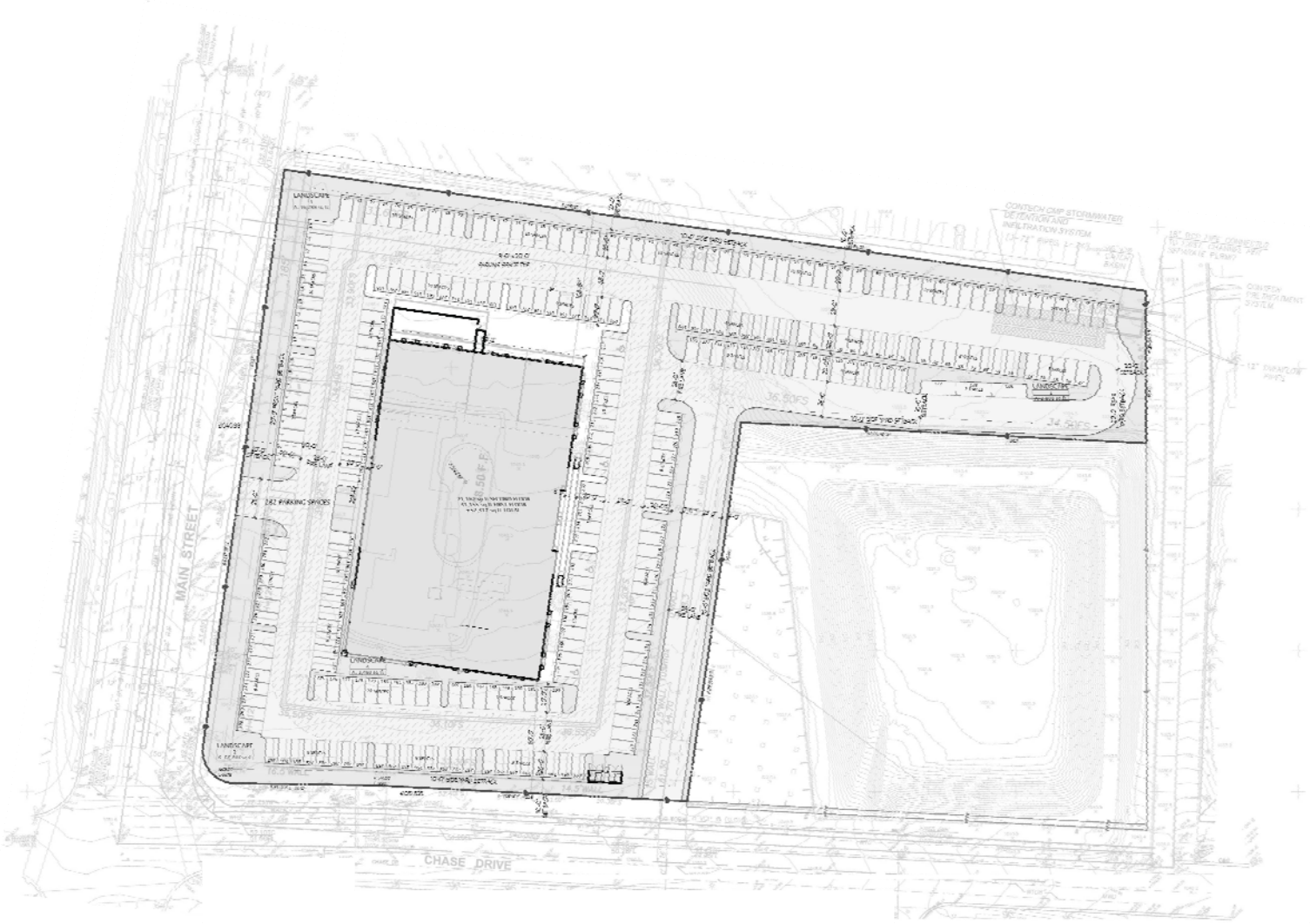
# FITNESS MANIA PROJECT
# TRAFFIC IMPACT ANALYSIS
# City of Corona, California




RK engineering group, inc.

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# TRAFFIC IMPACT ANALYSIS
# City of Corona, California

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**September 12, 2022**

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# 1.0 Introduction

## 1.1 Purpose of Report & Study Objectives

The purpose of this traffic impact analysis is to evaluate the proposed Fitness Mania Project (hereinafter referred to as project) from a traffic and circulation standpoint and determine whether the project will have a significant traffic impact. This traffic study has been conducted pursuant to the *City of Corona Public Works Department Traffic Impact Study Guidelines*, dated July 2006 (TIA Guidelines), and the California Environmental Quality Act (CEQA) requirements.

This study has been prepared in accordance with the scope of work previously approved by City of Corona staff. A copy of the approved scope of work is contained in Appendix A.

## 1.2 Site Location & Project Description

The project site is located at 2895 South Main Street, generally on the northeast corner of South Main Street at Chase Drive, in the City of Corona.

The proposed project consists of constructing and operating a 52,317 square-foot health club/gym facility with ancillary uses that include laundry services, office space, cafeteria/kitchen, retail, and a kids club.

Access to the project site will be provided via the following:

- One (1) full-ingress/right-out only unsignalized access driveway along Main Street; and

- One (1) full-access unsignalized access driveway along Chase Drive.

The project site location map is shown on Exhibit 1-1. The project site plan is shown on Exhibit 1-2.

The construction of the proposed project will include the installation of a raised median along Main Street in front of the project site, as well as the construction of a 100-foot southbound left-turn pocket for the Main Street project access (i.e. Project Access 1). This

Exhibit 1-1

# Location Map

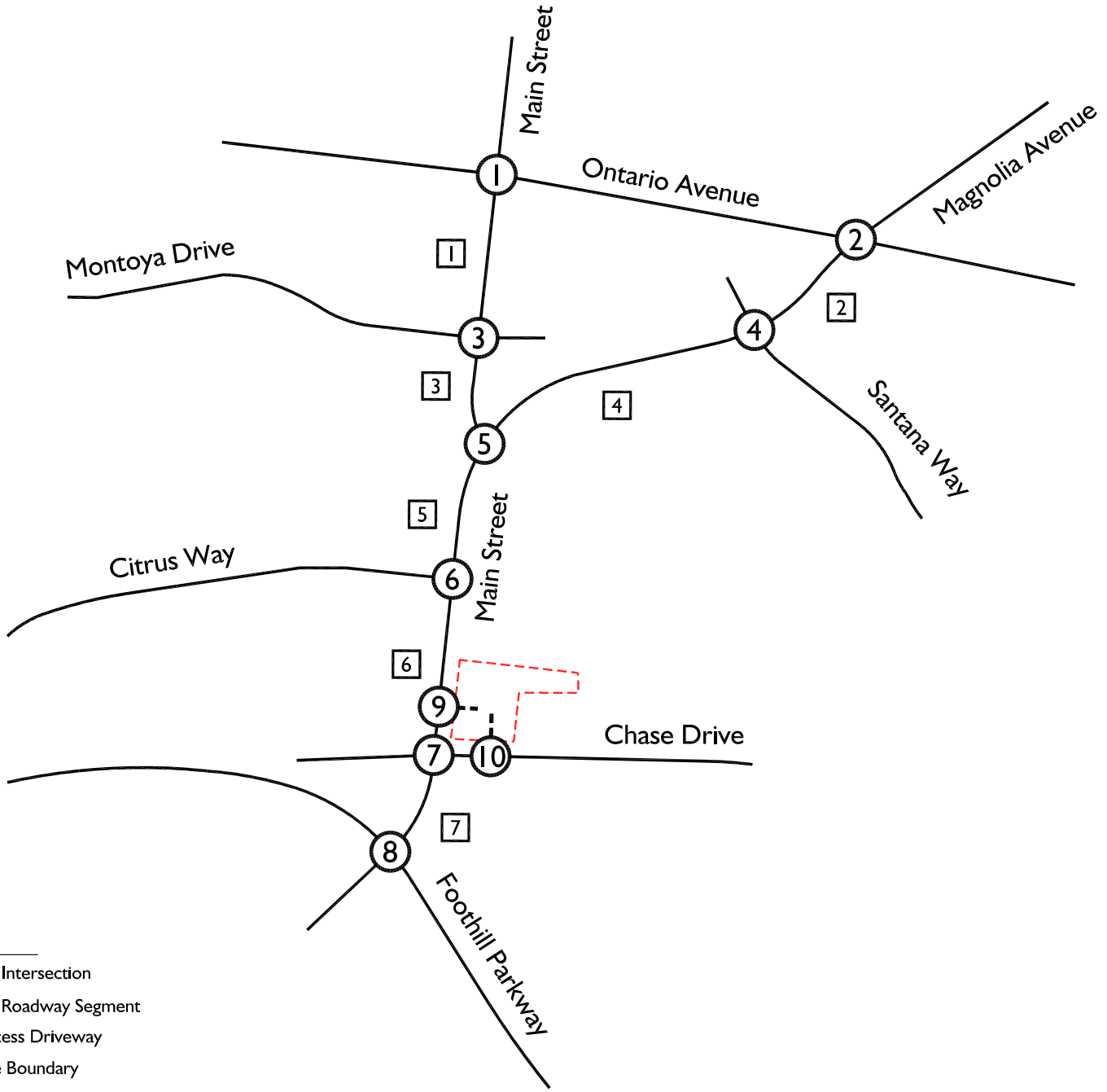
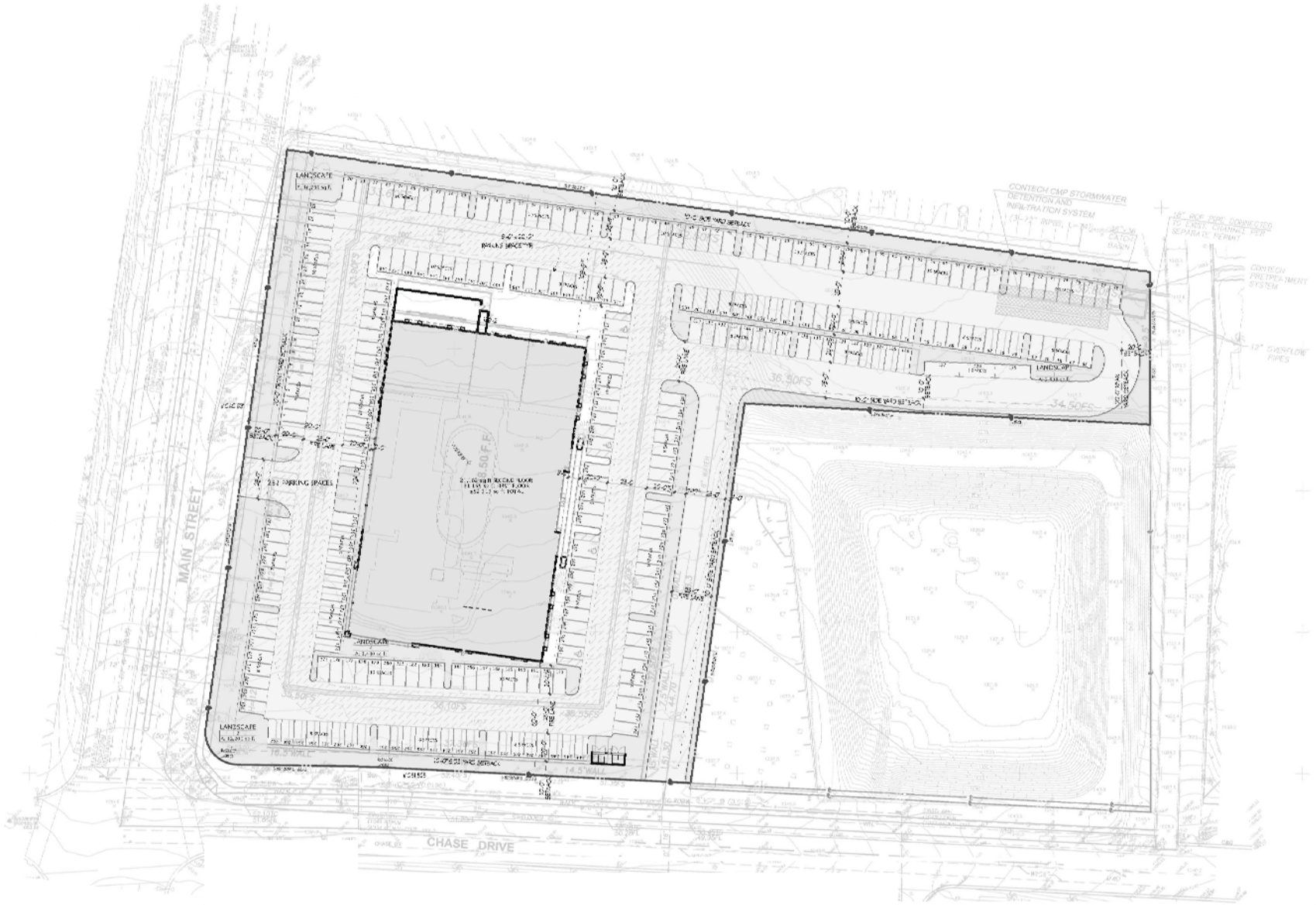


Exhibit 1-2

# Site Plan

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project-specific improvement will also include the widening of Main Street in front of the project site to be a 4-lane roadway.

Additionally, the proposed project will extend the existing westbound left-turn pocket at the intersection of Main Street at Chase Drive approximately fifty-five (55) feet to provide a 100-foot pocket. The project will also modify the northbound approach of Main Street at Chase Drive to consist of one (1) left-turn lane, one (1) through lane, and one (1) shared through/right-turn lane.

Exhibit 1-3 shows a conceptual layout of the proposed raised median along Main Street in front of the project site, as well as the other project-specific improvements described above.

The project is planned to be completed in 2023 and has been evaluated in one (1) single phase.

## 1.3 Traffic Study Area & Analysis Scenarios

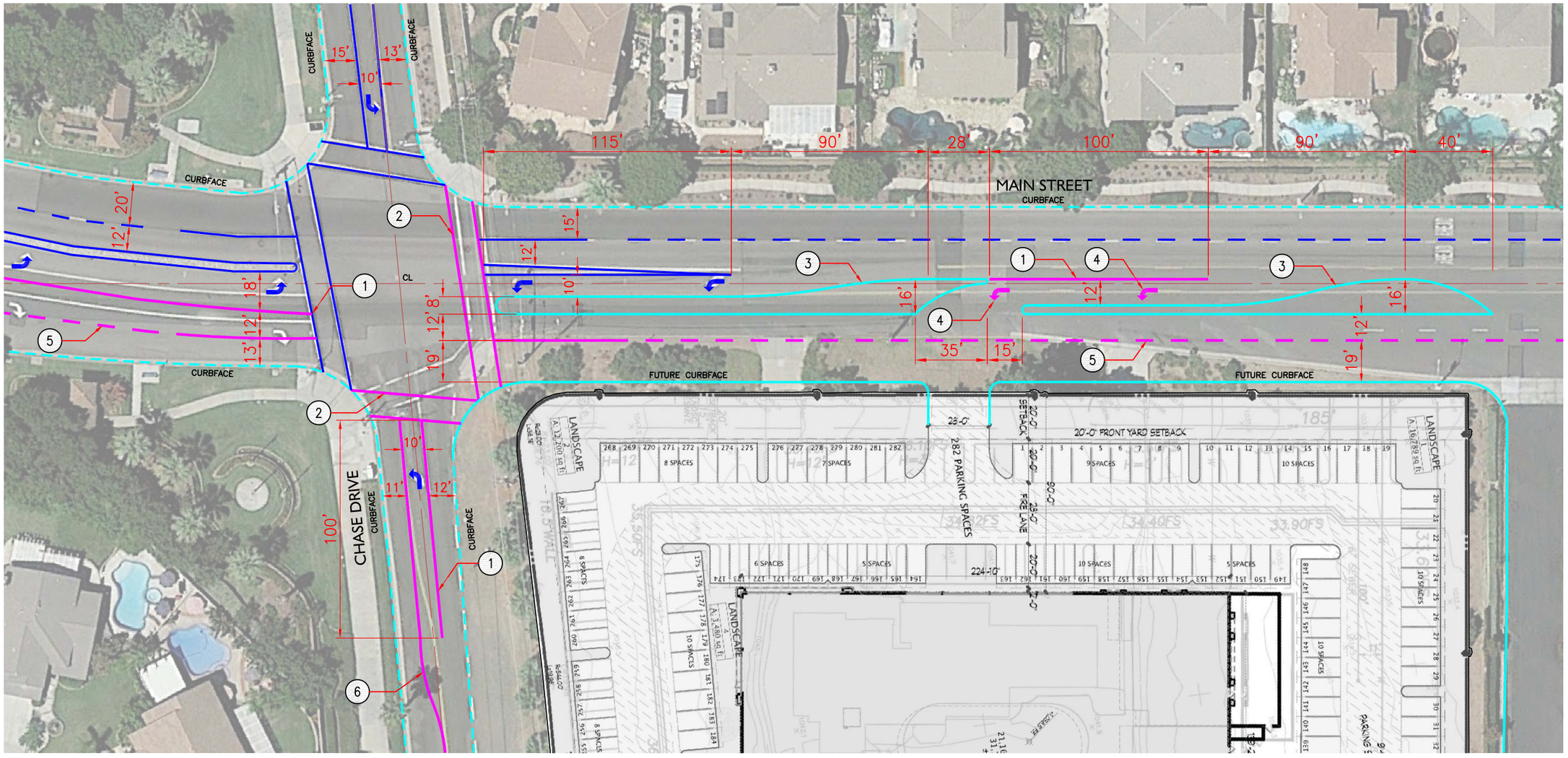
The study area included in this analysis has been determined based upon existing and future transportation facilities within the vicinity of the site where the project may contribute a significant amount of traffic. The traffic analysis evaluates the following ten (10) study intersections and seven (7) study roadway segments. All ten (10) study intersections and seven (7) study roadway segments are located within the City of Corona.

***Study Intersections:***

1. Main Street at Ontario Avenue (signalized);
2. Magnolia Avenue at Ontario Avenue (signalized);
3. Main Street at Montoya Drive (signalized);
4. Magnolia Avenue at Santana Way (signalized);
5. Magnolia Avenue/Main Street at Main Street (signalized);
6. Main Street at Citrus Way (signalized);

Exhibit 1-3

# Conceptual Raised Median Along Main Street




## STRIPING AND RAISED MEDIAN NOTES:

| | |
|---|---|
| 1 | PAINT WHITE LANE CHANNELIZING LINES |
| 2 | PAINT WHITE CROSSWALK LINES |
| 3 | INSTALL RAISED MEDIAN |
| 4 | PAINT LEFT-TURN ARROW |
| 5 | PAINT BROKEN WHITE LANE LINES |
| 6 | PAINT DOUBLE-YELLOW CENTERLINES WITH REFLECTORS |

SCALE: 1" = 50'

50 25 0 50 100 150

**PRELIMINARY**
NOT FOR CONSTRUCTION

7. Main Street at Chase Drive (signalized);

8. Main Street at Foothill Parkway (signalized);

9. Main Street at Project Access 1 (unsignalized); and

10. Project Access 2 at Chase Drive (unsignalized).

***Study Roadway Segments:***

1. Main Street between Ontario Avenue and Montoya Drive (4-lane Major Arterial);

2. Magnolia Avenue between Ontario Avenue and Santana Way (6-lane Major Arterial);

3. Main Street between Montoya Drive and Magnolia Avenue (4-lane Major Arterial);

4. Magnolia Avenue between Santana Way and Main Street (6-lane Major Arterial);

5. Main Street between Magnolia Avenue and Citrus Way (5-lane Major Arterial);

6. Main Street between Citrus Way and Project Access 1 (4-lane Major Arterial); and

7. Main Street between Chase Drive and Foothill Parkway (4-lane Major Arterial).

The analysis evaluates traffic conditions for the following study scenarios during the weekday AM (6:30 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM) peak periods:

- Existing Conditions;

- Project Opening Year (2023) With Background Traffic Without Project Conditions; and

- Project Opening Year (2023) With Background Traffic With Project Conditions.

# 2.0 Analysis Methodologies, Performance Criteria & Thresholds of Improvement Requirement

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report in accordance with the City of Corona. This section also discusses the agency-established applicable performance criteria and thresholds of improvement requirement for the study facilities.

## 2.1 Intersection Peak Hour LOS Analysis Methodology

In accordance with the City of Corona TIA Guidelines, the Highway Capacity Manual 6th Edition (HCM 6) is utilized as the technical guide in the evaluation of traffic operations.

The Highway Capacity Manual (HCM) defines level of service (LOS) as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of LOS for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- **LOS A** represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.

- **LOS B** is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.

- **LOS C** is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.

- **LOS D** represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.

- **LOS E** represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.

- **LOS F** is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

For signalized intersections, average control delay per vehicle is used to determine the LOS. For all-way stop controlled intersections, the LOS is also determined based on the average control delay per vehicle. For intersections with stop control on the minor approach only, the calculation of LOS is dependent on the occurrence of gaps in the free-flow traffic movement of the main street, and the LOS is determined based on the worst individual movement or movements sharing a single lane.

The HCM 6 methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding ranges of stopped delay experienced per vehicle for signalized and unsignalized intersections.

Table 2-1 below shows the LOS criteria based on the HCM 6 methodology.

**Table 2-1**
**HCM LOS - Vehicle Delay**

| LOS | Average Control Delay Per Vehicle (Seconds) | |
|---|---|---|
| | Signalized | Unsignalized |
| A | 0.00 – 10.00 | 0.00 – 10.00 |
| B | 10.01 – 20.00 | 10.01 – 15.00 |
| C | 20.01 – 35.00 | 15.01 – 25.00 |
| D | 35.01 – 55.00 | 25.01 – 35.00 |
| E | 55.01 – 80.00 | 35.01 – 50.00 |
| F | > 80.00 | > 50.00 |

For this study, the HCM LOS grades will be determined utilizing the HCM 6 methodology and the PTV Vistro analysis software.

All analysis parameters utilized in this analysis are in accordance with the City of Corona TIA Guidelines.

Optimized signal timing is utilized for signalized intersections.

Existing peak hour factors have been calculated based upon the manual turning movement counts collected at the study area intersections. For a conservative analysis, the existing peak hour factors have been used for all study scenarios.

## 2.2 Roadway Segment LOS Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of roadway segment operation and is based on the daily capacity of the roadway segment and the daily volume of traffic experienced by the roadway segment.

Roadway segment LOS and operation is evaluated utilizing the volume-to-capacity (V/C) ratio methodology. The LOS is determined based on the numerical ratio obtained by dividing the daily traffic volume of the roadway segment by its daily capacity identified by the City's General Plan Circulation Element for the corresponding roadway classification.

The V/C ratio methodology describes the operation of a roadway segment using a range of LOS from LOS A to LOS F, based on the corresponding ranges as shown in Table 2-2 below.

**Table 2-2**
**LOS – Volume to Capacity Ratio**

| LOS | V/C Ratio |
|---|---|
| A | 0.00 – 0.60 |
| B | 0.61 – 0.70 |
| C | 0.71 – 0.80 |
| D | 0.81 – 0.90 |
| E | 0.91 – 1.00 |
| F | > 1.00 |

The following roadway capacity values are utilized in accordance with the City of Corona TIA Guidelines.

**Table 2-3**
**Roadway Segment Capacity Thresholds**

| Roadway Classification | No. of Lanes | Maximum Two-Way ADT Volume | | |
|---|---|---|---|---|
| | | LOS C | LOS D | LOS E |
| Major Arterial | 4 | 27,300 | 30,700 | 34,100 |
| Major Arterial | 6 | 43,100 | 48,500 | 53,900 |

## 2.3 LOS Performance Criteria & Thresholds of Improvement Requirement

Performance Criteria:

***Study Intersections:***

The acceptable LOS for intersections within the City of Corona is LOS C or better for local intersections in residential/industrial areas, and LOS D or better for collector and arterial intersections. LOS E will be permitted for the following intersections: Lincoln Avenue at SR-91, Main Street at SR-91, McKinley Avenue at SR-91, Hidden Valley Parkway at I-15, Cajalco Road at I-15, Weirick Road at I-15, and other locations as approved by the City Engineer.

All of the ten (10) study intersections included in this analysis are required to operate at LOS D or better.

***Study Roadway Segments:***

The acceptable LOS for roadway segments located within the City of Corona is LOS C or better.

Thresholds of Improvement Requirement:

Per the City of Corona TIA Guidelines and in accordance with the City's General Plan, feasible measures shall be identified to mitigate any impacts to the levels identified below for Project Opening Year (2023) With Background Traffic With Project Conditions:

1. If a project causes a facility that is projected to operate at an acceptable LOS with opening year background traffic, to operate at an unacceptable LOS, then mitigation measures shall be identified for which the project shall be responsible to bring the facility back to an acceptable LOS.

2. In addition, developments that require a change in zoning from that shown in the current General Plan shall be responsible for mitigating impacts caused to City facilities by the zoning change back to an acceptable LOS.

3. If a project causes an impact to a facility operating at an unacceptable LOS with opening year background traffic, then mitigation measures shall be identified for which the project should pay a fair share.

# 3.0 Existing Traffic Volumes & Circulation System

This section of the report provides a discussion of existing study area conditions and traffic volumes.

## 3.1 Existing Traffic Controls & Intersection Geometrics

Exhibit 3-1 identifies the existing roadway conditions within the study area. The number of through traffic lanes for existing roadways and the existing intersection controls are identified. The type of traffic control and number of lanes at an intersection are key inputs for the calculation of level of service.

## 3.2 Existing Traffic Volumes

Existing traffic volumes at the study intersections are based upon manual AM and PM peak hour turning movement counts compiled for RK in August 2022 while local schools were in session.

The AM peak period of traffic was counted from 6:30 AM to 9:00 AM and the PM peak period of traffic was counted from 4:00 PM to 6:00 PM during typical weekday conditions.

Existing traffic volumes are shown on Exhibit 3-2 for the ten (10) study intersections and seven (7) study roadway segments.

Traffic count worksheets are contained in Appendix B.

## 3.3 City of Corona Circulation Element

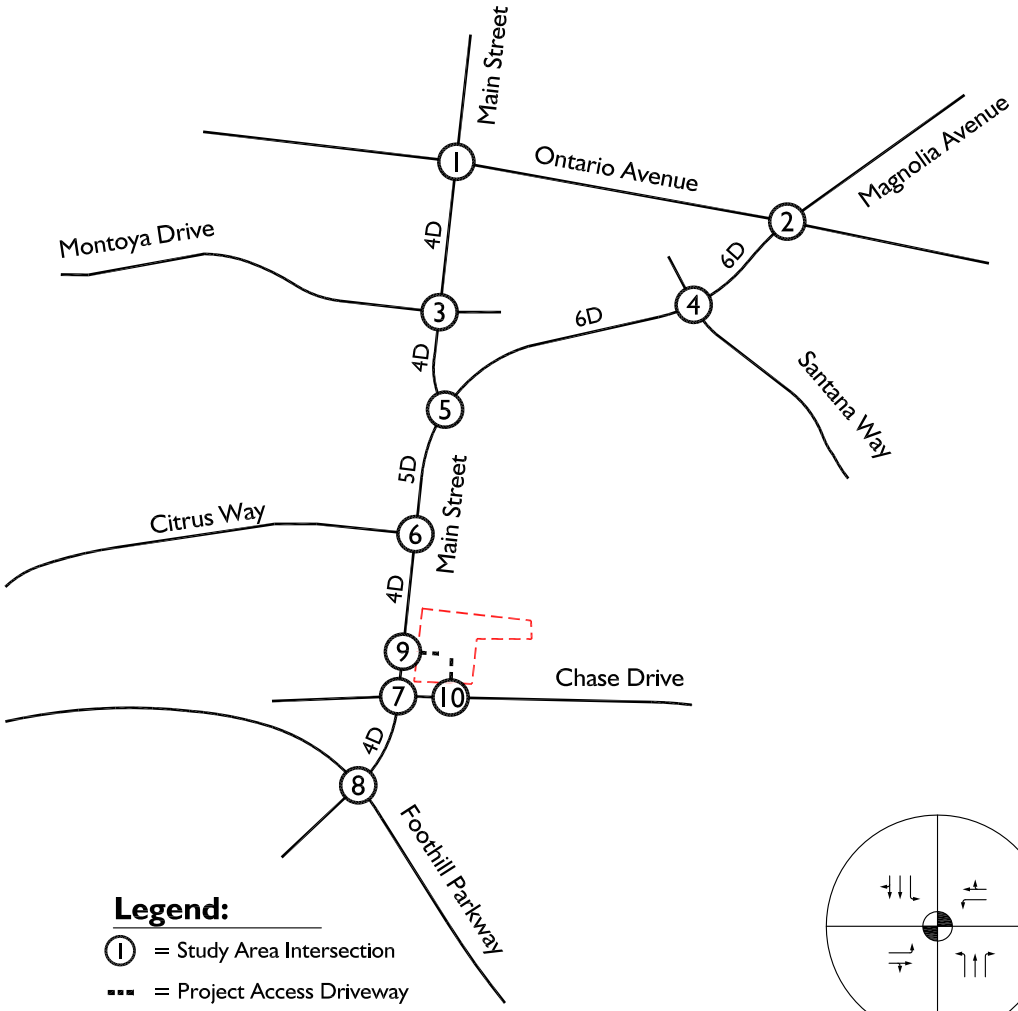
The City of Corona General Plan Roadway Plan is shown on Exhibit 3-3.

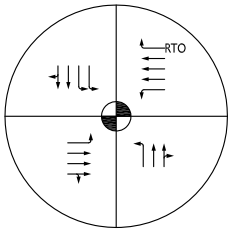
The City of Corona General Plan Bikeway Plan is shown on Exhibit 3-4.

The City of Corona General Plan Transit Routes are shown on Exhibit 3-5.

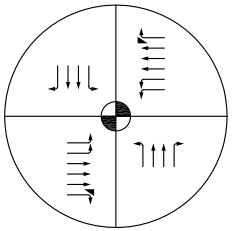
Exhibit 3-1

# Existing Lane Geometry and Traffic Controls

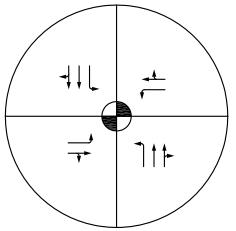


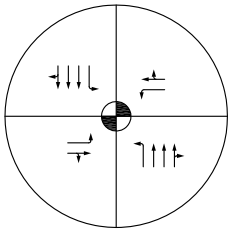

1. Main Street (N/S) at Ontario Avenue (E/W)



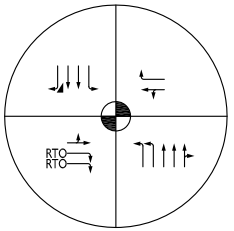

2. Magnolia Avenue (N/S) at Ontario Avenue (E/W)



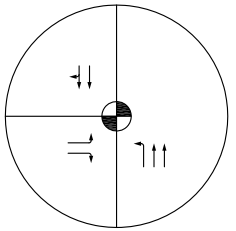
3. Main Street (N/S) at Montoya Drive (E/W)



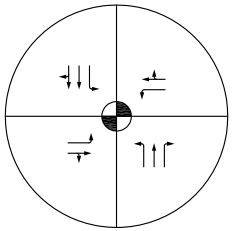
4. Magnolia Avenue (N/S) at Santana Way (E/W)



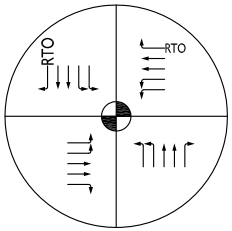

5. Magnolia Avenue/Main Street (N/S) at Main Street (E/W)



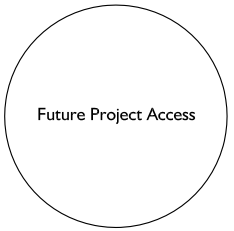
6. Main Street (N/S) at Citrus Way (E/W)



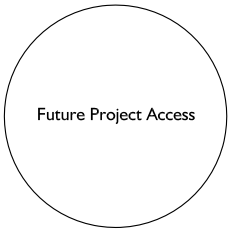
7. Main Street (N/S) at Chase Drive (E/W)




8. Main Street (N/S) at Foothill Parkway (E/W)



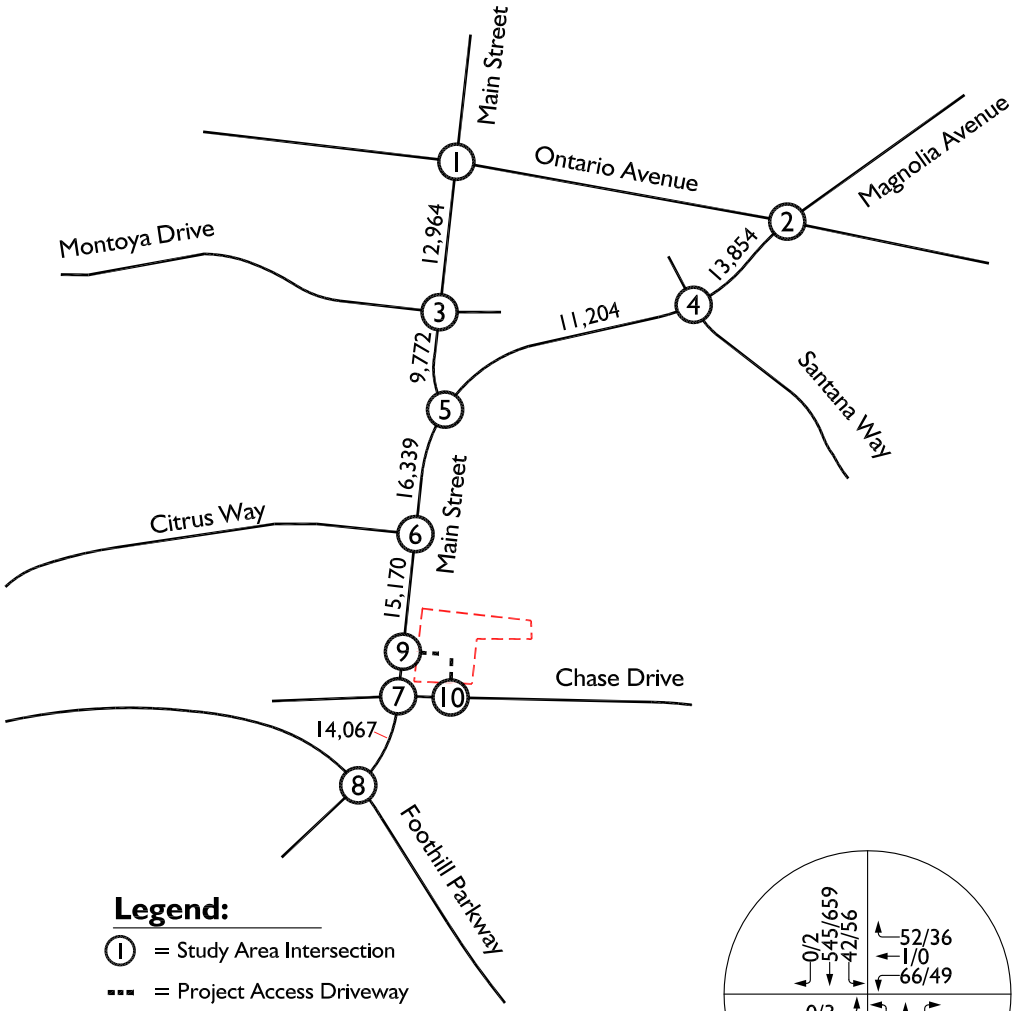

9. Main Street (N/S) at Project Access 1 (E/W)




10. Project Access 2 (N/S) at Chase Drive (E/W)

Exhibit 3-2

# Existing Traffic Volumes




**Legend:**

(1) = Study Area Intersection

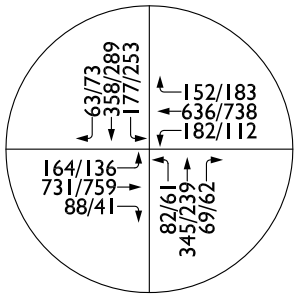
--- = Project Access Driveway

--- = Project Site Boundary

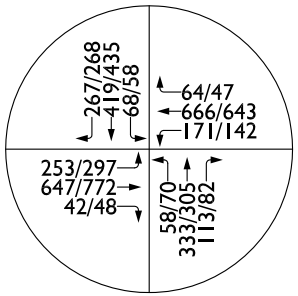
10/20 = AM/PM Peak Hour Volumes

1,000 = Two-Way Average Daily Traffic (ADT)

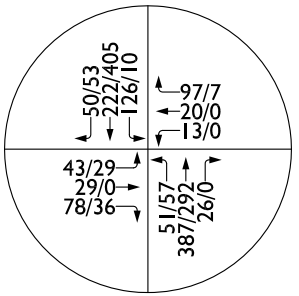
N



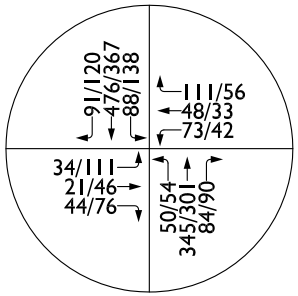

1. Main Street (N/S) at Ontario Avenue (E/W)



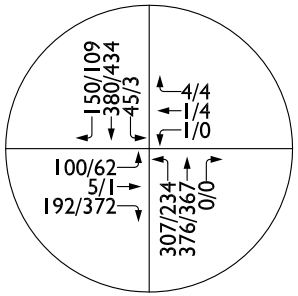

2. Magnolia Avenue (N/S) at Ontario Avenue (E/W)



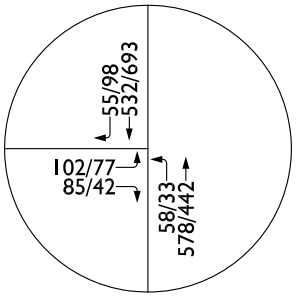

3. Main Street (N/S) at Montoya Drive (E/W)



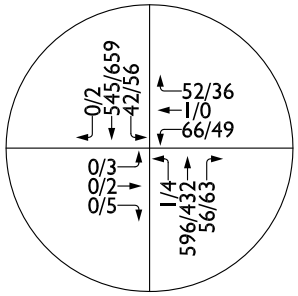

4. Magnolia Avenue (N/S) at Santana Way (E/W)



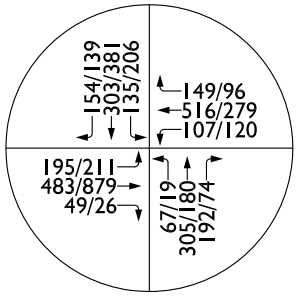

5. Magnolia Avenue/Main Street (N/S) at Main Street (E/W)



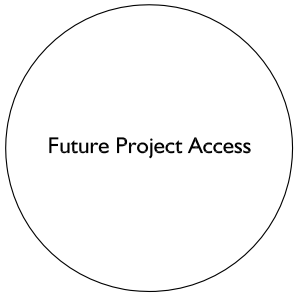

6. Main Street (N/S) at Citrus Way (E/W)



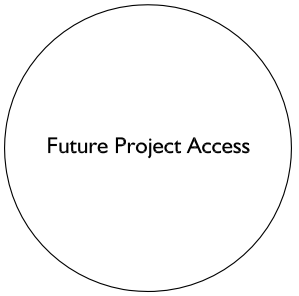

7. Main Street (N/S) at Chase Drive (E/W)




8. Main Street (N/S) at Foothill Parkway (E/W)




9. Main Street (N/S) at Project Access 1 (E/W)



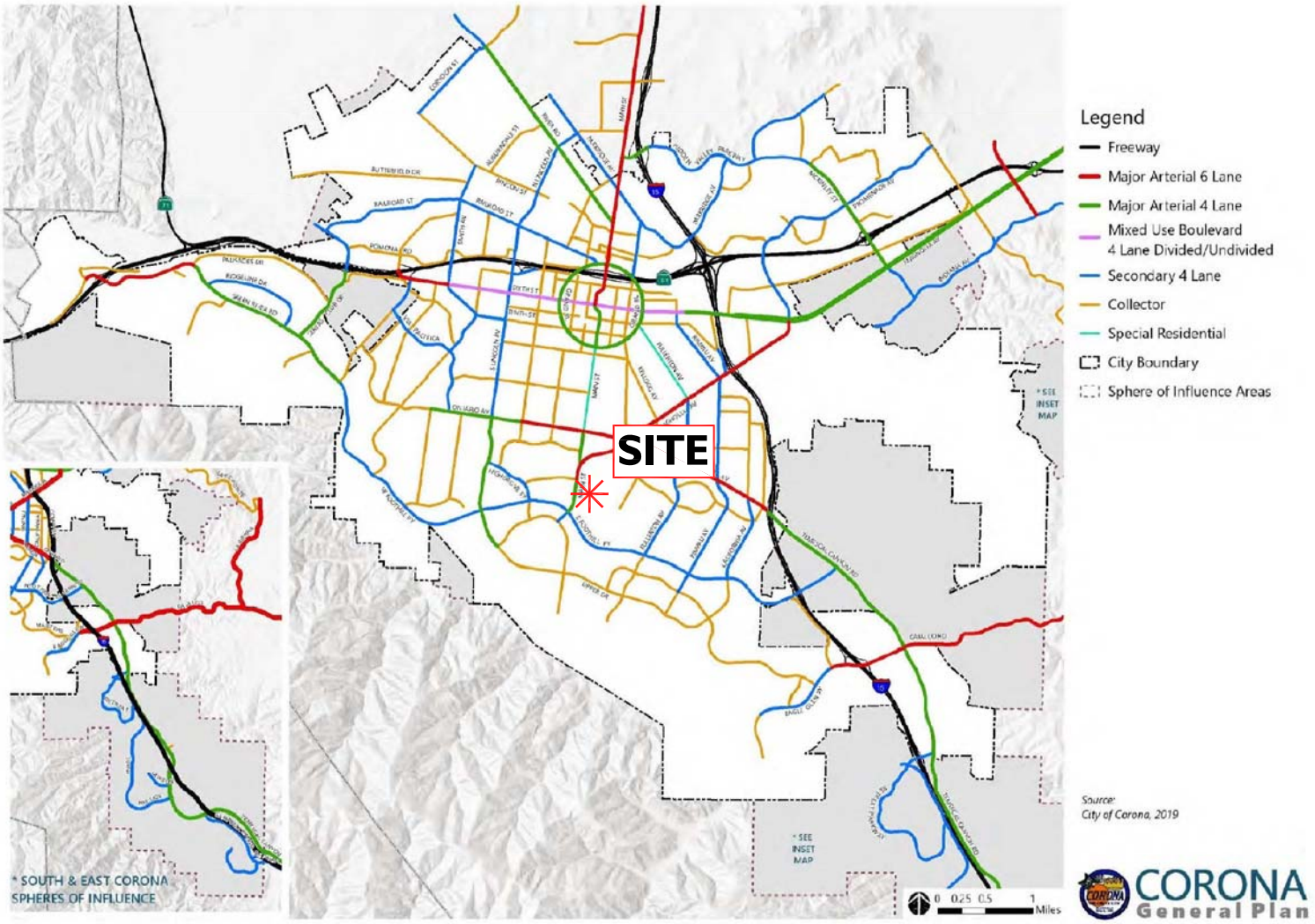

10. Project Access 2 (N/S) at Chase Drive (E/W)



RK engineering group, inc.

Exhibit 3-3

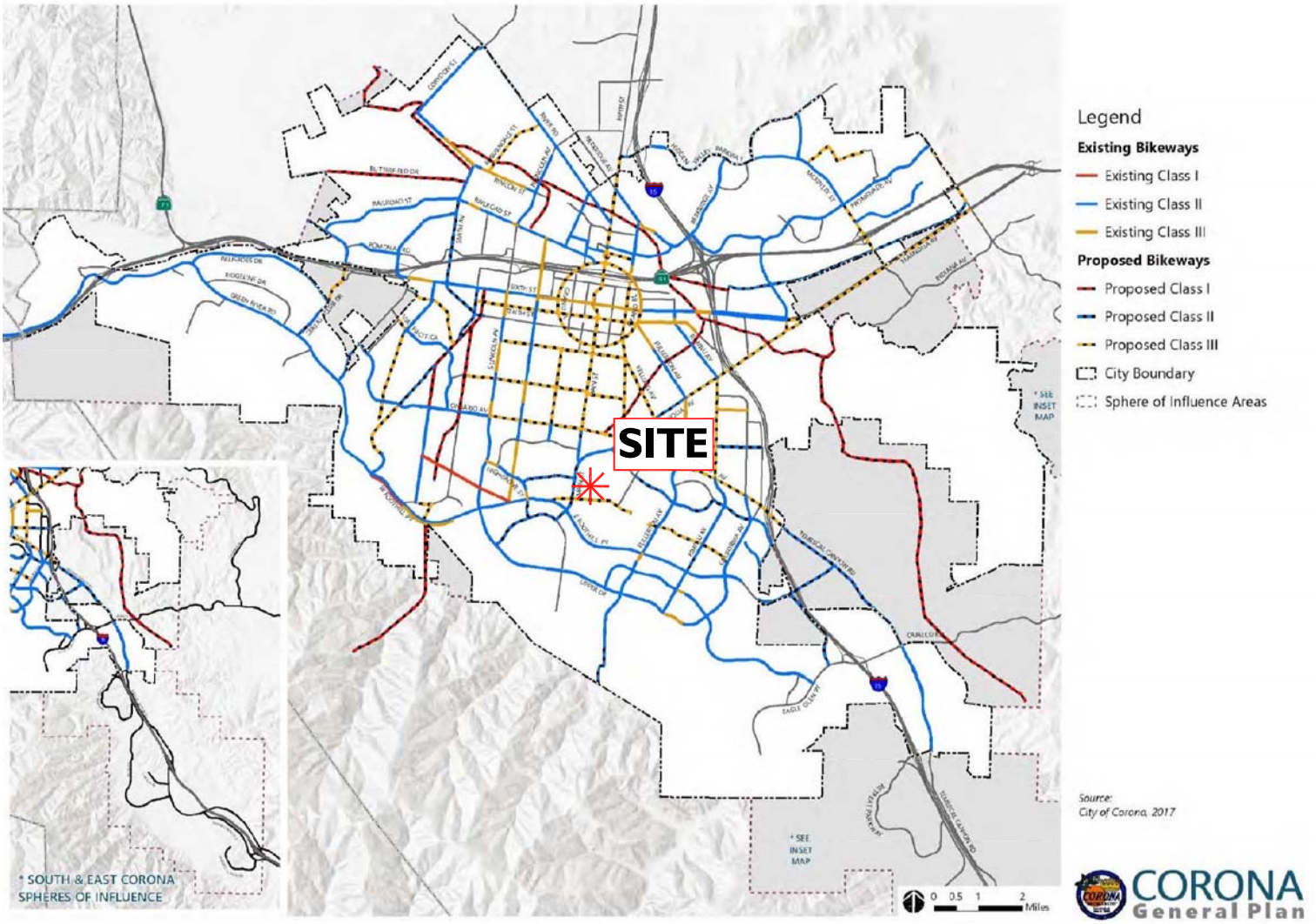
# City of Corona General Plan Roadway Plan




N

Exhibit 3-4

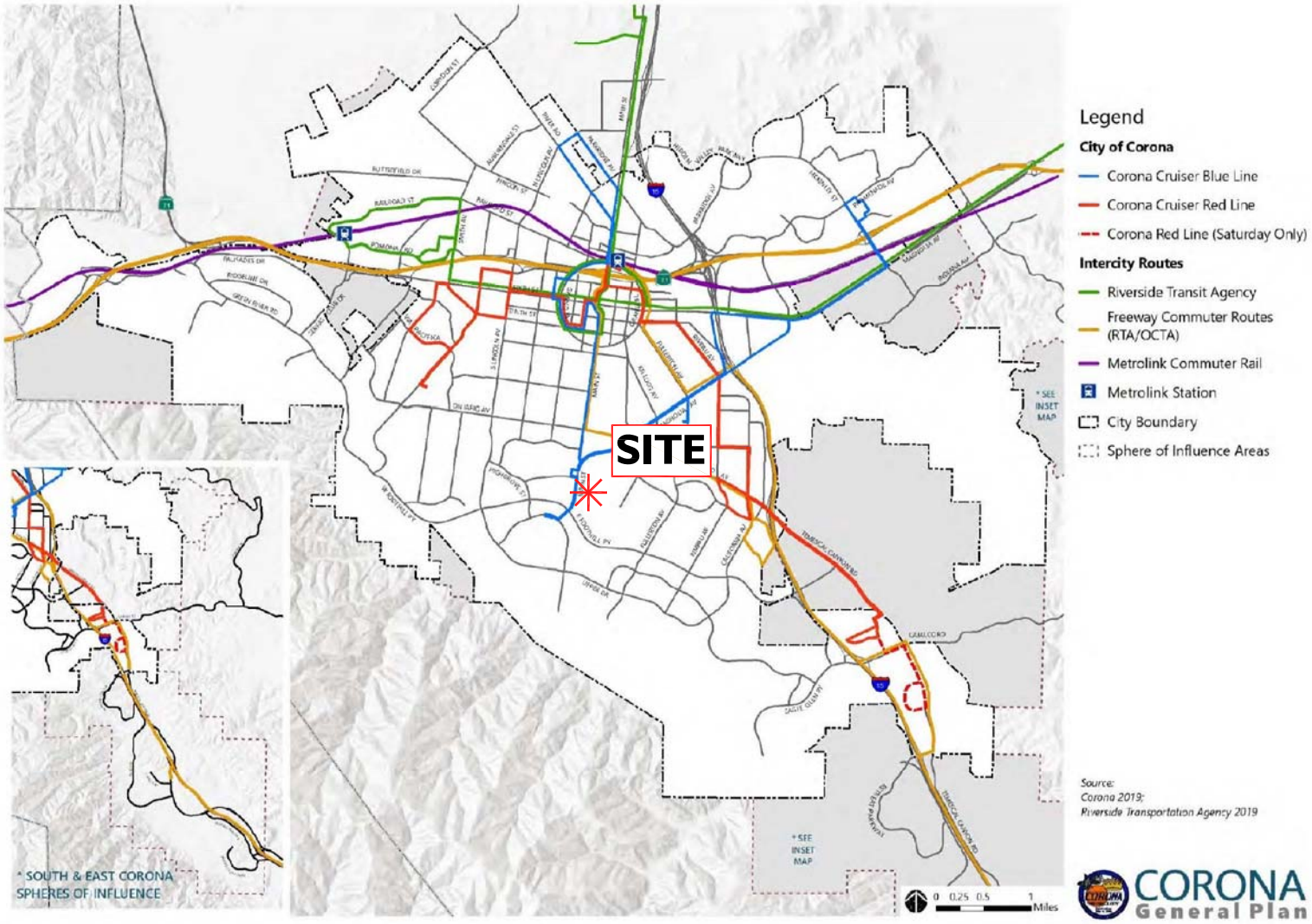
# City of Corona General Plan Bikeway Plan




N

Exhibit 3-5

# City of Corona General Plan Transit Routes




N

# 4.0 Projected & Future Traffic Volumes

This section of the report provides a discussion on methodologies utilized to derive future traffic volumes for the study area.

## 4.1 Project Traffic Conditions

### 4.1.1 Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development. The trip generation for the project is based upon the specific land uses that have been planned for this development.

Trip generation is typically estimated based on the trip generation rates from the latest *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021)*. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Table 4-1 shows the ITE trip generation rates utilized for the trip generation analysis of the project land uses. Utilizing the trip generation rates from Table 4-1, Table 4-2 summarizes the daily and peak hour trip generation for the proposed project.

As shown in Table 4-2, based on the ITE trip generation rates, the project is forecast to generate approximately 1,805 daily trips which include approximately 69 AM peak hour trips and approximately 181 PM peak hour trips.

### 4.1.2 Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of retail, employment and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses and highways within the study area.

The outbound project trip distribution is shown on Exhibit 4-1. The inbound project trip distribution is shown on Exhibit 4-2.

## Table 4-1
## ITE Trip Generation Rates[1]

| Land Use | ITE Code | Units[2] | AM Peak Hour | | | PM Peak Hour | | | Daily |
|---|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total | |
| Health/Fitness Club | 492 | TSF | 0.67 | 0.64 | 1.31 | 1.97 | 1.48 | 3.45 | 34.50[3] |

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021).

[2] TSF = Thousand Square Feet.

[3] The *ITE Trip Generation Manual* (11th Edition, 2021) does not provide a daily trip rate for Land Use 492. As such, the daily trip rate is assumed to be ten (10) times the PM peak hour trip rate.

## Table 4-2
## Project Trip Generation[1]

| Land Use (ITE Code) | Quantity | Units[2] | AM Peak Hour | | | PM Peak Hour | | | Daily |
|---|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total | |
| Health/Fitness Club (492) | 52.317 | TSF | 35 | 34 | 69 | 103 | 78 | 181 | 1,805 |

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021).

[2] TSF = Thousand Square Feet.

Exhibit 4-1

# Outbound Project Trip Distribution

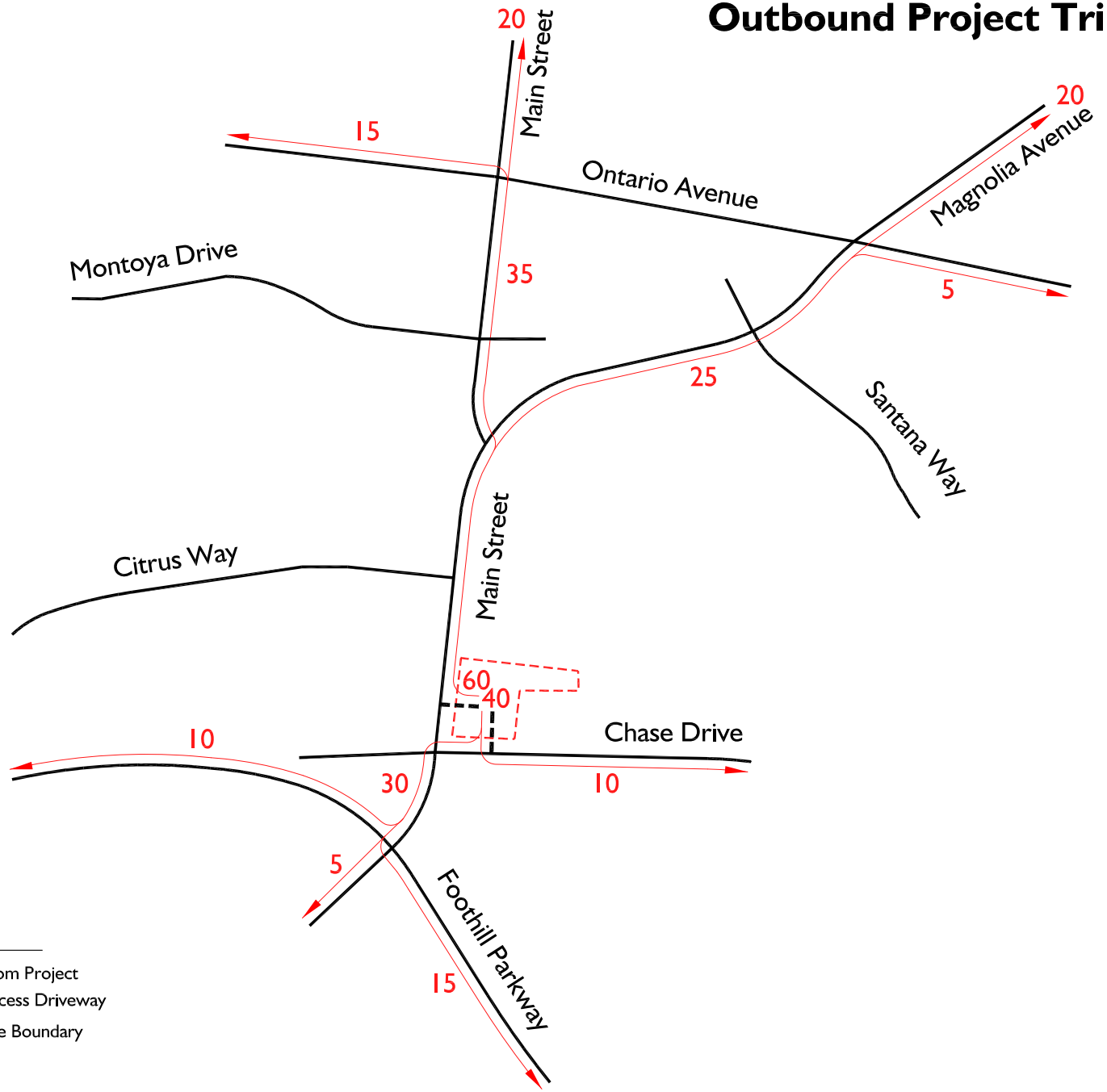
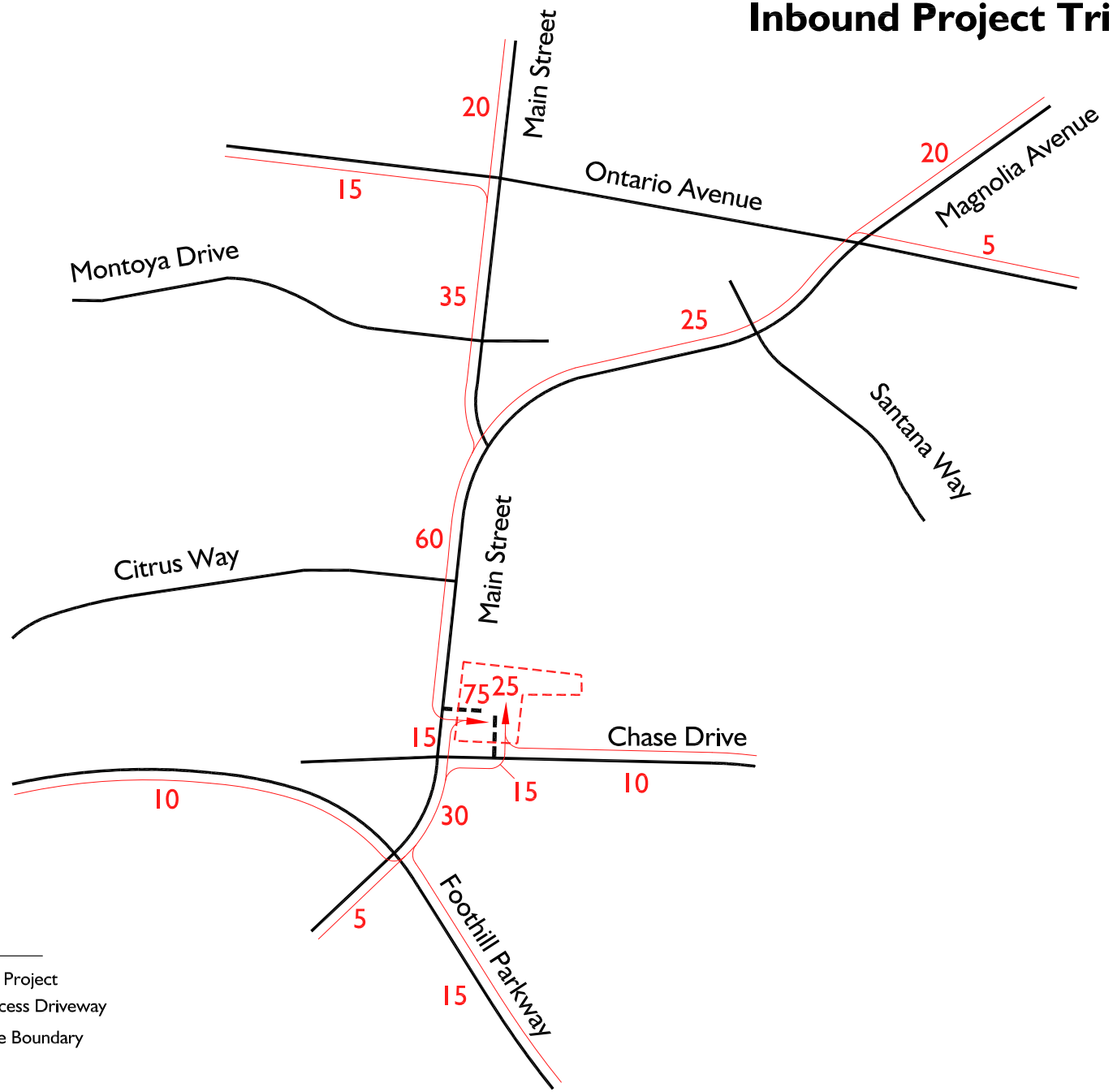


Exhibit 4-2

# Inbound Project Trip Distribution



### 4.1.3 Modal Split

Modal split denotes the proportion of traffic generated by a project that would use any of the transportation modes, namely buses, cars, bicycles, motorcycles, trains, carpools, etc. The traffic-reducing potential of public transit and other modes is significant. However, the traffic projections in this study are conservative in that public transit and alternative transportation may be able to reduce the traffic volumes, but no modal split reduction is applied to the projections. With the implementation of transit service and provision of alternative transportation ideas and incentives, the automobile traffic demand can be reduced significantly.

### 4.1.4 Project Traffic Volumes/Assignment

The assignment of project traffic to the adjoining roadway system is based upon the project's trip generation, trip distribution, and arterial highway and local street systems that would be in place by the time of initial occupancy of the site.

Project traffic volumes are shown on Exhibit 4-3 for the ten (10) study intersections and seven (7) study roadway segments.

## 4.2 Background Traffic

### 4.2.1 Method of Projection

To assess future conditions, project traffic is combined with existing traffic and area-wide growth. As directed by City staff, to account for area-wide/ambient growth in the study area, an annual growth rate of two percent (2%) per year has been applied to the existing (2022) traffic volumes over a 1-year period from 2022 for opening year (2023).

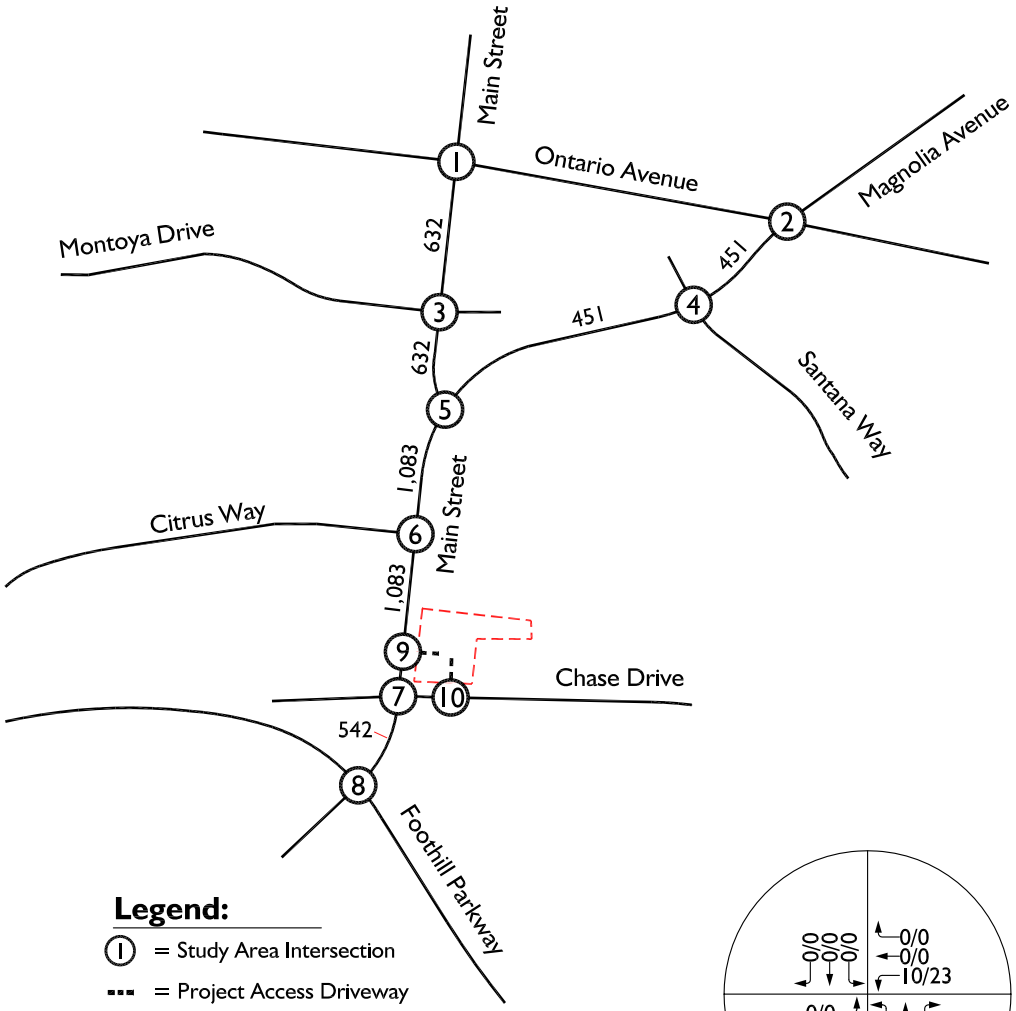
### 4.2.2 Cumulative Projects Traffic

Information on future projects in the vicinity of the study area has been provided by City of Corona staff for inclusion in this analysis and is shown in Table 4-3.

Table 4-3 shows the land uses, and daily and peak hour trip generation for the nearby cumulative projects provided by the public agencies.

Exhibit 4-3

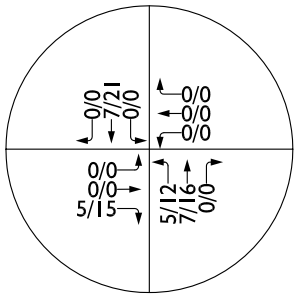
# Project Traffic Volumes



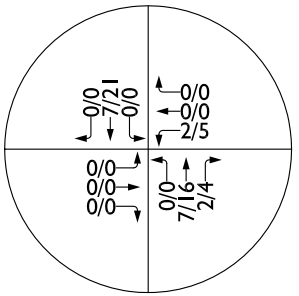

**Legend:**

- (1) = Study Area Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10/20 = AM/PM Peak Hour Volumes
- 1,000 = Two-Way Average Daily Traffic (ADT)

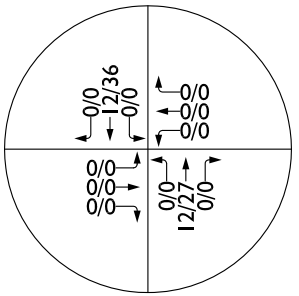
N



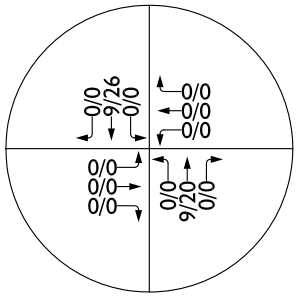

1. Main Street (N/S) at Ontario Avenue (E/W)



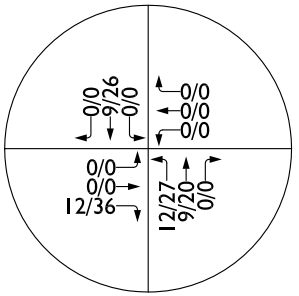

2. Magnolia Avenue (N/S) at Ontario Avenue (E/W)



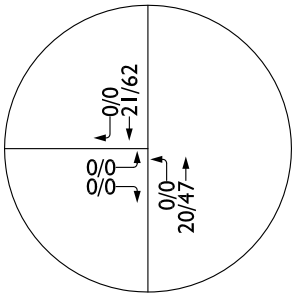

3. Main Street (N/S) at Montoya Drive (E/W)



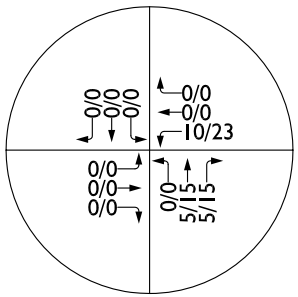

4. Magnolia Avenue (N/S) at Santana Way (E/W)



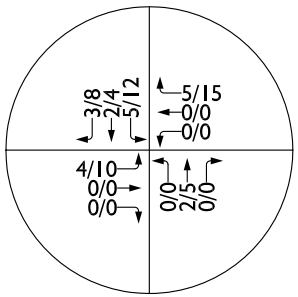

5. Magnolia Avenue/Main Street (N/S) at Main Street (E/W)



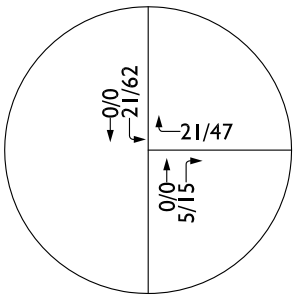

6. Main Street (N/S) at Citrus Way (E/W)



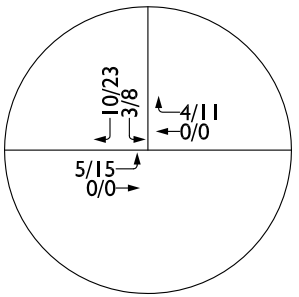

7. Main Street (N/S) at Chase Drive (E/W)




8. Main Street (N/S) at Foothill Parkway (E/W)




9. Main Street (N/S) at Project Access 1 (E/W)




10. Project Access 2 (N/S) at Chase Drive (E/W)



RK engineering group, inc.

**Table 4-3**
**Cumulative Projects Trip Generation[1]**

| ID No. | Jurisdiction | Project Name / Case Number | Land Use | ITE Trip Code | Quantity | Units[2] | Peak Hour | | | | | | Daily |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | AM | | | PM | | | |
| | | | | | | | In | Out | Total | In | Out | Total | |
| **TAZ 1** | | | | | | | | | | | | | |
| **C1** | **City of Corona** | Skyline Heights (TTM 36544, DA2018-0001) | Single Family Detached Housing | 210 | 292 | DU | 53 | 151 | 204 | 173 | 102 | 275 | 2,754 |
| **C2** | **City of Corona** | Skyline Village Plaza (GPA2020-0003, CZ2020-0002, TTM 37691, PP2020-0005, CUP2020-0001) | --[3] | -- | -- | -- | 75 | 84 | 159 | 122 | 90 | 212 | 2,600 |
| | | | | | | **TAZ 1 Total** | **128** | **235** | **363** | **295** | **192** | **487** | **5,354** |
| **TAZ 2** | | | | | | | | | | | | | |
| **C3** | **City of Corona** | TTM 36605, TTM 36608 | Single Family Detached Housing | 210 | 29 | DU | 5 | 15 | 20 | 17 | 10 | 27 | 273 |
| | | | | | | **TAZ 2 Total** | **5** | **15** | **20** | **17** | **10** | **27** | **273** |
| **TAZ 3** | | | | | | | | | | | | | |
| **C4** | **City of Corona** | TTM 34760 | Single Family Detached Housing | 210 | 34 | DU | 6 | 18 | 24 | 20 | 12 | 32 | 321 |
| **C7** | **City of Corona** | TTM 32386 | Single Family Detached Housing | 210 | 49 | DU | 9 | 25 | 34 | 29 | 17 | 46 | 462 |
| **C8** | **City of Corona** | TTM 32703 | Single Family Detached Housing | 210 | 13 | DU | 2 | 7 | 9 | 8 | 5 | 13 | 123 |
| **C12** | **City of Corona** | TTM 37784 | Single Family Detached Housing | 210 | 5 | DU | 1 | 3 | 4 | 3 | 2 | 5 | 47 |
| | | | | | | **TAZ 3 Total** | **18** | **53** | **71** | **60** | **36** | **96** | **953** |
| **TAZ 4** | | | | | | | | | | | | | |
| **C5** | **City of Corona** | DPR2022-0021 | Single Family Detached Housing | 210 | 8 | DU | 1 | 4 | 5 | 5 | 3 | 8 | 75 |
| **C6** | **City of Corona** | TTM 37980, DPR2020-0015, TTM2021-0001 | Single Family Detached Housing | 210 | 20 | DU | 4 | 10 | 14 | 12 | 7 | 19 | 189 |
| | | | | | | **TAZ 4 Total** | **5** | **14** | **19** | **17** | **10** | **27** | **264** |
| **TAZ 5** | | | | | | | | | | | | | |
| **C9** | **City of Corona** | PP2020-0002 | Daycare Center | 565 | 9.990 | TSF | 58 | 52 | 110 | 29 | 33 | 62 | 476 |
| | | | | | | **TAZ 5 Total** | **58** | **52** | **110** | **29** | **33** | **62** | **476** |
| **TAZ 6** | | | | | | | | | | | | | |
| **C10** | **City of Corona** | PM 37203 Extension (PME2022-003) | Single Family Detached Housing | 210 | 4 | DU | 1 | 2 | 3 | 2 | 1 | 3 | 38 |
| | | | | | | **TAZ 6 Total** | **1** | **2** | **3** | **2** | **1** | **3** | **38** |
| **TAZ 7** | | | | | | | | | | | | | |
| **C11** | **City of Corona** | TTM 36821 | Single Family Detached Housing | 210 | 5 | DU | 1 | 3 | 4 | 3 | 2 | 5 | 47 |
| | | | | | | **TAZ 7 Total** | **1** | **3** | **4** | **3** | **2** | **5** | **47** |
| **TAZ 8** | | | | | | | | | | | | | |
| **C13** | **City of Corona** | PM 36667 Extention (PME2022-0004) | Single Family Detached Housing | 210 | 4 | DU | 1 | 2 | 3 | 2 | 1 | 3 | 38 |
| **C14** | **City of Corona** | TTM 36634, PM 36667, PP15-004 | Single Family Detached Housing | 210 | 15 | DU | 3 | 8 | 11 | 9 | 5 | 14 | 141 |
| | | | | | | **TAZ 8 Total** | **4** | **10** | **14** | **11** | **6** | **17** | **179** |
| **TAZ 9** | | | | | | | | | | | | | |
| **C15** | **City of Corona** | A&F Tennis Center (CUP17-003, PM 37334, V17-001) | Tennis Courts | 490 | 12 | Courts | 0 | 0 | 0 | 25 | 26 | 51 | 364 |
| | | | | | | **TAZ 9 Total** | **0** | **0** | **0** | **25** | **26** | **51** | **364** |
| | | | | | | ***Total Cumulative Projects Trip Generation*** | ***220*** | ***384*** | ***604*** | ***459*** | ***316*** | ***775*** | ***7,948*** |

[1] Cumulative Projects information provided by the City of Corona.

[2] DU = Dwelling Units.
TSF = Thousand Square Feet.

[3] Source: *Skyline Village Commercial Center Traffic Impact Study, City of Corona* , prepared by *RK Engineering Group, Inc.* , dated June 9, 2021.

A location map of the cumulative projects is shown on Exhibit 4-4. Cumulative projects traffic volumes are shown on Exhibit 4-5 for the ten (10) study intersections and seven (7) study roadway segments.

In reality, some of the cumulative projects may be downsized or may not be developed by project opening year (2023). In addition, many of the related projects have been or will be subject to a variety of mitigation measures that will reduce the potential environmental impacts associated with those projects. However, those mitigation measures have not been taken into account in projecting the environmental impact of the related projects.

Therefore, the cumulative analyses set forth below are conservative and could result in greater impacts than actually anticipated. Additionally, the analysis utilizes a growth rate of two percent (2%) per year for project opening year (2023) conditions, which would already capture and account for most projects in the area. The growth rate methodology is considered conservative since it is applied to all movements in all the study intersections.

## 4.3 Project Opening Year (2023) With Background Traffic Without Project Conditions Traffic Volumes

Project Opening Year (2023) With Background Traffic Without Project Conditions traffic volumes consist of one (1) year of annual growth on top of existing (2022) traffic volumes at two percent (2%) per year, plus the traffic generated by the cumulative projects.

Project Opening Year (2023) With Background Traffic Without Project Conditions traffic volumes are shown on Exhibit 4-6 for the ten (10) study intersections and seven (7) study roadway segments.

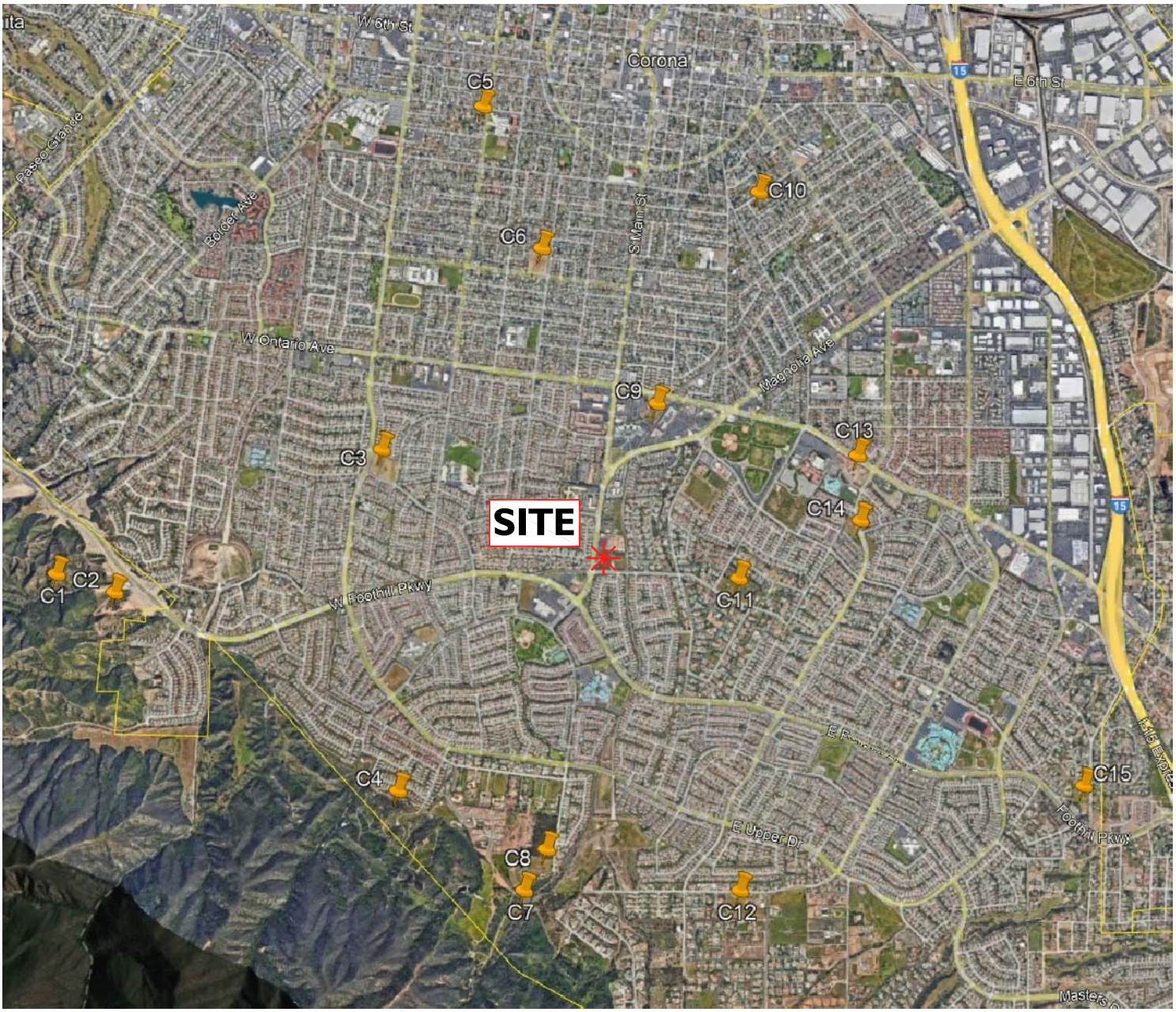
## 4.4 Project Opening Year (2023) With Background Traffic With Project Conditions Traffic Volumes

Project Opening Year (2023) With Background Traffic With Project Conditions traffic volumes consist of one (1) year of annual growth on top of existing (2022) traffic volumes at two percent (2%) per year, plus the traffic generated by the cumulative projects and the traffic generated by the proposed project.

Project Opening Year (2023) With Background Traffic With Project Conditions traffic volumes are shown on Exhibit 4-7 for the ten (10) study intersections and seven (7) study roadway segments.

Exhibit 4-4

# Cumulative Projects Location Map




NOTE: See report for full list of cumulative projects and traffic analysis zones (TAZ).

**Legend:**

● = City of Corona Cumulative Project

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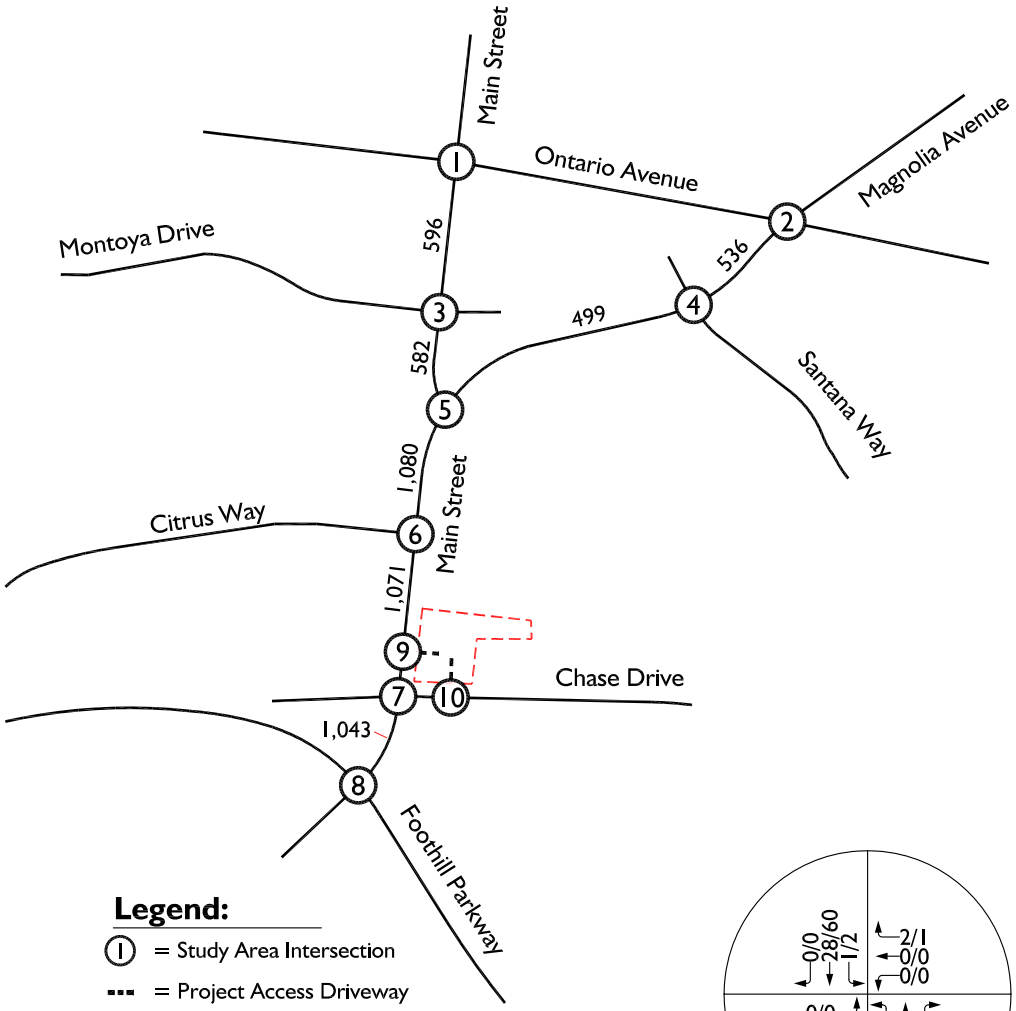
Exhibit 4-5

# Cumulative Projects Traffic Volumes




**Legend:**

(1) = Study Area Intersection

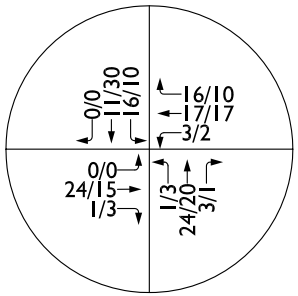
--- = Project Access Driveway

--- = Project Site Boundary

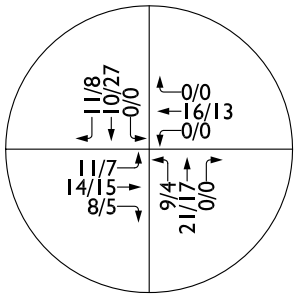
10/20 = AM/PM Peak Hour Volumes

1,000 = Two-Way Average Daily Traffic (ADT)

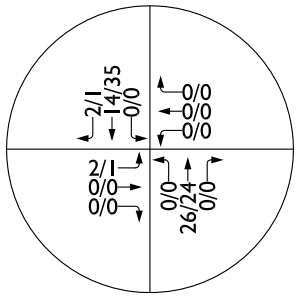
N



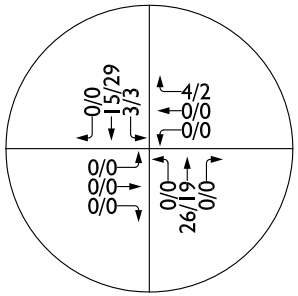

1. Main Street (N/S) at Ontario Avenue (E/W)



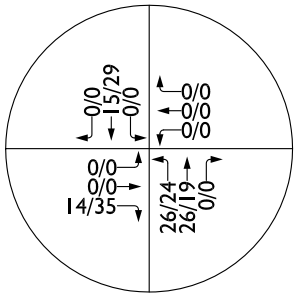

2. Magnolia Avenue (N/S) at Ontario Avenue (E/W)



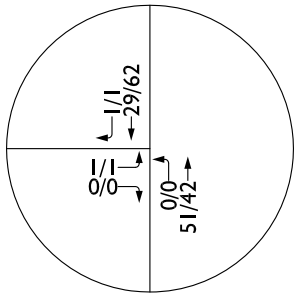

3. Main Street (N/S) at Montoya Drive (E/W)



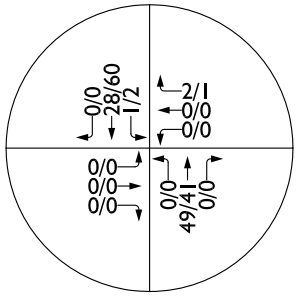

4. Magnolia Avenue (N/S) at Santana Way (E/W)



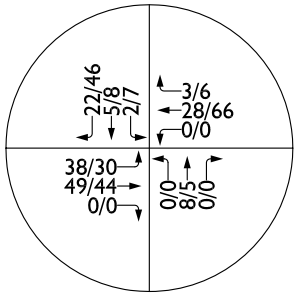

5. Magnolia Avenue/Main Street (N/S) at Main Street (E/W)




6. Main Street (N/S) at Citrus Way (E/W)




7. Main Street (N/S) at Chase Drive (E/W)




8. Main Street (N/S) at Foothill Parkway (E/W)

Future Project Access

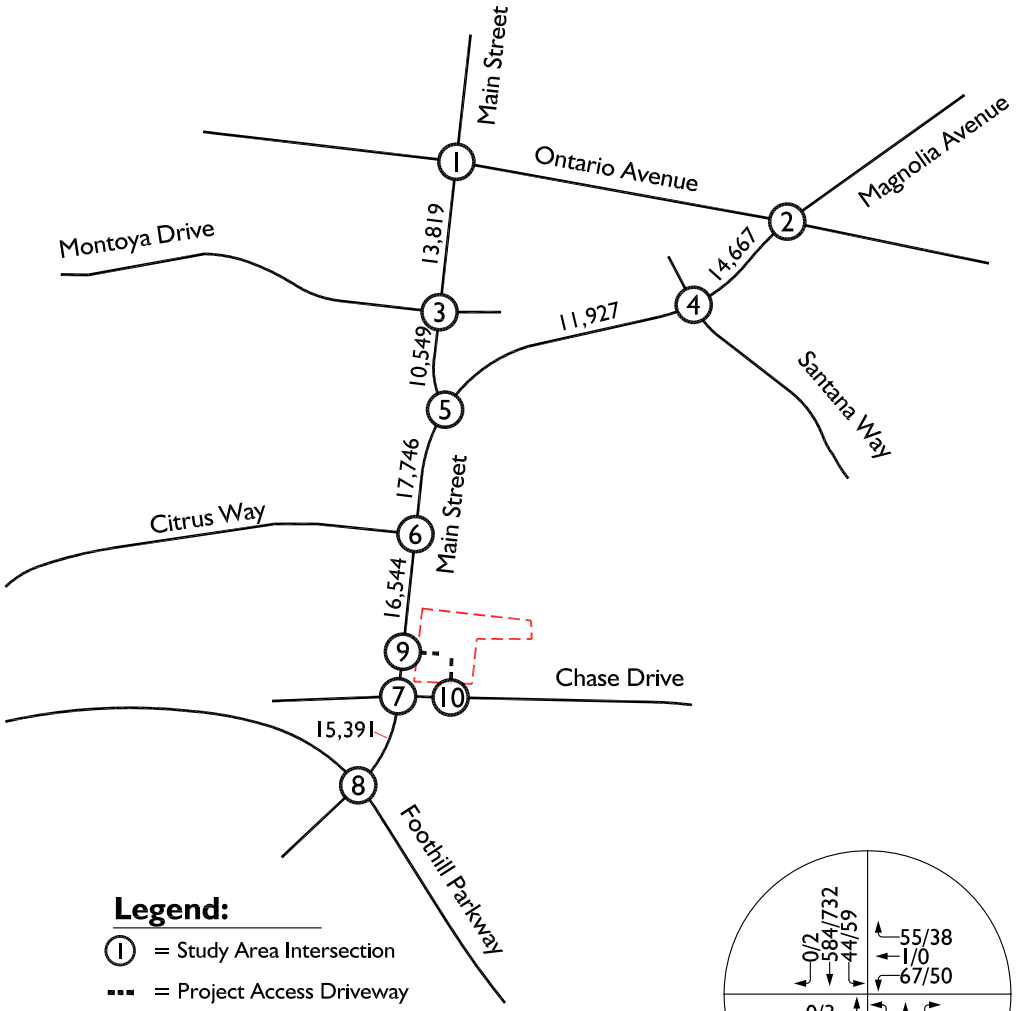
9. Main Street (N/S) at Project Access 1 (E/W)

Future Project Access

10. Project Access 2 (N/S) at Chase Drive (E/W)

Exhibit 4-6

# Project Opening Year (2023) With Background Traffic Without Project Conditions Traffic Volumes




**Legend:**

(1) = Study Area Intersection

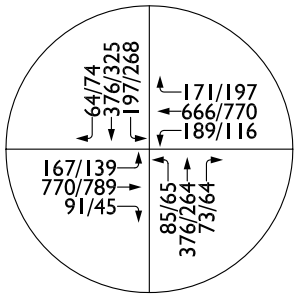
--- = Project Access Driveway

--- = Project Site Boundary

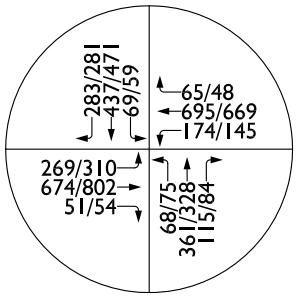
10/20 = AM/PM Peak Hour Volumes

1,000 = Two-Way Average Daily Traffic (ADT)

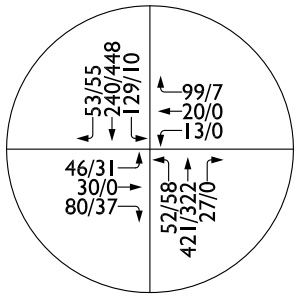
N



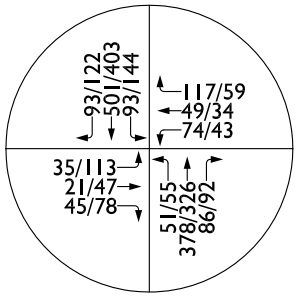

1. Main Street (N/S) at Ontario Avenue (E/W)



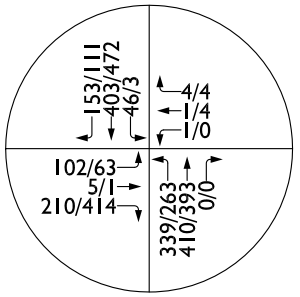

2. Magnolia Avenue (N/S) at Ontario Avenue (E/W)



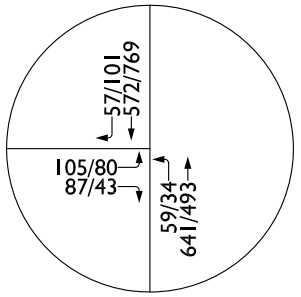

3. Main Street (N/S) at Montoya Drive (E/W)



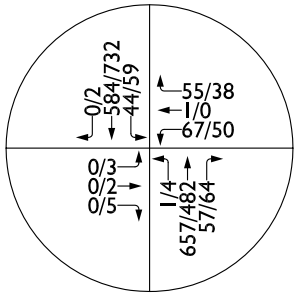

4. Magnolia Avenue (N/S) at Santana Way (E/W)



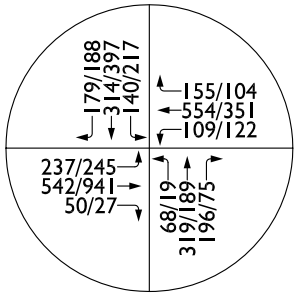

5. Magnolia Avenue/Main Street (N/S) at Main Street (E/W)




6. Main Street (N/S) at Citrus Way (E/W)




7. Main Street (N/S) at Chase Drive (E/W)




8. Main Street (N/S) at Foothill Parkway (E/W)

Future Project Access

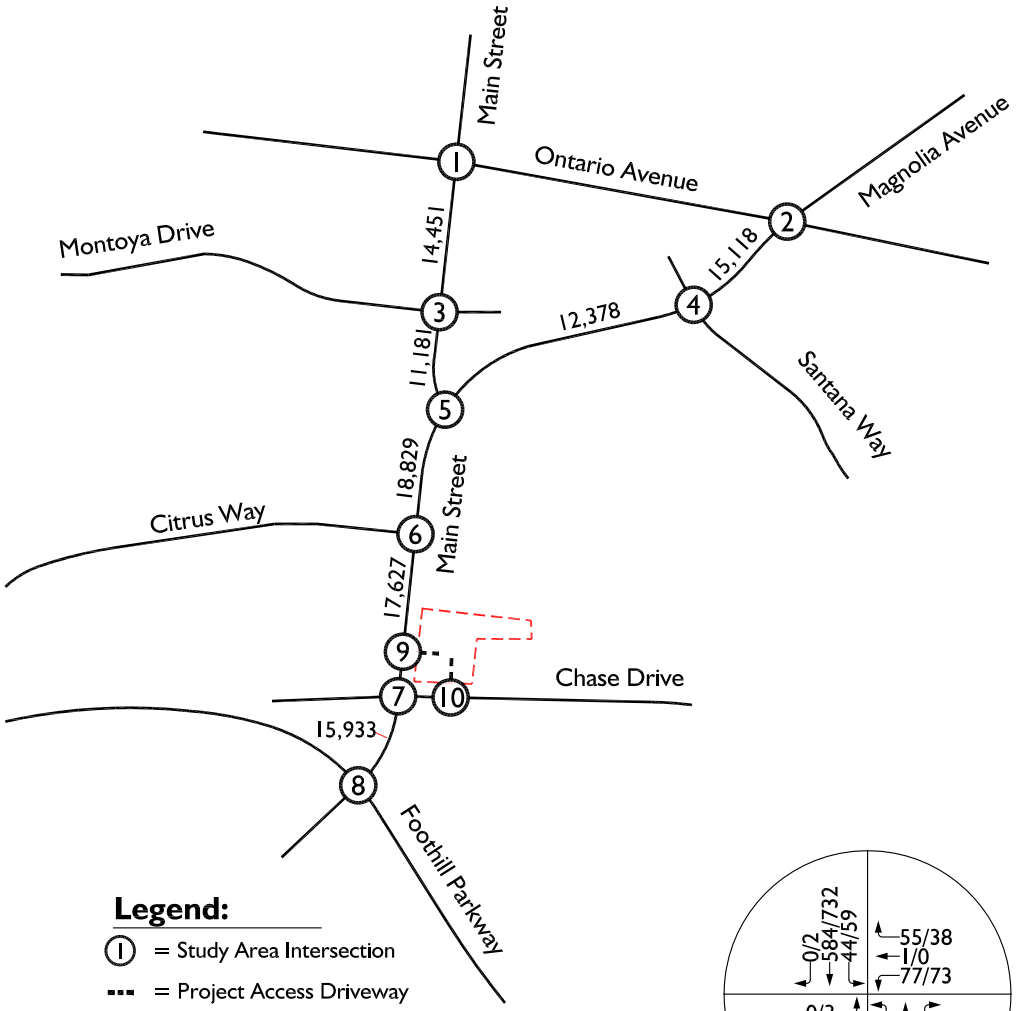
9. Main Street (N/S) at Project Access 1 (E/W)

Future Project Access

10. Project Access 2 (N/S) at Chase Drive (E/W)

Exhibit 4-7

# Project Opening Year (2023) With Background Traffic With Project Conditions Traffic Volumes




**Legend:**

(1) = Study Area Intersection

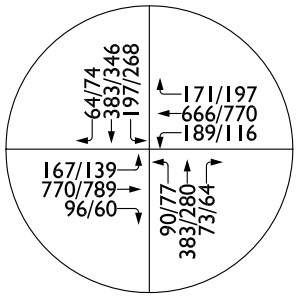
--- = Project Access Driveway

--- = Project Site Boundary

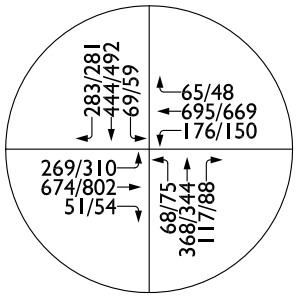
10/20 = AM/PM Peak Hour Volumes

1,000 = Two-Way Average Daily Traffic (ADT)

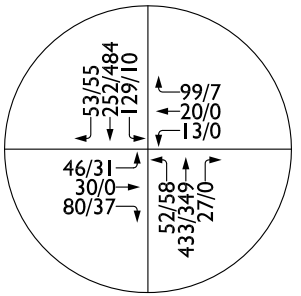
N



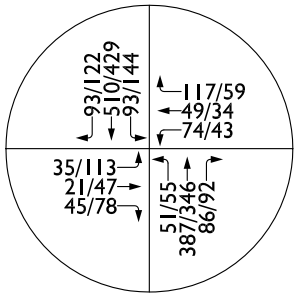

1. Main Street (N/S) at Ontario Avenue (E/W)



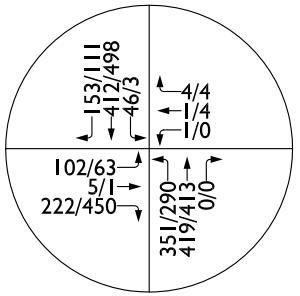

2. Magnolia Avenue (N/S) at Ontario Avenue (E/W)



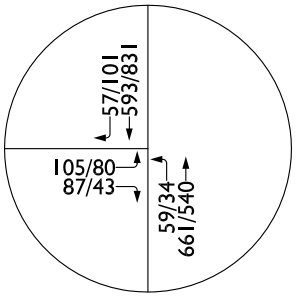

3. Main Street (N/S) at Montoya Drive (E/W)



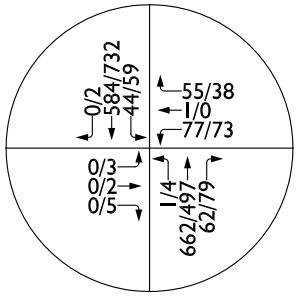

4. Magnolia Avenue (N/S) at Santana Way (E/W)



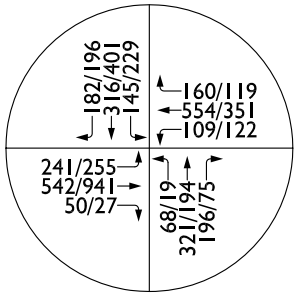

5. Magnolia Avenue/Main Street (N/S) at Main Street (E/W)



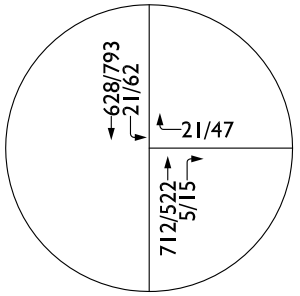

6. Main Street (N/S) at Citrus Way (E/W)



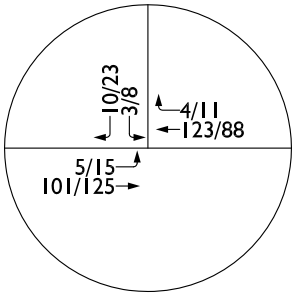

7. Main Street (N/S) at Chase Drive (E/W)




8. Main Street (N/S) at Foothill Parkway (E/W)




9. Main Street (N/S) at Project Access 1 (E/W)




10. Project Access 2 (N/S) at Chase Drive (E/W)



RK engineering group, inc.

# 5.0 Study Intersection Peak Hour LOS Analysis

This section of the report provides a discussion on the study intersection peak hour LOS analysis and findings.

## 5.1 Existing Conditions LOS

Existing Conditions LOS calculations for the study intersections are shown in Table 5-1 and are based upon the existing (2022) traffic volumes shown on Exhibit 3-2, and the existing geometry shown on Exhibit 3-1.

As shown in Table 5-1, all study intersections are currently operating at an acceptable LOS (LOS D or better) during the peak hours for Existing Conditions.

Detailed LOS analysis worksheets for Existing Conditions are contained in Appendix C.

## 5.2 Project Opening Year (2023) With Background Traffic Without Project Conditions LOS

Project Opening Year (2023) With Background Traffic Without Project Conditions LOS calculations for the study intersections are shown in Table 5-2 and are based upon the Project Opening Year (2023) With Background Traffic Without Project Conditions traffic volumes shown on Exhibit 4-6, and the existing geometry shown on Exhibit 3-1.

As shown in Table 5-2, all study intersections are forecast to continue to operate at an acceptable LOS (LOS D or better) during the peak hours for Project Opening Year (2023) With Background Traffic Without Project Conditions.

Detailed LOS analysis worksheets for Project Opening Year (2023) With Background Traffic Without Project Conditions are contained in Appendix D.

## 5.3 Project Opening Year (2023) With Background Traffic With Project Conditions LOS

Project Opening Year (2023) With Background Traffic With Project Conditions LOS calculations for the study intersections are shown in Table 5-2 and are based upon the Project Opening Year (2023) With Background Traffic With Project Conditions traffic

volumes shown on Exhibit 4-7, the existing geometry shown on Exhibit 3-1, and the proposed project-specific improvements illustrated on Exhibit 1-3.

As shown in Table 5-2, all study intersections are forecast to continue to operate at an acceptable LOS (LOS D or better) during the peak hours for Project Opening Year (2023) With Background Traffic With Project Conditions. Based on the agency-established LOS performance thresholds, the project is forecast to not required to contribute to LOS improvements at the study intersections.

Detailed LOS analysis worksheets for Project Opening Year (2023) With Background Traffic With Project Conditions are contained in Appendix E.

## Table 5-1
## Study Intersection Peak Hour LOS Analysis Summary
## Existing Conditions

| | Intersection | Traffic Control[1] | Methodology | Existing Conditions | | | |
|---|---|---|---|---|---|---|---|
| | | | | Delay (Secs)[2,3] | | LOS | |
| | | | | AM | PM | AM | PM |
| 1. | Main Street (N/S) at Ontario Avenue (E/W) | TS | HCM | 40.5 | 40.4 | D | D |
| 2. | Magnolia Avenue (N/S) at Ontario Avenue (E/W) | TS | HCM | 35.7 | 38.0 | D | D |
| 3. | Main Street (N/S) at Montoya Drive (E/W) | TS | HCM | 23.8 | 10.5 | C | B |
| 4. | Magnolia Avenue (N/S) at Santana Way (E/W) | TS | HCM | 17.8 | 20.3 | B | C |
| 5. | Magnolia Avenue/Main Street (N/S) at Main Street (E/W) | TS | HCM | 19.5 | 16.9 | B | B |
| 6. | Main Street (N/S) at Citrus Way (E/W) | TS | HCM | 10.9 | 7.8 | B | A |
| 7. | Main Street (N/S) at Chase Drive (E/W) | TS | HCM | 10.1 | 8.6 | B | A |
| 8. | Main Street (N/S) at Foothill Parkway (E/W) | TS | HCM | 32.6 | 33.3 | C | C |
| 9. | Main Street (N/S) at Project Access 1 (E/W) | Does Not Currently Exist | | | | | |
| 10. | Project Access 2 (N/S) at Chase Drive (E/W) | Does Not Currently Exist | | | | | |

[1] TS = Traffic Signal

[2] Deficient operation shown in **Bold**.

[3] HCM Analysis Software: PTV Vistro, Version 2022.

**Table 5-2**
**Study Intersection Peak Hour LOS Analysis Summary**
**Project Opening Year (2023) With Background Traffic Without & With Project Conditions**

| | Intersection | Traffic Control[1] | Methodology | Project Opening Year (2023) With Background Traffic Without Project Conditions | | | | Project Opening Year (2023) With Background Traffic With Project Conditions | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Delay (Secs)[2,3] | | LOS | | Delay (Secs)[2,3] | | Increase in Delay (Secs) | | LOS | | Requires Improvement? | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| 1. | Main Street (N/S) at Ontario Avenue (E/W) | TS | HCM | 41.1 | 41.8 | D | D | 41.2 | 41.9 | 0.1 | 0.1 | D | D | No | No |
| 2. | Magnolia Avenue (N/S) at Ontario Avenue (E/W) | TS | HCM | 35.8 | 39.3 | D | D | 36.3 | 39.4 | 0.5 | 0.1 | D | D | No | No |
| 3. | Main Street (N/S) at Montoya Drive (E/W) | TS | HCM | 24.0 | 10.6 | C | B | 24.1 | 10.8 | 0.1 | 0.2 | C | B | No | No |
| 4. | Magnolia Avenue (N/S) at Santana Way (E/W) | TS | HCM | 17.8 | 20.4 | B | C | 18.4 | 21.3 | 0.6 | 0.9 | B | C | No | No |
| 5. | Magnolia Avenue/Main Street (N/S) at Main Street (E/W) | TS | HCM | 19.6 | 17.0 | B | B | 19.6 | 17.1 | 0.0 | 0.1 | B | B | No | No |
| 6. | Main Street (N/S) at Citrus Way (E/W) | TS | HCM | 11.0 | 7.9 | B | A | 11.3 | 7.9 | 0.3 | 0.0 | B | A | No | No |
| 7. | Main Street (N/S) at Chase Drive (E/W) | TS | HCM | 10.7 | 8.7 | B | A | 9.4 | 9.1 | -1.3 | 0.4 | A | A | No | No |
| 8. | Main Street (N/S) at Foothill Parkway (E/W) | TS | HCM | 32.7 | 34.8 | C | C | 32.7 | 35.2 | 0.0 | 0.4 | C | D | No | No |
| 9. | Main Street (N/S) at Project Access 1 (E/W) | CSS | HCM | Does Not Currently Exist | | | | 11.0 | 10.4 | -- | -- | B | B | No | No |
| 10. | Project Access 2 (N/S) at Chase Drive (E/W) | CSS | HCM | Does Not Currently Exist | | | | 9.2 | 9.2 | -- | -- | A | A | No | No |

[1] TS = Traffic Signal
CSS = Cross-Street Stop

[2] Deficient operation shown in **Bold**.

[3] HCM Analysis Software: PTV Vistro, Version 2022.

# 6.0 Study Roadway Segment LOS Analysis

This section of the report provides a discussion on the study roadway segment LOS analysis and findings.

## 6.1 Existing Conditions LOS

Table 6-1 summarizes the study roadway segment LOS analysis results for Existing Conditions.

As shown in Table 6-1, all study roadway segments are currently operating at an acceptable LOS (LOS C or better) for Existing Conditions.

## 6.2 Project Opening Year (2023) With Background Traffic Without & With Project Conditions LOS

Table 6-2 summarizes the study roadway segment LOS analysis results for Project Opening Year (2023) With Background Traffic Without & With Project Conditions.

As shown in Table 6-2, all study roadway segments are forecast to continue to operate at an acceptable LOS (LOS C or better) for Project Opening Year (2023) With Background Traffic Without Project Conditions.

As also shown in Table 6-2, all study roadway segments are forecast to continue to operate at an acceptable LOS (LOS C or better) for Project Opening Year (2023) With Background Traffic With Project Conditions.

**Table 6-1**
**Study Roadway Segment LOS Analysis Summary**
**Existing Conditions**

| Roadway Segment | General Plan | | No. of Lanes | Daily Capacity | Daily Traffic Volume | V/C Ratio[1] | LOS |
|---|---|---|---|---|---|---|---|
| | Classification | LOS E Capacity[2] | Existing Conditions | Existing Conditions | Existing Conditions | Existing Conditions | Existing Conditions |
| 1. **Main Street** Ontario Avenue to Montoya Drive | Major Arterial (4 Lanes) | 34,100 | 4 | 34,100 | 12,964 | 0.380 | A |
| 2. **Magnolia Avenue** Ontario Avenue to Santana Way | Major Arterial (6 Lanes) | 53,900 | 6 | 53,900 | 13,854 | 0.257 | A |
| 3. **Main Street** Montoya Drive to Magnolia Avenue | Major Arterial (4 Lanes) | 34,100 | 4 | 34,100 | 9,772 | 0.287 | A |
| 4. **Magnolia Avenue** Santana Way to Main Street | Major Arterial (6 Lanes) | 53,900 | 6 | 53,900 | 11,204 | 0.208 | A |
| 5. **Main Street** Magnolia Avenue to Citrus Way | Major Arterial (6 Lanes) | 53,900 | 5 | 44,917 | 16,339 | 0.364 | A |
| 6. **Main Street** Citrus Way to Project Access 1 | Major Arterial (4 Lanes) | 34,100 | 4 | 34,100 | 15,170 | 0.445 | A |
| 7. **Main Street** Chase Drive to Foothill Parkway | Major Arterial (4 Lanes) | 34,100 | 4 | 34,100 | 14,067 | 0.413 | A |

[1] Deficient operation shown in **Bold**.

[2] Source: *City of Corona Public Works Department Traffic Impact Study Guidelines* , dated July 2006.

**Table 6-2**
**Study Roadway Segment LOS Analysis Summary**
**Project Opening Year (2023) With Background Traffic Without & With Project Conditions**

| Roadway Segment | General Plan | | No. of Lanes | | Daily Capacity | | Daily Traffic Volume | | | V/C Ratio[1] | | LOS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Classification | LOS E Capacity[2] | Project Opening Year (2023) With Background Traffic Without Project Conditions | Project Opening Year (2023) With Background Traffic With Project Conditions | Project Opening Year (2023) With Background Traffic Without Project Conditions | Project Opening Year (2023) With Background Traffic With Project Conditions | Project Opening Year (2023) With Background Traffic Without Project Conditions | Project ADT Assignment | Project Opening Year (2023) With Background Traffic With Project Conditions | Project Opening Year (2023) With Background Traffic Without Project Conditions | Project Opening Year (2023) With Background Traffic With Project Conditions | Project Opening Year (2023) With Background Traffic Without Project Conditions | Project Opening Year (2023) With Background Traffic With Project Conditions |
| 1. **Main Street** Ontario Avenue to Montoya Drive | Major Arterial (4 Lanes) | 34,100 | 4 | 4 | 34,100 | 34,100 | 13,819 | 632 | 14,451 | 0.405 | 0.424 | A | A |
| 2. **Magnolia Avenue** Ontario Avenue to Santana Way | Major Arterial (6 Lanes) | 53,900 | 6 | 6 | 53,900 | 53,900 | 14,667 | 451 | 15,118 | 0.272 | 0.280 | A | A |
| 3. **Main Street** Montoya Drive to Magnolia Avenue | Major Arterial (4 Lanes) | 34,100 | 4 | 4 | 34,100 | 34,100 | 10,549 | 632 | 11,181 | 0.309 | 0.328 | A | A |
| 4. **Magnolia Avenue** Santana Way to Main Street | Major Arterial (6 Lanes) | 53,900 | 6 | 6 | 53,900 | 53,900 | 11,927 | 451 | 12,378 | 0.221 | 0.230 | A | A |
| 5. **Main Street** Magnolia Avenue to Citrus Way | Major Arterial (6 Lanes) | 53,900 | 5 | 5 | 44,917 | 44,917 | 17,746 | 1,083 | 18,829 | 0.395 | 0.419 | A | A |
| 6. **Main Street** Citrus Way to Project Access 1 | Major Arterial (4 Lanes) | 34,100 | 4 | 4 | 34,100 | 34,100 | 16,544 | 1,083 | 17,627 | 0.485 | 0.517 | A | A |
| 7. **Main Street** Chase Drive to Foothill Parkway | Major Arterial (4 Lanes) | 34,100 | 4 | 4 | 34,100 | 34,100 | 15,391 | 542 | 15,933 | 0.451 | 0.467 | A | A |

[1] Deficient operation shown in **Bold**.

[2] Source: *City of Corona Public Works Department Traffic Impact Study Guidelines* , dated July 2006.

# 7.0 HCM 95th Percentile Queue Analysis

An analysis of the lane storage capacity has been performed to determine if adequate queue storage is currently provided to accommodate the vehicular queues for the following seven (7) movements during the peak hours for all analysis scenarios evaluated as part of this study:

- Int 7: Main Street at Chase Drive
    - Northbound Left-Turn
    - Southbound Left-Turn
    - Eastbound Left-Turn
    - Westbound Left-Turn
- Int 9: Main Street at Project Access 1
    - Southbound Left-Turn
    - Westbound Right-Turn
- Int 10: Project Access 2 at Chase Drive
    - Southbound Left-Turn/Right-Turn

The analysis utilizes the Highway Capacity Manual 6th Edition (HCM 6) 95th percentile vehicular queue methodology and the PTV Vistro analysis software.

Table 7-1 shows the results of the 95th percentile vehicular queue analysis. As previously mentioned in Section 1.2 of this report, the project will construct a 100-foot southbound left-turn pocket at the Main Street project access within the future raised median. Additionally, the project will extend the existing 45-foot westbound left-turn pocket approximately fifty-five (55) feet to provide a 100-foot pocket at the at the intersection of Main Street at Chase Drive.

As shown in Table 7-1, with the construction of the southbound left-turn pocket at the Main Street project access and the extension of the westbound left-turn pocket at the intersection of Main Street at Chase Drive, adequate queue storage is provided for all seven (7) movements under Project Opening Year (2023) With Background Traffic With Project Conditions.

**Table 7-1**
**HCM 95th Percentile Queue Analysis Summary**

| Intersection | | Movement[1] | No. of Lanes | Existing Storage Capacity per Lane (ft)[2] | With Project Storage Capacity per Lane (ft)[2] | Existing Conditions | | | | Project Opening Year (2023) With Background Traffic Without Project Conditions | | | | Project Opening Year (2023) With Background Traffic With Project Conditions | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Vehicular Queue (ft)[5,6] | | Adequate Queue Storage Available? | | Vehicular Queue (ft)[5,6] | | Adequate Queue Storage Available? | | Vehicular Queue (ft)[5,6] | | Adequate Queue Storage Available? | |
| | | | | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| 7. | Main Street (N/S) at Chase Drive (E/W) | NB Left-Turn | 1 | 140 | 140 | 25[7] | 25[7] | YES | YES | 25[7] | 25[7] | YES | YES | 25[7] | 25[7] | YES | YES |
| | | SB Left-Turn | 1 | 115 | 115 | 56 | 65 | YES | YES | 66 | 72 | YES | YES | 55 | 68 | YES | YES |
| | | EB Left-Turn | 1 | 100 | 100 | 25[7] | 25[7] | YES | YES | 25[7] | 25[7] | YES | YES | 25[7] | 25[7] | YES | YES |
| | | WB Left-Turn | 1 | 45 | 100[3] | **85** | **54** | **NO** | **NO** | **96** | **59** | **NO** | **NO** | 92 | 80 | YES | YES |
| 9. | Main Street (N/S) at Project Access 1 (E/W) | SB Left-Turn | 1 | -- | 100[4] | -- | -- | -- | -- | -- | -- | -- | -- | 25[7] | 25[7] | YES | YES |
| | | WB Right-Turn | 1 | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- | 25[7] | 25[7] | YES | YES |
| 10. | Project Access 2 (N/S) at Chase Drive (E/W) | SB Left-Turn/Right-Turn | 1 | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- | 25[7] | 25[7] | YES | YES |

[1] NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound.
[2] Through lane storage capacity is measured as the distance to the next intersection. Storage capacity for project access driveway exit lanes is assumed to be fifty (50) feet.
[3] Per Exhibit 1-3, the project will extend the existing westbound left-turn pocket approximately fifty-five (55) feet to provide a 100-foot pocket.
[4] Per Exhibit 1-3, the project will constuct a 100-foot southbound left-turn pocket at the Main Street project access within the future raised median.
[5] Queue reported is the 95th percentile queue per lane.
[6] HCM Analysis Software: PTV Vistro, Version 2022.
[7] Although the calculated queue length is less, a minimum of twenty-five (25) feet is assumed for the purposes of this analysis.

# 8.0 CEQA Vehicle Miles Traveled (VMT) Analysis

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact. However, SB 743 does not prevent a city or county from continuing to analyze delay or LOS as part of other plans (i.e. general plans), studies, or ongoing network monitoring. The VMT analysis methodology and thresholds of significance used in this analysis are based on the *Draft City of Corona CEQA Assessment - VMT Analysis Guidelines,* dated January 11, 2019 (VMT Guidelines).

## 8.1 VMT Screening Criteria

The City of Corona VMT Guidelines utilize screening criteria to determine whether a project may be presumed to have a less than significant impact to VMT. For land use projects, there are three (3) screening criteria that are used to determine impact.

Table 8-1 shows that the project is expected to satisfy the Low VMT Area Screening.

**Table 8-1**
**VMT Screening Criteria**

| Screening Criteria | Description | Satisfied (Yes/No) |
|---|---|---|
| Transit Priority Area (TPA) | Project is located within ½ mile radius around an existing or planned major transit stop or an existing stop along a high quality transit corridor. | No |
| Low VMT Area | Project is located in a TAZ that generates total daily VMT/SP that is less than the baseline level for the City. | Yes[1] |
| Project Type | Project serves the local community such as retail projects less than 50,000 sqaure feet or neighborhood K-12 school | No |

[1] Source: Online WRCOG VMT Screening Tool and the Riverside County Model (RIVCOM).

## 8.2 VMT Screening Analysis

To identify that the project is located within a low VMT-generating area, the Riverside County Model (RIVCOM) was utilized through the Western Riverside Council of Governments (WRCOG) VMT Screening Tool to determine if the proposed project fulfills the Low VMT Area Screening criteria.

Table 8-2 shows the results of the VMT screening analysis for the proposed project.

**Table 8-2**
**VMT Screening Analysis**

| Project APN & TAZ | Baseline Year | OD VMT per Service Population |
|---|---|---|
| APN: 113340018; TAZ 428 | 2023 | 35.1 |
| City of Corona Threshold of Significance (0% Below City Baseline) | | 40.6 |
| Percent Difference (Project TAZ vs. Jurisdictional Threshold) | | -13.45% |
| Significant Impact? | | **No** |

The WRCOG VMT Screening Tool printout is contained in Appendix F.

Based on the results of the WRCOG VMT Screening Tool, the proposed project's TAZ VMT is quantified to be 35.1 VMT per service population, which is less than the City of Corona threshold of significance of 40.6 VMT per service population. Hence, the proposed project satisfies the Low VMT Area Screening procedure.

**The project may be presumed to have a less than significant impact to VMT under CEQA. No further VMT analysis is required.**

# 9.0 Findings, Conclusions & Recommendations

The purpose of this traffic impact analysis is to evaluate the proposed Fitness Mania Project (herein referred to as project) from a traffic and circulation standpoint and determine whether the project will have a significant traffic impact. This traffic study has been conducted pursuant to the *City of Corona Public Works Department Traffic Impact Study Guidelines*, dated July 2006 (TIA Guidelines), and the California Environmental Quality Act (CEQA) requirements.

This study has been prepared in accordance with the scope of work previously approved by City of Corona staff.

## 9.1 Proposed Project

The project site is located at 2895 South Main Street, generally on the northeast corner of South Main Street at Chase Drive, in the City of Corona.

The proposed project consists of constructing and operating a 52,317 square-foot health club/gym facility with ancillary uses that include laundry services, office space, cafeteria/kitchen, retail, and a kids club.

Access to the project site will be provided via the following:

- One (1) full-ingress/right-out only unsignalized access driveway along Main Street; and

- One (1) full-access unsignalized access driveway along Chase Drive.

The construction of the proposed project will include the installation of a raised median along Main Street in front of the project site, as well as the construction of a 100-foot southbound left-turn pocket for the Main Street project access (i.e. Project Access 1). This project-specific improvement will also include the widening of Main Street in front of the project site to be a 4-lane roadway.

Additionally, the proposed project will extend the existing westbound left-turn pocket at the intersection of Main Street at Chase Drive approximately fifty-five (55) feet to provide a 100-foot pocket. The project will also modify the northbound approach of Main Street at

Chase Drive to consist of one (1) left-turn lane, one (1) through lane, and one (1) shared through/right-turn lane.

The project is planned to be completed in 2023 and has been evaluated in one (1) single phase.

## 9.2 Traffic Study Area & Analysis Scenarios

The study area consists of the following ten (10) study intersections:

1. Main Street at Ontario Avenue (signalized);
2. Magnolia Avenue at Ontario Avenue (signalized);
3. Main Street at Montoya Drive (signalized);
4. Magnolia Avenue at Santana Way (signalized);
5. Magnolia Avenue/Main Street at Main Street (signalized);
6. Main Street at Citrus Way (signalized);
7. Main Street at Chase Drive (signalized);
8. Main Street at Foothill Parkway (signalized);
9. Main Street at Project Access 1 (unsignalized); and
10. Project Access 2 at Chase Drive (unsignalized).

The study area also includes the following seven (7) study roadway segments:

1. Main Street between Ontario Avenue and Montoya Drive (4-lane Major Arterial);
2. Magnolia Avenue between Ontario Avenue and Santana Way (6-lane Major Arterial);

3. Main Street between Montoya Drive and Magnolia Avenue (4-lane Major Arterial);

4. Magnolia Avenue between Santana Way and Main Street (6-lane Major Arterial);

5. Main Street between Magnolia Avenue and Citrus Way (5-lane Major Arterial);

6. Main Street between Citrus Way and Project Access 1 (4-lane Major Arterial); and

7. Main Street between Chase Drive and Foothill Parkway (4-lane Major Arterial).

The analysis evaluates traffic conditions for the following study scenarios during the weekday AM (6:30 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM) peak periods:

- Existing Conditions;

- Project Opening Year (2023) With Background Traffic Without Project Conditions; and

- Project Opening Year (2023) With Background Traffic With Project Conditions.

## 9.3 Project Trip Generation Summary

Based on the ITE trip generation rates, the proposed project is forecast to generate approximately 1,805 daily trips which include approximately 69 AM peak hour trips and approximately 181 PM peak hour trips.

## 9.4 Study Intersection Peak Hour LOS Analysis Summary

All study intersections are currently operating, and are forecast to continue to operate, at an acceptable LOS (LOS D or better) during the peak hours for all analysis scenarios evaluated as part of this study.

Based on the agency-established LOS performance thresholds, the project is forecast to not be required to contribute to LOS improvements at the study intersections for Project Opening Year (2023) With Background Traffic With Project Conditions.

## 9.5 Study Roadway Segment LOS Analysis Summary

All study roadway segments are currently operating, and are forecast to continue to operate, at an acceptable LOS (LOS C or better) for all analysis scenarios evaluated as part of this study.

## 9.6 HCM 95th Percentile Queue Analysis Summary

Adequate queue storage is currently provided for all seven (7) movements evaluated during the peak hours for all analysis scenarios evaluated as part of this study, with the exception of the following movements:

- Int 7: Main Street at Chase Drive
    - Westbound Left-Turn

It should be noted that with the construction of the southbound left-turn pocket at the Main Street project access and the extension of the westbound left-turn pocket at the intersection of Main Street at Chase Drive, adequate queue storage is provided for all seven (7) movements under Project Opening Year (2023) With Background Traffic With Project Conditions.

## 9.7 CEQA Vehicle Miles Traveled (VMT) Analysis Summary

Based on the results of the WRCOG VMT Screening Tool, the proposed project's TAZ VMT is quantified to be 35.1 VMT per service population, which is less than the City of Corona threshold of significance of 40.6 VMT per service population. Hence, the proposed project satisfies the Low VMT Area Screening procedure.

# Appendices

# Appendix A

Approved Scope of Work

# Traffic Impact Study Scope – City of Corona

| | |
|---|---|
| Project Name: | Fitness Mania Project |
| Project Address: | 2895 S. Main Street |
| Project Description: | 52,317 Square-Foot Health Club/Gym Facility |
| Case Number: | DPR 2022-0010 |

| | Consultant | Developer |
|---|---|---|
| Name: | RK Engineering Group, Inc. | Balbas Construction, Inc. |
| Address: | 4000 Westerly Place, Ste 280<br>Newport Beach, CA 92660 | 3189 Airway Avenue Suite D<br>Costa Mesa, CA 92626 |
| Telephone:<br>E-mail: | (949) 474-0810<br>jt@rkengineer.com | (714) 390-1177<br>balbasconst@gmail.com |

**A. Trip Generation**

| | | | |
|---|---|---|---|
| Proposed Land Use | | Previous Land Use | |
| Existing Zoning | | Proposed Zoning | |

| | In | Out | Total |
|---|---|---|---|
| AM Peak Hour | **35** | **34** | **69** |
| PM Peak Hour | **103** | **78** | **181** |

**B. Trip Distribution**

Attach graphical representation

**C. Background Traffic**

| | | | |
|---|---|---|---|
| **Project Opening year:** | **2023** | **Growth Rate:** | **2% Per Year** |

**D. Study Intersections**

| | |
|---|---|
| **1. Main Street at Ontario Avenue** | **6. Main Street at Citrus Way** |
| **2. Magnolia Avenue at Ontario Avenue** | **7. Main Street at Chase Drive** |
| **3. Main Street at Montoya Drive** | **8. Main Street at Foothill Parkway** |
| **4. Magnolia Avenue at Santana Way** | |
| **5. Magnolia Avenue/Main Street at Main St** | |

**E. Specific Issues to be addressed in the Study**

| |
|---|
| **Queuing at Project Access Locations** |
| |

**Approved By:**

| | |
|---|---|
| **City of Corona Traffic Division:** | *APPROVED*<br>*By Rosalva Ureno at 3:51 pm, Jul 14, 2022* |
| **Date:** | |

# FITNESS MANIA PROJECT
# Traffic Impact Analysis
# Revised Scoping Agreement

## July 14, 2022

The following provides information on the proposed project, summarizes the analysis scope, parameters, and assumptions for review and approval, and also includes request for information on items related to the study.

**A. Project Description:** The proposed Fitness Mania Project (hereinafter referred to as project) is proposed to consist of the construction and operation of a 52,317 square-foot health club/gym facility with ancillary uses that include laundry services, office space, cafeteria/kitchen, retail, and a kids club. **It should be noted that the project description has yet to be finalized and based on feedback from the City regarding this scoping agreement, the site plan could be revised slightly to accommodate any comments received by the City.**

The project site is located at 2895 S. Main Street, generally on the northeast corner of South Main Street and Chase Drive, in the City of Corona.

The project will be evaluated in a single phase and is planned to open in 2023.

Access to the project is proposed via one (1) full-ingress/right-out only unsignalized driveway located along Main Street and via one (1) full-access unsignalized driveway located along Chase Drive. It is RK's understanding that Main Street will be widened to it's ultimate width with the construction of the project (i.e. two travel lanes in both the northbound and southbound directions). Furthermore, as part of the construction of the project, it is understood that it will be the responsibility of the developer to install a raised median on Main Street along the project frontage.

Exhibit A shows the location of the proposed project. Exhibit B-1 shows the proposed site plan. Exhibit B-2 shows the latest proposed site plan with a conceptual hand-sketch of the raised median opening to allow for southbound left-turn access at the project driveway along Main Street.

**B. Project Trip Generation:** Trip generation represents the amount of traffic that is attracted and produced by a development.

Trip generation is typically estimated based on the trip generation rates from the latest *Institute of Transportation Engineers (ITE) Trip Generation Manual.* The latest and most recent version of the *ITE Trip Generation Manual* (11th Edition, 2021) has been utilized for this scoping agreement. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Table 1 shows the ITE trip generation rates utilized for the trip generation analysis of the proposed project land use.

**Table 1**
**ITE Trip Generation Rates[1]**

| Land Use | Units[2] | ITE Code | AM | | | PM | | | Daily |
|---|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total | |
| Health/Fitness Club | TSF | 492 | 51% | 49% | 1.31 | 57% | 43% | 3.45 | 34.50[3] |

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021)

[2] TSF = Thousand Square Feet

[3] *ITE Trip Generation Manual* (11th Edition, 2021) does not provide a daily trip rate for Land Use 492. As such, the daily rate is assumed to be 10 times the PM peak hour trip rate.

Table 2 shows the trip generation for the proposed project utilizing the trip generation rates shown in Table 1.

**Table 2**
**Project Trip Generation[1]**

| Land Use (ITE Code) | Quantity | Units[2] | AM | | | PM | | | Daily |
|---|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total | |
| Health/Fitness Club (492) | 52.317 | TSF | 35 | 34 | 69 | 103 | 78 | 181 | 1,805 |

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021)

[2] TSF = Thousand Square Feet

As shown in Table 2, based on the preliminary evaluation of the project trip generation utilizing the Institute of Transportation Engineers (ITE) trip generation rates, the proposed project is forecast to generate approximately 1,805 daily weekday trips, which include approximately 69 AM peak hour trips and 181 PM peak hour trips.

**C. Project Trip Distribution:** Exhibit C-1 shows the outbound project trip distribution for the proposed project. Exhibit C-2 shows the inbound project trip distribution for the proposed project.

**D. Study Intersections:** The analysis will evaluate the following eight (8) study intersections:

1. Main Street (N/S) at Ontario Avenue (E/W);
2. Magnolia Avenue (N/S) at Ontario Avenue (E/W);
3. Main Street (N/S) at Montoya Drive (E/W);
4. Magnolia Avenue (N/S) at Santana Way (E/W);
5. Magnolia Avenue/Main Street (N/S) at Main Street (E/W);
6. Main Street (N/S) at Citrus Way (E/W);
7. Main Street (N/S) at Chase Drive (E/W); and
8. Main Street (N/S) at Foothill Parkway (E/W).

The two (2) proposed access points will also be analyzed.

The analysis will also evaluate the following seven (7) study roadway segments for level of service for one typical weekday:

1. Main Street between Ontario Avenue and Montoya Drive;
2. Magnolia Avenue between Ontario Avenue Santana Way;
3. Main Street between Montoya Drive and Magnolia Avenue;
4. Magnolia Avenue between Santana Way and Main Street;
5. Main Street between Magnolia Avenue and Citrus Way;

6. Main Street between Citrus Way and Main Street Project Access; and

7. Main Street between Chase Drive and Foothill Parkway.

**E. Analysis Scenarios:** The analysis will evaluate traffic conditions for the following scenarios during the weekday AM (6:30 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM) peak hour conditions:

- Existing Conditions;
- Project Opening Year (2023) With Background Traffic Without Project Conditions;
- Project Opening Year (2023) With Background Traffic With Project Conditions.

**F. Traffic Analysis Parameters:** The analysis will utilize the following parameters:

- Vistro 2022 analysis software and the Highway Capacity Manual 6th Editions (HCM 6) methodology.
- Optimized Signal Timing.

**G. Existing Traffic Counts:** The analysis will utilize new traffic counts. New traffic counts will be conducted after August 9th once local schools return from summer break and resume normal instruction. The counts will ***not*** be collected by vehicle classification.

- AM peak period counts will be collected during one typical weekday from 6:30 AM to 9:00 AM.
- PM peak period counts will be collected during one typical weekday from 4:00 PM to 6:00 PM.

**H. Forecast Opening Year (2023) Conditions Traffic Volumes:** Opening year (2023) background traffic volumes will be derived by applying an annual growth rate of two percent (2%) per year to existing traffic volumes and addition of traffic associated with specific cumulative projects in the area provided by the City of Corona Staff.

**I. Performance Criteria:**

*City of Corona Study Intersections:* In accordance with the City's General Plan, the following intersection level of service (LOS) thresholds from the General Plan shall be implemented using the current Highway Capacity Manual (HCM).

- **LOS C** or better shall be maintained for local intersections in residential/industrial areas

- **LOS D** or better shall be maintained on collector and arterial intersections

- **LOS E** will be permitted for the following intersections:
    - Lincoln Avenue at SR-91
    - Main Street at SR-91
    - McKinley Avenue at SR-91
    - Hidden Valley Parkway at I-15
    - Cajalco Road at I-15
    - Weirick Road at I-15
    - Other locations as approved by the City Engineer

Hence, all of the eight (8) study intersections for this analysis would be required to perform at LOS D or better.

**J. Significant Impact Criteria:** Per the *City of Corona Traffic Impact Study Guidelines*, dated July 2006, and in accordance with the City's General Plan, feasible measures must be identified to mitigate any impacts to the levels identified below for Project Opening Year with Background Traffic Plus Project:

1. If a project causes a facility that is projected to operate at an acceptable LOS with opening year background traffic, to operate at an unacceptable LOS, then mitigation measures shall be identified for which the project shall be responsible to bring the facility back to an acceptable LOS.

2. In addition, developments that require a change in zoning from that shown in the current General Plan shall be responsible for mitigating impacts caused to City facilities by the zoning change back to an acceptable LOS.

3. If a project causes an impact to a facility operating at an unacceptable LOS with background traffic, then a mitigation measure shall be identified for which the project should pay a "fair share."

**K. Vehicles Miles Traveled (VMT) Analysis:**

Effective July 1st, 2020, the longstanding metric of roadway level of service (LOS), which is typically measured in terms of vehicle delay, roadway capacity and congestion, will no longer be considered a significant impact under the California Environmental Quality Act (CEQA). Pursuant to CEQA Guidelines, Section 15064.3, VMT is now the most appropriate measure of transportation impacts.

The City of Corona has provided a memorandum *Draft City of Corona CEQA Assessment – VMT Analysis Guidelines*, dated January 11, 2019, prepared by Fehr & Peers, to provide recommendations in the form of thresholds of significance and methodology for identifying VMT related impacts.

To identify if the project is in a low VMT-generating area, the Riverside County Transportation Analysis Model (RIVCOM) was utilized through the Western Riverside County Council of Governments (WRCOG) VMT screening tool website to determine if the proposed project fulfills the Low VMT Area Screening criteria

The results of the VMT screening analysis are summarized in Table 3. The WRCOG VMT Screening Tool printouts are provided in Attachment A.

**Table 3**
**VMT Screening Analysis[1]**

| Project APN & TAZ | Baseline Year | OD VMT per Service Population |
|---|---|---|
| APN: 113340018; TAZ 428 | 2023 | 35.1 |
| City of Corona Threshold of Significance (0% Below City Baseline) | | 40.6 |
| Percent Difference (Project TAZ vs. Jurisdictional Threshold) | | -13.45% |
| Potentially Significant Impact? | | No |

Based on the results of the WRCOG VMT Screening Tool, the proposed project's TAZ VMT is quantified to be 35.1 VMT per service population, which is less than the City of Corona Threshold of Significance of 40.6 VMT per service population. Hence, the proposed project satisfies the Low VMT Area Screening procedure.

The project may be presumed to have a less than significant VMT impact under CEQA. Thus, no further VMT analysis is required.

**L. Project Access Queuing Analysis:** RK will perform a queueing analysis utilizing HCM 95$^{th}$ percentile queue evaluation methodology for the two (2) proposed access points as well as the intersection of Main Street at Chase Drive. The study will evaluate any potential spill over from turn pockets into through lanes or into adjacent intersections.

**M. On-Site Circulation:** On-site circulation will be reviewed and an exhibit will be included as part of the final traffic study.

**N. Request for Information:** Please provide information on the following for use in the traffic study:

- Information on cumulative projects that need to be included in the traffic analysis (location, land use type(s), and land use quantities); and

- Information on future roadway and circulation system modifications/improvements that are planned within the study area and would potentially affect the analysis.

If you have any questions, or would like further review, please call us at (949) 474-0809.

Sincerely,
RK ENGINEERING GROUP, INC.

Justin Tucker, P.E.
Principal Engineer

Attachments

Approved by:

_____

City of Corona

_____

Date

# Attachments

Exhibit A

# Location Map

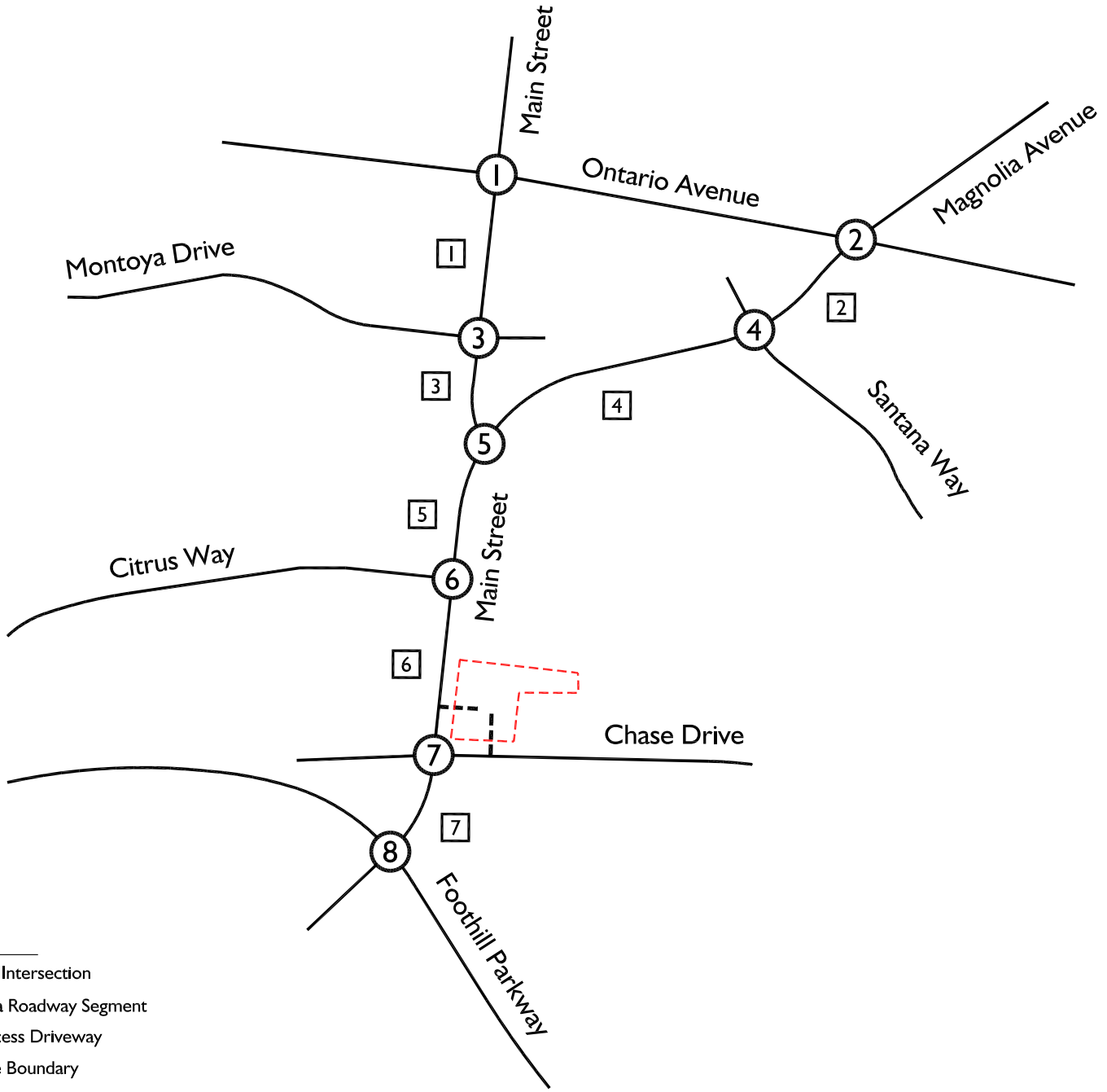
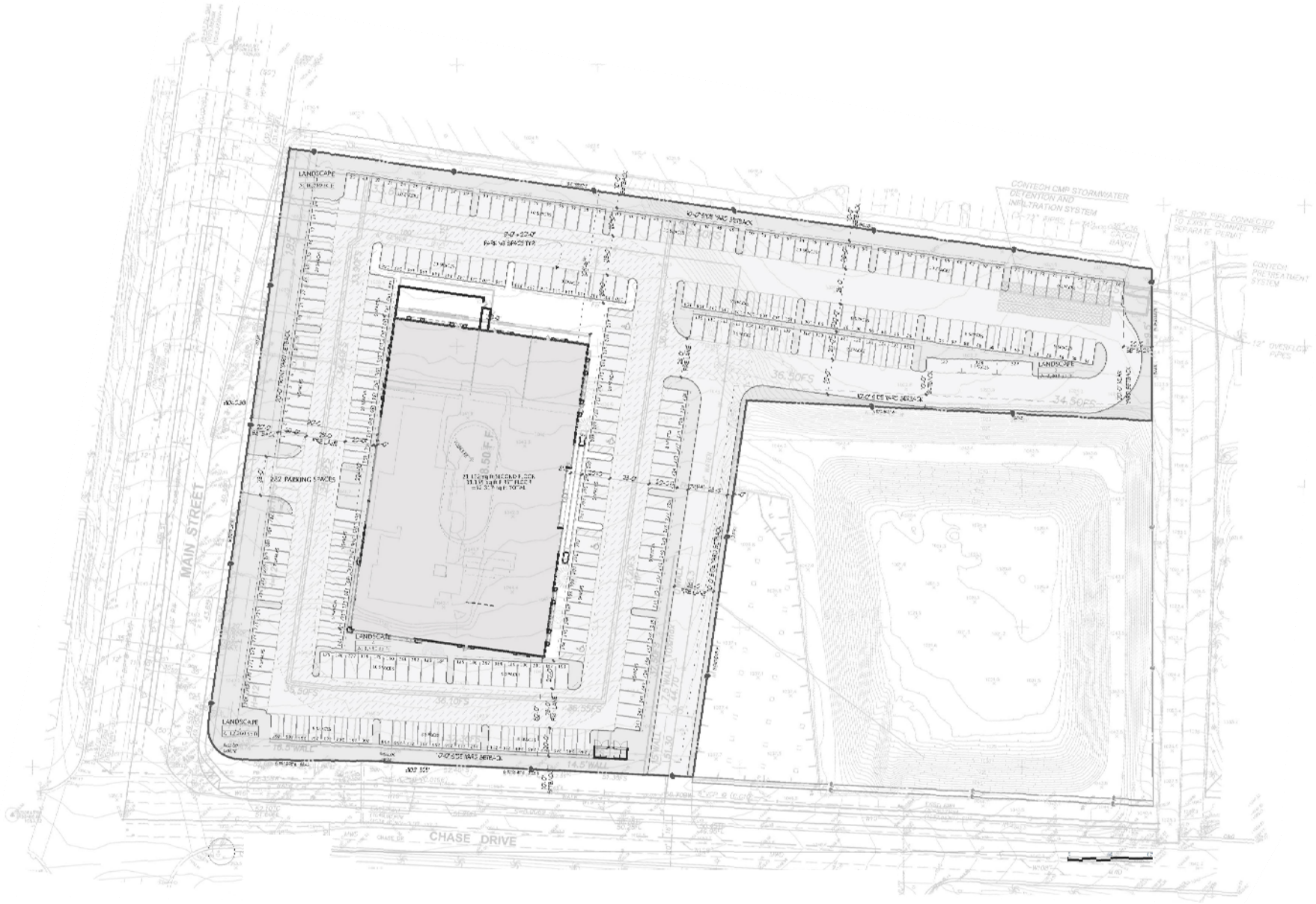


Exhibit B-1

# Site Plan



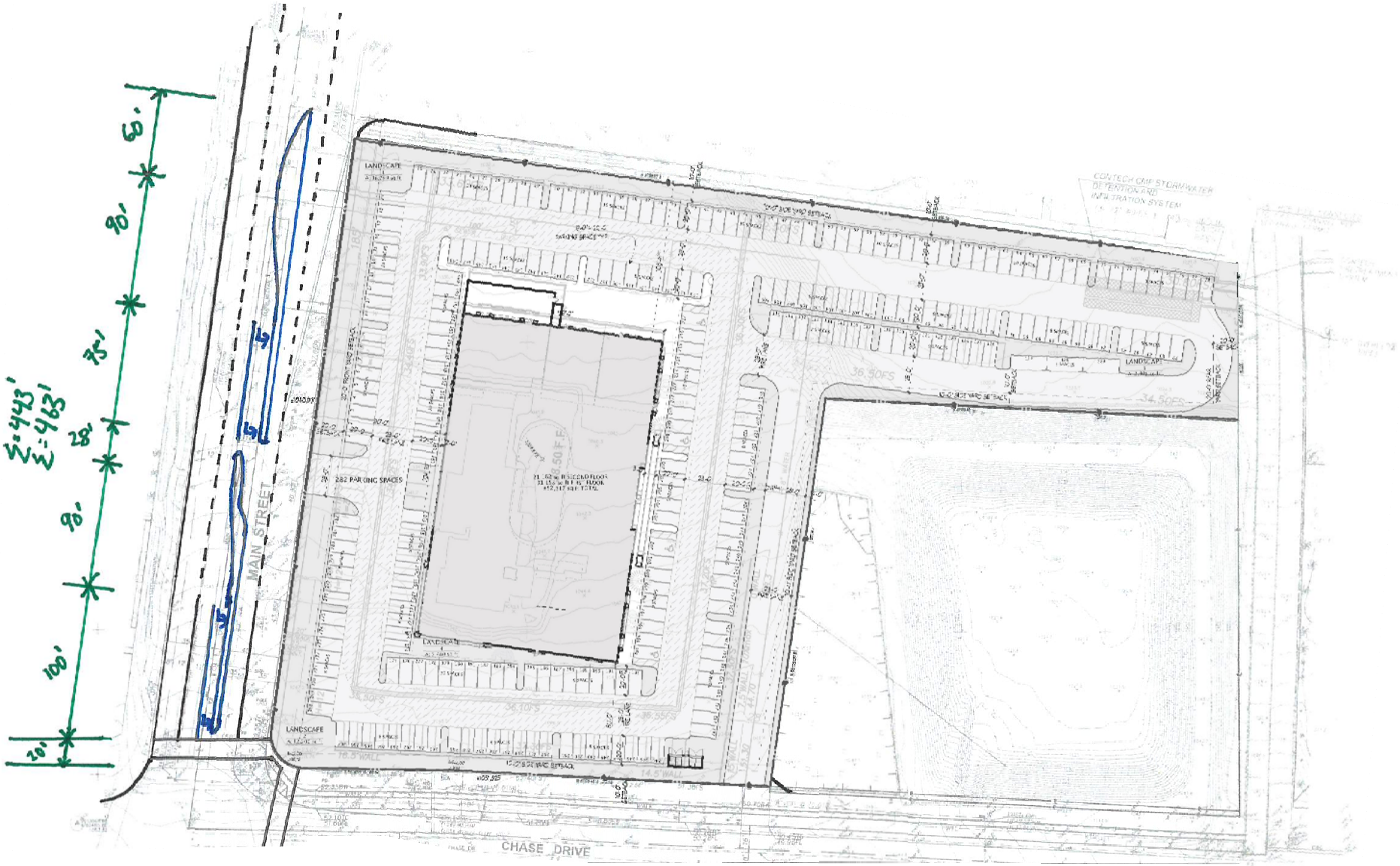

N



RK engineering group, inc.

Exhibit B-2

# Proposed Site Plan With Conceptual Raised Median Along Main Street




N



RK engineering group, inc.

Exhibit C-1

# Outbound Project Trip Distribution

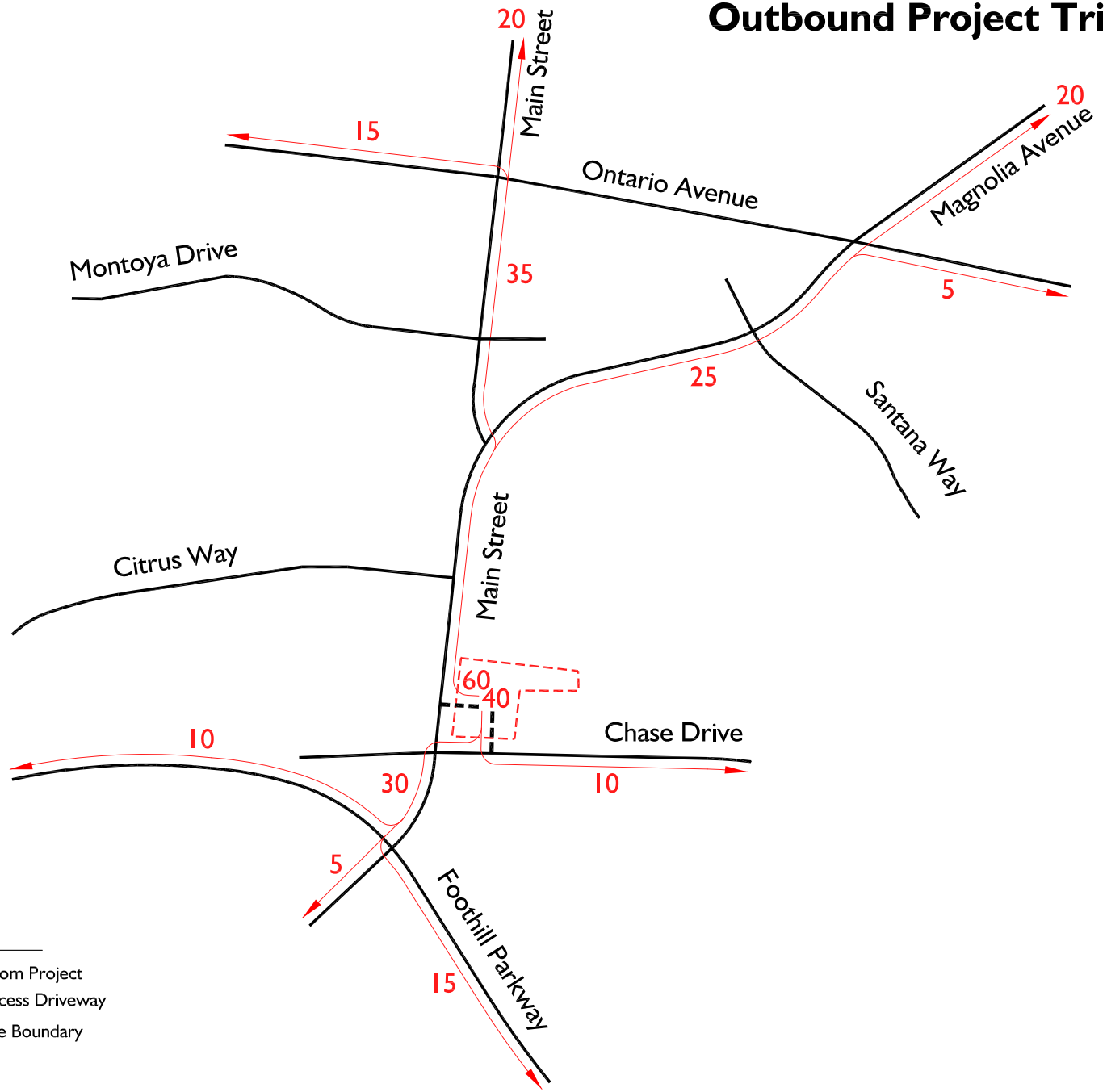
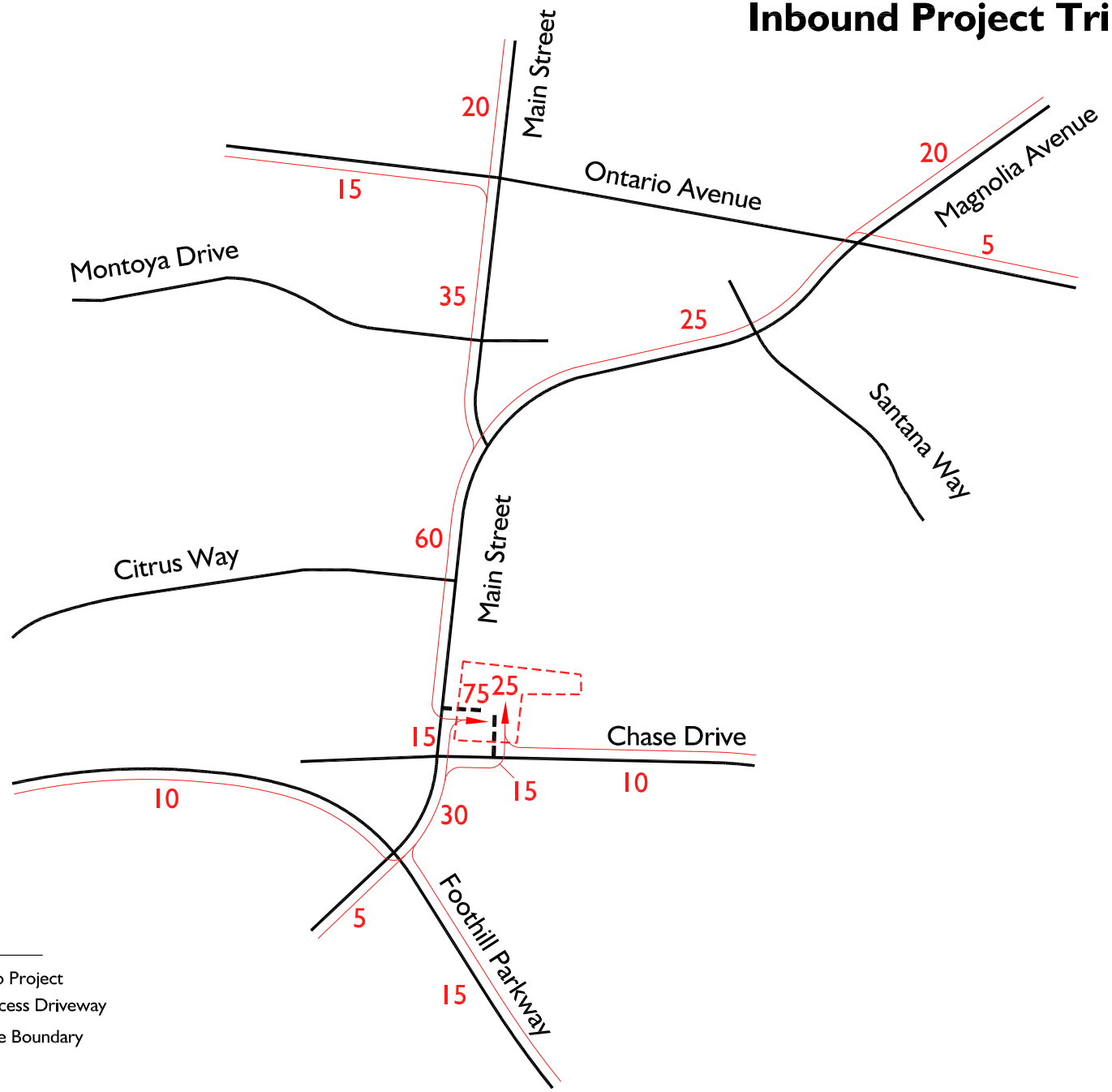


Exhibit C-2

# Inbound Project Trip Distribution



# Appendix B

Traffic Count Worksheets

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
(951) 268-6268
email: counts@countsunlimited.com

City of Corona
Main Street
B/ Ontario Avenue - Montoya Drive
24 Hour Directional Volume Count

COR001
Site Code: 105-22673

| Start Time | 8/16/22 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 8 | 86 | | | 5 | 131 | | | | |
| 12:15 | | 2 | 97 | | | 12 | 126 | | | | |
| 12:30 | | 3 | 93 | | | 5 | 149 | | | | |
| 12:45 | | 1 | 86 | 14 | 362 | 11 | 116 | 33 | 522 | 47 | 884 |
| 01:00 | | 2 | 84 | | | 6 | 142 | | | | |
| 01:15 | | 5 | 62 | | | 1 | 139 | | | | |
| 01:30 | | 0 | 75 | | | 6 | 159 | | | | |
| 01:45 | | 7 | 94 | 14 | 315 | 1 | 170 | 14 | 610 | 28 | 925 |
| 02:00 | | 3 | **175** | | | 6 | 173 | | | | |
| 02:15 | | 2 | **147** | | | 1 | 152 | | | | |
| 02:30 | | 4 | **111** | | | 7 | **181** | | | | |
| 02:45 | | 3 | **101** | 12 | 534 | 7 | **147** | 21 | 653 | 33 | 1187 |
| 03:00 | | 3 | 94 | | | 7 | **196** | | | | |
| 03:15 | | 1 | 93 | | | 6 | **210** | | | | |
| 03:30 | | 8 | 91 | | | 3 | 122 | | | | |
| 03:45 | | 6 | 89 | 18 | 367 | 4 | 138 | 20 | 666 | 38 | 1033 |
| 04:00 | | 7 | 89 | | | 3 | 180 | | | | |
| 04:15 | | 7 | 77 | | | 5 | 150 | | | | |
| 04:30 | | 8 | 70 | | | 4 | 172 | | | | |
| 04:45 | | 10 | 85 | 32 | 321 | 7 | 162 | 19 | 664 | 51 | 985 |
| 05:00 | | 12 | 83 | | | 3 | 217 | | | | |
| 05:15 | | 14 | 93 | | | 4 | 175 | | | | |
| 05:30 | | 19 | 72 | | | 9 | 180 | | | | |
| 05:45 | | 20 | 68 | 65 | 316 | 13 | 134 | 29 | 706 | 94 | 1022 |
| 06:00 | | 22 | 62 | | | 11 | 152 | | | | |
| 06:15 | | 37 | 56 | | | 20 | 124 | | | | |
| 06:30 | | 45 | 56 | | | 16 | 131 | | | | |
| 06:45 | | 56 | 54 | 160 | 228 | 36 | 99 | 83 | 506 | 243 | 734 |
| 07:00 | | 65 | 52 | | | 63 | 120 | | | | |
| 07:15 | | 84 | 57 | | | 93 | 94 | | | | |
| 07:30 | | 97 | 60 | | | 115 | 118 | | | | |
| 07:45 | | 131 | 55 | 377 | 224 | **120** | 90 | 391 | 422 | 768 | 646 |
| 08:00 | | **90** | 37 | | | **95** | 78 | | | | |
| 08:15 | | **128** | 38 | | | **100** | 62 | | | | |
| 08:30 | | **186** | 34 | | | **168** | 72 | | | | |
| 08:45 | | **135** | 24 | 539 | 133 | 97 | 74 | 460 | 286 | 999 | 419 |
| 09:00 | | 89 | 28 | | | 87 | 82 | | | | |
| 09:15 | | 98 | 28 | | | 84 | 81 | | | | |
| 09:30 | | 70 | 20 | | | 104 | 34 | | | | |
| 09:45 | | 92 | 19 | 349 | 95 | 71 | 64 | 346 | 261 | 695 | 356 |
| 10:00 | | 84 | 22 | | | 92 | 33 | | | | |
| 10:15 | | 83 | 21 | | | 108 | 26 | | | | |
| 10:30 | | 93 | 17 | | | 108 | 21 | | | | |
| 10:45 | | 91 | 7 | 351 | 67 | 98 | 20 | 406 | 100 | 757 | 167 |
| 11:00 | | 74 | 10 | | | 107 | 11 | | | | |
| 11:15 | | 88 | 9 | | | 96 | 16 | | | | |
| 11:30 | | 83 | 9 | | | 124 | 15 | | | | |
| 11:45 | | 98 | 4 | 343 | 32 | 98 | 11 | 425 | 53 | 768 | 85 |
| Total | | 2274 | 2994 | 2274 | 2994 | 2247 | 5449 | 2247 | 5449 | 4521 | 8443 |
| Combined Total | | 5268 | | 5268 | | 7696 | | 7696 | | 12964 | |
| AM Peak | - | 08:00 | - | - | - | 07:45 | - | - | - | - | - |
| Vol. | - | 539 | - | - | - | 483 | - | - | - | - | - |
| P.H.F. | | 0.724 | | | | 0.719 | | | | | |
| PM Peak | - | - | 02:00 | - | - | - | 02:30 | - | - | - | - |
| Vol. | - | - | 534 | - | - | - | 734 | - | - | - | - |
| P.H.F. | | | 0.763 | | | | 0.874 | | | | |
| Percentage | | 43.2% | 56.8% | | | 29.2% | 70.8% | | | | |
| ADT/AADT | | ADT 12,964 | | AADT 12,964 | | | | | | | |

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
(951) 268-6268
email: counts@countsunlimited.com

City of Corona
Magnolia Avenue
B/ Ontario Avenue - Sanatana Way
24 Hour Directional Volume Count

COR002
Site Code: 105-22673

| Start Time | 8/16/22 Tue | Eastbound Morning | Eastbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Westbound Morning | Westbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 10 | 83 | | | 10 | 95 | | | | |
| 12:15 | | 6 | 80 | | | 8 | 126 | | | | |
| 12:30 | | 8 | 91 | | | 9 | 115 | | | | |
| 12:45 | | 2 | 74 | 26 | 328 | 7 | 111 | 34 | 447 | 60 | 775 |
| 01:00 | | 4 | 70 | | | 7 | 143 | | | | |
| 01:15 | | 4 | 105 | | | 2 | 108 | | | | |
| 01:30 | | 7 | 104 | | | 2 | 139 | | | | |
| 01:45 | | 3 | 93 | 18 | 372 | 4 | 151 | 15 | 541 | 33 | 913 |
| 02:00 | | 6 | **147** | | | 3 | 139 | | | | |
| 02:15 | | 2 | **120** | | | 10 | 152 | | | | |
| 02:30 | | 9 | **157** | | | 7 | 145 | | | | |
| 02:45 | | 3 | **130** | 20 | 554 | 4 | 108 | 24 | 544 | 44 | 1098 |
| 03:00 | | 6 | 109 | | | 2 | 125 | | | | |
| 03:15 | | 5 | 111 | | | 4 | 111 | | | | |
| 03:30 | | 4 | 113 | | | 3 | 146 | | | | |
| 03:45 | | 6 | 133 | 21 | 466 | 2 | **204** | 11 | 586 | 32 | 1052 |
| 04:00 | | 2 | 125 | | | 3 | **142** | | | | |
| 04:15 | | 13 | 107 | | | 3 | **151** | | | | |
| 04:30 | | 16 | 104 | | | 6 | **164** | | | | |
| 04:45 | | 13 | 119 | 44 | 455 | 22 | 154 | 34 | 611 | 78 | 1066 |
| 05:00 | | 8 | 115 | | | 18 | 144 | | | | |
| 05:15 | | 19 | 122 | | | 26 | 151 | | | | |
| 05:30 | | 27 | 110 | | | 13 | 157 | | | | |
| 05:45 | | 41 | 125 | 95 | 472 | 33 | 160 | 90 | 612 | 185 | 1084 |
| 06:00 | | 41 | 114 | | | 45 | 154 | | | | |
| 06:15 | | 52 | 85 | | | 39 | 121 | | | | |
| 06:30 | | 52 | 77 | | | 49 | 134 | | | | |
| 06:45 | | 82 | 104 | 227 | 380 | 76 | 141 | 209 | 550 | 436 | 930 |
| 07:00 | | 76 | 90 | | | 112 | 119 | | | | |
| 07:15 | | 91 | 83 | | | 142 | 87 | | | | |
| 07:30 | | **143** | 84 | | | 127 | 88 | | | | |
| 07:45 | | **120** | 81 | 430 | 338 | **146** | 79 | 527 | 373 | 957 | 711 |
| 08:00 | | **123** | 89 | | | **139** | 85 | | | | |
| 08:15 | | **117** | 90 | | | **187** | 63 | | | | |
| 08:30 | | 130 | 72 | | | **166** | 71 | | | | |
| 08:45 | | 81 | 33 | 451 | 284 | 117 | 76 | 609 | 295 | 1060 | 579 |
| 09:00 | | 93 | 66 | | | 70 | 42 | | | | |
| 09:15 | | 82 | 45 | | | 78 | 49 | | | | |
| 09:30 | | 87 | 34 | | | 85 | 36 | | | | |
| 09:45 | | 78 | 27 | 340 | 172 | 94 | 46 | 327 | 173 | 667 | 345 |
| 10:00 | | 87 | 26 | | | 104 | 33 | | | | |
| 10:15 | | 84 | 23 | | | 80 | 25 | | | | |
| 10:30 | | 93 | 17 | | | 97 | 25 | | | | |
| 10:45 | | 87 | 22 | 351 | 88 | 95 | 12 | 376 | 95 | 727 | 183 |
| 11:00 | | 78 | 13 | | | 101 | 24 | | | | |
| 11:15 | | 81 | 12 | | | 96 | 16 | | | | |
| 11:30 | | 96 | 10 | | | 79 | 10 | | | | |
| 11:45 | | 85 | 7 | 340 | 42 | 109 | 22 | 385 | 72 | 725 | 114 |
| Total | | 2363 | 3951 | 2363 | 3951 | 2641 | 4899 | 2641 | 4899 | 5004 | 8850 |
| Combined Total | | 6314 | | 6314 | | 7540 | | 7540 | | 13854 | |
| AM Peak | - | 07:30 | - | - | - | 07:45 | - | - | - | - | - |
| Vol. | - | 503 | - | - | - | 638 | - | - | - | - | - |
| P.H.F. | | 0.879 | | | | 0.853 | | | | | |
| PM Peak | - | - | 02:00 | - | - | - | 03:45 | - | - | - | - |
| Vol. | - | - | 554 | - | - | - | 661 | - | - | - | - |
| P.H.F. | | | 0.882 | | | | 0.810 | | | | |
| Percentage | | 37.4% | 62.6% | | | 35.0% | 65.0% | | | | |
| ADT/AADT | | ADT 13,854 | | AADT 13,854 | | | | | | | |

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
(951) 268-6268
email: counts@countsunlimited.com

City of Corona
Main Street
B/ Montoya Drive - Magnolia Drive
24 Hour Directional Volume Count

COR003
Site Code: 105-22673

| Start Time | 8/16/22 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 4 | 83 | | | 5 | 87 | | | | |
| 12:15 | | 3 | 94 | | | 7 | 69 | | | | |
| 12:30 | | 2 | 87 | | | 6 | 71 | | | | |
| 12:45 | | 1 | 88 | 10 | 352 | 6 | 63 | 24 | 290 | 34 | 642 |
| 01:00 | | 2 | 78 | | | 6 | 80 | | | | |
| 01:15 | | 4 | 79 | | | 0 | 85 | | | | |
| 01:30 | | 0 | 82 | | | 3 | 71 | | | | |
| 01:45 | | 6 | **108** | 12 | 347 | 1 | 61 | 10 | 297 | 22 | 644 |
| 02:00 | | 3 | **142** | | | 5 | 117 | | | | |
| 02:15 | | 2 | **115** | | | 1 | 99 | | | | |
| 02:30 | | 5 | **96** | | | 4 | 102 | | | | |
| 02:45 | | 1 | 103 | 11 | 456 | 7 | 85 | 17 | 403 | 28 | 859 |
| 03:00 | | 3 | 100 | | | 3 | 108 | | | | |
| 03:15 | | 1 | 83 | | | 3 | 113 | | | | |
| 03:30 | | 9 | 80 | | | 3 | 72 | | | | |
| 03:45 | | 4 | 92 | 17 | 355 | 3 | 80 | 12 | 373 | 29 | 728 |
| 04:00 | | 7 | 92 | | | 3 | 96 | | | | |
| 04:15 | | 6 | 82 | | | 4 | 89 | | | | |
| 04:30 | | 8 | 68 | | | 4 | 94 | | | | |
| 04:45 | | 10 | 97 | 31 | 339 | 5 | **104** | 16 | 383 | 47 | 722 |
| 05:00 | | 9 | 87 | | | 3 | **120** | | | | |
| 05:15 | | 11 | 86 | | | 3 | **104** | | | | |
| 05:30 | | 16 | 76 | | | 7 | **108** | | | | |
| 05:45 | | 18 | 77 | 54 | 326 | 10 | 81 | 23 | 413 | 77 | 739 |
| 06:00 | | 20 | 68 | | | 11 | 99 | | | | |
| 06:15 | | 33 | 57 | | | 15 | 72 | | | | |
| 06:30 | | 46 | 60 | | | 12 | 83 | | | | |
| 06:45 | | 50 | 59 | 149 | 244 | 21 | 60 | 59 | 314 | 208 | 558 |
| 07:00 | | 64 | 66 | | | 39 | 67 | | | | |
| 07:15 | | 88 | 60 | | | 63 | 59 | | | | |
| 07:30 | | 97 | 53 | | | **91** | 76 | | | | |
| 07:45 | | **111** | 58 | 360 | 237 | **98** | 59 | 291 | 261 | 651 | 498 |
| 08:00 | | **83** | 45 | | | **71** | 49 | | | | |
| 08:15 | | **128** | 37 | | | **67** | 48 | | | | |
| 08:30 | | **140** | 33 | | | 68 | 40 | | | | |
| 08:45 | | 105 | 35 | 456 | 150 | 72 | 42 | 278 | 179 | 734 | 329 |
| 09:00 | | 82 | 37 | | | 64 | 56 | | | | |
| 09:15 | | 94 | 36 | | | 58 | 55 | | | | |
| 09:30 | | 73 | 26 | | | 65 | 21 | | | | |
| 09:45 | | 90 | 20 | 339 | 119 | 40 | 50 | 227 | 182 | 566 | 301 |
| 10:00 | | 72 | 21 | | | 58 | 21 | | | | |
| 10:15 | | 75 | 23 | | | 64 | 24 | | | | |
| 10:30 | | 79 | 19 | | | 57 | 13 | | | | |
| 10:45 | | 91 | 5 | 317 | 68 | 58 | 13 | 237 | 71 | 554 | 139 |
| 11:00 | | 69 | 11 | | | 57 | 9 | | | | |
| 11:15 | | 85 | 7 | | | 58 | 12 | | | | |
| 11:30 | | 87 | 9 | | | 83 | 9 | | | | |
| 11:45 | | 83 | 4 | 324 | 31 | 70 | 10 | 268 | 40 | 592 | 71 |
| Total | | 2080 | 3024 | 2080 | 3024 | 1462 | 3206 | 1462 | 3206 | 3542 | 6230 |
| Combined Total | | 5104 | | 5104 | | 4668 | | 4668 | | 9772 | |
| AM Peak | - | 07:45 | - | - | - | 07:30 | - | - | - | - | - |
| Vol. | - | 462 | - | - | - | 327 | - | - | - | - | - |
| P.H.F. | | 0.825 | | | | 0.834 | | | | | |
| PM Peak | - | - | 01:45 | - | - | - | 04:45 | - | - | - | - |
| Vol. | - | - | 461 | - | - | - | 436 | - | - | - | - |
| P.H.F. | | | 0.812 | | | | 0.908 | | | | |
| Percentage | | 40.8% | 59.2% | | | 31.3% | 68.7% | | | | |
| ADT/AADT | | ADT 9,772 | | AADT 9,772 | | | | | | | |

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
(951) 268-6268
email: counts@countsunlimited.com

City of Corona
Magnolia Avenue
B/ Santana Way - Main Street
24 Hour Directional Volume Count

COR004
Site Code: 105-22673

| Start Time | 8/16/22 Tue | Eastbound Morning | Eastbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Westbound Morning | Westbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 11 | 82 | | | 10 | 84 | | | | |
| 12:15 | | 5 | 76 | | | 10 | 90 | | | | |
| 12:30 | | 5 | 72 | | | 11 | 98 | | | | |
| 12:45 | | 4 | 62 | 25 | 292 | 4 | 103 | 35 | 375 | 60 | 667 |
| 01:00 | | 5 | 61 | | | 5 | 83 | | | | |
| 01:15 | | 1 | 89 | | | 5 | 111 | | | | |
| 01:30 | | 4 | 81 | | | 3 | 84 | | | | |
| 01:45 | | 5 | 63 | 15 | 294 | 2 | 129 | 15 | 407 | 30 | 701 |
| 02:00 | | 3 | 73 | | | 3 | 133 | | | | |
| 02:15 | | 5 | **128** | | | 4 | 110 | | | | |
| 02:30 | | 3 | **108** | | | 2 | 112 | | | | |
| 02:45 | | 8 | **128** | 19 | 437 | 4 | 118 | 13 | 473 | 32 | 910 |
| 03:00 | | 5 | **101** | | | 1 | 98 | | | | |
| 03:15 | | 3 | 82 | | | 3 | 101 | | | | |
| 03:30 | | 5 | 93 | | | 2 | 89 | | | | |
| 03:45 | | 2 | 84 | 15 | 360 | 4 | **117** | 10 | 405 | 25 | 765 |
| 04:00 | | 3 | 96 | | | 2 | **138** | | | | |
| 04:15 | | 3 | 84 | | | 2 | **117** | | | | |
| 04:30 | | 13 | 94 | | | 4 | **119** | | | | |
| 04:45 | | 14 | 92 | 33 | 366 | 7 | 115 | 15 | 489 | 48 | 855 |
| 05:00 | | 7 | 105 | | | 6 | 114 | | | | |
| 05:15 | | 10 | 94 | | | 15 | 109 | | | | |
| 05:30 | | 16 | 99 | | | 17 | 98 | | | | |
| 05:45 | | 14 | 97 | 47 | 395 | 18 | 106 | 56 | 427 | 103 | 822 |
| 06:00 | | 24 | 98 | | | 35 | 102 | | | | |
| 06:15 | | 34 | 80 | | | 35 | 102 | | | | |
| 06:30 | | 31 | 86 | | | 37 | 97 | | | | |
| 06:45 | | 42 | 65 | 131 | 329 | 55 | 106 | 162 | 407 | 293 | 736 |
| 07:00 | | 56 | 70 | | | 72 | 95 | | | | |
| 07:15 | | 65 | 66 | | | 111 | 90 | | | | |
| 07:30 | | **105** | 71 | | | 135 | 92 | | | | |
| 07:45 | | **134** | 54 | 360 | 261 | 122 | 72 | 440 | 349 | 800 | 610 |
| 08:00 | | **108** | 45 | | | **104** | 79 | | | | |
| 08:15 | | **102** | 40 | | | **117** | 86 | | | | |
| 08:30 | | 100 | 39 | | | **167** | 52 | | | | |
| 08:45 | | 97 | 38 | 407 | 162 | **140** | 67 | 528 | 284 | 935 | 446 |
| 09:00 | | 59 | 45 | | | 82 | 74 | | | | |
| 09:15 | | 81 | 39 | | | 80 | 50 | | | | |
| 09:30 | | 64 | 28 | | | 67 | 42 | | | | |
| 09:45 | | 54 | 17 | 258 | 129 | 90 | 33 | 319 | 199 | 577 | 328 |
| 10:00 | | 65 | 21 | | | 72 | 48 | | | | |
| 10:15 | | 57 | 14 | | | 66 | 27 | | | | |
| 10:30 | | 70 | 22 | | | 75 | 28 | | | | |
| 10:45 | | 79 | 11 | 271 | 68 | 86 | 21 | 299 | 124 | 570 | 192 |
| 11:00 | | 61 | 17 | | | 84 | 13 | | | | |
| 11:15 | | 57 | 11 | | | 86 | 19 | | | | |
| 11:30 | | 77 | 9 | | | 84 | 15 | | | | |
| 11:45 | | 75 | 7 | 270 | 44 | 72 | 12 | 326 | 59 | 596 | 103 |
| Total | | 1851 | 3137 | 1851 | 3137 | 2218 | 3998 | 2218 | 3998 | 4069 | 7135 |
| Combined Total | | 4988 | | 4988 | | 6216 | | 6216 | | 11204 | |
| AM Peak | - | 07:30 | - | - | - | 08:00 | - | - | - | - | - |
| Vol. | - | 449 | - | - | - | 528 | - | - | - | - | - |
| P.H.F. | | 0.838 | | | | 0.790 | | | | | |
| PM Peak | - | - | 02:15 | - | - | - | 03:45 | - | - | - | - |
| Vol. | - | - | 465 | - | - | - | 491 | - | - | - | - |
| P.H.F. | | | 0.908 | | | | 0.889 | | | | |
| Percentage | | 37.1% | 62.9% | | | 35.7% | 64.3% | | | | |
| ADT/AADT | | ADT 11,204 | | AADT 11,204 | | | | | | | |

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
(951) 268-6268
email: counts@countsunlimited.com

City of Corona
Main Street
B/ Magnolia Avenue - Citrus Way
24 Hour Directional Volume Count

COR005
Site Code: 105-22673

| Start Time | 8/16/22 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 14 | 116 | | | 11 | 140 | | | | |
| 12:15 | | 6 | 105 | | | 18 | 117 | | | | |
| 12:30 | | 8 | 105 | | | 11 | 127 | | | | |
| 12:45 | | 1 | 122 | 29 | 448 | 11 | 121 | 51 | 505 | 80 | 953 |
| 01:00 | | 7 | 100 | | | 5 | 121 | | | | |
| 01:15 | | 8 | 118 | | | 5 | 141 | | | | |
| 01:30 | | 5 | 116 | | | 5 | 126 | | | | |
| 01:45 | | 6 | 126 | 26 | 460 | 2 | 134 | 17 | 522 | 43 | 982 |
| 02:00 | | 7 | 139 | | | 3 | 157 | | | | |
| 02:15 | | 2 | **134** | | | 7 | 172 | | | | |
| 02:30 | | 9 | **193** | | | 3 | 188 | | | | |
| 02:45 | | 2 | **158** | 20 | 624 | 8 | 152 | 21 | 669 | 41 | 1293 |
| 03:00 | | 5 | **145** | | | 3 | 159 | | | | |
| 03:15 | | 5 | 125 | | | 2 | 183 | | | | |
| 03:30 | | 8 | 122 | | | 4 | 122 | | | | |
| 03:45 | | 8 | 155 | 26 | 547 | 4 | 192 | 13 | 656 | 39 | 1203 |
| 04:00 | | 8 | 129 | | | 4 | 201 | | | | |
| 04:15 | | 13 | 117 | | | 7 | 166 | | | | |
| 04:30 | | 27 | 124 | | | 8 | 190 | | | | |
| 04:45 | | 23 | 149 | 71 | 519 | 10 | **186** | 29 | 743 | 100 | 1262 |
| 05:00 | | 15 | 147 | | | 8 | **206** | | | | |
| 05:15 | | 23 | 147 | | | 18 | **184** | | | | |
| 05:30 | | 34 | 136 | | | 17 | **195** | | | | |
| 05:45 | | 39 | 143 | 111 | 573 | 28 | 158 | 71 | 743 | 182 | 1316 |
| 06:00 | | 44 | 120 | | | 40 | 155 | | | | |
| 06:15 | | 68 | 123 | | | 41 | 162 | | | | |
| 06:30 | | 62 | 117 | | | 30 | 152 | | | | |
| 06:45 | | 99 | 106 | 273 | 466 | 72 | 145 | 183 | 614 | 456 | 1080 |
| 07:00 | | 114 | 78 | | | 86 | 153 | | | | |
| 07:15 | | 122 | 98 | | | **139** | 108 | | | | |
| 07:30 | | **207** | 89 | | | **178** | 142 | | | | |
| 07:45 | | **185** | 87 | 628 | 352 | **153** | 106 | 556 | 509 | 1184 | 861 |
| 08:00 | | **162** | 61 | | | **112** | 116 | | | | |
| 08:15 | | **160** | 66 | | | 114 | 107 | | | | |
| 08:30 | | 156 | 59 | | | 145 | 78 | | | | |
| 08:45 | | 130 | 50 | 608 | 236 | 114 | 101 | 485 | 402 | 1093 | 638 |
| 09:00 | | 109 | 50 | | | 101 | 93 | | | | |
| 09:15 | | 138 | 45 | | | 103 | 93 | | | | |
| 09:30 | | 111 | 38 | | | 91 | 45 | | | | |
| 09:45 | | 117 | 28 | 475 | 161 | 112 | 75 | 407 | 306 | 882 | 467 |
| 10:00 | | 111 | 26 | | | 89 | 52 | | | | |
| 10:15 | | 107 | 32 | | | 118 | 38 | | | | |
| 10:30 | | 129 | 18 | | | 101 | 35 | | | | |
| 10:45 | | 131 | 15 | 478 | 91 | 112 | 19 | 420 | 144 | 898 | 235 |
| 11:00 | | 97 | 18 | | | 115 | 20 | | | | |
| 11:15 | | 99 | 11 | | | 108 | 19 | | | | |
| 11:30 | | 130 | 15 | | | 121 | 13 | | | | |
| 11:45 | | 128 | 9 | 454 | 53 | 124 | 24 | 468 | 76 | 922 | 129 |
| Total | | 3199 | 4530 | 3199 | 4530 | 2721 | 5889 | 2721 | 5889 | 5920 | 10419 |
| Combined Total | | 7729 | | 7729 | | 8610 | | 8610 | | 16339 | |
| AM Peak | - | 07:30 | - | - | - | 07:15 | - | - | - | - | - |
| Vol. | - | 714 | - | - | - | 582 | - | - | - | - | - |
| P.H.F. | | 0.862 | | | | 0.817 | | | | | |
| PM Peak | - | - | 02:15 | - | - | - | 04:45 | - | - | - | - |
| Vol. | - | - | 630 | - | - | - | 771 | - | - | - | - |
| P.H.F. | | | 0.816 | | | | 0.936 | | | | |
| Percentage | | 41.4% | 58.6% | | | 31.6% | 68.4% | | | | |
| ADT/AADT | | ADT 16,339 | | AADT 16,339 | | | | | | | |

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
(951) 268-6268
email: counts@countsunlimited.com

City of Corona
Main Street
B/ Citrus Way - Main Street Project Access
24 Hour Directional Volume Count

COR006B
Site Code: 105-22673

| Start Time | 8/23/22 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 10 | 109 | | | 16 | 106 | | | | |
| 12:15 | | 8 | 105 | | | 10 | 110 | | | | |
| 12:30 | | 3 | 86 | | | 8 | 121 | | | | |
| 12:45 | | 3 | 98 | 24 | 398 | 9 | 117 | 43 | 454 | 67 | 852 |
| 01:00 | | 5 | 108 | | | 10 | 109 | | | | |
| 01:15 | | 3 | 101 | | | 7 | 114 | | | | |
| 01:30 | | 8 | 125 | | | 3 | 140 | | | | |
| 01:45 | | 3 | 122 | 19 | 456 | 5 | 123 | 25 | 486 | 44 | 942 |
| 02:00 | | 3 | **151** | | | 9 | 145 | | | | |
| 02:15 | | 8 | **155** | | | 3 | 149 | | | | |
| 02:30 | | 6 | **197** | | | 4 | 184 | | | | |
| 02:45 | | 4 | **136** | 21 | 639 | 3 | 121 | 19 | 599 | 40 | 1238 |
| 03:00 | | 5 | 112 | | | 3 | 153 | | | | |
| 03:15 | | 4 | 98 | | | 5 | 172 | | | | |
| 03:30 | | 6 | 106 | | | 3 | 163 | | | | |
| 03:45 | | 10 | 167 | 25 | 483 | 8 | 172 | 19 | 660 | 44 | 1143 |
| 04:00 | | 9 | 124 | | | 4 | 189 | | | | |
| 04:15 | | 13 | 121 | | | 3 | 171 | | | | |
| 04:30 | | 18 | 118 | | | 3 | 173 | | | | |
| 04:45 | | 20 | 143 | 60 | 506 | 12 | **170** | 22 | 703 | 82 | 1209 |
| 05:00 | | 16 | 152 | | | 11 | **175** | | | | |
| 05:15 | | 21 | 110 | | | 22 | **171** | | | | |
| 05:30 | | 28 | 107 | | | 17 | **203** | | | | |
| 05:45 | | 35 | 100 | 100 | 469 | 27 | 165 | 77 | 714 | 177 | 1183 |
| 06:00 | | 42 | 122 | | | 39 | 157 | | | | |
| 06:15 | | 51 | 106 | | | 33 | 158 | | | | |
| 06:30 | | 58 | 92 | | | 35 | 143 | | | | |
| 06:45 | | 89 | 105 | 240 | 425 | 65 | 136 | 172 | 594 | 412 | 1019 |
| 07:00 | | 107 | 87 | | | 89 | 115 | | | | |
| 07:15 | | **145** | 78 | | | 107 | 111 | | | | |
| 07:30 | | **175** | 115 | | | **187** | 85 | | | | |
| 07:45 | | **189** | 119 | 616 | 399 | **143** | 113 | 526 | 424 | 1142 | 823 |
| 08:00 | | **129** | 95 | | | **108** | 107 | | | | |
| 08:15 | | 143 | 58 | | | **109** | 93 | | | | |
| 08:30 | | 125 | 64 | | | 142 | 82 | | | | |
| 08:45 | | 148 | 60 | 545 | 277 | 118 | 75 | 477 | 357 | 1022 | 634 |
| 09:00 | | 113 | 41 | | | 109 | 66 | | | | |
| 09:15 | | 92 | 30 | | | 107 | 57 | | | | |
| 09:30 | | 102 | 33 | | | 77 | 65 | | | | |
| 09:45 | | 101 | 26 | 408 | 130 | 83 | 38 | 376 | 226 | 784 | 356 |
| 10:00 | | 117 | 34 | | | 101 | 41 | | | | |
| 10:15 | | 98 | 20 | | | 78 | 25 | | | | |
| 10:30 | | 109 | 22 | | | 88 | 22 | | | | |
| 10:45 | | 89 | 14 | 413 | 90 | 89 | 28 | 356 | 116 | 769 | 206 |
| 11:00 | | 108 | 7 | | | 95 | 27 | | | | |
| 11:15 | | 106 | 9 | | | 115 | 22 | | | | |
| 11:30 | | 111 | 8 | | | 110 | 23 | | | | |
| 11:45 | | 113 | 9 | 438 | 33 | 108 | 11 | 428 | 83 | 866 | 116 |
| Total | | 2909 | 4305 | 2909 | 4305 | 2540 | 5416 | 2540 | 5416 | 5449 | 9721 |
| Combined Total | | 7214 | | 7214 | | 7956 | | 7956 | | 15170 | |
| AM Peak | - | 07:15 | - | - | - | 07:30 | - | - | - | - | - |
| Vol. | - | 638 | - | - | - | 547 | - | - | - | - | - |
| P.H.F. | | 0.844 | | | | 0.731 | | | | | |
| PM Peak | - | - | 02:00 | - | - | - | 04:45 | - | - | - | - |
| Vol. | - | - | 639 | - | - | - | 719 | - | - | - | - |
| P.H.F. | | | 0.811 | | | | 0.885 | | | | |
| Percentage | | 40.3% | 59.7% | | | 31.9% | 68.1% | | | | |
| ADT/AADT | | ADT 15,170 | | AADT 15,170 | | | | | | | |

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
(951) 268-6268
email: counts@countsunlimited.com

City of Corona
Main Street
B/ Chase Drive - Foothill Parkway
24 Hour Directional Volume Count

COR007
Site Code: 105-22673

| Start Time | 8/16/22 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 16 | 96 | | | 8 | 122 | | | | |
| 12:15 | | 5 | 96 | | | 11 | 95 | | | | |
| 12:30 | | 9 | 85 | | | 7 | 107 | | | | |
| 12:45 | | 3 | 116 | 33 | 393 | 3 | 106 | 29 | 430 | 62 | 823 |
| 01:00 | | 9 | 82 | | | 3 | 96 | | | | |
| 01:15 | | 8 | 110 | | | 3 | 110 | | | | |
| 01:30 | | 6 | 112 | | | 2 | 118 | | | | |
| 01:45 | | 4 | 112 | 27 | 416 | 2 | 113 | 10 | 437 | 37 | 853 |
| 02:00 | | 5 | 127 | | | 1 | 139 | | | | |
| 02:15 | | 2 | **116** | | | 5 | 160 | | | | |
| 02:30 | | 3 | **203** | | | 1 | 167 | | | | |
| 02:45 | | 1 | **151** | 11 | 597 | 5 | 146 | 12 | 612 | 23 | 1209 |
| 03:00 | | 3 | **141** | | | 2 | 142 | | | | |
| 03:15 | | 5 | 111 | | | 1 | 152 | | | | |
| 03:30 | | 4 | 107 | | | 2 | 125 | | | | |
| 03:45 | | 6 | 159 | 18 | 518 | 4 | 164 | 9 | 583 | 27 | 1101 |
| 04:00 | | 6 | 122 | | | 4 | 175 | | | | |
| 04:15 | | 11 | 106 | | | 7 | 156 | | | | |
| 04:30 | | 23 | 116 | | | 6 | **161** | | | | |
| 04:45 | | 17 | 129 | 57 | 473 | 14 | **188** | 31 | 680 | 88 | 1153 |
| 05:00 | | 13 | 115 | | | 16 | **183** | | | | |
| 05:15 | | 16 | 123 | | | 22 | **162** | | | | |
| 05:30 | | 22 | 108 | | | 20 | 161 | | | | |
| 05:45 | | 37 | 127 | 88 | 473 | 28 | 133 | 86 | 639 | 174 | 1112 |
| 06:00 | | 34 | 119 | | | 39 | 137 | | | | |
| 06:15 | | 48 | 122 | | | 39 | 142 | | | | |
| 06:30 | | 52 | 122 | | | 28 | 115 | | | | |
| 06:45 | | 82 | 102 | 216 | 465 | 44 | 124 | 150 | 518 | 366 | 983 |
| 07:00 | | 99 | 87 | | | 62 | 129 | | | | |
| 07:15 | | 122 | 96 | | | **130** | 94 | | | | |
| 07:30 | | **204** | 72 | | | **122** | 116 | | | | |
| 07:45 | | **178** | 85 | 603 | 340 | **101** | 89 | 415 | 428 | 1018 | 768 |
| 08:00 | | **145** | 69 | | | **80** | 92 | | | | |
| 08:15 | | **145** | 59 | | | 88 | 77 | | | | |
| 08:30 | | 154 | 62 | | | 107 | 49 | | | | |
| 08:45 | | 115 | 57 | 559 | 247 | 81 | 55 | 356 | 273 | 915 | 520 |
| 09:00 | | 98 | 46 | | | 86 | 50 | | | | |
| 09:15 | | 109 | 44 | | | 83 | 38 | | | | |
| 09:30 | | 91 | 31 | | | 73 | 25 | | | | |
| 09:45 | | 104 | 28 | 402 | 149 | 100 | 42 | 342 | 155 | 744 | 304 |
| 10:00 | | 91 | 23 | | | 87 | 26 | | | | |
| 10:15 | | 88 | 26 | | | 101 | 17 | | | | |
| 10:30 | | 103 | 24 | | | 89 | 20 | | | | |
| 10:45 | | 104 | 16 | 386 | 89 | 86 | 14 | 363 | 77 | 749 | 166 |
| 11:00 | | 86 | 19 | | | 113 | 12 | | | | |
| 11:15 | | 80 | 8 | | | 89 | 7 | | | | |
| 11:30 | | 90 | 16 | | | 108 | 6 | | | | |
| 11:45 | | 105 | 5 | 361 | 48 | 115 | 13 | 425 | 38 | 786 | 86 |
| Total | | 2761 | 4208 | 2761 | 4208 | 2228 | 4870 | 2228 | 4870 | 4989 | 9078 |
| Combined Total | | 6969 | | 6969 | | 7098 | | 7098 | | 14067 | |
| AM Peak | - | 07:30 | - | - | - | 07:15 | - | - | - | - | - |
| Vol. | - | 672 | - | - | - | 433 | - | - | - | - | - |
| P.H.F. | | 0.824 | | | | 0.833 | | | | | |
| PM Peak | - | - | 02:15 | - | - | - | 04:30 | - | - | - | - |
| Vol. | - | - | 611 | - | - | - | 694 | - | - | - | - |
| P.H.F. | | | 0.752 | | | | 0.923 | | | | |
| Percentage | | 39.6% | 60.4% | | | 31.4% | 68.6% | | | | |
| ADT/AADT | | ADT 14,067 | | AADT 14,067 | | | | | | | |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Ontario Avenue
Weather: Clear

File Name : 01_COR_Main_Ont AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

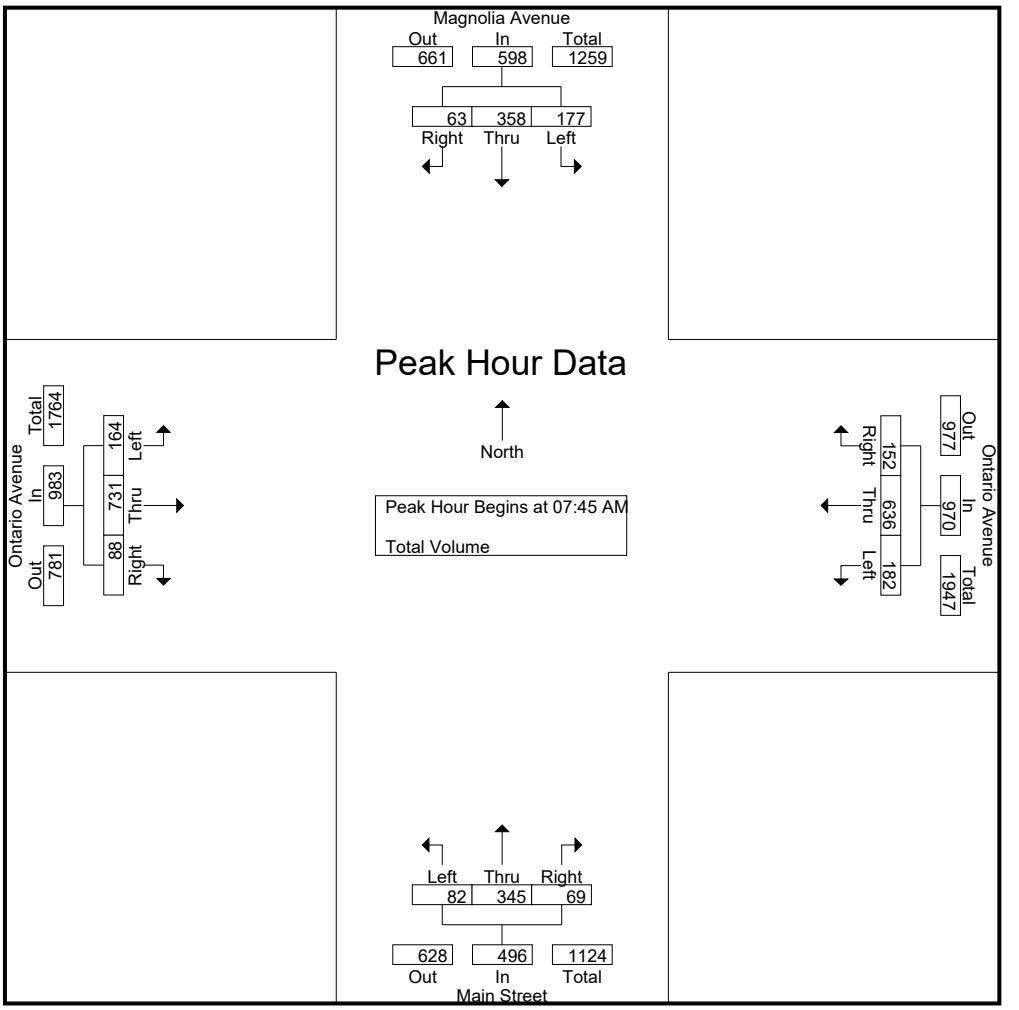
| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Main Street Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 06:30 AM | 11 | 14 | 9 | 34 | 13 | 65 | 18 | 96 | 5 | 29 | 1 | 35 | 16 | 57 | 2 | 75 | 240 |
| 06:45 AM | 23 | 30 | 6 | 59 | 14 | 85 | 20 | 119 | 6 | 41 | 3 | 50 | 27 | 73 | 8 | 108 | 336 |
| Total | 34 | 44 | 15 | 93 | 27 | 150 | 38 | 215 | 11 | 70 | 4 | 85 | 43 | 130 | 10 | 183 | 576 |
| 07:00 AM | 17 | 38 | 5 | 60 | 10 | 106 | 24 | 140 | 2 | 49 | 9 | 60 | 20 | 85 | 4 | 109 | 369 |
| 07:15 AM | 30 | 52 | 20 | 102 | 21 | 127 | 22 | 170 | 3 | 59 | 5 | 67 | 38 | 87 | 14 | 139 | 478 |
| 07:30 AM | 36 | 59 | 13 | 108 | 27 | 144 | 40 | 211 | 9 | 68 | 17 | 94 | 46 | 149 | 17 | 212 | 625 |
| 07:45 AM | 67 | 80 | 15 | 162 | 50 | 104 | 24 | 178 | 25 | 78 | 17 | 120 | 42 | 203 | 19 | 264 | 724 |
| Total | 150 | 229 | 53 | 432 | 108 | 481 | 110 | 699 | 39 | 254 | 48 | 341 | 146 | 524 | 54 | 724 | 2196 |
| 08:00 AM | 49 | 83 | 16 | 148 | 28 | 158 | 30 | 216 | 9 | 69 | 13 | 91 | 31 | 212 | 16 | 259 | 714 |
| 08:15 AM | 33 | 80 | 15 | 128 | 39 | 192 | 53 | 284 | 16 | 86 | 18 | 120 | 49 | 169 | 19 | 237 | 769 |
| 08:30 AM | 28 | 115 | 17 | 160 | 65 | 182 | 45 | 292 | 32 | 112 | 21 | 165 | 42 | 147 | 34 | 223 | 840 |
| 08:45 AM | 59 | 67 | 21 | 147 | 38 | 134 | 35 | 207 | 23 | 80 | 28 | 131 | 42 | 143 | 20 | 205 | 690 |
| Total | 169 | 345 | 69 | 583 | 170 | 666 | 163 | 999 | 80 | 347 | 80 | 507 | 164 | 671 | 89 | 924 | 3013 |
| Grand Total | 353 | 618 | 137 | 1108 | 305 | 1297 | 311 | 1913 | 130 | 671 | 132 | 933 | 353 | 1325 | 153 | 1831 | 5785 |
| Apprch % | 31.9 | 55.8 | 12.4 | | 15.9 | 67.8 | 16.3 | | 13.9 | 71.9 | 14.1 | | 19.3 | 72.4 | 8.4 | | |
| Total % | 6.1 | 10.7 | 2.4 | 19.2 | 5.3 | 22.4 | 5.4 | 33.1 | 2.2 | 11.6 | 2.3 | 16.1 | 6.1 | 22.9 | 2.6 | 31.7 | |

| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Main Street Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | **67** | 80 | 15 | **162** | 50 | 104 | 24 | 178 | 25 | 78 | 17 | 120 | 42 | 203 | 19 | **264** | 724 |
| 08:00 AM | 49 | 83 | 16 | 148 | 28 | 158 | 30 | 216 | 9 | 69 | 13 | 91 | 31 | **212** | 16 | 259 | 714 |
| 08:15 AM | 33 | 80 | 15 | 128 | 39 | **192** | **53** | 284 | 16 | 86 | 18 | 120 | **49** | 169 | 19 | 237 | 769 |
| 08:30 AM | 28 | **115** | **17** | 160 | **65** | 182 | 45 | **292** | **32** | **112** | **21** | **165** | 42 | 147 | **34** | 223 | **840** |
| Total Volume | 177 | 358 | 63 | 598 | 182 | 636 | 152 | 970 | 82 | 345 | 69 | 496 | 164 | 731 | 88 | 983 | 3047 |
| % App. Total | 29.6 | 59.9 | 10.5 | | 18.8 | 65.6 | 15.7 | | 16.5 | 69.6 | 13.9 | | 16.7 | 74.4 | 9 | | |
| PHF | .660 | .778 | .926 | .923 | .700 | .828 | .717 | .830 | .641 | .770 | .821 | .752 | .837 | .862 | .647 | .931 | .907 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Ontario Avenue
Weather: Clear

File Name : 01_COR_Main_Ont AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | | 08:00 AM | | | | 08:00 AM | | | | 07:45 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **67** | 80 | 15 | **162** | 28 | 158 | 30 | 216 | 9 | 69 | 13 | 91 | 42 | 203 | 19 | **264** |
| +15 mins. | 49 | 83 | 16 | 148 | 39 | **192** | **53** | 284 | 16 | 86 | 18 | 120 | 31 | **212** | 16 | 259 |
| +30 mins. | 33 | 80 | 15 | 128 | **65** | 182 | 45 | **292** | **32** | **112** | 21 | **165** | **49** | 169 | 19 | 237 |
| +45 mins. | 28 | **115** | **17** | 160 | 38 | 134 | 35 | 207 | 23 | 80 | **28** | 131 | 42 | 147 | **34** | 223 |
| Total Volume | 177 | 358 | 63 | 598 | 170 | 666 | 163 | 999 | 80 | 347 | 80 | 507 | 164 | 731 | 88 | 983 |
| % App. Total | 29.6 | 59.9 | 10.5 | | 17 | 66.7 | 16.3 | | 15.8 | 68.4 | 15.8 | | 16.7 | 74.4 | 9 | |
| PHF | .660 | .778 | .926 | .923 | .654 | .867 | .769 | .855 | .625 | .775 | .714 | .768 | .837 | .862 | .647 | .931 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Ontario Avenue
Weather: Clear

File Name : 01_COR_Main_Ont PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

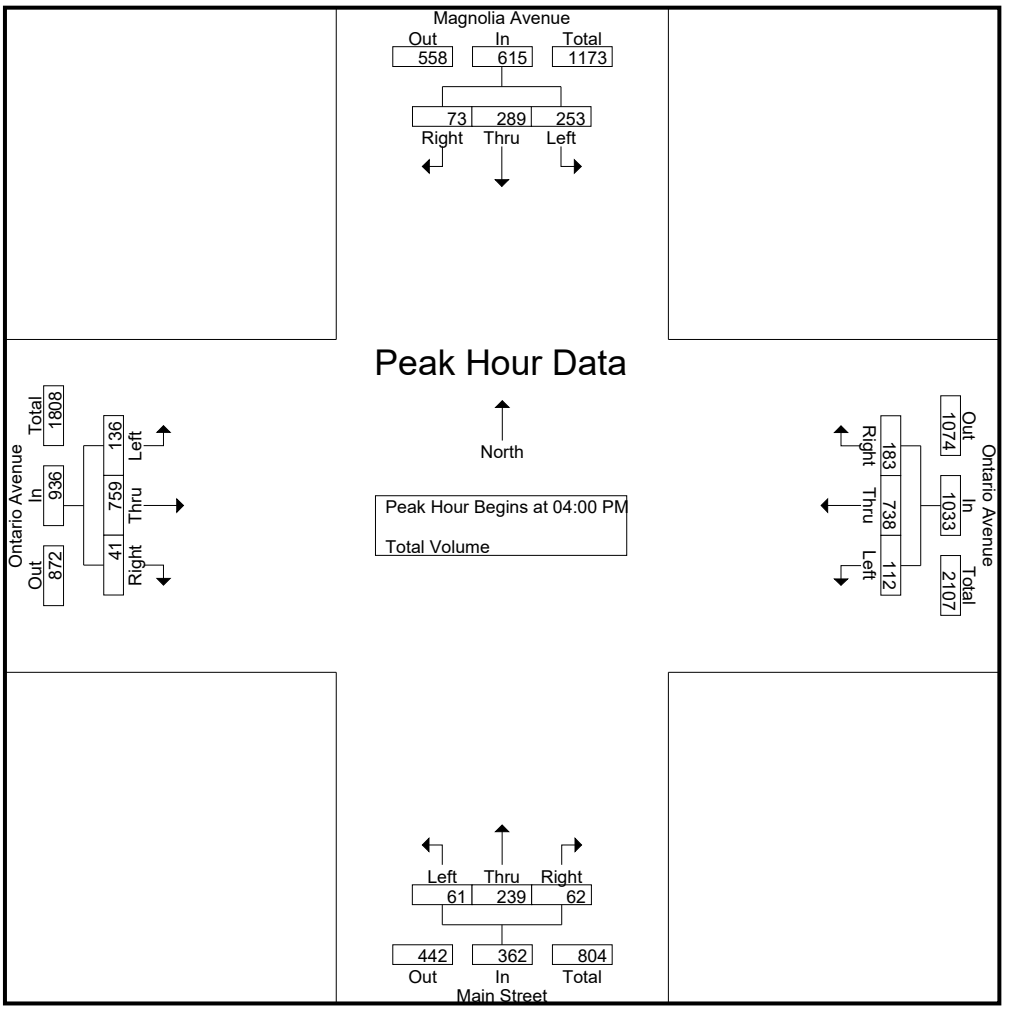
| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Main Street Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 65 | 81 | 26 | 172 | 30 | 227 | 53 | 310 | 16 | 72 | 20 | 108 | 39 | 220 | 12 | 271 | 861 |
| 04:15 PM | 63 | 70 | 10 | 143 | 30 | 159 | 49 | 238 | 14 | 47 | 12 | 73 | 35 | 179 | 5 | 219 | 673 |
| 04:30 PM | 52 | 55 | 20 | 127 | 27 | 180 | 55 | 262 | 16 | 49 | 16 | 81 | 29 | 160 | 13 | 202 | 672 |
| 04:45 PM | 73 | 83 | 17 | 173 | 25 | 172 | 26 | 223 | 15 | 71 | 14 | 100 | 33 | 200 | 11 | 244 | 740 |
| Total | 253 | 289 | 73 | 615 | 112 | 738 | 183 | 1033 | 61 | 239 | 62 | 362 | 136 | 759 | 41 | 936 | 2946 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 73 | 82 | 13 | 168 | 28 | 178 | 30 | 236 | 17 | 69 | 22 | 108 | 35 | 167 | 7 | 209 | 721 |
| 05:15 PM | 62 | 88 | 11 | 161 | 26 | 173 | 36 | 235 | 14 | 73 | 20 | 107 | 31 | 182 | 10 | 223 | 726 |
| 05:30 PM | 56 | 79 | 11 | 146 | 29 | 146 | 38 | 213 | 14 | 67 | 12 | 93 | 36 | 180 | 15 | 231 | 683 |
| 05:45 PM | 72 | 70 | 18 | 160 | 18 | 177 | 43 | 238 | 16 | 42 | 10 | 68 | 39 | 222 | 7 | 268 | 734 |
| Total | 263 | 319 | 53 | 635 | 101 | 674 | 147 | 922 | 61 | 251 | 64 | 376 | 141 | 751 | 39 | 931 | 2864 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 516 | 608 | 126 | 1250 | 213 | 1412 | 330 | 1955 | 122 | 490 | 126 | 738 | 277 | 1510 | 80 | 1867 | 5810 |
| Apprch % | 41.3 | 48.6 | 10.1 | | 10.9 | 72.2 | 16.9 | | 16.5 | 66.4 | 17.1 | | 14.8 | 80.9 | 4.3 | | |
| Total % | 8.9 | 10.5 | 2.2 | 21.5 | 3.7 | 24.3 | 5.7 | 33.6 | 2.1 | 8.4 | 2.2 | 12.7 | 4.8 | 26 | 1.4 | 32.1 | |

| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Main Street Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 65 | 81 | **26** | 172 | **30** | **227** | 53 | **310** | **16** | **72** | **20** | **108** | **39** | **220** | 12 | **271** | **861** |
| 04:15 PM | 63 | 70 | 10 | 143 | 30 | 159 | 49 | 238 | 14 | 47 | 12 | 73 | 35 | 179 | 5 | 219 | 673 |
| 04:30 PM | 52 | 55 | 20 | 127 | 27 | 180 | **55** | 262 | 16 | 49 | 16 | 81 | 29 | 160 | **13** | 202 | 672 |
| 04:45 PM | **73** | **83** | 17 | **173** | 25 | 172 | 26 | 223 | 15 | 71 | 14 | 100 | 33 | 200 | 11 | 244 | 740 |
| Total Volume | 253 | 289 | 73 | 615 | 112 | 738 | 183 | 1033 | 61 | 239 | 62 | 362 | 136 | 759 | 41 | 936 | 2946 |
| % App. Total | 41.1 | 47 | 11.9 | | 10.8 | 71.4 | 17.7 | | 16.9 | 66 | 17.1 | | 14.5 | 81.1 | 4.4 | | |
| PHF | .866 | .870 | .702 | .889 | .933 | .813 | .832 | .833 | .953 | .830 | .775 | .838 | .872 | .863 | .788 | .863 | .855 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Ontario Avenue
Weather: Clear

File Name : 01_COR_Main_Ont PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | | 04:00 PM | | | | 04:45 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **73** | 83 | **17** | **173** | **30** | **227** | 53 | **310** | 15 | 71 | 14 | 100 | **39** | **220** | 12 | **271** |
| +15 mins. | 73 | 82 | 13 | 168 | 30 | 159 | 49 | 238 | **17** | 69 | **22** | **108** | 35 | 179 | 5 | 219 |
| +30 mins. | 62 | **88** | 11 | 161 | 27 | 180 | **55** | 262 | 14 | **73** | 20 | 107 | 29 | 160 | **13** | 202 |
| +45 mins. | 56 | 79 | 11 | 146 | 25 | 172 | 26 | 223 | 14 | 67 | 12 | 93 | 33 | 200 | 11 | 244 |
| Total Volume | 264 | 332 | 52 | 648 | 112 | 738 | 183 | 1033 | 60 | 280 | 68 | 408 | 136 | 759 | 41 | 936 |
| % App. Total | 40.7 | 51.2 | 8 | | 10.8 | 71.4 | 17.7 | | 14.7 | 68.6 | 16.7 | | 14.5 | 81.1 | 4.4 | |
| PHF | .904 | .943 | .765 | .936 | .933 | .813 | .832 | .833 | .882 | .959 | .773 | .944 | .872 | .863 | .788 | .863 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Magnolia Avenue
E/W: Ontario Avenue
Weather: Clear

File Name : 02_COR_Mag_Ont AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Magnolia Avenue Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 06:30 AM | 2 | 31 | 22 | 55 | 8 | 87 | 3 | 98 | 3 | 34 | 4 | 41 | 12 | 58 | 1 | 71 | 265 |
| 06:45 AM | 5 | 46 | 34 | 85 | 13 | 79 | 9 | 101 | 13 | 59 | 8 | 80 | 27 | 63 | 2 | 92 | 358 |
| Total | 7 | 77 | 56 | 140 | 21 | 166 | 12 | 199 | 16 | 93 | 12 | 121 | 39 | 121 | 3 | 163 | 623 |
| 07:00 AM | 6 | 65 | 35 | 106 | 12 | 94 | 2 | 108 | 9 | 53 | 9 | 71 | 26 | 81 | 5 | 112 | 397 |
| 07:15 AM | 7 | 95 | 41 | 143 | 25 | 136 | 4 | 165 | 1 | 65 | 11 | 77 | 35 | 91 | 4 | 130 | 515 |
| 07:30 AM | 9 | 126 | 64 | 199 | 25 | 134 | 6 | 165 | 13 | 98 | 19 | 130 | 45 | 139 | 2 | 186 | 680 |
| 07:45 AM | 10 | 89 | 62 | 161 | 29 | 112 | 15 | 156 | 12 | 97 | 31 | 140 | 72 | 177 | 7 | 256 | 713 |
| Total | 32 | 375 | 202 | 609 | 91 | 476 | 27 | 594 | 35 | 313 | 70 | 418 | 178 | 488 | 18 | 684 | 2305 |
| 08:00 AM | 15 | 92 | 57 | 164 | 41 | 170 | 19 | 230 | 11 | 68 | 34 | 113 | 64 | 180 | 10 | 254 | 761 |
| 08:15 AM | 19 | 111 | 70 | 200 | 56 | 201 | 14 | 271 | 18 | 77 | 22 | 117 | 58 | 178 | 11 | 247 | 835 |
| 08:30 AM | 24 | 127 | 78 | 229 | 45 | 183 | 16 | 244 | 17 | 91 | 26 | 134 | 59 | 112 | 14 | 185 | 792 |
| 08:45 AM | 17 | 80 | 58 | 155 | 26 | 141 | 6 | 173 | 15 | 63 | 24 | 102 | 65 | 124 | 4 | 193 | 623 |
| Total | 75 | 410 | 263 | 748 | 168 | 695 | 55 | 918 | 61 | 299 | 106 | 466 | 246 | 594 | 39 | 879 | 3011 |
| Grand Total | 114 | 862 | 521 | 1497 | 280 | 1337 | 94 | 1711 | 112 | 705 | 188 | 1005 | 463 | 1203 | 60 | 1726 | 5939 |
| Apprch % | 7.6 | 57.6 | 34.8 | | 16.4 | 78.1 | 5.5 | | 11.1 | 70.1 | 18.7 | | 26.8 | 69.7 | 3.5 | | |
| Total % | 1.9 | 14.5 | 8.8 | 25.2 | 4.7 | 22.5 | 1.6 | 28.8 | 1.9 | 11.9 | 3.2 | 16.9 | 7.8 | 20.3 | 1 | 29.1 | |

| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Magnolia Avenue Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 10 | 89 | 62 | 161 | 29 | 112 | 15 | 156 | 12 | **97** | 31 | **140** | **72** | 177 | 7 | **256** | 713 |
| 08:00 AM | 15 | 92 | 57 | 164 | 41 | 170 | **19** | 230 | 11 | 68 | **34** | 113 | 64 | **180** | 10 | 254 | 761 |
| 08:15 AM | 19 | 111 | 70 | 200 | **56** | **201** | 14 | **271** | **18** | 77 | 22 | 117 | 58 | 178 | 11 | 247 | **835** |
| 08:30 AM | **24** | **127** | **78** | **229** | 45 | 183 | 16 | 244 | 17 | 91 | 26 | 134 | 59 | 112 | **14** | 185 | 792 |
| Total Volume | 68 | 419 | 267 | 754 | 171 | 666 | 64 | 901 | 58 | 333 | 113 | 504 | 253 | 647 | 42 | 942 | 3101 |
| % App. Total | 9 | 55.6 | 35.4 | | 19 | 73.9 | 7.1 | | 11.5 | 66.1 | 22.4 | | 26.9 | 68.7 | 4.5 | | |
| PHF | .708 | .825 | .856 | .823 | .763 | .828 | .842 | .831 | .806 | .858 | .831 | .900 | .878 | .899 | .750 | .920 | .928 |

Counts Unlimited, Inc.
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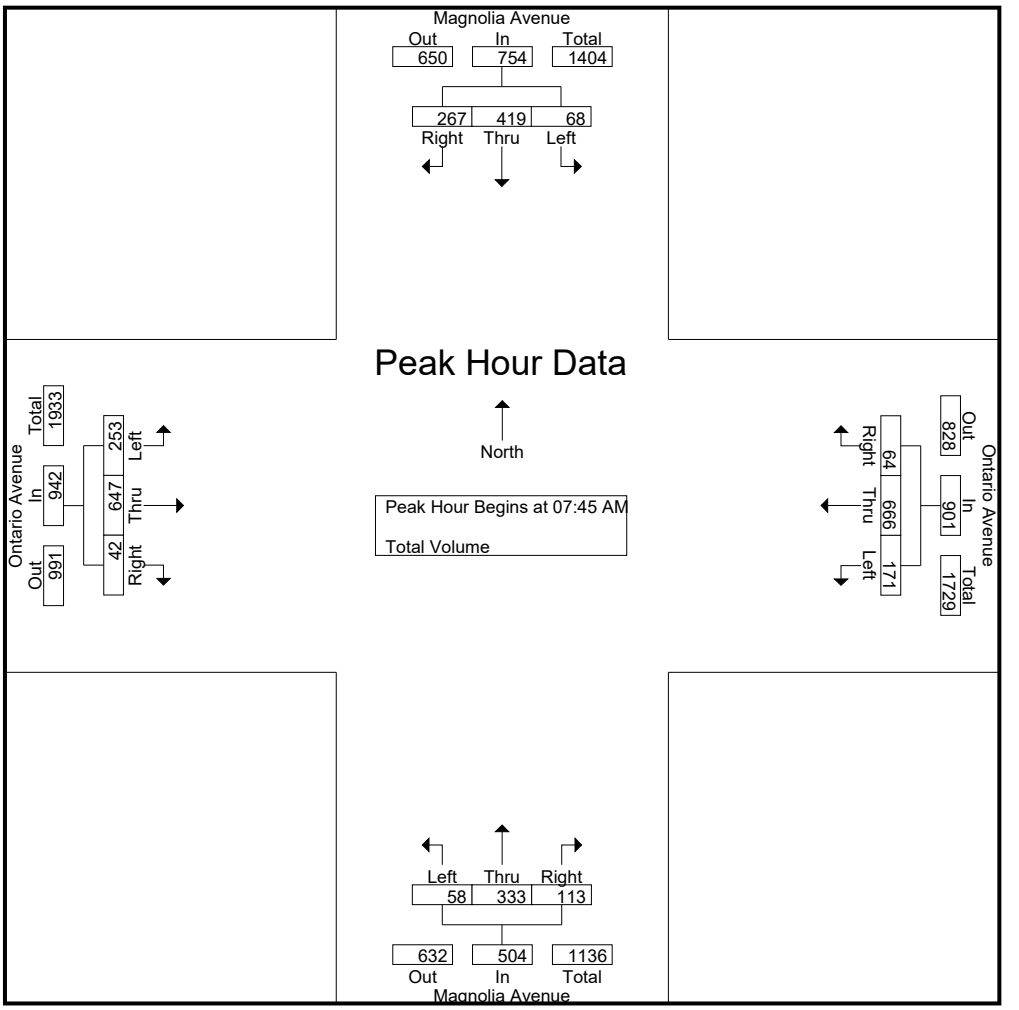
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Magnolia Avenue
E/W: Ontario Avenue
Weather: Clear

File Name : 02_COR_Mag_Ont AM
Site Code : 10522672
Start Date : 8/16/2022


Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | | 08:00 AM | | | | 07:45 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 10 | 89 | 62 | 161 | 41 | 170 | **19** | 230 | 12 | **97** | 31 | **140** | 45 | 139 | 2 | 186 |
| +15 mins. | 15 | 92 | 57 | 164 | **56** | **201** | 14 | **271** | 11 | 68 | **34** | 113 | **72** | 177 | 7 | **256** |
| +30 mins. | 19 | 111 | 70 | 200 | 45 | 183 | 16 | 244 | **18** | 77 | 22 | 117 | 64 | **180** | 10 | 254 |
| +45 mins. | **24** | **127** | **78** | **229** | 26 | 141 | 6 | 173 | 17 | 91 | 26 | 134 | 58 | 178 | **11** | 247 |
| Total Volume | 68 | 419 | 267 | 754 | 168 | 695 | 55 | 918 | 58 | 333 | 113 | 504 | 239 | 674 | 30 | 943 |
| % App. Total | 9 | 55.6 | 35.4 | | 18.3 | 75.7 | 6 | | 11.5 | 66.1 | 22.4 | | 25.3 | 71.5 | 3.2 | |
| PHF | .708 | .825 | .856 | .823 | .750 | .864 | .724 | .847 | .806 | .858 | .831 | .900 | .830 | .936 | .682 | .921 |

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Corona, CA 92878
(951)268-6268

City of Corona
N/S: Magnolia Avenue
E/W: Ontario Avenue
Weather: Clear

File Name : 02_COR_Mag_Ont PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Magnolia Avenue Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 18 | 96 | 75 | 189 | 53 | 205 | 11 | 269 | 19 | 84 | 24 | 127 | 74 | 221 | 17 | 312 | 897 |
| 04:15 PM | 26 | 111 | 60 | 197 | 34 | 160 | 9 | 203 | 18 | 83 | 17 | 118 | 84 | 173 | 9 | 266 | 784 |
| 04:30 PM | 8 | 107 | 67 | 182 | 26 | 142 | 14 | 182 | 18 | 70 | 23 | 111 | 70 | 169 | 15 | 254 | 729 |
| 04:45 PM | 6 | 121 | 66 | 193 | 29 | 136 | 13 | 178 | 15 | 68 | 18 | 101 | 69 | 209 | 7 | 285 | 757 |
| Total | 58 | 435 | 268 | 761 | 142 | 643 | 47 | 832 | 70 | 305 | 82 | 457 | 297 | 772 | 48 | 1117 | 3167 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 13 | 110 | 69 | 192 | 33 | 176 | 11 | 220 | 12 | 86 | 16 | 114 | 90 | 201 | 13 | 304 | 830 |
| 05:15 PM | 12 | 103 | 53 | 168 | 28 | 137 | 7 | 172 | 15 | 88 | 21 | 124 | 82 | 175 | 23 | 280 | 744 |
| 05:30 PM | 8 | 103 | 53 | 164 | 37 | 139 | 12 | 188 | 17 | 88 | 17 | 122 | 66 | 182 | 17 | 265 | 739 |
| 05:45 PM | 17 | 102 | 49 | 168 | 36 | 156 | 17 | 209 | 22 | 66 | 20 | 108 | 67 | 192 | 22 | 281 | 766 |
| Total | 50 | 418 | 224 | 692 | 134 | 608 | 47 | 789 | 66 | 328 | 74 | 468 | 305 | 750 | 75 | 1130 | 3079 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 108 | 853 | 492 | 1453 | 276 | 1251 | 94 | 1621 | 136 | 633 | 156 | 925 | 602 | 1522 | 123 | 2247 | 6246 |
| Apprch % | 7.4 | 58.7 | 33.9 | | 17 | 77.2 | 5.8 | | 14.7 | 68.4 | 16.9 | | 26.8 | 67.7 | 5.5 | | |
| Total % | 1.7 | 13.7 | 7.9 | 23.3 | 4.4 | 20 | 1.5 | 26 | 2.2 | 10.1 | 2.5 | 14.8 | 9.6 | 24.4 | 2 | 36 | |

| | Magnolia Avenue Southbound | | | | Ontario Avenue Westbound | | | | Magnolia Avenue Northbound | | | | Ontario Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 18 | 96 | **75** | 189 | **53** | **205** | 11 | **269** | **19** | **84** | **24** | **127** | 74 | **221** | **17** | **312** | **897** |
| 04:15 PM | **26** | 111 | 60 | **197** | 34 | 160 | 9 | 203 | 18 | 83 | 17 | 118 | **84** | 173 | 9 | 266 | 784 |
| 04:30 PM | 8 | 107 | 67 | 182 | 26 | 142 | **14** | 182 | 18 | 70 | 23 | 111 | 70 | 169 | 15 | 254 | 729 |
| 04:45 PM | 6 | **121** | 66 | 193 | 29 | 136 | 13 | 178 | 15 | 68 | 18 | 101 | 69 | 209 | 7 | 285 | 757 |
| Total Volume | 58 | 435 | 268 | 761 | 142 | 643 | 47 | 832 | 70 | 305 | 82 | 457 | 297 | 772 | 48 | 1117 | 3167 |
| % App. Total | 7.6 | 57.2 | 35.2 | | 17.1 | 77.3 | 5.6 | | 15.3 | 66.7 | 17.9 | | 26.6 | 69.1 | 4.3 | | |
| PHF | .558 | .899 | .893 | .966 | .670 | .784 | .839 | .773 | .921 | .908 | .854 | .900 | .884 | .873 | .706 | .895 | .883 |

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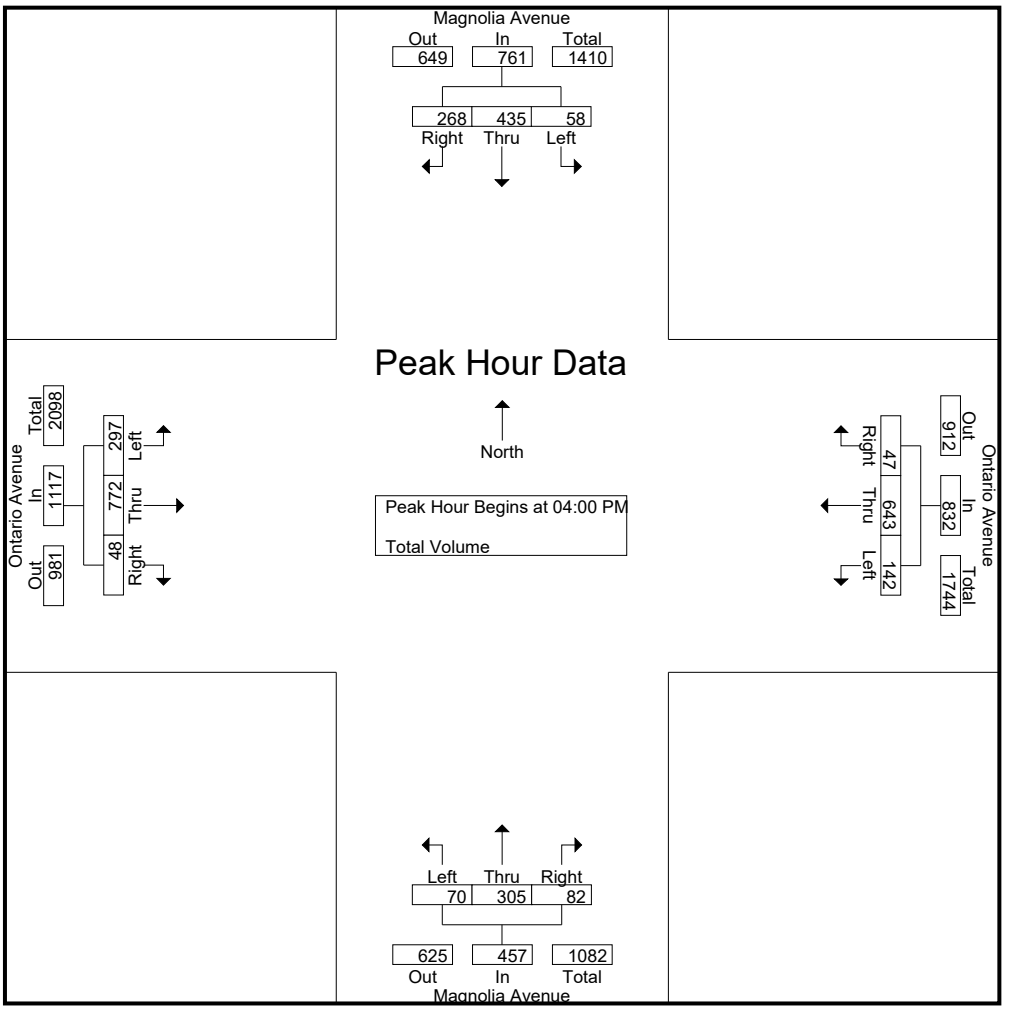
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Magnolia Avenue
E/W: Ontario Avenue
Weather: Clear

File Name : 02_COR_Mag_Ont PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:15 PM | | | | 04:00 PM | | | | 05:00 PM | | | | 04:45 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **26** | 111 | 60 | **197** | **53** | **205** | 11 | **269** | 12 | 86 | 16 | 114 | 69 | **209** | 7 | 285 |
| +15 mins. | 8 | 107 | 67 | 182 | 34 | 160 | 9 | 203 | 15 | **88** | **21** | **124** | **90** | 201 | 13 | **304** |
| +30 mins. | 6 | **121** | 66 | 193 | 26 | 142 | **14** | 182 | 17 | 88 | 17 | 122 | 82 | 175 | **23** | 280 |
| +45 mins. | 13 | 110 | **69** | 192 | 29 | 136 | 13 | 178 | **22** | 66 | 20 | 108 | 66 | 182 | 17 | 265 |
| Total Volume | 53 | 449 | 262 | 764 | 142 | 643 | 47 | 832 | 66 | 328 | 74 | 468 | 307 | 767 | 60 | 1134 |
| % App. Total | 6.9 | 58.8 | 34.3 | | 17.1 | 77.3 | 5.6 | | 14.1 | 70.1 | 15.8 | | 27.1 | 67.6 | 5.3 | |
| PHF | .510 | .928 | .949 | .970 | .670 | .784 | .839 | .773 | .750 | .932 | .881 | .944 | .853 | .917 | .652 | .933 |

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(951)268-6268

City of Corona
N/S: Main Street
E/W: Montoya Drive
Weather: Clear

File Name : 03_COR_Main_Mon AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Main Street Southbound | | | | Lee Pollard HS Driveway Westbound | | | | Main Street Northbound | | | | Montoya Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 06:30 AM | 0 | 9 | 2 | 11 | 0 | 0 | 0 | 0 | 2 | 42 | 0 | 44 | 3 | 0 | 2 | 5 | 60 |
| 06:45 AM | 2 | 17 | 3 | 22 | 0 | 0 | 1 | 1 | 5 | 46 | 0 | 51 | 8 | 1 | 3 | 12 | 86 |
| Total | 2 | 26 | 5 | 33 | 0 | 0 | 1 | 1 | 7 | 88 | 0 | 95 | 11 | 1 | 5 | 17 | 146 |
| 07:00 AM | 3 | 33 | 7 | 43 | 0 | 0 | 0 | 0 | 7 | 56 | 0 | 63 | 8 | 1 | 4 | 13 | 119 |
| 07:15 AM | 2 | 47 | 9 | 58 | 1 | 0 | 2 | 3 | 17 | 69 | 0 | 86 | 15 | 2 | 11 | 28 | 175 |
| 07:30 AM | 5 | 58 | 15 | 78 | 0 | 0 | 2 | 2 | 24 | 77 | 2 | 103 | 20 | 1 | 35 | 56 | 239 |
| 07:45 AM | 12 | 65 | 18 | 95 | 2 | 0 | 7 | 9 | 8 | 103 | 2 | 113 | 19 | 0 | 30 | 49 | 266 |
| Total | 22 | 203 | 49 | 274 | 3 | 0 | 11 | 14 | 56 | 305 | 4 | 365 | 62 | 4 | 80 | 146 | 799 |
| 08:00 AM | 21 | 49 | 10 | 80 | 0 | 2 | 14 | 16 | 9 | 73 | 2 | 84 | 3 | 5 | 24 | 32 | 212 |
| 08:15 AM | 30 | 53 | 8 | 91 | 4 | 3 | 21 | 28 | 20 | 94 | 10 | 124 | 10 | 10 | 10 | 30 | 273 |
| 08:30 AM | 63 | 55 | 14 | 132 | 7 | 15 | 55 | 77 | 14 | 117 | 12 | 143 | 11 | 14 | 14 | 39 | 391 |
| 08:45 AM | 18 | 50 | 5 | 73 | 7 | 3 | 30 | 40 | 8 | 91 | 11 | 110 | 16 | 4 | 8 | 28 | 251 |
| Total | 132 | 207 | 37 | 376 | 18 | 23 | 120 | 161 | 51 | 375 | 35 | 461 | 40 | 33 | 56 | 129 | 1127 |
| Grand Total | 156 | 436 | 91 | 683 | 21 | 23 | 132 | 176 | 114 | 768 | 39 | 921 | 113 | 38 | 141 | 292 | 2072 |
| Apprch % | 22.8 | 63.8 | 13.3 | | 11.9 | 13.1 | 75 | | 12.4 | 83.4 | 4.2 | | 38.7 | 13 | 48.3 | | |
| Total % | 7.5 | 21 | 4.4 | 33 | 1 | 1.1 | 6.4 | 8.5 | 5.5 | 37.1 | 1.9 | 44.4 | 5.5 | 1.8 | 6.8 | 14.1 | |

| | Main Street Southbound | | | | Lee Pollard HS Driveway Westbound | | | | Main Street Northbound | | | | Montoya Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 12 | **65** | **18** | 95 | 2 | 0 | 7 | 9 | 8 | 103 | 2 | 113 | **19** | 0 | **30** | **49** | 266 |
| 08:00 AM | 21 | 49 | 10 | 80 | 0 | 2 | 14 | 16 | 9 | 73 | 2 | 84 | 3 | 5 | 24 | 32 | 212 |
| 08:15 AM | 30 | 53 | 8 | 91 | 4 | 3 | 21 | 28 | **20** | 94 | 10 | 124 | 10 | 10 | 10 | 30 | 273 |
| 08:30 AM | **63** | 55 | 14 | **132** | **7** | **15** | **55** | **77** | 14 | **117** | **12** | **143** | 11 | **14** | 14 | 39 | **391** |
| Total Volume | 126 | 222 | 50 | 398 | 13 | 20 | 97 | 130 | 51 | 387 | 26 | 464 | 43 | 29 | 78 | 150 | 1142 |
| % App. Total | 31.7 | 55.8 | 12.6 | | 10 | 15.4 | 74.6 | | 11 | 83.4 | 5.6 | | 28.7 | 19.3 | 52 | | |
| PHF | .500 | .854 | .694 | .754 | .464 | .333 | .441 | .422 | .638 | .827 | .542 | .811 | .566 | .518 | .650 | .765 | .730 |

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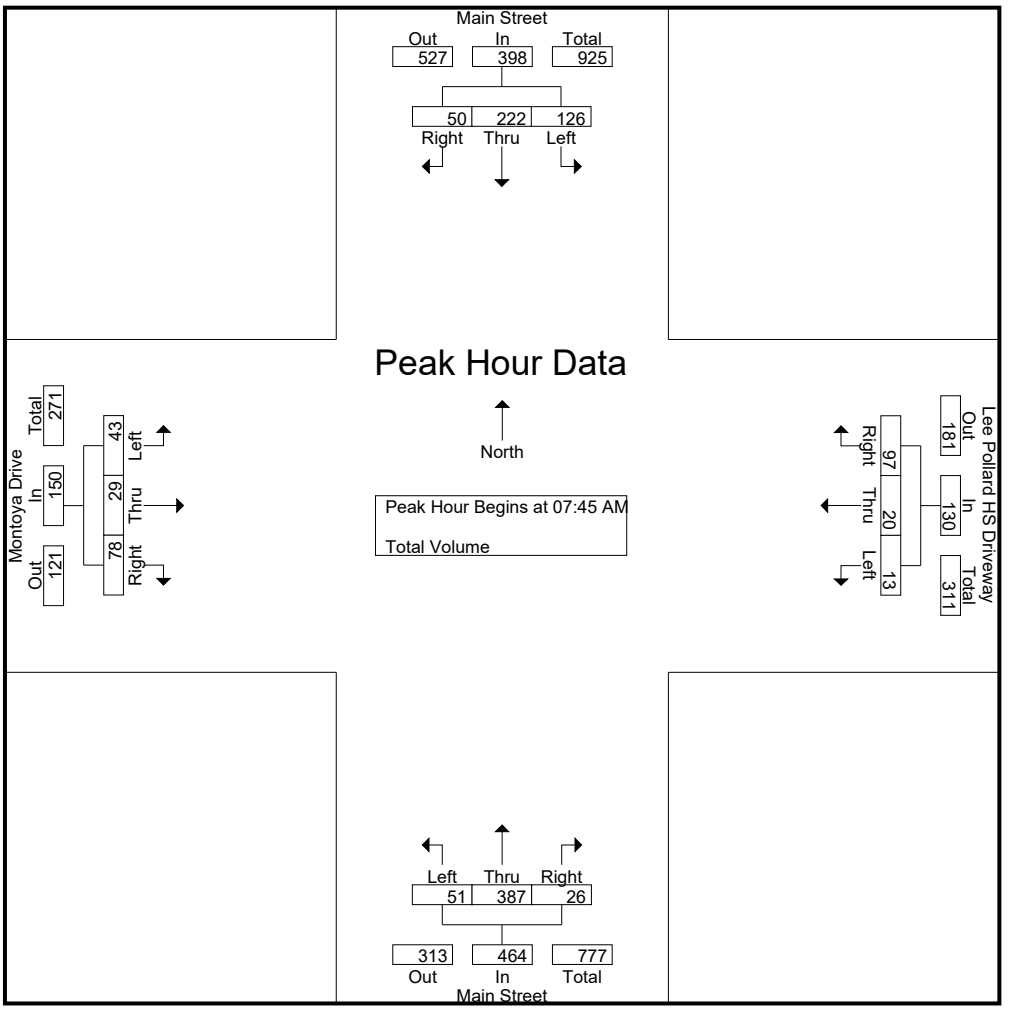
City of Corona
N/S: Main Street
E/W: Montoya Drive
Weather: Clear

File Name : 03_COR_Main_Mon AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | | 08:00 AM | | | | 07:45 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 12 | **65** | **18** | 95 | 0 | 2 | 14 | 16 | 8 | 103 | 2 | 113 | **20** | 1 | **35** | **56** |
| +15 mins. | 21 | 49 | 10 | 80 | 4 | 3 | 21 | 28 | 9 | 73 | 2 | 84 | 19 | 0 | 30 | 49 |
| +30 mins. | 30 | 53 | 8 | 91 | **7** | **15** | **55** | **77** | **20** | 94 | 10 | 124 | 3 | 5 | 24 | 32 |
| +45 mins. | **63** | 55 | 14 | **132** | 7 | 3 | 30 | 40 | 14 | **117** | **12** | **143** | 10 | **10** | 10 | 30 |
| Total Volume | 126 | 222 | 50 | 398 | 18 | 23 | 120 | 161 | 51 | 387 | 26 | 464 | 52 | 16 | 99 | 167 |
| % App. Total | 31.7 | 55.8 | 12.6 | | 11.2 | 14.3 | 74.5 | | 11 | 83.4 | 5.6 | | 31.1 | 9.6 | 59.3 | |
| PHF | .500 | .854 | .694 | .754 | .643 | .383 | .545 | .523 | .638 | .827 | .542 | .811 | .650 | .400 | .707 | .746 |

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(951)268-6268

City of Corona
N/S: Main Street
E/W: Montoya Drive
Weather: Clear

File Name : 03_COR_Main_Mon PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Main Street Southbound | | | | Lee Pollard HS Driveway Westbound | | | | Main Street Northbound | | | | Montoya Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 2 | 86 | 20 | 108 | 1 | 0 | 1 | 2 | 18 | 75 | 0 | 93 | 12 | 0 | 12 | 24 | 227 |
| 04:15 PM | 1 | 78 | 15 | 94 | 0 | 0 | 2 | 2 | 13 | 68 | 0 | 81 | 4 | 0 | 8 | 12 | 189 |
| 04:30 PM | 0 | 91 | 16 | 107 | 0 | 0 | 1 | 1 | 10 | 63 | 0 | 73 | 10 | 0 | 6 | 16 | 197 |
| 04:45 PM | 2 | 94 | 10 | 106 | 0 | 0 | 1 | 1 | 21 | 71 | 0 | 92 | 8 | 0 | 8 | 16 | 215 |
| Total | 5 | 349 | 61 | 415 | 1 | 0 | 5 | 6 | 62 | 277 | 0 | 339 | 34 | 0 | 34 | 68 | 828 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 3 | 117 | 18 | 138 | 0 | 0 | 1 | 1 | 13 | 76 | 0 | 89 | 7 | 0 | 6 | 13 | 241 |
| 05:15 PM | 4 | 92 | 14 | 110 | 0 | 0 | 3 | 3 | 10 | 80 | 0 | 90 | 9 | 0 | 10 | 19 | 222 |
| 05:30 PM | 1 | 102 | 11 | 114 | 0 | 0 | 2 | 2 | 13 | 65 | 0 | 78 | 5 | 0 | 12 | 17 | 211 |
| 05:45 PM | 1 | 68 | 16 | 85 | 0 | 0 | 2 | 2 | 23 | 53 | 0 | 76 | 12 | 0 | 12 | 24 | 187 |
| Total | 9 | 379 | 59 | 447 | 0 | 0 | 8 | 8 | 59 | 274 | 0 | 333 | 33 | 0 | 40 | 73 | 861 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 14 | 728 | 120 | 862 | 1 | 0 | 13 | 14 | 121 | 551 | 0 | 672 | 67 | 0 | 74 | 141 | 1689 |
| Apprch % | 1.6 | 84.5 | 13.9 | | 7.1 | 0 | 92.9 | | 18 | 82 | 0 | | 47.5 | 0 | 52.5 | | |
| Total % | 0.8 | 43.1 | 7.1 | 51 | 0.1 | 0 | 0.8 | 0.8 | 7.2 | 32.6 | 0 | 39.8 | 4 | 0 | 4.4 | 8.3 | |

| | Main Street Southbound | | | | Lee Pollard HS Driveway Westbound | | | | Main Street Northbound | | | | Montoya Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 2 | 94 | 10 | 106 | 0 | 0 | 1 | 1 | **21** | 71 | 0 | **92** | 8 | 0 | 8 | 16 | 215 |
| 05:00 PM | 3 | **117** | **18** | **138** | 0 | 0 | 1 | 1 | 13 | 76 | 0 | 89 | 7 | 0 | 6 | 13 | **241** |
| 05:15 PM | **4** | 92 | 14 | 110 | 0 | 0 | **3** | **3** | 10 | **80** | 0 | 90 | **9** | 0 | 10 | **19** | 222 |
| 05:30 PM | 1 | 102 | 11 | 114 | 0 | 0 | 2 | 2 | 13 | 65 | 0 | 78 | 5 | 0 | **12** | 17 | 211 |
| Total Volume | 10 | 405 | 53 | 468 | 0 | 0 | 7 | 7 | 57 | 292 | 0 | 349 | 29 | 0 | 36 | 65 | 889 |
| % App. Total | 2.1 | 86.5 | 11.3 | | 0 | 0 | 100 | | 16.3 | 83.7 | 0 | | 44.6 | 0 | 55.4 | | |
| PHF | .625 | .865 | .736 | .848 | .000 | .000 | .583 | .583 | .679 | .913 | .000 | .948 | .806 | .000 | .750 | .855 | .922 |

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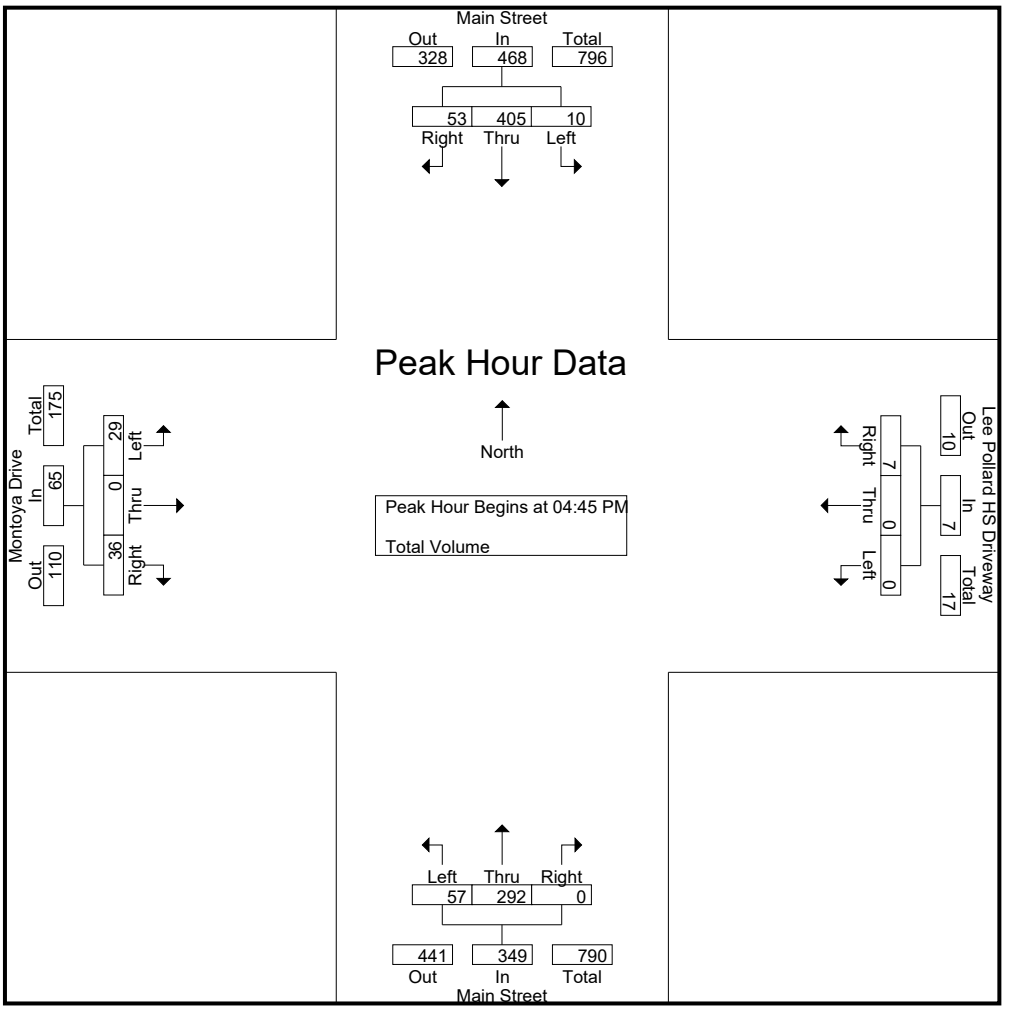
City of Corona
N/S: Main Street
E/W: Montoya Drive
Weather: Clear

File Name : 03_COR_Main_Mon PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | | 05:00 PM | | | | 04:45 PM | | | | 05:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 2 | 94 | 10 | 106 | 0 | 0 | 1 | 1 | **21** | 71 | 0 | **92** | 7 | 0 | 6 | 13 |
| +15 mins. | 3 | **117** | **18** | **138** | 0 | 0 | **3** | **3** | 13 | 76 | 0 | 89 | 9 | 0 | 10 | 19 |
| +30 mins. | **4** | 92 | 14 | 110 | 0 | 0 | 2 | 2 | 10 | **80** | 0 | 90 | 5 | 0 | **12** | 17 |
| +45 mins. | 1 | 102 | 11 | 114 | 0 | 0 | 2 | 2 | 13 | 65 | 0 | 78 | **12** | 0 | 12 | **24** |
| Total Volume | 10 | 405 | 53 | 468 | 0 | 0 | 8 | 8 | 57 | 292 | 0 | 349 | 33 | 0 | 40 | 73 |
| % App. Total | 2.1 | 86.5 | 11.3 | | 0 | 0 | 100 | | 16.3 | 83.7 | 0 | | 45.2 | 0 | 54.8 | |
| PHF | .625 | .865 | .736 | .848 | .000 | .000 | .667 | .667 | .679 | .913 | .000 | .948 | .688 | .000 | .833 | .760 |

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Corona, CA 92878
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City of Corona
N/S: Santana Way
E/W: Magnolia Avenue
Weather: Clear

File Name : 04_COR_San_Mag AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Corona Village Driveway Southbound | | | | Magnolia Avenue Westbound | | | | Santana Way Northbound | | | | Magnolia Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 06:30 AM | 3 | 1 | 5 | 9 | 6 | 27 | 6 | 39 | 4 | 6 | 16 | 26 | 3 | 27 | 0 | 30 | 104 |
| 06:45 AM | 15 | 4 | 11 | 30 | 5 | 52 | 9 | 66 | 6 | 5 | 14 | 25 | 5 | 48 | 5 | 58 | 179 |
| Total | 18 | 5 | 16 | 39 | 11 | 79 | 15 | 105 | 10 | 11 | 30 | 51 | 8 | 75 | 5 | 88 | 283 |
| 07:00 AM | 6 | 6 | 4 | 16 | 9 | 76 | 3 | 88 | 5 | 6 | 14 | 25 | 5 | 53 | 5 | 63 | 192 |
| 07:15 AM | 3 | 3 | 11 | 17 | 10 | 101 | 12 | 123 | 14 | 8 | 12 | 34 | 7 | 67 | 5 | 79 | 253 |
| 07:30 AM | 7 | 1 | 9 | 17 | 8 | 125 | 17 | 150 | 10 | 8 | 18 | 36 | 8 | 113 | 14 | 135 | 338 |
| 07:45 AM | 7 | 9 | 17 | 33 | 13 | 97 | 26 | 136 | 9 | 15 | 21 | 45 | 16 | 104 | 20 | 140 | 354 |
| Total | 23 | 19 | 41 | 83 | 40 | 399 | 58 | 497 | 38 | 37 | 65 | 140 | 36 | 337 | 44 | 417 | 1137 |
| 08:00 AM | 6 | 5 | 9 | 20 | 30 | 95 | 20 | 145 | 13 | 7 | 26 | 46 | 9 | 84 | 34 | 127 | 338 |
| 08:15 AM | 7 | 1 | 9 | 17 | 26 | 129 | 22 | 177 | 31 | 7 | 33 | 71 | 8 | 74 | 20 | 102 | 367 |
| 08:30 AM | 14 | 6 | 9 | 29 | 19 | 155 | 23 | 197 | 20 | 19 | 31 | 70 | 17 | 83 | 10 | 110 | 406 |
| 08:45 AM | 10 | 6 | 16 | 32 | 8 | 71 | 27 | 106 | 12 | 14 | 13 | 39 | 10 | 81 | 12 | 103 | 280 |
| Total | 37 | 18 | 43 | 98 | 83 | 450 | 92 | 625 | 76 | 47 | 103 | 226 | 44 | 322 | 76 | 442 | 1391 |
| Grand Total | 78 | 42 | 100 | 220 | 134 | 928 | 165 | 1227 | 124 | 95 | 198 | 417 | 88 | 734 | 125 | 947 | 2811 |
| Apprch % | 35.5 | 19.1 | 45.5 | | 10.9 | 75.6 | 13.4 | | 29.7 | 22.8 | 47.5 | | 9.3 | 77.5 | 13.2 | | |
| Total % | 2.8 | 1.5 | 3.6 | 7.8 | 4.8 | 33 | 5.9 | 43.6 | 4.4 | 3.4 | 7 | 14.8 | 3.1 | 26.1 | 4.4 | 33.7 | |

| | Corona Village Driveway Southbound | | | | Magnolia Avenue Westbound | | | | Santana Way Northbound | | | | Magnolia Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 7 | **9** | **17** | **33** | 13 | 97 | **26** | 136 | 9 | 15 | 21 | 45 | 16 | **104** | 20 | **140** | 354 |
| 08:00 AM | 6 | 5 | 9 | 20 | **30** | 95 | 20 | 145 | 13 | 7 | 26 | 46 | 9 | 84 | **34** | 127 | 338 |
| 08:15 AM | 7 | 1 | 9 | 17 | 26 | 129 | 22 | 177 | **31** | 7 | **33** | **71** | 8 | 74 | 20 | 102 | 367 |
| 08:30 AM | **14** | 6 | 9 | 29 | 19 | **155** | 23 | **197** | 20 | **19** | 31 | 70 | **17** | 83 | 10 | 110 | **406** |
| Total Volume | 34 | 21 | 44 | 99 | 88 | 476 | 91 | 655 | 73 | 48 | 111 | 232 | 50 | 345 | 84 | 479 | 1465 |
| % App. Total | 34.3 | 21.2 | 44.4 | | 13.4 | 72.7 | 13.9 | | 31.5 | 20.7 | 47.8 | | 10.4 | 72 | 17.5 | | |
| PHF | .607 | .583 | .647 | .750 | .733 | .768 | .875 | .831 | .589 | .632 | .841 | .817 | .735 | .829 | .618 | .855 | .902 |

Counts Unlimited, Inc.
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Corona, CA 92878
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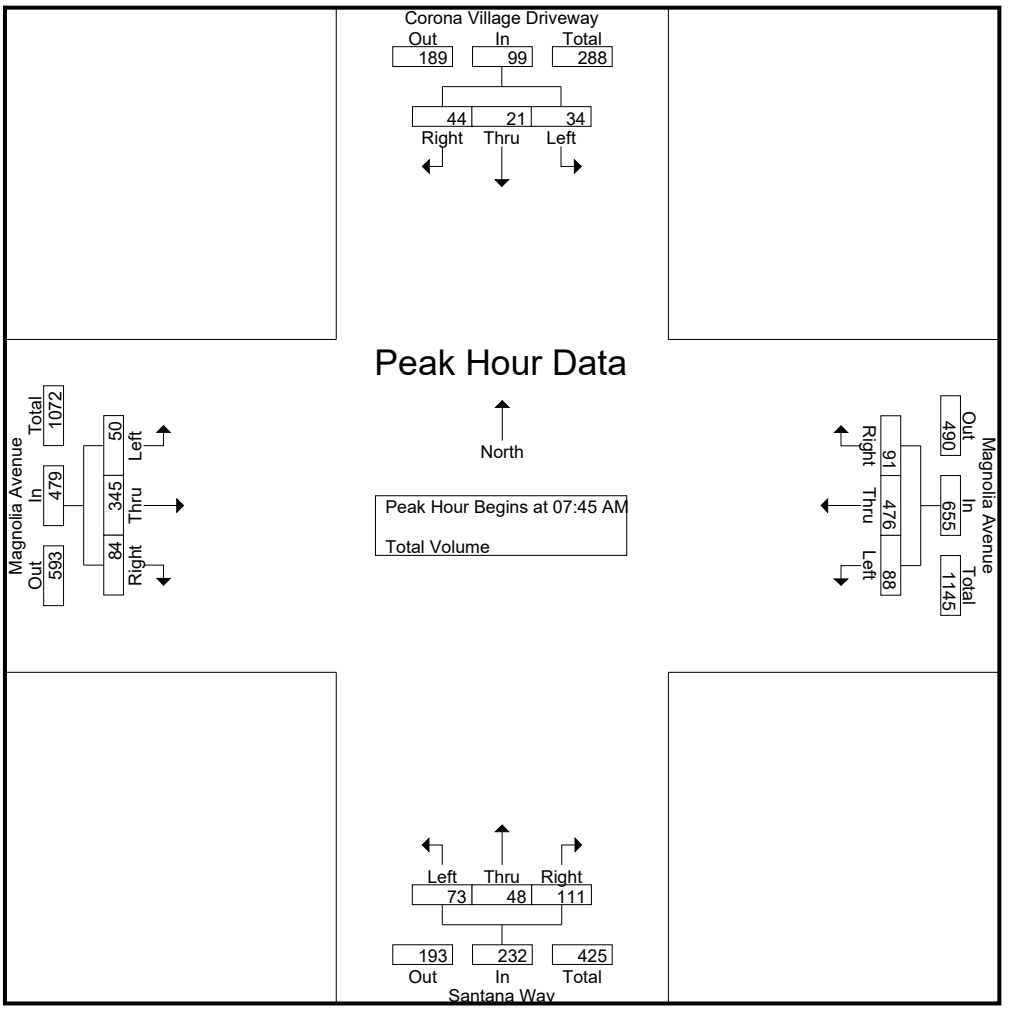
City of Corona
N/S: Santana Way
E/W: Magnolia Avenue
Weather: Clear

File Name : 04_COR_San_Mag AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | | 07:45 AM | | | | 07:45 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 7 | **9** | **17** | **33** | 13 | 97 | **26** | 136 | 9 | 15 | 21 | 45 | 8 | **113** | 14 | 135 |
| +15 mins. | 6 | 5 | 9 | 20 | **30** | 95 | 20 | 145 | 13 | 7 | 26 | 46 | **16** | 104 | 20 | **140** |
| +30 mins. | 7 | 1 | 9 | 17 | 26 | 129 | 22 | 177 | **31** | 7 | **33** | **71** | 9 | 84 | **34** | 127 |
| +45 mins. | **14** | 6 | 9 | 29 | 19 | **155** | 23 | **197** | 20 | **19** | 31 | 70 | 8 | 74 | 20 | 102 |
| Total Volume | 34 | 21 | 44 | 99 | 88 | 476 | 91 | 655 | 73 | 48 | 111 | 232 | 41 | 375 | 88 | 504 |
| % App. Total | 34.3 | 21.2 | 44.4 | | 13.4 | 72.7 | 13.9 | | 31.5 | 20.7 | 47.8 | | 8.1 | 74.4 | 17.5 | |
| PHF | .607 | .583 | .647 | .750 | .733 | .768 | .875 | .831 | .589 | .632 | .841 | .817 | .641 | .830 | .647 | .900 |

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Corona, CA 92878
(951)268-6268

City of Corona
N/S: Santana Way
E/W: Magnolia Avenue
Weather: Clear

File Name : 04_COR_San_Mag PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Corona Village Driveway Southbound | | | | Magnolia Avenue Westbound | | | | Santana Way Northbound | | | | Magnolia Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 31 | 8 | 32 | 71 | 22 | 102 | 33 | 157 | 8 | 12 | 14 | 34 | 9 | 85 | 13 | 107 | 369 |
| 04:15 PM | 23 | 13 | 21 | 57 | 23 | 100 | 32 | 155 | 9 | 6 | 15 | 30 | 9 | 68 | 13 | 90 | 332 |
| 04:30 PM | 21 | 11 | 18 | 50 | 22 | 104 | 27 | 153 | 10 | 8 | 13 | 31 | 14 | 77 | 15 | 106 | 340 |
| 04:45 PM | 16 | 10 | 25 | 51 | 30 | 101 | 35 | 166 | 13 | 8 | 14 | 35 | 22 | 73 | 18 | 113 | 365 |
| Total | 91 | 42 | 96 | 229 | 97 | 407 | 127 | 631 | 40 | 34 | 56 | 130 | 54 | 303 | 59 | 416 | 1406 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 26 | 8 | 22 | 56 | 28 | 95 | 34 | 157 | 10 | 10 | 9 | 29 | 17 | 80 | 20 | 117 | 359 |
| 05:15 PM | 29 | 10 | 19 | 58 | 39 | 96 | 22 | 157 | 5 | 8 | 14 | 27 | 6 | 85 | 20 | 111 | 353 |
| 05:30 PM | 28 | 15 | 12 | 55 | 35 | 91 | 27 | 153 | 14 | 5 | 15 | 34 | 14 | 68 | 19 | 101 | 343 |
| 05:45 PM | 28 | 13 | 23 | 64 | 36 | 85 | 37 | 158 | 13 | 10 | 18 | 41 | 17 | 68 | 31 | 116 | 379 |
| Total | 111 | 46 | 76 | 233 | 138 | 367 | 120 | 625 | 42 | 33 | 56 | 131 | 54 | 301 | 90 | 445 | 1434 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 202 | 88 | 172 | 462 | 235 | 774 | 247 | 1256 | 82 | 67 | 112 | 261 | 108 | 604 | 149 | 861 | 2840 |
| Apprch % | 43.7 | 19 | 37.2 | | 18.7 | 61.6 | 19.7 | | 31.4 | 25.7 | 42.9 | | 12.5 | 70.2 | 17.3 | | |
| Total % | 7.1 | 3.1 | 6.1 | 16.3 | 8.3 | 27.3 | 8.7 | 44.2 | 2.9 | 2.4 | 3.9 | 9.2 | 3.8 | 21.3 | 5.2 | 30.3 | |

| | Corona Village Driveway Southbound | | | | Magnolia Avenue Westbound | | | | Santana Way Northbound | | | | Magnolia Avenue Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | |
| 05:00 PM | 26 | 8 | 22 | 56 | 28 | 95 | 34 | 157 | 10 | **10** | 9 | 29 | **17** | 80 | 20 | **117** | 359 |
| 05:15 PM | **29** | 10 | 19 | 58 | **39** | **96** | 22 | 157 | 5 | 8 | 14 | 27 | 6 | **85** | 20 | 111 | 353 |
| 05:30 PM | 28 | **15** | 12 | 55 | 35 | 91 | 27 | 153 | **14** | 5 | 15 | 34 | 14 | 68 | 19 | 101 | 343 |
| 05:45 PM | 28 | 13 | **23** | **64** | 36 | 85 | **37** | **158** | 13 | 10 | **18** | **41** | 17 | 68 | **31** | 116 | **379** |
| Total Volume | 111 | 46 | 76 | 233 | 138 | 367 | 120 | 625 | 42 | 33 | 56 | 131 | 54 | 301 | 90 | 445 | 1434 |
| % App. Total | 47.6 | 19.7 | 32.6 | | 22.1 | 58.7 | 19.2 | | 32.1 | 25.2 | 42.7 | | 12.1 | 67.6 | 20.2 | | |
| PHF | .957 | .767 | .826 | .910 | .885 | .956 | .811 | .989 | .750 | .825 | .778 | .799 | .794 | .885 | .726 | .951 | .946 |

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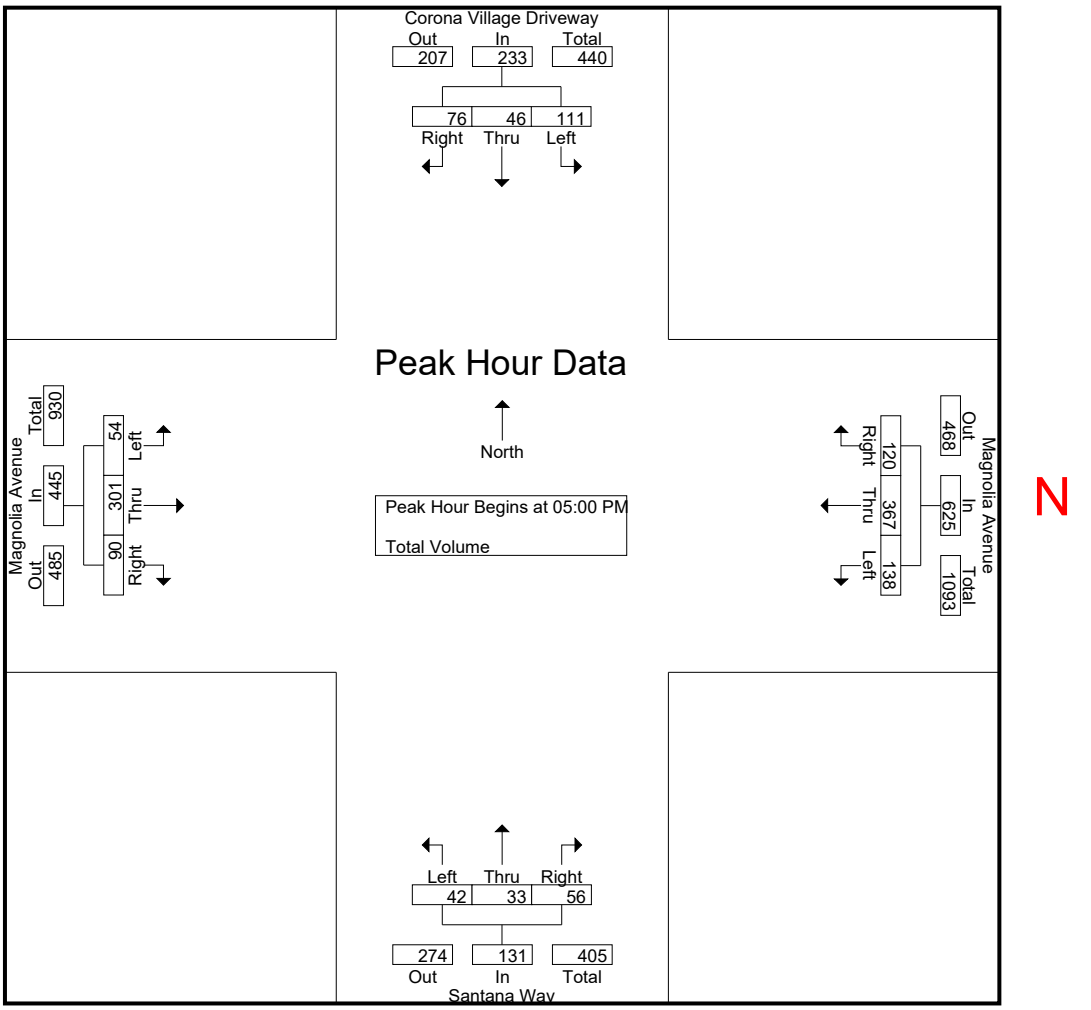
City of Corona
N/S: Santana Way
E/W: Magnolia Avenue
Weather: Clear

File Name : 04_COR_San_Mag PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 05:00 PM | | | | 04:30 PM | | | | 05:00 PM | | | | 04:30 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 26 | 8 | 22 | 56 | 22 | **104** | 27 | 153 | 10 | **10** | 9 | 29 | 14 | 77 | 15 | 106 |
| +15 mins. | **29** | 10 | 19 | 58 | 30 | 101 | **35** | **166** | 5 | 8 | 14 | 27 | **22** | 73 | 18 | 113 |
| +30 mins. | 28 | **15** | 12 | 55 | 28 | 95 | 34 | 157 | **14** | 5 | 15 | 34 | 17 | 80 | **20** | **117** |
| +45 mins. | 28 | 13 | **23** | **64** | **39** | 96 | 22 | 157 | 13 | 10 | **18** | **41** | 6 | **85** | 20 | 111 |
| Total Volume | 111 | 46 | 76 | 233 | 119 | 396 | 118 | 633 | 42 | 33 | 56 | 131 | 59 | 315 | 73 | 447 |
| % App. Total | 47.6 | 19.7 | 32.6 | | 18.8 | 62.6 | 18.6 | | 32.1 | 25.2 | 42.7 | | 13.2 | 70.5 | 16.3 | |
| PHF | .957 | .767 | .826 | .910 | .763 | .952 | .843 | .953 | .750 | .825 | .778 | .799 | .670 | .926 | .913 | .955 |

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City of Corona
N/S: Main Street
E/W: Magnolia Avenue
Weather: Clear

File Name : 05_COR_Main_Mag AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Magnolia Avenue Southbound | | | | South Hills Community Church DW Westbound | | | | Main Street Northbound | | | | Main Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 06:30 AM | 1 | 26 | 6 | 33 | 0 | 1 | 0 | 1 | 38 | 30 | 0 | 68 | 0 | 0 | 11 | 11 | 113 |
| 06:45 AM | 0 | 62 | 13 | 75 | 0 | 0 | 0 | 0 | 36 | 54 | 0 | 90 | 4 | 1 | 16 | 21 | 186 |
| Total | 1 | 88 | 19 | 108 | 0 | 1 | 0 | 1 | 74 | 84 | 0 | 158 | 4 | 1 | 27 | 32 | 299 |
| 07:00 AM | 1 | 67 | 17 | 85 | 0 | 0 | 0 | 0 | 46 | 62 | 0 | 108 | 4 | 0 | 32 | 36 | 229 |
| 07:15 AM | 2 | 96 | 22 | 120 | 0 | 0 | 0 | 0 | 62 | 71 | 0 | 133 | 6 | 0 | 48 | 54 | 307 |
| 07:30 AM | 3 | 112 | 24 | 139 | 0 | 1 | 1 | 2 | 73 | 110 | 0 | 183 | 21 | 1 | 75 | 97 | 421 |
| 07:45 AM | 2 | 102 | 22 | 126 | 0 | 0 | 0 | 0 | 91 | 117 | 0 | 208 | 28 | 0 | 63 | 91 | 425 |
| Total | 8 | 377 | 85 | 470 | 0 | 1 | 1 | 2 | 272 | 360 | 0 | 632 | 59 | 1 | 218 | 278 | 1382 |
| 08:00 AM | 1 | 78 | 20 | 99 | 0 | 0 | 0 | 0 | 62 | 102 | 0 | 164 | 28 | 0 | 45 | 73 | 336 |
| 08:15 AM | 9 | 84 | 50 | 143 | 1 | 0 | 0 | 1 | 80 | 76 | 0 | 156 | 31 | 3 | 39 | 73 | 373 |
| 08:30 AM | 33 | 116 | 58 | 207 | 0 | 1 | 4 | 5 | 74 | 81 | 0 | 155 | 13 | 2 | 45 | 60 | 427 |
| 08:45 AM | 16 | 62 | 37 | 115 | 1 | 1 | 0 | 2 | 70 | 69 | 0 | 139 | 25 | 0 | 54 | 79 | 335 |
| Total | 59 | 340 | 165 | 564 | 2 | 2 | 4 | 8 | 286 | 328 | 0 | 614 | 97 | 5 | 183 | 285 | 1471 |
| Grand Total | 68 | 805 | 269 | 1142 | 2 | 4 | 5 | 11 | 632 | 772 | 0 | 1404 | 160 | 7 | 428 | 595 | 3152 |
| Apprch % | 6 | 70.5 | 23.6 | | 18.2 | 36.4 | 45.5 | | 45 | 55 | 0 | | 26.9 | 1.2 | 71.9 | | |
| Total % | 2.2 | 25.5 | 8.5 | 36.2 | 0.1 | 0.1 | 0.2 | 0.3 | 20.1 | 24.5 | 0 | 44.5 | 5.1 | 0.2 | 13.6 | 18.9 | |

| | Magnolia Avenue Southbound | | | | South Hills Community Church DW Westbound | | | | Main Street Northbound | | | | Main Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 2 | 102 | 22 | 126 | 0 | 0 | 0 | 0 | **91** | **117** | 0 | **208** | 28 | 0 | **63** | **91** | 425 |
| 08:00 AM | 1 | 78 | 20 | 99 | 0 | 0 | 0 | 0 | 62 | 102 | 0 | 164 | 28 | 0 | 45 | 73 | 336 |
| 08:15 AM | 9 | 84 | 50 | 143 | **1** | 0 | 0 | 1 | 80 | 76 | 0 | 156 | **31** | **3** | 39 | 73 | 373 |
| 08:30 AM | **33** | **116** | **58** | **207** | 0 | **1** | **4** | **5** | 74 | 81 | 0 | 155 | 13 | 2 | 45 | 60 | **427** |
| Total Volume | 45 | 380 | 150 | 575 | 1 | 1 | 4 | 6 | 307 | 376 | 0 | 683 | 100 | 5 | 192 | 297 | 1561 |
| % App. Total | 7.8 | 66.1 | 26.1 | | 16.7 | 16.7 | 66.7 | | 44.9 | 55.1 | 0 | | 33.7 | 1.7 | 64.6 | | |
| PHF | .341 | .819 | .647 | .694 | .250 | .250 | .250 | .300 | .843 | .803 | .000 | .821 | .806 | .417 | .762 | .816 | .914 |

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Corona, CA 92878
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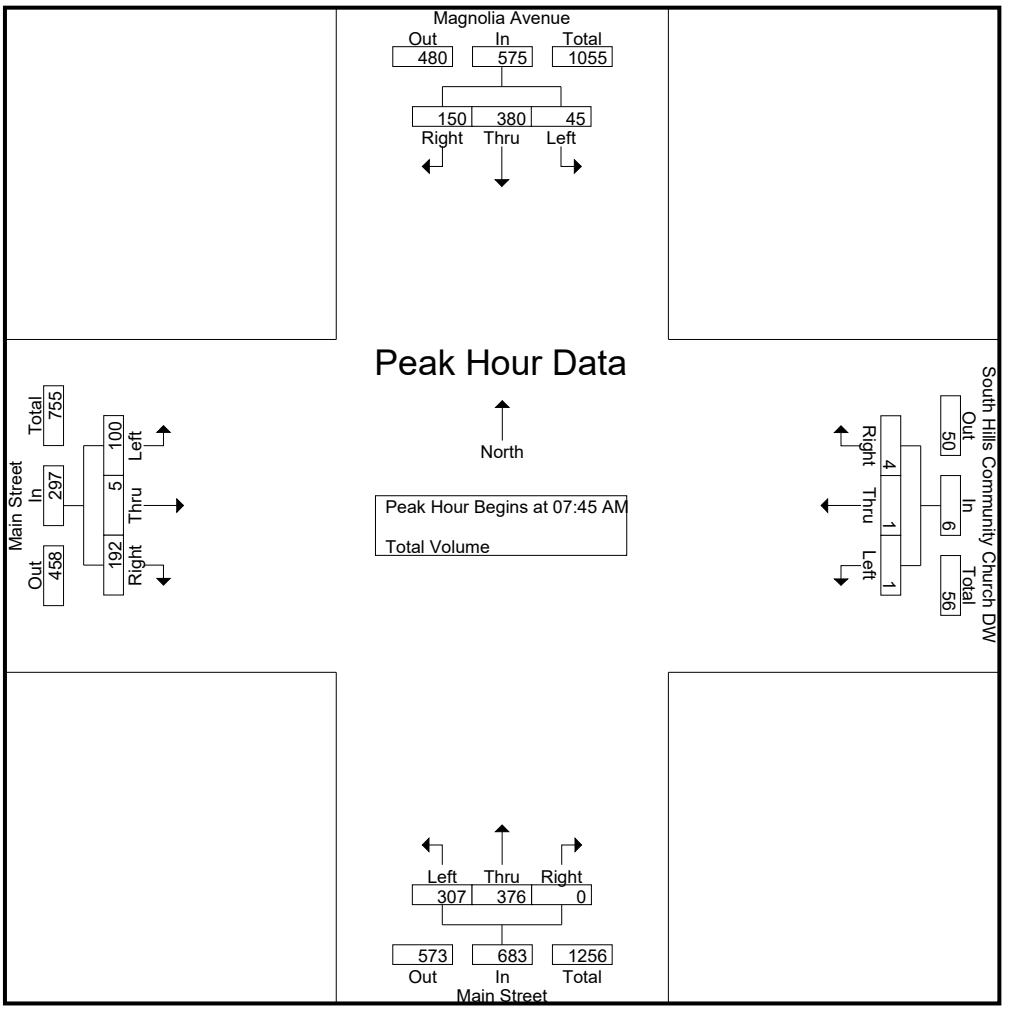
City of Corona
N/S: Main Street
E/W: Magnolia Avenue
Weather: Clear

File Name : 05_COR_Main_Mag AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | | 08:00 AM | | | | 07:30 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 2 | 102 | 22 | 126 | 0 | 0 | 0 | 0 | 73 | 110 | 0 | 183 | 21 | 1 | **75** | **97** |
| +15 mins. | 1 | 78 | 20 | 99 | **1** | 0 | 0 | 1 | **91** | **117** | 0 | **208** | 28 | 0 | 63 | 91 |
| +30 mins. | 9 | 84 | 50 | 143 | 0 | **1** | **4** | **5** | 62 | 102 | 0 | 164 | 28 | 0 | 45 | 73 |
| +45 mins. | **33** | **116** | **58** | **207** | 1 | 1 | 0 | 2 | 80 | 76 | 0 | 156 | **31** | **3** | 39 | 73 |
| Total Volume | 45 | 380 | 150 | 575 | 2 | 2 | 4 | 8 | 306 | 405 | 0 | 711 | 108 | 4 | 222 | 334 |
| % App. Total | 7.8 | 66.1 | 26.1 | | 25 | 25 | 50 | | 43 | 57 | 0 | | 32.3 | 1.2 | 66.5 | |
| PHF | .341 | .819 | .647 | .694 | .500 | .500 | .250 | .400 | .841 | .865 | .000 | .855 | .871 | .333 | .740 | .861 |

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Corona, CA 92878
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City of Corona
N/S: Main Street
E/W: Magnolia Avenue
Weather: Clear

File Name : 05_COR_Main_Mag PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Magnolia Avenue Southbound | | | | South Hills Community Church DW Westbound | | | | Main Street Northbound | | | | Main Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 121 | 35 | 156 | 1 | 2 | 0 | 3 | 56 | 87 | 0 | 143 | 13 | 0 | 90 | 103 | 405 |
| 04:15 PM | 2 | 101 | 26 | 129 | 0 | 1 | 1 | 2 | 55 | 70 | 0 | 125 | 12 | 1 | 72 | 85 | 341 |
| 04:30 PM | 1 | 110 | 30 | 141 | 0 | 0 | 1 | 1 | 40 | 92 | 0 | 132 | 11 | 0 | 89 | 100 | 374 |
| 04:45 PM | 1 | 104 | 30 | 135 | 0 | 3 | 0 | 3 | 63 | 103 | 0 | 166 | 11 | 1 | 89 | 101 | 405 |
| Total | 4 | 436 | 121 | 561 | 1 | 6 | 2 | 9 | 214 | 352 | 0 | 566 | 47 | 2 | 340 | 389 | 1525 |
| 05:00 PM | 0 | 114 | 28 | 142 | 0 | 0 | 4 | 4 | 61 | 86 | 0 | 147 | 20 | 0 | 106 | 126 | 419 |
| 05:15 PM | 1 | 104 | 28 | 133 | 0 | 1 | 0 | 1 | 56 | 96 | 0 | 152 | 16 | 0 | 86 | 102 | 388 |
| 05:30 PM | 1 | 112 | 23 | 136 | 0 | 0 | 0 | 0 | 54 | 82 | 0 | 136 | 15 | 0 | 91 | 106 | 378 |
| 05:45 PM | 1 | 92 | 28 | 121 | 1 | 0 | 2 | 3 | 48 | 103 | 1 | 152 | 18 | 0 | 72 | 90 | 366 |
| Total | 3 | 422 | 107 | 532 | 1 | 1 | 6 | 8 | 219 | 367 | 1 | 587 | 69 | 0 | 355 | 424 | 1551 |
| Grand Total | 7 | 858 | 228 | 1093 | 2 | 7 | 8 | 17 | 433 | 719 | 1 | 1153 | 116 | 2 | 695 | 813 | 3076 |
| Apprch % | 0.6 | 78.5 | 20.9 | | 11.8 | 41.2 | 47.1 | | 37.6 | 62.4 | 0.1 | | 14.3 | 0.2 | 85.5 | | |
| Total % | 0.2 | 27.9 | 7.4 | 35.5 | 0.1 | 0.2 | 0.3 | 0.6 | 14.1 | 23.4 | 0 | 37.5 | 3.8 | 0.1 | 22.6 | 26.4 | |

| | Magnolia Avenue Southbound | | | | South Hills Community Church DW Westbound | | | | Main Street Northbound | | | | Main Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | **1** | 104 | **30** | 135 | 0 | **3** | 0 | 3 | **63** | **103** | 0 | **166** | 11 | **1** | 89 | 101 | 405 |
| 05:00 PM | 0 | **114** | 28 | **142** | 0 | 0 | **4** | **4** | 61 | 86 | 0 | 147 | **20** | 0 | **106** | **126** | **419** |
| 05:15 PM | 1 | 104 | 28 | 133 | 0 | 1 | 0 | 1 | 56 | 96 | 0 | 152 | 16 | 0 | 86 | 102 | 388 |
| 05:30 PM | 1 | 112 | 23 | 136 | 0 | 0 | 0 | 0 | 54 | 82 | 0 | 136 | 15 | 0 | 91 | 106 | 378 |
| Total Volume | 3 | 434 | 109 | 546 | 0 | 4 | 4 | 8 | 234 | 367 | 0 | 601 | 62 | 1 | 372 | 435 | 1590 |
| % App. Total | 0.5 | 79.5 | 20 | | 0 | 50 | 50 | | 38.9 | 61.1 | 0 | | 14.3 | 0.2 | 85.5 | | |
| PHF | .750 | .952 | .908 | .961 | .000 | .333 | .250 | .500 | .929 | .891 | .000 | .905 | .775 | .250 | .877 | .863 | .949 |

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Corona, CA 92878
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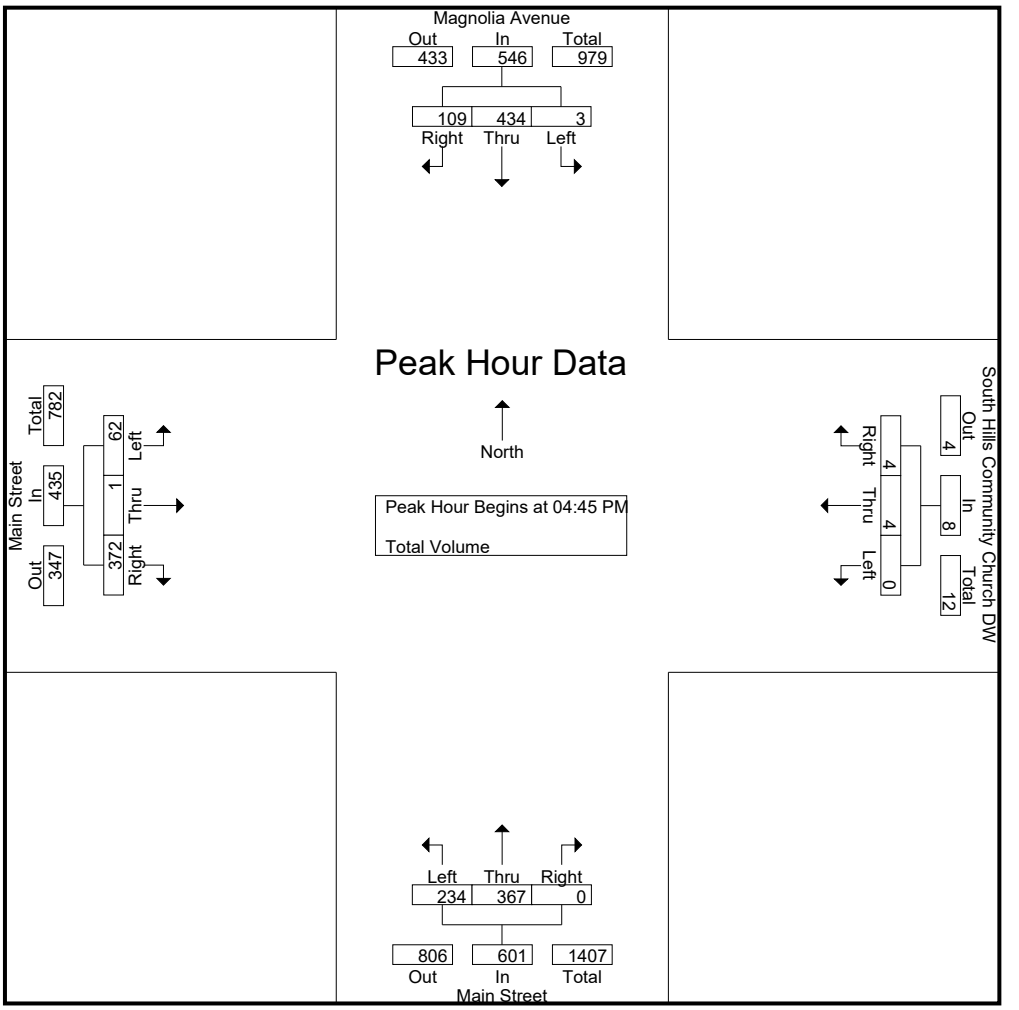
City of Corona
N/S: Main Street
E/W: Magnolia Avenue
Weather: Clear

File Name : 05_COR_Main_Mag PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 04:15 PM | | | | 04:45 PM | | | | 04:45 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | **121** | **35** | **156** | 0 | 1 | 1 | 2 | **63** | **103** | 0 | **166** | 11 | **1** | 89 | 101 |
| +15 mins. | **2** | 101 | 26 | 129 | 0 | 0 | 1 | 1 | 61 | 86 | 0 | 147 | **20** | 0 | **106** | **126** |
| +30 mins. | 1 | 110 | 30 | 141 | 0 | **3** | 0 | 3 | 56 | 96 | 0 | 152 | 16 | 0 | 86 | 102 |
| +45 mins. | 1 | 104 | 30 | 135 | 0 | 0 | **4** | **4** | 54 | 82 | 0 | 136 | 15 | 0 | 91 | 106 |
| Total Volume | 4 | 436 | 121 | 561 | 0 | 4 | 6 | 10 | 234 | 367 | 0 | 601 | 62 | 1 | 372 | 435 |
| % App. Total | 0.7 | 77.7 | 21.6 | | 0 | 40 | 60 | | 38.9 | 61.1 | 0 | | 14.3 | 0.2 | 85.5 | |
| PHF | .500 | .901 | .864 | .899 | .000 | .333 | .375 | .625 | .929 | .891 | .000 | .905 | .775 | .250 | .877 | .863 |

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Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Citrus Way
Weather: Clear

File Name : 06_COR_Main_Cit AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

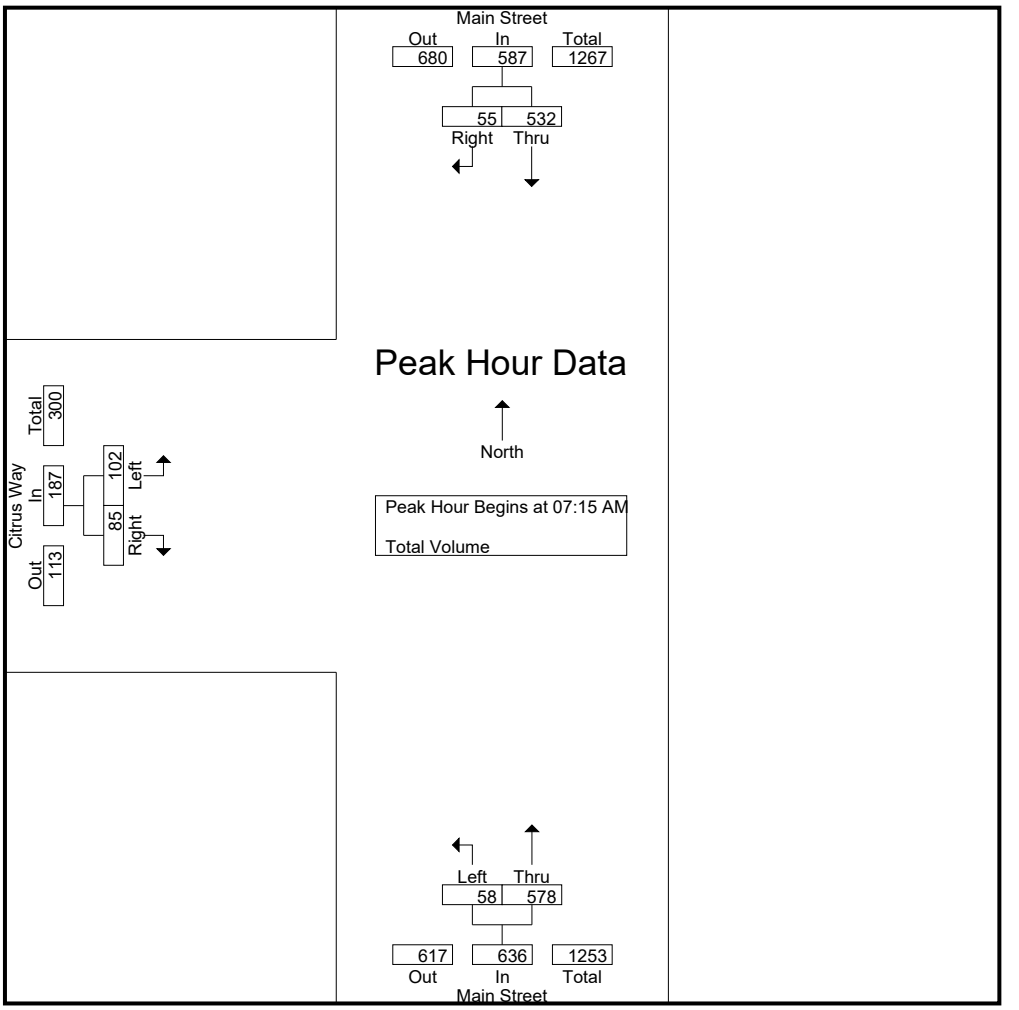
| | Main Street Southbound | | | Main Street Northbound | | | Citrus Way Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 06:30 AM | 26 | 3 | 29 | 0 | 54 | 54 | 9 | 2 | 11 | 94 |
| 06:45 AM | 60 | 7 | 67 | 1 | 84 | 85 | 14 | 4 | 18 | 170 |
| Total | 86 | 10 | 96 | 1 | 138 | 139 | 23 | 6 | 29 | 264 |
| 07:00 AM | 76 | 9 | 85 | 7 | 93 | 100 | 10 | 6 | 16 | 201 |
| 07:15 AM | 125 | 13 | 138 | 17 | 109 | 126 | 20 | 18 | 38 | 302 |
| 07:30 AM | 162 | 19 | 181 | 19 | 172 | 191 | 28 | 23 | 51 | 423 |
| 07:45 AM | 138 | 15 | 153 | 15 | 156 | 171 | 29 | 25 | 54 | 378 |
| Total | 501 | 56 | 557 | 58 | 530 | 588 | 87 | 72 | 159 | 1304 |
| 08:00 AM | 107 | 8 | 115 | 7 | 141 | 148 | 25 | 19 | 44 | 307 |
| 08:15 AM | 102 | 13 | 115 | 14 | 144 | 158 | 17 | 10 | 27 | 300 |
| 08:30 AM | 128 | 14 | 142 | 6 | 144 | 150 | 14 | 8 | 22 | 314 |
| 08:45 AM | 100 | 16 | 116 | 4 | 120 | 124 | 9 | 4 | 13 | 253 |
| Total | 437 | 51 | 488 | 31 | 549 | 580 | 65 | 41 | 106 | 1174 |
| Grand Total | 1024 | 117 | 1141 | 90 | 1217 | 1307 | 175 | 119 | 294 | 2742 |
| Apprch % | 89.7 | 10.3 | | 6.9 | 93.1 | | 59.5 | 40.5 | | |
| Total % | 37.3 | 4.3 | 41.6 | 3.3 | 44.4 | 47.7 | 6.4 | 4.3 | 10.7 | |

| | Main Street Southbound | | | Main Street Northbound | | | Citrus Way Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | |
| 07:15 AM | 125 | 13 | 138 | 17 | 109 | 126 | 20 | 18 | 38 | 302 |
| 07:30 AM | **162** | **19** | **181** | **19** | **172** | **191** | 28 | 23 | 51 | **423** |
| 07:45 AM | 138 | 15 | 153 | 15 | 156 | 171 | **29** | **25** | **54** | 378 |
| 08:00 AM | 107 | 8 | 115 | 7 | 141 | 148 | 25 | 19 | 44 | 307 |
| Total Volume | 532 | 55 | 587 | 58 | 578 | 636 | 102 | 85 | 187 | 1410 |
| % App. Total | 90.6 | 9.4 | | 9.1 | 90.9 | | 54.5 | 45.5 | | |
| PHF | .821 | .724 | .811 | .763 | .840 | .832 | .879 | .850 | .866 | .833 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Citrus Way
Weather: Clear

File Name : 06_COR_Main_Cit AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:15 AM | | | 07:30 AM | | | 07:15 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 125 | 13 | 138 | **19** | **172** | **191** | 20 | 18 | 38 |
| +15 mins. | **162** | **19** | **181** | 15 | 156 | 171 | 28 | 23 | 51 |
| +30 mins. | 138 | 15 | 153 | 7 | 141 | 148 | **29** | **25** | **54** |
| +45 mins. | 107 | 8 | 115 | 14 | 144 | 158 | 25 | 19 | 44 |
| Total Volume | 532 | 55 | 587 | 55 | 613 | 668 | 102 | 85 | 187 |
| % App. Total | 90.6 | 9.4 | | 8.2 | 91.8 | | 54.5 | 45.5 | |
| PHF | .821 | .724 | .811 | .724 | .891 | .874 | .879 | .850 | .866 |

Counts Unlimited, Inc.
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Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Citrus Way
Weather: Clear

File Name : 06_COR_Main_Cit PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Main Street Southbound | | | Main Street Northbound | | | Citrus Way Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 175 | 29 | 204 | 18 | 116 | 134 | 17 | 11 | 28 | 366 |
| 04:15 PM | 155 | 27 | 182 | 9 | 97 | 106 | 11 | 13 | 24 | 312 |
| 04:30 PM | 177 | 16 | 193 | 6 | 104 | 110 | 21 | 6 | 27 | 330 |
| 04:45 PM | 171 | 17 | 188 | 8 | 109 | 117 | 21 | 7 | 28 | 333 |
| Total | 678 | 89 | 767 | 41 | 426 | 467 | 70 | 37 | 107 | 1341 |
| | | | | | | | | | | |
| 05:00 PM | 191 | 30 | 221 | 10 | 104 | 114 | 24 | 9 | 33 | 368 |
| 05:15 PM | 161 | 25 | 186 | 8 | 112 | 120 | 15 | 14 | 29 | 335 |
| 05:30 PM | 170 | 26 | 196 | 7 | 117 | 124 | 17 | 12 | 29 | 349 |
| 05:45 PM | 143 | 28 | 171 | 8 | 121 | 129 | 21 | 6 | 27 | 327 |
| Total | 665 | 109 | 774 | 33 | 454 | 487 | 77 | 41 | 118 | 1379 |
| | | | | | | | | | | |
| Grand Total | 1343 | 198 | 1541 | 74 | 880 | 954 | 147 | 78 | 225 | 2720 |
| Apprch % | 87.2 | 12.8 | | 7.8 | 92.2 | | 65.3 | 34.7 | | |
| Total % | 49.4 | 7.3 | 56.7 | 2.7 | 32.4 | 35.1 | 5.4 | 2.9 | 8.3 | |

| | Main Street Southbound | | | Main Street Northbound | | | Citrus Way Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | |
| 04:45 PM | 171 | 17 | 188 | 8 | 109 | 117 | 21 | 7 | 28 | 333 |
| 05:00 PM | **191** | **30** | **221** | **10** | 104 | 114 | **24** | 9 | **33** | **368** |
| 05:15 PM | 161 | 25 | 186 | 8 | 112 | 120 | 15 | **14** | 29 | 335 |
| 05:30 PM | 170 | 26 | 196 | 7 | **117** | **124** | 17 | 12 | 29 | 349 |
| Total Volume | 693 | 98 | 791 | 33 | 442 | 475 | 77 | 42 | 119 | 1385 |
| % App. Total | 87.6 | 12.4 | | 6.9 | 93.1 | | 64.7 | 35.3 | | |
| PHF | .907 | .817 | .895 | .825 | .944 | .958 | .802 | .750 | .902 | .941 |

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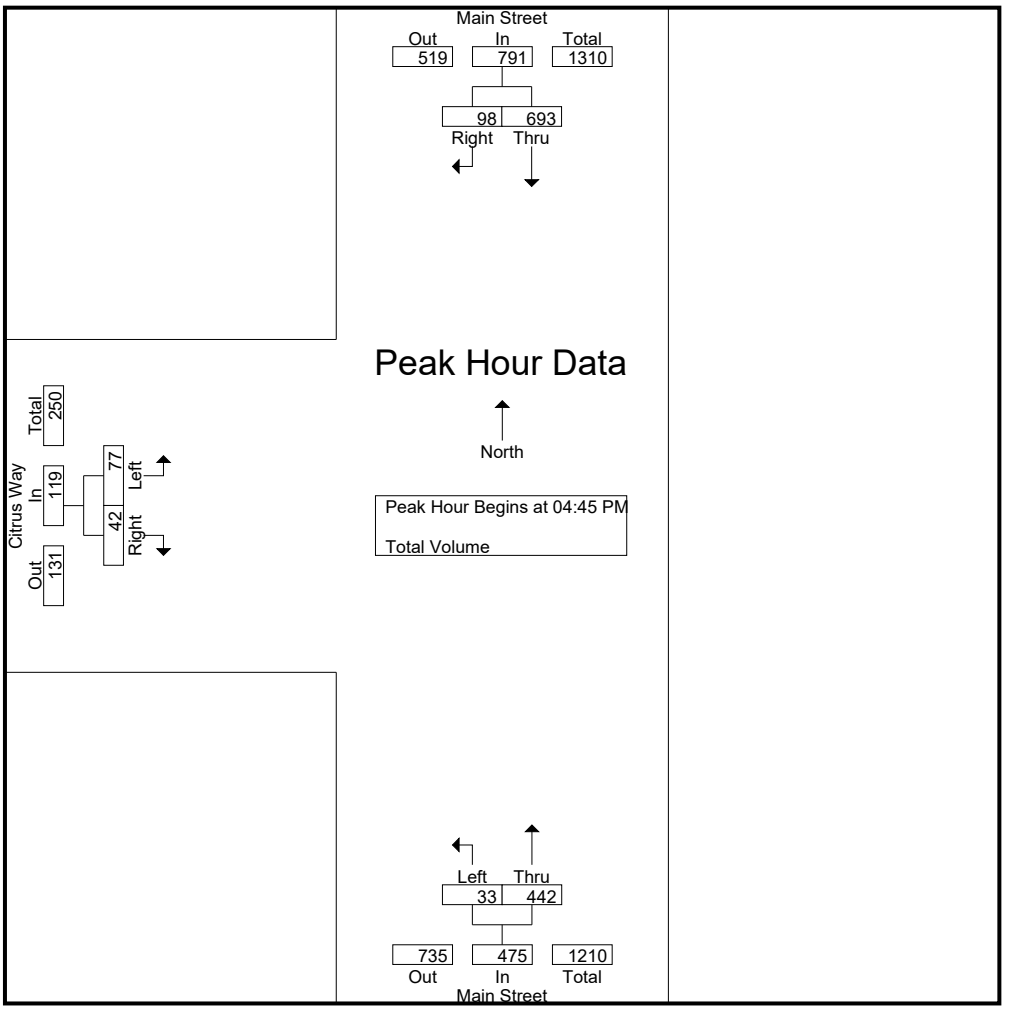
City of Corona
N/S: Main Street
E/W: Citrus Way
Weather: Clear

File Name : 06_COR_Main_Cit PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | 05:00 PM | | | 04:45 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 171 | 17 | 188 | **10** | 104 | 114 | 21 | 7 | 28 |
| +15 mins. | **191** | **30** | **221** | 8 | 112 | 120 | **24** | 9 | **33** |
| +30 mins. | 161 | 25 | 186 | 7 | 117 | 124 | 15 | **14** | 29 |
| +45 mins. | 170 | 26 | 196 | 8 | **121** | **129** | 17 | 12 | 29 |
| Total Volume | 693 | 98 | 791 | 33 | 454 | 487 | 77 | 42 | 119 |
| % App. Total | 87.6 | 12.4 | | 6.8 | 93.2 | | 64.7 | 35.3 | |
| PHF | .907 | .817 | .895 | .825 | .938 | .944 | .802 | .750 | .902 |

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(951)268-6268

City of Corona
N/S: Main Street
E/W: Chase Drive
Weather: Clear

File Name : 07_COR_Main_Chase AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Main Street Southbound | | | | Chase Drive Westbound | | | | Main Street Northbound | | | | Chase Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 06:30 AM | 0 | 25 | 0 | 25 | 6 | 0 | 5 | 11 | 1 | 50 | 1 | 52 | 0 | 0 | 0 | 0 | 88 |
| 06:45 AM | 3 | 53 | 0 | 56 | 5 | 0 | 10 | 15 | 0 | 76 | 5 | 81 | 0 | 0 | 0 | 0 | 152 |
| Total | 3 | 78 | 0 | 81 | 11 | 0 | 15 | 26 | 1 | 126 | 6 | 133 | 0 | 0 | 0 | 0 | 240 |
| 07:00 AM | 2 | 73 | 0 | 75 | 8 | 0 | 14 | 22 | 0 | 94 | 3 | 97 | 0 | 0 | 0 | 0 | 194 |
| 07:15 AM | 10 | 127 | 0 | 137 | 26 | 0 | 15 | 41 | 0 | 110 | 10 | 120 | 0 | 0 | 0 | 0 | 298 |
| 07:30 AM | 11 | 158 | 0 | 169 | 17 | 0 | 18 | 35 | 0 | 183 | 18 | 201 | 0 | 0 | 0 | 0 | 405 |
| 07:45 AM | 15 | 146 | 0 | 161 | 13 | 0 | 9 | 22 | 0 | 168 | 13 | 181 | 0 | 0 | 0 | 0 | 364 |
| Total | 38 | 504 | 0 | 542 | 64 | 0 | 56 | 120 | 0 | 555 | 44 | 599 | 0 | 0 | 0 | 0 | 1261 |
| 08:00 AM | 6 | 114 | 0 | 120 | 10 | 1 | 10 | 21 | 1 | 135 | 15 | 151 | 0 | 0 | 0 | 0 | 292 |
| 08:15 AM | 4 | 102 | 1 | 107 | 12 | 0 | 18 | 30 | 0 | 133 | 9 | 142 | 0 | 0 | 0 | 0 | 279 |
| 08:30 AM | 2 | 128 | 1 | 131 | 15 | 1 | 9 | 25 | 0 | 145 | 8 | 153 | 0 | 1 | 1 | 2 | 311 |
| 08:45 AM | 4 | 98 | 2 | 104 | 11 | 0 | 10 | 21 | 0 | 108 | 12 | 120 | 0 | 0 | 0 | 0 | 245 |
| Total | 16 | 442 | 4 | 462 | 48 | 2 | 47 | 97 | 1 | 521 | 44 | 566 | 0 | 1 | 1 | 2 | 1127 |
| Grand Total | 57 | 1024 | 4 | 1085 | 123 | 2 | 118 | 243 | 2 | 1202 | 94 | 1298 | 0 | 1 | 1 | 2 | 2628 |
| Apprch % | 5.3 | 94.4 | 0.4 | | 50.6 | 0.8 | 48.6 | | 0.2 | 92.6 | 7.2 | | 0 | 50 | 50 | | |
| Total % | 2.2 | 39 | 0.2 | 41.3 | 4.7 | 0.1 | 4.5 | 9.2 | 0.1 | 45.7 | 3.6 | 49.4 | 0 | 0 | 0 | 0.1 | |

| | Main Street Southbound | | | | Chase Drive Westbound | | | | Main Street Northbound | | | | Chase Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | | | | | | | |
| 07:15 AM | 10 | 127 | 0 | 137 | **26** | 0 | 15 | **41** | 0 | 110 | 10 | 120 | 0 | 0 | 0 | 0 | 298 |
| 07:30 AM | 11 | **158** | 0 | **169** | 17 | 0 | **18** | 35 | 0 | **183** | **18** | **201** | 0 | 0 | 0 | 0 | **405** |
| 07:45 AM | **15** | 146 | 0 | 161 | 13 | 0 | 9 | 22 | 0 | 168 | 13 | 181 | 0 | 0 | 0 | 0 | 364 |
| 08:00 AM | 6 | 114 | 0 | 120 | 10 | **1** | 10 | 21 | **1** | 135 | 15 | 151 | 0 | 0 | 0 | 0 | 292 |
| Total Volume | 42 | 545 | 0 | 587 | 66 | 1 | 52 | 119 | 1 | 596 | 56 | 653 | 0 | 0 | 0 | 0 | 1359 |
| % App. Total | 7.2 | 92.8 | 0 | | 55.5 | 0.8 | 43.7 | | 0.2 | 91.3 | 8.6 | | 0 | 0 | 0 | | |
| PHF | .700 | .862 | .000 | .868 | .635 | .250 | .722 | .726 | .250 | .814 | .778 | .812 | .000 | .000 | .000 | .000 | .839 |

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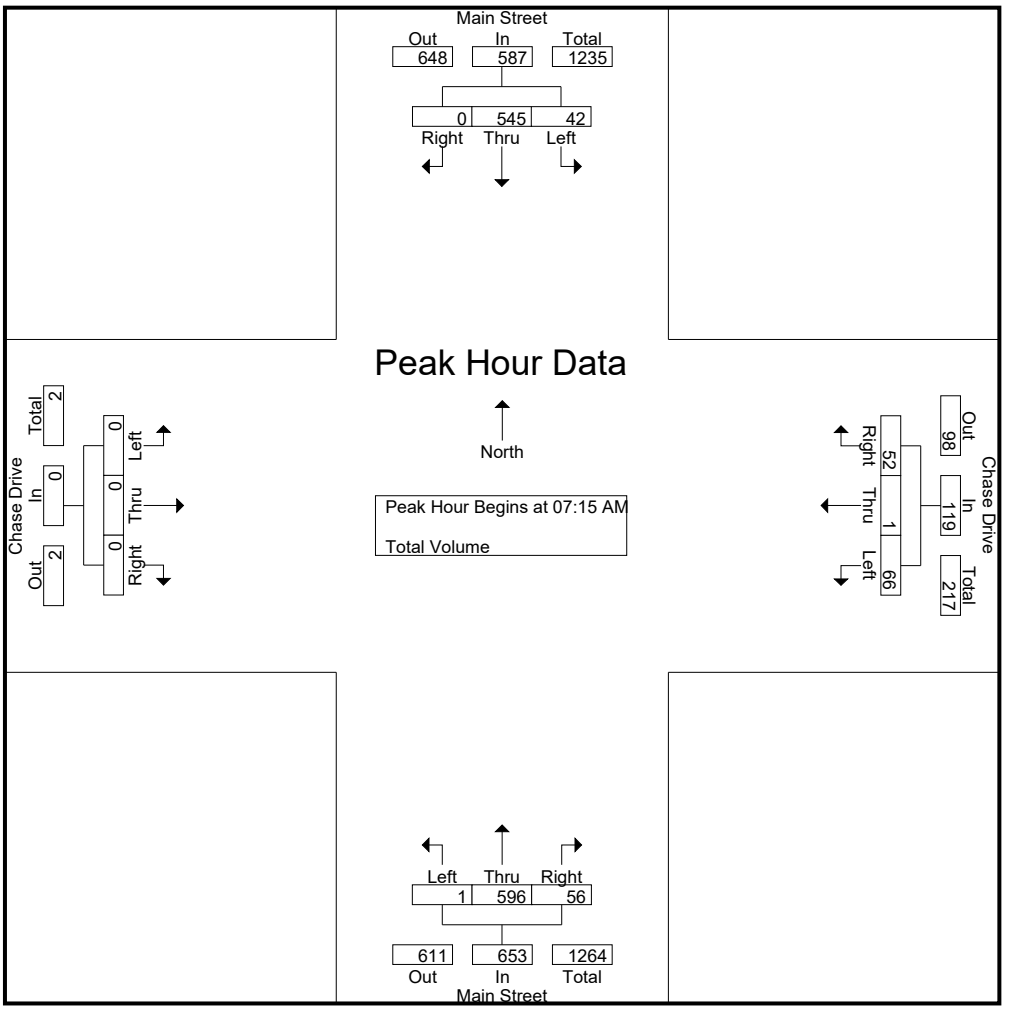
(951)268-6268

City of Corona
N/S: Main Street
E/W: Chase Drive
Weather: Clear

File Name : 07_COR_Main_Chase AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:15 AM | | | | 07:00 AM | | | | 07:30 AM | | | | 07:45 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 10 | 127 | 0 | 137 | 8 | 0 | 14 | 22 | 0 | **183** | **18** | **201** | 0 | 0 | 0 | 0 |
| +15 mins. | 11 | **158** | 0 | **169** | **26** | 0 | 15 | **41** | 0 | 168 | 13 | 181 | 0 | 0 | 0 | 0 |
| +30 mins. | **15** | 146 | 0 | 161 | 17 | 0 | **18** | 35 | **1** | 135 | 15 | 151 | 0 | 0 | 0 | 0 |
| +45 mins. | 6 | 114 | 0 | 120 | 13 | 0 | 9 | 22 | 0 | 133 | 9 | 142 | 0 | **1** | **1** | **2** |
| Total Volume | 42 | 545 | 0 | 587 | 64 | 0 | 56 | 120 | 1 | 619 | 55 | 675 | 0 | 1 | 1 | 2 |
| % App. Total | 7.2 | 92.8 | 0 | | 53.3 | 0 | 46.7 | | 0.1 | 91.7 | 8.1 | | 0 | 50 | 50 | |
| PHF | .700 | .862 | .000 | .868 | .615 | .000 | .778 | .732 | .250 | .846 | .764 | .840 | .000 | .250 | .250 | .250 |

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(951)268-6268

City of Corona
N/S: Main Street
E/W: Chase Drive
Weather: Clear

File Name : 07_COR_Main_Chase PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Main Street Southbound | | | | Chase Drive Westbound | | | | Main Street Northbound | | | | Chase Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 18 | 172 | 0 | 190 | 13 | 0 | 10 | 23 | 0 | 119 | 18 | 137 | 2 | 1 | 2 | 5 | 355 |
| 04:15 PM | 13 | 153 | 1 | 167 | 13 | 0 | 9 | 22 | 1 | 99 | 12 | 112 | 1 | 1 | 1 | 3 | 304 |
| 04:30 PM | 14 | 163 | 0 | 177 | 8 | 0 | 11 | 19 | 3 | 101 | 18 | 122 | 0 | 0 | 0 | 0 | 318 |
| 04:45 PM | 11 | 171 | 1 | 183 | 15 | 0 | 6 | 21 | 0 | 113 | 15 | 128 | 0 | 0 | 2 | 2 | 334 |
| Total | 56 | 659 | 2 | 717 | 49 | 0 | 36 | 85 | 4 | 432 | 63 | 499 | 3 | 2 | 5 | 10 | 1311 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 16 | 189 | 1 | 206 | 6 | 0 | 9 | 15 | 1 | 96 | 19 | 116 | 1 | 0 | 1 | 2 | 339 |
| 05:15 PM | 13 | 158 | 0 | 171 | 10 | 0 | 7 | 17 | 0 | 113 | 8 | 121 | 1 | 1 | 0 | 2 | 311 |
| 05:30 PM | 14 | 167 | 0 | 181 | 6 | 0 | 13 | 19 | 1 | 107 | 16 | 124 | 0 | 0 | 0 | 0 | 324 |
| 05:45 PM | 10 | 147 | 0 | 157 | 3 | 0 | 13 | 16 | 0 | 116 | 21 | 137 | 0 | 0 | 0 | 0 | 310 |
| Total | 53 | 661 | 1 | 715 | 25 | 0 | 42 | 67 | 2 | 432 | 64 | 498 | 2 | 1 | 1 | 4 | 1284 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 109 | 1320 | 3 | 1432 | 74 | 0 | 78 | 152 | 6 | 864 | 127 | 997 | 5 | 3 | 6 | 14 | 2595 |
| Apprch % | 7.6 | 92.2 | 0.2 | | 48.7 | 0 | 51.3 | | 0.6 | 86.7 | 12.7 | | 35.7 | 21.4 | 42.9 | | |
| Total % | 4.2 | 50.9 | 0.1 | 55.2 | 2.9 | 0 | 3 | 5.9 | 0.2 | 33.3 | 4.9 | 38.4 | 0.2 | 0.1 | 0.2 | 0.5 | |

| | Main Street Southbound | | | | Chase Drive Westbound | | | | Main Street Northbound | | | | Chase Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | **18** | **172** | 0 | **190** | 13 | 0 | 10 | **23** | 0 | **119** | **18** | **137** | **2** | **1** | **2** | **5** | **355** |
| 04:15 PM | 13 | 153 | **1** | 167 | 13 | 0 | 9 | 22 | 1 | 99 | 12 | 112 | 1 | 1 | 1 | 3 | 304 |
| 04:30 PM | 14 | 163 | 0 | 177 | 8 | 0 | **11** | 19 | **3** | 101 | 18 | 122 | 0 | 0 | 0 | 0 | 318 |
| 04:45 PM | 11 | 171 | 1 | 183 | **15** | 0 | 6 | 21 | 0 | 113 | 15 | 128 | 0 | 0 | 2 | 2 | 334 |
| Total Volume | 56 | 659 | 2 | 717 | 49 | 0 | 36 | 85 | 4 | 432 | 63 | 499 | 3 | 2 | 5 | 10 | 1311 |
| % App. Total | 7.8 | 91.9 | 0.3 | | 57.6 | 0 | 42.4 | | 0.8 | 86.6 | 12.6 | | 30 | 20 | 50 | | |
| PHF | .778 | .958 | .500 | .943 | .817 | .000 | .818 | .924 | .333 | .908 | .875 | .911 | .375 | .500 | .625 | .500 | .923 |

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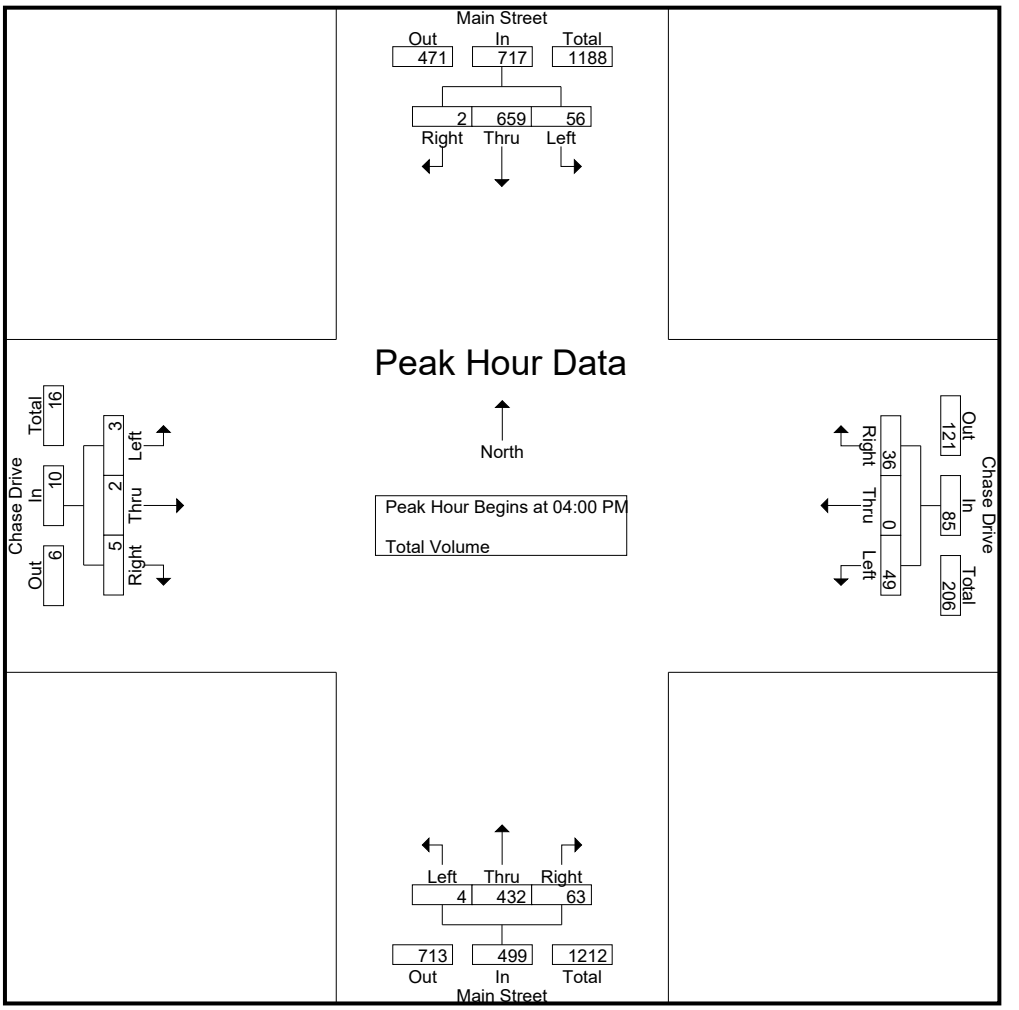
City of Corona
N/S: Main Street
E/W: Chase Drive
Weather: Clear

File Name : 07_COR_Main_Chase PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 11 | 171 | **1** | 183 | 13 | 0 | 10 | **23** | 0 | **119** | **18** | **137** | **2** | **1** | **2** | **5** |
| +15 mins. | **16** | **189** | 1 | **206** | 13 | 0 | 9 | 22 | 1 | 99 | 12 | 112 | 1 | 1 | 1 | 3 |
| +30 mins. | 13 | 158 | 0 | 171 | 8 | 0 | **11** | 19 | **3** | 101 | 18 | 122 | 0 | 0 | 0 | 0 |
| +45 mins. | 14 | 167 | 0 | 181 | **15** | 0 | 6 | 21 | 0 | 113 | 15 | 128 | 0 | 0 | 2 | 2 |
| Total Volume | 54 | 685 | 2 | 741 | 49 | 0 | 36 | 85 | 4 | 432 | 63 | 499 | 3 | 2 | 5 | 10 |
| % App. Total | 7.3 | 92.4 | 0.3 | | 57.6 | 0 | 42.4 | | 0.8 | 86.6 | 12.6 | | 30 | 20 | 50 | |
| PHF | .844 | .906 | .500 | .899 | .817 | .000 | .818 | .924 | .333 | .908 | .875 | .911 | .375 | .500 | .625 | .500 |

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Corona, CA 92878
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City of Corona
N/S: Main Street
E/W: Foothill Parkway
Weather: Clear

File Name : 08_COR_Main_Foot AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

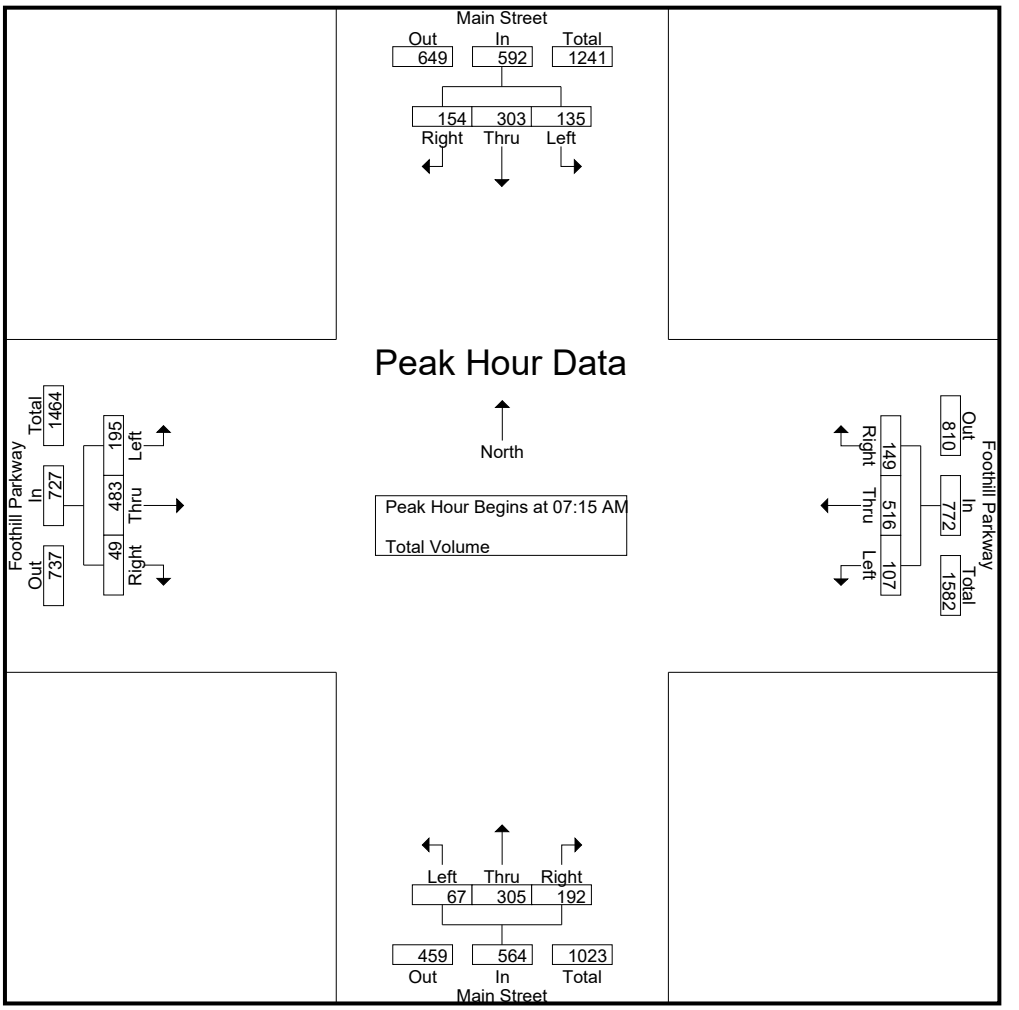
| | Main Street Southbound | | | | Foothill Parkway Westbound | | | | Main Street Northbound | | | | Foothill Parkway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 06:30 AM | 5 | 8 | 19 | 32 | 11 | 122 | 24 | 157 | 4 | 24 | 8 | 36 | 14 | 28 | 1 | 43 | 268 |
| 06:45 AM | 8 | 21 | 24 | 53 | 17 | 131 | 25 | 173 | 3 | 39 | 10 | 52 | 20 | 37 | 0 | 57 | 335 |
| Total | 13 | 29 | 43 | 85 | 28 | 253 | 49 | 330 | 7 | 63 | 18 | 88 | 34 | 65 | 1 | 100 | 603 |
| | | | | | | | | | | | | | | | | | |
| 07:00 AM | 13 | 37 | 29 | 79 | 19 | 130 | 24 | 173 | 6 | 38 | 10 | 54 | 31 | 43 | 3 | 77 | 383 |
| 07:15 AM | 14 | 88 | 41 | 143 | 33 | 164 | 28 | 225 | 13 | 61 | 42 | 116 | 33 | 64 | 19 | 116 | 600 |
| 07:30 AM | 33 | 95 | 38 | 166 | 33 | 117 | 52 | 202 | 22 | 99 | 51 | 172 | 55 | 100 | 20 | 175 | 715 |
| 07:45 AM | 53 | 71 | 34 | 158 | 22 | 124 | 37 | 183 | 26 | 90 | 72 | 188 | 48 | 130 | 7 | 185 | 714 |
| Total | 113 | 291 | 142 | 546 | 107 | 535 | 141 | 783 | 67 | 288 | 175 | 530 | 167 | 337 | 49 | 553 | 2412 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 35 | 49 | 41 | 125 | 19 | 111 | 32 | 162 | 6 | 55 | 27 | 88 | 59 | 189 | 3 | 251 | 626 |
| 08:15 AM | 27 | 51 | 34 | 112 | 25 | 135 | 57 | 217 | 3 | 39 | 18 | 60 | 44 | 92 | 3 | 139 | 528 |
| 08:30 AM | 31 | 41 | 65 | 137 | 18 | 134 | 48 | 200 | 3 | 61 | 5 | 69 | 41 | 59 | 1 | 101 | 507 |
| 08:45 AM | 25 | 44 | 33 | 102 | 18 | 77 | 34 | 129 | 3 | 48 | 6 | 57 | 36 | 55 | 3 | 94 | 382 |
| Total | 118 | 185 | 173 | 476 | 80 | 457 | 171 | 708 | 15 | 203 | 56 | 274 | 180 | 395 | 10 | 585 | 2043 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 244 | 505 | 358 | 1107 | 215 | 1245 | 361 | 1821 | 89 | 554 | 249 | 892 | 381 | 797 | 60 | 1238 | 5058 |
| Apprch % | 22 | 45.6 | 32.3 | | 11.8 | 68.4 | 19.8 | | 10 | 62.1 | 27.9 | | 30.8 | 64.4 | 4.8 | | |
| Total % | 4.8 | 10 | 7.1 | 21.9 | 4.3 | 24.6 | 7.1 | 36 | 1.8 | 11 | 4.9 | 17.6 | 7.5 | 15.8 | 1.2 | 24.5 | |

| | Main Street Southbound | | | | Foothill Parkway Westbound | | | | Main Street Northbound | | | | Foothill Parkway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | | | | | | | |
| 07:15 AM | 14 | 88 | **41** | 143 | **33** | **164** | 28 | **225** | 13 | 61 | 42 | 116 | 33 | 64 | 19 | 116 | 600 |
| 07:30 AM | 33 | **95** | 38 | **166** | 33 | 117 | **52** | 202 | 22 | **99** | 51 | 172 | 55 | 100 | **20** | 175 | **715** |
| 07:45 AM | **53** | 71 | 34 | 158 | 22 | 124 | 37 | 183 | **26** | 90 | **72** | **188** | 48 | 130 | 7 | 185 | 714 |
| 08:00 AM | 35 | 49 | 41 | 125 | 19 | 111 | 32 | 162 | 6 | 55 | 27 | 88 | **59** | **189** | 3 | **251** | 626 |
| Total Volume | 135 | 303 | 154 | 592 | 107 | 516 | 149 | 772 | 67 | 305 | 192 | 564 | 195 | 483 | 49 | 727 | 2655 |
| % App. Total | 22.8 | 51.2 | 26 | | 13.9 | 66.8 | 19.3 | | 11.9 | 54.1 | 34 | | 26.8 | 66.4 | 6.7 | | |
| PHF | .637 | .797 | .939 | .892 | .811 | .787 | .716 | .858 | .644 | .770 | .667 | .750 | .826 | .639 | .613 | .724 | .928 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Corona
N/S: Main Street
E/W: Foothill Parkway
Weather: Clear

File Name : 08_COR_Main_Foot AM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:15 AM | | | | 07:00 AM | | | | 07:15 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 14 | 88 | **41** | 143 | 19 | 130 | 24 | 173 | 13 | 61 | 42 | 116 | 55 | 100 | **20** | 175 |
| +15 mins. | 33 | **95** | 38 | **166** | **33** | **164** | 28 | **225** | 22 | **99** | 51 | 172 | 48 | 130 | 7 | 185 |
| +30 mins. | **53** | 71 | 34 | 158 | 33 | 117 | **52** | 202 | **26** | 90 | **72** | **188** | **59** | **189** | 3 | **251** |
| +45 mins. | 35 | 49 | 41 | 125 | 22 | 124 | 37 | 183 | 6 | 55 | 27 | 88 | 44 | 92 | 3 | 139 |
| Total Volume | 135 | 303 | 154 | 592 | 107 | 535 | 141 | 783 | 67 | 305 | 192 | 564 | 206 | 511 | 33 | 750 |
| % App. Total | 22.8 | 51.2 | 26 | | 13.7 | 68.3 | 18 | | 11.9 | 54.1 | 34 | | 27.5 | 68.1 | 4.4 | |
| PHF | .637 | .797 | .939 | .892 | .811 | .816 | .678 | .870 | .644 | .770 | .667 | .750 | .873 | .676 | .413 | .747 |

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City of Corona
N/S: Main Street
E/W: Foothill Parkway
Weather: Clear

File Name : 08_COR_Main_Foot PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 1

Groups Printed- Total Volume

| | Main Street Southbound | | | | Foothill Parkway Westbound | | | | Main Street Northbound | | | | Foothill Parkway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 45 | 85 | 48 | 178 | 44 | 119 | 42 | 205 | 5 | 42 | 14 | 61 | 48 | 201 | 8 | 257 | 701 |
| 04:15 PM | 35 | 82 | 45 | 162 | 27 | 67 | 24 | 118 | 7 | 33 | 14 | 54 | 46 | 196 | 5 | 247 | 581 |
| 04:30 PM | 37 | 88 | 41 | 166 | 16 | 66 | 23 | 105 | 5 | 44 | 9 | 58 | 51 | 203 | 6 | 260 | 589 |
| 04:45 PM | 52 | 100 | 43 | 195 | 31 | 77 | 23 | 131 | 4 | 49 | 19 | 72 | 54 | 208 | 9 | 271 | 669 |
| Total | 169 | 355 | 177 | 701 | 118 | 329 | 112 | 559 | 21 | 168 | 56 | 245 | 199 | 808 | 28 | 1035 | 2540 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 52 | 112 | 30 | 194 | 36 | 52 | 26 | 114 | 3 | 31 | 21 | 55 | 61 | 198 | 5 | 264 | 627 |
| 05:15 PM | 49 | 87 | 32 | 168 | 27 | 78 | 27 | 132 | 2 | 45 | 20 | 67 | 51 | 248 | 8 | 307 | 674 |
| 05:30 PM | 53 | 82 | 34 | 169 | 26 | 72 | 20 | 118 | 10 | 55 | 14 | 79 | 45 | 225 | 4 | 274 | 640 |
| 05:45 PM | 38 | 78 | 29 | 145 | 31 | 83 | 33 | 147 | 3 | 39 | 19 | 61 | 60 | 212 | 8 | 280 | 633 |
| Total | 192 | 359 | 125 | 676 | 120 | 285 | 106 | 511 | 18 | 170 | 74 | 262 | 217 | 883 | 25 | 1125 | 2574 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 361 | 714 | 302 | 1377 | 238 | 614 | 218 | 1070 | 39 | 338 | 130 | 507 | 416 | 1691 | 53 | 2160 | 5114 |
| Apprch % | 26.2 | 51.9 | 21.9 | | 22.2 | 57.4 | 20.4 | | 7.7 | 66.7 | 25.6 | | 19.3 | 78.3 | 2.5 | | |
| Total % | 7.1 | 14 | 5.9 | 26.9 | 4.7 | 12 | 4.3 | 20.9 | 0.8 | 6.6 | 2.5 | 9.9 | 8.1 | 33.1 | 1 | 42.2 | |

| | Main Street Southbound | | | | Foothill Parkway Westbound | | | | Main Street Northbound | | | | Foothill Parkway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 52 | 100 | **43** | **195** | 31 | 77 | 23 | 131 | 4 | 49 | 19 | 72 | 54 | 208 | **9** | 271 | 669 |
| 05:00 PM | 52 | **112** | 30 | 194 | **36** | 52 | 26 | 114 | 3 | 31 | **21** | 55 | **61** | 198 | 5 | 264 | 627 |
| 05:15 PM | 49 | 87 | 32 | 168 | 27 | **78** | **27** | **132** | 2 | 45 | 20 | 67 | 51 | **248** | 8 | **307** | **674** |
| 05:30 PM | **53** | 82 | 34 | 169 | 26 | 72 | 20 | 118 | **10** | **55** | 14 | **79** | 45 | 225 | 4 | 274 | 640 |
| Total Volume | 206 | 381 | 139 | 726 | 120 | 279 | 96 | 495 | 19 | 180 | 74 | 273 | 211 | 879 | 26 | 1116 | 2610 |
| % App. Total | 28.4 | 52.5 | 19.1 | | 24.2 | 56.4 | 19.4 | | 7 | 65.9 | 27.1 | | 18.9 | 78.8 | 2.3 | | |
| PHF | .972 | .850 | .808 | .931 | .833 | .894 | .889 | .938 | .475 | .818 | .881 | .864 | .865 | .886 | .722 | .909 | .968 |

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City of Corona
N/S: Main Street
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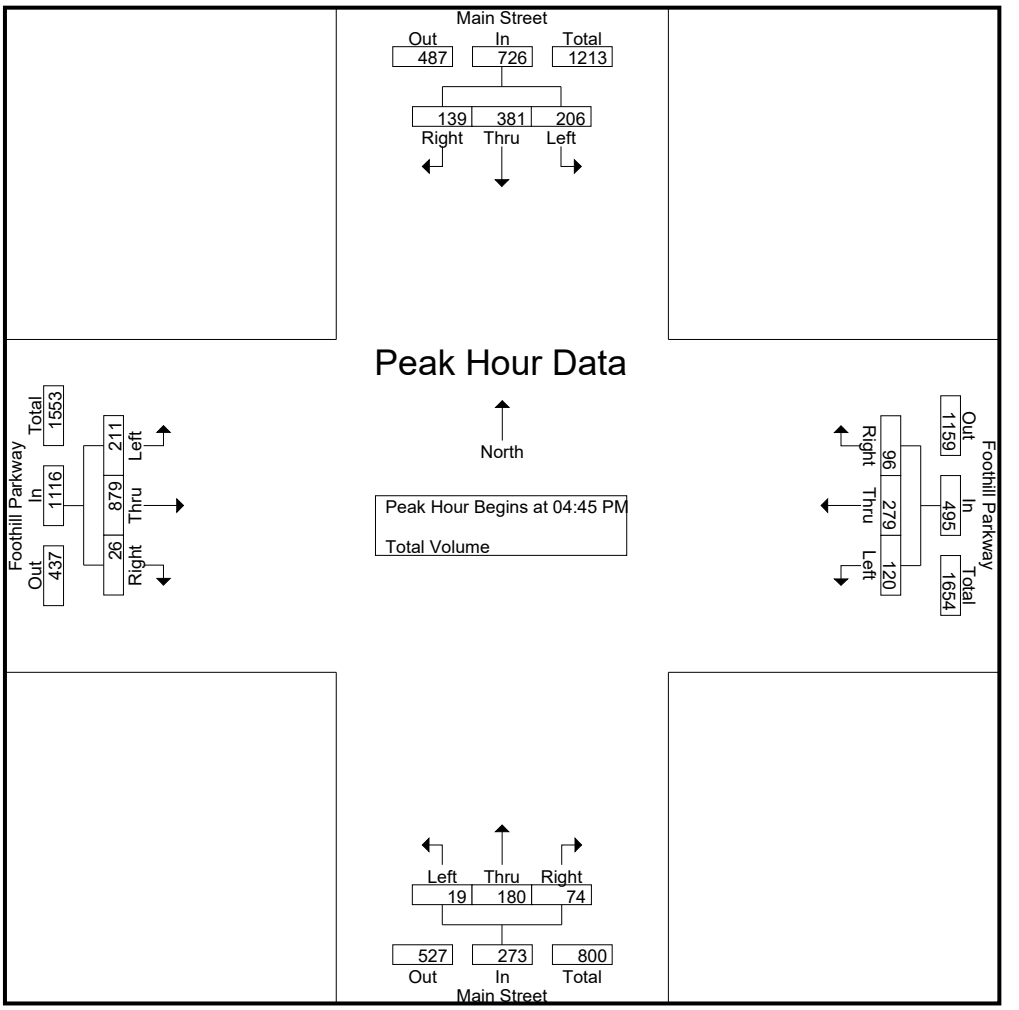
Weather: Clear

File Name : 08_COR_Main_Foot PM
Site Code : 10522672
Start Date : 8/16/2022
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | | 04:00 PM | | | | 04:45 PM | | | | 05:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 52 | 100 | **43** | **195** | **44** | **119** | **42** | **205** | 4 | 49 | 19 | 72 | **61** | 198 | 5 | 264 |
| +15 mins. | 52 | **112** | 30 | 194 | 27 | 67 | 24 | 118 | 3 | 31 | **21** | 55 | 51 | **248** | **8** | **307** |
| +30 mins. | 49 | 87 | 32 | 168 | 16 | 66 | 23 | 105 | 2 | 45 | 20 | 67 | 45 | 225 | 4 | 274 |
| +45 mins. | **53** | 82 | 34 | 169 | 31 | 77 | 23 | 131 | **10** | **55** | 14 | **79** | 60 | 212 | 8 | 280 |
| Total Volume | 206 | 381 | 139 | 726 | 118 | 329 | 112 | 559 | 19 | 180 | 74 | 273 | 217 | 883 | 25 | 1125 |
| % App. Total | 28.4 | 52.5 | 19.1 | | 21.1 | 58.9 | 20 | | 7 | 65.9 | 27.1 | | 19.3 | 78.5 | 2.2 | |
| PHF | .972 | .850 | .808 | .931 | .670 | .691 | .667 | .682 | .475 | .818 | .881 | .864 | .889 | .890 | .781 | .916 |

# Appendix C

Existing Conditions
LOS Analysis Worksheets

**Intersection Level Of Service Report**
**Intersection 1: Main Street at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 40.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.540 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 295.00 | 100.00 | 100.00 | 220.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 150.00 | 100.00 | 140.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 82 | 345 | 69 | 177 | 358 | 63 | 164 | 731 | 88 | 182 | 636 | 152 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 82 | 345 | 69 | 177 | 358 | 63 | 164 | 731 | 88 | 182 | 636 | 152 |
| Peak Hour Factor | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 23 | 95 | 19 | 49 | 99 | 17 | 45 | 201 | 24 | 50 | 175 | 42 |
| Total Analysis Volume [veh/h] | 90 | 380 | 76 | 195 | 395 | 69 | 181 | 806 | 97 | 201 | 701 | 168 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 115 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 15 | 42 | 0 | 12 | 39 | 0 | 25 | 34 | 0 | 27 | 36 | 36 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 31 | 0 | 0 | 28 | 0 | 0 | 23 | 0 | 0 | 25 | 25 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 7 | 53 | 53 | 8 | 54 | 54 | 14 | 23 | 23 | 15 | 24 | 36 |
| g / C, Green / Cycle | 0.06 | 0.46 | 0.46 | 0.07 | 0.47 | 0.47 | 0.12 | 0.20 | 0.20 | 0.13 | 0.21 | 0.32 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05 | 0.12 | 0.13 | 0.06 | 0.13 | 0.13 | 0.10 | 0.17 | 0.17 | 0.11 | 0.14 | 0.11 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1764 | 3459 | 1870 | 1775 | 1781 | 3560 | 1769 | 1781 | 5094 | 1589 |
| c, Capacity [veh/h] | 115 | 860 | 811 | 243 | 871 | 827 | 212 | 712 | 354 | 233 | 1077 | 503 |
| d1, Uniform Delay [s] | 53.04 | 19.17 | 19.20 | 52.71 | 18.81 | 18.82 | 49.69 | 44.34 | 44.37 | 49.01 | 41.49 | 30.06 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 11.00 | 0.78 | 0.84 | 6.08 | 0.77 | 0.82 | 9.28 | 2.89 | 5.73 | 9.17 | 0.67 | 0.39 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.78 | 0.27 | 0.27 | 0.80 | 0.27 | 0.27 | 0.85 | 0.85 | 0.85 | 0.86 | 0.65 | 0.33 |
| d, Delay for Lane Group [s/veh] | 64.04 | 19.94 | 20.03 | 58.80 | 19.58 | 19.64 | 58.97 | 47.23 | 50.10 | 58.18 | 42.16 | 30.45 |
| Lane Group LOS | E | B | C | E | B | B | E | D | D | E | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 2.91 | 4.01 | 3.84 | 2.98 | 4.04 | 3.87 | 5.64 | 8.51 | 8.78 | 6.24 | 6.11 | 3.62 |
| 50th-Percentile Queue Length [ft/ln] | 72.81 | 100.30 | 96.07 | 74.46 | 100.97 | 96.65 | 140.97 | 212.86 | 219.38 | 155.88 | 152.87 | 90.47 |
| 95th-Percentile Queue Length [veh/ln] | 5.24 | 7.22 | 6.92 | 5.36 | 7.27 | 6.96 | 9.53 | 13.30 | 13.63 | 10.33 | 10.17 | 6.51 |
| 95th-Percentile Queue Length [ft/ln] | 131.06 | 180.54 | 172.93 | 134.03 | 181.74 | 173.97 | 238.33 | 332.49 | 340.83 | 258.26 | 254.26 | 162.85 |

**Movement, Approach, & Intersection Results**

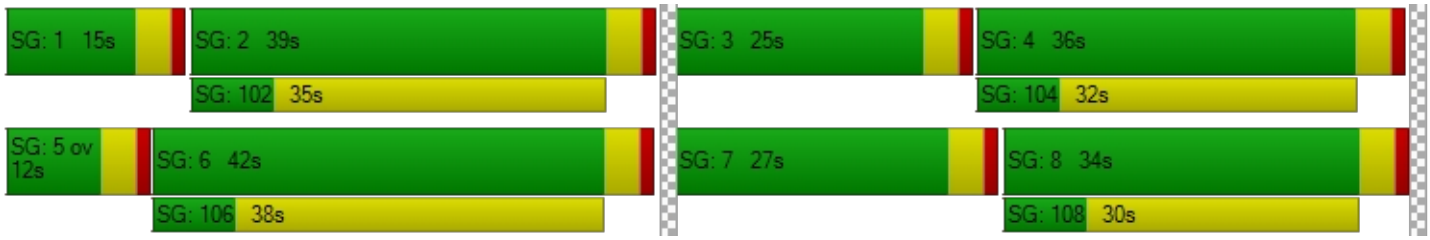
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 64.04 | 19.98 | 20.03 | 58.80 | 19.61 | 19.64 | 58.97 | 47.96 | 50.10 | 58.18 | 42.16 | 30.45 |
| Movement LOS | E | B | C | E | B | B | E | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 27.25 | | | 31.21 | | | 49.99 | | | 43.33 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 40.49 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.540 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 47.05 | 47.05 | 47.05 | 47.05 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.553 | 2.690 | 2.876 | 2.999 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 661 | 608 | 522 | 556 |
| d_b, Bicycle Delay [s] | 25.80 | 27.84 | 31.43 | 29.97 |
| l_b,int, Bicycle LOS Score for Intersection | 2.010 | 2.103 | 2.156 | 2.148 |
| Bicycle LOS | B | B | B | B |

## Sequence

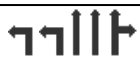
| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Magnolia Avenue at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 35.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.519 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Entry Pocket Length [ft] | 195.00 | 100.00 | 130.00 | 175.00 | 100.00 | 90.00 | 150.00 | 100.00 | 100.00 | 255.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 58 | 333 | 113 | 68 | 419 | 267 | 253 | 647 | 42 | 171 | 666 | 64 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 58 | 333 | 113 | 68 | 419 | 267 | 253 | 647 | 42 | 171 | 666 | 64 |
| Peak Hour Factor | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 16 | 90 | 30 | 18 | 113 | 72 | 68 | 174 | 11 | 46 | 179 | 17 |
| Total Analysis Volume [veh/h] | 63 | 359 | 122 | 73 | 452 | 288 | 273 | 697 | 45 | 184 | 718 | 69 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 110 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 11 | 41 | 0 | 12 | 42 | 0 | 15 | 45 | 0 | 12 | 42 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 30 | 0 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 31 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 58 | 58 | 6 | 58 | 58 | 11 | 22 | 22 | 8 | 20 | 20 |
| g / C, Green / Cycle | 0.05 | 0.52 | 0.52 | 0.06 | 0.53 | 0.53 | 0.10 | 0.20 | 0.20 | 0.07 | 0.18 | 0.18 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.10 | 0.08 | 0.04 | 0.13 | 0.18 | 0.08 | 0.14 | 0.14 | 0.05 | 0.15 | 0.15 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1589 | 1781 | 3560 | 1589 | 3459 | 3560 | 1813 | 3459 | 3560 | 1788 |
| c, Capacity [veh/h] | 98 | 1861 | 831 | 103 | 1869 | 835 | 335 | 724 | 369 | 246 | 633 | 318 |
| d1, Uniform Delay [s] | 50.94 | 13.95 | 13.59 | 50.97 | 14.23 | 15.17 | 48.77 | 40.53 | 40.55 | 50.17 | 43.64 | 43.67 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.75 | 0.23 | 0.37 | 8.71 | 0.31 | 1.13 | 4.87 | 1.12 | 2.21 | 4.53 | 2.83 | 5.61 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.64 | 0.19 | 0.15 | 0.71 | 0.24 | 0.35 | 0.82 | 0.68 | 0.68 | 0.75 | 0.83 | 0.83 |
| d, Delay for Lane Group [s/veh] | 57.68 | 14.18 | 13.96 | 59.69 | 14.53 | 16.30 | 53.64 | 41.66 | 42.76 | 54.71 | 46.47 | 49.28 |
| Lane Group LOS | E | B | B | E | B | B | D | D | D | D | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.88 | 2.39 | 1.63 | 2.22 | 3.08 | 4.34 | 3.89 | 6.23 | 6.48 | 2.63 | 7.07 | 7.39 |
| 50th-Percentile Queue Length [ft/ln] | 47.08 | 59.79 | 40.74 | 55.57 | 77.10 | 108.62 | 97.32 | 155.80 | 161.93 | 65.87 | 176.85 | 184.69 |
| 95th-Percentile Queue Length [veh/ln] | 3.39 | 4.30 | 2.93 | 4.00 | 5.55 | 7.76 | 7.01 | 10.33 | 10.65 | 4.74 | 11.44 | 11.85 |
| 95th-Percentile Queue Length [ft/ln] | 84.74 | 107.61 | 73.32 | 100.03 | 138.78 | 194.08 | 175.17 | 258.15 | 266.28 | 118.57 | 285.90 | 296.13 |

**Movement, Approach, & Intersection Results**

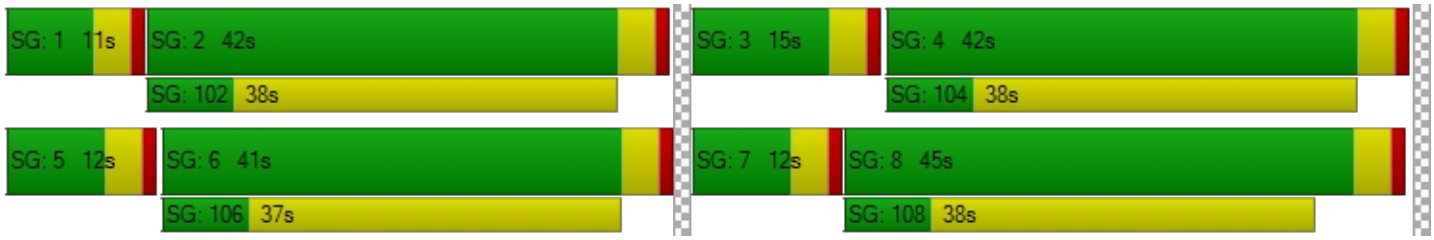
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 57.68 | 14.18 | 13.96 | 59.69 | 14.53 | 16.30 | 53.64 | 41.98 | 42.76 | 54.71 | 47.23 | 49.28 |
| Movement LOS | E | B | B | E | B | B | D | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 19.17 | | | 19.21 | | | 45.15 | | | 48.80 | | |
| Approach LOS | B | | | B | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 35.67 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.519 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 44.58 | 44.58 | 44.58 | 44.58 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.662 | 2.708 | 2.989 | 2.962 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 672 | 691 | 745 | 691 |
| d_b, Bicycle Delay [s] | 24.25 | 23.59 | 21.66 | 23.59 |
| l_b,int, Bicycle LOS Score for Intersection | 2.008 | 2.230 | 2.118 | 2.094 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Main Street at Montoya Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 23.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.435 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 90.00 | 100.00 | 100.00 | 130.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 | 30.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | No | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 51 | 387 | 26 | 126 | 222 | 50 | 43 | 29 | 78 | 13 | 20 | 97 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 51 | 387 | 26 | 126 | 222 | 50 | 43 | 29 | 78 | 13 | 20 | 97 |
| Peak Hour Factor | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 17 | 133 | 9 | 43 | 76 | 17 | 15 | 10 | 27 | 4 | 7 | 33 |
| Total Analysis Volume [veh/h] | 70 | 530 | 36 | 173 | 304 | 68 | 59 | 40 | 107 | 18 | 27 | 133 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 19 | 23 | 0 | 22 | 26 | 0 | 11 | 34 | 0 | 11 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 12 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 47 | 47 | 11 | 52 | 52 | 20 | 14 | 20 | 11 |
| g / C, Green / Cycle | 0.06 | 0.52 | 0.52 | 0.12 | 0.58 | 0.58 | 0.23 | 0.15 | 0.23 | 0.12 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 | 0.04 | 0.09 | 0.01 | 0.10 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1829 | 1781 | 1870 | 1754 | 1430 | 1657 | 1364 | 1631 |
| c, Capacity [veh/h] | 117 | 974 | 952 | 212 | 1074 | 1007 | 331 | 254 | 330 | 198 |
| d1, Uniform Delay [s] | 40.99 | 12.22 | 12.23 | 38.75 | 9.09 | 9.11 | 28.27 | 35.50 | 27.51 | 38.60 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.87 | 0.77 | 0.79 | 7.43 | 0.36 | 0.39 | 0.26 | 2.09 | 0.07 | 7.62 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.60 | 0.29 | 0.29 | 0.82 | 0.18 | 0.18 | 0.18 | 0.58 | 0.05 | 0.81 |
| d, Delay for Lane Group [s/veh] | 45.86 | 12.99 | 13.01 | 46.18 | 9.45 | 9.50 | 28.53 | 37.59 | 27.58 | 46.22 |
| Lane Group LOS | D | B | B | D | A | A | C | D | C | D |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.65 | 3.27 | 3.21 | 4.11 | 1.75 | 1.67 | 1.03 | 3.10 | 0.31 | 3.81 |
| 50th-Percentile Queue Length [ft/ln] | 41.32 | 81.65 | 80.21 | 102.80 | 43.74 | 41.75 | 25.74 | 77.58 | 7.65 | 95.27 |
| 95th-Percentile Queue Length [veh/ln] | 2.98 | 5.88 | 5.78 | 7.40 | 3.15 | 3.01 | 1.85 | 5.59 | 0.55 | 6.86 |
| 95th-Percentile Queue Length [ft/ln] | 74.38 | 146.97 | 144.38 | 185.04 | 78.74 | 75.16 | 46.33 | 139.65 | 13.77 | 171.49 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.86 | 13.00 | 13.01 | 46.18 | 9.47 | 9.50 | 28.53 | 37.59 | 37.59 | 27.58 | 46.22 | 46.22 |
| Movement LOS | D | B | B | D | A | A | C | D | D | C | D | D |
| d_A, Approach Delay [s/veh] | 16.62 | | | 21.13 | | | 34.99 | | | 44.34 | | |
| Approach LOS | B | | | C | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 23.76 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.435 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 34.72 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 2.558 | 2.060 | 2.079 |
| Crosswalk LOS | F | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 422 | 488 | 666 | 666 |
| d_b, Bicycle Delay [s] | 28.05 | 25.73 | 20.04 | 20.04 |
| l_b,int, Bicycle LOS Score for Intersection | 2.084 | 2.009 | 1.900 | 1.853 |
| Bicycle LOS | B | B | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 4: Magnolia Avenue at Santana Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 17.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.297 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 165.00 | 100.00 | 100.00 | 235.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 50 | 345 | 84 | 88 | 476 | 91 | 34 | 21 | 44 | 73 | 48 | 111 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 50 | 345 | 84 | 88 | 476 | 91 | 34 | 21 | 44 | 73 | 48 | 111 |
| Peak Hour Factor | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 14 | 96 | 23 | 24 | 132 | 25 | 9 | 6 | 12 | 20 | 13 | 31 |
| Total Analysis Volume [veh/h] | 55 | 382 | 93 | 98 | 528 | 101 | 38 | 23 | 49 | 81 | 53 | 123 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 12 | 27 | 0 | 17 | 32 | 0 | 0 | 46 | 0 | 0 | 46 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 13 | 0 | 0 | 16 | 0 | 0 | 30 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 5 | 56 | 56 | 6 | 58 | 58 | 15 | 15 | 15 | 15 |
| g / C, Green / Cycle | 0.06 | 0.63 | 0.63 | 0.07 | 0.64 | 0.64 | 0.17 | 0.17 | 0.17 | 0.17 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03 | 0.09 | 0.09 | 0.06 | 0.12 | 0.12 | 0.03 | 0.04 | 0.06 | 0.11 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1693 | 1781 | 3560 | 1722 | 1208 | 1669 | 1328 | 1665 |
| c, Capacity [veh/h] | 104 | 2231 | 1061 | 127 | 2277 | 1101 | 133 | 282 | 219 | 281 |
| d1, Uniform Delay [s] | 41.17 | 6.89 | 6.92 | 41.07 | 6.63 | 6.65 | 42.51 | 32.50 | 38.40 | 34.78 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.12 | 0.13 | 0.29 | 9.46 | 0.18 | 0.38 | 1.17 | 0.47 | 1.04 | 2.29 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.53 | 0.14 | 0.15 | 0.77 | 0.18 | 0.19 | 0.29 | 0.26 | 0.37 | 0.63 |
| d, Delay for Lane Group [s/veh] | 45.29 | 7.02 | 7.21 | 50.54 | 6.81 | 7.03 | 43.68 | 32.97 | 39.44 | 37.07 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.29 | 1.17 | 1.21 | 2.44 | 1.52 | 1.57 | 0.87 | 1.38 | 1.74 | 3.70 |
| 50th-Percentile Queue Length [ft/ln] | 32.29 | 29.22 | 30.15 | 61.08 | 38.05 | 39.17 | 21.70 | 34.57 | 43.59 | 92.48 |
| 95th-Percentile Queue Length [veh/ln] | 2.32 | 2.10 | 2.17 | 4.40 | 2.74 | 2.82 | 1.56 | 2.49 | 3.14 | 6.66 |
| 95th-Percentile Queue Length [ft/ln] | 58.12 | 52.59 | 54.27 | 109.94 | 68.50 | 70.50 | 39.05 | 62.23 | 78.47 | 166.46 |

**Movement, Approach, & Intersection Results**

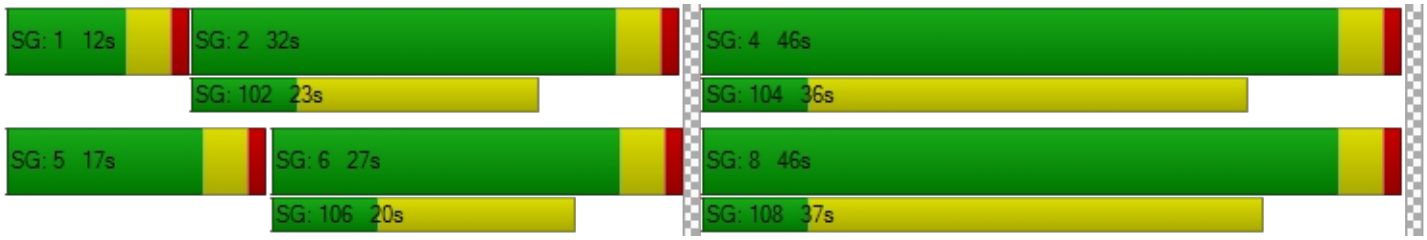
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.29 | 7.06 | 7.21 | 50.54 | 6.86 | 7.03 | 43.68 | 32.97 | 32.97 | 39.44 | 37.07 | 37.07 |
| Movement LOS | D | A | A | D | A | A | D | C | C | D | D | D |
| d_A, Approach Delay [s/veh] | 11.05 | | | 12.77 | | | 36.67 | | | 37.81 | | |
| Approach LOS | B | | | B | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 17.79 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.297 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.874 | 2.824 | 2.043 | 2.093 |
| Crosswalk LOS | C | C | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 511 | 622 | 933 | 933 |
| d_b, Bicycle Delay [s] | 24.94 | 21.36 | 12.80 | 12.80 |
| l_b,int, Bicycle LOS Score for Intersection | 1.851 | 1.959 | 1.741 | 1.984 |
| Bicycle LOS | A | A | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 5: Magnolia Avenue/Main Street at Main Street**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 19.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.350 |

**Intersection Setup**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 205.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 307 | 376 | 0 | 45 | 380 | 150 | 100 | 5 | 192 | 1 | 1 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 307 | 376 | 0 | 45 | 380 | 150 | 100 | 5 | 192 | 1 | 1 | 4 |
| Peak Hour Factor | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 84 | 103 | 0 | 12 | 104 | 41 | 27 | 1 | 53 | 0 | 0 | 1 |
| Total Analysis Volume [veh/h] | 336 | 411 | 0 | 49 | 416 | 164 | 109 | 5 | 210 | 1 | 1 | 4 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Overlap | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 0 | 7 | 4 | 0 | 0 | 2 | 2 | 0 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | 2,3 | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 30 | 53 | 0 | 12 | 35 | 0 | 0 | 14 | 14 | 0 | 11 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | No | | No | |
| Maximum Recall | No | No | | No | No | | | No | No | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | C | R | C | R |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 12 | 60 | 60 | 5 | 53 | 53 | 8 | 29 | 1 | 1 |
| g / C, Green / Cycle | 0.13 | 0.67 | 0.67 | 0.06 | 0.59 | 0.59 | 0.09 | 0.32 | 0.01 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.10 | 0.08 | 0.08 | 0.03 | 0.12 | 0.10 | 0.06 | 0.07 | 0.01 | 0.00 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1870 | 1781 | 3560 | 1589 | 1785 | 2813 | 205 | 1589 |
| c, Capacity [veh/h] | 459 | 2372 | 1246 | 100 | 2099 | 937 | 157 | 905 | 62 | 19 |
| d1, Uniform Delay [s] | 37.55 | 5.44 | 5.44 | 41.29 | 8.60 | 8.47 | 40.06 | 22.42 | 45.00 | 44.12 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 2.26 | 0.10 | 0.19 | 3.65 | 0.21 | 0.41 | 6.23 | 0.13 | 0.21 | 5.27 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.73 | 0.11 | 0.11 | 0.49 | 0.20 | 0.17 | 0.73 | 0.23 | 0.03 | 0.21 |
| d, Delay for Lane Group [s/veh] | 39.81 | 5.53 | 5.62 | 44.95 | 8.81 | 8.87 | 46.29 | 22.55 | 45.20 | 49.39 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | Yes | No | Yes | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 3.65 | 0.82 | 0.90 | 1.15 | 1.79 | 1.45 | 2.70 | 1.62 | 0.05 | 0.12 |
| 50th-Percentile Queue Length [ft/ln] | 91.17 | 20.58 | 22.38 | 28.68 | 44.85 | 36.27 | 67.54 | 40.47 | 1.20 | 2.89 |
| 95th-Percentile Queue Length [veh/ln] | 6.56 | 1.48 | 1.61 | 2.06 | 3.23 | 2.61 | 4.86 | 2.91 | 0.09 | 0.21 |
| 95th-Percentile Queue Length [ft/ln] | 164.10 | 37.05 | 40.29 | 51.62 | 80.72 | 65.29 | 121.57 | 72.85 | 2.15 | 5.21 |

**Movement, Approach, & Intersection Results**

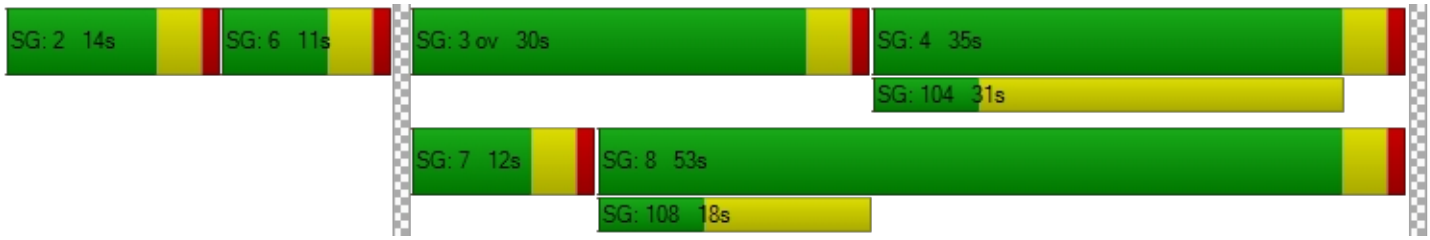
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 39.81 | 5.56 | 5.62 | 44.95 | 8.81 | 8.87 | 46.29 | 46.29 | 22.55 | 45.20 | 45.20 | 49.39 |
| Movement LOS | D | A | A | D | A | A | D | D | C | D | D | D |
| d_A, Approach Delay [s/veh] | 20.97 | | | 11.64 | | | 30.90 | | | 47.99 | | |
| Approach LOS | C | | | B | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 19.51 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.350 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 10.0 | 0.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 35.60 | 0.00 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.787 | 0.000 | 2.460 | 1.959 |
| Crosswalk LOS | C | F | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1088 | 688 | 222 | 155 |
| d_b, Bicycle Delay [s] | 9.37 | 19.38 | 35.60 | 38.32 |
| l_b,int, Bicycle LOS Score for Intersection | 1.970 | 2.079 | 2.094 | 1.570 |
| Bicycle LOS | A | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 6: Main Street at Citrus Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 10.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.349 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 155.00 | 100.00 | 100.00 | 100.00 | 90.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 58 | 578 | 532 | 55 | 102 | 85 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 58 | 578 | 532 | 55 | 102 | 85 |
| Peak Hour Factor | 0.8330 | 0.8330 | 0.8330 | 0.8330 | 0.8330 | 0.8330 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 17 | 173 | 160 | 17 | 31 | 26 |
| Total Analysis Volume [veh/h] | 70 | 694 | 639 | 66 | 122 | 102 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 2 | 0 | 3 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 7 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 35 | 24 | 0 | 55 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 0 | 7 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 0 | 13 | 0 | 20 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 73 | 64 | 64 | 9 | 9 |
| g / C, Green / Cycle | 0.06 | 0.82 | 0.71 | 0.71 | 0.09 | 0.09 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.19 | 0.19 | 0.19 | 0.07 | 0.06 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1870 | 1810 | 1781 | 1589 |
| c, Capacity [veh/h] | 116 | 2905 | 1320 | 1278 | 170 | 151 |
| d1, Uniform Delay [s] | 40.94 | 1.90 | 4.79 | 4.83 | 39.57 | 39.38 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.50 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.91 | 0.19 | 0.50 | 0.54 | 5.62 | 5.13 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.60 | 0.24 | 0.27 | 0.28 | 0.72 | 0.67 |
| d, Delay for Lane Group [s/veh] | 45.84 | 2.09 | 5.29 | 5.36 | 45.19 | 44.51 |
| Lane Group LOS | D | A | A | A | D | D |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 1.65 | 0.82 | 2.11 | 2.13 | 2.85 | 2.37 |
| 50th-Percentile Queue Length [ft/ln] | 41.31 | 20.40 | 52.79 | 53.37 | 71.29 | 59.20 |
| 95th-Percentile Queue Length [veh/ln] | 2.97 | 1.47 | 3.80 | 3.84 | 5.13 | 4.26 |
| 95th-Percentile Queue Length [ft/ln] | 74.36 | 36.71 | 95.03 | 96.07 | 128.32 | 106.57 |

**Movement, Approach, & Intersection Results**

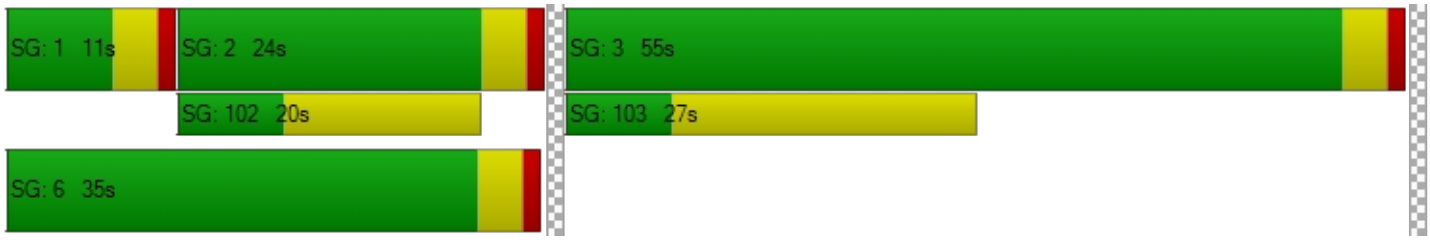
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.84 | 2.09 | 5.32 | 5.36 | 45.19 | 44.51 |
| Movement LOS | D | A | A | A | D | D |
| d_A, Approach Delay [s/veh] | 6.10 | | 5.33 | | 44.88 | |
| Approach LOS | A | | A | | D | |
| d_I, Intersection Delay [s/veh] | 10.91 | | | | | |
| Intersection LOS | B | | | | | |
| Intersection V/C | 0.349 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.593 | 2.501 | 2.057 |
| Crosswalk LOS | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 689 | 444 | 1133 |
| d_b, Bicycle Delay [s] | 19.35 | 27.23 | 8.46 |
| l_b,int, Bicycle LOS Score for Intersection | 2.190 | 2.141 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main Street at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 10.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.531 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 140.00 | 100.00 | 100.00 | 115.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 45.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 1 | 596 | 56 | 42 | 545 | 0 | 0 | 0 | 0 | 66 | 1 | 52 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 596 | 56 | 42 | 545 | 0 | 0 | 0 | 0 | 66 | 1 | 52 |
| Peak Hour Factor | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 178 | 17 | 13 | 162 | 0 | 0 | 0 | 0 | 20 | 0 | 15 |
| Total Analysis Volume [veh/h] | 1 | 710 | 67 | 50 | 650 | 0 | 0 | 0 | 0 | 79 | 1 | 62 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 95 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 13 | 50 | 0 | 11 | 48 | 0 | 0 | 34 | 0 | 0 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 12 | 0 | 0 | 23 | 0 | 0 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 0 | 68 | 68 | 5 | 73 | 73 | 9 | 9 | 9 | 9 |
| g / C, Green / Cycle | 0.00 | 0.72 | 0.72 | 0.05 | 0.77 | 0.77 | 0.10 | 0.10 | 0.10 | 0.10 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.38 | 0.04 | 0.03 | 0.17 | 0.17 | 0.00 | 0.00 | 0.06 | 0.04 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1589 | 1781 | 1870 | 1870 | 1339 | 1870 | 1417 | 1593 |
| c, Capacity [veh/h] | 4 | 1350 | 1147 | 97 | 1447 | 1447 | 126 | 183 | 182 | 156 |
| d1, Uniform Delay [s] | 47.32 | 5.93 | 3.84 | 43.72 | 2.94 | 2.94 | 0.00 | 0.00 | 43.08 | 40.26 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 30.34 | 1.47 | 0.10 | 4.23 | 0.36 | 0.36 | 0.00 | 0.00 | 1.64 | 1.69 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.25 | 0.53 | 0.06 | 0.52 | 0.22 | 0.22 | 0.00 | 0.00 | 0.44 | 0.40 |
| d, Delay for Lane Group [s/veh] | 77.66 | 7.40 | 3.94 | 47.95 | 3.30 | 3.30 | 0.00 | 0.00 | 44.72 | 41.95 |
| Lane Group LOS | E | A | A | D | A | A | A | A | D | D |
| Critical Lane Group | No | Yes | No | Yes | No | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.06 | 5.68 | 0.34 | 1.25 | 1.37 | 1.37 | 0.00 | 0.00 | 1.88 | 1.44 |
| 50th-Percentile Queue Length [ft/ln] | 1.42 | 141.94 | 8.61 | 31.23 | 34.15 | 34.15 | 0.00 | 0.00 | 47.07 | 36.10 |
| 95th-Percentile Queue Length [veh/ln] | 0.10 | 9.59 | 0.62 | 2.25 | 2.46 | 2.46 | 0.00 | 0.00 | 3.39 | 2.60 |
| 95th-Percentile Queue Length [ft/ln] | 2.56 | 239.64 | 15.49 | 56.22 | 61.48 | 61.48 | 0.00 | 0.00 | 84.72 | 64.98 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 77.66 | 7.40 | 3.94 | 47.95 | 3.30 | 3.30 | 0.00 | 0.00 | 0.00 | 44.72 | 41.95 | 41.95 |
| Movement LOS | E | A | A | D | A | A | A | A | A | D | D | D |
| d_A, Approach Delay [s/veh] | 7.19 | | | 6.49 | | | 0.00 | | | 43.49 | | |
| Approach LOS | A | | | A | | | A | | | D | | |
| d_I, Intersection Delay [s/veh] | 10.07 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.531 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 37.14 | 37.14 | 37.14 | 37.14 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.708 | 2.492 | 1.943 | 2.027 |
| Crosswalk LOS | B | B | A | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 968 | 926 | 632 | 632 |
| d_b, Bicycle Delay [s] | 12.64 | 13.69 | 22.24 | 22.24 |
| l_b,int, Bicycle LOS Score for Intersection | 2.843 | 2.137 | 1.560 | 1.794 |
| Bicycle LOS | C | B | A | A |

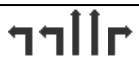
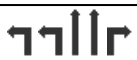
## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 8: Main Street at Foothill Parkway**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 32.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.459 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 160.00 | 100.00 | 155.00 | 140.00 | 100.00 | 160.00 | 140.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 67 | 305 | 192 | 135 | 303 | 154 | 195 | 483 | 49 | 107 | 516 | 149 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 67 | 305 | 192 | 135 | 303 | 154 | 195 | 483 | 49 | 107 | 516 | 149 |
| Peak Hour Factor | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 82 | 52 | 36 | 82 | 41 | 53 | 130 | 13 | 29 | 139 | 40 |
| Total Analysis Volume [veh/h] | 72 | 329 | 207 | 145 | 327 | 166 | 210 | 520 | 53 | 115 | 556 | 161 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 105 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 2 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | 2,3 | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 30 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 12 | 38 | 0 | 11 | 37 | 37 | 12 | 43 | 0 | 13 | 44 | 44 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 27 | 0 | 0 | 26 | 26 | 0 | 29 | 0 | 0 | 29 | 29 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | No | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 6 | 54 | 54 | 7 | 55 | 67 | 8 | 21 | 21 | 7 | 20 | 31 |
| g / C, Green / Cycle | 0.06 | 0.52 | 0.52 | 0.07 | 0.53 | 0.64 | 0.08 | 0.20 | 0.20 | 0.06 | 0.19 | 0.29 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02 | 0.09 | 0.13 | 0.04 | 0.09 | 0.10 | 0.06 | 0.15 | 0.03 | 0.03 | 0.16 | 0.10 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 |
| c, Capacity [veh/h] | 206 | 1840 | 821 | 233 | 1868 | 1017 | 266 | 706 | 315 | 225 | 665 | 464 |
| d1, Uniform Delay [s] | 47.48 | 13.52 | 14.11 | 47.71 | 13.07 | 7.62 | 47.68 | 39.55 | 34.94 | 47.51 | 41.20 | 29.30 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 1.02 | 0.21 | 0.74 | 2.70 | 0.20 | 0.35 | 5.19 | 1.52 | 0.25 | 1.78 | 2.88 | 0.44 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.35 | 0.18 | 0.25 | 0.62 | 0.18 | 0.16 | 0.79 | 0.74 | 0.17 | 0.51 | 0.84 | 0.35 |
| d, Delay for Lane Group [s/veh] | 48.50 | 13.74 | 14.85 | 50.41 | 13.28 | 7.96 | 52.87 | 41.06 | 35.19 | 49.29 | 44.08 | 29.75 |
| Lane Group LOS | D | B | B | D | B | A | D | D | D | D | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.93 | 2.08 | 2.83 | 1.93 | 2.03 | 1.51 | 2.88 | 6.40 | 1.15 | 1.51 | 7.14 | 3.24 |
| 50th-Percentile Queue Length [ft/ln] | 23.32 | 52.06 | 70.78 | 48.24 | 50.63 | 37.70 | 72.05 | 159.88 | 28.67 | 37.69 | 178.46 | 81.12 |
| 95th-Percentile Queue Length [veh/ln] | 1.68 | 3.75 | 5.10 | 3.47 | 3.65 | 2.71 | 5.19 | 10.54 | 2.06 | 2.71 | 11.52 | 5.84 |
| 95th-Percentile Queue Length [ft/ln] | 41.97 | 93.72 | 127.41 | 86.82 | 91.14 | 67.86 | 129.69 | 263.57 | 51.60 | 67.84 | 288.00 | 146.01 |

**Movement, Approach, & Intersection Results**

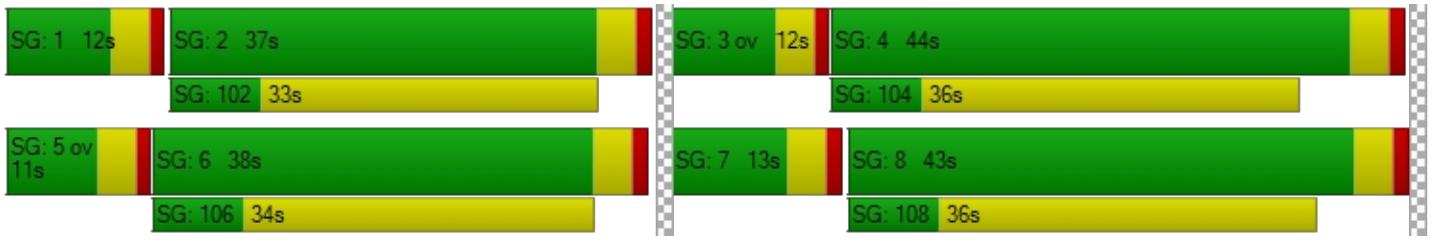
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 48.50 | 13.74 | 14.85 | 50.41 | 13.28 | 7.96 | 52.87 | 41.06 | 35.19 | 49.29 | 44.08 | 29.75 |
| Movement LOS | D | B | B | D | B | A | D | D | D | D | D | C |
| d_A, Approach Delay [s/veh] | 18.23 | | | 20.33 | | | 43.83 | | | 42.03 | | |
| Approach LOS | B | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 32.63 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.459 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 42.11 | 42.11 | 42.11 | 42.11 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.755 | 2.788 | 2.821 | 2.839 |
| Crosswalk LOS | C | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 647 | 628 | 742 | 761 |
| d_b, Bicycle Delay [s] | 24.03 | 24.71 | 20.77 | 20.14 |
| l_b,int, Bicycle LOS Score for Intersection | 2.061 | 2.086 | 2.206 | 2.246 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 1: Main Street at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 40.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.515 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 295.00 | 100.00 | 100.00 | 220.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 150.00 | 100.00 | 140.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 61 | 239 | 62 | 253 | 289 | 73 | 136 | 759 | 41 | 112 | 738 | 183 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 61 | 239 | 62 | 253 | 289 | 73 | 136 | 759 | 41 | 112 | 738 | 183 |
| Peak Hour Factor | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 70 | 18 | 74 | 85 | 21 | 40 | 222 | 12 | 33 | 216 | 54 |
| Total Analysis Volume [veh/h] | 71 | 280 | 73 | 296 | 338 | 85 | 159 | 888 | 48 | 131 | 863 | 214 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 115 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 17 | 42 | 0 | 16 | 41 | 0 | 21 | 43 | 0 | 14 | 36 | 36 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 31 | 0 | 0 | 28 | 0 | 0 | 23 | 0 | 0 | 25 | 25 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 6 | 51 | 51 | 12 | 57 | 57 | 12 | 26 | 26 | 10 | 24 | 40 |
| g / C, Green / Cycle | 0.05 | 0.44 | 0.44 | 0.10 | 0.49 | 0.49 | 0.11 | 0.23 | 0.23 | 0.09 | 0.21 | 0.35 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.10 | 0.10 | 0.09 | 0.12 | 0.12 | 0.09 | 0.17 | 0.17 | 0.07 | 0.17 | 0.13 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1740 | 3459 | 1870 | 1742 | 1781 | 3560 | 1821 | 1781 | 5094 | 1589 |
| c, Capacity [veh/h] | 99 | 828 | 770 | 363 | 921 | 858 | 189 | 804 | 411 | 156 | 1055 | 551 |
| d1, Uniform Delay [s] | 53.47 | 19.78 | 19.82 | 50.42 | 16.79 | 16.80 | 50.48 | 41.76 | 41.77 | 51.71 | 43.56 | 28.38 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 9.41 | 0.61 | 0.67 | 4.51 | 0.61 | 0.66 | 9.58 | 1.60 | 3.10 | 11.31 | 1.63 | 0.45 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.72 | 0.22 | 0.22 | 0.82 | 0.24 | 0.24 | 0.84 | 0.77 | 0.77 | 0.84 | 0.82 | 0.39 |
| d, Delay for Lane Group [s/veh] | 62.88 | 20.38 | 20.50 | 54.93 | 17.40 | 17.46 | 60.06 | 43.35 | 44.87 | 63.02 | 45.18 | 28.82 |
| Lane Group LOS | E | C | C | D | B | B | E | D | D | E | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.28 | 3.12 | 2.99 | 4.39 | 3.45 | 3.24 | 4.99 | 8.37 | 8.75 | 4.21 | 7.94 | 4.52 |
| 50th-Percentile Queue Length [ft/ln] | 56.94 | 78.09 | 74.74 | 109.78 | 86.24 | 81.04 | 124.70 | 209.17 | 218.71 | 105.16 | 198.42 | 113.02 |
| 95th-Percentile Queue Length [veh/ln] | 4.10 | 5.62 | 5.38 | 7.83 | 6.21 | 5.83 | 8.65 | 13.11 | 13.60 | 7.57 | 12.56 | 8.01 |
| 95th-Percentile Queue Length [ft/ln] | 102.50 | 140.56 | 134.54 | 195.70 | 155.22 | 145.87 | 216.27 | 327.77 | 339.97 | 189.25 | 313.93 | 200.19 |

**Movement, Approach, & Intersection Results**

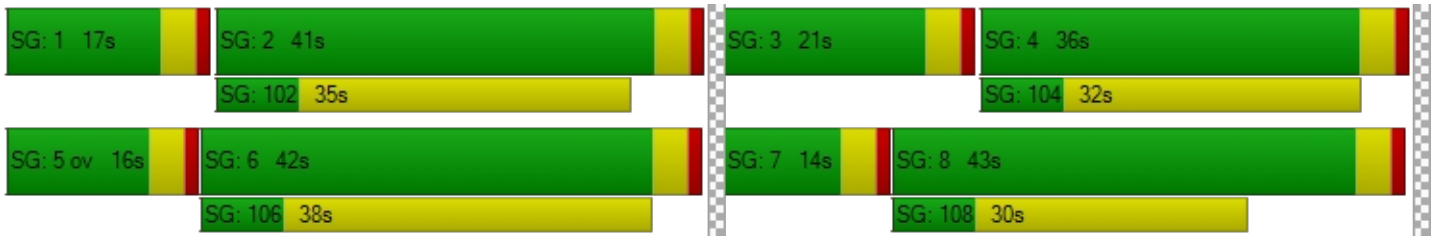
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 62.88 | 20.42 | 20.50 | 54.93 | 17.42 | 17.46 | 60.06 | 43.81 | 44.87 | 63.02 | 45.18 | 28.82 |
| Movement LOS | E | C | C | D | B | B | E | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 27.55 | | | 32.87 | | | 46.22 | | | 44.22 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 40.43 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.515 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 47.05 | 47.05 | 47.05 | 47.05 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.495 | 2.688 | 2.900 | 3.038 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 661 | 643 | 678 | 556 |
| d_b, Bicycle Delay [s] | 25.80 | 26.47 | 25.13 | 29.97 |
| l_b,int, Bicycle LOS Score for Intersection | 1.909 | 2.153 | 2.162 | 2.224 |
| Bicycle LOS | A | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Magnolia Avenue at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 38.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.556 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Entry Pocket Length [ft] | 195.00 | 100.00 | 130.00 | 175.00 | 100.00 | 90.00 | 150.00 | 100.00 | 100.00 | 255.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 70 | 305 | 82 | 58 | 435 | 268 | 297 | 772 | 48 | 142 | 643 | 47 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 70 | 305 | 82 | 58 | 435 | 268 | 297 | 772 | 48 | 142 | 643 | 47 |
| Peak Hour Factor | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 20 | 86 | 23 | 16 | 123 | 76 | 84 | 219 | 14 | 40 | 182 | 13 |
| Total Analysis Volume [veh/h] | 79 | 345 | 93 | 66 | 493 | 304 | 336 | 874 | 54 | 161 | 728 | 53 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 115 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 11 | 41 | 0 | 12 | 42 | 0 | 20 | 51 | 0 | 11 | 42 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 30 | 0 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 31 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 7 | 59 | 59 | 6 | 59 | 59 | 13 | 26 | 26 | 7 | 20 | 20 |
| g / C, Green / Cycle | 0.06 | 0.52 | 0.52 | 0.05 | 0.51 | 0.51 | 0.12 | 0.23 | 0.23 | 0.06 | 0.17 | 0.17 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.10 | 0.06 | 0.04 | 0.14 | 0.19 | 0.10 | 0.17 | 0.17 | 0.05 | 0.15 | 0.15 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1589 | 1781 | 3560 | 1589 | 3459 | 3560 | 1815 | 3459 | 3560 | 1806 |
| c, Capacity [veh/h] | 102 | 1838 | 820 | 97 | 1828 | 816 | 401 | 815 | 415 | 213 | 622 | 315 |
| d1, Uniform Delay [s] | 53.53 | 14.91 | 14.31 | 53.44 | 15.81 | 16.84 | 49.82 | 41.36 | 41.36 | 53.14 | 45.87 | 45.91 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 11.92 | 0.23 | 0.28 | 8.16 | 0.36 | 1.30 | 4.73 | 1.45 | 2.81 | 5.38 | 2.99 | 5.83 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.78 | 0.19 | 0.11 | 0.68 | 0.27 | 0.37 | 0.84 | 0.75 | 0.75 | 0.76 | 0.83 | 0.84 |
| d, Delay for Lane Group [s/veh] | 65.46 | 15.14 | 14.59 | 61.60 | 16.17 | 18.15 | 54.54 | 42.80 | 44.17 | 58.52 | 48.86 | 51.74 |
| Lane Group LOS | E | B | B | E | B | B | D | D | D | E | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 2.59 | 2.45 | 1.30 | 2.09 | 3.71 | 5.05 | 4.99 | 8.25 | 8.57 | 2.45 | 7.37 | 7.76 |
| 50th-Percentile Queue Length [ft/ln] | 64.76 | 61.37 | 32.59 | 52.35 | 92.70 | 126.15 | 124.63 | 206.15 | 214.22 | 61.21 | 184.29 | 194.08 |
| 95th-Percentile Queue Length [veh/ln] | 4.66 | 4.42 | 2.35 | 3.77 | 6.67 | 8.73 | 8.65 | 12.96 | 13.37 | 4.41 | 11.82 | 12.33 |
| 95th-Percentile Queue Length [ft/ln] | 116.56 | 110.46 | 58.66 | 94.22 | 166.87 | 218.25 | 216.17 | 323.89 | 334.24 | 110.18 | 295.61 | 308.32 |

**Movement, Approach, & Intersection Results**

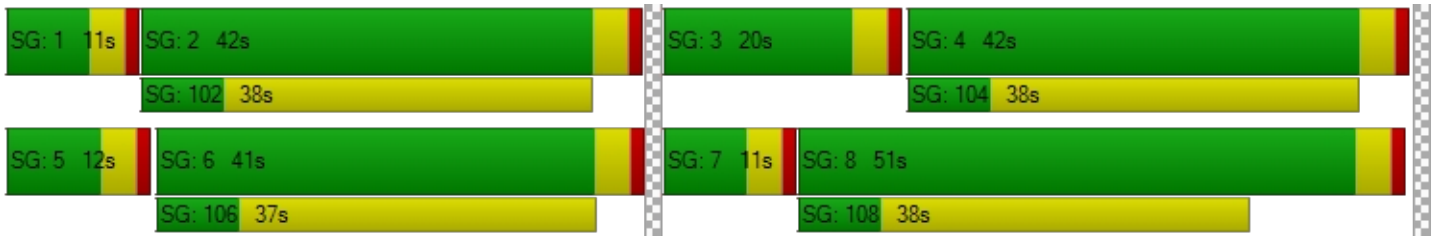
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 65.46 | 15.14 | 14.59 | 61.60 | 16.17 | 18.15 | 54.54 | 43.21 | 44.17 | 58.52 | 49.69 | 51.74 |
| Movement LOS | E | B | B | E | B | B | D | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 22.73 | | | 20.34 | | | 46.26 | | | 51.32 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 37.96 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.556 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 47.05 | 47.05 | 47.05 | 47.05 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.664 | 2.724 | 3.027 | 2.978 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 643 | 661 | 817 | 661 |
| d_b, Bicycle Delay [s] | 26.47 | 25.80 | 20.12 | 25.80 |
| l_b,int, Bicycle LOS Score for Intersection | 1.986 | 2.272 | 2.255 | 2.078 |
| Bicycle LOS | A | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Main Street at Montoya Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 10.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.225 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 90.00 | 100.00 | 100.00 | 130.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 | 30.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | No | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 57 | 292 | 0 | 10 | 405 | 53 | 29 | 0 | 36 | 0 | 0 | 7 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 57 | 292 | 0 | 10 | 405 | 53 | 29 | 0 | 36 | 0 | 0 | 7 |
| Peak Hour Factor | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 15 | 79 | 0 | 3 | 110 | 14 | 8 | 0 | 10 | 0 | 0 | 2 |
| Total Analysis Volume [veh/h] | 62 | 317 | 0 | 11 | 439 | 57 | 31 | 0 | 39 | 0 | 0 | 8 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 12 | 34 | 0 | 11 | 33 | 0 | 11 | 34 | 0 | 11 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 12 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 67 | 67 | 2 | 63 | 63 | 9 | 5 | 9 | 1 |
| g / C, Green / Cycle | 0.06 | 0.75 | 0.75 | 0.02 | 0.70 | 0.70 | 0.10 | 0.06 | 0.10 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03 | 0.08 | 0.08 | 0.01 | 0.13 | 0.14 | 0.02 | 0.02 | 0.00 | 0.01 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1870 | 1781 | 1870 | 1796 | 1645 | 1589 | 1461 | 1589 |
| c, Capacity [veh/h] | 110 | 1394 | 1394 | 35 | 1315 | 1263 | 282 | 90 | 239 | 24 |
| d1, Uniform Delay [s] | 41.07 | 3.19 | 3.19 | 43.58 | 4.59 | 4.60 | 36.98 | 41.08 | 0.00 | 43.94 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.43 | 0.17 | 0.17 | 5.16 | 0.32 | 0.34 | 0.17 | 3.23 | 0.00 | 8.28 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.56 | 0.11 | 0.11 | 0.32 | 0.19 | 0.19 | 0.11 | 0.43 | 0.00 | 0.34 |
| d, Delay for Lane Group [s/veh] | 45.49 | 3.35 | 3.35 | 48.74 | 4.92 | 4.94 | 37.15 | 44.30 | 0.00 | 52.22 |
| Lane Group LOS | D | A | A | D | A | A | D | D | A | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 1.46 | 0.66 | 0.66 | 0.29 | 1.43 | 1.40 | 0.63 | 0.91 | 0.00 | 0.23 |
| 50th-Percentile Queue Length [ft/ln] | 36.45 | 16.57 | 16.57 | 7.23 | 35.87 | 34.93 | 15.79 | 22.73 | 0.00 | 5.73 |
| 95th-Percentile Queue Length [veh/ln] | 2.62 | 1.19 | 1.19 | 0.52 | 2.58 | 2.52 | 1.14 | 1.64 | 0.00 | 0.41 |
| 95th-Percentile Queue Length [ft/ln] | 65.61 | 29.83 | 29.83 | 13.01 | 64.56 | 62.88 | 28.42 | 40.92 | 0.00 | 10.31 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.49 | 3.35 | 3.35 | 48.74 | 4.93 | 4.94 | 37.15 | 44.30 | 44.30 | 0.00 | 52.22 | 52.22 |
| Movement LOS | D | A | A | D | A | A | D | D | D | A | D | D |
| d_A, Approach Delay [s/veh] | 10.25 | | | 5.88 | | | 41.13 | | | 52.22 | | |
| Approach LOS | B | | | A | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 10.54 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.225 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 34.69 | 34.69 | 34.69 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 2.469 | 2.001 | 1.946 |
| Crosswalk LOS | F | B | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 666 | 644 | 666 | 666 |
| d_b, Bicycle Delay [s] | 20.02 | 20.69 | 20.02 | 20.02 |
| l_b,int, Bicycle LOS Score for Intersection | 1.872 | 1.978 | 1.675 | 1.573 |
| Bicycle LOS | A | A | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 4: Magnolia Avenue at Santana Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 20.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.293 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 165.00 | 100.00 | 100.00 | 235.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 54 | 301 | 90 | 138 | 367 | 120 | 111 | 46 | 76 | 42 | 33 | 56 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 54 | 301 | 90 | 138 | 367 | 120 | 111 | 46 | 76 | 42 | 33 | 56 |
| Peak Hour Factor | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 14 | 80 | 24 | 36 | 97 | 32 | 29 | 12 | 20 | 11 | 9 | 15 |
| Total Analysis Volume [veh/h] | 57 | 318 | 95 | 146 | 388 | 127 | 117 | 49 | 80 | 44 | 35 | 59 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 12 | 24 | 0 | 25 | 37 | 0 | 0 | 41 | 0 | 0 | 41 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 13 | 0 | 0 | 16 | 0 | 0 | 30 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 5 | 52 | 52 | 9 | 55 | 55 | 17 | 17 | 17 | 17 |
| g / C, Green / Cycle | 0.06 | 0.57 | 0.57 | 0.10 | 0.62 | 0.62 | 0.19 | 0.19 | 0.19 | 0.19 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03 | 0.08 | 0.08 | 0.08 | 0.10 | 0.10 | 0.09 | 0.08 | 0.03 | 0.06 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1665 | 1781 | 3560 | 1649 | 1302 | 1686 | 1261 | 1684 |
| c, Capacity [veh/h] | 106 | 2036 | 952 | 182 | 2189 | 1014 | 231 | 324 | 202 | 324 |
| d1, Uniform Delay [s] | 41.12 | 8.94 | 8.98 | 39.50 | 7.40 | 7.43 | 38.64 | 31.80 | 38.06 | 31.10 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.16 | 0.14 | 0.32 | 7.85 | 0.16 | 0.35 | 1.71 | 0.79 | 0.54 | 0.49 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.54 | 0.14 | 0.14 | 0.80 | 0.16 | 0.16 | 0.51 | 0.40 | 0.22 | 0.29 |
| d, Delay for Lane Group [s/veh] | 45.27 | 9.08 | 9.30 | 47.35 | 7.56 | 7.78 | 40.35 | 32.59 | 38.59 | 31.59 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No |
| 50th-Percentile Queue Length [veh/ln] | 1.34 | 1.21 | 1.24 | 3.51 | 1.35 | 1.35 | 2.58 | 2.49 | 0.93 | 1.77 |
| 50th-Percentile Queue Length [ft/ln] | 33.44 | 30.26 | 31.05 | 87.73 | 33.64 | 33.75 | 64.53 | 62.27 | 23.22 | 44.21 |
| 95th-Percentile Queue Length [veh/ln] | 2.41 | 2.18 | 2.24 | 6.32 | 2.42 | 2.43 | 4.65 | 4.48 | 1.67 | 3.18 |
| 95th-Percentile Queue Length [ft/ln] | 60.20 | 54.46 | 55.89 | 157.91 | 60.54 | 60.75 | 116.16 | 112.08 | 41.79 | 79.58 |

**Movement, Approach, & Intersection Results**

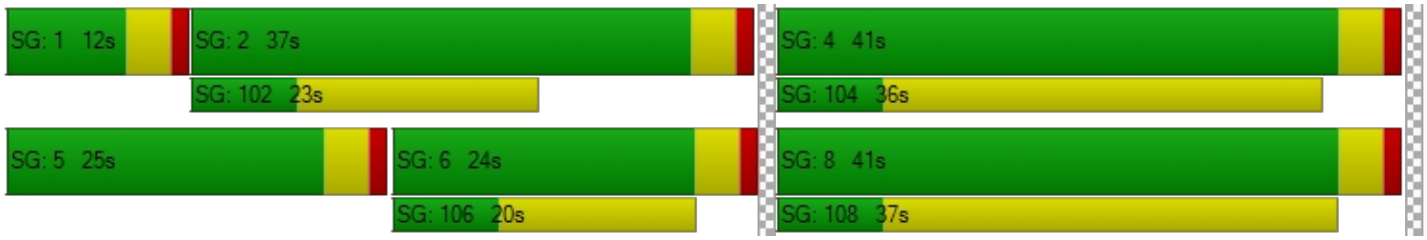
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.27 | 9.11 | 9.30 | 47.35 | 7.58 | 7.78 | 40.35 | 32.59 | 32.59 | 38.59 | 31.59 | 31.59 |
| Movement LOS | D | A | A | D | A | A | D | C | C | D | C | C |
| d_A, Approach Delay [s/veh] | 13.53 | | | 16.41 | | | 36.28 | | | 33.82 | | |
| Approach LOS | B | | | B | | | D | | | C | | |
| d_I, Intersection Delay [s/veh] | 20.33 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.293 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.793 | 2.921 | 2.091 | 2.079 |
| Crosswalk LOS | C | C | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 444 | 733 | 822 | 822 |
| d_b, Bicycle Delay [s] | 27.23 | 18.06 | 15.61 | 15.61 |
| l_b,int, Bicycle LOS Score for Intersection | 1.818 | 1.923 | 1.966 | 1.787 |
| Bicycle LOS | A | A | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 5: Magnolia Avenue/Main Street at Main Street**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 16.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.408 |

**Intersection Setup**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 205.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 234 | 367 | 0 | 3 | 434 | 109 | 62 | 1 | 372 | 0 | 4 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 234 | 367 | 0 | 3 | 434 | 109 | 62 | 1 | 372 | 0 | 4 | 4 |
| Peak Hour Factor | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 62 | 97 | 0 | 1 | 114 | 29 | 16 | 0 | 98 | 0 | 1 | 1 |
| Total Analysis Volume [veh/h] | 247 | 387 | 0 | 3 | 457 | 115 | 65 | 1 | 392 | 0 | 4 | 4 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Overlap | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 0 | 7 | 4 | 0 | 0 | 2 | 2 | 0 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | 2,3 | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 33 | 57 | 0 | 11 | 35 | 0 | 0 | 11 | 11 | 0 | 11 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | No | | No | |
| Maximum Recall | No | No | | No | No | | | No | No | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | C | R | C | R |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 13 | 65 | 65 | 1 | 52 | 52 | 7 | 30 | 1 | 1 |
| g / C, Green / Cycle | 0.15 | 0.72 | 0.72 | 0.01 | 0.58 | 0.58 | 0.08 | 0.33 | 0.01 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.07 | 0.07 | 0.07 | 0.00 | 0.13 | 0.07 | 0.04 | 0.14 | 0.02 | 0.00 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1870 | 1781 | 3560 | 1589 | 1782 | 2813 | 200 | 1589 |
| c, Capacity [veh/h] | 517 | 2570 | 1350 | 12 | 2062 | 921 | 140 | 934 | 43 | 24 |
| d1, Uniform Delay [s] | 35.13 | 3.76 | 3.76 | 44.54 | 9.16 | 8.61 | 39.75 | 23.37 | 45.03 | 43.83 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.69 | 0.08 | 0.15 | 9.74 | 0.25 | 0.28 | 2.45 | 0.30 | 0.93 | 3.13 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.48 | 0.10 | 0.10 | 0.24 | 0.22 | 0.12 | 0.47 | 0.42 | 0.09 | 0.16 |
| d, Delay for Lane Group [s/veh] | 35.81 | 3.84 | 3.91 | 54.27 | 9.41 | 8.89 | 42.20 | 23.67 | 45.96 | 46.97 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.50 | 0.58 | 0.63 | 0.10 | 2.07 | 1.02 | 1.48 | 3.19 | 0.10 | 0.11 |
| 50th-Percentile Queue Length [ft/ln] | 62.39 | 14.49 | 15.87 | 2.49 | 51.80 | 25.44 | 36.96 | 79.81 | 2.49 | 2.71 |
| 95th-Percentile Queue Length [veh/ln] | 4.49 | 1.04 | 1.14 | 0.18 | 3.73 | 1.83 | 2.66 | 5.75 | 0.18 | 0.20 |
| 95th-Percentile Queue Length [ft/ln] | 112.30 | 26.08 | 28.57 | 4.48 | 93.23 | 45.79 | 66.54 | 143.65 | 4.49 | 4.88 |

**Movement, Approach, & Intersection Results**

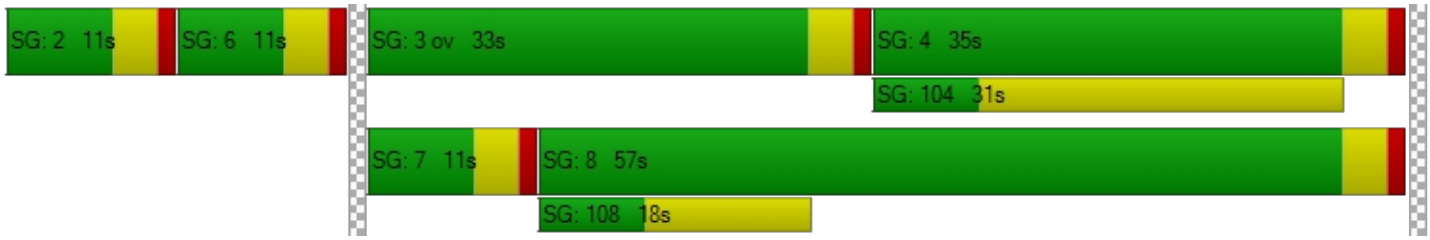
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 35.81 | 3.86 | 3.91 | 54.27 | 9.41 | 8.89 | 42.20 | 42.20 | 23.67 | 45.96 | 45.96 | 46.97 |
| Movement LOS | D | A | A | D | A | A | D | D | C | D | D | D |
| d_A, Approach Delay [s/veh] | 16.31 | | | 9.54 | | | 26.34 | | | 46.46 | | |
| Approach LOS | B | | | A | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 16.87 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.408 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 7.0 | 0.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 38.32 | 0.00 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.804 | 0.000 | 2.460 | 1.944 |
| Crosswalk LOS | C | F | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1177 | 688 | 155 | 155 |
| d_b, Bicycle Delay [s] | 7.63 | 19.38 | 38.32 | 38.32 |
| l_b,int, Bicycle LOS Score for Intersection | 1.908 | 2.034 | 2.315 | 1.573 |
| Bicycle LOS | A | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 6: Main Street at Citrus Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 7.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.346 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 155.00 | 100.00 | 100.00 | 100.00 | 90.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 33 | 442 | 693 | 98 | 77 | 42 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 33 | 442 | 693 | 98 | 77 | 42 |
| Peak Hour Factor | 0.9410 | 0.9410 | 0.9410 | 0.9410 | 0.9410 | 0.9410 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 9 | 117 | 184 | 26 | 20 | 11 |
| Total Analysis Volume [veh/h] | 35 | 470 | 736 | 104 | 82 | 45 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 2 | 0 | 3 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 7 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 59 | 48 | 0 | 31 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 0 | 7 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 0 | 13 | 0 | 20 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 4 | 75 | 67 | 67 | 7 | 7 |
| g / C, Green / Cycle | 0.05 | 0.84 | 0.75 | 0.75 | 0.08 | 0.08 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02 | 0.13 | 0.22 | 0.23 | 0.05 | 0.03 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1870 | 1792 | 1781 | 1589 |
| c, Capacity [veh/h] | 83 | 2975 | 1392 | 1334 | 135 | 120 |
| d1, Uniform Delay [s] | 41.75 | 1.40 | 3.79 | 3.83 | 40.34 | 39.60 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.50 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 3.38 | 0.11 | 0.56 | 0.62 | 4.40 | 1.93 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.42 | 0.16 | 0.30 | 0.31 | 0.61 | 0.37 |
| d, Delay for Lane Group [s/veh] | 45.13 | 1.52 | 4.34 | 4.45 | 44.74 | 41.53 |
| Lane Group LOS | D | A | A | A | D | D |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.83 | 0.38 | 2.10 | 2.14 | 1.90 | 1.00 |
| 50th-Percentile Queue Length [ft/ln] | 20.67 | 9.39 | 52.44 | 53.39 | 47.62 | 25.05 |
| 95th-Percentile Queue Length [veh/ln] | 1.49 | 0.68 | 3.78 | 3.84 | 3.43 | 1.80 |
| 95th-Percentile Queue Length [ft/ln] | 37.20 | 16.90 | 94.40 | 96.10 | 85.72 | 45.09 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.13 | 1.52 | 4.39 | 4.45 | 44.74 | 41.53 |
| Movement LOS | D | A | A | A | D | D |
| d_A, Approach Delay [s/veh] | 4.54 | | 4.40 | | 43.60 | |
| Approach LOS | A | | A | | D | |
| d_I, Intersection Delay [s/veh] | 7.83 | | | | | |
| Intersection LOS | A | | | | | |
| Intersection V/C | 0.346 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.550 | 2.470 | 2.026 |
| Crosswalk LOS | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1222 | 978 | 600 |
| d_b, Bicycle Delay [s] | 6.81 | 11.76 | 22.06 |
| l_b,int, Bicycle LOS Score for Intersection | 1.976 | 2.253 | 1.560 |
| Bicycle LOS | A | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 7: Main Street at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 8.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.372 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 140.00 | 100.00 | 100.00 | 115.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 45.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 4 | 432 | 63 | 56 | 659 | 2 | 3 | 2 | 5 | 49 | 0 | 36 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 4 | 432 | 63 | 56 | 659 | 2 | 3 | 2 | 5 | 49 | 0 | 36 |
| Peak Hour Factor | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 117 | 17 | 15 | 178 | 1 | 1 | 1 | 1 | 13 | 0 | 10 |
| Total Analysis Volume [veh/h] | 4 | 468 | 68 | 61 | 714 | 2 | 3 | 2 | 5 | 53 | 0 | 39 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 12 | 45 | 0 | 11 | 44 | 0 | 0 | 34 | 0 | 0 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 12 | 0 | 0 | 23 | 0 | 0 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 1 | 65 | 65 | 5 | 70 | 70 | 7 | 7 | 7 | 7 |
| g / C, Green / Cycle | 0.01 | 0.73 | 0.73 | 0.06 | 0.78 | 0.78 | 0.08 | 0.08 | 0.08 | 0.08 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.25 | 0.04 | 0.03 | 0.19 | 0.19 | 0.00 | 0.00 | 0.04 | 0.02 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1589 | 1781 | 1870 | 1868 | 1368 | 1661 | 1408 | 1589 |
| c, Capacity [veh/h] | 13 | 1361 | 1157 | 109 | 1461 | 1459 | 123 | 129 | 151 | 124 |
| d1, Uniform Delay [s] | 44.42 | 4.45 | 3.48 | 41.09 | 2.66 | 2.66 | 42.32 | 38.43 | 42.14 | 39.23 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 11.75 | 0.69 | 0.10 | 4.48 | 0.40 | 0.40 | 0.08 | 0.17 | 1.38 | 1.44 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.30 | 0.34 | 0.06 | 0.56 | 0.25 | 0.25 | 0.02 | 0.05 | 0.35 | 0.32 |
| d, Delay for Lane Group [s/veh] | 56.18 | 5.14 | 3.58 | 45.57 | 3.06 | 3.06 | 42.40 | 38.60 | 43.52 | 40.67 |
| Lane Group LOS | E | A | A | D | A | A | D | D | D | D |
| Critical Lane Group | No | Yes | No | Yes | No | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.13 | 2.72 | 0.31 | 1.44 | 1.32 | 1.32 | 0.07 | 0.15 | 1.21 | 0.85 |
| 50th-Percentile Queue Length [ft/ln] | 3.30 | 68.04 | 7.78 | 35.90 | 32.90 | 32.88 | 1.67 | 3.70 | 30.13 | 21.37 |
| 95th-Percentile Queue Length [veh/ln] | 0.24 | 4.90 | 0.56 | 2.58 | 2.37 | 2.37 | 0.12 | 0.27 | 2.17 | 1.54 |
| 95th-Percentile Queue Length [ft/ln] | 5.94 | 122.46 | 14.00 | 64.62 | 59.23 | 59.18 | 3.00 | 6.65 | 54.23 | 38.47 |

**Movement, Approach, & Intersection Results**

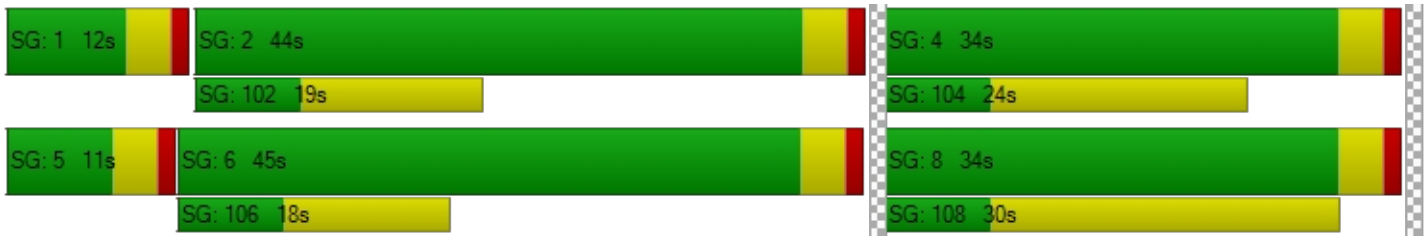
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 56.18 | 5.14 | 3.58 | 45.57 | 3.06 | 3.06 | 42.40 | 38.60 | 38.60 | 43.52 | 40.67 | 40.67 |
| Movement LOS | E | A | A | D | A | A | D | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 5.32 | | | 6.40 | | | 39.74 | | | 42.31 | | |
| Approach LOS | A | | | A | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 8.55 | | | | | | | | | | | |
| Intersection LOS | A | | | | | | | | | | | |
| Intersection V/C | 0.372 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.67 | 34.67 | 34.67 | 34.67 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.631 | 2.449 | 1.945 | 2.012 |
| Crosswalk LOS | B | B | A | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 911 | 889 | 667 | 667 |
| d_b, Bicycle Delay [s] | 13.34 | 13.89 | 20.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 2.451 | 2.201 | 1.576 | 1.711 |
| Bicycle LOS | B | B | A | A |

## Sequence

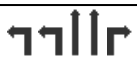
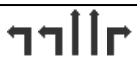
| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 8: Main Street at Foothill Parkway**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 33.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.480 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | | | | | | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 160.00 | 100.00 | 155.00 | 140.00 | 100.00 | 160.00 | 140.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 19 | 180 | 74 | 206 | 381 | 139 | 211 | 879 | 26 | 120 | 279 | 96 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 19 | 180 | 74 | 206 | 381 | 139 | 211 | 879 | 26 | 120 | 279 | 96 |
| Peak Hour Factor | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 46 | 19 | 53 | 98 | 36 | 54 | 227 | 7 | 31 | 72 | 25 |
| Total Analysis Volume [veh/h] | 20 | 186 | 76 | 213 | 394 | 144 | 218 | 908 | 27 | 124 | 288 | 99 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 105 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 2 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | 2,3 | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 30 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 11 | 38 | 0 | 12 | 39 | 39 | 15 | 44 | 0 | 11 | 40 | 40 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 27 | 0 | 0 | 26 | 26 | 0 | 29 | 0 | 0 | 29 | 29 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | No | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 3 | 44 | 44 | 8 | 49 | 62 | 9 | 30 | 30 | 7 | 28 | 40 |
| g / C, Green / Cycle | 0.03 | 0.42 | 0.42 | 0.08 | 0.47 | 0.59 | 0.08 | 0.29 | 0.29 | 0.07 | 0.27 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.01 | 0.05 | 0.05 | 0.06 | 0.11 | 0.09 | 0.06 | 0.26 | 0.02 | 0.04 | 0.08 | 0.06 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 |
| c, Capacity [veh/h] | 106 | 1492 | 666 | 266 | 1656 | 934 | 291 | 1019 | 455 | 227 | 954 | 608 |
| d1, Uniform Delay [s] | 49.68 | 18.72 | 18.64 | 47.72 | 16.90 | 9.84 | 47.05 | 35.94 | 27.24 | 47.59 | 30.66 | 21.35 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.85 | 0.17 | 0.35 | 5.53 | 0.34 | 0.35 | 3.86 | 2.94 | 0.05 | 2.03 | 0.18 | 0.12 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.19 | 0.12 | 0.11 | 0.80 | 0.24 | 0.15 | 0.75 | 0.89 | 0.06 | 0.55 | 0.30 | 0.16 |
| d, Delay for Lane Group [s/veh] | 50.53 | 18.90 | 18.99 | 53.26 | 17.24 | 10.19 | 50.91 | 38.89 | 27.29 | 49.62 | 30.83 | 21.48 |
| Lane Group LOS | D | B | B | D | B | B | D | D | C | D | C | C |
| Critical Lane Group | Yes | No | No | No | Yes | No | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 0.27 | 1.41 | 1.19 | 2.94 | 2.89 | 1.54 | 2.93 | 11.35 | 0.50 | 1.63 | 2.92 | 1.62 |
| 50th-Percentile Queue Length [ft/ln] | 6.71 | 35.36 | 29.65 | 73.39 | 72.24 | 38.45 | 73.28 | 283.86 | 12.49 | 40.82 | 72.99 | 40.49 |
| 95th-Percentile Queue Length [veh/ln] | 0.48 | 2.55 | 2.13 | 5.28 | 5.20 | 2.77 | 5.28 | 16.88 | 0.90 | 2.94 | 5.26 | 2.92 |
| 95th-Percentile Queue Length [ft/ln] | 12.07 | 63.65 | 53.36 | 132.10 | 130.04 | 69.22 | 131.90 | 422.02 | 22.49 | 73.48 | 131.39 | 72.88 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 50.53 | 18.90 | 18.99 | 53.26 | 17.24 | 10.19 | 50.91 | 38.89 | 27.29 | 49.62 | 30.83 | 21.48 |
| Movement LOS | D | B | B | D | B | B | D | D | C | D | C | C |
| d_A, Approach Delay [s/veh] | 21.16 | | | 26.10 | | | 40.89 | | | 33.58 | | |
| Approach LOS | C | | | C | | | D | | | C | | |
| d_I, Intersection Delay [s/veh] | 33.32 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.480 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 42.11 | 42.11 | 42.11 | 42.11 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.716 | 2.776 | 2.825 | 2.839 |
| Crosswalk LOS | B | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 647 | 666 | 761 | 685 |
| d_b, Bicycle Delay [s] | 24.03 | 23.36 | 20.14 | 22.70 |
| l_b,int, Bicycle LOS Score for Intersection | 1.792 | 2.179 | 2.511 | 1.981 |
| Bicycle LOS | A | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

# Appendix D

Opening Year (2023) With Background Traffic Without Project Conditions
LOS Analysis Worksheets

**Intersection Level Of Service Report**
**Intersection 1: Main Street at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 41.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.579 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 295.00 | 100.00 | 100.00 | 220.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 150.00 | 100.00 | 140.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 85 | 376 | 73 | 197 | 376 | 64 | 167 | 770 | 91 | 189 | 666 | 171 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 85 | 376 | 73 | 197 | 376 | 64 | 167 | 770 | 91 | 189 | 666 | 171 |
| Peak Hour Factor | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 23 | 104 | 20 | 54 | 104 | 18 | 46 | 212 | 25 | 52 | 184 | 47 |
| Total Analysis Volume [veh/h] | 94 | 415 | 80 | 217 | 415 | 71 | 184 | 849 | 100 | 208 | 734 | 189 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 110 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 11 | 43 | 0 | 11 | 43 | 0 | 19 | 39 | 0 | 17 | 37 | 37 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 31 | 0 | 0 | 28 | 0 | 0 | 23 | 0 | 0 | 25 | 25 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 7 | 51 | 51 | 7 | 51 | 51 | 13 | 23 | 23 | 13 | 23 | 34 |
| g / C, Green / Cycle | 0.06 | 0.46 | 0.46 | 0.06 | 0.46 | 0.46 | 0.12 | 0.21 | 0.21 | 0.12 | 0.21 | 0.31 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05 | 0.14 | 0.14 | 0.06 | 0.13 | 0.13 | 0.10 | 0.18 | 0.18 | 0.12 | 0.14 | 0.12 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1767 | 3459 | 1870 | 1776 | 1781 | 3560 | 1771 | 1781 | 5094 | 1589 |
| c, Capacity [veh/h] | 115 | 864 | 816 | 223 | 864 | 820 | 215 | 747 | 372 | 211 | 1059 | 491 |
| d1, Uniform Delay [s] | 50.87 | 18.45 | 18.47 | 51.42 | 18.39 | 18.40 | 47.49 | 41.81 | 41.83 | 48.41 | 40.35 | 29.86 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.13 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 13.25 | 0.86 | 0.93 | 22.50 | 0.84 | 0.89 | 9.49 | 2.78 | 6.67 | 25.20 | 0.82 | 0.50 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.82 | 0.29 | 0.30 | 0.97 | 0.29 | 0.29 | 0.86 | 0.85 | 0.85 | 0.98 | 0.69 | 0.39 |
| d, Delay for Lane Group [s/veh] | 64.12 | 19.31 | 19.40 | 73.91 | 19.23 | 19.29 | 56.98 | 44.59 | 48.50 | 73.61 | 41.17 | 30.35 |
| Lane Group LOS | E | B | B | E | B | B | E | D | D | E | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 2.98 | 4.18 | 4.00 | 3.67 | 4.09 | 3.91 | 5.49 | 8.48 | 8.87 | 7.15 | 6.18 | 3.99 |
| 50th-Percentile Queue Length [ft/ln] | 74.38 | 104.46 | 99.99 | 91.86 | 102.22 | 97.78 | 137.33 | 212.07 | 221.65 | 178.67 | 154.46 | 99.63 |
| 95th-Percentile Queue Length [veh/ln] | 5.36 | 7.52 | 7.20 | 6.61 | 7.36 | 7.04 | 9.34 | 13.26 | 13.75 | 11.53 | 10.25 | 7.17 |
| 95th-Percentile Queue Length [ft/ln] | 133.89 | 188.04 | 179.98 | 165.34 | 183.99 | 176.01 | 233.42 | 331.48 | 343.73 | 288.28 | 256.37 | 179.33 |

**Movement, Approach, & Intersection Results**

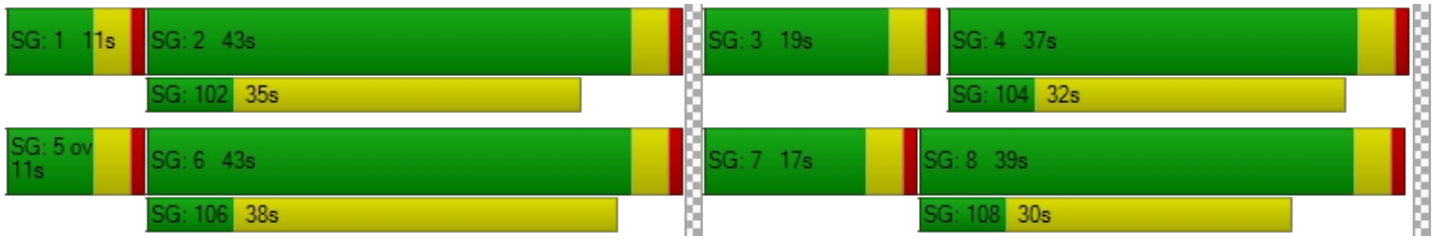
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 64.12 | 19.34 | 19.40 | 73.91 | 19.26 | 19.29 | 56.98 | 45.59 | 48.50 | 73.61 | 41.17 | 30.35 |
| Movement LOS | E | B | B | E | B | B | E | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 26.50 | | | 36.13 | | | 47.69 | | | 45.33 | | |
| Approach LOS | C | | | D | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 41.14 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.579 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 44.58 | 44.58 | 44.58 | 44.58 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.565 | 2.705 | 2.887 | 3.013 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 709 | 709 | 636 | 600 |
| d_b, Bicycle Delay [s] | 22.94 | 22.94 | 25.59 | 26.97 |
| l_b,int, Bicycle LOS Score for Intersection | 2.046 | 2.140 | 2.183 | 2.182 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Magnolia Avenue at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 35.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.550 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Entry Pocket Length [ft] | 195.00 | 100.00 | 130.00 | 175.00 | 100.00 | 90.00 | 150.00 | 100.00 | 100.00 | 255.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 68 | 361 | 115 | 69 | 437 | 283 | 269 | 674 | 51 | 174 | 695 | 65 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 68 | 361 | 115 | 69 | 437 | 283 | 269 | 674 | 51 | 174 | 695 | 65 |
| Peak Hour Factor | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 97 | 31 | 19 | 118 | 76 | 72 | 182 | 14 | 47 | 187 | 18 |
| Total Analysis Volume [veh/h] | 73 | 389 | 124 | 74 | 471 | 305 | 290 | 726 | 55 | 188 | 749 | 70 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 110 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 11 | 41 | 0 | 12 | 42 | 0 | 15 | 45 | 0 | 12 | 42 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 30 | 0 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 31 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 56 | 56 | 6 | 56 | 56 | 11 | 23 | 23 | 8 | 20 | 20 |
| g / C, Green / Cycle | 0.06 | 0.51 | 0.51 | 0.06 | 0.51 | 0.51 | 0.10 | 0.21 | 0.21 | 0.07 | 0.18 | 0.18 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.11 | 0.08 | 0.04 | 0.13 | 0.19 | 0.08 | 0.15 | 0.15 | 0.05 | 0.15 | 0.15 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1589 | 1781 | 3560 | 1589 | 3459 | 3560 | 1803 | 3459 | 3560 | 1790 |
| c, Capacity [veh/h] | 103 | 1824 | 814 | 103 | 1825 | 815 | 348 | 756 | 383 | 250 | 655 | 329 |
| d1, Uniform Delay [s] | 50.97 | 14.70 | 14.20 | 50.98 | 15.08 | 16.19 | 48.61 | 39.97 | 39.98 | 50.12 | 43.28 | 43.31 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 8.71 | 0.27 | 0.40 | 8.96 | 0.34 | 1.32 | 5.24 | 1.11 | 2.19 | 4.57 | 2.82 | 5.55 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.71 | 0.21 | 0.15 | 0.72 | 0.26 | 0.37 | 0.83 | 0.69 | 0.69 | 0.75 | 0.83 | 0.83 |
| d, Delay for Lane Group [s/veh] | 59.69 | 14.97 | 14.60 | 59.94 | 15.42 | 17.51 | 53.85 | 41.08 | 42.18 | 54.69 | 46.09 | 48.85 |
| Lane Group LOS | E | B | B | E | B | B | D | D | D | D | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 2.22 | 2.69 | 1.70 | 2.26 | 3.34 | 4.82 | 4.15 | 6.54 | 6.76 | 2.69 | 7.35 | 7.67 |
| 50th-Percentile Queue Length [ft/ln] | 55.57 | 67.19 | 42.58 | 56.47 | 83.54 | 120.60 | 103.74 | 163.53 | 169.02 | 67.31 | 183.66 | 191.73 |
| 95th-Percentile Queue Length [veh/ln] | 4.00 | 4.84 | 3.07 | 4.07 | 6.01 | 8.43 | 7.47 | 10.74 | 11.03 | 4.85 | 11.79 | 12.21 |
| 95th-Percentile Queue Length [ft/ln] | 100.03 | 120.94 | 76.65 | 101.64 | 150.37 | 210.65 | 186.73 | 268.39 | 275.63 | 121.15 | 294.79 | 305.27 |

**Movement, Approach, & Intersection Results**

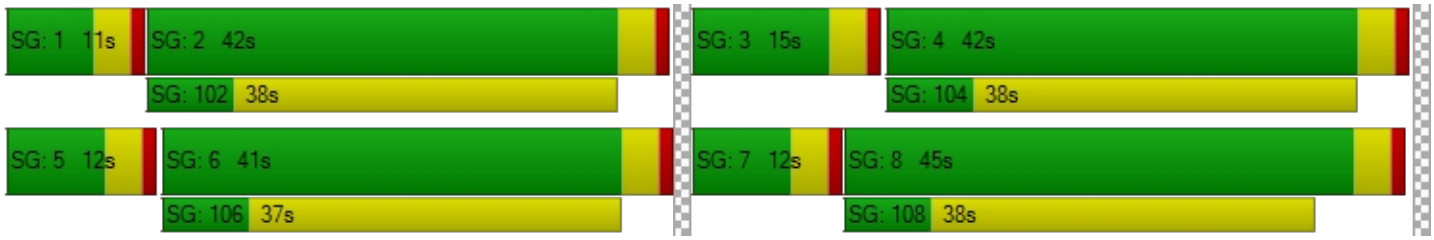
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 59.69 | 14.97 | 14.60 | 59.94 | 15.42 | 17.51 | 53.85 | 41.39 | 42.18 | 54.69 | 46.85 | 48.85 |
| Movement LOS | E | B | B | E | B | B | D | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 20.46 | | | 20.05 | | | 44.80 | | | 48.45 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 35.80 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.550 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 44.58 | 44.58 | 44.58 | 44.58 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.674 | 2.722 | 3.003 | 2.970 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 672 | 691 | 745 | 691 |
| d_b, Bicycle Delay [s] | 24.25 | 23.59 | 21.66 | 23.59 |
| l_b,int, Bicycle LOS Score for Intersection | 2.043 | 2.261 | 2.149 | 2.113 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Main Street at Montoya Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 24.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.457 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 90.00 | 100.00 | 100.00 | 130.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 | 30.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | No | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 52 | 421 | 27 | 129 | 240 | 53 | 46 | 30 | 80 | 13 | 20 | 99 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 52 | 421 | 27 | 129 | 240 | 53 | 46 | 30 | 80 | 13 | 20 | 99 |
| Peak Hour Factor | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 144 | 9 | 44 | 82 | 18 | 16 | 10 | 27 | 4 | 7 | 34 |
| Total Analysis Volume [veh/h] | 71 | 577 | 37 | 177 | 329 | 73 | 63 | 41 | 110 | 18 | 27 | 136 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 15 | 31 | 0 | 14 | 30 | 0 | 11 | 32 | 0 | 13 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 12 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 47 | 47 | 10 | 52 | 52 | 21 | 14 | 21 | 11 |
| g / C, Green / Cycle | 0.07 | 0.53 | 0.53 | 0.11 | 0.57 | 0.57 | 0.23 | 0.16 | 0.23 | 0.12 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.17 | 0.17 | 0.10 | 0.11 | 0.11 | 0.04 | 0.09 | 0.01 | 0.10 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1831 | 1781 | 1870 | 1754 | 1429 | 1657 | 1358 | 1630 |
| c, Capacity [veh/h] | 117 | 981 | 960 | 199 | 1067 | 1001 | 334 | 260 | 331 | 201 |
| d1, Uniform Delay [s] | 40.98 | 12.22 | 12.22 | 39.50 | 9.35 | 9.36 | 28.09 | 35.28 | 27.27 | 38.50 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.96 | 0.85 | 0.87 | 12.54 | 0.40 | 0.44 | 0.27 | 2.06 | 0.07 | 7.60 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.61 | 0.32 | 0.32 | 0.89 | 0.19 | 0.20 | 0.19 | 0.58 | 0.05 | 0.81 |
| d, Delay for Lane Group [s/veh] | 45.94 | 13.07 | 13.09 | 52.04 | 9.76 | 9.80 | 28.36 | 37.34 | 27.33 | 46.10 |
| Lane Group LOS | D | B | B | D | A | A | C | D | C | D |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.68 | 3.57 | 3.51 | 4.50 | 1.94 | 1.84 | 1.10 | 3.18 | 0.30 | 3.88 |
| 50th-Percentile Queue Length [ft/ln] | 41.95 | 89.20 | 87.64 | 112.42 | 48.38 | 46.11 | 27.40 | 79.44 | 7.61 | 96.95 |
| 95th-Percentile Queue Length [veh/ln] | 3.02 | 6.42 | 6.31 | 7.97 | 3.48 | 3.32 | 1.97 | 5.72 | 0.55 | 6.98 |
| 95th-Percentile Queue Length [ft/ln] | 75.51 | 160.56 | 157.75 | 199.36 | 87.09 | 82.99 | 49.32 | 142.99 | 13.70 | 174.50 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.94 | 13.08 | 13.09 | 52.04 | 9.77 | 9.80 | 28.36 | 37.34 | 37.34 | 27.33 | 46.10 | 46.10 |
| Movement LOS | D | B | B | D | A | A | C | D | D | C | D | D |
| d_A, Approach Delay [s/veh] | 16.48 | | | 22.70 | | | 34.70 | | | 44.24 | | |
| Approach LOS | B | | | C | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 24.03 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.457 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 34.72 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 2.577 | 2.065 | 2.081 |
| Crosswalk LOS | F | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 599 | 577 | 622 | 666 |
| d_b, Bicycle Delay [s] | 22.09 | 22.80 | 21.40 | 20.04 |
| l_b,int, Bicycle LOS Score for Intersection | 2.125 | 2.037 | 1.913 | 1.858 |
| Bicycle LOS | B | B | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 4: Magnolia Avenue at Santana Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 17.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.310 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 165.00 | 100.00 | 100.00 | 235.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 51 | 378 | 86 | 93 | 501 | 93 | 35 | 21 | 45 | 74 | 49 | 117 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 51 | 378 | 86 | 93 | 501 | 93 | 35 | 21 | 45 | 74 | 49 | 117 |
| Peak Hour Factor | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 14 | 105 | 24 | 26 | 139 | 26 | 10 | 6 | 12 | 21 | 14 | 32 |
| Total Analysis Volume [veh/h] | 57 | 419 | 95 | 103 | 555 | 103 | 39 | 23 | 50 | 82 | 54 | 130 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 13 | 24 | 0 | 25 | 36 | 0 | 0 | 41 | 0 | 0 | 41 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 13 | 0 | 0 | 16 | 0 | 0 | 30 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 5 | 56 | 56 | 7 | 57 | 57 | 16 | 16 | 16 | 16 |
| g / C, Green / Cycle | 0.06 | 0.62 | 0.62 | 0.07 | 0.63 | 0.63 | 0.17 | 0.17 | 0.17 | 0.17 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03 | 0.10 | 0.10 | 0.06 | 0.12 | 0.13 | 0.03 | 0.04 | 0.06 | 0.11 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1702 | 1781 | 3560 | 1726 | 1200 | 1668 | 1327 | 1663 |
| c, Capacity [veh/h] | 106 | 2198 | 1051 | 133 | 2253 | 1092 | 133 | 291 | 226 | 290 |
| d1, Uniform Delay [s] | 41.14 | 7.29 | 7.32 | 40.89 | 6.92 | 6.94 | 42.46 | 32.08 | 37.99 | 34.49 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.22 | 0.15 | 0.33 | 9.16 | 0.19 | 0.41 | 1.20 | 0.45 | 0.98 | 2.29 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.54 | 0.16 | 0.16 | 0.77 | 0.20 | 0.20 | 0.29 | 0.25 | 0.36 | 0.63 |
| d, Delay for Lane Group [s/veh] | 45.36 | 7.44 | 7.65 | 50.06 | 7.12 | 7.35 | 43.66 | 32.52 | 38.96 | 36.78 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.34 | 1.32 | 1.36 | 2.55 | 1.65 | 1.69 | 0.89 | 1.39 | 1.75 | 3.86 |
| 50th-Percentile Queue Length [ft/ln] | 33.48 | 32.99 | 34.01 | 63.82 | 41.14 | 42.30 | 22.26 | 34.77 | 43.82 | 96.40 |
| 95th-Percentile Queue Length [veh/ln] | 2.41 | 2.38 | 2.45 | 4.60 | 2.96 | 3.05 | 1.60 | 2.50 | 3.15 | 6.94 |
| 95th-Percentile Queue Length [ft/ln] | 60.26 | 59.38 | 61.22 | 114.88 | 74.05 | 76.14 | 40.08 | 62.58 | 78.87 | 173.51 |

**Movement, Approach, & Intersection Results**

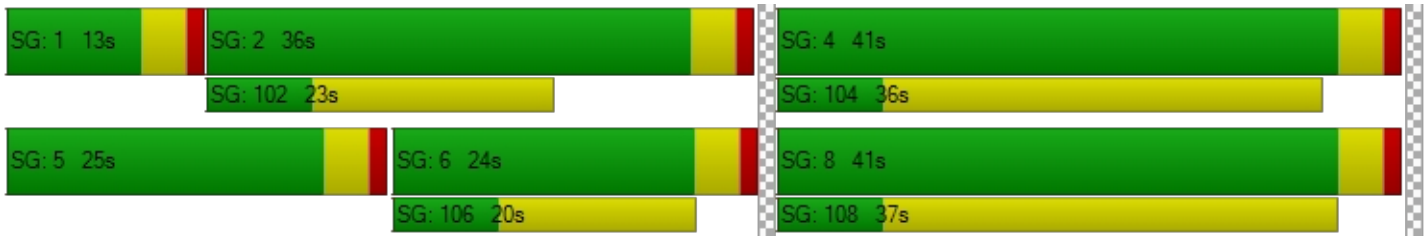
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.36 | 7.48 | 7.65 | 50.06 | 7.17 | 7.35 | 43.66 | 32.52 | 32.52 | 38.96 | 36.78 | 36.78 |
| Movement LOS | D | A | A | D | A | A | D | C | C | D | D | D |
| d_A, Approach Delay [s/veh] | 11.29 | | | 13.00 | | | 36.40 | | | 37.45 | | |
| Approach LOS | B | | | B | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 17.76 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.310 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.885 | 2.837 | 2.046 | 2.098 |
| Crosswalk LOS | C | C | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 444 | 711 | 822 | 822 |
| d_b, Bicycle Delay [s] | 27.23 | 18.69 | 15.61 | 15.61 |
| l_b,int, Bicycle LOS Score for Intersection | 1.874 | 1.978 | 1.744 | 1.999 |
| Bicycle LOS | A | A | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 5: Magnolia Avenue/Main Street at Main Street**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 19.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.376 |

**Intersection Setup**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 205.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 339 | 410 | 0 | 46 | 403 | 153 | 102 | 5 | 210 | 1 | 1 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 339 | 410 | 0 | 46 | 403 | 153 | 102 | 5 | 210 | 1 | 1 | 4 |
| Peak Hour Factor | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 93 | 112 | 0 | 13 | 110 | 42 | 28 | 1 | 57 | 0 | 0 | 1 |
| Total Analysis Volume [veh/h] | 371 | 449 | 0 | 50 | 441 | 167 | 112 | 5 | 230 | 1 | 1 | 4 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Overlap | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 0 | 7 | 4 | 0 | 0 | 2 | 2 | 0 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | 2,3 | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 31 | 49 | 0 | 17 | 35 | 0 | 0 | 13 | 13 | 0 | 11 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | No | | No | |
| Maximum Recall | No | No | | No | No | | | No | No | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | C | R | C | R |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 13 | 60 | 60 | 5 | 52 | 52 | 8 | 30 | 1 | 1 |
| g / C, Green / Cycle | 0.14 | 0.67 | 0.67 | 0.06 | 0.58 | 0.58 | 0.09 | 0.33 | 0.01 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.11 | 0.08 | 0.08 | 0.03 | 0.12 | 0.11 | 0.07 | 0.08 | 0.01 | 0.00 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1870 | 1781 | 3560 | 1589 | 1785 | 2813 | 203 | 1589 |
| c, Capacity [veh/h] | 499 | 2367 | 1243 | 101 | 2056 | 918 | 159 | 939 | 62 | 19 |
| d1, Uniform Delay [s] | 36.99 | 5.52 | 5.52 | 41.27 | 9.19 | 8.99 | 40.06 | 21.79 | 45.00 | 44.12 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 2.22 | 0.11 | 0.21 | 3.69 | 0.24 | 0.44 | 6.54 | 0.13 | 0.21 | 5.27 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.74 | 0.12 | 0.12 | 0.49 | 0.21 | 0.18 | 0.74 | 0.24 | 0.03 | 0.21 |
| d, Delay for Lane Group [s/veh] | 39.22 | 5.63 | 5.73 | 44.96 | 9.43 | 9.43 | 46.61 | 21.93 | 45.20 | 49.39 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 4.01 | 0.91 | 0.99 | 1.17 | 2.00 | 1.54 | 2.78 | 1.75 | 0.05 | 0.12 |
| 50th-Percentile Queue Length [ft/ln] | 100.16 | 22.80 | 24.79 | 29.26 | 49.89 | 38.50 | 69.60 | 43.71 | 1.20 | 2.89 |
| 95th-Percentile Queue Length [veh/ln] | 7.21 | 1.64 | 1.79 | 2.11 | 3.59 | 2.77 | 5.01 | 3.15 | 0.09 | 0.21 |
| 95th-Percentile Queue Length [ft/ln] | 180.28 | 41.04 | 44.63 | 52.67 | 89.80 | 69.31 | 125.27 | 78.68 | 2.15 | 5.21 |

**Movement, Approach, & Intersection Results**

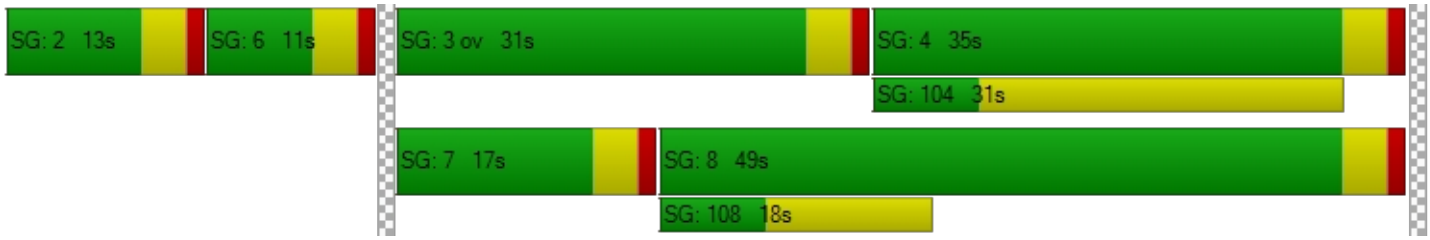
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 39.22 | 5.66 | 5.73 | 44.96 | 9.43 | 9.43 | 46.61 | 46.61 | 21.93 | 45.20 | 45.20 | 49.39 |
| Movement LOS | D | A | A | D | A | A | D | D | C | D | D | D |
| d_A, Approach Delay [s/veh] | 20.85 | | | 12.13 | | | 30.25 | | | 47.99 | | |
| Approach LOS | C | | | B | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 19.58 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.376 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 0.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 36.49 | 0.00 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.805 | 0.000 | 2.472 | 1.960 |
| Crosswalk LOS | C | F | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 999 | 688 | 200 | 155 |
| d_b, Bicycle Delay [s] | 11.28 | 19.38 | 36.49 | 38.32 |
| l_b,int, Bicycle LOS Score for Intersection | 2.011 | 2.102 | 2.132 | 1.570 |
| Bicycle LOS | B | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 6: Main Street at Citrus Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 11.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.365 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 155.00 | 100.00 | 100.00 | 100.00 | 90.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 59 | 641 | 572 | 57 | 105 | 87 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 59 | 641 | 572 | 57 | 105 | 87 |
| Peak Hour Factor | 0.8330 | 0.8330 | 0.8330 | 0.8330 | 0.8330 | 0.8330 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 192 | 172 | 17 | 32 | 26 |
| Total Analysis Volume [veh/h] | 71 | 770 | 687 | 68 | 126 | 104 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 95 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 2 | 0 | 3 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 7 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 36 | 25 | 0 | 59 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 0 | 7 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 0 | 13 | 0 | 20 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 78 | 68 | 68 | 9 | 9 |
| g / C, Green / Cycle | 0.06 | 0.82 | 0.71 | 0.71 | 0.10 | 0.10 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.22 | 0.20 | 0.21 | 0.07 | 0.07 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1870 | 1812 | 1781 | 1589 |
| c, Capacity [veh/h] | 113 | 2918 | 1335 | 1294 | 171 | 153 |
| d1, Uniform Delay [s] | 43.41 | 1.97 | 4.86 | 4.90 | 41.77 | 41.53 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.50 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 5.65 | 0.22 | 0.53 | 0.57 | 6.01 | 5.22 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.63 | 0.26 | 0.28 | 0.29 | 0.74 | 0.68 |
| d, Delay for Lane Group [s/veh] | 49.06 | 2.19 | 5.39 | 5.48 | 47.78 | 46.75 |
| Lane Group LOS | D | A | A | A | D | D |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 1.79 | 1.01 | 2.39 | 2.42 | 3.13 | 2.56 |
| 50th-Percentile Queue Length [ft/ln] | 44.82 | 25.19 | 59.78 | 60.45 | 78.26 | 63.90 |
| 95th-Percentile Queue Length [veh/ln] | 3.23 | 1.81 | 4.30 | 4.35 | 5.63 | 4.60 |
| 95th-Percentile Queue Length [ft/ln] | 80.68 | 45.35 | 107.61 | 108.80 | 140.87 | 115.03 |

**Movement, Approach, & Intersection Results**

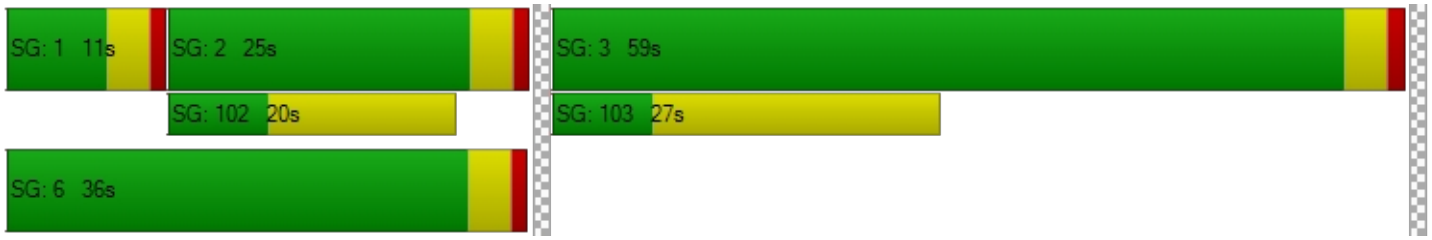
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 49.06 | 2.19 | 5.43 | 5.48 | 47.78 | 46.75 |
| Movement LOS | D | A | A | A | D | D |
| d_A, Approach Delay [s/veh] | 6.15 | | 5.43 | | 47.32 | |
| Approach LOS | A | | A | | D | |
| d_I, Intersection Delay [s/veh] | 11.04 | | | | | |
| Intersection LOS | B | | | | | |
| Intersection V/C | 0.365 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 37.14 | 37.14 | 37.14 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.620 | 2.536 | 2.062 |
| Crosswalk LOS | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 674 | 442 | 1158 |
| d_b, Bicycle Delay [s] | 20.90 | 28.83 | 8.43 |
| l_b,int, Bicycle LOS Score for Intersection | 2.253 | 2.182 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main Street at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 10.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.569 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 140.00 | 100.00 | 100.00 | 115.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 45.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 1 | 657 | 57 | 44 | 584 | 0 | 0 | 0 | 0 | 67 | 1 | 55 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 657 | 57 | 44 | 584 | 0 | 0 | 0 | 0 | 67 | 1 | 55 |
| Peak Hour Factor | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 196 | 17 | 13 | 174 | 0 | 0 | 0 | 0 | 20 | 0 | 16 |
| Total Analysis Volume [veh/h] | 1 | 783 | 68 | 52 | 696 | 0 | 0 | 0 | 0 | 80 | 1 | 66 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 105 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 22 | 60 | 0 | 11 | 49 | 0 | 0 | 34 | 0 | 0 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 12 | 0 | 0 | 23 | 0 | 0 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 0 | 77 | 77 | 5 | 83 | 83 | 10 | 10 | 10 | 10 |
| g / C, Green / Cycle | 0.00 | 0.74 | 0.74 | 0.05 | 0.79 | 0.79 | 0.10 | 0.10 | 0.10 | 0.10 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.42 | 0.04 | 0.03 | 0.19 | 0.19 | 0.00 | 0.00 | 0.06 | 0.04 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1589 | 1781 | 1870 | 1870 | 1334 | 1870 | 1417 | 1593 |
| c, Capacity [veh/h] | 4 | 1380 | 1173 | 93 | 1474 | 1474 | 115 | 179 | 174 | 152 |
| d1, Uniform Delay [s] | 52.30 | 6.20 | 3.77 | 48.57 | 2.90 | 2.90 | 0.00 | 0.00 | 47.65 | 44.83 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 31.33 | 1.70 | 0.09 | 5.16 | 0.38 | 0.38 | 0.00 | 0.00 | 1.88 | 1.99 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.26 | 0.57 | 0.06 | 0.56 | 0.24 | 0.24 | 0.00 | 0.00 | 0.46 | 0.44 |
| d, Delay for Lane Group [s/veh] | 83.63 | 7.90 | 3.86 | 53.73 | 3.28 | 3.28 | 0.00 | 0.00 | 49.53 | 46.83 |
| Lane Group LOS | F | A | A | D | A | A | A | A | D | D |
| Critical Lane Group | No | Yes | No | Yes | No | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.06 | 7.08 | 0.37 | 1.46 | 1.57 | 1.57 | 0.00 | 0.00 | 2.13 | 1.73 |
| 50th-Percentile Queue Length [ft/ln] | 1.51 | 177.07 | 9.25 | 36.49 | 39.29 | 39.29 | 0.00 | 0.00 | 53.33 | 43.16 |
| 95th-Percentile Queue Length [veh/ln] | 0.11 | 11.45 | 0.67 | 2.63 | 2.83 | 2.83 | 0.00 | 0.00 | 3.84 | 3.11 |
| 95th-Percentile Queue Length [ft/ln] | 2.71 | 286.18 | 16.65 | 65.68 | 70.72 | 70.72 | 0.00 | 0.00 | 96.00 | 77.68 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 83.63 | 7.90 | 3.86 | 53.73 | 3.28 | 3.28 | 0.00 | 0.00 | 0.00 | 49.53 | 46.83 | 46.83 |
| Movement LOS | F | A | A | D | A | A | A | A | A | D | D | D |
| d_A, Approach Delay [s/veh] | 7.67 | | | 6.78 | | | 0.00 | | | 48.30 | | |
| Approach LOS | A | | | A | | | A | | | D | | |
| d_I, Intersection Delay [s/veh] | 10.71 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.569 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 42.08 | 42.08 | 42.08 | 42.08 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.738 | 2.528 | 1.948 | 2.034 |
| Crosswalk LOS | B | B | A | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1067 | 857 | 571 | 571 |
| d_b, Bicycle Delay [s] | 11.43 | 17.14 | 26.79 | 26.79 |
| l_b,int, Bicycle LOS Score for Intersection | 2.965 | 2.177 | 1.560 | 1.802 |
| Bicycle LOS | C | B | A | A |

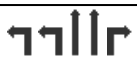
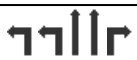
## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 8: Main Street at Foothill Parkway**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 32.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.493 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | | | | | | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 160.00 | 100.00 | 155.00 | 140.00 | 100.00 | 160.00 | 140.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 68 | 319 | 196 | 140 | 314 | 179 | 237 | 542 | 50 | 109 | 554 | 155 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 68 | 319 | 196 | 140 | 314 | 179 | 237 | 542 | 50 | 109 | 554 | 155 |
| Peak Hour Factor | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 86 | 53 | 38 | 85 | 48 | 64 | 146 | 13 | 29 | 149 | 42 |
| Total Analysis Volume [veh/h] | 73 | 344 | 211 | 151 | 338 | 193 | 255 | 584 | 54 | 117 | 597 | 167 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 105 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 2 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | 2,3 | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 30 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 12 | 38 | 0 | 11 | 37 | 37 | 14 | 43 | 0 | 13 | 42 | 42 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 27 | 0 | 0 | 26 | 26 | 0 | 29 | 0 | 0 | 29 | 29 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | No | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 6 | 51 | 51 | 7 | 52 | 66 | 10 | 24 | 24 | 7 | 21 | 32 |
| g / C, Green / Cycle | 0.06 | 0.49 | 0.49 | 0.07 | 0.50 | 0.63 | 0.09 | 0.23 | 0.23 | 0.06 | 0.20 | 0.30 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02 | 0.10 | 0.13 | 0.04 | 0.09 | 0.12 | 0.07 | 0.16 | 0.03 | 0.03 | 0.17 | 0.11 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 |
| c, Capacity [veh/h] | 206 | 1741 | 777 | 233 | 1768 | 997 | 321 | 805 | 359 | 226 | 707 | 484 |
| d1, Uniform Delay [s] | 47.48 | 15.20 | 15.83 | 47.80 | 14.71 | 8.30 | 46.71 | 37.65 | 32.58 | 47.53 | 40.55 | 28.43 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 1.03 | 0.25 | 0.86 | 3.00 | 0.24 | 0.43 | 4.48 | 1.26 | 0.19 | 1.83 | 2.86 | 0.42 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.35 | 0.20 | 0.27 | 0.65 | 0.19 | 0.19 | 0.79 | 0.73 | 0.15 | 0.52 | 0.84 | 0.35 |
| d, Delay for Lane Group [s/veh] | 48.50 | 15.45 | 16.69 | 50.80 | 14.95 | 8.74 | 51.18 | 38.91 | 32.77 | 49.36 | 43.40 | 28.86 |
| Lane Group LOS | D | B | B | D | B | A | D | D | C | D | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.95 | 2.35 | 3.11 | 2.02 | 2.26 | 1.87 | 3.45 | 7.02 | 1.12 | 1.54 | 7.64 | 3.31 |
| 50th-Percentile Queue Length [ft/ln] | 23.64 | 58.67 | 77.65 | 50.48 | 56.44 | 46.75 | 86.21 | 175.62 | 28.02 | 38.38 | 190.90 | 82.79 |
| 95th-Percentile Queue Length [veh/ln] | 1.70 | 4.22 | 5.59 | 3.63 | 4.06 | 3.37 | 6.21 | 11.37 | 2.02 | 2.76 | 12.17 | 5.96 |
| 95th-Percentile Queue Length [ft/ln] | 42.55 | 105.60 | 139.77 | 90.86 | 101.59 | 84.15 | 155.19 | 284.29 | 50.43 | 69.09 | 304.19 | 149.02 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 48.50 | 15.45 | 16.69 | 50.80 | 14.95 | 8.74 | 51.18 | 38.91 | 32.77 | 49.36 | 43.40 | 28.86 |
| Movement LOS | D | B | B | D | B | A | D | D | C | D | D | C |
| d_A, Approach Delay [s/veh] | 19.71 | | | 21.13 | | | 42.05 | | | 41.44 | | |
| Approach LOS | B | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 32.70 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.493 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 42.11 | 42.11 | 42.11 | 42.11 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.760 | 2.803 | 2.846 | 2.856 |
| Crosswalk LOS | C | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 647 | 628 | 742 | 723 |
| d_b, Bicycle Delay [s] | 24.03 | 24.71 | 20.77 | 21.40 |
| l_b,int, Bicycle LOS Score for Intersection | 2.078 | 2.122 | 2.296 | 2.286 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 1: Main Street at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 41.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.538 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 295.00 | 100.00 | 100.00 | 220.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 150.00 | 100.00 | 140.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 65 | 264 | 64 | 268 | 325 | 74 | 139 | 789 | 45 | 116 | 770 | 197 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 65 | 264 | 64 | 268 | 325 | 74 | 139 | 789 | 45 | 116 | 770 | 197 |
| Peak Hour Factor | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 19 | 77 | 19 | 78 | 95 | 22 | 41 | 231 | 13 | 34 | 225 | 58 |
| Total Analysis Volume [veh/h] | 76 | 309 | 75 | 313 | 380 | 87 | 163 | 923 | 53 | 136 | 901 | 230 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 20 | 42 | 0 | 17 | 39 | 0 | 25 | 46 | 0 | 15 | 36 | 36 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 31 | 0 | 0 | 28 | 0 | 0 | 23 | 0 | 0 | 25 | 25 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 7 | 52 | 52 | 13 | 59 | 59 | 13 | 28 | 28 | 11 | 26 | 43 |
| g / C, Green / Cycle | 0.06 | 0.44 | 0.44 | 0.11 | 0.49 | 0.49 | 0.11 | 0.23 | 0.23 | 0.09 | 0.21 | 0.36 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.11 | 0.11 | 0.09 | 0.13 | 0.13 | 0.09 | 0.18 | 0.18 | 0.08 | 0.18 | 0.14 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1747 | 3459 | 1870 | 1751 | 1781 | 3560 | 1818 | 1781 | 5094 | 1589 |
| c, Capacity [veh/h] | 99 | 813 | 760 | 376 | 913 | 855 | 193 | 824 | 421 | 163 | 1093 | 567 |
| d1, Uniform Delay [s] | 55.95 | 21.42 | 21.46 | 52.42 | 18.03 | 18.04 | 52.55 | 43.31 | 43.32 | 53.66 | 44.98 | 29.04 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 11.86 | 0.70 | 0.77 | 4.80 | 0.70 | 0.75 | 9.68 | 1.68 | 3.25 | 10.62 | 1.63 | 0.47 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.77 | 0.24 | 0.25 | 0.83 | 0.26 | 0.26 | 0.85 | 0.78 | 0.78 | 0.84 | 0.82 | 0.41 |
| d, Delay for Lane Group [s/veh] | 67.82 | 22.12 | 22.24 | 57.22 | 18.74 | 18.79 | 62.23 | 44.99 | 46.58 | 64.28 | 46.62 | 29.51 |
| Lane Group LOS | E | C | C | E | B | B | E | D | D | E | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.60 | 3.66 | 3.50 | 4.87 | 4.09 | 3.85 | 5.34 | 9.16 | 9.56 | 4.52 | 8.67 | 5.07 |
| 50th-Percentile Queue Length [ft/ln] | 64.94 | 91.59 | 87.62 | 121.72 | 102.28 | 96.34 | 133.43 | 229.03 | 238.93 | 112.94 | 216.71 | 126.70 |
| 95th-Percentile Queue Length [veh/ln] | 4.68 | 6.59 | 6.31 | 8.49 | 7.36 | 6.94 | 9.13 | 14.13 | 14.63 | 8.00 | 13.50 | 8.76 |
| 95th-Percentile Queue Length [ft/ln] | 116.88 | 164.87 | 157.72 | 212.19 | 184.10 | 173.41 | 228.15 | 353.13 | 365.68 | 200.08 | 337.43 | 219.00 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 67.82 | 22.16 | 22.24 | 57.22 | 18.76 | 18.79 | 62.23 | 45.46 | 46.58 | 64.28 | 46.62 | 29.51 |
| Movement LOS | E | C | C | E | B | B | E | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 29.72 | | | 34.19 | | | 47.91 | | | 45.41 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 41.81 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.538 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 49.52 | 49.52 | 49.52 | 49.52 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.514 | 2.707 | 2.915 | 3.053 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 633 | 583 | 700 | 533 |
| d_b, Bicycle Delay [s] | 28.03 | 30.12 | 25.36 | 32.28 |
| l_b,int, Bicycle LOS Score for Intersection | 1.939 | 2.203 | 2.186 | 2.256 |
| Bicycle LOS | A | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 2: Magnolia Avenue at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 39.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.578 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Entry Pocket Length [ft] | 195.00 | 100.00 | 130.00 | 175.00 | 100.00 | 90.00 | 150.00 | 100.00 | 100.00 | 255.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 75 | 328 | 84 | 59 | 471 | 281 | 310 | 802 | 54 | 145 | 669 | 48 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 75 | 328 | 84 | 59 | 471 | 281 | 310 | 802 | 54 | 145 | 669 | 48 |
| Peak Hour Factor | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 21 | 93 | 24 | 17 | 133 | 80 | 88 | 227 | 15 | 41 | 189 | 14 |
| Total Analysis Volume [veh/h] | 85 | 371 | 95 | 67 | 533 | 318 | 351 | 908 | 61 | 164 | 758 | 54 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 11 | 41 | 0 | 12 | 42 | 0 | 25 | 54 | 0 | 13 | 42 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 30 | 0 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 31 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 7 | 62 | 62 | 6 | 61 | 61 | 15 | 28 | 28 | 8 | 22 | 22 |
| g / C, Green / Cycle | 0.06 | 0.51 | 0.51 | 0.05 | 0.51 | 0.51 | 0.12 | 0.24 | 0.24 | 0.06 | 0.18 | 0.18 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05 | 0.10 | 0.06 | 0.04 | 0.15 | 0.20 | 0.10 | 0.18 | 0.18 | 0.05 | 0.15 | 0.15 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1589 | 1781 | 3560 | 1589 | 3459 | 3560 | 1810 | 3459 | 3560 | 1807 |
| c, Capacity [veh/h] | 105 | 1826 | 815 | 94 | 1804 | 805 | 420 | 844 | 429 | 222 | 639 | 324 |
| d1, Uniform Delay [s] | 55.81 | 15.91 | 15.16 | 55.96 | 17.19 | 18.27 | 51.56 | 42.65 | 42.65 | 55.20 | 47.60 | 47.63 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 13.48 | 0.25 | 0.29 | 9.49 | 0.42 | 1.45 | 4.42 | 1.45 | 2.82 | 4.78 | 3.10 | 6.00 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.81 | 0.20 | 0.12 | 0.71 | 0.30 | 0.39 | 0.84 | 0.76 | 0.76 | 0.74 | 0.84 | 0.84 |
| d, Delay for Lane Group [s/veh] | 69.30 | 16.16 | 15.45 | 65.45 | 17.60 | 19.72 | 55.98 | 44.10 | 45.47 | 59.98 | 50.70 | 53.64 |
| Lane Group LOS | E | B | B | E | B | B | E | D | D | E | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 2.94 | 2.83 | 1.41 | 2.25 | 4.35 | 5.71 | 5.42 | 9.01 | 9.33 | 2.59 | 8.03 | 8.45 |
| 50th-Percentile Queue Length [ft/ln] | 73.45 | 70.63 | 35.33 | 56.17 | 108.73 | 142.71 | 135.43 | 225.25 | 233.22 | 64.65 | 200.76 | 211.20 |
| 95th-Percentile Queue Length [veh/ln] | 5.29 | 5.09 | 2.54 | 4.04 | 7.77 | 9.63 | 9.23 | 13.93 | 14.34 | 4.65 | 12.68 | 13.21 |
| 95th-Percentile Queue Length [ft/ln] | 132.20 | 127.14 | 63.60 | 101.11 | 194.24 | 240.66 | 230.86 | 348.32 | 358.45 | 116.37 | 316.94 | 330.37 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 69.30 | 16.16 | 15.45 | 65.45 | 17.60 | 19.72 | 55.98 | 44.50 | 45.47 | 59.98 | 51.55 | 53.64 |
| Movement LOS | E | B | B | E | B | B | E | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 24.23 | | | 21.83 | | | 47.60 | | | 53.08 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 39.32 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.578 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 49.52 | 49.52 | 49.52 | 49.52 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.679 | 2.742 | 3.042 | 2.989 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 617 | 633 | 833 | 633 |
| d_b, Bicycle Delay [s] | 28.72 | 28.03 | 20.43 | 28.03 |
| l_b,int, Bicycle LOS Score for Intersection | 2.014 | 2.317 | 2.286 | 2.096 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

**Intersection Level Of Service Report**
**Intersection 3: Main Street at Montoya Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 10.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.240 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 90.00 | 100.00 | 100.00 | 130.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 | 30.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | No | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 58 | 322 | 0 | 10 | 448 | 55 | 31 | 0 | 37 | 0 | 0 | 7 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 58 | 322 | 0 | 10 | 448 | 55 | 31 | 0 | 37 | 0 | 0 | 7 |
| Peak Hour Factor | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 16 | 87 | 0 | 3 | 121 | 15 | 8 | 0 | 10 | 0 | 0 | 2 |
| Total Analysis Volume [veh/h] | 63 | 349 | 0 | 11 | 486 | 60 | 34 | 0 | 40 | 0 | 0 | 8 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 95 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 12 | 39 | 0 | 11 | 38 | 0 | 11 | 34 | 0 | 11 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 12 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 72 | 72 | 2 | 68 | 68 | 10 | 6 | 10 | 1 |
| g / C, Green / Cycle | 0.06 | 0.75 | 0.75 | 0.02 | 0.71 | 0.71 | 0.10 | 0.06 | 0.10 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.09 | 0.09 | 0.01 | 0.15 | 0.15 | 0.02 | 0.03 | 0.00 | 0.01 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1870 | 1781 | 1870 | 1799 | 1649 | 1589 | 1456 | 1589 |
| c, Capacity [veh/h] | 107 | 1409 | 1409 | 34 | 1332 | 1282 | 275 | 93 | 230 | 23 |
| d1, Uniform Delay [s] | 43.52 | 3.19 | 3.19 | 46.01 | 4.62 | 4.62 | 39.16 | 43.24 | 0.00 | 46.39 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 5.00 | 0.18 | 0.18 | 5.28 | 0.35 | 0.37 | 0.20 | 3.14 | 0.00 | 8.45 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.59 | 0.12 | 0.12 | 0.32 | 0.21 | 0.21 | 0.12 | 0.43 | 0.00 | 0.34 |
| d, Delay for Lane Group [s/veh] | 48.52 | 3.37 | 3.37 | 51.29 | 4.97 | 4.99 | 39.36 | 46.38 | 0.00 | 54.84 |
| Lane Group LOS | D | A | A | D | A | A | D | D | A | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 1.58 | 0.76 | 0.76 | 0.30 | 1.66 | 1.61 | 0.74 | 0.98 | 0.00 | 0.24 |
| 50th-Percentile Queue Length [ft/ln] | 39.54 | 19.09 | 19.09 | 7.62 | 41.42 | 40.31 | 18.46 | 24.57 | 0.00 | 6.02 |
| 95th-Percentile Queue Length [veh/ln] | 2.85 | 1.37 | 1.37 | 0.55 | 2.98 | 2.90 | 1.33 | 1.77 | 0.00 | 0.43 |
| 95th-Percentile Queue Length [ft/ln] | 71.17 | 34.36 | 34.36 | 13.72 | 74.56 | 72.55 | 33.23 | 44.23 | 0.00 | 10.84 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 48.52 | 3.37 | 3.37 | 51.29 | 4.98 | 4.99 | 39.36 | 46.38 | 46.38 | 0.00 | 54.84 | 54.84 |
| Movement LOS | D | A | A | D | A | A | D | D | D | A | D | D |
| d_A, Approach Delay [s/veh] | 10.27 | | | 5.90 | | | 43.15 | | | 54.84 | | |
| Approach LOS | B | | | A | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 10.61 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.240 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 37.16 | 37.16 | 37.16 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 2.489 | 2.007 | 1.949 |
| Crosswalk LOS | F | B | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 737 | 715 | 631 | 631 |
| d_b, Bicycle Delay [s] | 18.96 | 19.60 | 22.25 | 22.25 |
| l_b,int, Bicycle LOS Score for Intersection | 1.900 | 2.019 | 1.682 | 1.573 |
| Bicycle LOS | A | B | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 4: Magnolia Avenue at Santana Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 20.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.305 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 165.00 | 100.00 | 100.00 | 235.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 55 | 326 | 92 | 144 | 403 | 122 | 113 | 47 | 78 | 43 | 34 | 59 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 55 | 326 | 92 | 144 | 403 | 122 | 113 | 47 | 78 | 43 | 34 | 59 |
| Peak Hour Factor | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 15 | 86 | 24 | 38 | 107 | 32 | 30 | 12 | 21 | 11 | 9 | 16 |
| Total Analysis Volume [veh/h] | 58 | 345 | 97 | 152 | 426 | 129 | 119 | 50 | 82 | 45 | 36 | 62 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 12 | 36 | 0 | 13 | 37 | 0 | 0 | 41 | 0 | 0 | 41 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 13 | 0 | 0 | 16 | 0 | 0 | 30 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 5 | 51 | 51 | 9 | 55 | 55 | 18 | 18 | 18 | 18 |
| g / C, Green / Cycle | 0.06 | 0.57 | 0.57 | 0.10 | 0.61 | 0.61 | 0.20 | 0.20 | 0.20 | 0.20 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03 | 0.08 | 0.09 | 0.09 | 0.11 | 0.11 | 0.09 | 0.08 | 0.04 | 0.06 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1674 | 1781 | 3560 | 1660 | 1297 | 1685 | 1258 | 1682 |
| c, Capacity [veh/h] | 107 | 2029 | 954 | 179 | 2172 | 1013 | 233 | 331 | 205 | 331 |
| d1, Uniform Delay [s] | 41.10 | 9.09 | 9.13 | 39.82 | 7.65 | 7.68 | 38.52 | 31.53 | 37.85 | 30.86 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.21 | 0.15 | 0.34 | 10.63 | 0.17 | 0.38 | 1.72 | 0.78 | 0.53 | 0.50 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.54 | 0.15 | 0.15 | 0.85 | 0.17 | 0.18 | 0.51 | 0.40 | 0.22 | 0.30 |
| d, Delay for Lane Group [s/veh] | 45.31 | 9.24 | 9.47 | 50.46 | 7.82 | 8.06 | 40.24 | 32.31 | 38.39 | 31.35 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No |
| 50th-Percentile Queue Length [veh/ln] | 1.36 | 1.31 | 1.35 | 3.79 | 1.49 | 1.49 | 2.62 | 2.54 | 0.95 | 1.84 |
| 50th-Percentile Queue Length [ft/ln] | 34.04 | 32.79 | 33.63 | 94.69 | 37.15 | 37.29 | 65.59 | 63.43 | 23.68 | 45.93 |
| 95th-Percentile Queue Length [veh/ln] | 2.45 | 2.36 | 2.42 | 6.82 | 2.68 | 2.68 | 4.72 | 4.57 | 1.70 | 3.31 |
| 95th-Percentile Queue Length [ft/ln] | 61.27 | 59.02 | 60.53 | 170.45 | 66.88 | 67.12 | 118.06 | 114.18 | 42.62 | 82.67 |

**Movement, Approach, & Intersection Results**

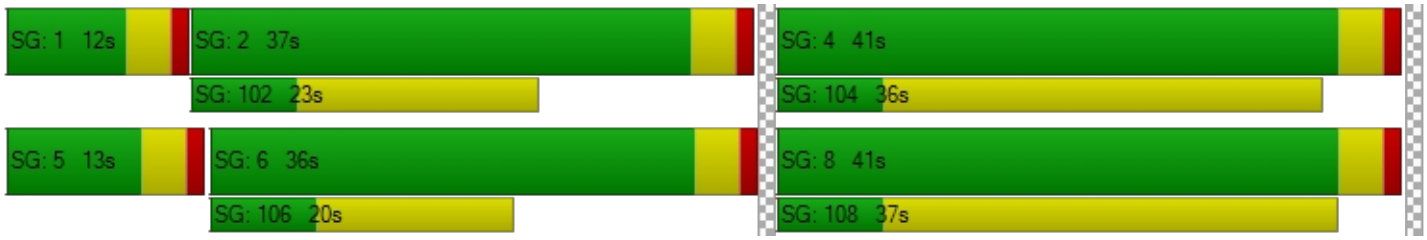
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.31 | 9.27 | 9.47 | 50.46 | 7.85 | 8.06 | 40.24 | 32.31 | 32.31 | 38.39 | 31.35 | 31.35 |
| Movement LOS | D | A | A | D | A | A | D | C | C | D | C | C |
| d_A, Approach Delay [s/veh] | 13.49 | | | 17.05 | | | 36.07 | | | 33.57 | | |
| Approach LOS | B | | | B | | | D | | | C | | |
| d_I, Intersection Delay [s/veh] | 20.39 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.305 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.804 | 2.934 | 2.094 | 2.083 |
| Crosswalk LOS | C | C | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 711 | 733 | 822 | 822 |
| d_b, Bicycle Delay [s] | 18.69 | 18.06 | 15.61 | 15.61 |
| l_b,int, Bicycle LOS Score for Intersection | 1.835 | 1.948 | 1.974 | 1.796 |
| Bicycle LOS | A | A | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 5: Magnolia Avenue/Main Street at Main Street**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 17.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.445 |

**Intersection Setup**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 205.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 263 | 393 | 0 | 3 | 472 | 111 | 63 | 1 | 414 | 0 | 4 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 263 | 393 | 0 | 3 | 472 | 111 | 63 | 1 | 414 | 0 | 4 | 4 |
| Peak Hour Factor | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 69 | 104 | 0 | 1 | 124 | 29 | 17 | 0 | 109 | 0 | 1 | 1 |
| Total Analysis Volume [veh/h] | 277 | 414 | 0 | 3 | 497 | 117 | 66 | 1 | 436 | 0 | 4 | 4 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Overlap | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 0 | 7 | 4 | 0 | 0 | 2 | 2 | 0 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | 2,3 | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 33 | 57 | 0 | 11 | 35 | 0 | 0 | 11 | 11 | 0 | 11 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | No | | No | |
| Maximum Recall | No | No | | No | No | | | No | No | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | C | R | C | R |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 15 | 65 | 65 | 1 | 51 | 51 | 7 | 31 | 1 | 1 |
| g / C, Green / Cycle | 0.16 | 0.72 | 0.72 | 0.01 | 0.57 | 0.57 | 0.08 | 0.35 | 0.01 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.08 | 0.08 | 0.08 | 0.00 | 0.14 | 0.07 | 0.04 | 0.15 | 0.02 | 0.00 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1870 | 1781 | 3560 | 1589 | 1782 | 2813 | 200 | 1589 |
| c, Capacity [veh/h] | 567 | 2570 | 1350 | 12 | 2011 | 898 | 140 | 975 | 43 | 24 |
| d1, Uniform Delay [s] | 34.27 | 3.78 | 3.78 | 44.54 | 9.92 | 9.22 | 39.77 | 22.79 | 45.03 | 43.83 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.65 | 0.08 | 0.16 | 9.74 | 0.29 | 0.30 | 2.52 | 0.32 | 0.93 | 3.13 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.49 | 0.11 | 0.11 | 0.24 | 0.25 | 0.13 | 0.48 | 0.45 | 0.09 | 0.16 |
| d, Delay for Lane Group [s/veh] | 34.92 | 3.86 | 3.94 | 54.27 | 10.22 | 9.52 | 42.29 | 23.11 | 45.96 | 46.97 |
| Lane Group LOS | C | A | A | D | B | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.77 | 0.62 | 0.68 | 0.10 | 2.39 | 1.08 | 1.50 | 3.52 | 0.10 | 0.11 |
| 50th-Percentile Queue Length [ft/ln] | 69.16 | 15.59 | 17.07 | 2.49 | 59.77 | 27.11 | 37.58 | 88.06 | 2.49 | 2.71 |
| 95th-Percentile Queue Length [veh/ln] | 4.98 | 1.12 | 1.23 | 0.18 | 4.30 | 1.95 | 2.71 | 6.34 | 0.18 | 0.20 |
| 95th-Percentile Queue Length [ft/ln] | 124.49 | 28.06 | 30.73 | 4.48 | 107.58 | 48.80 | 67.64 | 158.51 | 4.49 | 4.88 |

**Movement, Approach, & Intersection Results**

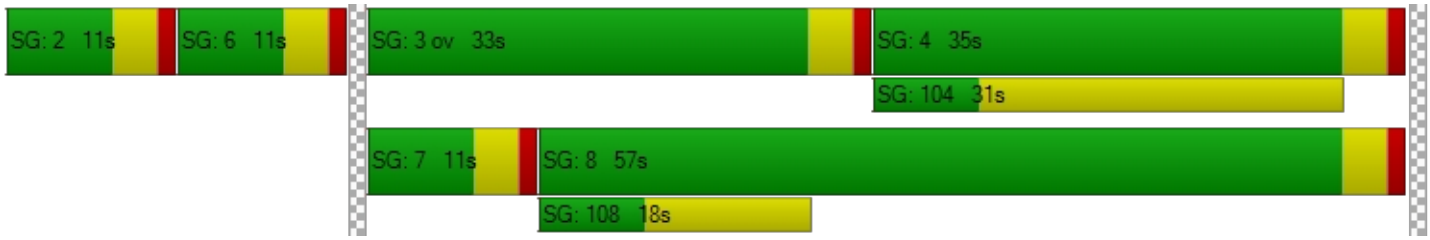
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 34.92 | 3.89 | 3.94 | 54.27 | 10.22 | 9.52 | 42.29 | 42.29 | 23.11 | 45.96 | 45.96 | 46.97 |
| Movement LOS | C | A | A | D | B | A | D | D | C | D | D | D |
| d_A, Approach Delay [s/veh] | 16.33 | | | 10.30 | | | 25.67 | | | 46.46 | | |
| Approach LOS | B | | | B | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 17.00 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.445 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 7.0 | 0.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 38.32 | 0.00 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.824 | 0.000 | 2.475 | 1.944 |
| Crosswalk LOS | C | F | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1177 | 688 | 155 | 155 |
| d_b, Bicycle Delay [s] | 7.63 | 19.38 | 38.32 | 38.32 |
| l_b,int, Bicycle LOS Score for Intersection | 1.940 | 2.069 | 2.390 | 1.573 |
| Bicycle LOS | A | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 6: Main Street at Citrus Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 7.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.372 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 155.00 | 100.00 | 100.00 | 100.00 | 90.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 34 | 493 | 769 | 101 | 80 | 43 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 34 | 493 | 769 | 101 | 80 | 43 |
| Peak Hour Factor | 0.9410 | 0.9410 | 0.9410 | 0.9410 | 0.9410 | 0.9410 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 9 | 131 | 204 | 27 | 21 | 11 |
| Total Analysis Volume [veh/h] | 36 | 524 | 817 | 107 | 85 | 46 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 95 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 2 | 0 | 3 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 7 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 64 | 53 | 0 | 31 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 0 | 7 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 0 | 13 | 0 | 20 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 4 | 80 | 72 | 72 | 7 | 7 |
| g / C, Green / Cycle | 0.05 | 0.84 | 0.76 | 0.76 | 0.07 | 0.07 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02 | 0.15 | 0.25 | 0.26 | 0.05 | 0.03 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1870 | 1797 | 1781 | 1589 |
| c, Capacity [veh/h] | 82 | 3003 | 1412 | 1357 | 129 | 115 |
| d1, Uniform Delay [s] | 44.11 | 1.36 | 3.78 | 3.84 | 42.94 | 42.11 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.50 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 3.61 | 0.13 | 0.62 | 0.68 | 5.65 | 2.24 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.44 | 0.17 | 0.33 | 0.34 | 0.66 | 0.40 |
| d, Delay for Lane Group [s/veh] | 47.72 | 1.49 | 4.40 | 4.52 | 48.59 | 44.35 |
| Lane Group LOS | D | A | A | A | D | D |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.90 | 0.43 | 2.42 | 2.47 | 2.13 | 1.10 |
| 50th-Percentile Queue Length [ft/ln] | 22.55 | 10.80 | 60.56 | 61.67 | 53.28 | 27.38 |
| 95th-Percentile Queue Length [veh/ln] | 1.62 | 0.78 | 4.36 | 4.44 | 3.84 | 1.97 |
| 95th-Percentile Queue Length [ft/ln] | 40.59 | 19.44 | 109.01 | 111.01 | 95.91 | 49.29 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 47.72 | 1.49 | 4.45 | 4.52 | 48.59 | 44.35 |
| Movement LOS | D | A | A | A | D | D |
| d_A, Approach Delay [s/veh] | 4.46 | | 4.46 | | 47.10 | |
| Approach LOS | A | | A | | D | |
| d_I, Intersection Delay [s/veh] | 7.92 | | | | | |
| Intersection LOS | A | | | | | |
| Intersection V/C | 0.372 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 37.14 | 37.14 | 37.14 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.580 | 2.507 | 2.032 |
| Crosswalk LOS | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1263 | 1031 | 568 |
| d_b, Bicycle Delay [s] | 6.45 | 11.14 | 24.34 |
| l_b,int, Bicycle LOS Score for Intersection | 2.022 | 2.322 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 7: Main Street at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 8.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.405 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 140.00 | 100.00 | 100.00 | 115.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 45.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 4 | 482 | 64 | 59 | 732 | 2 | 3 | 2 | 5 | 50 | 0 | 38 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 4 | 482 | 64 | 59 | 732 | 2 | 3 | 2 | 5 | 50 | 0 | 38 |
| Peak Hour Factor | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 131 | 17 | 16 | 198 | 1 | 1 | 1 | 1 | 14 | 0 | 10 |
| Total Analysis Volume [veh/h] | 4 | 522 | 69 | 64 | 793 | 2 | 3 | 2 | 5 | 54 | 0 | 41 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 95 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 15 | 50 | 0 | 11 | 46 | 0 | 0 | 34 | 0 | 0 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 12 | 0 | 0 | 23 | 0 | 0 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 1 | 70 | 70 | 6 | 75 | 75 | 8 | 8 | 8 | 8 |
| g / C, Green / Cycle | 0.01 | 0.73 | 0.73 | 0.06 | 0.79 | 0.79 | 0.08 | 0.08 | 0.08 | 0.08 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.28 | 0.04 | 0.04 | 0.21 | 0.21 | 0.00 | 0.00 | 0.04 | 0.03 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1589 | 1781 | 1870 | 1868 | 1366 | 1661 | 1408 | 1589 |
| c, Capacity [veh/h] | 13 | 1374 | 1168 | 107 | 1473 | 1472 | 119 | 130 | 149 | 125 |
| d1, Uniform Delay [s] | 46.89 | 4.63 | 3.49 | 43.52 | 2.72 | 2.72 | 44.64 | 40.51 | 44.37 | 41.41 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 11.86 | 0.80 | 0.10 | 5.22 | 0.45 | 0.45 | 0.08 | 0.17 | 1.47 | 1.52 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.30 | 0.38 | 0.06 | 0.60 | 0.27 | 0.27 | 0.03 | 0.05 | 0.36 | 0.33 |
| d, Delay for Lane Group [s/veh] | 58.76 | 5.43 | 3.58 | 48.74 | 3.17 | 3.17 | 44.72 | 40.68 | 45.84 | 42.93 |
| Lane Group LOS | E | A | A | D | A | A | D | D | D | D |
| Critical Lane Group | No | Yes | No | Yes | No | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.14 | 3.29 | 0.33 | 1.61 | 1.57 | 1.57 | 0.07 | 0.16 | 1.30 | 0.95 |
| 50th-Percentile Queue Length [ft/ln] | 3.44 | 82.32 | 8.22 | 40.26 | 39.16 | 39.13 | 1.77 | 3.92 | 32.56 | 23.85 |
| 95th-Percentile Queue Length [veh/ln] | 0.25 | 5.93 | 0.59 | 2.90 | 2.82 | 2.82 | 0.13 | 0.28 | 2.34 | 1.72 |
| 95th-Percentile Queue Length [ft/ln] | 6.19 | 148.18 | 14.80 | 72.47 | 70.48 | 70.43 | 3.19 | 7.05 | 58.61 | 42.93 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 58.76 | 5.43 | 3.58 | 48.74 | 3.17 | 3.17 | 44.72 | 40.68 | 40.68 | 45.84 | 42.93 | 42.93 |
| Movement LOS | E | A | A | D | A | A | D | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 5.57 | | | 6.57 | | | 41.89 | | | 44.58 | | |
| Approach LOS | A | | | A | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 8.73 | | | | | | | | | | | |
| Intersection LOS | A | | | | | | | | | | | |
| Intersection V/C | 0.405 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 37.14 | 37.14 | 37.14 | 37.14 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.661 | 2.485 | 1.948 | 2.017 |
| Crosswalk LOS | B | B | A | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 968 | 884 | 632 | 632 |
| d_b, Bicycle Delay [s] | 12.64 | 14.78 | 22.24 | 22.24 |
| l_b,int, Bicycle LOS Score for Intersection | 2.541 | 2.268 | 1.576 | 1.716 |
| Bicycle LOS | B | B | A | A |

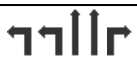
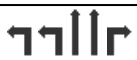
## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 8: Main Street at Foothill Parkway**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 34.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.504 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | | | | | | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 160.00 | 100.00 | 155.00 | 140.00 | 100.00 | 160.00 | 140.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 19 | 189 | 75 | 217 | 397 | 188 | 245 | 941 | 27 | 122 | 351 | 104 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 19 | 189 | 75 | 217 | 397 | 188 | 245 | 941 | 27 | 122 | 351 | 104 |
| Peak Hour Factor | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 49 | 19 | 56 | 103 | 49 | 63 | 243 | 7 | 32 | 91 | 27 |
| Total Analysis Volume [veh/h] | 20 | 195 | 77 | 224 | 410 | 194 | 253 | 972 | 28 | 126 | 363 | 107 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 110 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 2 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | 2,3 | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 30 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 13 | 38 | 0 | 12 | 37 | 37 | 19 | 49 | 0 | 11 | 41 | 41 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 27 | 0 | 0 | 26 | 26 | 0 | 29 | 0 | 0 | 29 | 29 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | No | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 3 | 46 | 46 | 8 | 50 | 65 | 11 | 34 | 34 | 7 | 30 | 42 |
| g / C, Green / Cycle | 0.03 | 0.41 | 0.41 | 0.07 | 0.46 | 0.59 | 0.10 | 0.30 | 0.30 | 0.06 | 0.27 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.01 | 0.05 | 0.05 | 0.06 | 0.12 | 0.12 | 0.07 | 0.27 | 0.02 | 0.04 | 0.10 | 0.07 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 |
| c, Capacity [veh/h] | 104 | 1472 | 657 | 254 | 1626 | 937 | 333 | 1085 | 484 | 218 | 967 | 606 |
| d1, Uniform Delay [s] | 52.08 | 20.04 | 19.90 | 50.53 | 18.36 | 10.58 | 48.52 | 36.61 | 27.09 | 50.15 | 32.53 | 22.59 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.88 | 0.19 | 0.36 | 9.67 | 0.37 | 0.50 | 3.59 | 2.91 | 0.05 | 2.41 | 0.24 | 0.14 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.19 | 0.13 | 0.12 | 0.88 | 0.25 | 0.21 | 0.76 | 0.90 | 0.06 | 0.58 | 0.38 | 0.18 |
| d, Delay for Lane Group [s/veh] | 52.96 | 20.22 | 20.27 | 60.21 | 18.73 | 11.08 | 52.11 | 39.51 | 27.14 | 52.56 | 32.77 | 22.73 |
| Lane Group LOS | D | C | C | E | B | B | D | D | C | D | C | C |
| Critical Lane Group | Yes | No | No | No | Yes | No | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 0.28 | 1.59 | 1.28 | 3.39 | 3.26 | 2.26 | 3.54 | 12.72 | 0.53 | 1.76 | 3.95 | 1.86 |
| 50th-Percentile Queue Length [ft/ln] | 7.05 | 39.69 | 32.05 | 84.73 | 81.42 | 56.59 | 88.62 | 318.01 | 13.26 | 43.94 | 98.77 | 46.59 |
| 95th-Percentile Queue Length [veh/ln] | 0.51 | 2.86 | 2.31 | 6.10 | 5.86 | 4.07 | 6.38 | 18.57 | 0.95 | 3.16 | 7.11 | 3.35 |
| 95th-Percentile Queue Length [ft/ln] | 12.70 | 71.45 | 57.69 | 152.51 | 146.56 | 101.86 | 159.51 | 464.24 | 23.86 | 79.10 | 177.78 | 83.86 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 52.96 | 20.22 | 20.27 | 60.21 | 18.73 | 11.08 | 52.11 | 39.51 | 27.14 | 52.56 | 32.77 | 22.73 |
| Movement LOS | D | C | C | E | B | B | D | D | C | D | C | C |
| d_A, Approach Delay [s/veh] | 22.48 | | | 28.16 | | | 41.78 | | | 35.15 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 34.75 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.504 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 44.58 | 44.58 | 44.58 | 44.58 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.723 | 2.796 | 2.858 | 2.864 |
| Crosswalk LOS | B | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 618 | 600 | 818 | 672 |
| d_b, Bicycle Delay [s] | 26.28 | 26.97 | 19.23 | 24.25 |
| l_b,int, Bicycle LOS Score for Intersection | 1.801 | 2.243 | 2.593 | 2.051 |
| Bicycle LOS | A | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

# Appendix E

Opening Year (2023) With Background Traffic With Project Conditions
LOS Analysis Worksheets

**Intersection Level Of Service Report**
**Intersection 1: Main Street at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 41.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.582 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 295.00 | 100.00 | 100.00 | 220.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 150.00 | 100.00 | 140.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 90 | 383 | 73 | 197 | 383 | 64 | 167 | 770 | 96 | 189 | 666 | 171 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 90 | 383 | 73 | 197 | 383 | 64 | 167 | 770 | 96 | 189 | 666 | 171 |
| Peak Hour Factor | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 | 0.9070 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 25 | 106 | 20 | 54 | 106 | 18 | 46 | 212 | 26 | 52 | 184 | 47 |
| Total Analysis Volume [veh/h] | 99 | 422 | 80 | 217 | 422 | 71 | 184 | 849 | 106 | 208 | 734 | 189 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 110 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 15 | 42 | 0 | 12 | 39 | 0 | 15 | 39 | 0 | 17 | 41 | 41 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 31 | 0 | 0 | 28 | 0 | 0 | 23 | 0 | 0 | 25 | 25 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 8 | 50 | 50 | 8 | 50 | 50 | 11 | 23 | 23 | 13 | 25 | 37 |
| g / C, Green / Cycle | 0.07 | 0.45 | 0.45 | 0.07 | 0.46 | 0.46 | 0.10 | 0.21 | 0.21 | 0.12 | 0.23 | 0.34 |
| (v / s)_i Volume / Saturation Flow Rate | 0.06 | 0.14 | 0.14 | 0.06 | 0.13 | 0.14 | 0.10 | 0.18 | 0.18 | 0.12 | 0.14 | 0.12 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1768 | 3459 | 1870 | 1777 | 1781 | 3560 | 1766 | 1781 | 5094 | 1589 |
| c, Capacity [veh/h] | 126 | 844 | 798 | 254 | 849 | 807 | 179 | 752 | 373 | 211 | 1168 | 539 |
| d1, Uniform Delay [s] | 50.35 | 19.21 | 19.23 | 50.43 | 18.95 | 18.97 | 49.51 | 41.73 | 41.75 | 48.41 | 38.21 | 27.30 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.14 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 10.35 | 0.93 | 1.00 | 8.00 | 0.89 | 0.94 | 38.38 | 2.78 | 6.81 | 25.20 | 0.56 | 0.39 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.79 | 0.30 | 0.31 | 0.85 | 0.30 | 0.30 | 1.03 | 0.85 | 0.85 | 0.98 | 0.63 | 0.35 |
| d, Delay for Lane Group [s/veh] | 60.70 | 20.14 | 20.23 | 58.43 | 19.85 | 19.91 | 87.90 | 44.51 | 48.57 | 73.61 | 38.77 | 27.68 |
| Lane Group LOS | E | C | C | E | B | B | F | D | D | E | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 3.04 | 4.35 | 4.16 | 3.23 | 4.23 | 4.05 | 6.81 | 8.54 | 8.92 | 7.15 | 5.97 | 3.78 |
| 50th-Percentile Queue Length [ft/ln] | 75.96 | 108.74 | 104.08 | 80.72 | 105.71 | 101.17 | 170.33 | 213.51 | 222.91 | 178.67 | 149.32 | 94.43 |
| 95th-Percentile Queue Length [veh/ln] | 5.47 | 7.77 | 7.49 | 5.81 | 7.60 | 7.28 | 11.21 | 13.33 | 13.81 | 11.53 | 9.98 | 6.80 |
| 95th-Percentile Queue Length [ft/ln] | 136.74 | 194.25 | 187.35 | 145.29 | 190.02 | 182.10 | 280.20 | 333.33 | 345.34 | 288.28 | 249.52 | 169.97 |

**Movement, Approach, & Intersection Results**

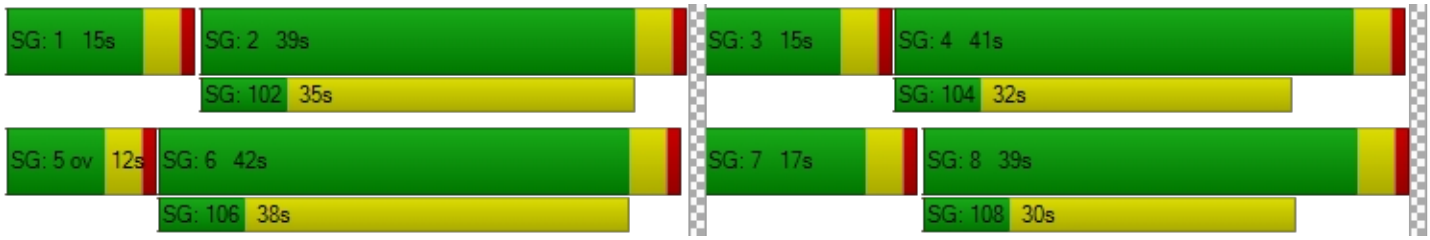
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 60.70 | 20.18 | 20.23 | 58.43 | 19.87 | 19.91 | 87.90 | 45.52 | 48.57 | 73.61 | 38.77 | 27.68 |
| Movement LOS | E | C | C | E | B | B | F | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 26.86 | | | 31.66 | | | 52.65 | | | 43.32 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 41.21 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.582 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 44.58 | 44.58 | 44.58 | 44.58 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.570 | 2.707 | 2.888 | 3.013 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 691 | 636 | 636 | 672 |
| d_b, Bicycle Delay [s] | 23.59 | 25.59 | 25.59 | 24.25 |
| l_b,int, Bicycle LOS Score for Intersection | 2.055 | 2.145 | 2.186 | 2.182 |
| Bicycle LOS | B | B | B | B |

## Sequence

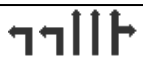
| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Magnolia Avenue at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 36.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.550 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Entry Pocket Length [ft] | 195.00 | 100.00 | 130.00 | 175.00 | 100.00 | 90.00 | 150.00 | 100.00 | 100.00 | 255.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 68 | 368 | 117 | 69 | 444 | 283 | 269 | 674 | 51 | 176 | 695 | 65 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 68 | 368 | 117 | 69 | 444 | 283 | 269 | 674 | 51 | 176 | 695 | 65 |
| Peak Hour Factor | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 99 | 32 | 19 | 120 | 76 | 72 | 182 | 14 | 47 | 187 | 18 |
| Total Analysis Volume [veh/h] | 73 | 397 | 126 | 74 | 478 | 305 | 290 | 726 | 55 | 190 | 749 | 70 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 110 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 11 | 42 | 0 | 11 | 42 | 0 | 14 | 42 | 0 | 15 | 43 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 30 | 0 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 31 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 57 | 57 | 6 | 57 | 57 | 10 | 22 | 22 | 8 | 20 | 20 |
| g / C, Green / Cycle | 0.06 | 0.52 | 0.52 | 0.06 | 0.52 | 0.52 | 0.09 | 0.20 | 0.20 | 0.07 | 0.18 | 0.18 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.11 | 0.08 | 0.04 | 0.13 | 0.19 | 0.08 | 0.15 | 0.15 | 0.05 | 0.15 | 0.15 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1589 | 1781 | 3560 | 1589 | 3459 | 3560 | 1803 | 3459 | 3560 | 1790 |
| c, Capacity [veh/h] | 103 | 1856 | 828 | 103 | 1857 | 829 | 317 | 718 | 364 | 256 | 655 | 329 |
| d1, Uniform Delay [s] | 50.97 | 14.20 | 13.71 | 50.98 | 14.56 | 15.60 | 49.59 | 41.06 | 41.08 | 49.96 | 43.27 | 43.30 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 8.71 | 0.26 | 0.39 | 8.96 | 0.34 | 1.26 | 10.49 | 1.39 | 2.73 | 4.25 | 2.81 | 5.53 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.71 | 0.21 | 0.15 | 0.72 | 0.26 | 0.37 | 0.92 | 0.72 | 0.72 | 0.74 | 0.83 | 0.83 |
| d, Delay for Lane Group [s/veh] | 59.69 | 14.47 | 14.09 | 59.94 | 14.90 | 16.86 | 60.08 | 42.45 | 43.81 | 54.21 | 46.08 | 48.83 |
| Lane Group LOS | E | B | B | E | B | B | E | D | D | D | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 2.22 | 2.69 | 1.69 | 2.26 | 3.32 | 4.71 | 4.40 | 6.66 | 6.90 | 2.71 | 7.34 | 7.67 |
| 50th-Percentile Queue Length [ft/ln] | 55.57 | 67.18 | 42.35 | 56.47 | 83.03 | 117.80 | 110.04 | 166.56 | 172.62 | 67.70 | 183.62 | 191.67 |
| 95th-Percentile Queue Length [veh/ln] | 4.00 | 4.84 | 3.05 | 4.07 | 5.98 | 8.27 | 7.84 | 10.90 | 11.21 | 4.87 | 11.79 | 12.21 |
| 95th-Percentile Queue Length [ft/ln] | 100.03 | 120.92 | 76.23 | 101.64 | 149.46 | 206.81 | 196.06 | 272.39 | 280.36 | 121.86 | 294.74 | 305.19 |

**Movement, Approach, & Intersection Results**

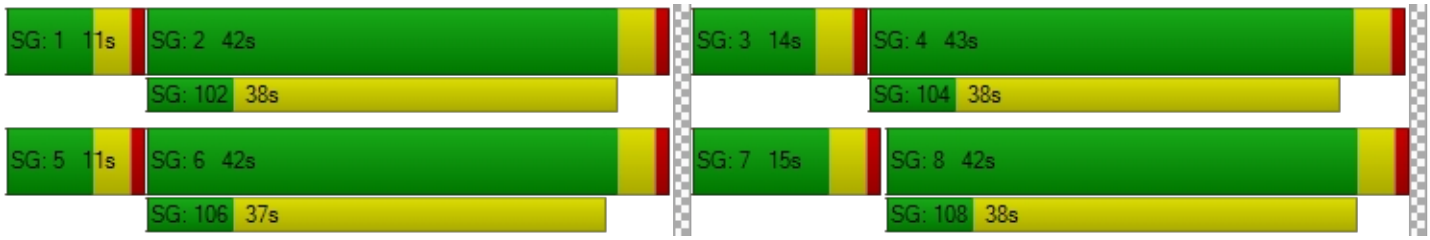
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 59.69 | 14.47 | 14.09 | 59.94 | 14.90 | 16.86 | 60.08 | 42.84 | 43.81 | 54.21 | 46.83 | 48.83 |
| Movement LOS | E | B | B | E | B | B | E | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 19.93 | | | 19.49 | | | 47.56 | | | 48.36 | | |
| Approach LOS | B | | | B | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 36.32 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.550 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 44.58 | 44.58 | 44.58 | 44.58 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.677 | 2.725 | 3.003 | 2.971 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 691 | 691 | 691 | 709 |
| d_b, Bicycle Delay [s] | 23.59 | 23.59 | 23.59 | 22.94 |
| l_b,int, Bicycle LOS Score for Intersection | 2.051 | 2.267 | 2.149 | 2.115 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Main Street at Montoya Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 24.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.461 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 90.00 | 100.00 | 100.00 | 130.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 | 30.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | No | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 52 | 433 | 27 | 129 | 252 | 53 | 46 | 30 | 80 | 13 | 20 | 99 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 52 | 433 | 27 | 129 | 252 | 53 | 46 | 30 | 80 | 13 | 20 | 99 |
| Peak Hour Factor | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 | 0.7300 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 148 | 9 | 44 | 86 | 18 | 16 | 10 | 27 | 4 | 7 | 34 |
| Total Analysis Volume [veh/h] | 71 | 593 | 37 | 177 | 345 | 73 | 63 | 41 | 110 | 18 | 27 | 136 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 13 | 38 | 0 | 13 | 38 | 0 | 0 | 39 | 0 | 0 | 39 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 12 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 52 | 52 | 9 | 56 | 56 | 17 | 13 | 17 | 13 |
| g / C, Green / Cycle | 0.06 | 0.58 | 0.58 | 0.10 | 0.62 | 0.62 | 0.18 | 0.14 | 0.18 | 0.14 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.17 | 0.17 | 0.10 | 0.11 | 0.12 | 0.05 | 0.09 | 0.01 | 0.10 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1832 | 1781 | 1870 | 1759 | 1291 | 1657 | 1303 | 1630 |
| c, Capacity [veh/h] | 115 | 1092 | 1070 | 178 | 1158 | 1089 | 235 | 229 | 247 | 225 |
| d1, Uniform Delay [s] | 41.00 | 9.39 | 9.39 | 40.47 | 7.37 | 7.38 | 33.61 | 36.79 | 30.74 | 37.15 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 5.24 | 0.68 | 0.69 | 29.68 | 0.35 | 0.38 | 0.61 | 3.23 | 0.12 | 4.38 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.62 | 0.29 | 0.29 | 0.99 | 0.19 | 0.19 | 0.27 | 0.66 | 0.07 | 0.72 |
| d, Delay for Lane Group [s/veh] | 46.24 | 10.07 | 10.08 | 70.16 | 7.72 | 7.76 | 34.22 | 40.02 | 30.86 | 41.53 |
| Lane Group LOS | D | B | B | E | A | A | C | D | C | D |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.68 | 3.09 | 3.04 | 5.33 | 1.73 | 1.65 | 1.18 | 3.30 | 0.33 | 3.65 |
| 50th-Percentile Queue Length [ft/ln] | 42.10 | 77.33 | 76.00 | 133.13 | 43.14 | 41.16 | 29.61 | 82.57 | 8.18 | 91.27 |
| 95th-Percentile Queue Length [veh/ln] | 3.03 | 5.57 | 5.47 | 9.11 | 3.11 | 2.96 | 2.13 | 5.95 | 0.59 | 6.57 |
| 95th-Percentile Queue Length [ft/ln] | 75.78 | 139.20 | 136.80 | 227.74 | 77.64 | 74.08 | 53.31 | 148.63 | 14.73 | 164.28 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 46.24 | 10.07 | 10.08 | 70.16 | 7.74 | 7.76 | 34.22 | 40.02 | 40.02 | 30.86 | 41.53 | 41.53 |
| Movement LOS | D | B | B | E | A | A | C | D | D | C | D | D |
| d_A, Approach Delay [s/veh] | 13.74 | | | 26.31 | | | 38.31 | | | 40.47 | | |
| Approach LOS | B | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 24.13 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.461 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 2.584 | 2.065 | 2.081 |
| Crosswalk LOS | F | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 755 | 755 | 778 | 778 |
| d_b, Bicycle Delay [s] | 17.43 | 17.43 | 16.81 | 16.81 |
| l_b,int, Bicycle LOS Score for Intersection | 2.138 | 2.050 | 1.913 | 1.858 |
| Bicycle LOS | B | B | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 4: Magnolia Avenue at Santana Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 18.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.310 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 165.00 | 100.00 | 100.00 | 235.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 51 | 387 | 86 | 93 | 510 | 93 | 35 | 21 | 45 | 74 | 49 | 117 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 51 | 387 | 86 | 93 | 510 | 93 | 35 | 21 | 45 | 74 | 49 | 117 |
| Peak Hour Factor | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 | 0.9020 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 14 | 107 | 24 | 26 | 141 | 26 | 10 | 6 | 12 | 21 | 14 | 32 |
| Total Analysis Volume [veh/h] | 57 | 429 | 95 | 103 | 565 | 103 | 39 | 23 | 50 | 82 | 54 | 130 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 95 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 24 | 24 | 0 | 30 | 30 | 0 | 0 | 41 | 0 | 0 | 41 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 13 | 0 | 0 | 16 | 0 | 0 | 30 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 5 | 59 | 59 | 7 | 61 | 61 | 17 | 17 | 17 | 17 |
| g / C, Green / Cycle | 0.06 | 0.62 | 0.62 | 0.07 | 0.64 | 0.64 | 0.17 | 0.17 | 0.17 | 0.17 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03 | 0.10 | 0.10 | 0.06 | 0.13 | 0.13 | 0.03 | 0.04 | 0.06 | 0.11 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1705 | 1781 | 3560 | 1728 | 1200 | 1668 | 1327 | 1663 |
| c, Capacity [veh/h] | 103 | 2226 | 1066 | 133 | 2286 | 1109 | 130 | 290 | 223 | 289 |
| d1, Uniform Delay [s] | 43.59 | 7.41 | 7.43 | 43.18 | 6.96 | 6.97 | 44.77 | 33.90 | 40.05 | 36.45 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.64 | 0.15 | 0.33 | 9.25 | 0.19 | 0.40 | 1.28 | 0.45 | 1.02 | 2.32 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.56 | 0.16 | 0.16 | 0.78 | 0.20 | 0.20 | 0.30 | 0.25 | 0.37 | 0.64 |
| d, Delay for Lane Group [s/veh] | 48.23 | 7.56 | 7.76 | 52.43 | 7.15 | 7.38 | 46.05 | 34.35 | 41.06 | 38.76 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.43 | 1.41 | 1.45 | 2.70 | 1.74 | 1.79 | 0.95 | 1.48 | 1.86 | 4.10 |
| 50th-Percentile Queue Length [ft/ln] | 35.68 | 35.28 | 36.30 | 67.40 | 43.51 | 44.66 | 23.63 | 36.98 | 46.52 | 102.43 |
| 95th-Percentile Queue Length [veh/ln] | 2.57 | 2.54 | 2.61 | 4.85 | 3.13 | 3.22 | 1.70 | 2.66 | 3.35 | 7.37 |
| 95th-Percentile Queue Length [ft/ln] | 64.22 | 63.51 | 65.34 | 121.32 | 78.32 | 80.39 | 42.54 | 66.57 | 83.74 | 184.37 |

**Movement, Approach, & Intersection Results**

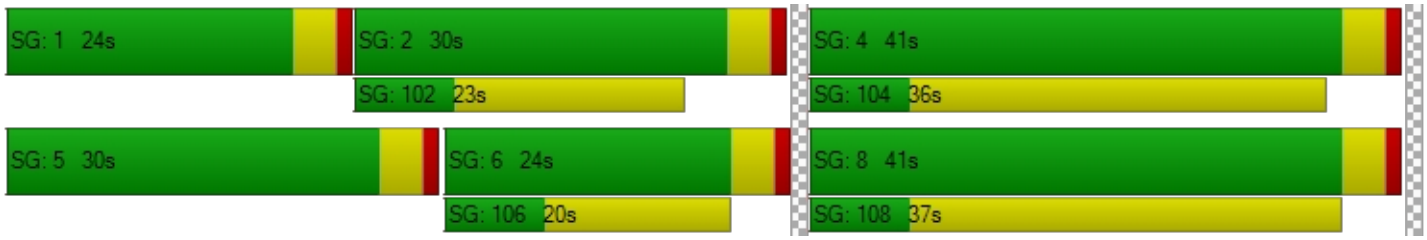
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 48.23 | 7.59 | 7.76 | 52.43 | 7.20 | 7.38 | 46.05 | 34.35 | 34.35 | 41.06 | 38.76 | 38.76 |
| Movement LOS | D | A | A | D | A | A | D | C | C | D | D | D |
| d_A, Approach Delay [s/veh] | 11.61 | | | 13.26 | | | 38.42 | | | 39.47 | | |
| Approach LOS | B | | | B | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 18.37 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.310 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 37.14 | 37.14 | 37.14 | 37.14 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.891 | 2.842 | 2.048 | 2.101 |
| Crosswalk LOS | C | C | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 421 | 547 | 779 | 779 |
| d_b, Bicycle Delay [s] | 29.61 | 25.06 | 17.71 | 17.71 |
| l_b,int, Bicycle LOS Score for Intersection | 1.879 | 1.984 | 1.744 | 1.999 |
| Bicycle LOS | A | A | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 5: Magnolia Avenue/Main Street at Main Street**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 19.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.388 |

**Intersection Setup**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 205.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 351 | 419 | 0 | 46 | 412 | 153 | 102 | 5 | 222 | 1 | 1 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 351 | 419 | 0 | 46 | 412 | 153 | 102 | 5 | 222 | 1 | 1 | 4 |
| Peak Hour Factor | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 | 0.9140 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 96 | 115 | 0 | 13 | 113 | 42 | 28 | 1 | 61 | 0 | 0 | 1 |
| Total Analysis Volume [veh/h] | 384 | 458 | 0 | 50 | 451 | 167 | 112 | 5 | 243 | 1 | 1 | 4 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Overlap | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 0 | 7 | 4 | 0 | 0 | 2 | 2 | 0 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | 2,3 | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 31 | 49 | 0 | 17 | 35 | 0 | 0 | 13 | 13 | 0 | 11 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | No | | No | |
| Maximum Recall | No | No | | No | No | | | No | No | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | C | R | C | R |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 13 | 60 | 60 | 5 | 52 | 52 | 8 | 30 | 1 | 1 |
| g / C, Green / Cycle | 0.15 | 0.67 | 0.67 | 0.06 | 0.57 | 0.57 | 0.09 | 0.34 | 0.01 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.11 | 0.08 | 0.08 | 0.03 | 0.13 | 0.11 | 0.07 | 0.09 | 0.01 | 0.00 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1870 | 1781 | 3560 | 1589 | 1785 | 2813 | 201 | 1589 |
| c, Capacity [veh/h] | 514 | 2367 | 1243 | 101 | 2040 | 911 | 159 | 952 | 62 | 19 |
| d1, Uniform Delay [s] | 36.77 | 5.53 | 5.53 | 41.27 | 9.41 | 9.18 | 40.05 | 21.61 | 45.00 | 44.12 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 2.20 | 0.11 | 0.21 | 3.69 | 0.25 | 0.44 | 6.52 | 0.14 | 0.21 | 5.27 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.75 | 0.13 | 0.13 | 0.49 | 0.22 | 0.18 | 0.74 | 0.26 | 0.03 | 0.21 |
| d, Delay for Lane Group [s/veh] | 38.97 | 5.64 | 5.74 | 44.96 | 9.66 | 9.63 | 46.57 | 21.75 | 45.21 | 49.39 |
| Lane Group LOS | D | A | A | D | A | A | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 4.14 | 0.93 | 1.01 | 1.17 | 2.08 | 1.56 | 2.78 | 1.84 | 0.05 | 0.12 |
| 50th-Percentile Queue Length [ft/ln] | 103.43 | 23.31 | 25.35 | 29.26 | 51.93 | 39.05 | 69.57 | 46.04 | 1.20 | 2.89 |
| 95th-Percentile Queue Length [veh/ln] | 7.45 | 1.68 | 1.82 | 2.11 | 3.74 | 2.81 | 5.01 | 3.31 | 0.09 | 0.21 |
| 95th-Percentile Queue Length [ft/ln] | 186.18 | 41.96 | 45.62 | 52.67 | 93.47 | 70.29 | 125.22 | 82.87 | 2.15 | 5.21 |

**Movement, Approach, & Intersection Results**

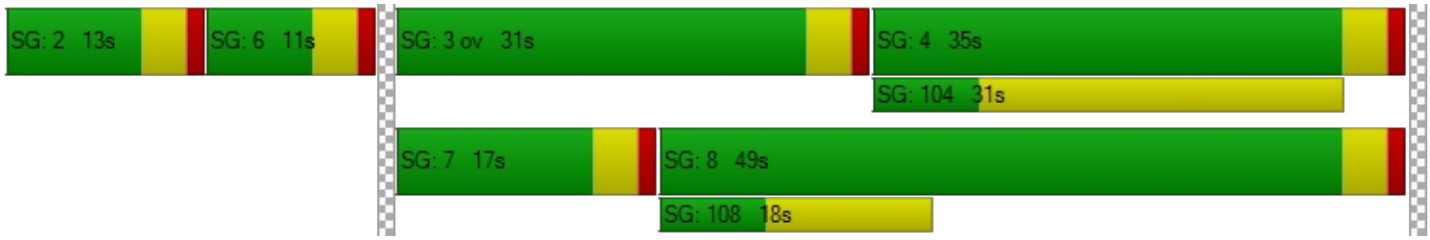
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 38.97 | 5.68 | 5.74 | 44.96 | 9.66 | 9.63 | 46.57 | 46.57 | 21.75 | 45.21 | 45.21 | 49.39 |
| Movement LOS | D | A | A | D | A | A | D | D | C | D | D | D |
| d_A, Approach Delay [s/veh] | 20.86 | | | 12.29 | | | 29.82 | | | 47.99 | | |
| Approach LOS | C | | | B | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 19.62 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.388 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 0.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 36.49 | 0.00 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.811 | 0.000 | 2.477 | 1.960 |
| Crosswalk LOS | C | F | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 999 | 688 | 200 | 155 |
| d_b, Bicycle Delay [s] | 11.28 | 19.38 | 36.49 | 38.32 |
| l_b,int, Bicycle LOS Score for Intersection | 2.023 | 2.111 | 2.154 | 1.570 |
| Bicycle LOS | B | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 6: Main Street at Citrus Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 11.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.370 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 155.00 | 100.00 | 100.00 | 100.00 | 90.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 59 | 661 | 593 | 57 | 105 | 87 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 59 | 661 | 593 | 57 | 105 | 87 |
| Peak Hour Factor | 0.8330 | 0.8330 | 0.8330 | 0.8330 | 0.8330 | 0.8330 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 198 | 178 | 17 | 32 | 26 |
| Total Analysis Volume [veh/h] | 71 | 794 | 712 | 68 | 126 | 104 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 100 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 2 | 0 | 3 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 7 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 35 | 24 | 0 | 65 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 0 | 7 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 0 | 13 | 0 | 20 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 100 | 100 | 100 | 100 | 100 | 100 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 83 | 72 | 72 | 9 | 9 |
| g / C, Green / Cycle | 0.06 | 0.83 | 0.72 | 0.72 | 0.09 | 0.09 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.22 | 0.21 | 0.21 | 0.07 | 0.07 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1870 | 1814 | 1781 | 1589 |
| c, Capacity [veh/h] | 109 | 2938 | 1354 | 1313 | 169 | 151 |
| d1, Uniform Delay [s] | 45.90 | 1.97 | 4.82 | 4.86 | 44.08 | 43.83 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.50 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.41 | 0.23 | 0.54 | 0.58 | 6.39 | 5.51 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.65 | 0.27 | 0.29 | 0.30 | 0.75 | 0.69 |
| d, Delay for Lane Group [s/veh] | 52.31 | 2.20 | 5.35 | 5.43 | 50.47 | 49.34 |
| Lane Group LOS | D | A | A | A | D | D |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 1.91 | 1.10 | 2.55 | 2.58 | 3.32 | 2.71 |
| 50th-Percentile Queue Length [ft/ln] | 47.75 | 27.45 | 63.76 | 64.46 | 82.97 | 67.71 |
| 95th-Percentile Queue Length [veh/ln] | 3.44 | 1.98 | 4.59 | 4.64 | 5.97 | 4.88 |
| 95th-Percentile Queue Length [ft/ln] | 85.95 | 49.40 | 114.77 | 116.03 | 149.35 | 121.88 |

**Movement, Approach, & Intersection Results**

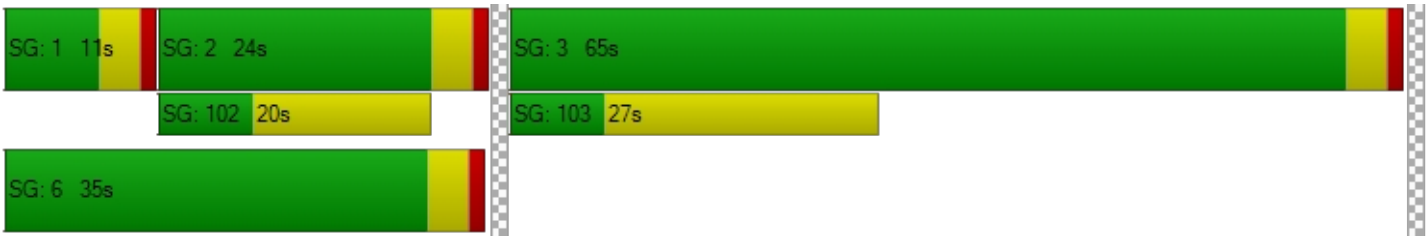
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 52.31 | 2.20 | 5.39 | 5.43 | 50.47 | 49.34 |
| Movement LOS | D | A | A | A | D | D |
| d_A, Approach Delay [s/veh] | 6.31 | | 5.39 | | 49.96 | |
| Approach LOS | A | | A | | D | |
| d_I, Intersection Delay [s/veh] | 11.28 | | | | | |
| Intersection LOS | B | | | | | |
| Intersection V/C | 0.370 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 39.61 | 39.61 | 39.61 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.632 | 2.550 | 2.065 |
| Crosswalk LOS | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 620 | 400 | 1220 |
| d_b, Bicycle Delay [s] | 23.81 | 32.00 | 7.61 |
| l_b,int, Bicycle LOS Score for Intersection | 2.273 | 2.203 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main Street at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 9.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.379 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 140.00 | 100.00 | 100.00 | 105.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 1 | 662 | 62 | 44 | 584 | 0 | 0 | 0 | 0 | 77 | 1 | 55 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 1 | 662 | 62 | 44 | 584 | 0 | 0 | 0 | 0 | 77 | 1 | 55 |
| Peak Hour Factor | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 | 0.8390 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 197 | 18 | 13 | 174 | 0 | 0 | 0 | 0 | 23 | 0 | 16 |
| Total Analysis Volume [veh/h] | 1 | 789 | 74 | 52 | 696 | 0 | 0 | 0 | 0 | 92 | 1 | 66 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 45 | 0 | 11 | 45 | 0 | 0 | 34 | 0 | 0 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 12 | 0 | 0 | 23 | 0 | 0 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 0 | 63 | 63 | 5 | 68 | 68 | 10 | 10 | 10 | 10 |
| g / C, Green / Cycle | 0.00 | 0.70 | 0.70 | 0.06 | 0.75 | 0.75 | 0.11 | 0.11 | 0.11 | 0.11 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.23 | 0.23 | 0.03 | 0.19 | 0.19 | 0.00 | 0.00 | 0.06 | 0.04 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1814 | 1781 | 1870 | 1870 | 1334 | 1870 | 1417 | 1593 |
| c, Capacity [veh/h] | 4 | 1309 | 1270 | 101 | 1411 | 1411 | 142 | 206 | 201 | 175 |
| d1, Uniform Delay [s] | 44.83 | 5.29 | 5.29 | 41.24 | 3.33 | 3.33 | 0.00 | 0.00 | 40.25 | 37.22 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 29.78 | 0.69 | 0.71 | 3.98 | 0.42 | 0.42 | 0.00 | 0.00 | 1.62 | 1.37 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.25 | 0.33 | 0.33 | 0.51 | 0.25 | 0.25 | 0.00 | 0.00 | 0.46 | 0.38 |
| d, Delay for Lane Group [s/veh] | 74.61 | 5.98 | 6.01 | 45.21 | 3.75 | 3.75 | 0.00 | 0.00 | 41.87 | 38.59 |
| Lane Group LOS | E | A | A | D | A | A | A | A | D | D |
| Critical Lane Group | No | No | Yes | Yes | No | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.06 | 2.90 | 2.82 | 1.22 | 1.56 | 1.56 | 0.00 | 0.00 | 2.05 | 1.42 |
| 50th-Percentile Queue Length [ft/ln] | 1.38 | 72.55 | 70.60 | 30.52 | 39.03 | 39.03 | 0.00 | 0.00 | 51.35 | 35.50 |
| 95th-Percentile Queue Length [veh/ln] | 0.10 | 5.22 | 5.08 | 2.20 | 2.81 | 2.81 | 0.00 | 0.00 | 3.70 | 2.56 |
| 95th-Percentile Queue Length [ft/ln] | 2.48 | 130.58 | 127.09 | 54.93 | 70.26 | 70.26 | 0.00 | 0.00 | 92.43 | 63.90 |

**Movement, Approach, & Intersection Results**

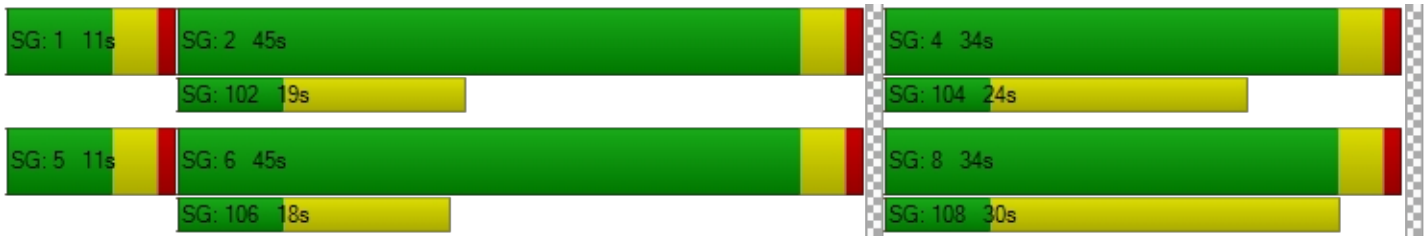
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 74.61 | 5.99 | 6.01 | 45.21 | 3.75 | 3.75 | 0.00 | 0.00 | 0.00 | 41.87 | 38.59 | 38.59 |
| Movement LOS | E | A | A | D | A | A | A | A | A | D | D | D |
| d_A, Approach Delay [s/veh] | 6.07 | | | 6.63 | | | 0.00 | | | 40.49 | | |
| Approach LOS | A | | | A | | | A | | | D | | |
| d_I, Intersection Delay [s/veh] | 9.40 | | | | | | | | | | | |
| Intersection LOS | A | | | | | | | | | | | |
| Intersection V/C | 0.379 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.752 | 2.612 | 1.940 | 2.032 |
| Crosswalk LOS | C | B | A | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 911 | 911 | 667 | 667 |
| d_b, Bicycle Delay [s] | 13.34 | 13.34 | 20.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 2.272 | 2.177 | 1.560 | 1.822 |
| Bicycle LOS | B | B | A | A |

## Sequence

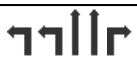
| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 8: Main Street at Foothill Parkway**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 32.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.496 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 160.00 | 100.00 | 155.00 | 140.00 | 100.00 | 160.00 | 140.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 68 | 321 | 196 | 145 | 316 | 182 | 241 | 542 | 50 | 109 | 554 | 160 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 68 | 321 | 196 | 145 | 316 | 182 | 241 | 542 | 50 | 109 | 554 | 160 |
| Peak Hour Factor | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 | 0.9280 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 18 | 86 | 53 | 39 | 85 | 49 | 65 | 146 | 13 | 29 | 149 | 43 |
| Total Analysis Volume [veh/h] | 73 | 346 | 211 | 156 | 341 | 196 | 260 | 584 | 54 | 117 | 597 | 172 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 105 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 2 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | 2,3 | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 30 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 12 | 38 | 0 | 11 | 37 | 37 | 14 | 43 | 0 | 13 | 42 | 42 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 27 | 0 | 0 | 26 | 26 | 0 | 29 | 0 | 0 | 29 | 29 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | No | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 6 | 51 | 51 | 7 | 52 | 66 | 10 | 24 | 24 | 7 | 21 | 32 |
| g / C, Green / Cycle | 0.06 | 0.49 | 0.49 | 0.07 | 0.50 | 0.63 | 0.09 | 0.23 | 0.23 | 0.06 | 0.20 | 0.30 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02 | 0.10 | 0.13 | 0.05 | 0.10 | 0.12 | 0.08 | 0.16 | 0.03 | 0.03 | 0.17 | 0.11 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 |
| c, Capacity [veh/h] | 206 | 1736 | 775 | 233 | 1764 | 997 | 325 | 810 | 362 | 226 | 708 | 484 |
| d1, Uniform Delay [s] | 47.48 | 15.29 | 15.91 | 47.87 | 14.80 | 8.33 | 46.66 | 37.53 | 32.47 | 47.53 | 40.54 | 28.53 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 1.03 | 0.26 | 0.87 | 3.29 | 0.24 | 0.44 | 4.56 | 1.23 | 0.19 | 1.83 | 2.84 | 0.44 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.35 | 0.20 | 0.27 | 0.67 | 0.19 | 0.20 | 0.80 | 0.72 | 0.15 | 0.52 | 0.84 | 0.36 |
| d, Delay for Lane Group [s/veh] | 48.50 | 15.54 | 16.78 | 51.16 | 15.05 | 8.77 | 51.21 | 38.76 | 32.66 | 49.36 | 43.38 | 28.97 |
| Lane Group LOS | D | B | B | D | B | A | D | D | C | D | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.95 | 2.37 | 3.12 | 2.10 | 2.29 | 1.90 | 3.52 | 7.01 | 1.12 | 1.54 | 7.63 | 3.42 |
| 50th-Percentile Queue Length [ft/ln] | 23.64 | 59.24 | 77.90 | 52.38 | 57.18 | 47.60 | 87.97 | 175.22 | 27.96 | 38.38 | 190.85 | 85.57 |
| 95th-Percentile Queue Length [veh/ln] | 1.70 | 4.26 | 5.61 | 3.77 | 4.12 | 3.43 | 6.33 | 11.35 | 2.01 | 2.76 | 12.17 | 6.16 |
| 95th-Percentile Queue Length [ft/ln] | 42.55 | 106.62 | 140.22 | 94.28 | 102.92 | 85.68 | 158.34 | 283.77 | 50.33 | 69.09 | 304.13 | 154.03 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 48.50 | 15.54 | 16.78 | 51.16 | 15.05 | 8.77 | 51.21 | 38.76 | 32.66 | 49.36 | 43.38 | 28.97 |
| Movement LOS | D | B | B | D | B | A | D | D | C | D | D | C |
| d_A, Approach Delay [s/veh] | 19.78 | | | 21.40 | | | 42.00 | | | 41.37 | | |
| Approach LOS | B | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 32.72 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.496 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 42.11 | 42.11 | 42.11 | 42.11 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.760 | 2.806 | 2.847 | 2.857 |
| Crosswalk LOS | C | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 647 | 628 | 742 | 723 |
| d_b, Bicycle Delay [s] | 24.03 | 24.71 | 20.77 | 21.40 |
| l_b,int, Bicycle LOS Score for Intersection | 2.079 | 2.131 | 2.300 | 2.291 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 9: Main Street at Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.035 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 712 | 5 | 21 | 628 | 0 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 712 | 5 | 21 | 628 | 0 | 21 |
| Peak Hour Factor | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 1.0000 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 187 | 1 | 6 | 165 | 0 | 6 |
| Total Analysis Volume [veh/h] | 749 | 5 | 22 | 661 | 0 | 22 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.03 | 0.01 | 0.00 | 0.04 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 9.34 | 0.00 | 0.00 | 11.01 |
| Movement LOS | A | A | A | A | | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.11 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 1.99 | 0.00 | 0.00 | 2.75 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.30 | | 11.01 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.31 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 10: Project Access 2 at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 9.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.004 |

**Intersection Setup**

| Name | Project Access 2 | | Chase Drive | | Chase Drive | |
|---|---|---|---|---|---|---|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Right | Left | Thru | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | Project Access 2 | | Chase Drive | | Chase Drive | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 3 | 10 | 5 | 101 | 123 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 3 | 10 | 5 | 101 | 123 | 4 |
| Peak Hour Factor | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 3 | 1 | 27 | 32 | 1 |
| Total Analysis Volume [veh/h] | 3 | 11 | 5 | 106 | 129 | 4 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Stop | Free | Free |
|---|---|---|---|
| Flared Lane | No | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 9.94 | 8.99 | 7.49 | 0.00 | 0.00 | 0.00 |
| Movement LOS | A | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.05 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 1.22 | 1.22 | 0.26 | 0.26 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 9.19 | | 0.34 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 0.64 | | | | | |
| Intersection LOS | A | | | | | |

**Intersection Level Of Service Report**
**Intersection 1: Main Street at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 41.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.543 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 295.00 | 100.00 | 100.00 | 220.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 150.00 | 100.00 | 140.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 77 | 280 | 64 | 268 | 346 | 74 | 139 | 789 | 60 | 116 | 770 | 197 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 77 | 280 | 64 | 268 | 346 | 74 | 139 | 789 | 60 | 116 | 770 | 197 |
| Peak Hour Factor | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 | 0.8550 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 23 | 82 | 19 | 78 | 101 | 22 | 41 | 231 | 18 | 34 | 225 | 58 |
| Total Analysis Volume [veh/h] | 90 | 327 | 75 | 313 | 405 | 87 | 163 | 923 | 70 | 136 | 901 | 230 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 20 | 42 | 0 | 17 | 39 | 0 | 25 | 46 | 0 | 15 | 36 | 36 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 31 | 0 | 0 | 28 | 0 | 0 | 23 | 0 | 0 | 25 | 25 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | C | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 8 | 52 | 52 | 13 | 58 | 58 | 13 | 28 | 28 | 11 | 26 | 43 |
| g / C, Green / Cycle | 0.06 | 0.44 | 0.44 | 0.11 | 0.48 | 0.48 | 0.11 | 0.23 | 0.23 | 0.09 | 0.21 | 0.36 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05 | 0.11 | 0.11 | 0.09 | 0.14 | 0.14 | 0.09 | 0.19 | 0.19 | 0.08 | 0.18 | 0.14 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1752 | 3459 | 1870 | 1757 | 1781 | 3560 | 1803 | 1781 | 5094 | 1589 |
| c, Capacity [veh/h] | 115 | 813 | 762 | 376 | 896 | 842 | 193 | 824 | 417 | 163 | 1093 | 567 |
| d1, Uniform Delay [s] | 55.33 | 21.53 | 21.58 | 52.42 | 18.83 | 18.83 | 52.55 | 43.50 | 43.52 | 53.66 | 44.98 | 29.04 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 11.00 | 0.75 | 0.82 | 4.80 | 0.79 | 0.84 | 9.68 | 1.84 | 3.75 | 10.62 | 1.63 | 0.47 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.78 | 0.25 | 0.26 | 0.83 | 0.28 | 0.28 | 0.85 | 0.80 | 0.80 | 0.84 | 0.82 | 0.41 |
| d, Delay for Lane Group [s/veh] | 66.34 | 22.28 | 22.39 | 57.22 | 19.61 | 19.67 | 62.23 | 45.35 | 47.27 | 64.28 | 46.62 | 29.51 |
| Lane Group LOS | E | C | C | E | B | B | E | D | D | E | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 3.04 | 3.86 | 3.69 | 4.87 | 4.43 | 4.19 | 5.34 | 9.40 | 9.76 | 4.52 | 8.67 | 5.07 |
| 50th-Percentile Queue Length [ft/ln] | 75.89 | 96.46 | 92.24 | 121.72 | 110.87 | 104.68 | 133.43 | 235.06 | 244.09 | 112.94 | 216.71 | 126.70 |
| 95th-Percentile Queue Length [veh/ln] | 5.46 | 6.94 | 6.64 | 8.49 | 7.89 | 7.54 | 9.13 | 14.43 | 14.89 | 8.00 | 13.50 | 8.76 |
| 95th-Percentile Queue Length [ft/ln] | 136.59 | 173.62 | 166.03 | 212.19 | 197.21 | 188.42 | 228.15 | 360.78 | 372.20 | 200.08 | 337.43 | 219.00 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 66.34 | 22.32 | 22.39 | 57.22 | 19.64 | 19.67 | 62.23 | 45.90 | 47.27 | 64.28 | 46.62 | 29.51 |
| Movement LOS | E | C | C | E | B | B | E | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 30.39 | | | 34.25 | | | 48.28 | | | 45.41 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 41.90 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.543 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 49.52 | 49.52 | 49.52 | 49.52 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.529 | 2.714 | 2.919 | 3.053 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 633 | 583 | 700 | 533 |
| d_b, Bicycle Delay [s] | 28.03 | 30.12 | 25.36 | 32.28 |
| l_b,int, Bicycle LOS Score for Intersection | 1.966 | 2.224 | 2.195 | 2.256 |
| Bicycle LOS | A | B | B | B |

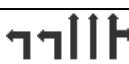
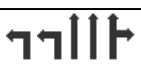
## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 2: Magnolia Avenue at Ontario Avenue**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 39.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.578 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Entry Pocket Length [ft] | 195.00 | 100.00 | 130.00 | 175.00 | 100.00 | 90.00 | 150.00 | 100.00 | 100.00 | 255.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Ontario Avenue | | | Ontario Avenue | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 75 | 344 | 88 | 59 | 492 | 281 | 310 | 802 | 54 | 150 | 669 | 48 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 75 | 344 | 88 | 59 | 492 | 281 | 310 | 802 | 54 | 150 | 669 | 48 |
| Peak Hour Factor | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 | 0.8830 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 21 | 97 | 25 | 17 | 139 | 80 | 88 | 227 | 15 | 42 | 189 | 14 |
| Total Analysis Volume [veh/h] | 85 | 390 | 100 | 67 | 557 | 318 | 351 | 908 | 61 | 170 | 758 | 54 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 11 | 41 | 0 | 12 | 42 | 0 | 19 | 53 | 0 | 14 | 48 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 30 | 0 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 31 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 7 | 62 | 62 | 6 | 61 | 61 | 14 | 28 | 28 | 8 | 22 | 22 |
| g / C, Green / Cycle | 0.06 | 0.52 | 0.52 | 0.05 | 0.51 | 0.51 | 0.12 | 0.23 | 0.23 | 0.07 | 0.18 | 0.18 |
| (v / s)_i Volume / Saturation Flow Rate | 0.05 | 0.11 | 0.06 | 0.04 | 0.16 | 0.20 | 0.10 | 0.18 | 0.18 | 0.05 | 0.15 | 0.15 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1589 | 1781 | 3560 | 1589 | 3459 | 3560 | 1810 | 3459 | 3560 | 1807 |
| c, Capacity [veh/h] | 105 | 1839 | 821 | 94 | 1817 | 811 | 408 | 823 | 419 | 229 | 639 | 324 |
| d1, Uniform Delay [s] | 55.81 | 15.76 | 14.98 | 55.96 | 17.07 | 18.00 | 51.99 | 43.28 | 43.28 | 55.06 | 47.60 | 47.63 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 13.48 | 0.26 | 0.30 | 9.49 | 0.44 | 1.42 | 5.43 | 1.65 | 3.19 | 4.73 | 3.10 | 6.00 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.81 | 0.21 | 0.12 | 0.71 | 0.31 | 0.39 | 0.86 | 0.78 | 0.78 | 0.74 | 0.84 | 0.84 |
| d, Delay for Lane Group [s/veh] | 69.30 | 16.03 | 15.28 | 65.45 | 17.51 | 19.42 | 57.42 | 44.93 | 46.48 | 59.79 | 50.70 | 53.63 |
| Lane Group LOS | E | B | B | E | B | B | E | D | D | E | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 2.94 | 2.96 | 1.48 | 2.25 | 4.54 | 5.66 | 5.49 | 9.10 | 9.44 | 2.68 | 8.03 | 8.45 |
| 50th-Percentile Queue Length [ft/ln] | 73.45 | 74.02 | 36.99 | 56.17 | 113.53 | 141.40 | 137.26 | 227.55 | 235.98 | 66.92 | 200.77 | 211.18 |
| 95th-Percentile Queue Length [veh/ln] | 5.29 | 5.33 | 2.66 | 4.04 | 8.04 | 9.56 | 9.33 | 14.05 | 14.48 | 4.82 | 12.68 | 13.21 |
| 95th-Percentile Queue Length [ft/ln] | 132.20 | 133.24 | 66.57 | 101.11 | 200.91 | 238.91 | 233.34 | 351.25 | 361.95 | 120.46 | 316.95 | 330.34 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 69.30 | 16.03 | 15.28 | 65.45 | 17.51 | 19.42 | 57.42 | 45.38 | 46.48 | 59.79 | 51.55 | 53.63 |
| Movement LOS | E | B | B | E | B | B | E | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 23.77 | | | 21.56 | | | 48.63 | | | 53.09 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 39.36 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.578 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 49.52 | 49.52 | 49.52 | 49.52 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.688 | 2.749 | 3.042 | 2.990 |
| Crosswalk LOS | B | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 617 | 633 | 816 | 733 |
| d_b, Bicycle Delay [s] | 28.72 | 28.03 | 21.02 | 24.08 |
| l_b,int, Bicycle LOS Score for Intersection | 2.034 | 2.337 | 2.286 | 2.100 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 3: Main Street at Montoya Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 10.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.249 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 90.00 | 100.00 | 100.00 | 130.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 | 30.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | No | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Montoya Drive | | | High School Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 58 | 349 | 0 | 10 | 484 | 55 | 31 | 0 | 37 | 0 | 0 | 7 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 58 | 349 | 0 | 10 | 484 | 55 | 31 | 0 | 37 | 0 | 0 | 7 |
| Peak Hour Factor | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 | 0.9220 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 16 | 95 | 0 | 3 | 131 | 15 | 8 | 0 | 10 | 0 | 0 | 2 |
| Total Analysis Volume [veh/h] | 63 | 379 | 0 | 11 | 525 | 60 | 34 | 0 | 40 | 0 | 0 | 8 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 105 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | ProtPer | Permiss | Permiss | ProtPer | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 3 | 8 | 0 | 7 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 | 30 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 14 | 49 | 0 | 11 | 46 | 0 | 11 | 34 | 0 | 11 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 12 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | No | | No | No | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 0.00 | 2.00 |
| g_i, Effective Green Time [s] | 6 | 81 | 81 | 2 | 77 | 77 | 10 | 6 | 10 | 1 |
| g / C, Green / Cycle | 0.06 | 0.77 | 0.77 | 0.02 | 0.73 | 0.73 | 0.09 | 0.06 | 0.09 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.04 | 0.10 | 0.10 | 0.01 | 0.16 | 0.16 | 0.02 | 0.03 | 0.00 | 0.01 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1870 | 1781 | 1870 | 1804 | 1649 | 1589 | 1452 | 1589 |
| c, Capacity [veh/h] | 101 | 1443 | 1443 | 34 | 1373 | 1324 | 254 | 90 | 210 | 23 |
| d1, Uniform Delay [s] | 48.47 | 3.04 | 3.04 | 50.88 | 4.41 | 4.42 | 43.86 | 47.98 | 0.00 | 51.28 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.22 | 0.19 | 0.19 | 5.52 | 0.36 | 0.38 | 0.24 | 3.45 | 0.00 | 8.78 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.63 | 0.13 | 0.13 | 0.33 | 0.22 | 0.22 | 0.13 | 0.45 | 0.00 | 0.35 |
| d, Delay for Lane Group [s/veh] | 54.69 | 3.23 | 3.23 | 56.40 | 4.77 | 4.79 | 44.10 | 51.43 | 0.00 | 60.06 |
| Lane Group LOS | D | A | A | E | A | A | D | D | A | E |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 1.78 | 0.87 | 0.87 | 0.34 | 1.85 | 1.80 | 0.83 | 1.10 | 0.00 | 0.26 |
| 50th-Percentile Queue Length [ft/ln] | 44.59 | 21.65 | 21.65 | 8.41 | 46.24 | 45.01 | 20.81 | 27.44 | 0.00 | 6.60 |
| 95th-Percentile Queue Length [veh/ln] | 3.21 | 1.56 | 1.56 | 0.61 | 3.33 | 3.24 | 1.50 | 1.98 | 0.00 | 0.48 |
| 95th-Percentile Queue Length [ft/ln] | 80.27 | 38.96 | 38.96 | 15.15 | 83.24 | 81.02 | 37.46 | 49.39 | 0.00 | 11.88 |

**Movement, Approach, & Intersection Results**

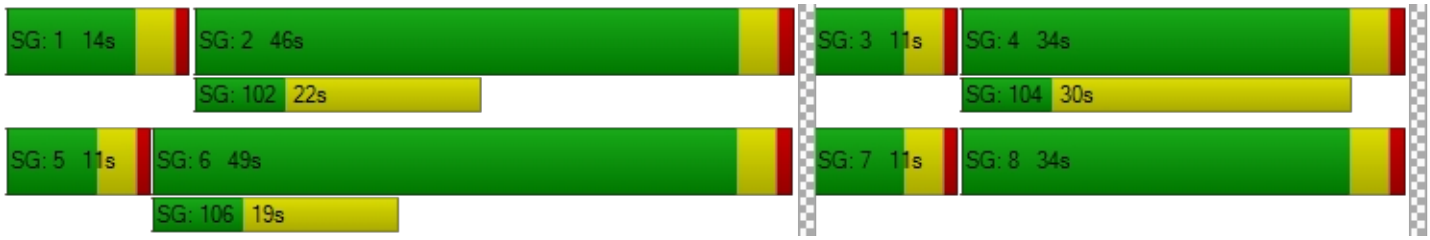
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 54.69 | 3.23 | 3.23 | 56.40 | 4.78 | 4.79 | 44.10 | 51.43 | 51.43 | 0.00 | 60.06 | 60.06 |
| Movement LOS | D | A | A | E | A | A | D | D | D | A | E | E |
| d_A, Approach Delay [s/veh] | 10.57 | | | 5.74 | | | 48.06 | | | 60.06 | | |
| Approach LOS | B | | | A | | | D | | | E | | |
| d_I, Intersection Delay [s/veh] | 10.83 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.249 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 42.09 | 42.09 | 42.09 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 2.507 | 2.012 | 1.954 |
| Crosswalk LOS | F | B | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 857 | 800 | 571 | 571 |
| d_b, Bicycle Delay [s] | 17.16 | 18.91 | 26.80 | 26.80 |
| l_b,int, Bicycle LOS Score for Intersection | 1.924 | 2.051 | 1.682 | 1.573 |
| Bicycle LOS | A | B | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 4: Magnolia Avenue at Santana Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 21.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.309 |

**Intersection Setup**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 165.00 | 100.00 | 100.00 | 235.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 50.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Magnolia Avenue | | | Magnolia Avenue | | | Santana Way | | | Santana Way | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 55 | 346 | 92 | 144 | 429 | 122 | 113 | 47 | 78 | 43 | 34 | 59 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 55 | 346 | 92 | 144 | 429 | 122 | 113 | 47 | 78 | 43 | 34 | 59 |
| Peak Hour Factor | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 | 0.9460 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 15 | 91 | 24 | 38 | 113 | 32 | 30 | 12 | 21 | 11 | 9 | 16 |
| Total Analysis Volume [veh/h] | 58 | 366 | 97 | 152 | 453 | 129 | 119 | 50 | 82 | 45 | 36 | 62 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 37 | 0 | 12 | 38 | 0 | 0 | 41 | 0 | 0 | 41 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 13 | 0 | 0 | 16 | 0 | 0 | 30 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 5 | 52 | 52 | 8 | 55 | 55 | 18 | 18 | 18 | 18 |
| g / C, Green / Cycle | 0.06 | 0.58 | 0.58 | 0.09 | 0.61 | 0.61 | 0.20 | 0.20 | 0.20 | 0.20 |
| (v / s)_i Volume / Saturation Flow Rate | 0.03 | 0.09 | 0.09 | 0.09 | 0.11 | 0.11 | 0.09 | 0.08 | 0.04 | 0.06 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1682 | 1781 | 3560 | 1669 | 1297 | 1685 | 1258 | 1682 |
| c, Capacity [veh/h] | 107 | 2068 | 977 | 159 | 2172 | 1018 | 233 | 331 | 205 | 331 |
| d1, Uniform Delay [s] | 41.10 | 8.66 | 8.70 | 40.81 | 7.69 | 7.72 | 38.52 | 31.53 | 37.85 | 30.86 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.21 | 0.15 | 0.34 | 23.88 | 0.18 | 0.40 | 1.72 | 0.78 | 0.53 | 0.50 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.54 | 0.15 | 0.16 | 0.96 | 0.18 | 0.19 | 0.51 | 0.40 | 0.22 | 0.30 |
| d, Delay for Lane Group [s/veh] | 45.31 | 8.82 | 9.04 | 64.69 | 7.87 | 8.12 | 40.24 | 32.31 | 38.39 | 31.35 |
| Lane Group LOS | D | A | A | E | A | A | D | C | D | C |
| Critical Lane Group | No | No | Yes | Yes | No | No | Yes | No | No | No |
| 50th-Percentile Queue Length [veh/ln] | 1.36 | 1.33 | 1.37 | 4.36 | 1.57 | 1.57 | 2.62 | 2.54 | 0.95 | 1.84 |
| 50th-Percentile Queue Length [ft/ln] | 34.04 | 33.29 | 34.17 | 109.02 | 39.16 | 39.36 | 65.59 | 63.43 | 23.68 | 45.93 |
| 95th-Percentile Queue Length [veh/ln] | 2.45 | 2.40 | 2.46 | 7.79 | 2.82 | 2.83 | 4.72 | 4.57 | 1.70 | 3.31 |
| 95th-Percentile Queue Length [ft/ln] | 61.27 | 59.91 | 61.51 | 194.65 | 70.49 | 70.86 | 118.06 | 114.18 | 42.62 | 82.67 |

**Movement, Approach, & Intersection Results**

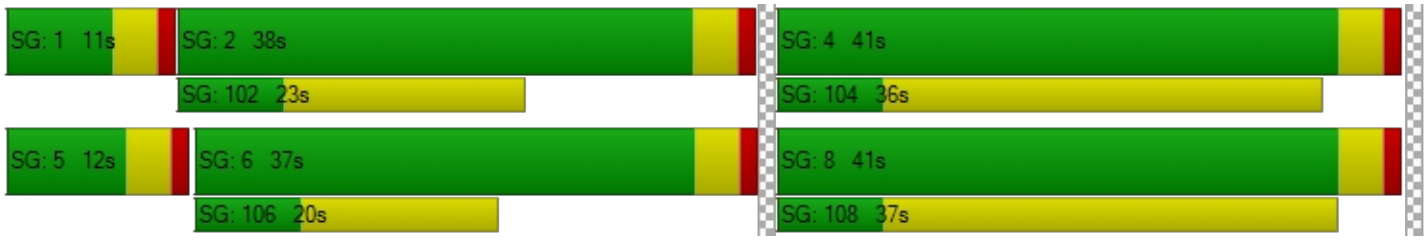
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 45.31 | 8.85 | 9.04 | 64.69 | 7.91 | 8.12 | 40.24 | 32.31 | 32.31 | 38.39 | 31.35 | 31.35 |
| Movement LOS | D | A | A | E | A | A | D | C | C | D | C | C |
| d_A, Approach Delay [s/veh] | 12.94 | | | 19.70 | | | 36.07 | | | 33.57 | | |
| Approach LOS | B | | | B | | | D | | | C | | |
| d_I, Intersection Delay [s/veh] | 21.26 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.309 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.811 | 2.941 | 2.094 | 2.083 |
| Crosswalk LOS | C | C | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 733 | 755 | 822 | 822 |
| d_b, Bicycle Delay [s] | 18.06 | 17.43 | 15.61 | 15.61 |
| l_b,int, Bicycle LOS Score for Intersection | 1.846 | 1.963 | 1.974 | 1.796 |
| Bicycle LOS | A | A | A | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 5: Magnolia Avenue/Main Street at Main Street**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 17.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.475 |

**Intersection Setup**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 205.00 | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 | 100.00 | 100.00 | 120.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | No | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Magnolia Avenue | | | Main Street | | | Church Driveway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 290 | 413 | 0 | 3 | 498 | 111 | 63 | 1 | 450 | 0 | 4 | 4 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 290 | 413 | 0 | 3 | 498 | 111 | 63 | 1 | 450 | 0 | 4 | 4 |
| Peak Hour Factor | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 | 0.9490 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 76 | 109 | 0 | 1 | 131 | 29 | 17 | 0 | 119 | 0 | 1 | 1 |
| Total Analysis Volume [veh/h] | 306 | 435 | 0 | 3 | 525 | 117 | 66 | 1 | 474 | 0 | 4 | 4 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Split | Split | Overlap | Split | Split | Split |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 3 | 8 | 0 | 7 | 4 | 0 | 0 | 2 | 2 | 0 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | 2,3 | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 33 | 57 | 0 | 11 | 35 | 0 | 0 | 11 | 11 | 0 | 11 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 29 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | No | | No | |
| Maximum Recall | No | No | | No | No | | | No | No | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | C | R | C | R |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 16 | 65 | 65 | 1 | 50 | 50 | 7 | 32 | 1 | 1 |
| g / C, Green / Cycle | 0.18 | 0.72 | 0.72 | 0.01 | 0.55 | 0.55 | 0.08 | 0.36 | 0.01 | 0.01 |
| (v / s)_i Volume / Saturation Flow Rate | 0.09 | 0.08 | 0.08 | 0.00 | 0.15 | 0.07 | 0.04 | 0.17 | 0.02 | 0.00 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1870 | 1781 | 3560 | 1589 | 1782 | 2813 | 200 | 1589 |
| c, Capacity [veh/h] | 610 | 2570 | 1350 | 12 | 1967 | 878 | 140 | 1010 | 43 | 24 |
| d1, Uniform Delay [s] | 33.56 | 3.80 | 3.80 | 44.54 | 10.60 | 9.75 | 39.77 | 22.29 | 45.03 | 43.83 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.64 | 0.09 | 0.17 | 9.74 | 0.33 | 0.31 | 2.52 | 0.34 | 0.93 | 3.13 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| X, volume / capacity | 0.50 | 0.11 | 0.11 | 0.24 | 0.27 | 0.13 | 0.48 | 0.47 | 0.09 | 0.16 |
|---|---|---|---|---|---|---|---|---|---|---|
| d, Delay for Lane Group [s/veh] | 34.20 | 3.88 | 3.96 | 54.27 | 10.93 | 10.07 | 42.29 | 22.63 | 45.96 | 46.97 |
| Lane Group LOS | C | A | A | D | B | B | D | C | D | D |
| Critical Lane Group | Yes | No | No | No | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 3.03 | 0.66 | 0.72 | 0.10 | 2.65 | 1.13 | 1.50 | 3.80 | 0.10 | 0.11 |
| 50th-Percentile Queue Length [ft/ln] | 75.71 | 16.45 | 18.02 | 2.49 | 66.22 | 28.15 | 37.58 | 95.05 | 2.49 | 2.71 |
| 95th-Percentile Queue Length [veh/ln] | 5.45 | 1.18 | 1.30 | 0.18 | 4.77 | 2.03 | 2.71 | 6.84 | 0.18 | 0.20 |
| 95th-Percentile Queue Length [ft/ln] | 136.28 | 29.61 | 32.43 | 4.48 | 119.19 | 50.67 | 67.64 | 171.09 | 4.49 | 4.88 |

**Movement, Approach, & Intersection Results**

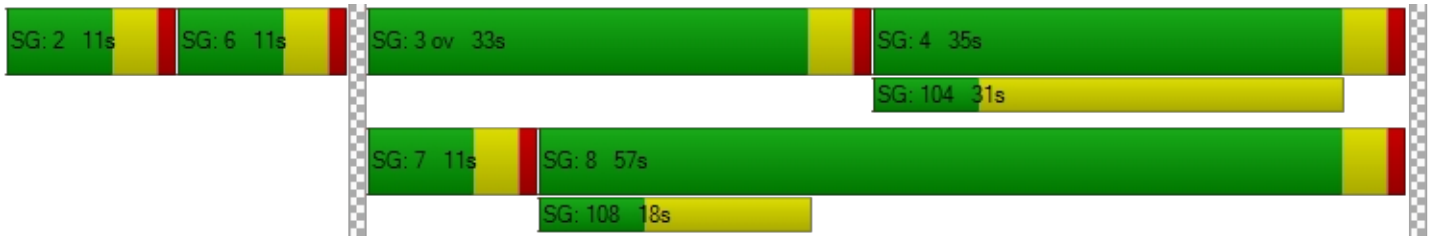
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 34.20 | 3.91 | 3.96 | 54.27 | 10.93 | 10.07 | 42.29 | 42.29 | 22.63 | 45.96 | 45.96 | 46.97 |
| Movement LOS | C | A | A | D | B | B | D | D | C | D | D | D |
| d_A, Approach Delay [s/veh] | 16.42 | | | 10.97 | | | 25.06 | | | 46.46 | | |
| Approach LOS | B | | | B | | | C | | | D | | |
| d_I, Intersection Delay [s/veh] | 17.15 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.475 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 7.0 | 0.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 38.32 | 0.00 | 34.72 | 34.72 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.840 | 0.000 | 2.488 | 1.944 |
| Crosswalk LOS | C | F | B | A |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1177 | 688 | 155 | 155 |
| d_b, Bicycle Delay [s] | 7.63 | 19.38 | 38.32 | 38.32 |
| l_b,int, Bicycle LOS Score for Intersection | 1.967 | 2.092 | 2.452 | 1.573 |
| Bicycle LOS | A | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 2 | 6 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | - | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 6: Main Street at Citrus Way**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 7.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.389 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 0 | 1 | 0 |
| Entry Pocket Length [ft] | 155.00 | 100.00 | 100.00 | 100.00 | 90.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Citrus Way | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 34 | 540 | 831 | 101 | 80 | 43 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 34 | 540 | 831 | 101 | 80 | 43 |
| Peak Hour Factor | 0.9410 | 0.9410 | 0.9410 | 0.9410 | 0.9410 | 0.9410 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 9 | 143 | 221 | 27 | 21 | 11 |
| Total Analysis Volume [veh/h] | 36 | 574 | 883 | 107 | 85 | 46 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 100 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 2 | 0 | 3 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 7 | 7 | 7 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 69 | 58 | 0 | 31 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 0 | 7 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 0 | 13 | 0 | 20 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 100 | 100 | 100 | 100 | 100 | 100 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 4 | 85 | 77 | 77 | 7 | 7 |
| g / C, Green / Cycle | 0.04 | 0.85 | 0.77 | 0.77 | 0.07 | 0.07 |
| (v / s)_i Volume / Saturation Flow Rate | 0.02 | 0.16 | 0.26 | 0.27 | 0.05 | 0.03 |
| s, saturation flow rate [veh/h] | 1781 | 3560 | 1870 | 1801 | 1781 | 1589 |
| c, Capacity [veh/h] | 80 | 3031 | 1434 | 1381 | 122 | 109 |
| d1, Uniform Delay [s] | 46.57 | 1.32 | 3.70 | 3.75 | 45.55 | 44.67 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.50 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 3.96 | 0.14 | 0.66 | 0.73 | 6.92 | 2.58 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.45 | 0.19 | 0.35 | 0.36 | 0.70 | 0.42 |
| d, Delay for Lane Group [s/veh] | 50.52 | 1.46 | 4.36 | 4.48 | 52.47 | 47.24 |
| Lane Group LOS | D | A | A | A | D | D |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.96 | 0.48 | 2.68 | 2.73 | 2.29 | 1.17 |
| 50th-Percentile Queue Length [ft/ln] | 23.92 | 12.05 | 66.91 | 68.14 | 57.19 | 29.18 |
| 95th-Percentile Queue Length [veh/ln] | 1.72 | 0.87 | 4.82 | 4.91 | 4.12 | 2.10 |
| 95th-Percentile Queue Length [ft/ln] | 43.06 | 21.68 | 120.44 | 122.66 | 102.94 | 52.53 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 50.52 | 1.46 | 4.42 | 4.48 | 52.47 | 47.24 |
| Movement LOS | D | A | A | A | D | D |
| d_A, Approach Delay [s/veh] | 4.35 | | 4.42 | | 50.64 | |
| Approach LOS | A | | A | | D | |
| d_I, Intersection Delay [s/veh] | 7.89 | | | | | |
| Intersection LOS | A | | | | | |
| Intersection V/C | 0.389 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 39.61 | 39.61 | 39.61 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.605 | 2.538 | 2.034 |
| Crosswalk LOS | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 1300 | 1080 | 540 |
| d_b, Bicycle Delay [s] | 6.13 | 10.58 | 26.65 |
| l_b,int, Bicycle LOS Score for Intersection | 2.063 | 2.376 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | - | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 7: Main Street at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 9.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.313 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 140.00 | 100.00 | 100.00 | 105.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Chase Drive | | | Chase Drive | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 4 | 497 | 79 | 59 | 732 | 2 | 3 | 2 | 5 | 73 | 0 | 38 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 4 | 497 | 79 | 59 | 732 | 2 | 3 | 2 | 5 | 73 | 0 | 38 |
| Peak Hour Factor | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 | 0.9230 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 135 | 21 | 16 | 198 | 1 | 1 | 1 | 1 | 20 | 0 | 10 |
| Total Analysis Volume [veh/h] | 4 | 538 | 86 | 64 | 793 | 2 | 3 | 2 | 5 | 79 | 0 | 41 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 12.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 0 | 0 | 8 | 0 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | - | - | - | - | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 0 | 0 | 30 | 0 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 11 | 44 | 0 | 12 | 45 | 0 | 0 | 34 | 0 | 0 | 34 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 11 | 0 | 0 | 12 | 0 | 0 | 23 | 0 | 0 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | | No | No | | | No | | | No | |
| Maximum Recall | No | No | | No | No | | | No | | | No | |
| Pedestrian Recall | No | No | | No | No | | | No | | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | L | C |
|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 2.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 1 | 63 | 63 | 6 | 68 | 68 | 9 | 9 | 9 | 9 |
| g / C, Green / Cycle | 0.01 | 0.70 | 0.70 | 0.06 | 0.76 | 0.76 | 0.10 | 0.10 | 0.10 | 0.10 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.17 | 0.17 | 0.04 | 0.21 | 0.21 | 0.00 | 0.00 | 0.06 | 0.03 |
| s, saturation flow rate [veh/h] | 1781 | 1870 | 1781 | 1781 | 1870 | 1868 | 1366 | 1661 | 1408 | 1589 |
| c, Capacity [veh/h] | 14 | 1315 | 1253 | 111 | 1417 | 1416 | 152 | 168 | 183 | 161 |
| d1, Uniform Delay [s] | 44.41 | 4.78 | 4.79 | 41.04 | 3.35 | 3.35 | 40.47 | 36.51 | 40.99 | 37.32 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 11.19 | 0.44 | 0.46 | 4.65 | 0.49 | 0.50 | 0.05 | 0.10 | 1.62 | 0.83 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.29 | 0.24 | 0.24 | 0.58 | 0.28 | 0.28 | 0.02 | 0.04 | 0.43 | 0.25 |
| d, Delay for Lane Group [s/veh] | 55.60 | 5.22 | 5.25 | 45.69 | 3.85 | 3.85 | 40.52 | 36.61 | 42.61 | 38.15 |
| Lane Group LOS | E | A | A | D | A | A | D | D | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.13 | 1.91 | 1.84 | 1.51 | 1.81 | 1.80 | 0.06 | 0.14 | 1.78 | 0.86 |
| 50th-Percentile Queue Length [ft/ln] | 3.27 | 47.73 | 45.99 | 37.71 | 45.13 | 45.10 | 1.62 | 3.56 | 44.47 | 21.51 |
| 95th-Percentile Queue Length [veh/ln] | 0.24 | 3.44 | 3.31 | 2.72 | 3.25 | 3.25 | 0.12 | 0.26 | 3.20 | 1.55 |
| 95th-Percentile Queue Length [ft/ln] | 5.88 | 85.92 | 82.79 | 67.88 | 81.24 | 81.18 | 2.91 | 6.40 | 80.05 | 38.72 |

**Movement, Approach, & Intersection Results**

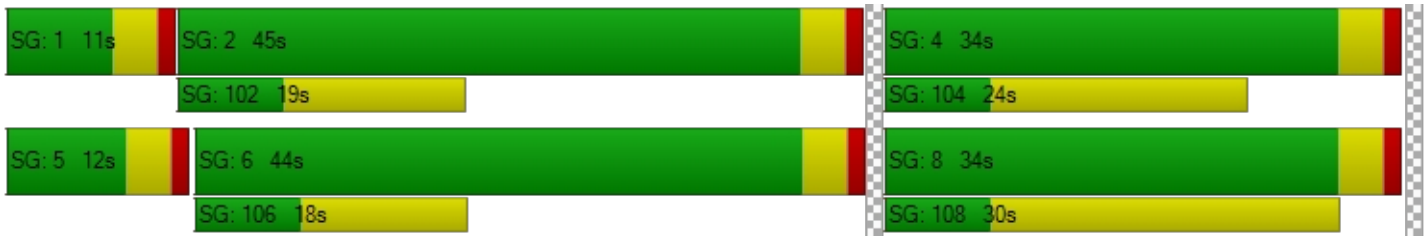
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 55.60 | 5.23 | 5.25 | 45.69 | 3.85 | 3.85 | 40.52 | 36.61 | 36.61 | 42.61 | 38.15 | 38.15 |
| Movement LOS | E | A | A | D | A | A | D | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 5.55 | | | 6.97 | | | 37.79 | | | 41.08 | | |
| Approach LOS | A | | | A | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 9.14 | | | | | | | | | | | |
| Intersection LOS | A | | | | | | | | | | | |
| Intersection V/C | 0.313 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.68 | 34.68 | 34.68 | 34.68 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.705 | 2.585 | 1.945 | 2.028 |
| Crosswalk LOS | B | B | A | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 889 | 911 | 667 | 667 |
| d_b, Bicycle Delay [s] | 13.89 | 13.34 | 20.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 2.078 | 2.268 | 1.576 | 1.758 |
| Bicycle LOS | B | B | A | A |

## Sequence

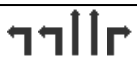
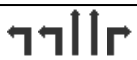
| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 8: Main Street at Foothill Parkway**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 35.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.508 |

**Intersection Setup**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | | | | | | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 160.00 | 100.00 | 155.00 | 140.00 | 100.00 | 160.00 | 140.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | | 30.00 | | | 30.00 | | | 30.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main Street | | | Main Street | | | Foothill Parkway | | | Foothill Parkway | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 19 | 194 | 75 | 229 | 401 | 196 | 255 | 941 | 27 | 122 | 351 | 119 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 19 | 194 | 75 | 229 | 401 | 196 | 255 | 941 | 27 | 122 | 351 | 119 |
| Peak Hour Factor | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 | 0.9680 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 5 | 50 | 19 | 59 | 104 | 51 | 66 | 243 | 7 | 32 | 91 | 31 |
| Total Analysis Volume [veh/h] | 20 | 200 | 77 | 237 | 414 | 202 | 263 | 972 | 28 | 126 | 363 | 123 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 110 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 16.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap | Protecte | Permiss | Permiss | Protecte | Permiss | Overlap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 1 | 6 | 0 | 5 | 2 | 2 | 3 | 8 | 0 | 7 | 4 | 4 |
| Auxiliary Signal Groups | | | | | | 2,3 | | | | | | 4,5 |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 7 | 7 | 0 | 7 | 7 | 7 | 7 | 7 | 0 | 7 | 7 | 7 |
| Maximum Green [s] | 30 | 30 | 0 | 30 | 30 | 30 | 30 | 30 | 0 | 30 | 30 | 30 |
| Amber [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| Split [s] | 13 | 38 | 0 | 12 | 37 | 37 | 19 | 49 | 0 | 11 | 41 | 41 |
| Vehicle Extension [s] | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 7 | 0 | 7 | 0 | 0 | 7 | 7 |
| Pedestrian Clearance [s] | 0 | 27 | 0 | 0 | 26 | 26 | 0 | 29 | 0 | 0 | 29 | 29 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| Minimum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Maximum Recall | No | No | | No | No | No | No | No | | No | No | No |
| Pedestrian Recall | No | No | | No | No | No | No | No | | No | No | No |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| g_i, Effective Green Time [s] | 3 | 46 | 46 | 8 | 50 | 65 | 11 | 34 | 34 | 7 | 30 | 42 |
| g / C, Green / Cycle | 0.03 | 0.41 | 0.41 | 0.07 | 0.46 | 0.59 | 0.10 | 0.30 | 0.30 | 0.06 | 0.27 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.01 | 0.06 | 0.05 | 0.07 | 0.12 | 0.13 | 0.08 | 0.27 | 0.02 | 0.04 | 0.10 | 0.08 |
| s, saturation flow rate [veh/h] | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 | 3459 | 3560 | 1589 |
| c, Capacity [veh/h] | 104 | 1472 | 657 | 254 | 1626 | 941 | 343 | 1085 | 484 | 218 | 957 | 602 |
| d1, Uniform Delay [s] | 52.08 | 20.07 | 19.90 | 50.74 | 18.38 | 10.49 | 48.36 | 36.61 | 27.09 | 50.15 | 32.78 | 23.05 |
| k, delay calibration | 0.11 | 0.50 | 0.50 | 0.11 | 0.50 | 0.50 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.88 | 0.19 | 0.36 | 14.43 | 0.38 | 0.52 | 3.63 | 2.91 | 0.05 | 2.41 | 0.25 | 0.17 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.19 | 0.14 | 0.12 | 0.93 | 0.25 | 0.21 | 0.77 | 0.90 | 0.06 | 0.58 | 0.38 | 0.20 |
| d, Delay for Lane Group [s/veh] | 52.96 | 20.26 | 20.27 | 65.17 | 18.76 | 11.01 | 51.99 | 39.51 | 27.14 | 52.56 | 33.03 | 23.21 |
| Lane Group LOS | D | C | C | E | B | B | D | D | C | D | C | C |
| Critical Lane Group | No | Yes | No | Yes | No | No | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 0.28 | 1.63 | 1.28 | 3.75 | 3.29 | 2.35 | 3.68 | 12.72 | 0.53 | 1.76 | 3.97 | 2.18 |
| 50th-Percentile Queue Length [ft/ln] | 7.05 | 40.77 | 32.05 | 93.67 | 82.33 | 58.75 | 92.08 | 318.01 | 13.26 | 43.94 | 99.22 | 54.45 |
| 95th-Percentile Queue Length [veh/ln] | 0.51 | 2.94 | 2.31 | 6.74 | 5.93 | 4.23 | 6.63 | 18.57 | 0.95 | 3.16 | 7.14 | 3.92 |
| 95th-Percentile Queue Length [ft/ln] | 12.70 | 73.39 | 57.69 | 168.61 | 148.19 | 105.76 | 165.75 | 464.24 | 23.86 | 79.10 | 178.60 | 98.01 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 52.96 | 20.26 | 20.27 | 65.17 | 18.76 | 11.01 | 51.99 | 39.51 | 27.14 | 52.56 | 33.03 | 23.21 |
| Movement LOS | D | C | C | E | B | B | D | D | C | D | C | C |
| d_A, Approach Delay [s/veh] | 22.46 | | | 29.82 | | | 41.84 | | | 35.08 | | |
| Approach LOS | C | | | C | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 35.18 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.508 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 44.58 | 44.58 | 44.58 | 44.58 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.724 | 2.804 | 2.861 | 2.868 |
| Crosswalk LOS | B | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 618 | 600 | 818 | 672 |
| d_b, Bicycle Delay [s] | 26.28 | 26.97 | 19.23 | 24.25 |
| l_b,int, Bicycle LOS Score for Intersection | 1.805 | 2.263 | 2.602 | 2.065 |
| Bicycle LOS | A | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Intersection Level Of Service Report**
**Intersection 9: Main Street at Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.069 |

**Intersection Setup**

| Name | Main Street | | Main Street | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Main Street | | Main Street | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 522 | 15 | 62 | 793 | 0 | 47 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 522 | 15 | 62 | 793 | 0 | 47 |
| Peak Hour Factor | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 1.0000 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 137 | 4 | 16 | 209 | 0 | 12 |
| Total Analysis Volume [veh/h] | 549 | 16 | 65 | 835 | 0 | 49 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.06 | 0.01 | 0.00 | 0.07 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.84 | 0.00 | 0.00 | 10.41 |
| Movement LOS | A | A | A | A | | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.22 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 5.19 | 0.00 | 0.00 | 5.51 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.64 | | 10.41 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.72 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 10: Project Access 2 at Chase Drive**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 10.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.011 |

**Intersection Setup**

| Name | Project Access 2 | | Chase Drive | | Chase Drive | |
|---|---|---|---|---|---|---|
| Approach | Southbound | | Eastbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Right | Left | Thru | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 30.00 | | 30.00 | | 30.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | Yes | | No | | No | |

**Volumes**

| Name | Project Access 2 | | Chase Drive | | Chase Drive | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 8 | 23 | 15 | 125 | 88 | 11 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 8 | 23 | 15 | 125 | 88 | 11 |
| Peak Hour Factor | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 2 | 6 | 4 | 33 | 23 | 3 |
| Total Analysis Volume [veh/h] | 8 | 24 | 16 | 132 | 93 | 12 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

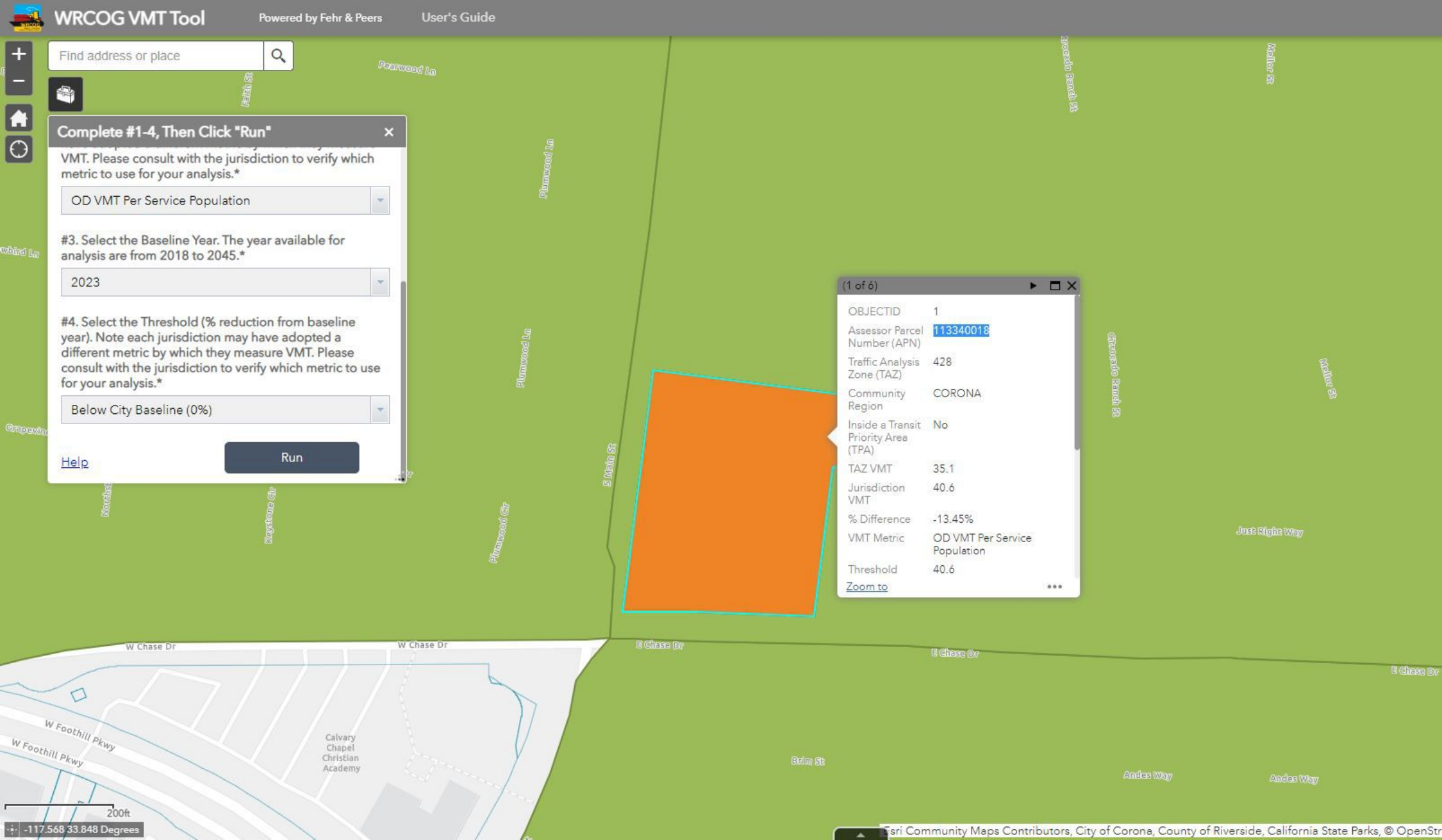
| Priority Scheme | Stop | Free | Free |
|---|---|---|---|
| Flared Lane | No | | |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | No | | |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.01 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 10.17 | 8.92 | 7.45 | 0.00 | 0.00 | 0.00 |
| Movement LOS | B | A | A | A | A | A |
| 95th-Percentile Queue Length [veh/ln] | 0.11 | 0.11 | 0.03 | 0.03 | 0.00 | 0.00 |
| 95th-Percentile Queue Length [ft/ln] | 2.82 | 2.82 | 0.82 | 0.82 | 0.00 | 0.00 |
| d_A, Approach Delay [s/veh] | 9.23 | | 0.81 | | 0.00 | |
| Approach LOS | A | | A | | A | |
| d_I, Intersection Delay [s/veh] | 1.45 | | | | | |
| Intersection LOS | B | | | | | |

# Appendix F

WRCOG VMT Screening Tool


WRCOG VMT Tool
Powered by Fehr & Peers
User's Guide
Find address or place
Complete #1-4, Then Click "Run"
VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
OD VMT Per Service Population
#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*
2023
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below City Baseline (0%)
Help
Run
(1 of 6)
OBJECTID 1
Assessor Parcel Number (APN) 113340018
Traffic Analysis Zone (TAZ) 428
Community Region CORONA
Inside a Transit Priority Area (TPA) No
TAZ VMT 35.1
Jurisdiction VMT 40.6
% Difference -13.45%
VMT Metric OD VMT Per Service Population
Threshold 40.6
Zoom to
Pearwood Ln
Plumwood Ln
S Main St
Keystone Cir
Plumwood Cir
Citrocado Ranch St
Mellor St
Just Right Way
W Chase Dr
E Chase Dr
W Foothill Pkwy
Calvary Chapel Christian Academy
Brim St
Andes Way
200ft
-117.568 33.848 Degrees
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