughout the simulated flood event, updating the channel geometry at the end of each step to reflect the differences in sediment transport rates from cross-section to cross-section. The GSTARS model was used to provide a more detailed evaluation of river response to design floods than the steady-state analyses performed in the previous studies. The quasi-dynamic sediment routing analysis allowed estimation of at-peak and at-end-of-flood scour and deposition magnitudes at locations, as well as peak water surface elevations, throughout the length of the facility.

The Yang transport equations for sand and gravel were used in the GSTARS analysis, consistent with the approach followed in the steady state assessment.

Profile views of the channel invert at peak and end of the GSTARS 100-year flood simulation are illustrated in Figure 29. The general trend of the results is consistent with the findings of the steady state simulation – some scour is likely at the upstream end of the project reach, and deposition is likely toward the lower end of the project. Example sections of the magnitude of the potential scour and deposition predicted by the GSTARS model are presented in Figures 30 and 31.

Peak 100-year water surface elevations computed using GSTARS are compared to the equivalent HEC-RAS elevations in Figure 32. The results are comparable – no dramatic changes to the water surface levels are expected due to intra-flood channel deformation. The GSTARS water surface profile tends to be lower than the RAS profile in the upstream portion of the project, where scour is expected, and tends to be higher than the RAS profile in downstream portion of the project, where deposition is expected.

Floodplain Analysis

For floodplain modeling purposes, a high-depth (more conservative) approach to modeling the Bedford Wash was applied, following FEMA guidelines for non-engineered berms in alluvial channels. The hydraulic models prepared for the existing and with-project Bedford Wash conditions were modified to reflect the potential for failure of the existing graded berm (in the unimproved portions of the study reach) to confine the flows against the existing eastern bluff. Cross-sections were extended westward, and the channel limits were redefined to allow flow on the west side of the existing berm. The hydraulic models were then re-run assuming: (1) bulked 100-year discharges (using a bulking factor of 1.48 (see footnote[1]) and (2) subcritical conditions control (which resulted in the model defaulting to critical flow depth at nearly every location along the project reach, since the normal conditions are supercritical).

Flow splits and local islands exist at some locations within the existing property limits; however, the majority of the site between the existing east and west bluffs is potentially within the 100-year floodplain, under existing conditions. Local islands were ignored, and a plan view of the potential 100-year floodplain limits was prepared (see Exhibit C). With-project, the proposed levee will be designed and constructed to fully contain the design flows, as depicted in Exhibit D.

Facility Sizing

Requirements for toe-down and freeboard allowances along the length of the project were developed based on the results of the above analyses and supplemental components discussed below. Pertinent 100-year flood hydraulic variables for the with-project condition (flow depth and average channel flow velocity), are summarized for the sections along the project reach in Table 11. Both the supercritical (using unbulked discharges) and the critical (using bulked discharges) results are presented in this table. Highest depths were computed in the subcritical run. Highest velocities were computed in the supercritical run.

Channel Invert and Water Surface Levels Variability

Potential channel change components within a soft bottom channel include long-term invert change, general scour or deposition associated with response to design event occurrence, and deformation due to local features, such as bedforms, bends, etc. Design water surface levels can be affected by these channel change components, as well as other hydraulic factors. The focus of this study is on the potential variability in channel invert elevations associated with erosion and sedimentation processes within the proposed channel, and the effects of these processes on water surface elevations.

[1] Consistent with the bulking factor applied in the submittal for the downstream development (see Ref. 15);

Long-Term Invert Change

No reservoirs or other sediment retention facilities are anticipated in the watershed upstream of the project that would limit sediment loads to the project. Therefore, no long-term invert change is expected to occur along the project due to reduction in sediment supply from upstream.

There may be some long term accumulation of sediment along the length of the proposed project, due to gradient change near the downstream end, and due to potential yield directly from the eastern bluff. It is assumed that maintenance will occur on an as-needed basis (particularly after major flood events) to keep the channel capacity at or near that provided under as-built conditions.

Design Flood Invert Change and Effect on Design Flood Water Surface

Bedford Wash under with-project conditions will not consist of a single, prismatic section of constant slope, hydraulics and sediment transport capacity. General scour and deposition processes are expected to occur along the project during design flood passage, as discussed in the dynamic modeling section of this report.

Potential Additional Channel Change and Water Surface Level Components

Bedforms, bend scour, and low flow incisement are additional potential scour components that can affect channel invert levels in soft-bottom facilities. Bedforms and bends also affect water surface elevations of flood flows. The procedures used to estimate each of these components is discussed in the following paragraphs.

Bedforms

Bedforms are natural alluvial features that can form in soft bottom channels. Antidunes are the type of bedform that can form in flows in transition or upper regime flow conditions. Antidunes are roughly sinusoidal features, with crests and troughs above and below the average bed level. Potential antidune height was estimated using procedures developed by Kennedy (1963) as summarized in Ref. 18:

$$H_a = 0.027 \times V^2$$

with:

H_a = the antidune height from crest to trough
V = the channel flow velocity

One-half of the potential antidune height extends above the average channel bed level, adding to the height of the water surface elevation. One-half of the potential antidune height extends below the average channel bed level, adding to the potential scour depth.

Bends

Increased scour is typically experienced along the outside of channel bends in soft bottom channels. The Zeller (1981) Equation, as summarized in Ref. 18, was used to approximate the amount of bend scour expected the channel bend proposed at the downstream end of the proposed channel:

$$\Delta Z_b = \frac{0.0685 Y V^{0.8}}{Y_h^{0.4} S^{0.3}} \left[2.1 \left[\frac{w}{4r} \right]^{0.2} - 1 \right]$$

with:

ΔZ_b = potential scour at bend (feet)
Y = maximum upstream flow depth (feet)
V = velocity of upstream flow (ft/s)
Y_h = hydraulic depth of upstream flow (feet)
S = slope of upstream energy grade line
w = channel topwidth
r = radius of curvature at channel centerline

Superelevation of the water surface also occurs at channel bends. Superelevation was computed using and equation developed by the Corps of Engineers (1970), as summarized in Ref. 18:

$$\Delta Y_b = C \frac{V^2 w}{g r}$$

with:

ΔY_b = superelevation allowance
C = a coefficient, equal to 1.3 for trapezoidal channels with supercritical flow
g = acceleration of gravity

Low flow incisement

A low flow channel commonly forms within a soft bottom facility, regardless of the as-built section and grade. A field inspection of the study area is the best method for determination of the likelihood and magnitude of the low flow incisement component of potential channel adjustment. For the project reach, a low flow incisement allowance of 2 feet is judged reasonable.

Bank Height Computations

Minimum bank height computations were made considering each of the water surface level components discussed above. Several potential water surface and freeboard allowance computations were made based on the results of the three sets of hydraulic modeling results: (1) the GSTARS modeling considering flood hydrograph simulation

and dynamic channel geometry changes; (2) the HEC-RAS steady-state modeling considering unbulked peak discharges and supercritical flow conditions; and, (3) the HEC-RAS steady-state modeling considering bulked discharges and critical flow conditions. In scenario (1), the minimum bank height was computed as the peak water surface computed during the flood simulation, with added components for bedform development and superelevation. In scenario (2), the minimum bank height was computed as the unbulked peak Q100 water surface with added components for general aggradation[2], bedform development and superelevation. In scenario (3), the minimum bank height was computed as the bulked peak Q100 water surface with an allowance for superelevation and 3 feet of freeboard. The minimum levee heights computed following these three scenarios are compared in Table 12 and Figure 33. As may be noted in Figure 33, the proposed levee plan has been design to meet the most conservative requirement considered – Scenario 2.

Bank Toedown Computations

Minimum toedown computations were made considering the channel invert change components discussed above. The total minimum toedown allowance was computed as the sum of: (1) the maximum general scour depth computed using GSTARS; (2) one-half the computed antidune height; (3) low flow incisement; and, (4) bend scour. The bank toedown computations are summarized in Table 13 and in Figure 34. In both cases, the computations are compared to those derived using two different LA County requirements: a tabled set of allowances determined by flow velocity (reproduced in Table 13), and a toedown depth chart for use in bends, which is flow-depth based[3] (reproduced in Figure 34).

Transverse Levee

The transverse levee proposed at the upstream end of the project will collect and guide flows into the modified Bedford Wash. This side slope of this structure will be lined with concrete. The south side of this structure will include a fully-lined low flow channel with capacity to contain approximately the 5-year peak discharge. This transverse channel will connect to the upstream end of the modified Bedford Wash, and the lining will extend across the existing Wash to form a lined inlet upstream end of the proposed longitudinal levee. Local scour of the transverse levee, and potential 'abutment' scour at the location of the transverse and longitudinal levee connection, will be controlled by this proposed lining.

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[2] In scenario (2), the general aggradation component applied was the maximum deposition depth computed at any section along the project reach in the GSTARS simulation.

[3] The LA County depth-based methodology was applied using the maximum flow topwith-to-bend radius ratio that exists along the project reach – a value of 0.11, and was computed for comparison purposes only. As stated in the LA County Hydraulic Design Manual, this cutoff depth only applies if it is larger than that derived using the velocity based approach.

The I-15 Bridge

At the downstream end of the development site, the project outlets to a channel that passed beneath I-15. The existing I-15 bridge has a single pier, and the channel banks are partially lined with rock rip-rap. As discussed above, the flow conditions throughout the proposed project (and the reaches upstream and downstream) are supercritical. For the highest design flow condition considered in this report (bulked Q100 = 6500 cfs) this supercritical condition was maintained through this bridge structure, even with a debris allowance of 4 feet applied on the single pier. However, under lesser discharges (for example, the unbulked Q100 = 4370 cfs), the RAS model is unable to arrive at a solution in the bridge, and critical conditions are defaulted to, resulting in subcritical flow conditions computed for the section immediately upstream. This results in local water surface elevations computed for higher discharges that are lower than those computed for lower discharges, as illustrated in Figure 35. Supercritical flow conditions are difficult for the HEC-RAS model to deal with when computing losses through bridge structures, so the two solutions represent a range of potential conditions that may be experienced upstream of the bridge. It is recommended that the demonstrated hydraulic sensitivities in the vicinity of this structure be kept in mind in the final design of the transition between the proposed levee and the existing bridge. The addition of a debris nose on the single pier is recommended to reduce disturbance to the rapid flow conditions entering this structure during flood conditions.

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Appendix 1

Average Annual Event Determination

AEI-CASC has provided hydrologic quantities for the study watersheds associated with the 2-year, 5-year, 10-year, 25-year, 50-year and 100-year flood events. For average annual event determination, probability weighting of these events was applied – approximating the integration of the quantity versus probability curve. This procedure is illustrated in Figure A-1.

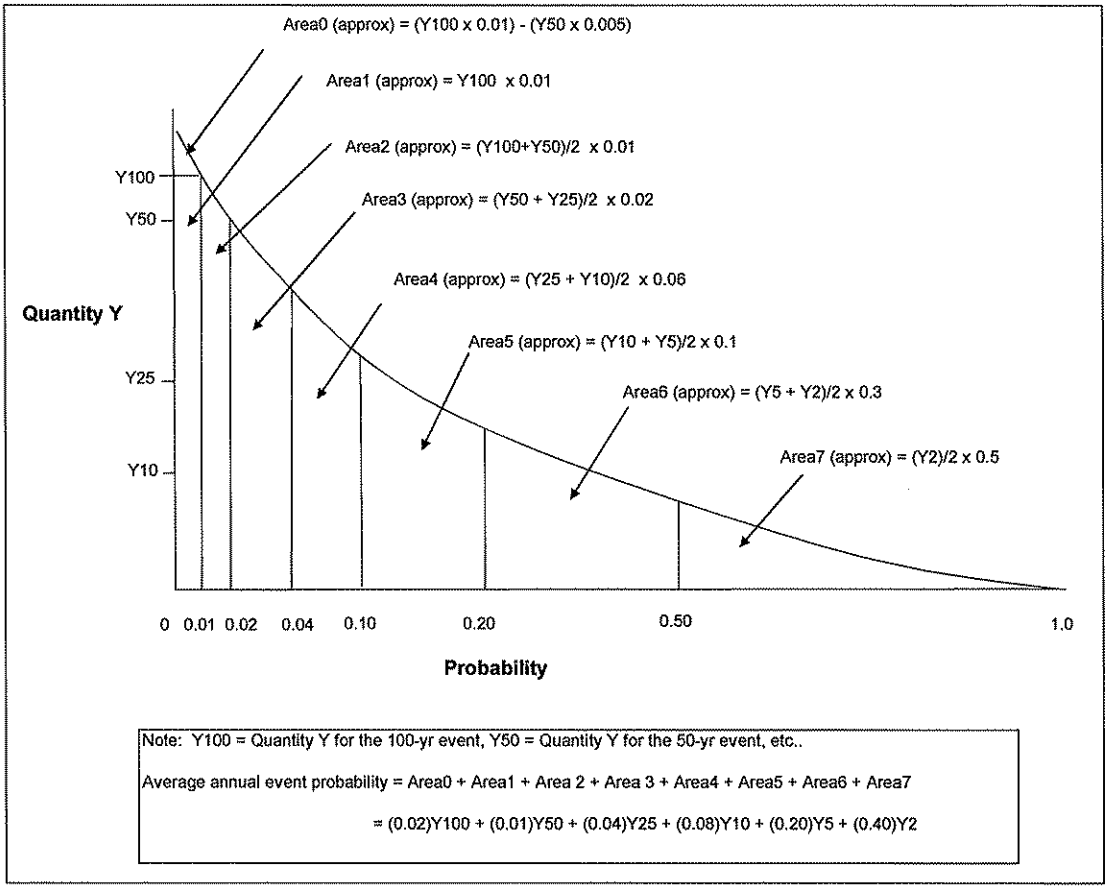


Figure A-1 Average annual determination

TABLES

Table 1 Hydrologic quantities for the study area

Return Period	Peak Discharge cfs	Runoff Volume acre-feet
100-year	4,370	833
50-year	3,823	699
25-year	3,276	569
10-year	2,555	417
5-year	1,430	200
2-year	816	115

Table 2 FRAP and COE procedure estimates for full watershed burn conditions

Area, sqmi	FRAP full burn erosion, tons/ac/yr	FRAP full burn erosion, tons/yr	AT Factor COE Procedure	COE yield FF = 6 tons/yr
7.49	99.96	479,168	0.86	475,565

Note: The AT factor for the COE procedure was adjusted to obtain a match to FRAP yields under full burn conditions (FF = 6)
FRAP is the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program

Table 3 Sediment yield quantities from the COE Debris Yield Procedure; normal watershed conditions

Area, sq. mi.	7.49
RR, ft/mi	477.6
Fire Factor	3
AT factor	0.86

Return Period	**Peak Discharge cfs**	**Debris Yield tons**
100-year	4,370	365,849
50-year	3,823	326,540
25-year	3,276	286,375
10-year	2,555	231,833
5-year	1,430	141,556
2-year	816	87,868
Avg. Annual	---	104,042

Table 4 Sediment Yield from MUSLE

Area, sq.mi.	7.49
K factor	0.238
LS factor	61.5
C factor	0.081
P factor	1

Return Period	Peak Discharge cfs	Runoff Volume acre-feet	Debris Yield tons
100-year	4,370	833	531,975
50-year	3,823	699	447,419
25-year	3,276	569	365,693
10-year	2,555	417	267,347
5-year	1,430	200	128,005
2-year	816	115	68,580
Avg. Annual	---	---	104,162

Table 5 Average annual sediment yield for the study watersheds, from the Flaxman procedure (1972)

Area, sq.mi.	7.49
Avg. ann. Precip, inches	21.4
Avg. ann. Temp, degrees F	62.5
Watershed slope, %	42.6
Pct. Soils > 1 mm	31.2
Pct Clay	13.9
Soil pH	6.5
X1 factor	0.343
X2 factor	42.6
X3 factor	31.2
X4 factor	0.0
Flaxman Debris Yield, tons	31,897

note: pct soils > 1mm >> 25% ==> X4 = 0

Table 6 Breakdown (percentages) of bed material samples by size class: Bedford Wash

		Cobbles	Very Coarse Gravel	Coarse Gravel	Medium Gravel	Fine Gravel	Very Fine Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand
	size class ==>	cob	vcg	cg	mg	fg	vfg	vcs	cs	ms	fs	vfs
	geometric mean, mm ==>	90.155	45.255	22.627	11.314	5.657	2.828	1.414	0.707	0.354	0.177	0.088
Sample	Location											
1	U/S Golf Cart Xing	10.3	12.7	12.7	13.3	11.8	11.2	10.2	8.8	3.8	2.5	0.9
2	D/S 2nd Check Dam	0.0	4.8	9.7	15.2	18.1	15.2	12.3	9.6	7.1	3.2	1.1
3	U/S Property Line South	19.3	6.1	7.7	11.2	12.8	12.0	10.4	7.6	3.8	2.7	1.9
4	Existing @Grade Xing	0.0	5.6	11.7	15.7	15.4	13.6	10.9	9.0	7.4	4.5	2.6
5	U/S of I-15	0.0	1.8	7.1	13.1	15.6	14.4	11.5	10.4	12.0	9.0	2.8
6	Midpoint	1.3	7.7	10.9	14.1	15.8	15.2	11.6	5.8	5.6	3.7	2.8

Table 7 Reach-averaged hydraulics for Bedford Wash

Reach 1

TOTAL	EFFECTIVE				ENERGY
DISCHARGE CFS	DISCHARGE CFS	VELOCITY FPS	DEPTH FT	WIDTH FT	SLOPE FT/FT
4370.	4361.	19.02	3.28	69.90	0.0302000
3823.	3818.	18.25	3.09	67.70	0.0301000
3276.	3270.	17.38	2.89	65.10	0.0299000
2555.	2549.	16.04	2.58	61.60	0.0296000
1430.	1431.	12.94	2.01	55.00	0.0269000
816.	817.	10.74	1.54	49.40	0.0265000

Reach 2

TOTAL	EFFECTIVE				ENERGY
DISCHARGE CFS	DISCHARGE CFS	VELOCITY FPS	DEPTH FT	WIDTH FT	SLOPE FT/FT
4370.	4363.	20.47	3.08	69.20	0.0380000
3823.	3820.	19.61	2.89	67.40	0.0380000
3276.	3274.	18.65	2.68	65.50	0.0380000
2555.	2559.	17.20	2.38	62.50	0.0380000
1430.	1432.	14.18	1.79	56.40	0.0378000
816.	817.	11.80	1.36	50.90	0.0377000

Reach 3

TOTAL	EFFECTIVE				ENERGY
DISCHARGE CFS	DISCHARGE CFS	VELOCITY FPS	DEPTH FT	WIDTH FT	SLOPE FT/FT
4370.	4362.	18.87	3.44	67.20	0.0279000
3823.	3814.	17.70	3.28	65.70	0.0262000
3276.	3269.	16.86	3.03	64.00	0.0264000
2555.	2553.	15.60	2.67	61.30	0.0268000
1430.	1432.	12.92	1.99	55.70	0.0272000
816.	817.	10.77	1.50	50.60	0.0276000

Reach 4

TOTAL	EFFECTIVE				ENERGY
DISCHARGE CFS	DISCHARGE CFS	VELOCITY FPS	DEPTH FT	WIDTH FT	SLOPE FT/FT
4370.	4364.	18.63	3.42	68.50	0.0257000
3823.	3818.	17.97	3.19	66.60	0.0261000
3276.	3279.	17.12	2.96	64.70	0.0263000
2555.	2549.	15.83	2.61	61.70	0.0265000
1430.	1429.	13.18	1.95	55.60	0.0271000
816.	815.	11.05	1.46	50.50	0.0280000

Table 7 Reach-averaged hydraulics for Bedford Wash (continued)

Reach 5

TOTAL	EFFECTIVE				ENERGY
DISCHARGE CFS	DISCHARGE CFS	VELOCITY FPS	DEPTH FT	WIDTH FT	SLOPE FT/FT
4370.	4373.	29.45	2.25	66.00	0.0300000
3823.	3831.	28.29	2.08	65.10	0.0308000
3276.	3286.	26.94	1.90	64.20	0.0315000
2555.	2552.	24.78	1.64	62.80	0.0323000
1430.	1433.	19.94	1.19	60.40	0.0322000
816.	815.	15.99	0.89	57.30	0.0304000

Table 8 Event bed material transport summary for Bedford Wash (transport capacity in tons)

Location	100-year	50-year	25-year	10-year	5-year	2-year	Avg. Annual
Reach 1	42,642	34,891	27,605	19,237	8,153	4,489	7,271
Reach 2	58,547	48,297	38,612	27,473	12,278	6,818	10,579
Reach 3	39,873	32,590	26,165	18,705	8,430	4,693	7,230
Reach 4	40,423	33,530	26,943	19,298	8,799	4,936	7,500
Reach 5	90,919	75,350	62,293	45,666	20,493	11,285	17,330

Table 9 Reach-averaged hydraulics for Bedford Wash, with-project conditions (project reaches only)

Reach 2

TOTAL	EFFECTIVE				ENERGY
DISCHARGE CFS	DISCHARGE CFS	VELOCITY FPS	DEPTH FT	WIDTH FT	SLOPE FT/FT
4370.	4369.	19.11	2.61	87.60	0.0385000
3823.	3823.	18.26	2.44	85.80	0.0385000
3276.	3276.	17.34	2.26	83.60	0.0384000
2535.	2538.	15.88	1.99	80.30	0.0382000
1430.	1433.	13.35	1.59	67.50	0.0363000
816.	814.	11.49	1.34	52.90	0.0342000

Reach 3

TOTAL	EFFECTIVE				ENERGY
DISCHARGE CFS	DISCHARGE CFS	VELOCITY FPS	DEPTH FT	WIDTH FT	SLOPE FT/FT
4370.	4362.	18.07	3.28	73.60	0.0265000
3823.	3818.	17.32	3.07	71.80	0.0266000
3276.	3270.	16.47	2.84	69.90	0.0267000
2535.	2531.	15.20	2.50	66.60	0.0270000
1430.	1429.	12.67	1.88	60.00	0.0276000
816.	814.	10.54	1.42	54.40	0.0282000

Table 10 Event bed material transport summary for Bedford Wash, with-project conditions (transport capacity in tons)

Location	100-year	50-year	25-year	10-year	5-year	2-year	Avg. Annual
Reach 1	42,672	35,053	27,857	19,494	8,288	4,578	7,367
Reach 2	56,888	46,708	37,094	26,078	11,341	6,192	9,920
Reach 3	39,663	32,772	26,246	18,749	8,500	4,731	7,263
Reach 4	40,490	33,508	26,864	19,229	8,799	4,936	7,492
Reach 5	90,734	75,154	62,075	45,508	20,493	11,285	17,302

Table 11 Hydraulic parameters, with-project conditions

	Unbulked Q100, RAS Results supercritical		Bulked Q100, RAS Results critical	
RAS Station	Channel Velocity	Maximum Flow Depth	Channel Velocity	Maximum Flow Depth
(ft)	(ft/s)	(ft)	(ft)	(ft)
3609.6	18.9	4.8	14.6	8.1
3727.0	20.5	4.1	14.3	7.6
3914.2	21.8	4.3	14.8	8.2
4119.0	20.0	5.0	15.1	8.6
4304.5	19.3	5.0	14.8	8.5
4524.7	20.1	4.1	13.2	7.3
4710.6	16.1	4.8	13.7	7.4
4930.7	19.6	4.4	13.5	7.6
5095.4	17.3	5.2	13.4	7.9
5324.8	18.6	4.1	11.2	6.9
5473.8	18.2	4.0	12.3	6.9
5668.7	16.3	5.4	12.5	8.0
5826.0	20.2	3.1	12.6	6.1
5968.2	20.8	3.3	13.6	6.7
6160.4	18.7	3.9	13.5	6.9
6339.8	19.8	3.5	12.3	6.4
6533.0	19.1	4.8	12.9	7.7
6742.1	19.7	3.7	13.6	6.8
6921.4	21.1	3.4	13.6	6.9
7129.7	19.0	4.8	12.8	7.8
7415.7	20.2	4.5	13.1	7.6
7647.5	19.9	4.6	13.5	7.8
7899.8	18.8	4.8	12.4	7.7
8128.4	18.2	4.9	12.6	7.7
8335.4	17.2	4.8	12.1	7.3
8580.4	20.0	3.9	12.5	6.9
8803.1	16.5	4.8	13.2	7.4
8998.6	23.3	3.2	13.0	6.6
9153.9	21.3	5.7	13.8	9.5

Table 12 Levee height requirements versus proposed plan heights

RAS Station (ft)	GSTARS Peak WS + 1/2 antidune + superelevation Height 1 (ft)	Unbulked Q100 RAS Peak WS +gen agg + 1/2 antidune + superelevation Height 2 (ft)	Bulked Q100 RAS (critical) + superelevation + 3 ft FB Height 3 (ft)	Proposed Plan (ft)
3609.6	12.9	12.6	11.1	13.5
3727.0	10.1	12.7	10.6	14.0
3914.2	10.4	13.8	11.2	13.9
4119.0	10.9	13.4	11.6	13.8
4304.5	10.1	13.1	11.5	14.6
4524.7	8.8	12.6	10.3	13.9
4710.6	7.8	11.3	10.4	12.6
4930.7	11.0	12.7	10.6	14.2
5095.4	9.4	12.2	10.9	13.5
5324.8	7.9	11.8	9.9	11.6
5473.8	8.8	11.5	9.9	11.7
5668.7	11.4	13.0	11.8	14.9
5826.0	11.6	13.4	10.0	15.5
5968.2	9.9	13.8	10.4	14.7
6160.4	7.2	11.6	9.9	14.2
6339.8	10.1	11.8	9.4	14.2
6533.0	9.5	12.7	10.7	14.2
6742.1	8.2	12.0	9.8	13.8
6921.4	11.0	12.5	9.9	14.1
7129.7	9.5	12.7	10.8	13.8
7415.7	9.3	13.0	10.6	13.6
7647.5	9.7	13.0	10.8	13.3
7899.8	9.1	12.7	10.7	13.2
8128.4	8.4	12.5	10.7	13.0
8335.4	8.0	11.8	10.3	12.7
8580.4	8.1	12.4	9.9	12.4
8803.1	7.0	11.5	10.4	12.6
8998.6	12.8	13.6	9.6	14.7
9153.9	11.4	14.9	12.5	16.3

Table 13 Levee toe-down allowances -- several methodologies

RAS Station	General Scour Allowance	1/2 Antidune Height	Low Flow Incisement	Bend Scour	Sum of Scour Components Toe 1	LA County Velocity-Based Toe Allowance Toe 2	LA County Depth-Based Toe Allowance Toe 3
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
3609.6	2.5	4.9	2.0	0.0	9.4	14.0	6.5
3727.0	2.5	5.7	2.0	0.0	10.3	14.0	5.5
3914.2	2.5	6.5	2.0	0.0	11.0	14.0	5.8
4119.0	2.5	5.4	2.0	0.0	10.0	14.0	6.7
4304.5	2.5	5.1	2.0	0.0	9.6	14.0	6.8
4524.7	2.5	5.5	2.0	0.0	10.1	14.0	5.5
4710.6	2.5	3.6	2.0	0.0	8.1	12.5	6.5
4930.7	2.5	5.3	2.0	0.0	9.8	14.0	6.0
5095.4	2.5	4.1	2.0	0.0	8.7	12.5	7.0
5324.8	2.5	4.7	2.0	0.0	9.3	14.0	5.5
5473.8	2.5	4.5	2.0	0.0	9.1	14.0	5.4
5668.7	2.5	3.6	2.0	0.2	8.3	18.0	7.3
5826.0	2.5	5.6	2.0	0.1	10.2	21.0	4.1
5968.2	2.5	5.9	2.0	0.1	10.6	21.0	4.5
6160.4	2.5	4.8	2.0	0.0	9.3	14.0	5.2
6339.8	2.5	5.3	2.0	0.0	9.9	14.0	4.7
6533.0	2.5	5.0	2.0	0.0	9.5	14.0	6.4
6742.1	2.5	5.3	2.0	0.0	9.9	14.0	4.9
6921.4	2.5	6.1	2.0	0.0	10.6	14.0	4.6
7129.7	2.5	4.9	2.0	0.0	9.5	14.0	6.5
7415.7	2.5	5.6	2.0	0.0	10.1	14.0	6.0
7647.5	2.5	5.4	2.0	0.0	9.9	14.0	6.2
7899.8	2.5	4.9	2.0	0.0	9.4	14.0	6.5
8128.4	2.5	4.5	2.0	0.0	9.1	14.0	6.7
8335.4	2.5	4.0	2.0	0.0	8.6	12.5	6.5
8580.4	2.5	5.5	2.0	0.0	10.0	14.0	5.3
8803.1	2.5	3.7	2.0	0.0	8.3	12.5	6.5
8998.6	2.5	7.4	2.0	0.0	12.0	14.0	4.4
9153.9	2.5	6.2	2.0	0.0	10.7	14.0	7.7

Table 14 LA County velocity-based table for toedown (cutoff) depths

Velocities	Straight Reaches	*Curved Reach
0 - 6 f.p.s.	6-ft.	9-ft.
6 - 10 f.p.s.	8-ft.	12-ft.
10 - 15 f.p.s.	10-ft.	15-ft.
15 - 18 f.p.s.	12.5 ft.	18-ft.
18 - 20 f.p.s.	14 ft.	21-ft.

*Check the cut off depth for curved reach on Chart F-06 on Page F-38
Use that depth if greater than given hereon.

FIGURES

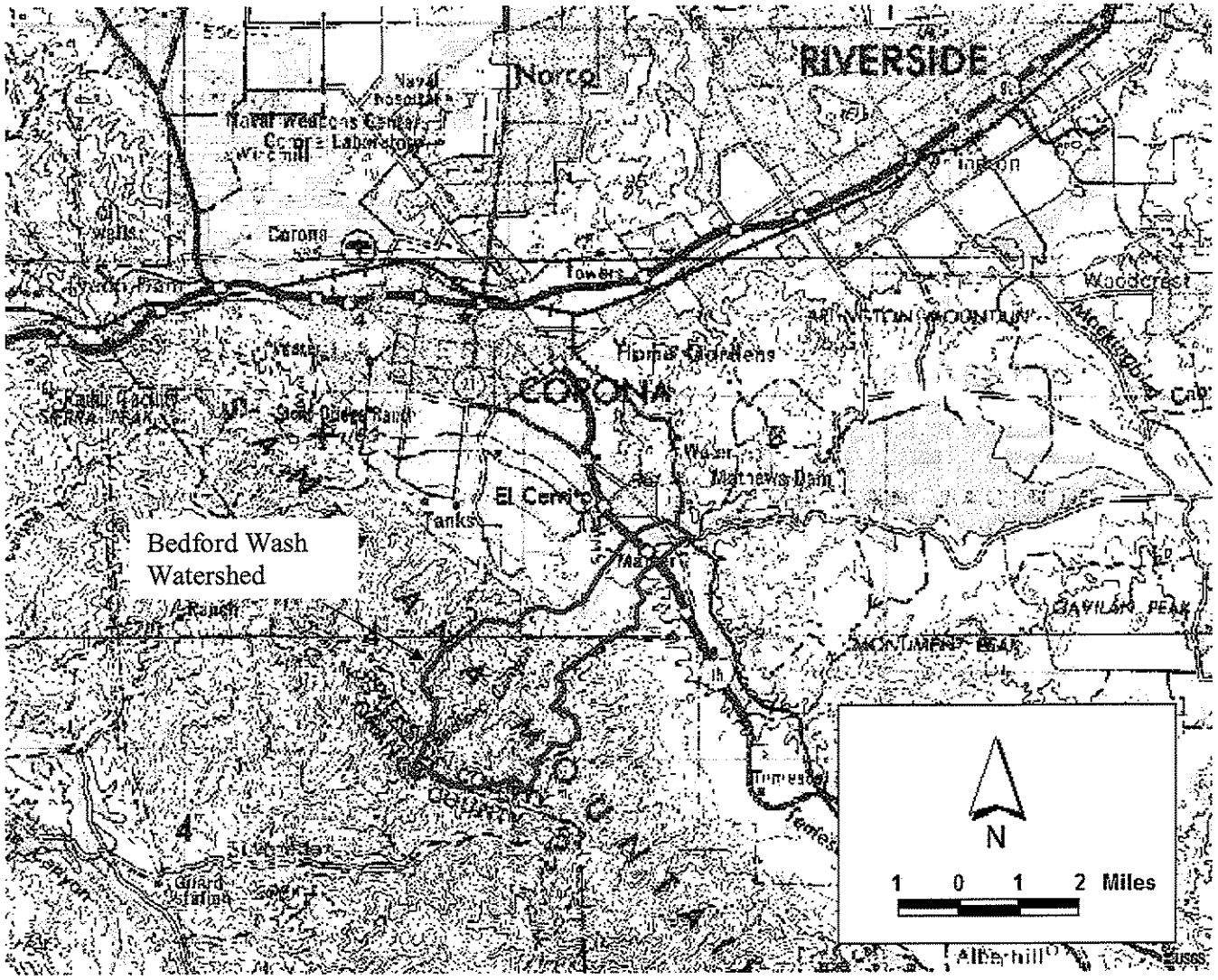


Figure 1 Regional vicinity of the study watersheds

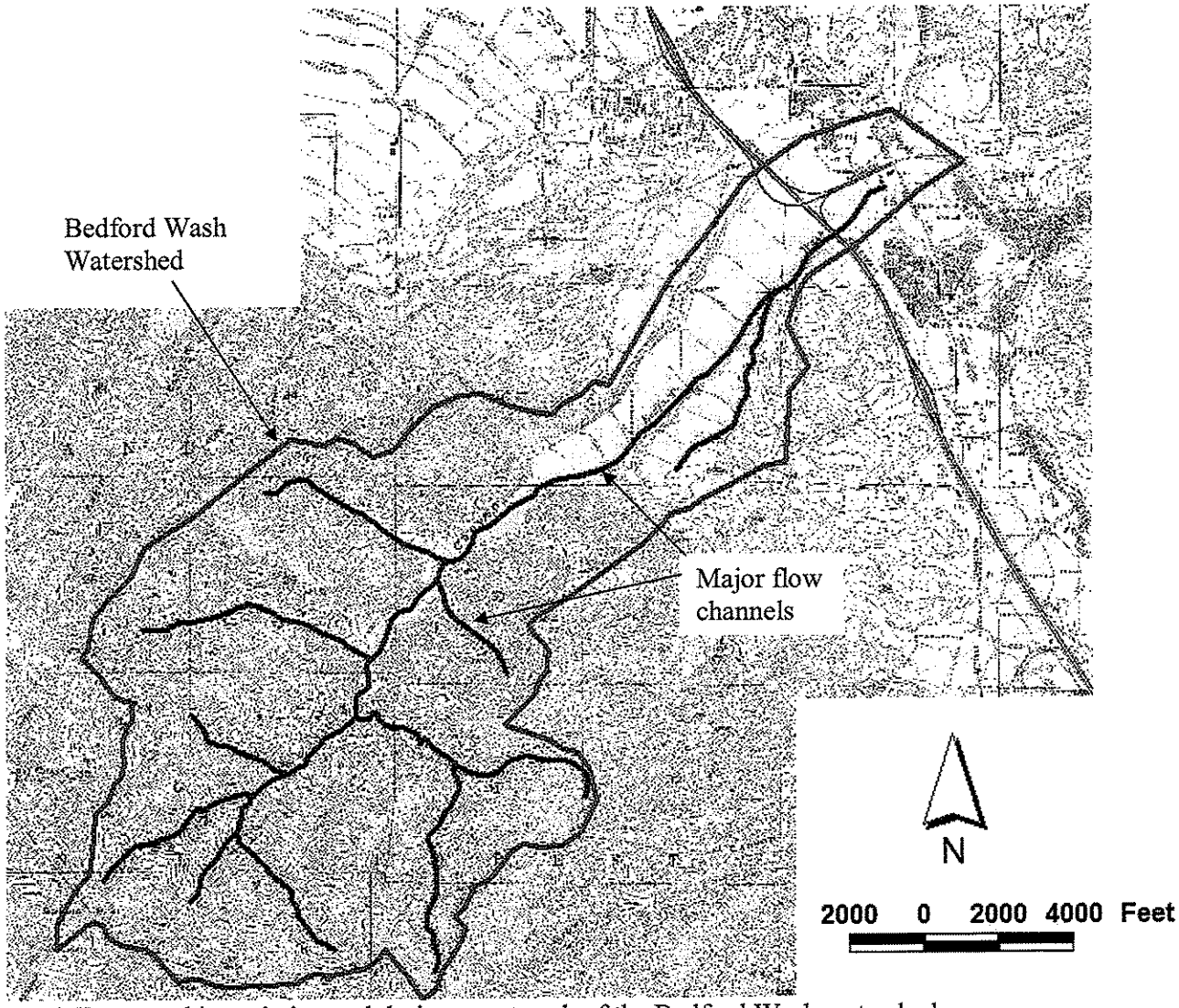


Figure 2 Topographic variation and drainage network of the Bedford Wash watershed

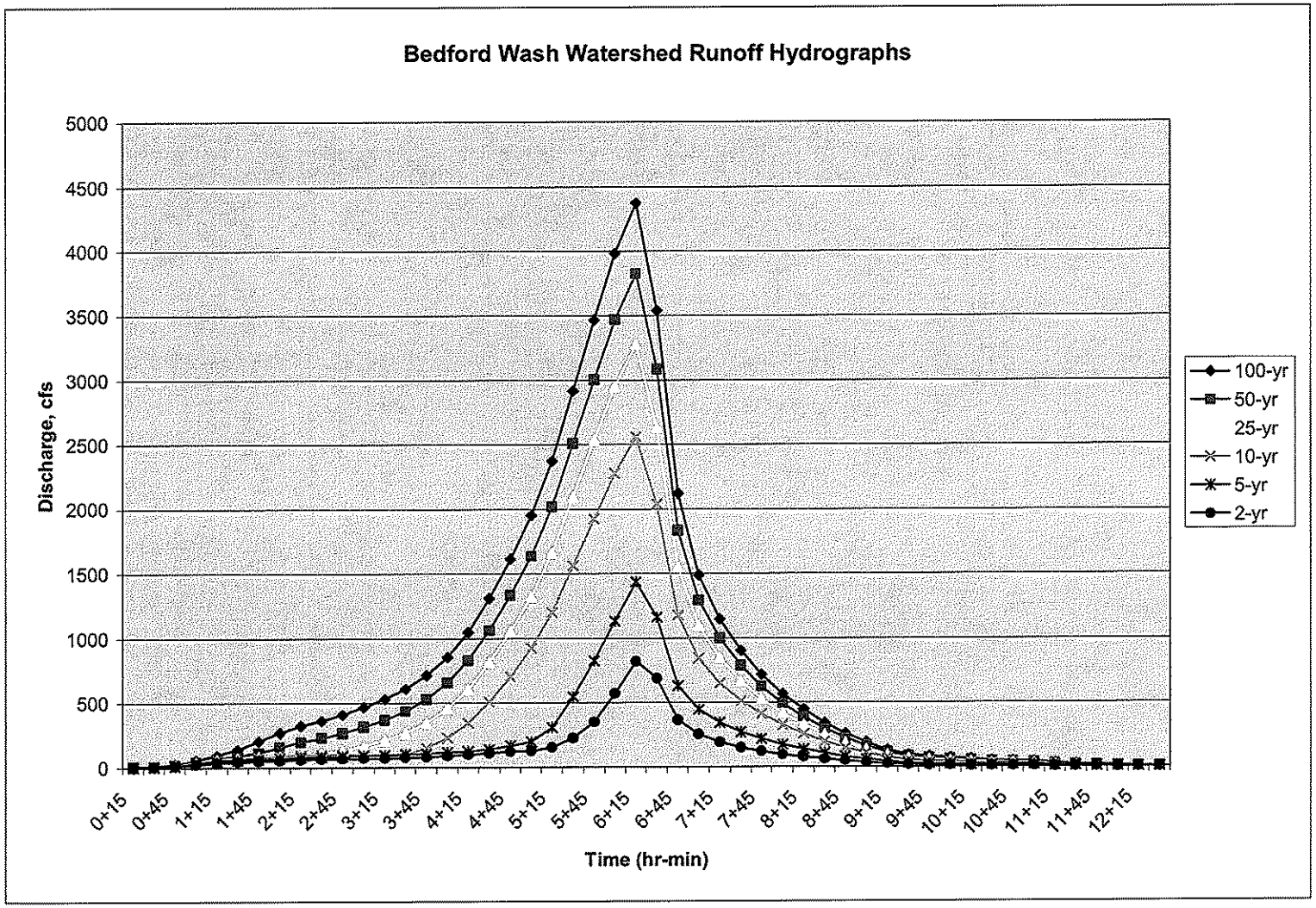


Figure 3 Bedford Wash flood hydrographs

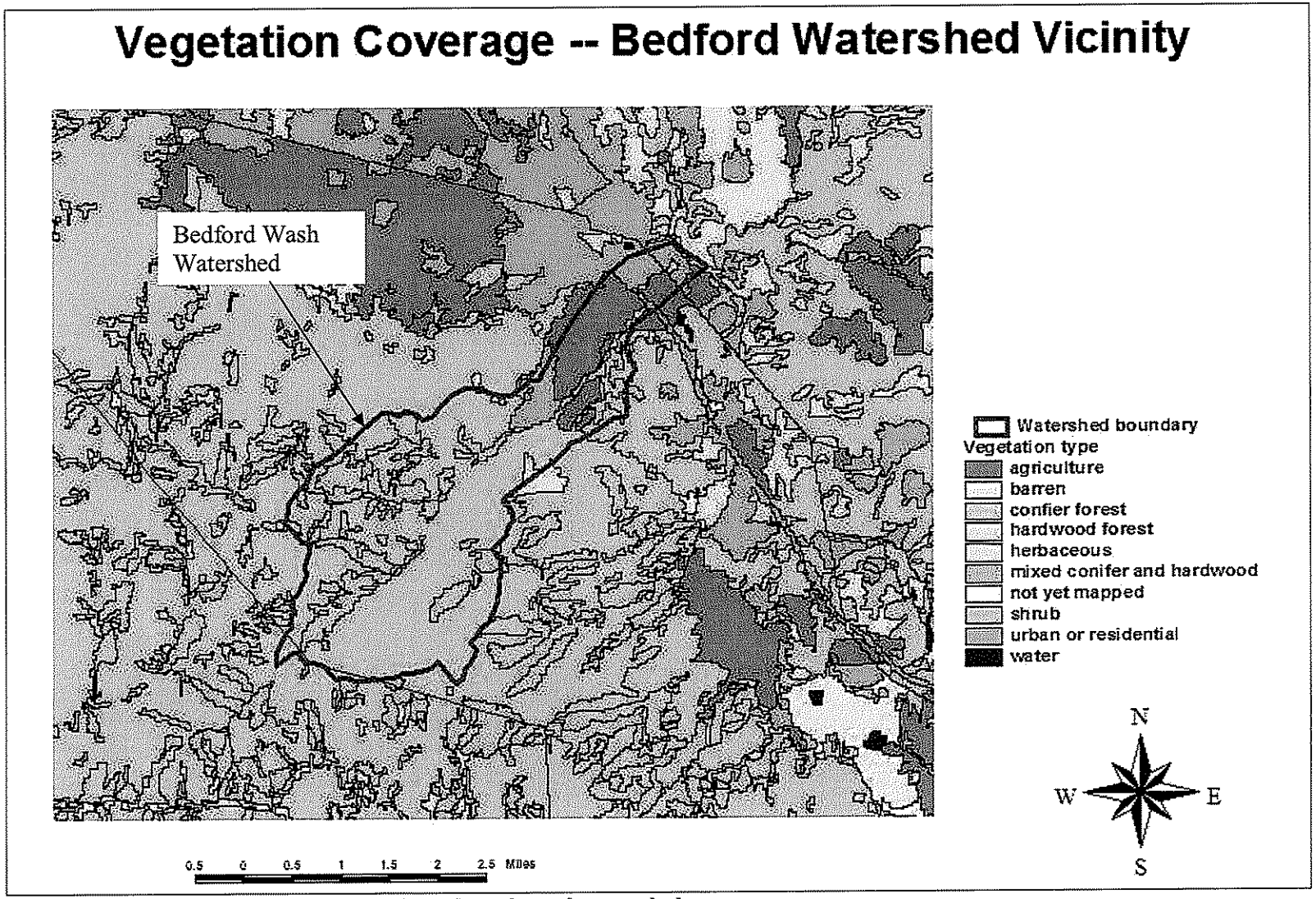


Figure 4 Major types of vegetation coverage throughout the study watershed

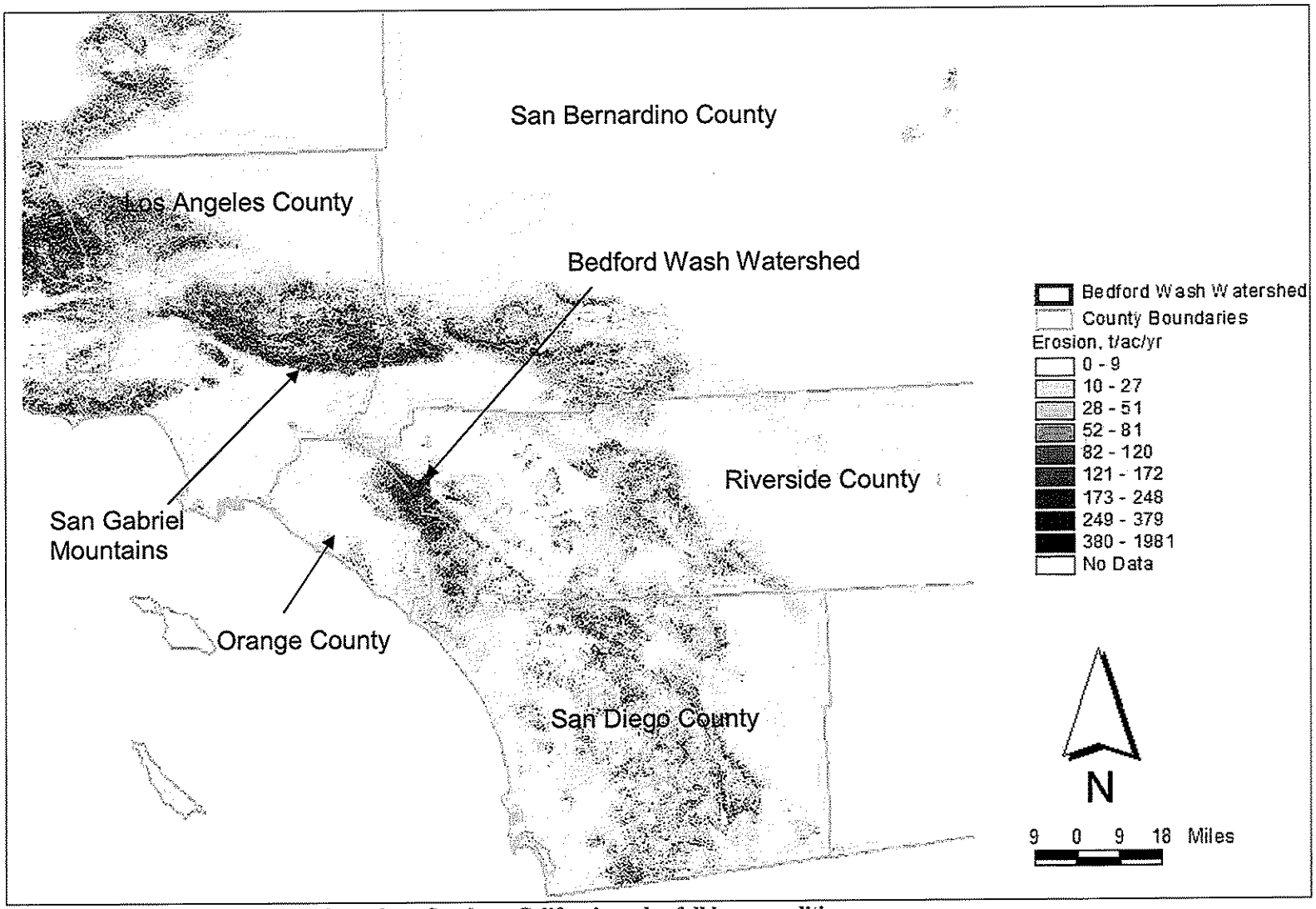


Figure 5 Estimate of erosion rates throughout Southern California under full burn conditions

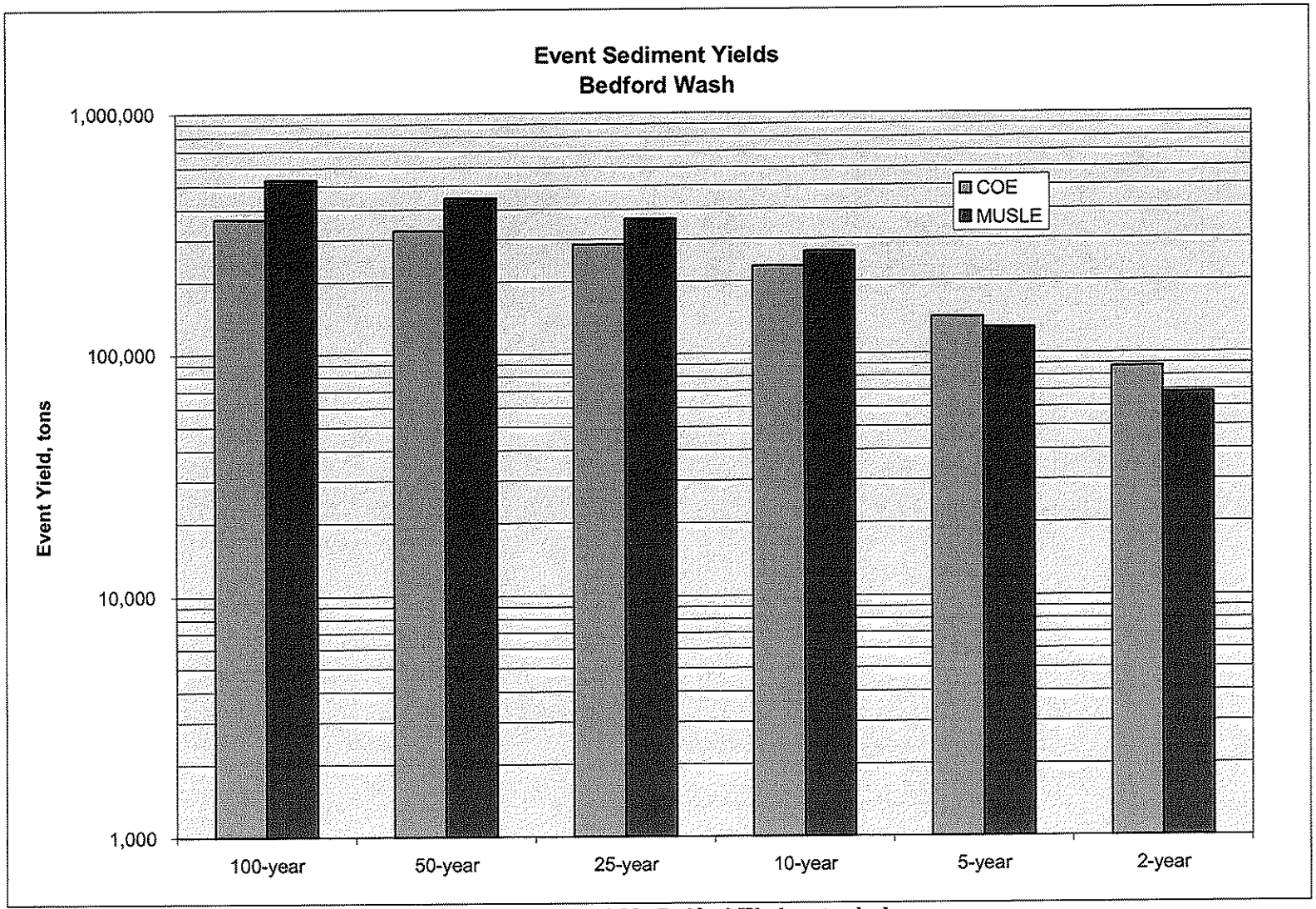


Figure 6 Results of COE procedure and MUSLE event sediment yields, Bedford Wash watershed

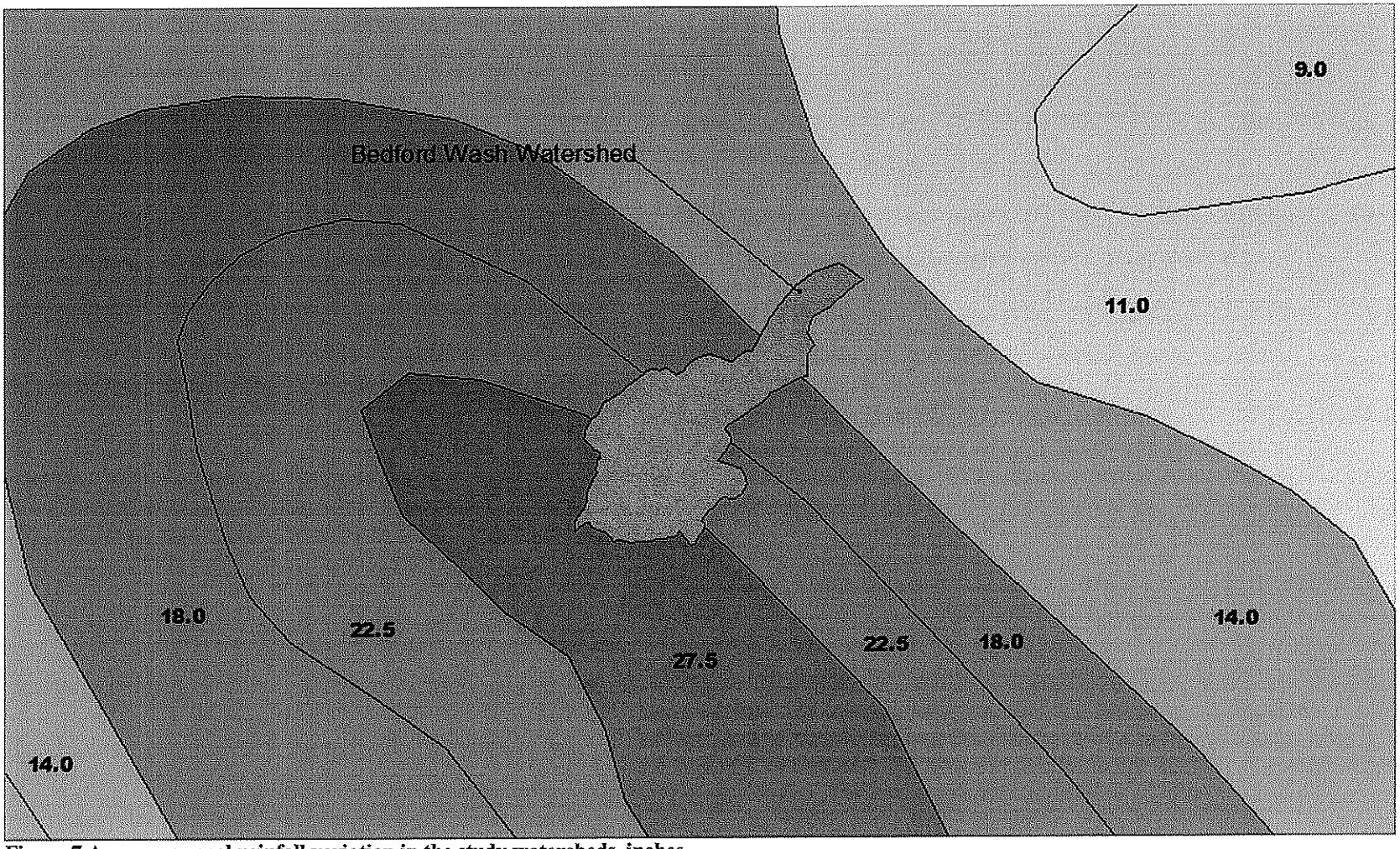


Figure 7 Average annual rainfall variation in the study watersheds, inches

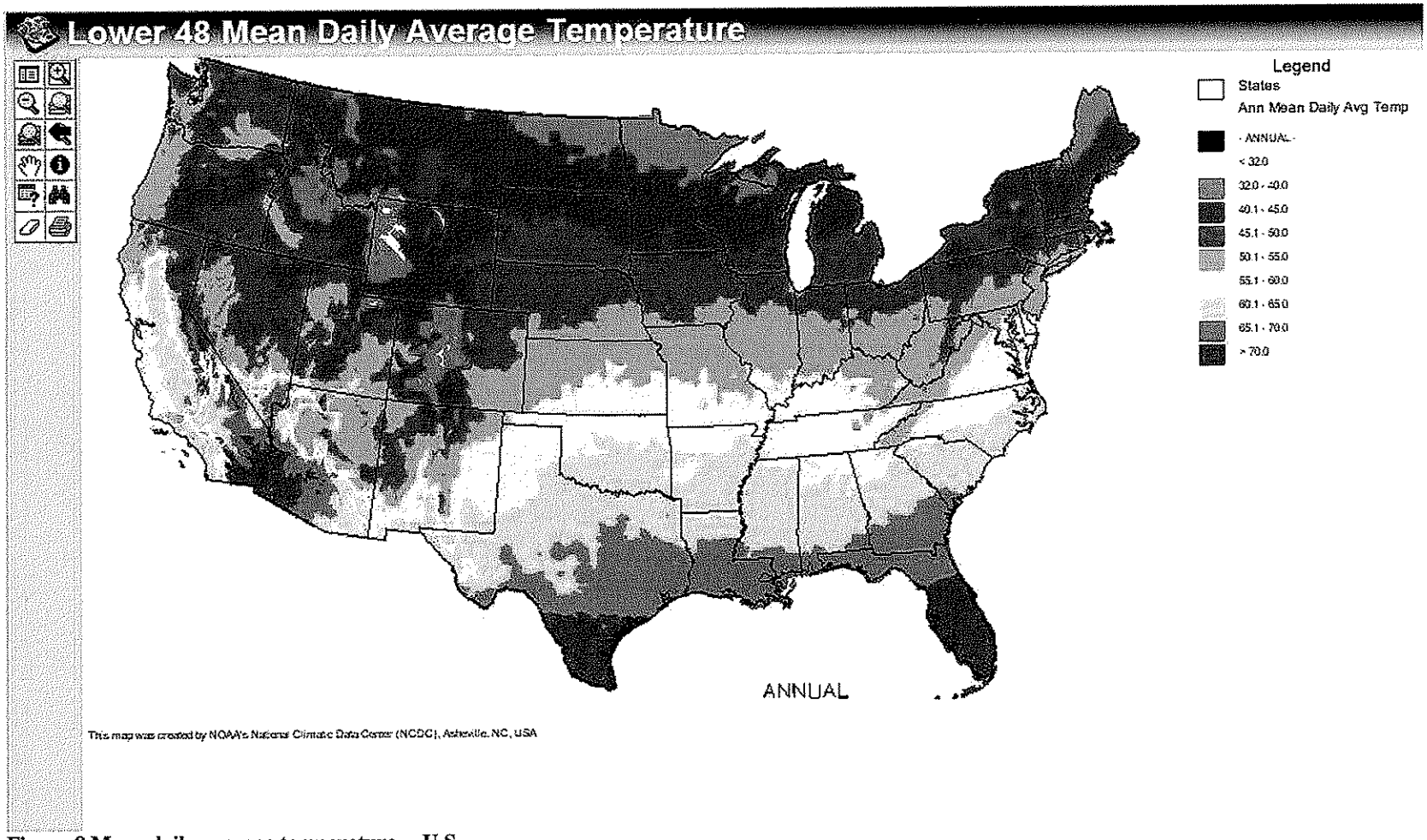


Figure 8 Mean daily average temperature -- U.S.

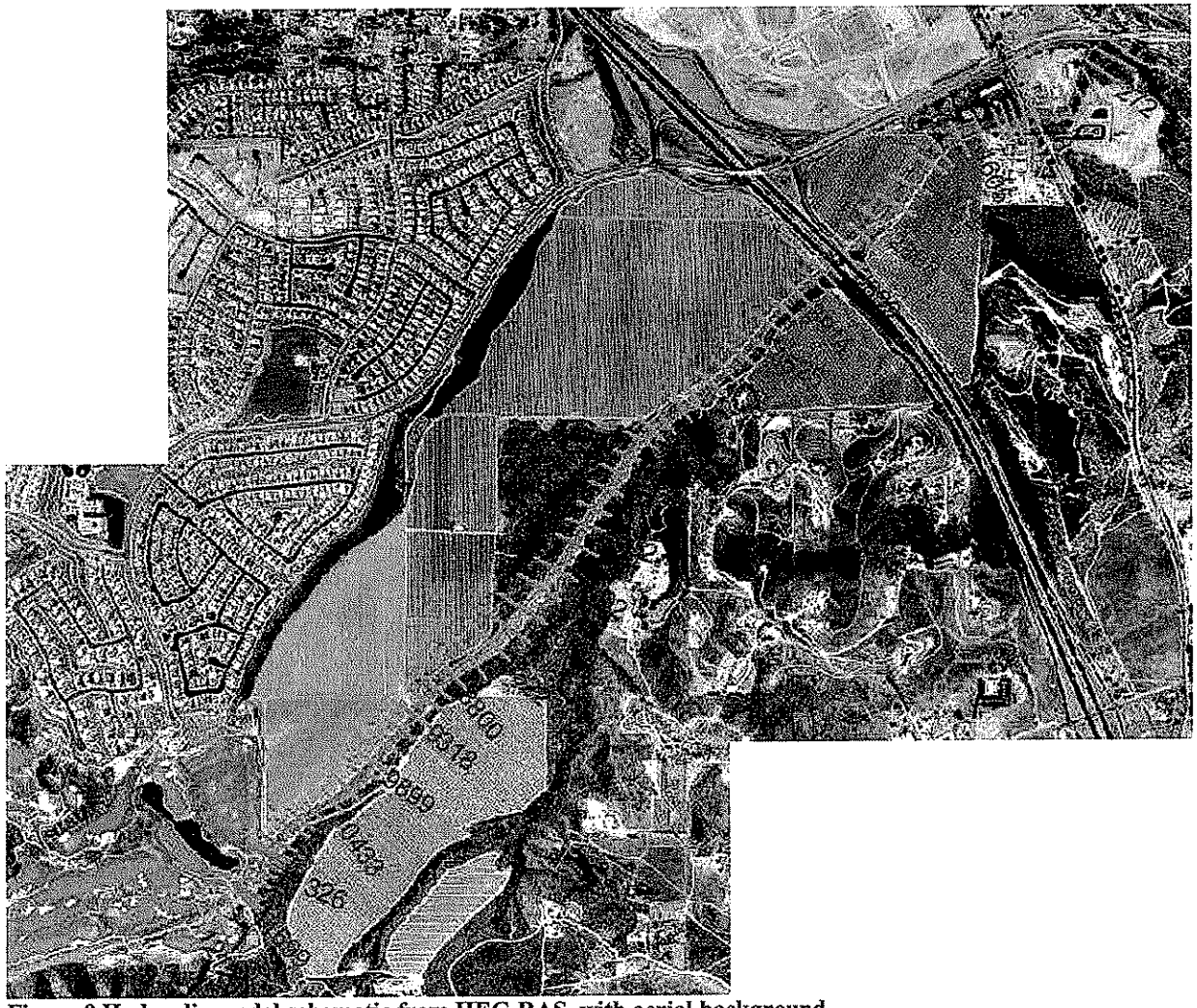


Figure 9 Hydraulic model schematic from HEC-RAS, with aerial background

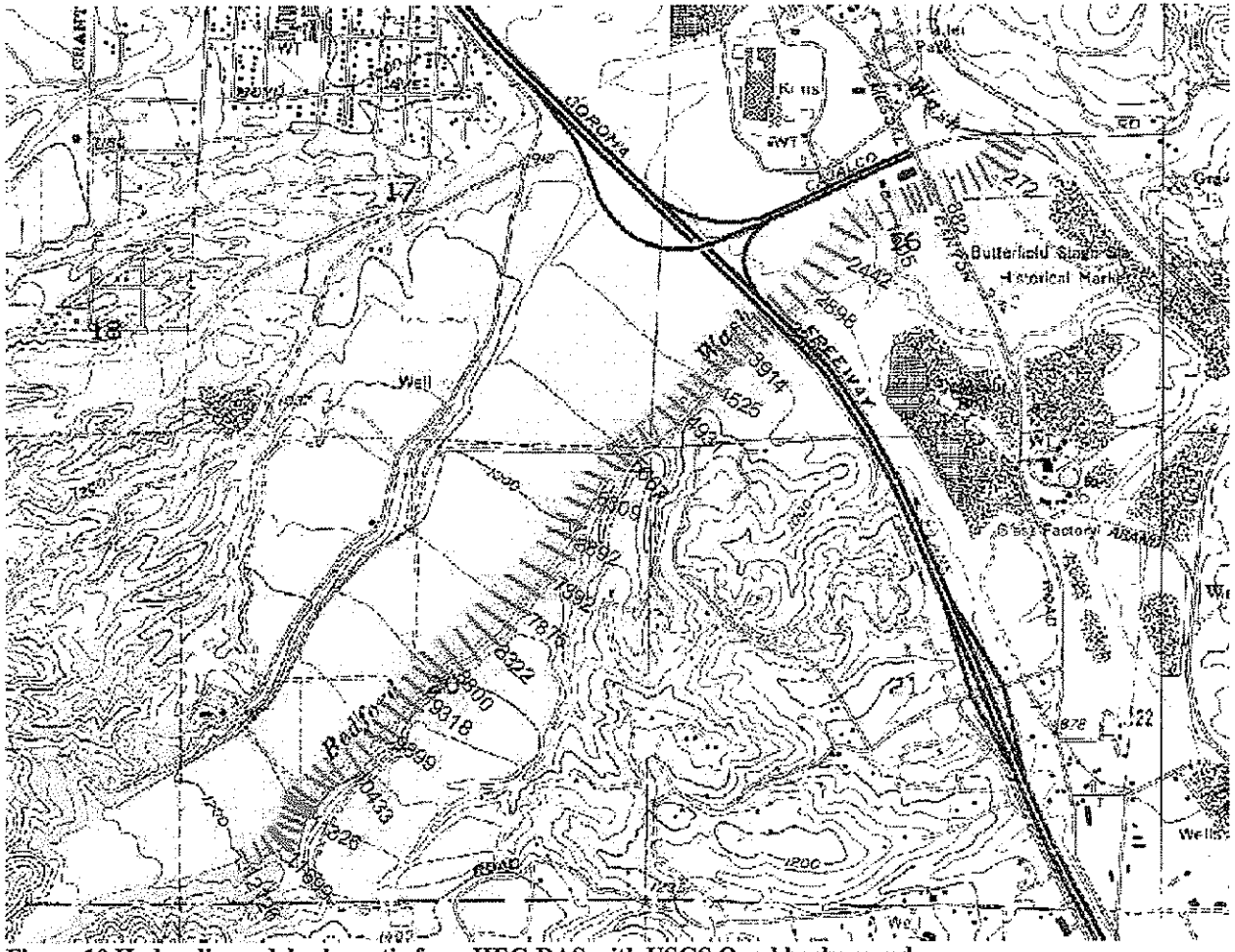


Figure 10 Hydraulic model schematic from HEC-RAS with USGS Quad background

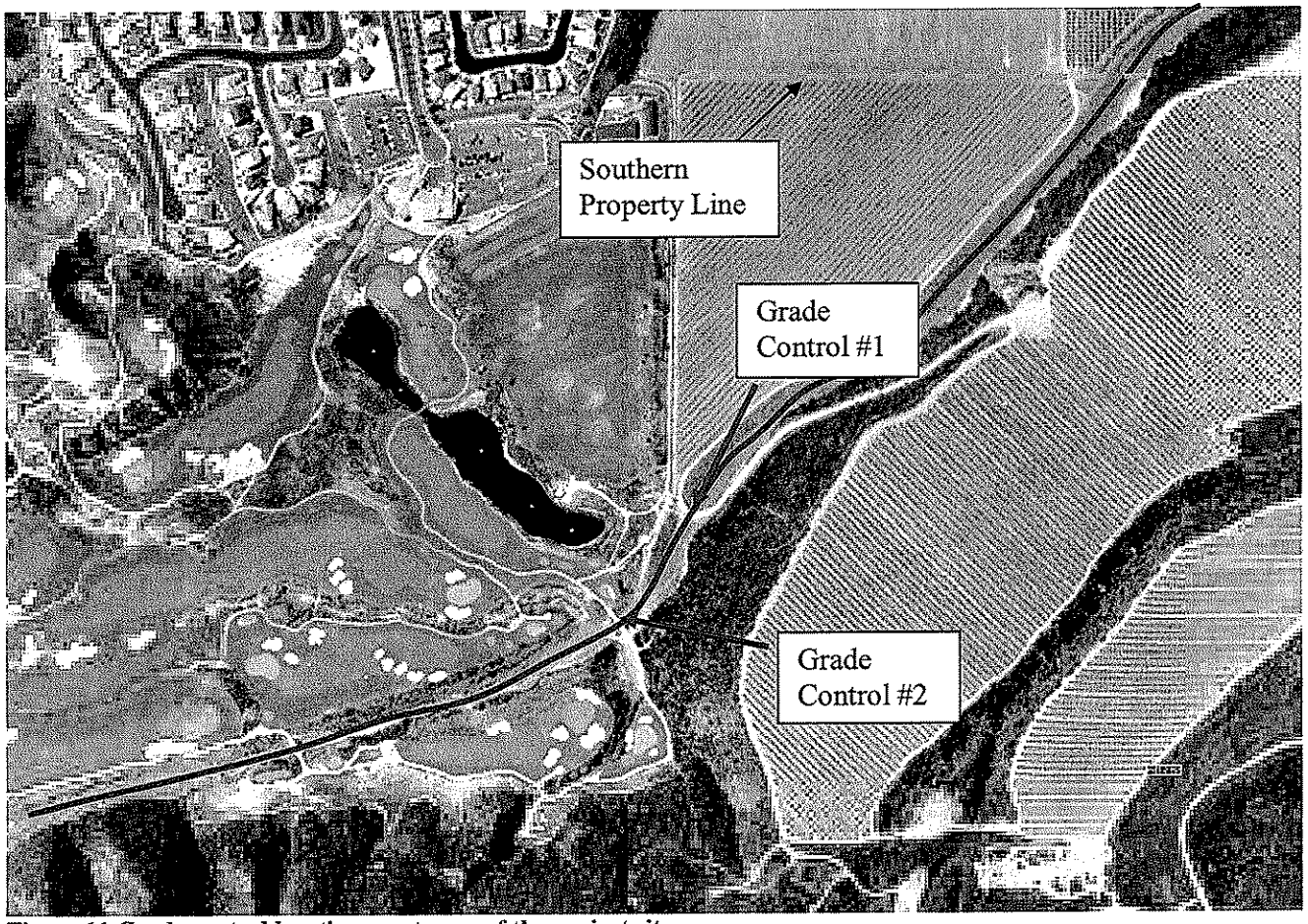


Figure 11 Grade control locations upstream of the project site

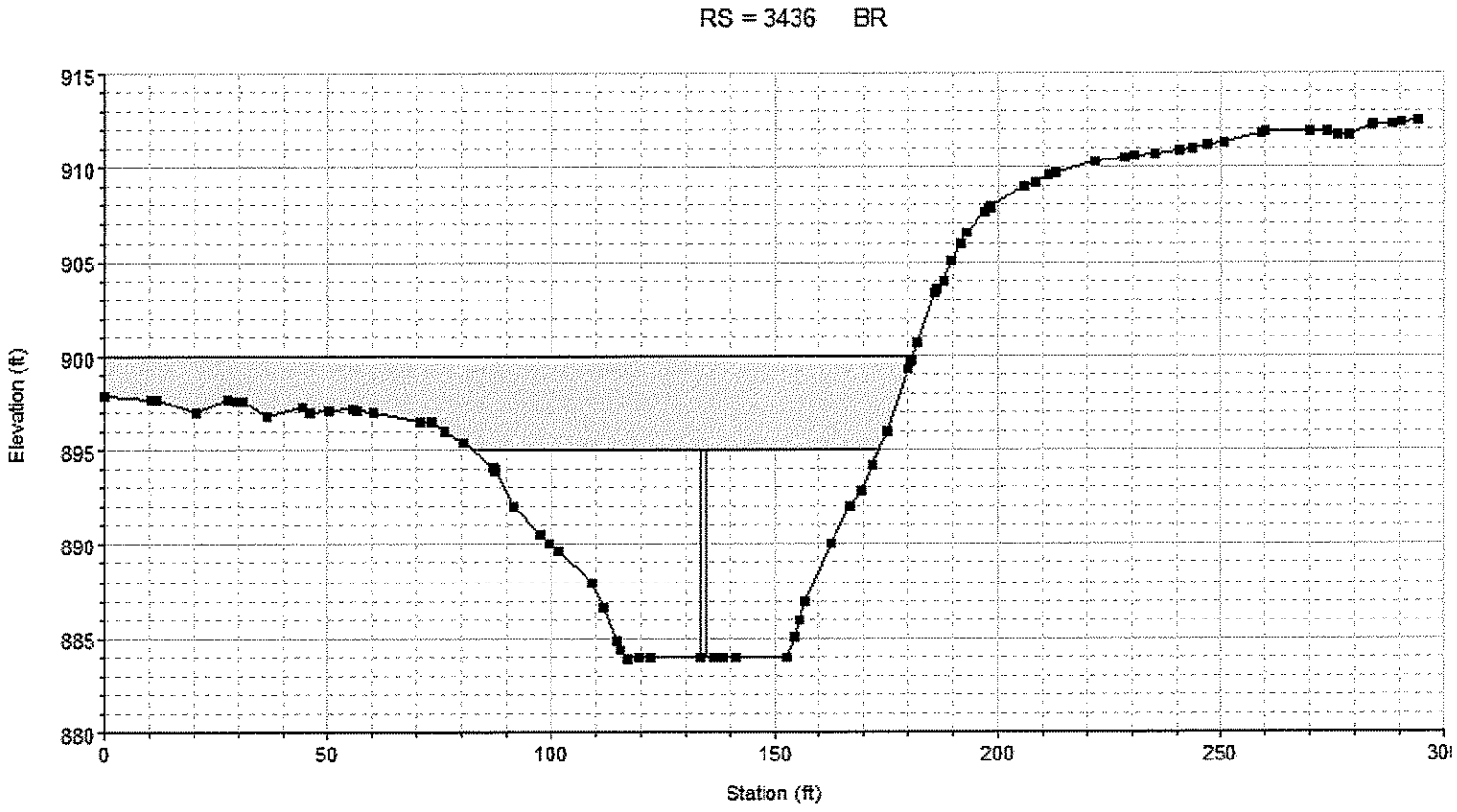


Figure 12 Bridge section at I-15 crossing

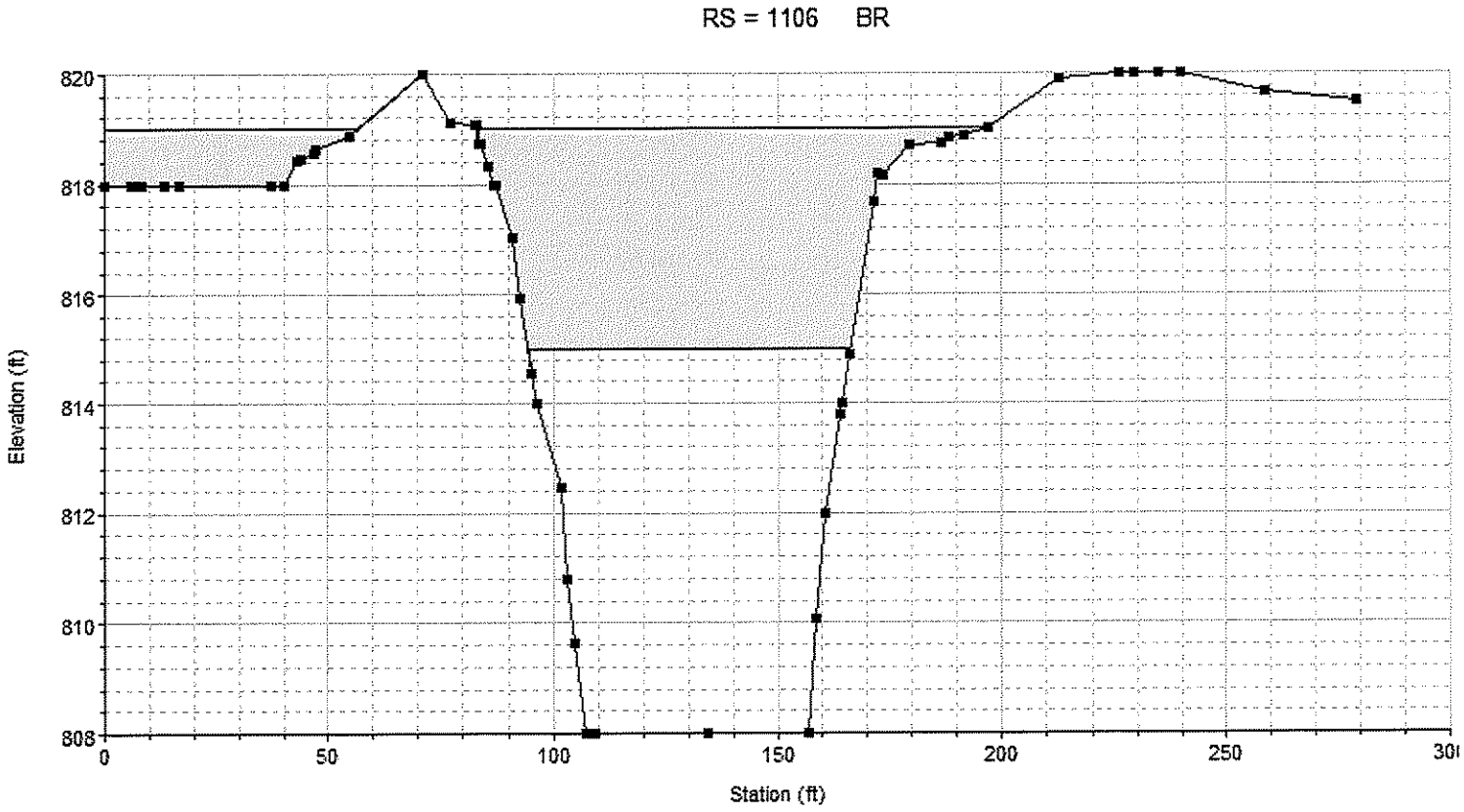


Figure 13 Bridge section at the Temescal Canyon Road crossing

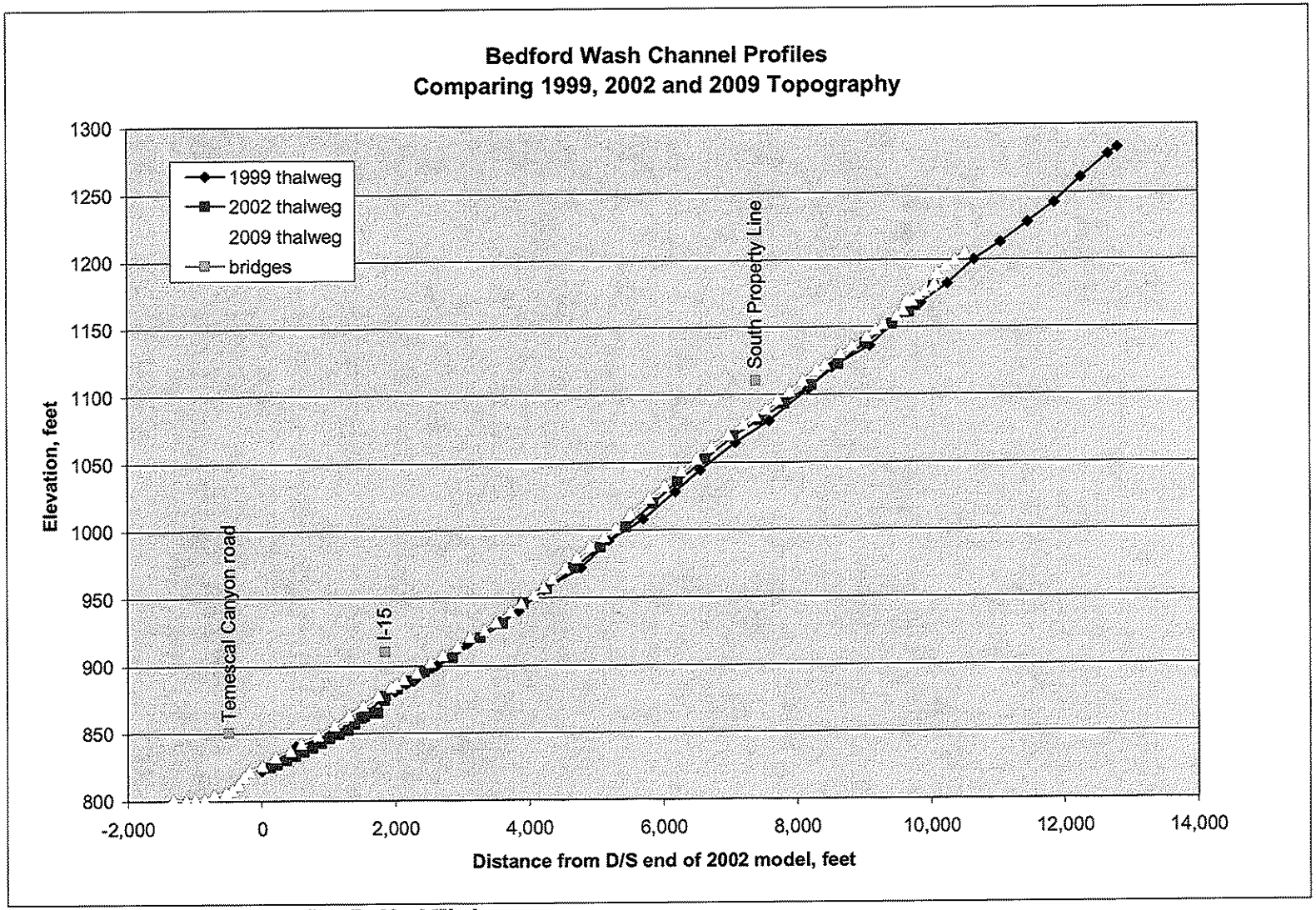


Figure 14 Historical channel profiles, Bedford Wash

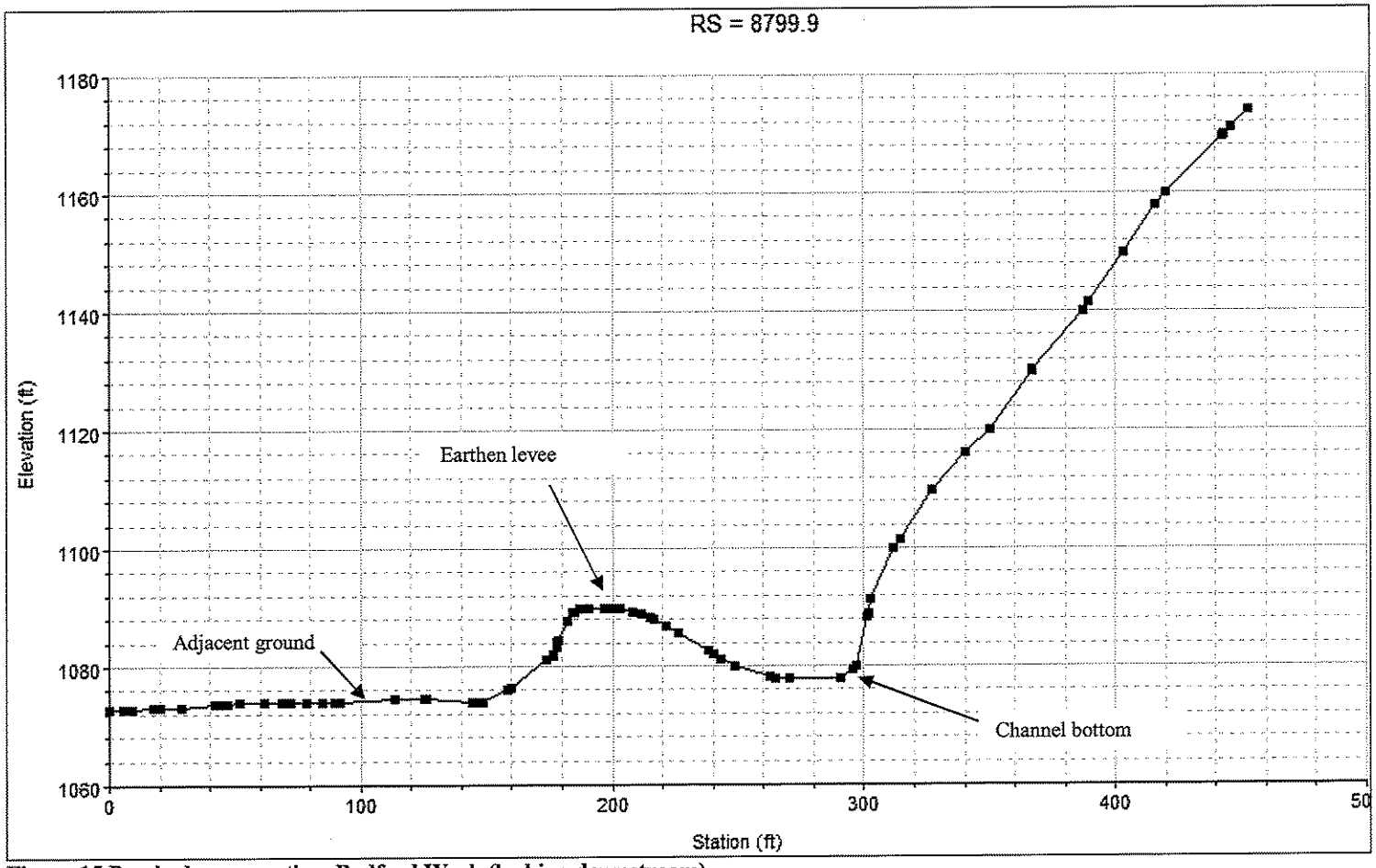


Figure 15 Perched cross-section, Bedford Wash (looking downstream)

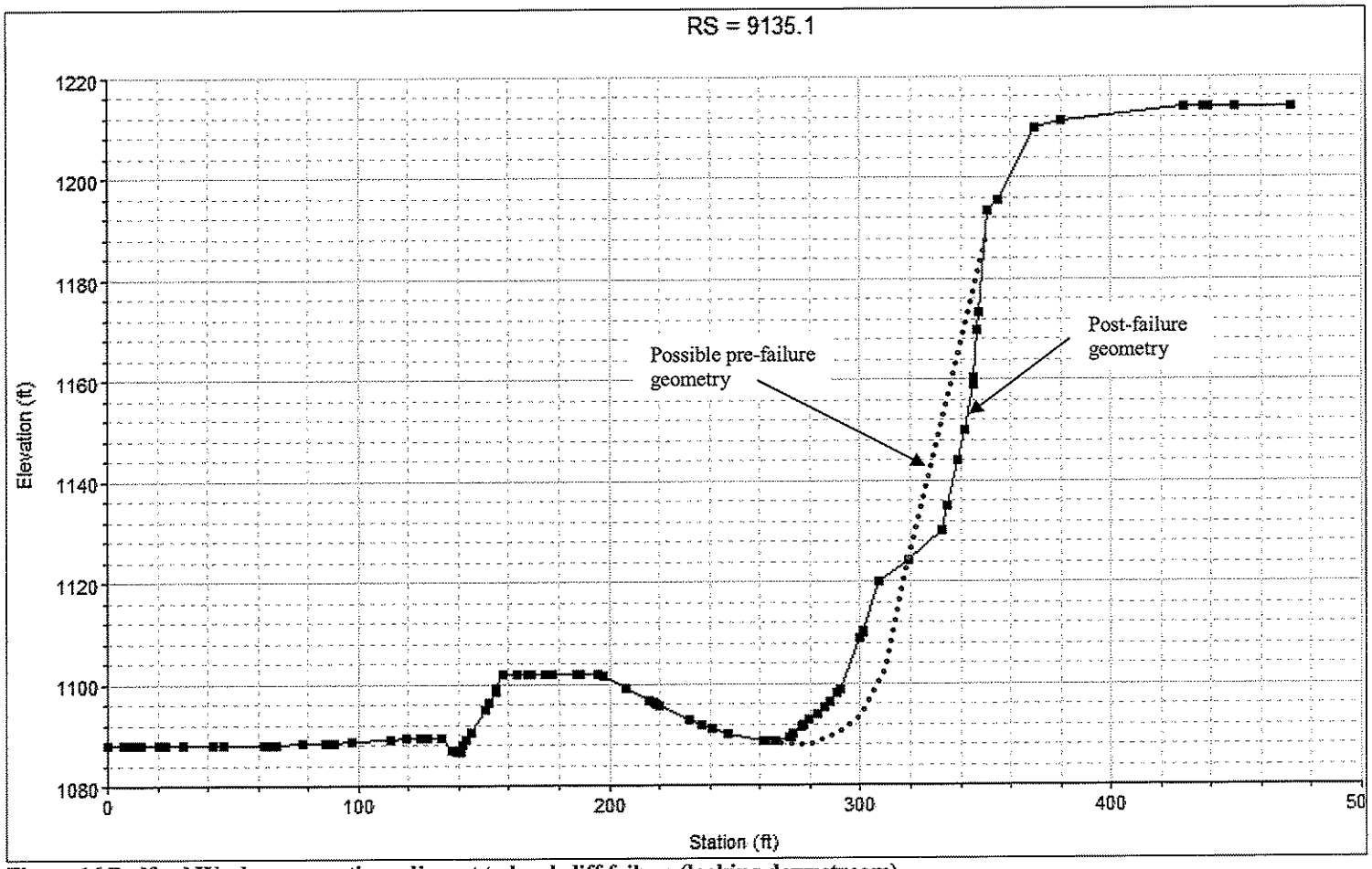


Figure 16 Bedford Wash cross-section adjacent to local cliff failure (looking downstream)

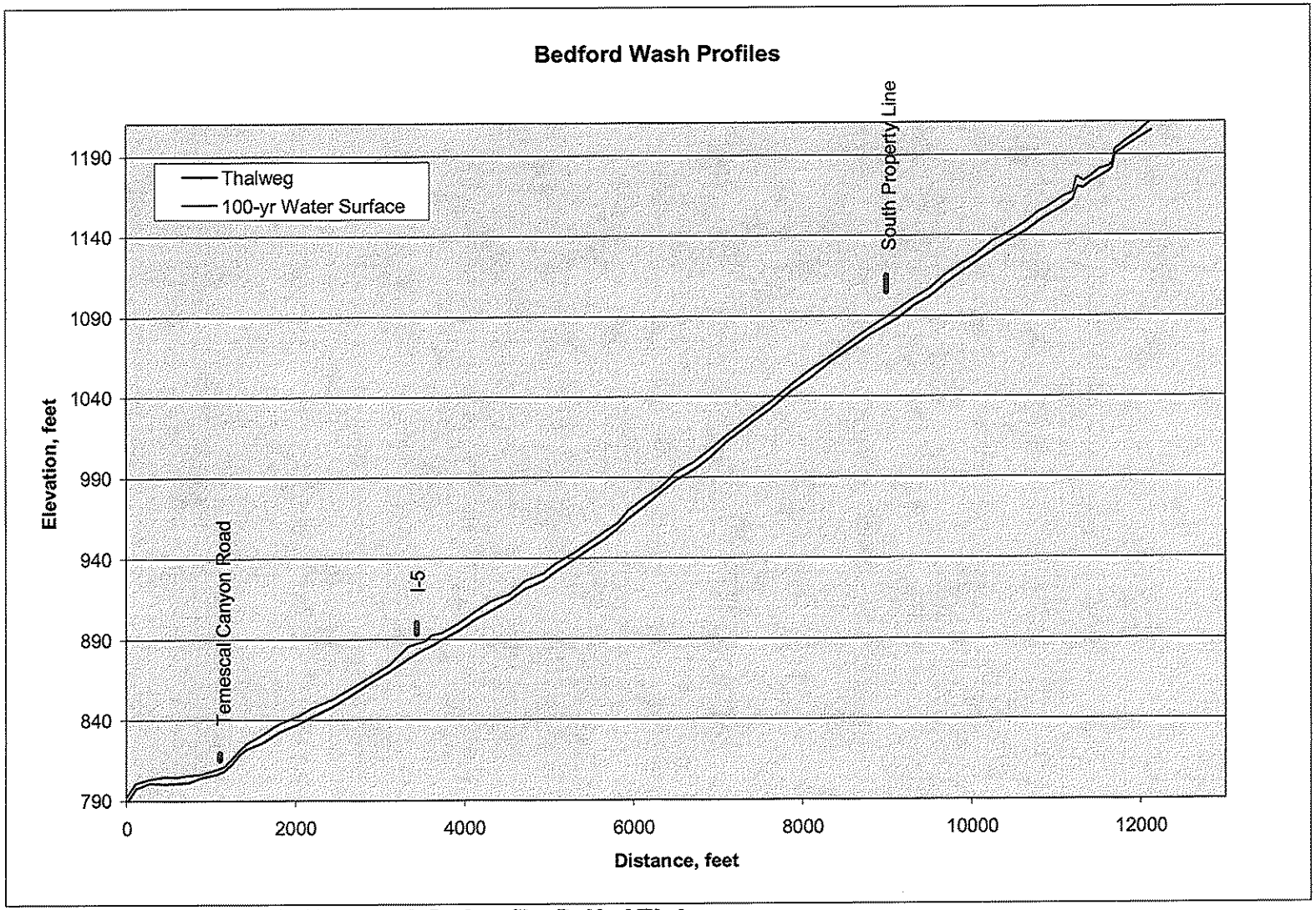


Figure 17 Channel bottom and 100-year peak flood profiles, Bedford Wash

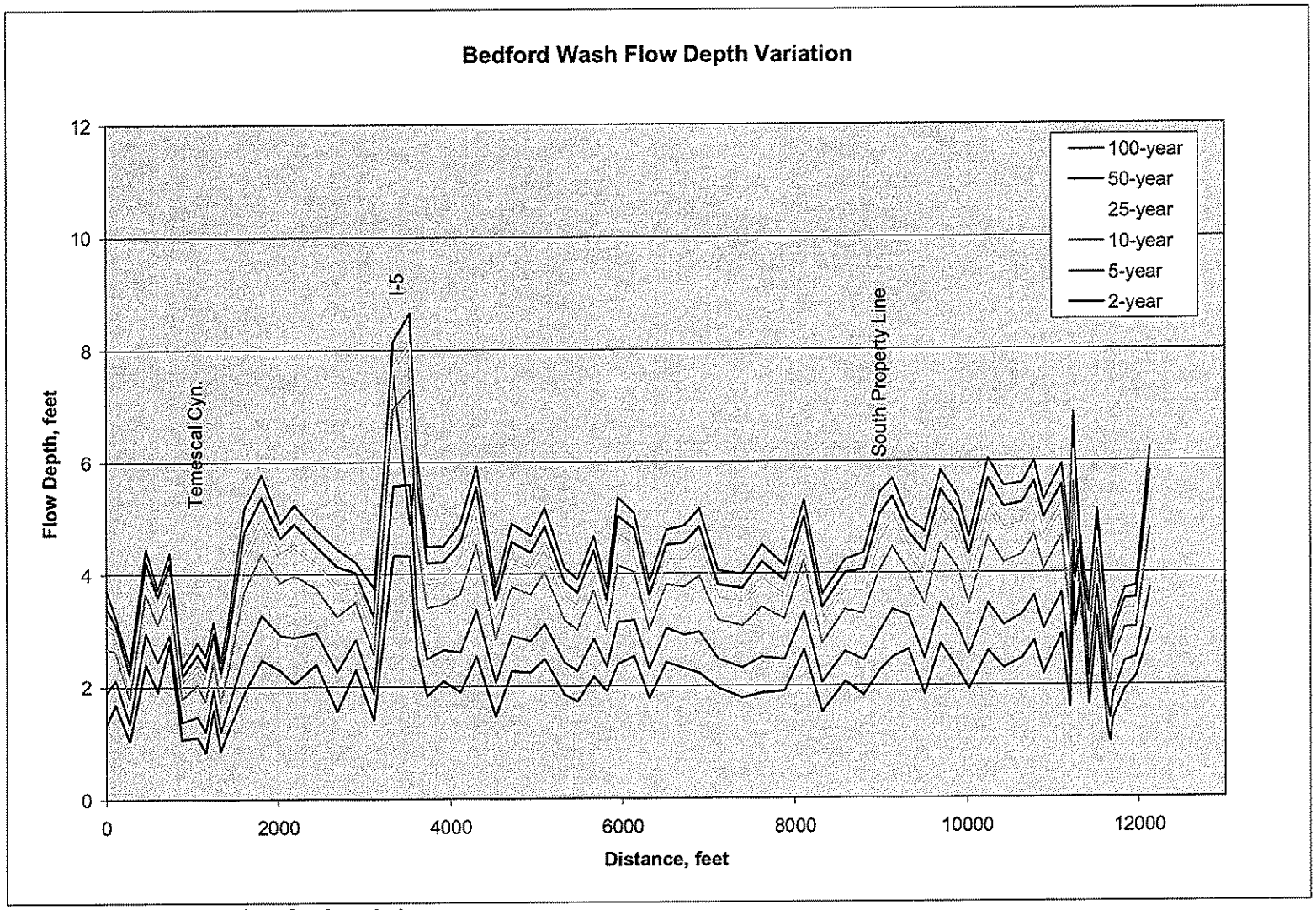


Figure 18 Bedford Wash flow depth variation

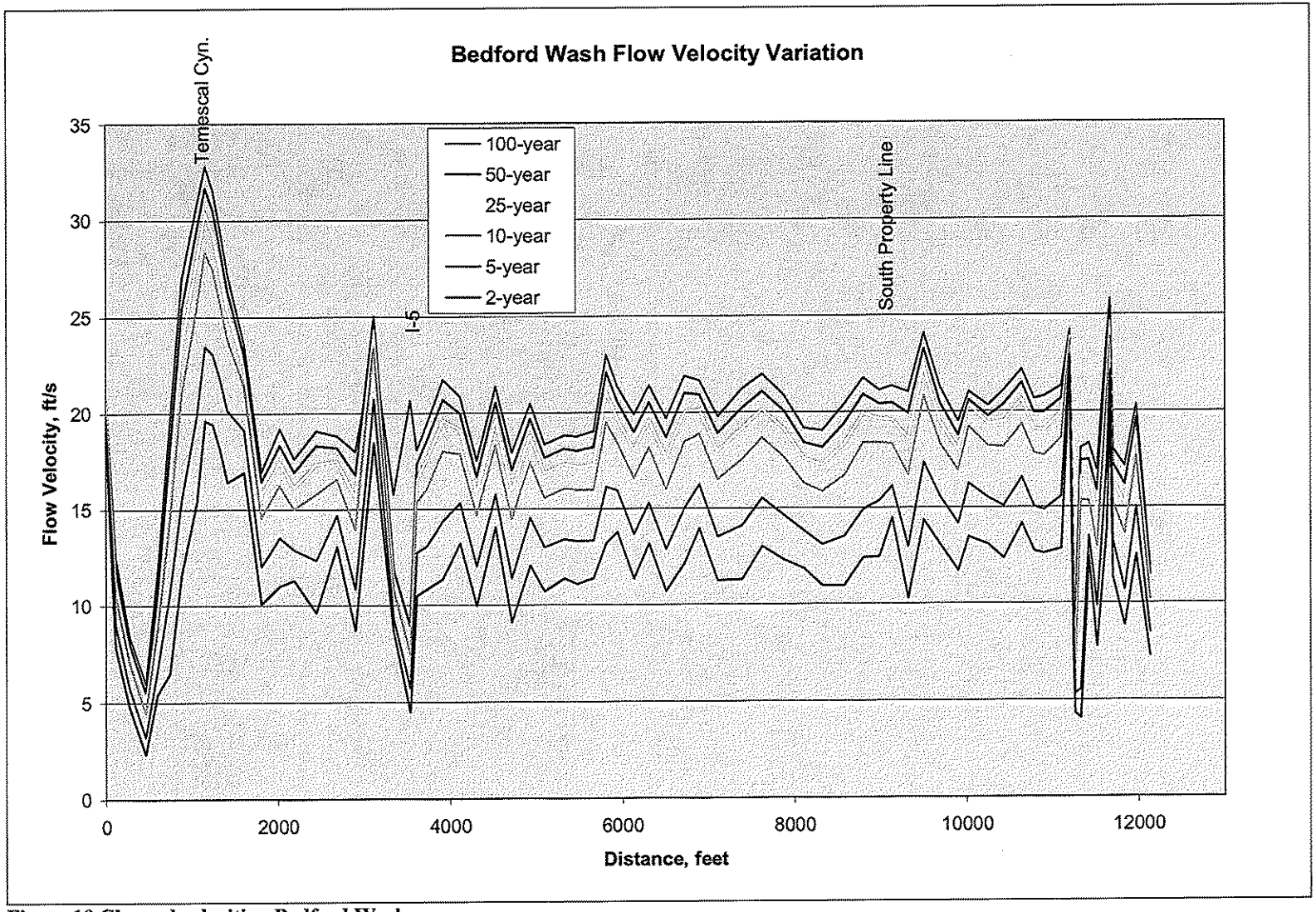


Figure 19 Channel velocities, Bedford Wash

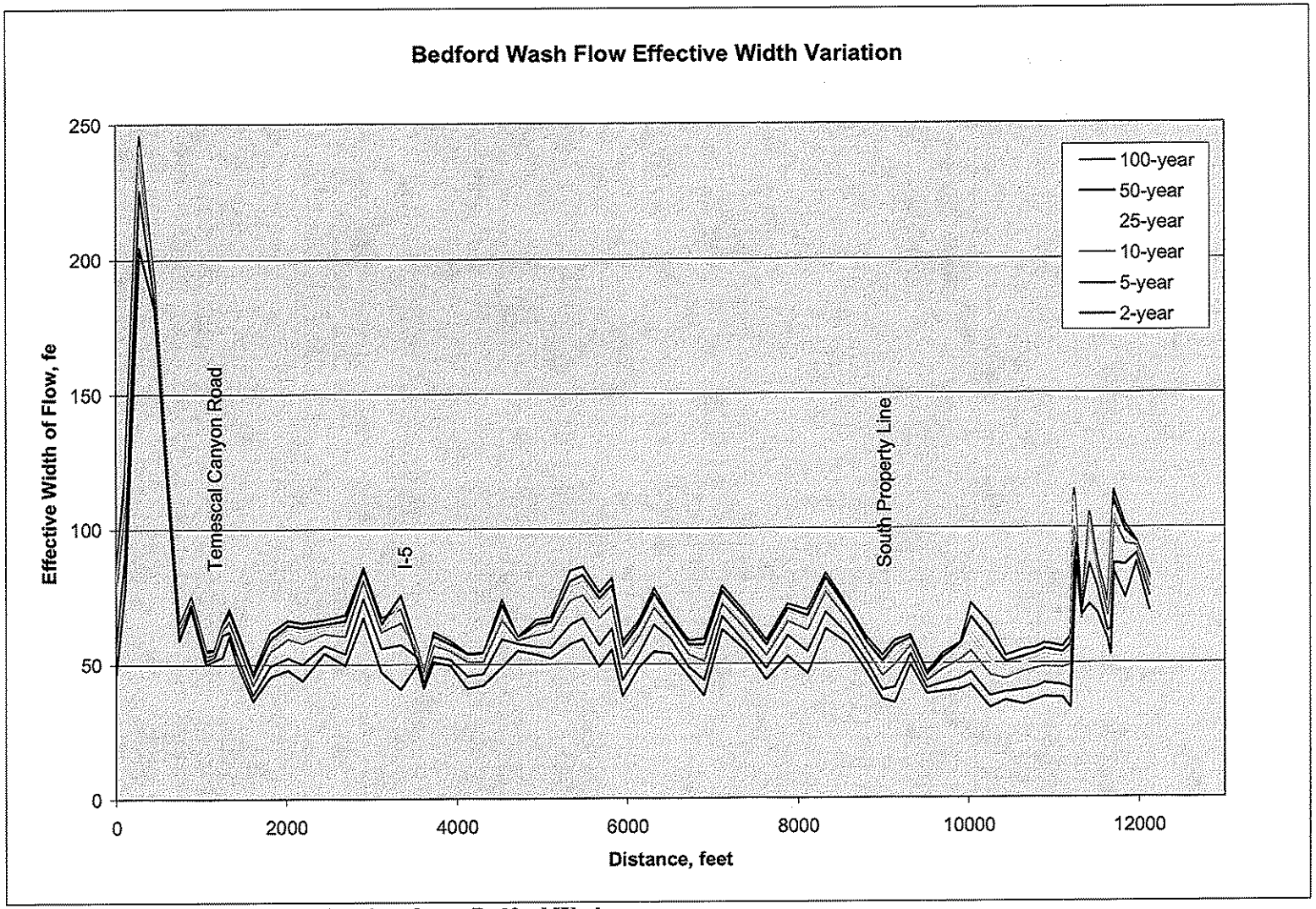


Figure 20 Variation of effective width along lower Bedford Wash

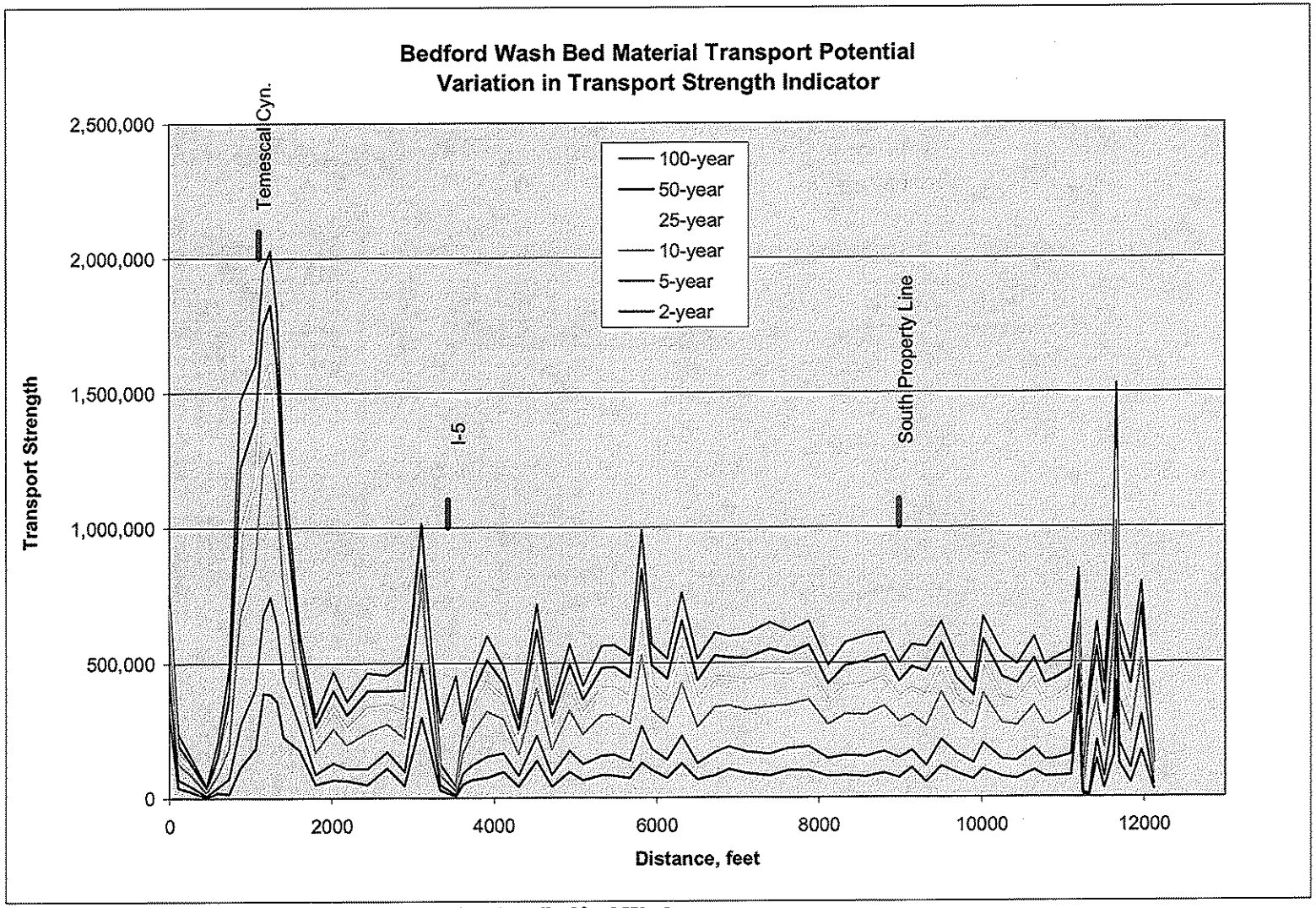


Figure 21 Variation of sediment transport potential along Bedford Wash

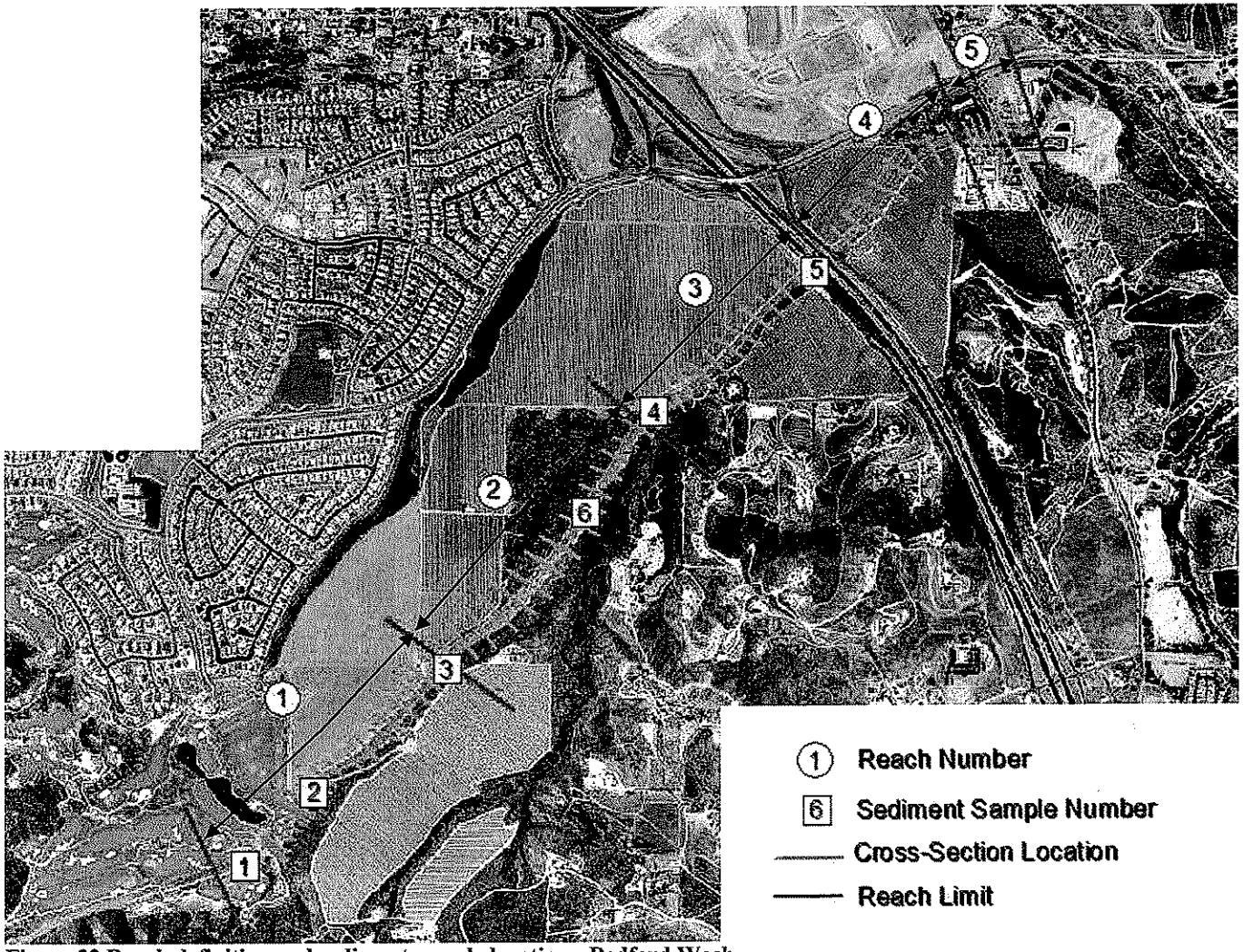


Figure 22 Reach definition and sediment sample locations, Bedford Wash

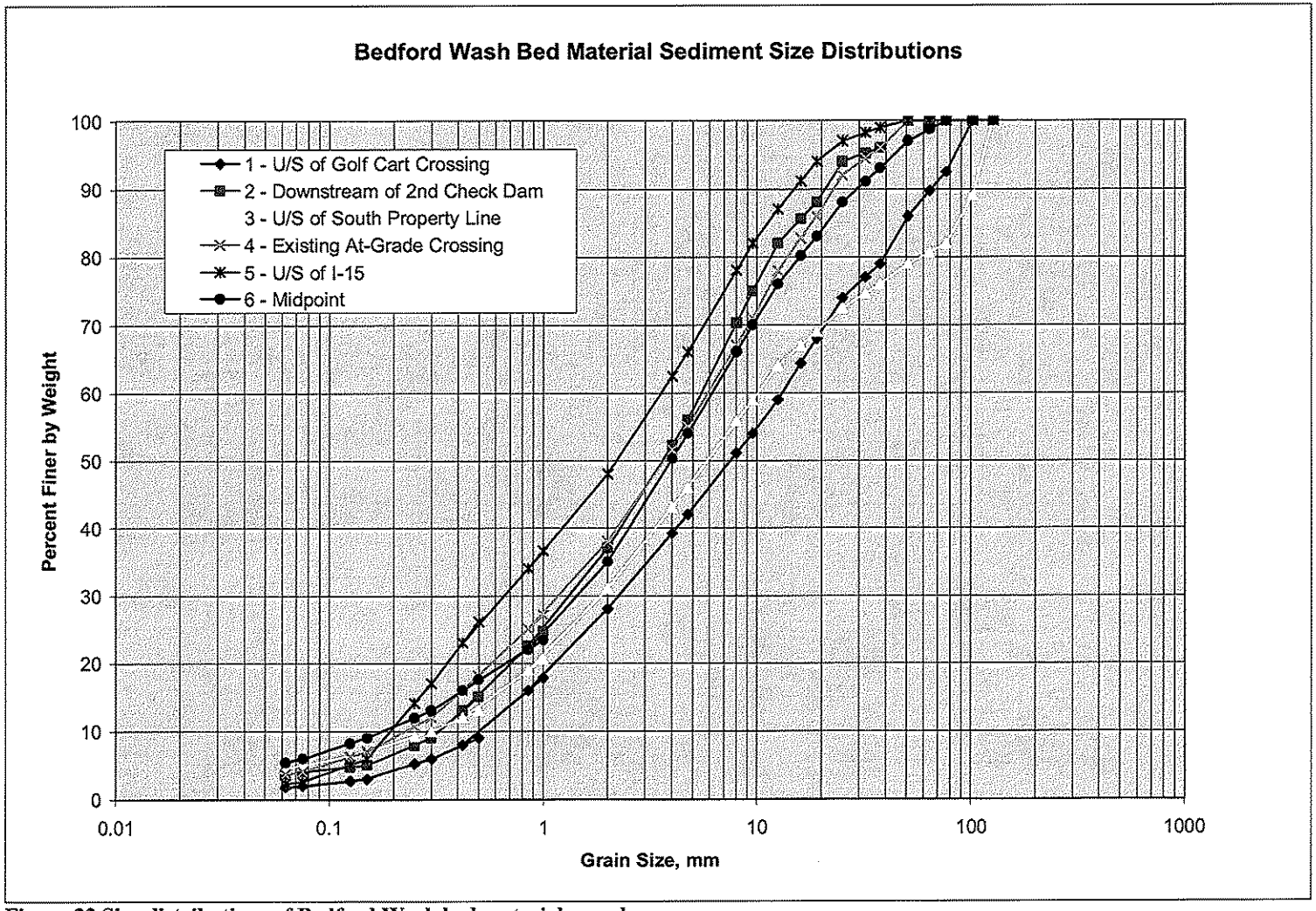


Figure 23 Size distributions of Bedford Wash bed material samples

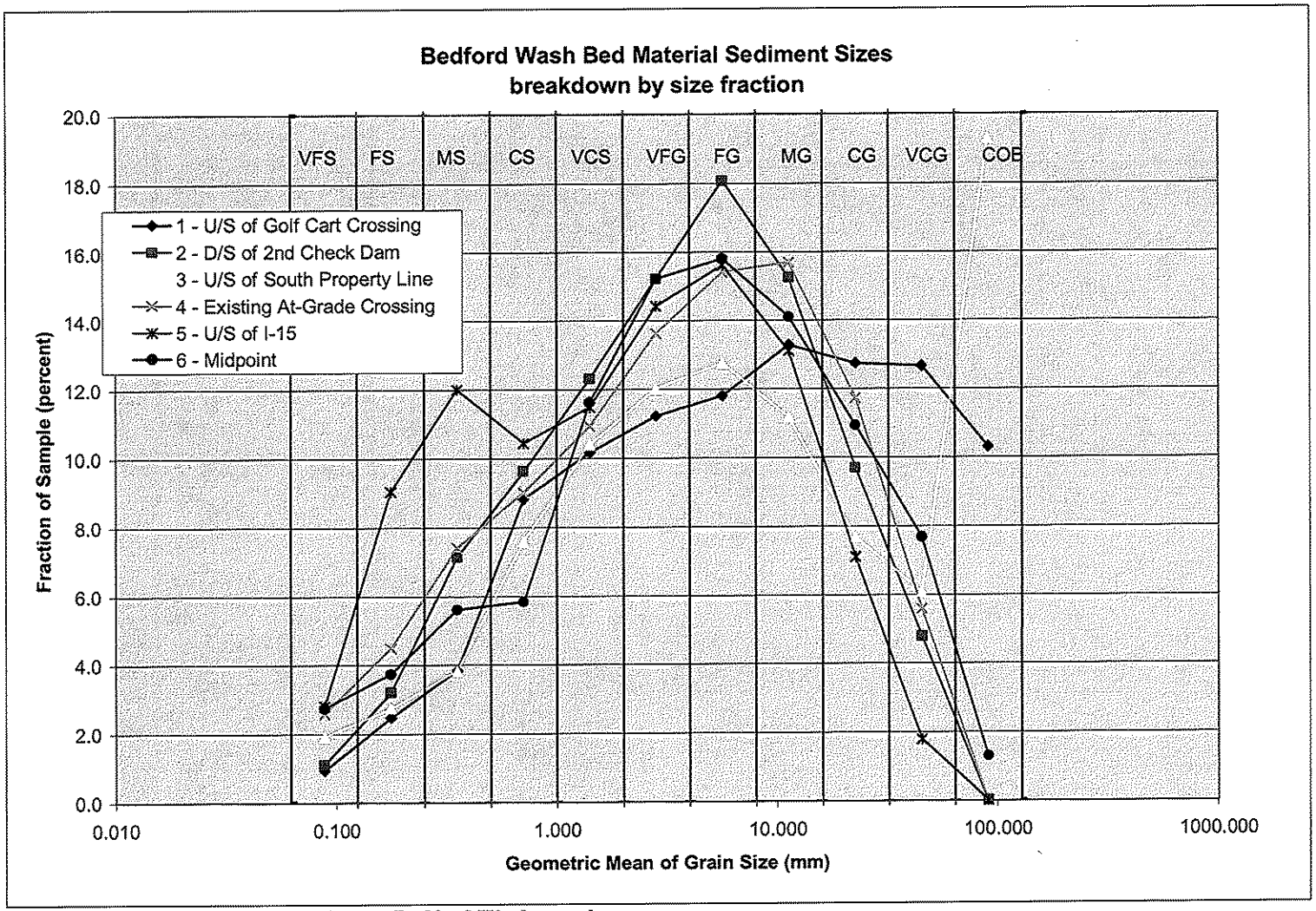


Figure 24 Size distribution breakdown – Bedford Wash samples

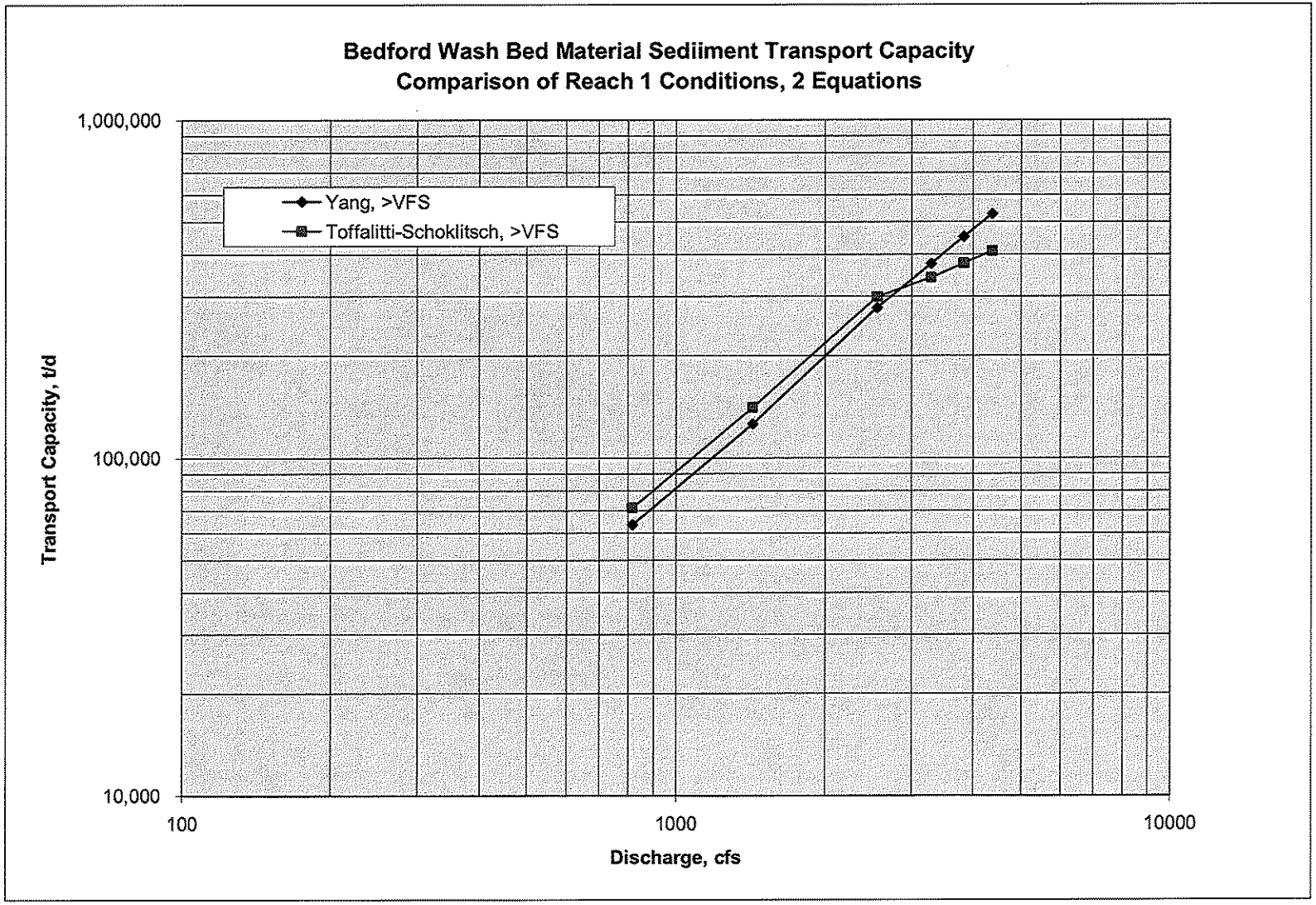


Figure 25 Bed material trasnport rates comparison -- 2 procedures

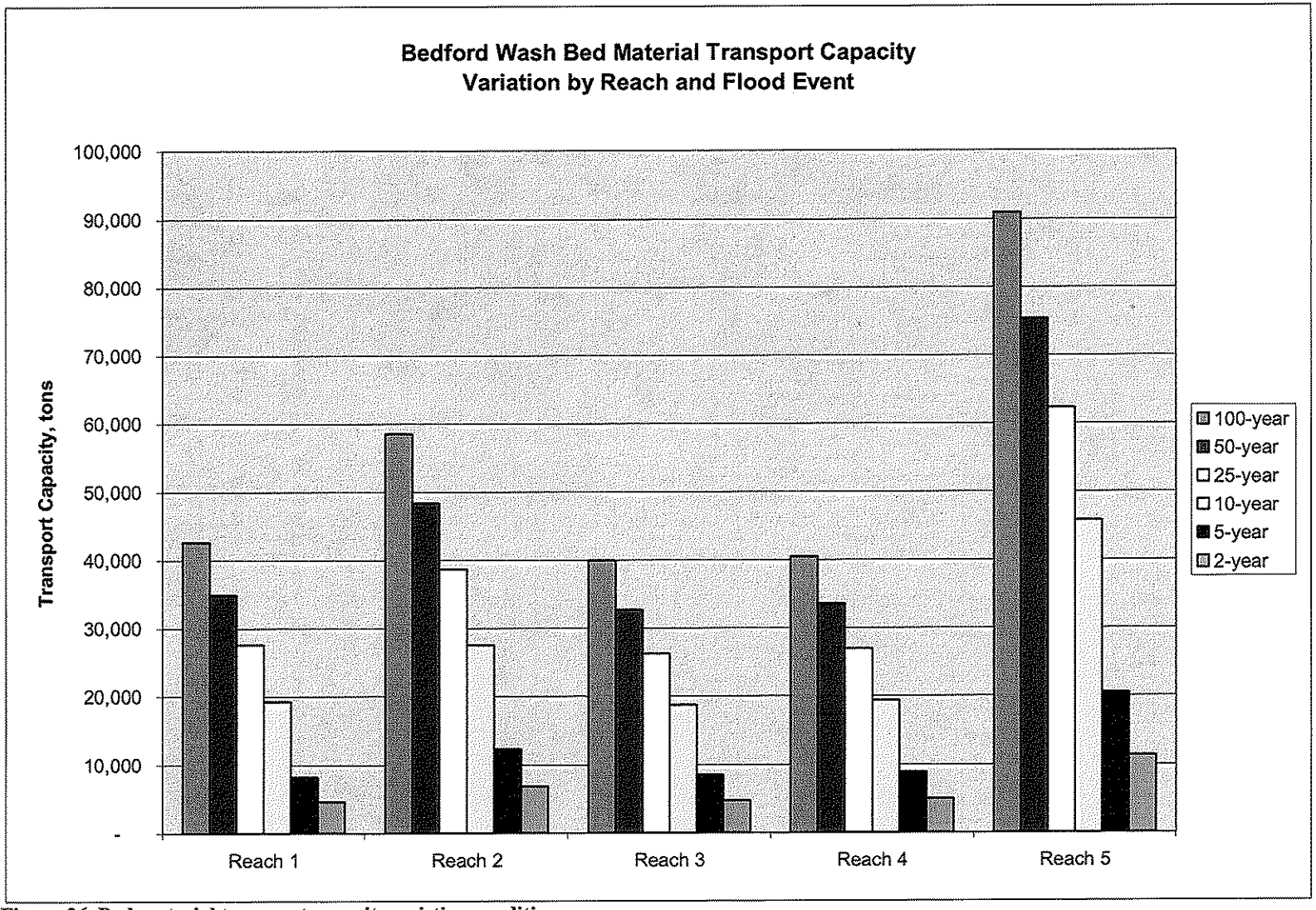


Figure 26 Bed material transport capacity, existing conditions

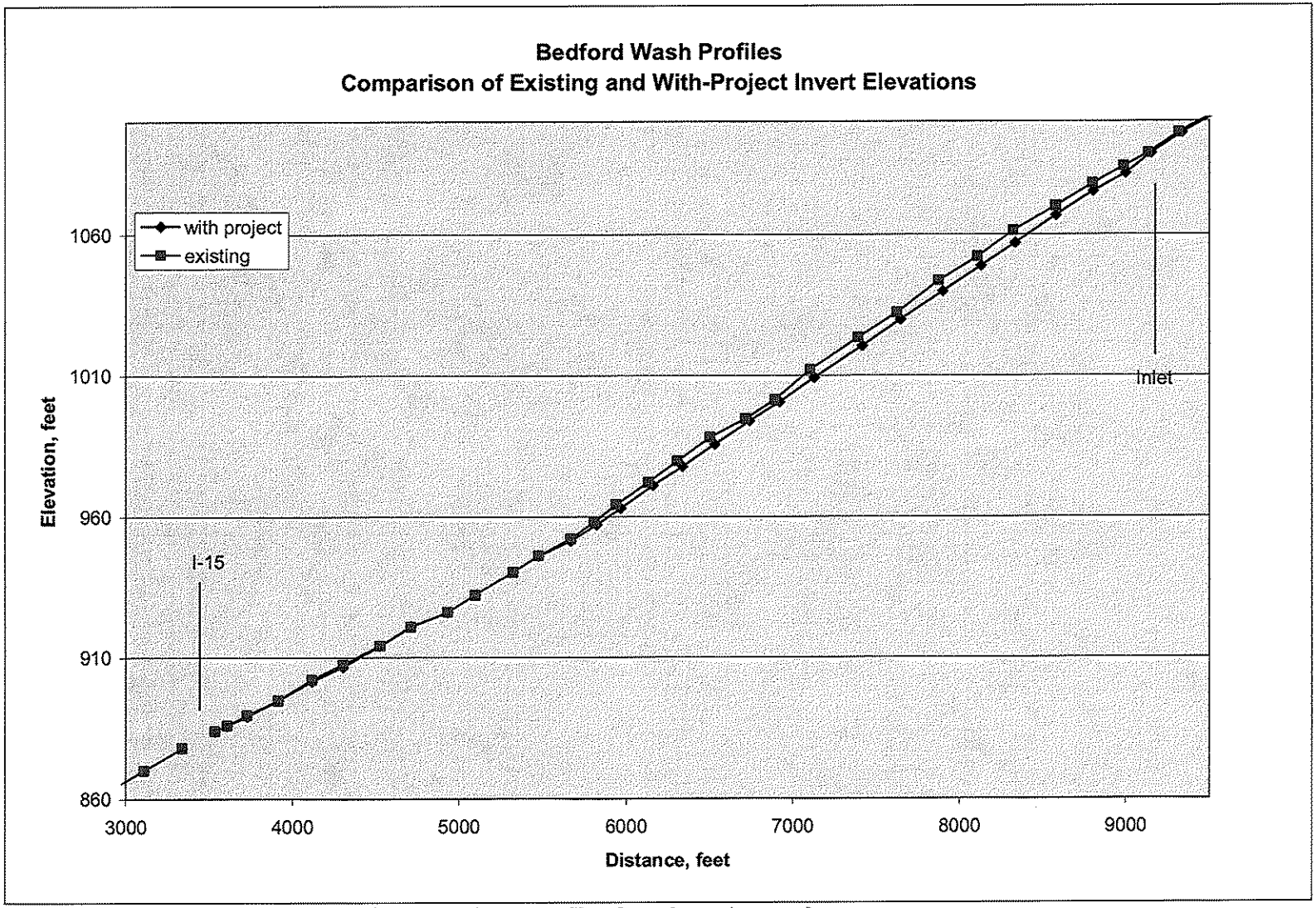


Figure 27 Comparison of existing and with-project invert profiles along the project reach

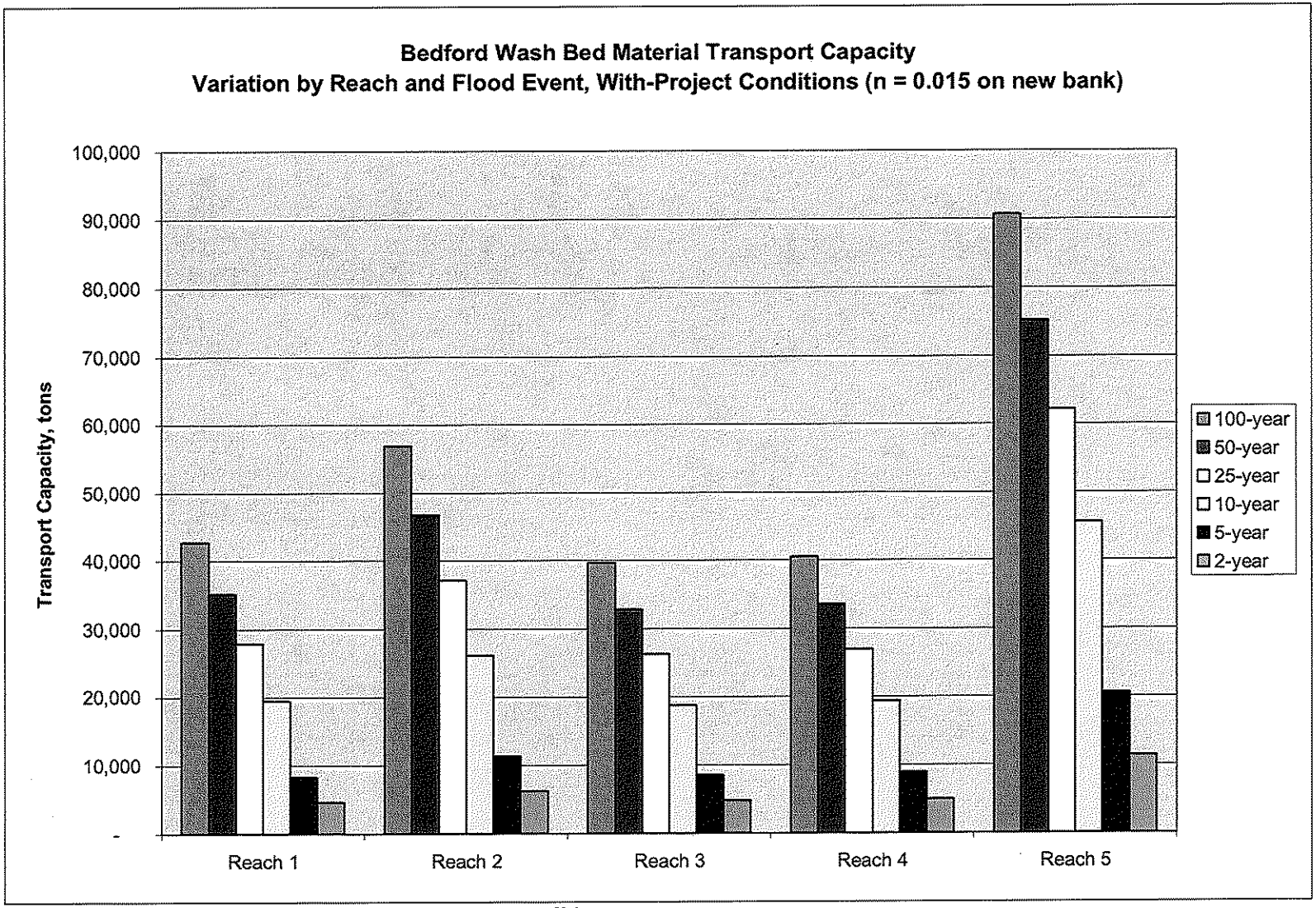


Figure 28 Bed material transport capacity, with-project conditions

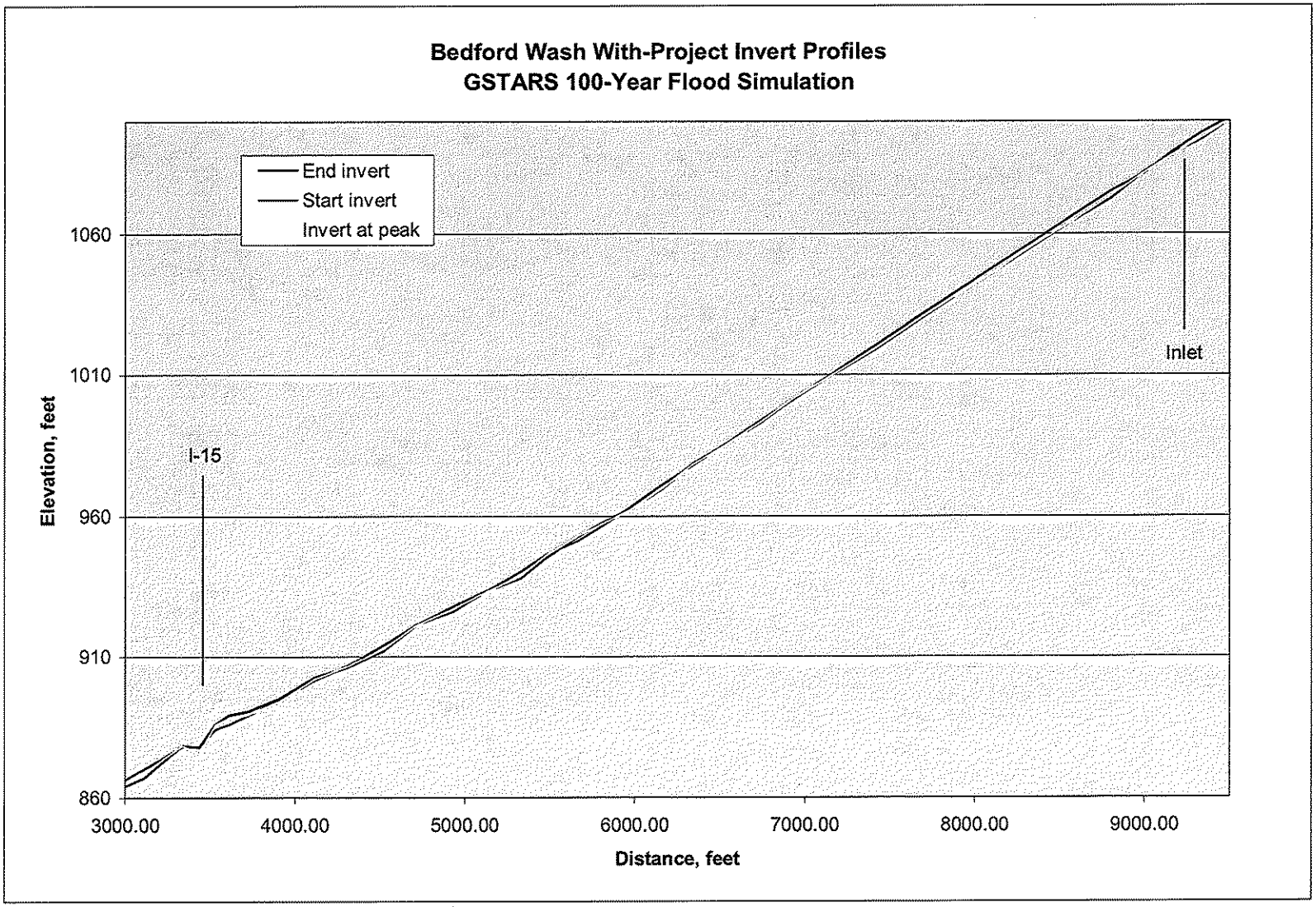


Figure 29 GSTARS results -- predicted invert deformation

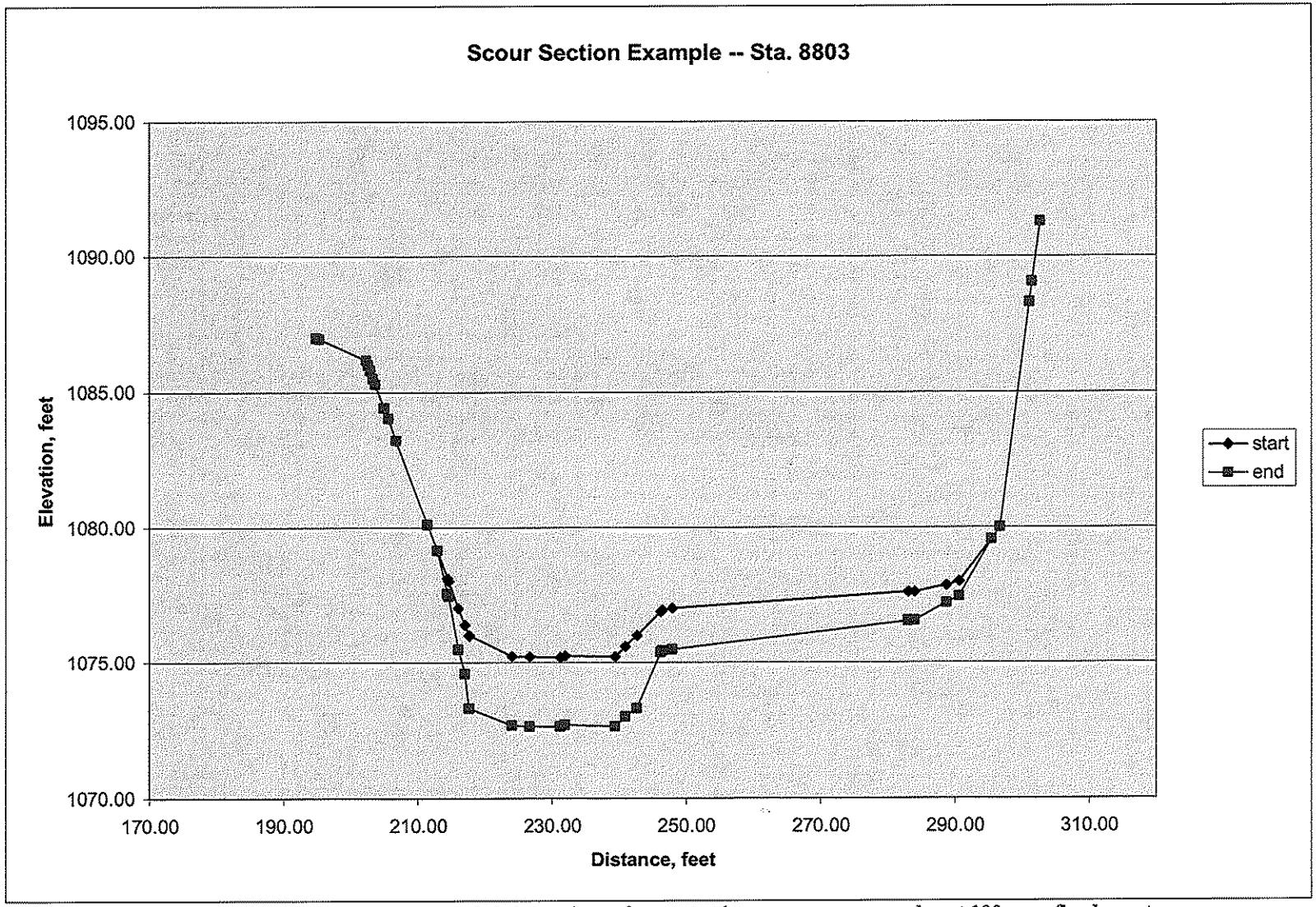


Figure 30 GSTARS results -- example scour section -- comparison of cross-section geometry pre- and post 100-year flood event

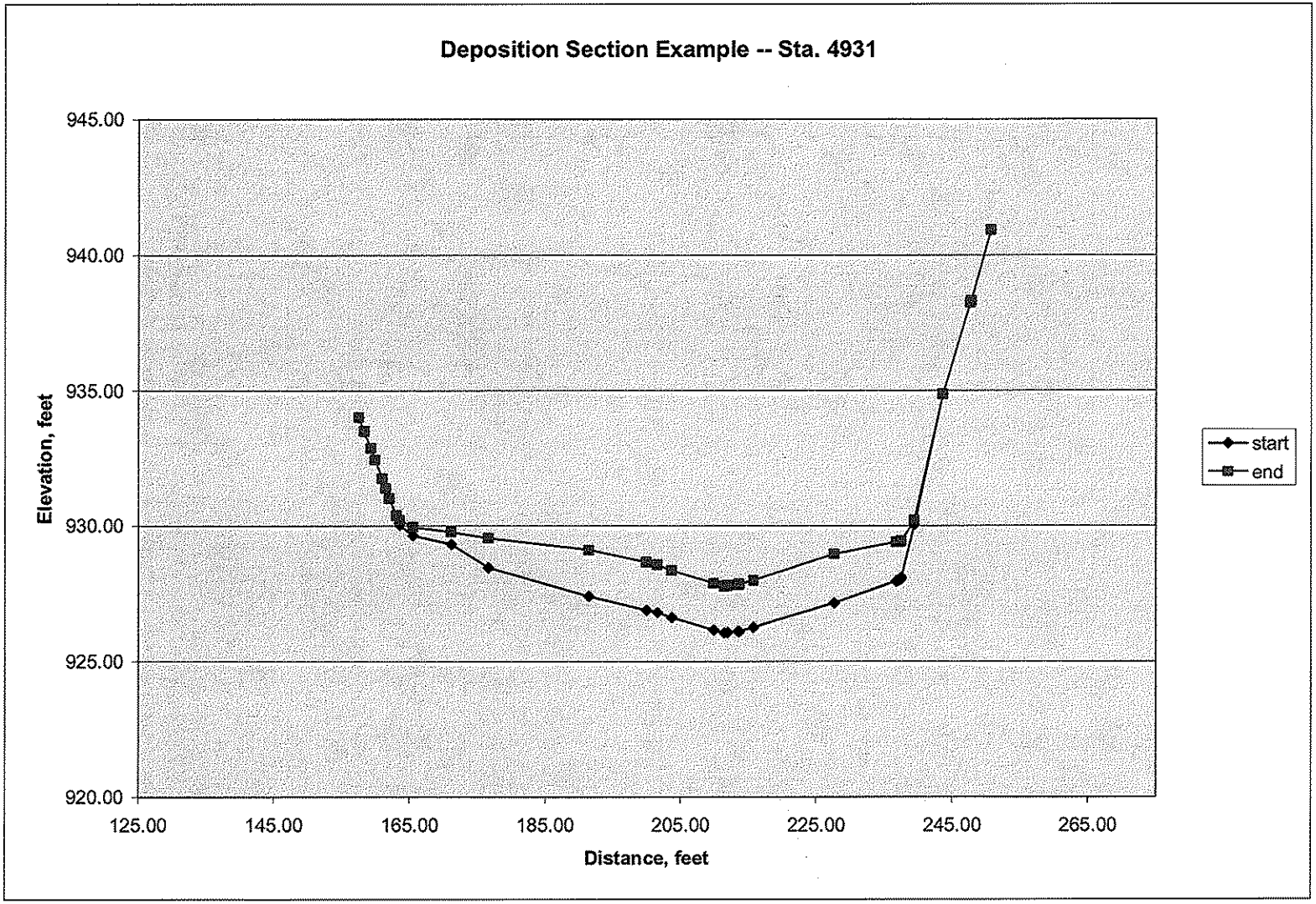


Figure 31 GSTARS results -- example deposition section -- comparison of cross-section geometry pre- and post 100-year flood event

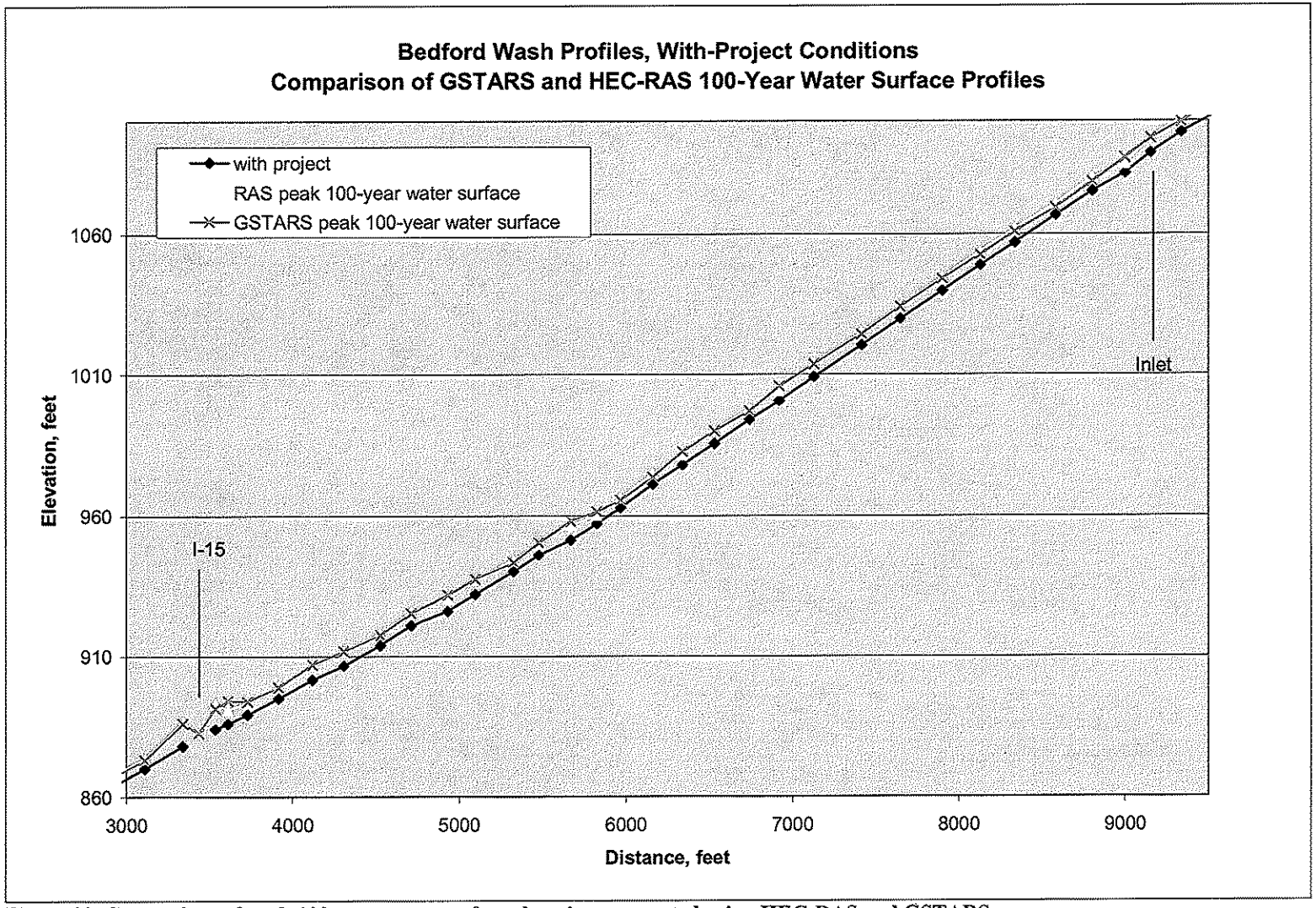


Figure 32 Comparison of peak 100-year water surface elevations computed using HEC-RAS and GSTARS

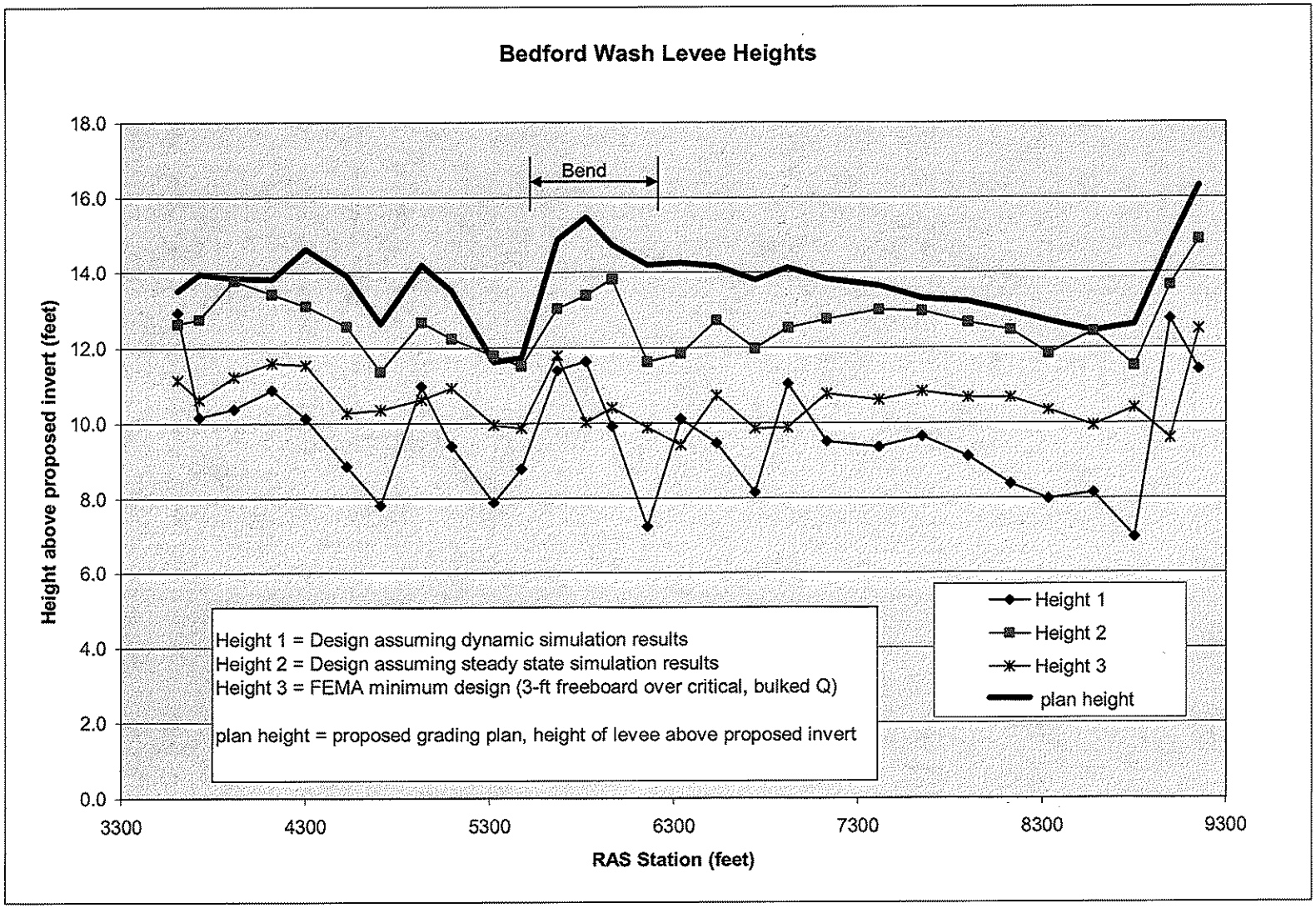


Figure 33 Levee height comparisons

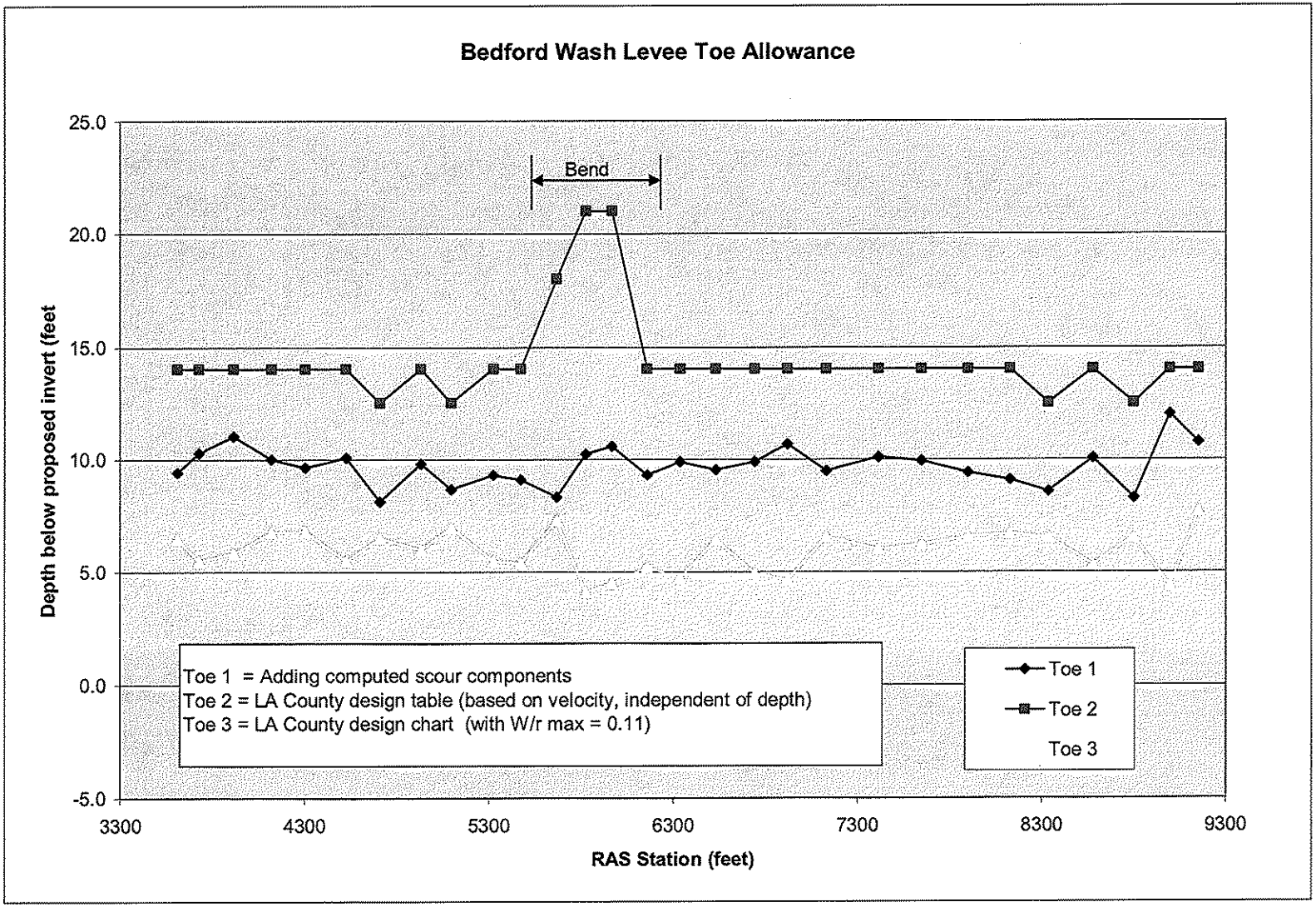
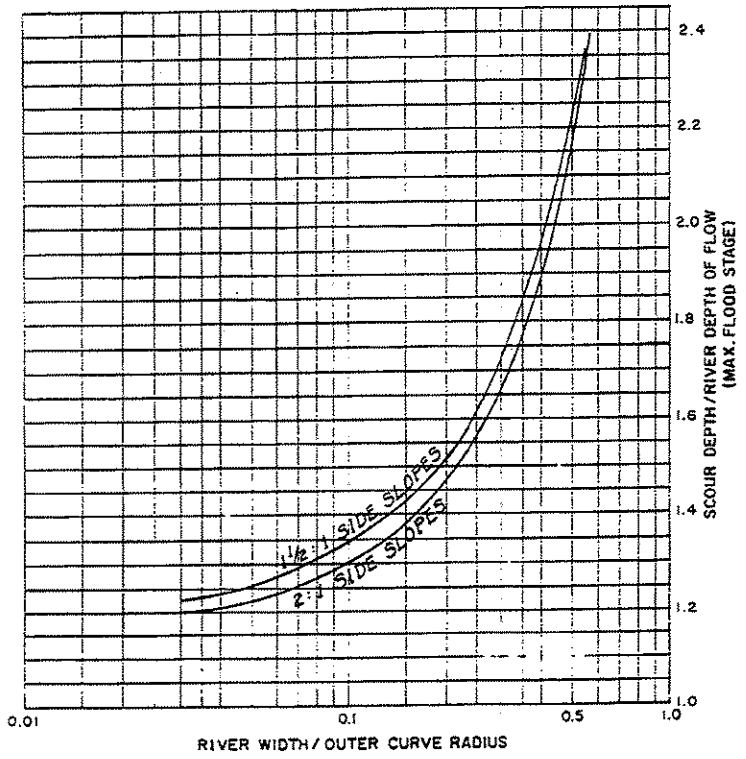


Figure 34 Comparison of levee toe-down requirements



SCOUR DEPTHS ON OUTER CURVES

Hyd. Man. F-06

Figure 35 LA County scour design chart for curves

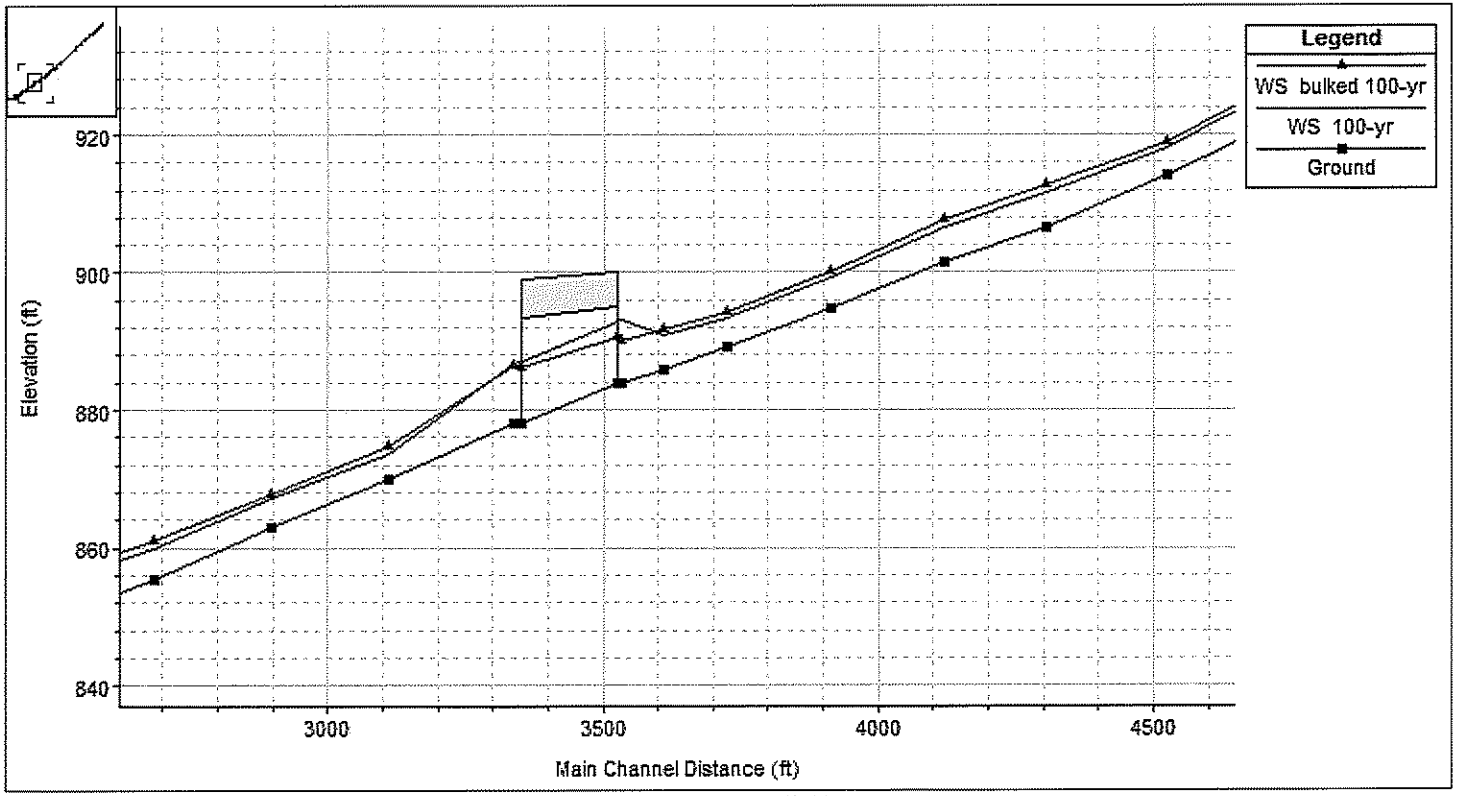
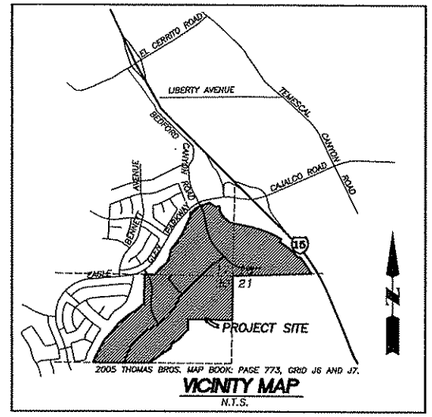


Figure 36 Water suface comparison -- with project conditions near the I-5 bridge

EXHIBIT A: PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD WASH LEVEE

PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS



VICINITY MAP
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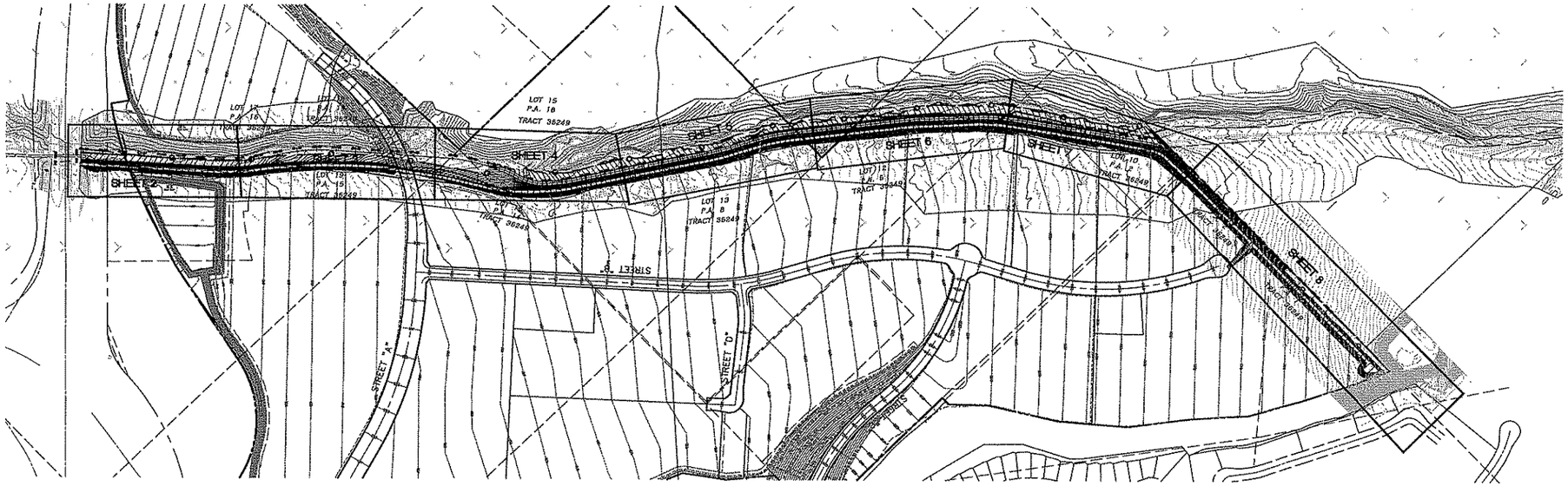

INDEX MAP
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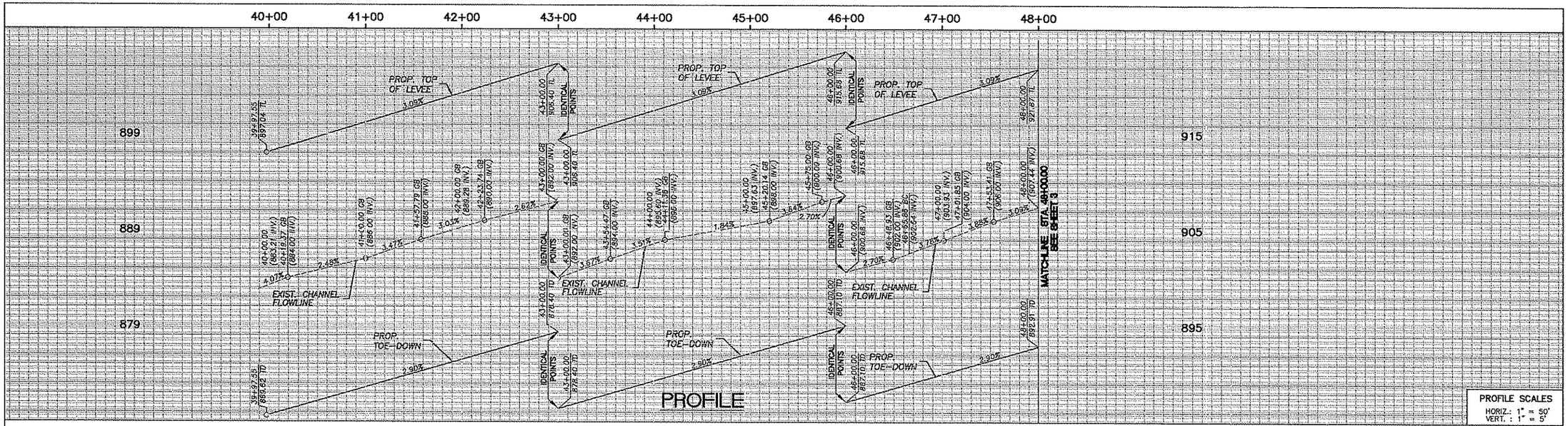
EXHIBIT A

AEI CASC CONSULTING 937 SOUTH VIA LATA, SUITE 500 COLTON, CA 92324 PH. (909) 783-0101; FAX (909) 783-0108 XXXXXX DATE	XXXXXXXXXXXX XXXXXXXXXXXXXX	REVISIONS REF. DESCRIPTION APPR. DATE	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT RECOMMENDED FOR APPROVAL BY: DATE: APPROVED BY: DATE:	SEAL - COUNTY	COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT APPROVED BY XXXXXXXXXX DATE: RECOMMENDED, XXXXXXX DATE:	PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS	PROJECT NO. XXXXX DRAWING NO. XXXX SHEET 1 OF 8



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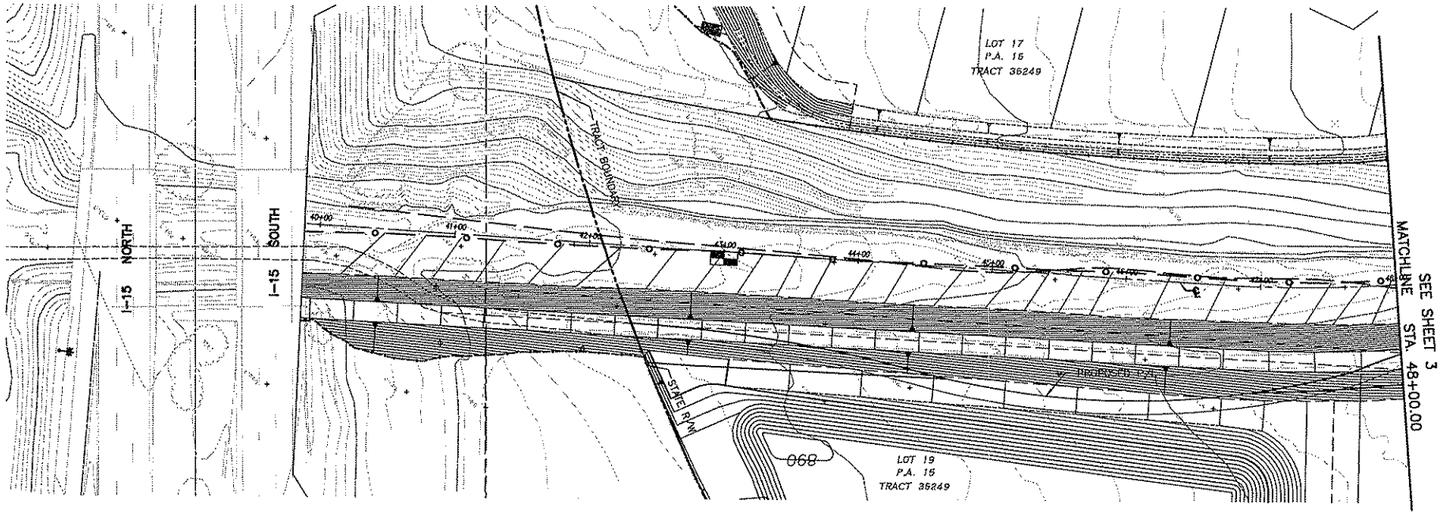

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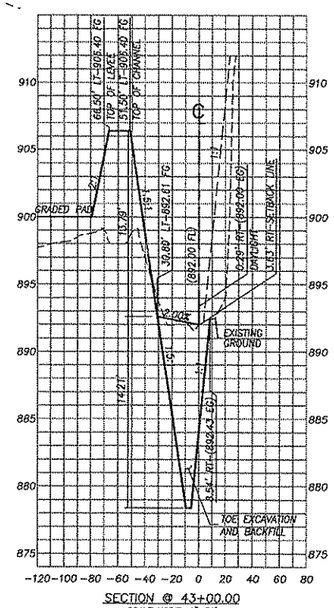

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EXHIBIT A

AEI CASC CONSULTING
937 SOUTH VIA LATA, SUITE 500
COLTON, CA 92324
PH. (909) 783-0101; FAX (909) 783-0108

XXXXXX DATE

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XXXXXXXXXXXX
XXXXXXXXXXXXXXX

REVISIONS

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE:
APPROVED BY: DATE:

SEAL-COUNTY

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY
XXXXXXXXXX DATE:
RECOMMENDED, XXXXXXX DATE:

PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS

PROJECT NO. XXXXX
DRAWING NO. XXXX
SHEET 2 OF 8

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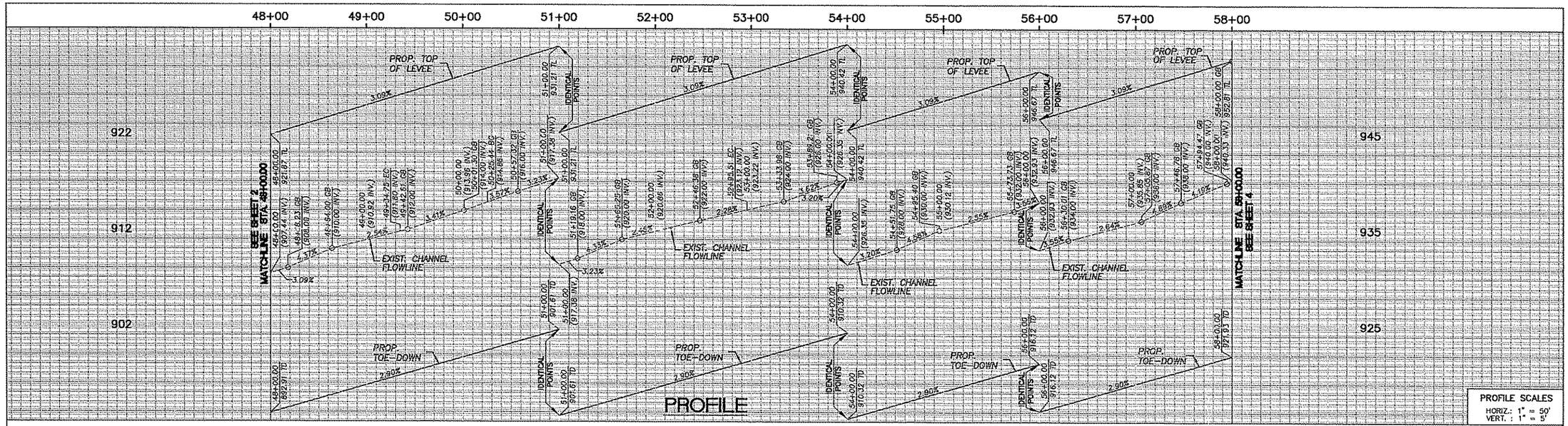

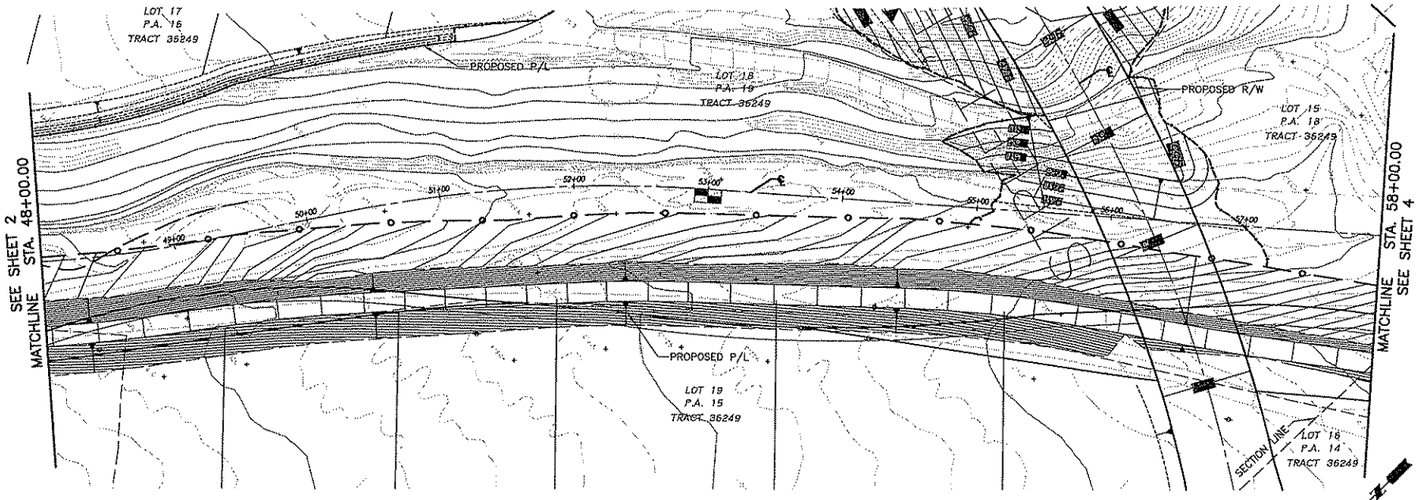

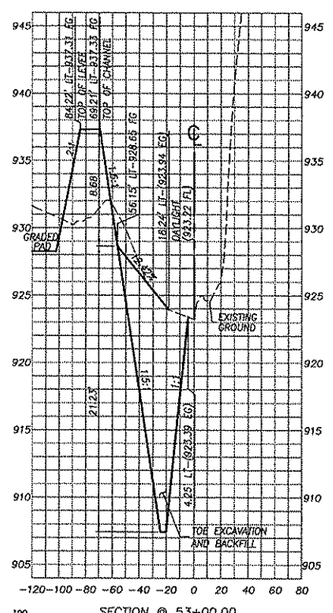

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EXHIBIT A

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937 SOUTH VIA LATA, SUITE 500
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SEAL - COUNTY

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
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XXXXXXXXXX _____ DATE: _____

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PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS

PROJECT NO. XXXXX
DRAWING NO. XXXX
SHEET **3** OF 8

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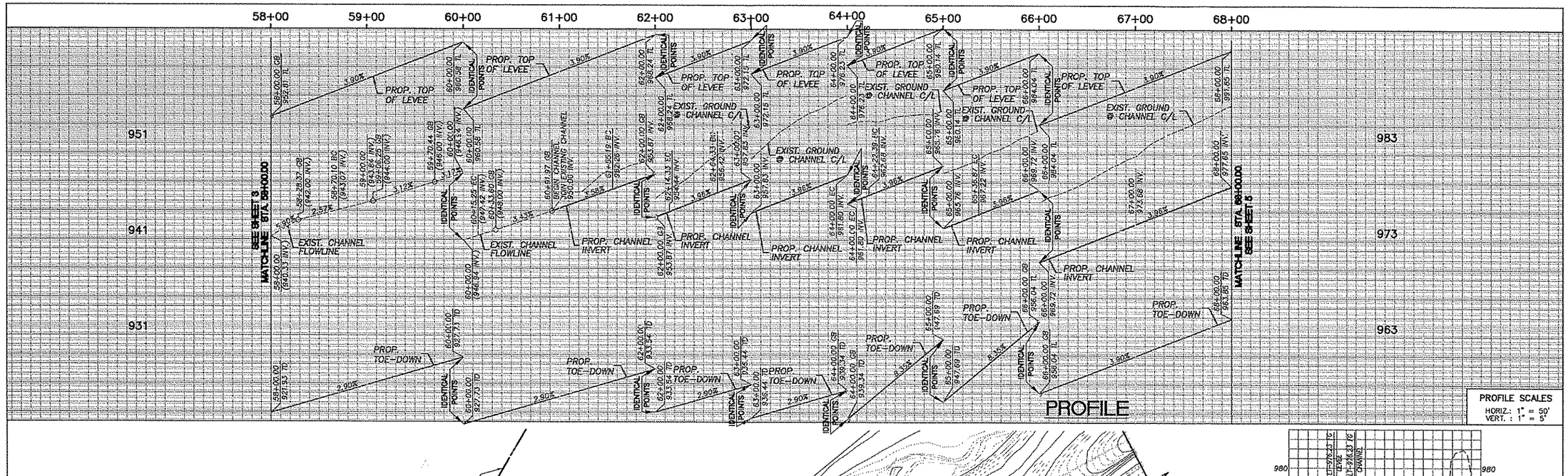

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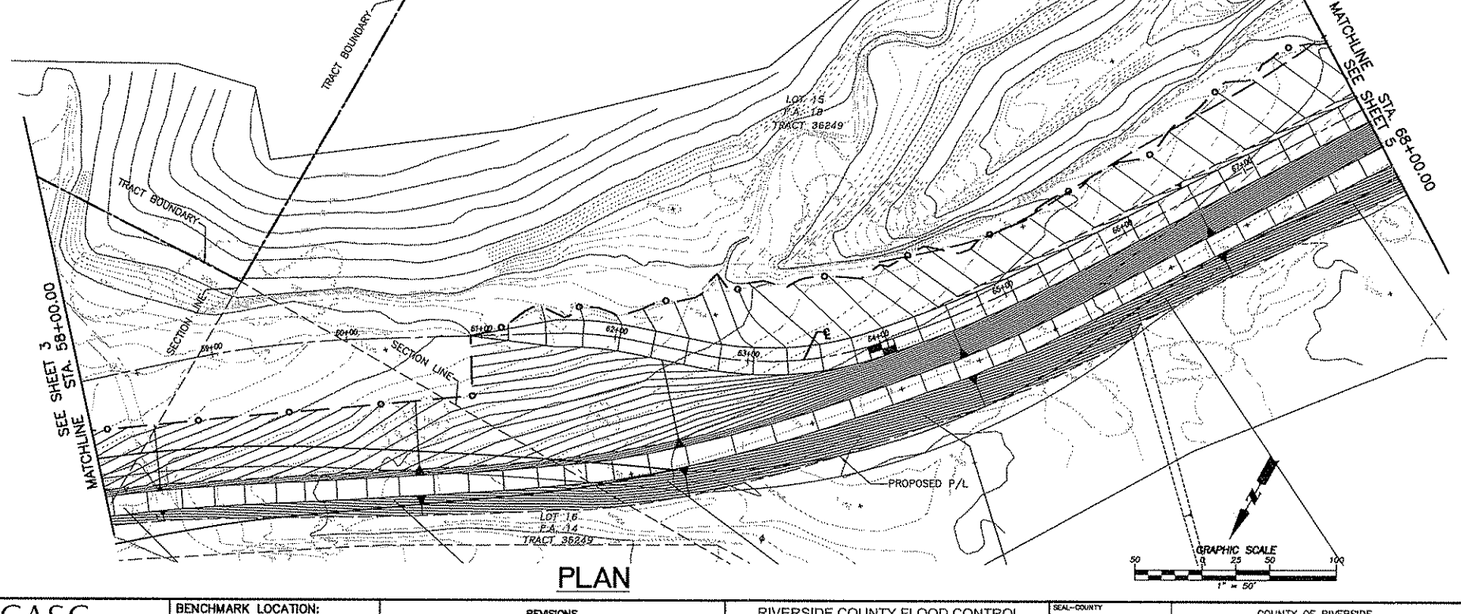

PLAN

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EXHIBIT A

AEI CASC CONSULTING
937 SOUTH VIA LATA, SUITE 500
COLTON, CA 92324
PH. (909) 783-0101; FAX (909) 783-0108

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TRANSPORTATION DEPARTMENT
APPROVED BY

XXXXXXXXXX DATE:

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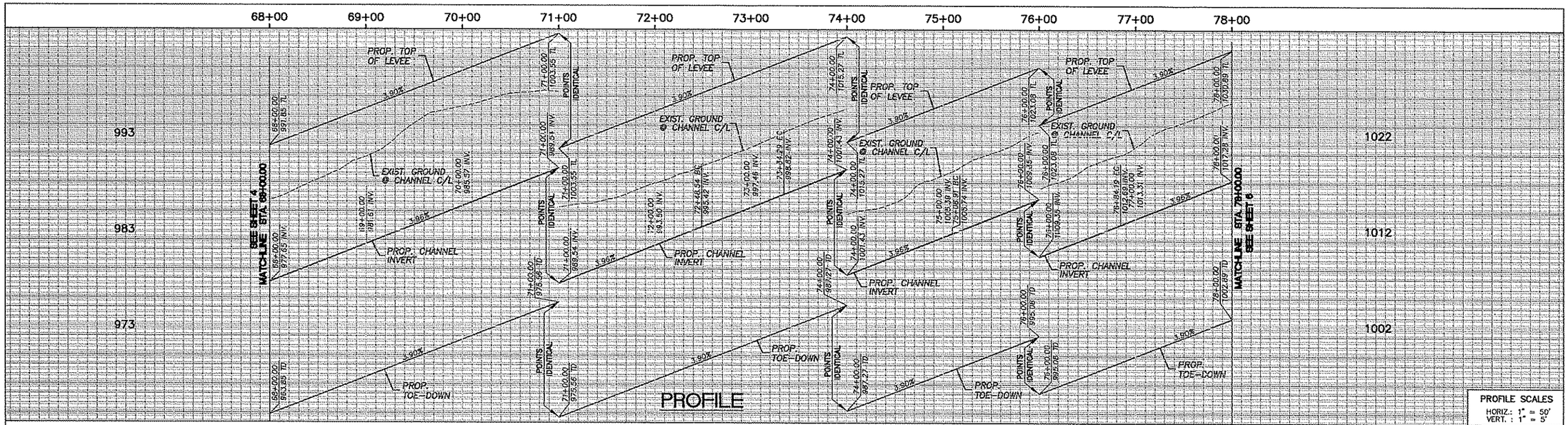
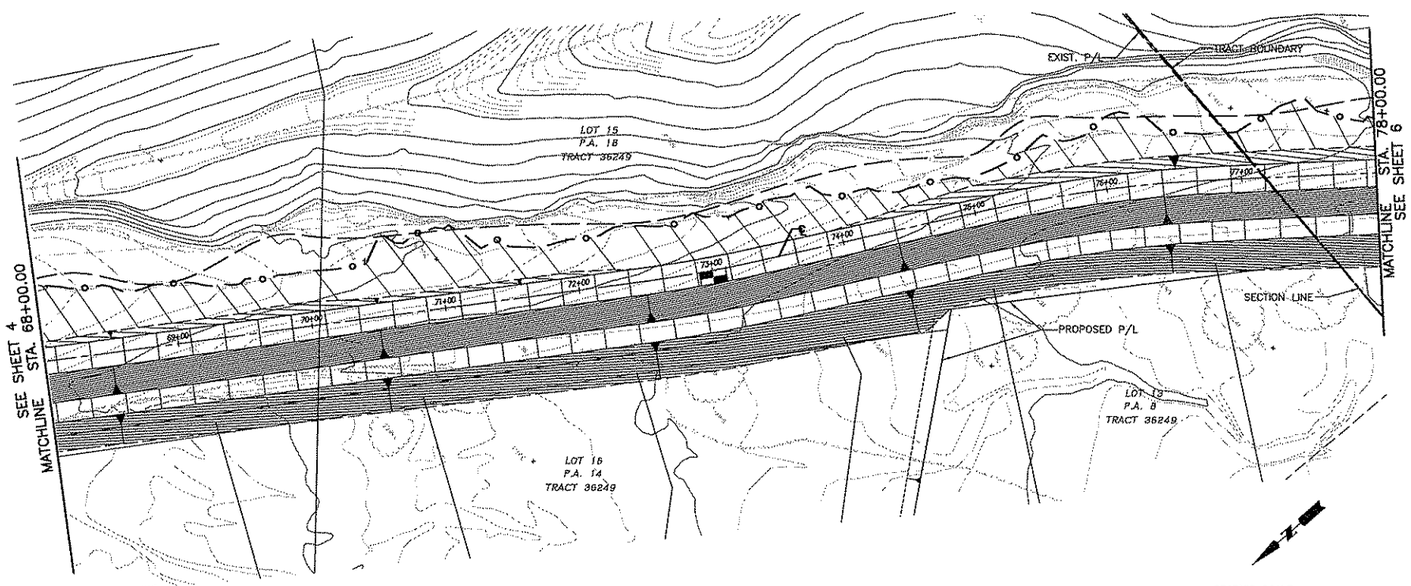
PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS

PROJECT NO. XXXXX

DRAWING NO. XXXX

SHEET 4 OF 8





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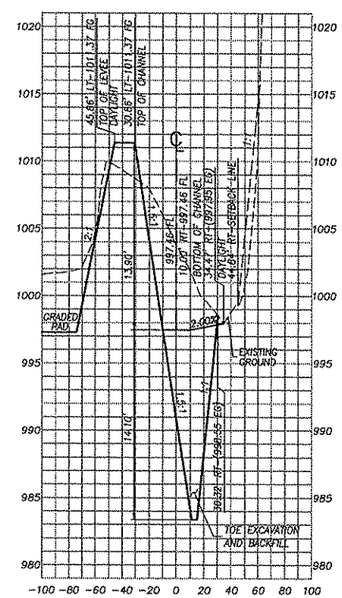

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EXHIBIT A

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AEI CASC CONSULTING
937 SOUTH VIA LATA, SUITE 500
COLTON, CA 92324
PH. (909) 783-0101; FAX (909) 783-0108

XXXXX DATE

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XXXXXXXXXXX
XXXXXXXXXXXXXX

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APPROVED BY: _____ DATE: _____

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COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY

XXXXXXXXXX _____ DATE: _____

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PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS

PROJECT NO. XXXXX

DRAWING NO. XXXX

SHEET 5 OF 8

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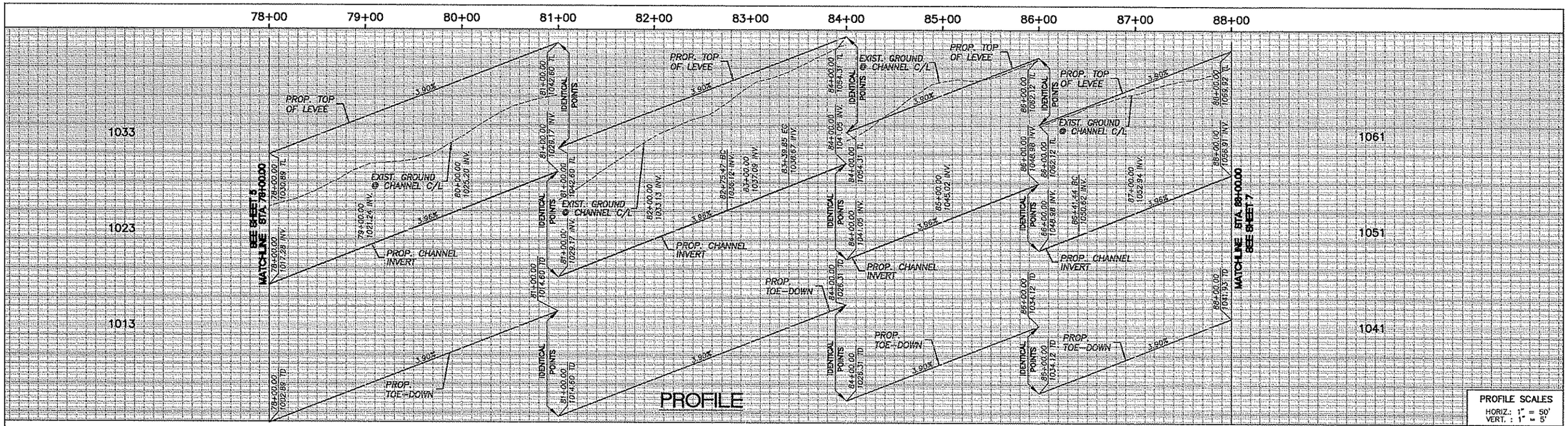

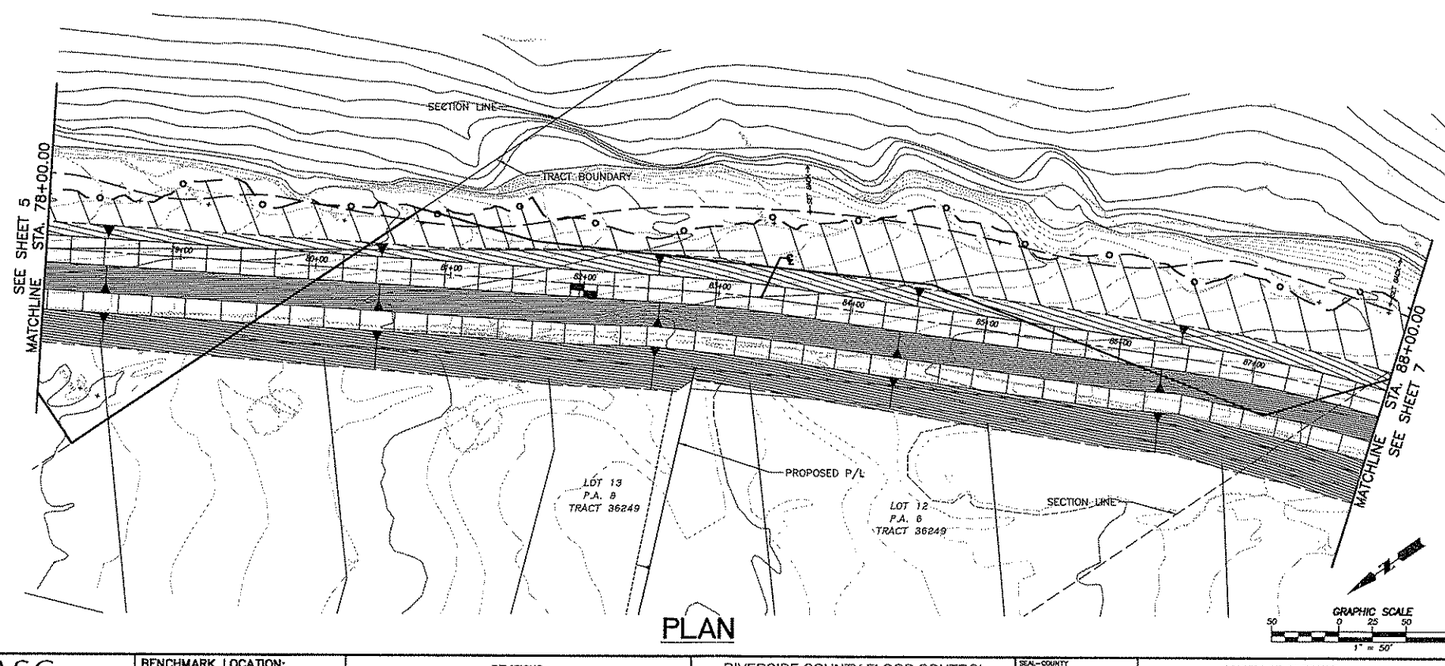

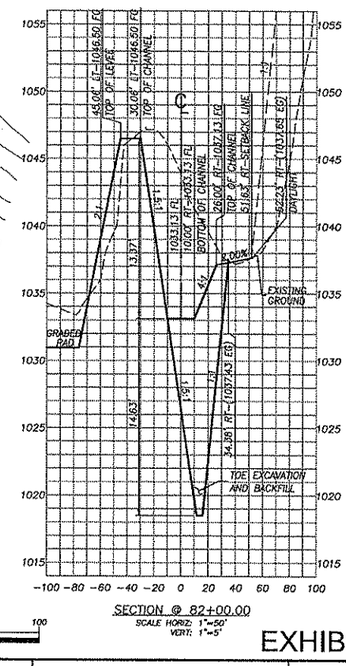

EXHIBIT A

PROFILE SCALES
HORIZ.: 1" = 50'
VERT. : 1" = 5'

AEI CASC CONSULTING
937 SOUTH VIA LATA, SUITE 500
COLTON, CA 92324
PH. (909) 783-0101; FAX (909) 783-0108

XXXXXX DATE

BENCHMARK LOCATION:
XXXXXXXXXXXX
XXXXXXXXXXXXXX

REVISIONS

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE:
APPROVED BY: DATE:

SEAL-COUNTY

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY
XXXXXXXXXX DATE:
RECOMMENDED, XXXXXXX DATE:

PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS

PROJECT NO. XXXXX
DRAWING NO. XXXX
SHEET 6 OF 8

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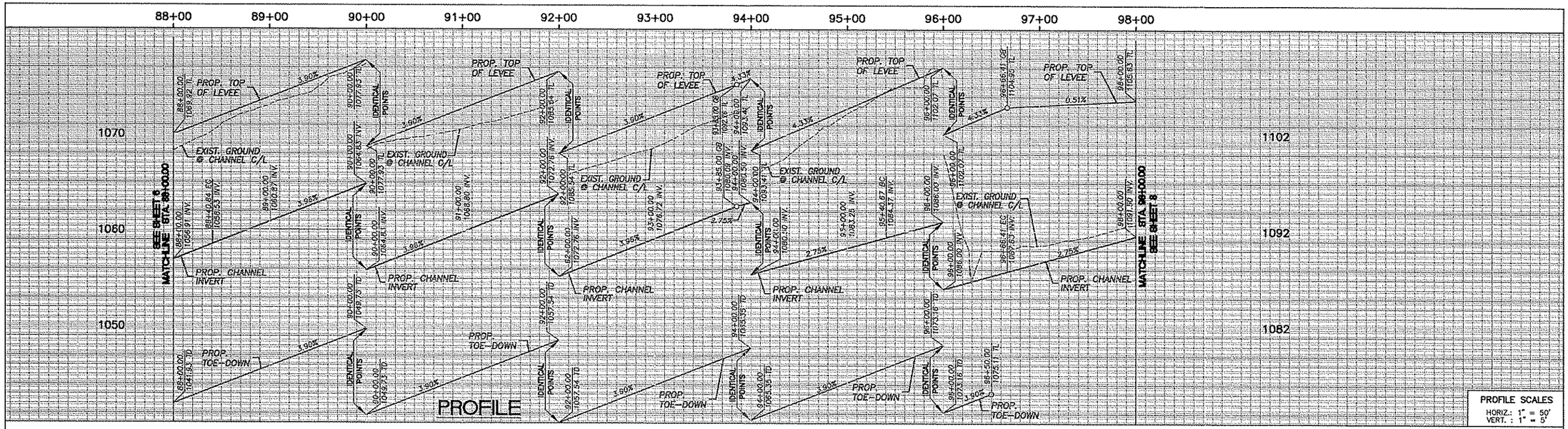
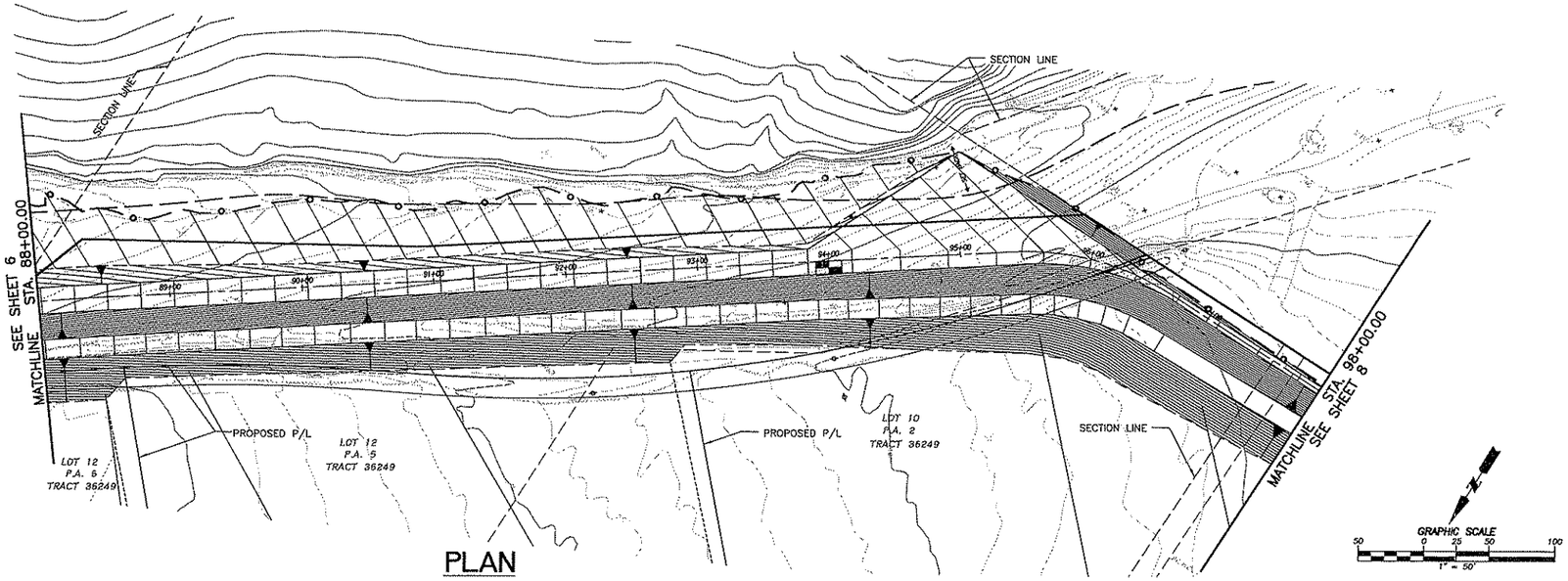
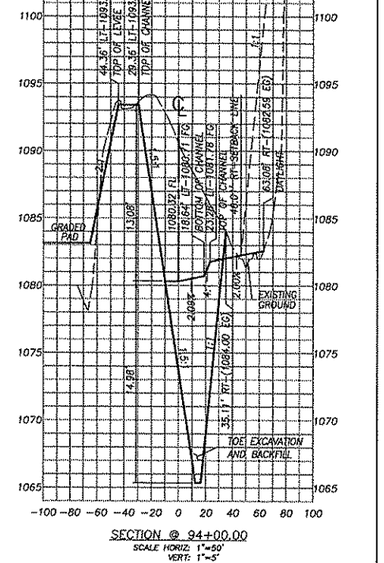






PROFILE SCALES
HORIZ.: 1" = 50'
VERT. : 1" = 5'

EXHIBIT A

AEI CASC CONSULTING
937 SOUTH VIA LATA, SUITE 500
COLTON, CA 92324
PH. (909) 783-0101; FAX (909) 783-0108

XXXXXX DATE

BENCHMARK LOCATION:
XXXXXXXXXXXX
XXXXXXXXXXXXXXX

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: DATE:

APPROVED BY: DATE:

SEAL--COUNTY

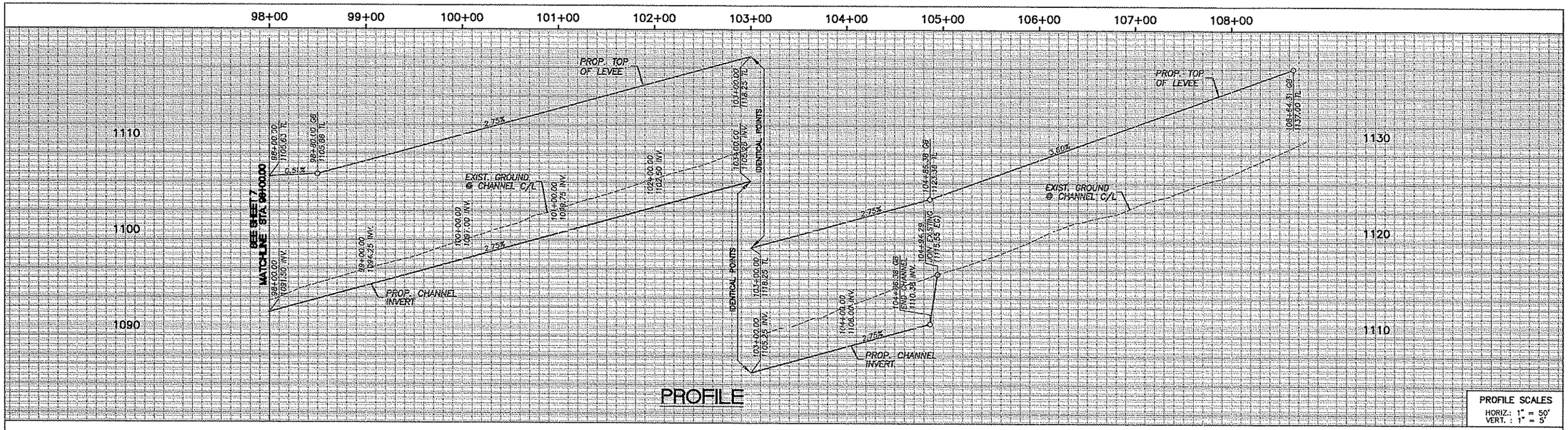
COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY

XXXXXXXXXX DATE:

RECOMMENDED, XXXXXXX DATE:

PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS

PROJECT NO. XXXXX
DRAWING NO. XXXX
SHEET 7 OF 8



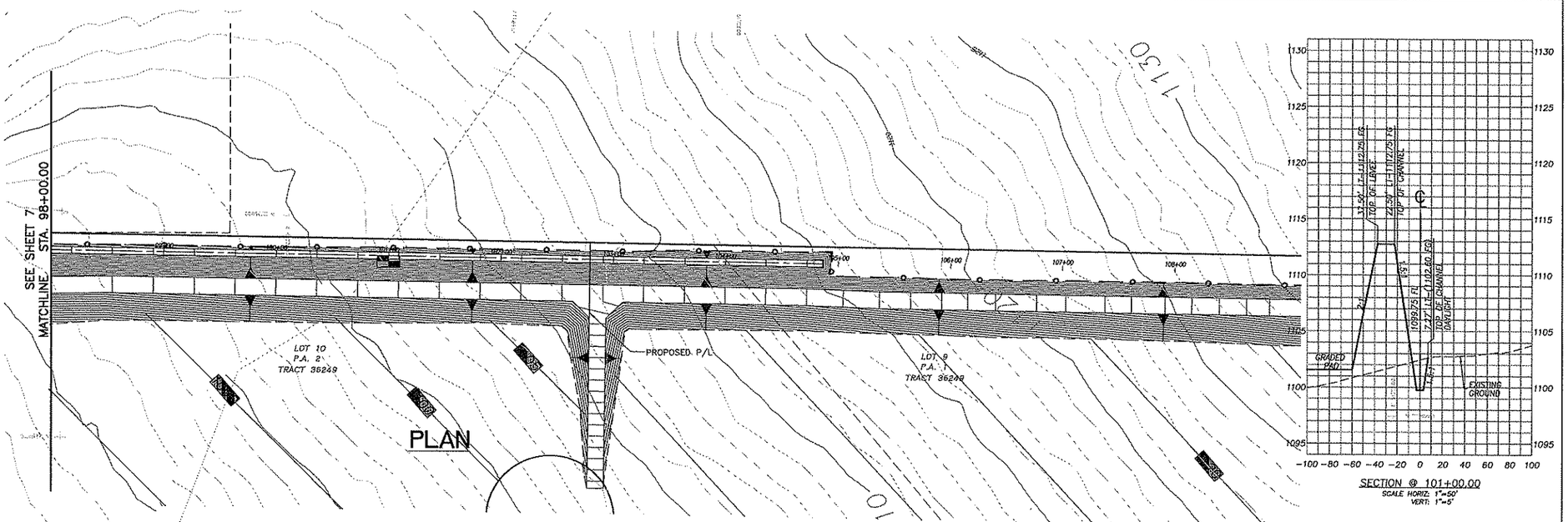


EXHIBIT A

AEI CASC CONSULTING
937 SOUTH VIA LATA, SUITE 500
COLTON, CA 92324
PH. (909) 783-0101; FAX (909) 783-0108

XXXXXX DATE

BENCHMARK LOCATION:
XXXXXXXXXXXX
XXXXXXXXXXXXXX

REVISIONS

REV.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

SEAL—COUNTY

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY

XXXXXXXXXX _____ DATE _____

RECOMMENDED, XXXXXXX _____ DATE _____

PRELIMINARY PLAN, PROFILE AND TYPICAL SECTIONS OF THE PROPOSED BEDFORD CANYON WASH LEVEE IMPROVEMENTS

PROJECT NO. XXXXX

DRAWING NO. XXXX

SHEET **8** OF 8

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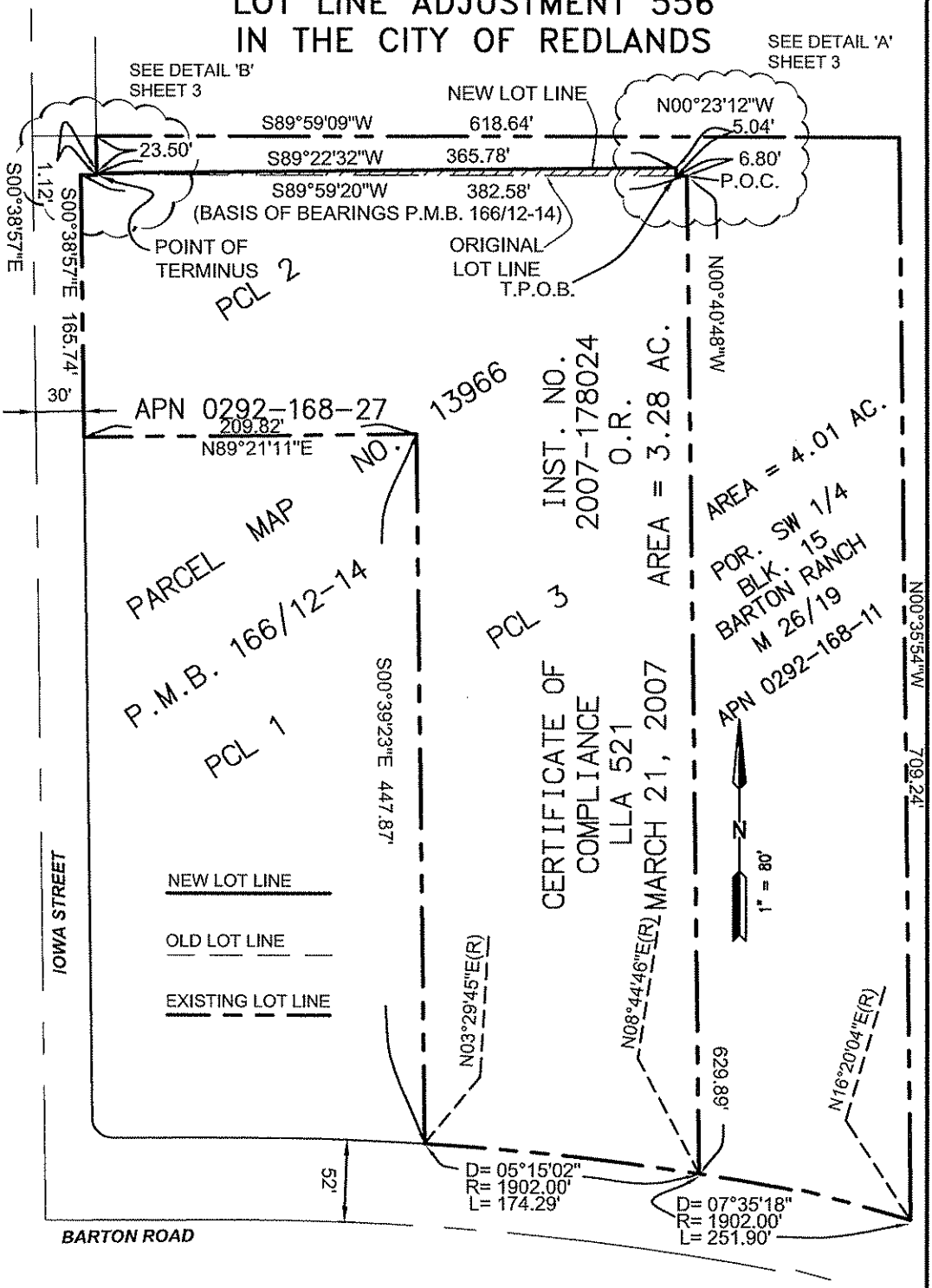
EXHIBIT B: PROPOSED GRADING PLAN

EXHIBIT "B"
LOT LINE ADJUSTMENT 556
IN THE CITY OF REDLANDS



PREPARED BY ME OR UNDER
MY DIRECTION

DENNIS W. GOOD _____
LS 8084 DATE

LICENSED LAND SURVEYOR
DENNIS W. GOOD
LS 8084
EXPIRES 12/31/11
STATE OF CALIFORNIA

K & S ENGINEERING
7801 MISSION CTR. CT.
#100
SAN DIEGO, CA 92108
619-296-5565

JN 06-029-04

EXHIBIT C: EXISTING CONDITIONS FLOODPLAIN MAP

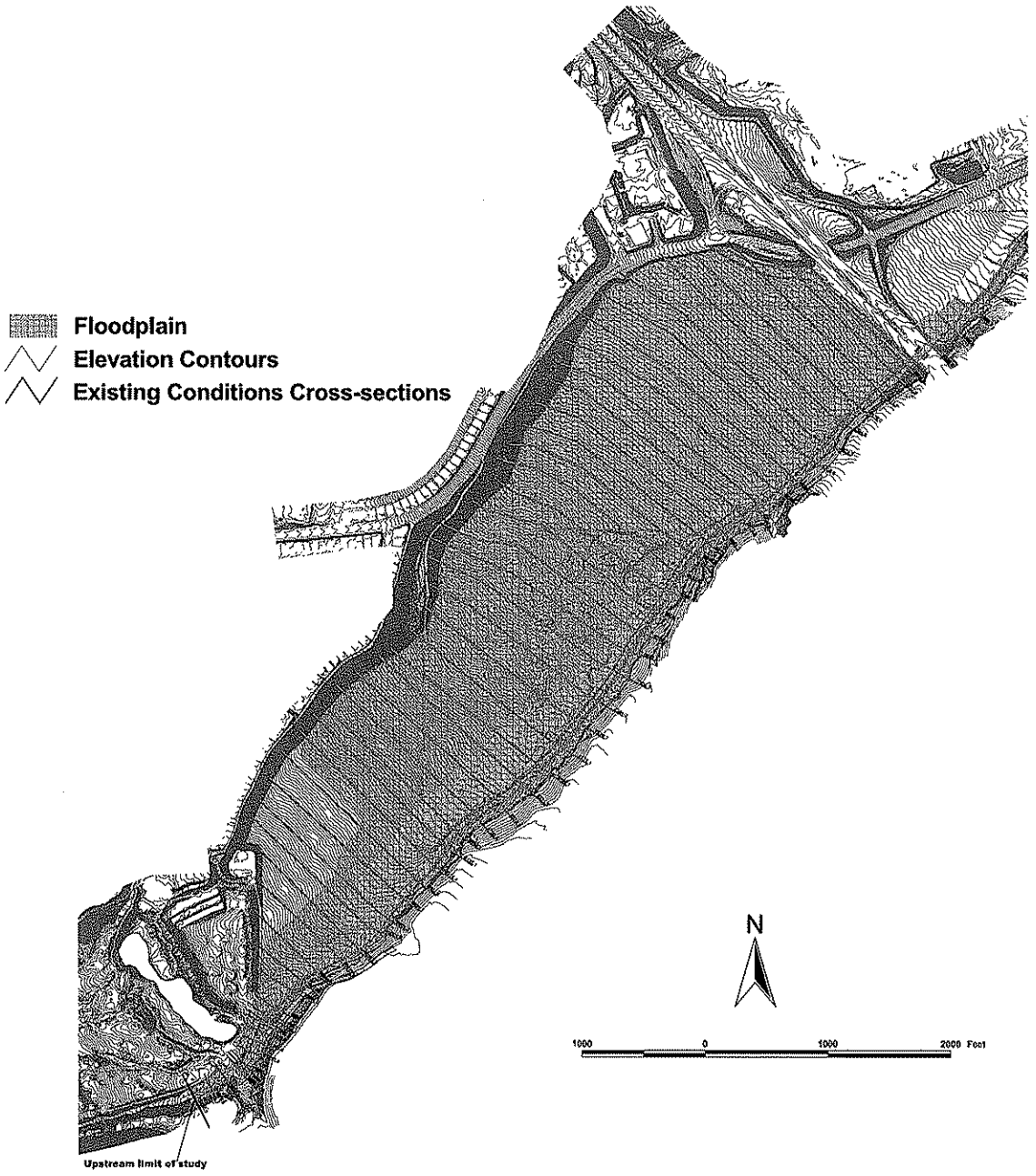


Exhibit C

Existing Conditions 100-Year Floodplain
Bedford Wash

EXHIBIT D: WITH-PROJECT CONDITIONS FLOODPLAIN MAP

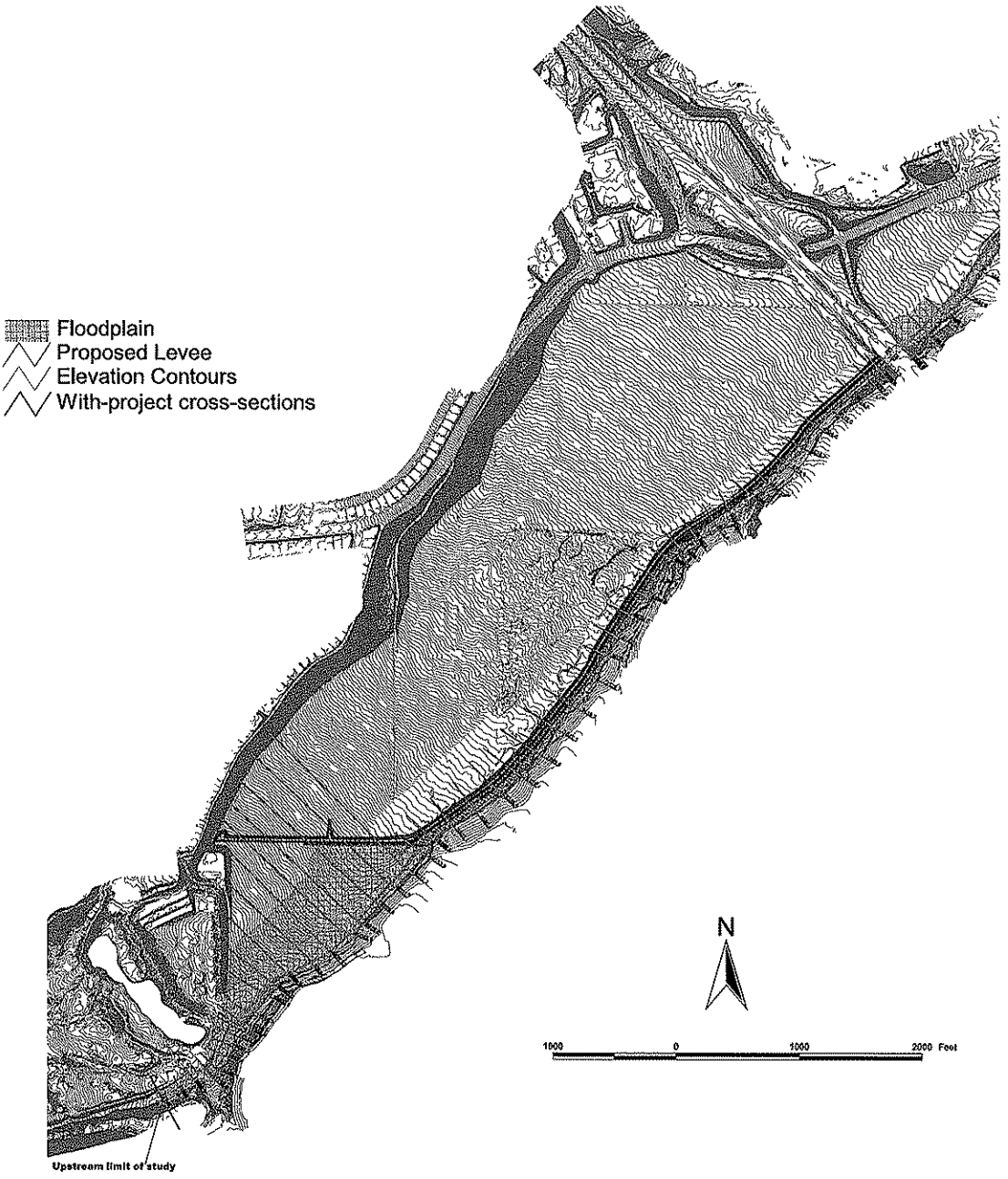


Exhibit D

With-Project Conditions 100-Year Floodplain
Bedford Wash

ATTACHMENT A: HEC-RAS SUMMARY AND OUTPUT FILES

(SEE ENCLOSED DIGITAL CD)

ATTACHMENT B: NCRS SOILS REPORT

(SEE ENCLOSED DIGITAL CD)

ATTACHMENT C: SAM COMPUTATIONS

(SEE ENCLOSED DIGITAL CD)

ATTACHMENT D: GSTARS COMPUTATIONS

(SEE ENCLOSED DIGITAL CD)