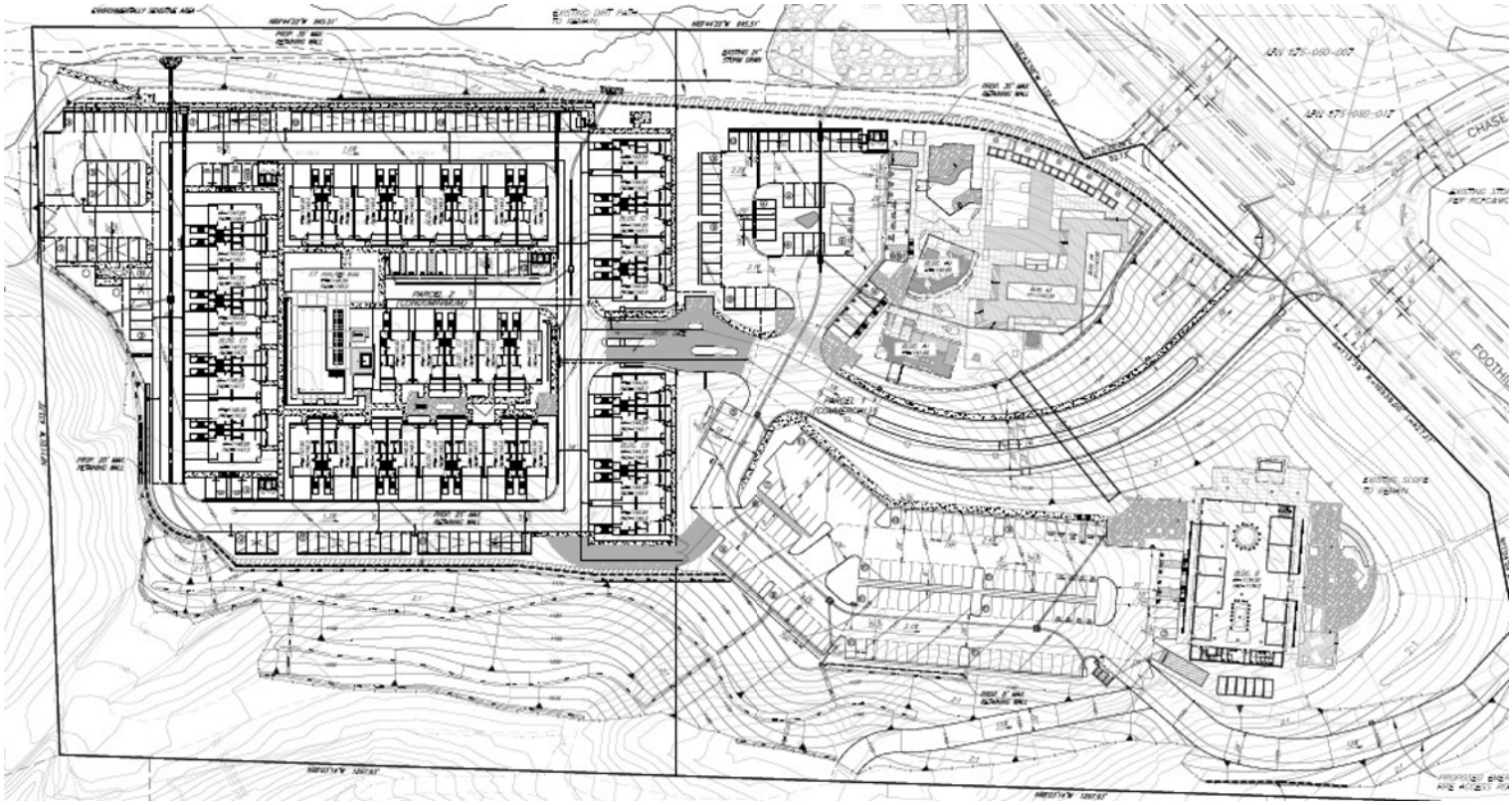
SKYLINE VILLAGE PROJECT
AIR QUALITY AND GREENHOUSE GAS IMPACT STUDY
City of Corona, California



SKYLINE VILLAGE PROJECT
AIR QUALITY AND GREENHOUSE GAS IMPACT STUDY
City of Corona, California

Prepared for:

Mr. Chris Bowen
GF INVESTMENTS, INC.
110 North Lincoln Avenue, Suite 202
Corona, CA 92882

Prepared by:

RK ENGINEERING GROUP, INC.
4000 Westerly Place, Suite 280
Newport Beach, CA 92660

Bryan Estrada, AICP
Darshan Shivaiah, M.S.

March 19, 2021

Table of Contents

Table of Contents (continued)

List of Attachments

Exhibits

Tables

List of Attachments (continued)

Appendices

1.0 Introduction

The purpose of this air quality and greenhouse gas (GHG) analysis is to determine whether the estimated criteria air pollutants and greenhouse gas emissions generated from the construction and operation of the proposed Skyline Village Project (project) would cause significant impacts to air resources.

This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.) and the analysis methodology follows the California Air Resources Board (CARB), South Coast Air Quality Management District (SCAQMD), and the City of Corona standards and requirements for the quantification of emissions and evaluation of potential environmental impacts.

1.1 Site Location

The project site is located at the southwest corner of Foothill Parkway and Chase Drive, in the City of Corona. The project site is currently bounded by vacant land to the north, south and west, Foothill Parkway to east and agricultural uses to west.

Existing land uses surrounding the proposed project site include; residential uses to the north, agricultural use to the south and west, and residential uses to the east.

The project site is located within the South Coast Air Basin (SCAB), the SCAQMD Riverside Valley General Forecast Area, and the Corona/Norco Area Air Monitoring Area-22.

The project location map is provided in Exhibit A.

1.2 Project Description

The project would consist of constructing and operating a mixed-use commercial and residential development on approximately 17.77 acres of vacant land. The project is proposing to change the existing land use from low density residential to medium density residential on 8.07 acres and general commercial on 8.95 acres.

Construction of the project is estimated to begin in the year 2021 and expected to last approximately 18 months. Construction activities are expected to consist of site preparation, grading, building construction, paving, and architectural coating. The project is expected to be fully operational by the year 2022. The project is expected to haul a total of 400,000 cubic yards of earthwork off-site.

The site plan used for this analysis, provided by KWC Engineers is illustrated in Exhibit B.

Table 1
Land Use Summary

Land Use	Quantity	Metric[1]
Multifamily Residential (Condos/Townhomes)	78	DU
Fast Food Restaurant w/o Drive Thru	1.96	TSF
Drinking Place (High Turnover (Sit Down Restaurant))	7.55	TSF
General Office Building	4.62	TSF
Regional Shopping Center	5.587	TSF
Coffee/Donut Shop Without Drive-Thru (Quality Restaurant)	1.57	TSF
Day Spa (Strip Mall)	4.62	TSF
Parking Lot (Street Improvements)	5.5	Acres

[1] DU – Dwelling Units

[2] TSF – Total Square Foot

1.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc), as described in the Localized Significance Threshold Methodology (SCAQMD 2008a, page 3-2).

The nearest sensitive land uses are considered the residential uses located at approximately 250 feet away to the east of the property line, across Foothill Parkway.

1.4 Summary of Analysis Results

Tables 2 and 3 provide a summary of the Air Quality and Greenhouse Gas impact analysis results, per the 2019 CEQA Statute and Guidelines, Appendix G, Environmental Checklist Form.

Table 2
CEQA Air Quality Impact Criteria

Air Quality Impact Criteria	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with, or obstruct implementation of, the applicable air quality plan?		X		
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
e) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Table 3
CEQA GHG Impact Criteria

GHG Impact Criteria	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		X		
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		X		

1.5 Recommended Mitigation Measures (MM)

The following mitigation measures are required to reduce criteria air pollutants impacts:

MM – 1: Require all construction equipment to have Tier 4 low emission "clean diesel" engines that include diesel oxidation catalysts and diesel particulate filters that meet the latest CARB best available control technology.

MM – 2: Limit the total amount of material to be hauled from the site to 200 truckloads per day or less.

MM – 3: Comply with the City of Corona Climate Action Plan Update (CAP), 2019 Greenhouse Gas Emissions Reduction Screening Tables for Commercial Development. The project must garner 100 points to be consistent with the reduction quantities anticipated in the City's CAP. Screening tables are provided in Appendix C.

1.6 Recommended Project Design Features

The following recommended project design features include standard rules and requirements, best practices and recognized design features for reducing air quality and GHG emissions. Design features are assumed to be part of the conditions of approval for the project and integrated into the design.

Construction Design Features:

DF-1. The project must follow the standard SCAQMD rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:

1. All active construction areas shall be watered two (2) times daily.
2. Speed on unpaved roads shall be reduced to less than 15 mph.
3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.

6. Access points shall be washed or swept daily.
7. Construction sites shall be sandbagged for erosion control.
8. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
9. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.
10. Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.
11. Replace the ground cover of disturbed areas as quickly possible.
12. A fugitive dust control plan should be prepared and submitted to SCAQMD prior to the start of construction.

DF-2. Prepare and implement a Construction Management Plan which will include Best Available Control Measures to be submitted to the City of Corona.

DF-3. Construction equipment shall be maintained in proper tune.

DF-4. All construction vehicles shall be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

DF-5. Minimize the simultaneous operation of multiple construction equipment units.

DF-6. The use of heavy construction equipment and earthmoving activity should be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.

DF-7. Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

DF-8. Establish staging areas for the construction equipment that are as distant as possible from adjacent sensitive receptors (residential land uses).

DF-9. Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

DF-10. Utilize zero VOC and low VOC paints and solvents, wherever possible.

Operational Design Features:

DF-11. Comply with the mandatory requirements of Title 24 part 11 of the California Building Standards Code (CALGreen) and the Title 24 Part 6 Building Efficiency Standards.

DF-12. Implement water conservation strategies, including low flow fixtures and toilets, water efficient irrigation systems, drought tolerant/native landscaping, and reduce the amount of turf.

DF-13. Comply with the mandatory requirements of CalRecycle's residential recycling program and implement zero waste strategies.

DF-14. Provide the necessary infrastructure to support electric vehicle charging for both the residential and commercial components of the project.

DF-15. Encourage the property management company to use electric powered landscaping equipment for landscape maintenance.

2.0 Air Quality Setting

The Federal Clean Air Act (§ 7602) defines air pollution as any agent or combination of such agents, including any physical, chemical, biological, or radioactive substance which is emitted into or otherwise enters the ambient air. Household combustion devices, motor vehicles, industrial facilities and forest fires are common sources of air pollution. Air pollution can cause disease, allergies and death. It affects soil, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate. It can also cause damage to and deterioration of property, present hazards to transportation, and negatively impact the economy.

This section provides background information on criteria air pollutants, the applicable federal, state and local regulations concerning air pollution, and the existing physical setting of the project within the context of local air quality.

2.1 Description of Air Pollutants[1].

The following section describes the air pollutants of concern related to the project. Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health. The following descriptions of criteria air pollutants have been provided by the SCAQMD.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, and competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs in the body. The ambient air quality standard for carbon monoxide is intended to protect persons whose medical condition already compromises their circulatory system's ability to deliver oxygen. These medical conditions include certain heart ailments, chronic lung diseases, and anemia. Persons with these conditions have reduced exercise capacity even when exposed to relatively low levels of CO. Fetuses are at risk because their blood has an even greater affinity to bind with CO. Smokers are also at risk from ambient CO levels because smoking

[1] SCAQMD. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (May 6, 2005)

increases the background level of CO in their blood. The South Coast basin has recently achieved attainment status for carbon monoxide by both USEPA and CARB.

- **Nitrogen Dioxide (NO_2)** is a byproduct of fuel combustion. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in young children has also been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light which results in a brownish red cast to the atmosphere and reduced visibility. Although NO_2 concentrations have not exceeded national standards since 1991 and the state hourly standard since 1993, NO_x emissions remain of concern because of their contribution to the formation of O3 and particulate matter.

- **Ozone (O_3)** is one of a number of substances called photochemical oxidants that are formed when volatile organic compounds (VOC) and NO_x react in the presence of ultraviolet sunlight. O_3 concentrations in the South Coast basin are typically among the highest in the nation, and the damaging effects of photochemical smog, which is a popular name for a number of oxidants in combination, are generally related to the concentrations of O_3. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the subgroups most susceptible to O_3 effects. Short-term exposures (lasting for a few hours) to O_3 at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. The South Coast Air Basin is designated by the USEPA as an extreme non-attainment area for ozone. Although O_3 concentrations have declined substantially since the early 1990s, the South Coast basin continues to have peak O_3 levels that exceed both state and federal standards.

- **Fine Particulate Matter (PM_{10})** consists of extremely small suspended particles or droplets 10 microns or smaller in diameter that can lodge in the lungs, contributing to respiratory problems. PM_{10} arises from such sources as re-entrained road dust, diesel soot, combustion products, tire and brake abrasion, construction operations, and fires. It is also formed in the atmosphere from NO_x and SO_2 reactions with ammonia. PM_{10} scatters light and significantly reduces visibility. Inhalable particulates

pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled will be deposited in the lungs and can cause permanent lung damage. Inhalable particulates can also have a damaging effect on health by interfering with the body's mechanism for clearing the respiratory tract or by acting as a carrier of an absorbed toxic substance. The South Coast basin has recently achieved federal attainment status for PM_{10}, but is non-attainment based on state requirements.

- **Ultra-Fine Particulate Matter ($PM_{2.5}$)** is defined as particulate matter with a diameter less than 2.5 microns and is a subset of PM_{10}. $PM_{2.5}$ consists mostly of products from the reaction of NO_x and SO_2 with ammonia, secondary organics, finer dust particles, and the combustion of fuels, including diesel soot. $PM_{2.5}$ can cause exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease, declines in pulmonary function growth in children, and increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in $PM_{2.5}$ levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma. The South Coast basin is designated as non-attainment for $PM_{2.5}$ by both federal and state standards.

- **Sulfur dioxide (SO_2)** is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children. Individuals with asthma may experience constriction of airways with exposure to SO_2. Though SO_2 concentrations have been reduced to levels well below state and federal standards, further reductions in SO_2 emissions are needed because SO_2 is a precursor to sulfate and PM_{10}. The South Coast basin is considered a SO_2 attainment area by USEPA and CARB.

- **Lead (Pb)** is a toxic heavy metal that can be emitted into the air through some industrial processes, burning of leaded gasoline and past use of lead-based consumer products. Lead is a neurotoxin that accumulates in soft tissues and bones, damages the nervous system, and causes blood disorders. It is particularly problematic in children, in that permanent brain damage may result, even if blood levels are promptly normalized with treatment. Concentrations of lead once exceeded the state and federal air quality standards by a wide margin, but as a result of the removal of lead from motor vehicle gasoline, ambient air quality standards for lead have not been exceeded since 1982. Though special monitoring sites immediately downwind of lead sources recorded localized violations of the state standard in 1994, no violations have been recorded since. Consequently, the South Coast basin is designated as an attainment area for lead by both the USEPA and CARB. This report

does not analyze lead emissions from the project, as it is not expected to emit lead in any significant measurable quantity.

- **Volatile Organic Compounds (VOC),** although not actually a criteria air pollutant, VOCs are regulated by the SCAQMD because they cause chemical reactions which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM_{10} and lower visibility levels. Sources of VOCs include combustion engines, and evaporative emissions associated with fuel, paints and solvents, asphalt paving, and the use of household consumer products such as aerosols. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC. Some hydrocarbon components classified as VOC emissions are hazardous air pollutants. Benzene, for example, is a hydrocarbon component of VOC emissions that are known to be a human carcinogen. The term reactive organic gases (ROG) are often used interchangeably with VOC.

- **Toxic Air Contaminants (TACs)** are defined as air pollutants which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health, and for which there is no concentration that does not present some risk. This contrasts with the criteria pollutants, in that there is no threshold level for TAC exposure below which adverse health impacts are not expected to occur. The majority of the estimated health risk from TACs can be attributed to a relatively few compounds, the most common being diesel particulate matter (DPM). In addition to DPM, benzene and 1,3-butadiene are also significant contributors to overall ambient public health risk in California.

2.2 Federal and State Ambient Air Quality Standards

The Federal Clean Air Act, which was last amended in 1990, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for criteria pollutants considered harmful to public health and the environment. The State of California has also established additional and more stringent California Ambient Air Quality Standards (CAAQS) in addition to the seven criteria pollutants designated by the federal government.

AAQS are designed to protect the health and welfare of the populace with a reasonable margin of safety. The standards are divided into two categories, primary standards and secondary standards. Primary standards are implemented to provide protection for the "sensitive" populations such as those with asthma, or the children and elderly. Secondary standards are to provide protection against visible pollution as well as damage to the surrounding environment, including animals, crops, and buildings.

Table 4 shows the Federal and State Ambient Air Quality Standards.

Table 4
Federal and State Ambient Air Quality Standards (AAQS)[1]

Air Pollutant	Averaging Time [2]	Federal Standard (NAAQS)[2]	California Standard (CAAQS)[2]
Ozone	1 Hour	--	0.09 ppm
	8 Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 Hour	35 ppm	20 ppm
	8 Hour	9 ppm	9 ppm
Nitrogen Dioxide (NO_2)	1 Hour	0.100 ppm	0.18 ppm
	Annual	0.053 ppm	0.030 ppm
Sulfur Dioxide (SO_2)	1 Hour	0.075 ppm	0.25 ppm
	3 Hour	0.5 ppm[3]	--
	24 Hour	--	0.04 ppm
Particulate Matter (PM_{10})	24 Hour	150 $\mu g/m^3$	50 $\mu g/m^3$
	Mean	--	20 $\mu g/m^3$
Particulate Matter (PM2.5)	24 Hour	35 $\mu g/m^3$	--
	Annual	12 $\mu g/m^3$	12 $\mu g/m^3$
Lead	30-day	--	1.5 $\mu g/m$
	Quarter	1.5 $\mu g/m$	--
	3-month average	0.15 $\mu g/m$	--
Visibility reducing particles	8 Hour	--	0.23/km extinction coefficient. (10-mile visibility standard)
Sulfates	24 Hour	--	25 $\mu g/m$
Vinyl chloride	24 Hour	--	0.01 ppm
Hydrogen sulfide	24 Hour	--	0.03 ppm

[1] Source: USEPA: https://www.epa.gov/criteria-air-pollutants/naaqs-table and
CARB: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards

[2] ppm = parts per million of air, by volume; µg/m3 = micrograms per cubic meter; Annual = Annual Arithmetic Mean; 30-day = 30-day average; Quarter = Calendar quarter.

[3] Secondary standard

Several pollutants listed in Table 4 are not addressed in this analysis. Lead is not included because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.3 Attainment Status

The Clean Air Act requires states to prepare a State Implementation Plan (SIP) to ensure air quality meets the NAAQS. The California Air Resources Board (CARB) provides designations of attainment for air basins where AAQS are either met or exceeded. If the AAQS are met, the area is designated as being in "attainment", if the air pollutant concentrations exceed the AAQS, than the area is designated as being "nonattainment". If there is inadequate or inconclusive data to make a definitive attainment designation, the area is considered "unclassified."

National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

When a state submits a request to the EPA to re-designate a nonattainment area to attainment, the Clean Air Act (CAA) section 175A(a) requires that the state (or states, if the area is a multi-state area) submit a maintenance plan ensuring the area can maintain the air quality standard for which the area is to be re-designated for at least 10 years following the effective date of re-designation.

Table 5 lists the attainment status for the criteria pollutants in the South Coast Air Basin (SCAB).

Table 5
South Coast Air Basin Attainment Status[1]

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)[2]
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide	Attainment	Attainment (Maintenance)
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Attainment	Nonattainment (Partial)[3]

[1] Source: California Air Resources Board. http://www.arb.ca.gov/desig/adm/adm.htm
[2] 8-Hour Ozone.
[2] Partial Nonattainment designation – Los Angeles County portion of Basin only.

2.4 South Coast Air Quality Management District (SCAQMD)

The agency responsible for air pollution control for the South Coast Air Basin (SCAB) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the SCAB. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the SCAB. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air SCAB where one or more ambient air quality standards are exceeded.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The latest version is the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. While air quality has dramatically improved over the years, the SCAB still exceeds federal public health standards for both ozone and particulate matter (PM) and experiences some of the worst air pollution in the nation. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time.

The most significant air quality challenge in the SCAB is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. Based on the inventory and modeling results, 522 tons per day (tpd) of total SCAB NOx 2012 emissions are projected to drop to 255 tpd and 214 tpd in the 8-hour ozone attainment years of 2023 and 2031 respectively, due to continued implementation of already adopted regulatory actions ("baseline emissions"). The analysis suggests that total SCAB emissions of NOx must be reduced to approximately 141 tpd in 2023 and 96 tpd in 2031 to attain the 8-hour ozone standards. This represents an additional 45 percent reduction in NOx in 2023, and an additional 55 percent NOx reduction beyond 2031 levels.[2]

The SCAQMD establishes a program of rules and regulations to obtain attainment of the state and federal standards in conjunction with the AQMP. Several of the rules and regulations that may be applicable to this project include, but are not limited to, the following:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

SCAQMD Rule 445 restricts wood burning devices from being installed into any new development and is intended to reduce the emissions of particulate matter for wood burning devices.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

[2] http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM10 among other pollutants.

SCAQMD Rule 2202 On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

2.5 South Coast Air Basin

The project is located within the South Coast Air SCAB (SCAB). To the west of the SCAB is the Pacific Ocean. To the north and east are the San Gabriel, San Bernardino, and San Jacinto mountains, while the southern limit of the SCAB is the San Diego County line. The SCAB consists of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

The local dominant wind blows predominantly from the south-southwest with relatively low velocities. The annual average annual wind speed is about 10 miles per hour. Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion limit the vertical dispersion of air pollutants throughout the SCAB.

The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean.

If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The annual average temperature varies little throughout much of the SCAB, ranging from the low to middle 60s (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal regions and Los Angeles metropolitan area are transported inland until reaching the mountains, where the combination of mountains and temperature inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas of the SCAB. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows.

Temperature inversions are an important feature that limits the vertical depth through which pollution can be mixed. During the summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high-pressure cell over the ocean to the west. This marine/subsidence inversion allows for good local mixing, but acts like a giant lid over the SCAB. The air remains stagnant, as the average wind speed in downtown Los Angeles becomes less than five mph.

The second type of inversion forms on clear winter nights when cold air off the mountains sinks to the valley floor while the air aloft over the valley remains warm. This forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as those from automobile exhaust near their source. They lead to air pollution "hotspots" in heavily developed coastal areas of the SCAB, although onshore breezes often push the pollutants along canyons into the inland valleys. Summers are often periods of hazy visibility and occasionally unhealthful air, while winter air quality impacts tend to be highly localized and can consist of elevated levels of nitrogen dioxide and fine particulate matter.

2.6 Local Climate and Meteorology

The weather station closest to the project site is a National Weather Service Cooperative weather station located at Corona (042031). Climatological data from the National Weather Service at this station is summarized in Table 6.

Table 6
Meteorological Summary[1]

Month	Temperature (°F)			Mean Precipitation (inches)
	Max.	Min.	Mean	
January	65.3	39.7	52.5	2.61
February	67.7	41.2	54.4	2.62
March	70.5	42.8	56.6	2.00
April	74.9	45.7	60.3	0.98
May	79.3	49.9	64.6	0.26
June	85.5	53.7	69.6	0.04
July	92.3	57.7	75.0	0.02
August	92.2	58.3	75.2	0.09
September	89.1	55.6	72.4	0.25
October	81.6	50.2	65.9	0.55
November	73.5	44.3	58.9	1.14
December	66.8	40.4	53.6	2.15
Annual	**78.2**	**48.3**	**63.3**	**12.71**

[1] Source: Western Regional Climate Center 2012. Averages derived from measurements recorded between 1908 and 1988 at Corona, (042031).

2.7 Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the Final 2016 Air Quality Management Plan, prepared by SCAQMD, March 2017, indicate that collectively, mobile sources account for 60 percent of the VOC, 90 percent of the NOx emissions, 95 percent of the CO emissions and 34 percent of directly emitted PM2.5, with another 13 percent of PM2.5 from road dust.

The SCAQMD has divided the SCAB into fourteen general forecasting areas and thirty eight Source Receptor Areas (SRA) for monitoring and reporting local air quality. The SCAQMD provides daily reports of the current air quality conditions in each general forecast area and SRA. The monitoring areas provide a general representation of the local meteorological, terrain, and air quality conditions within the SCAB.

The project is located within Corona/Norco Area (SRA-22).

Table 7 summarizes the published air quality monitoring data from 2015 through 2017, which is the most recent 3-year period available. These pollutant levels were used to comprise a "background" for the project location and existing local air quality. For criteria pollutants not monitored at the Perris Valley station, data from the nearest monitoring station with a comparable setting were used. The data shows that during the past few years, the project area has exceeded State thresholds for Ozone, NO_x, PM_{10} and $PM_{2.5}$.

Table 7
Local Air Quality

Air Pollutant Location	Averaging Time	Item	2016	2017	2018
Carbon Monoxide -- Metropolitan Riverside County-1	1 Hour	Max 1-Hour (ppm)	1.7	1.9	2.2
		Exceeded State Standard (20 ppm)	No	No	No
		Exceeded National Standard (35 ppm)	No	No	No
	8 Hour	Max 8 Hour (ppm)	1.3	1.6	2.0
		Exceeded State Standard (9 ppm)	No	No	No
		Exceeded National Standard (9 ppm)	No	No	No
Ozone -- Metropolitan Riverside County-1	1 Hour	Max 1-Hour (ppm)	0.142	0.145	0.123
		Days > State Standard (0.09 ppm)	49	53	22
	8 Hour	Max 8 Hour (ppm)	0.104	0.118	0.101
		Days > State Standard (0.07 ppm)	71	81	53
		Days >National Standard (0.070 ppm)	69	81	53
Nitrogen Dioxide -- Metropolitan Riverside County-1	1 Hour	Max 1-Hour (ppm)	0.0731	0.063	0.0554
		Exceeded State Standard (0.18 ppm)	No	No	No
	Annual	Annual Average (ppm)	0.0149	0.0149	0.0014
		Exceeded >State Standard (0.030 ppm)	No	No	No
		Exceeded >National Standard (0.053 ppm)	No	No	No
Sulfur Dioxide -- Metropolitan Riverside County-1	1 Hour	Max 1 Hour (ppm)	0.0056	0.0025	0.0017
		Exceed State Standard (0.25 ppm)	No	No	No
		Exceed National Standard (0.075 ppm)	No	No	No
Coarse Particles (PM10) -- Corona/Norco	24 Hour	Max 24-Hour ($\mu g/m^3$)	62	85	100
		Days > State Standard (50 $\mu g/m^3$)	7	7	3
		Days >National Standard (150 $\mu g/m^3$)	0	0	0
	Annual	Annual Average ($\mu g/m^3$)	26.9	25.0	30.7
		Exceeded State Standard (20 $\mu g/m^3$)	Yes	Yes	Yes
Fine Particulates (PM2.5) -- Metropolitan Riverside County-1	24 Hour	Max 24-Hour ($\mu g/m^3$)	35.14	29.54	50.7
		Days >National Standard (35 $\mu g/m^3$)	Yes	No	Yes
	Annual	Annual Average ($\mu g/m^3$)	14.02	12.33	12.41
		Exceeded State Standard (12 $\mu g/m^3$)	Yes	Yes	Yes
		Exceeded National Standard (15 $\mu g/m^3$)	No	No	No

Source: https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year & http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-monitoring-network-plan/aaqmnp-appendix-a6BF4F040D8A9.pdf?sfvrsn=46

$\mu g/m^3$ = micrograms per cubic meter

ppm = part per million

3.0 Global Climate Change Setting

Global climate change is the change in the average weather of the earth that is measured by such things as alterations in temperature, wind patterns, storms, and precipitation. Current data shows that the recent period of warming is occurring more rapidly than past geological events. The average global surface temperature has increased by approximately 1.4° Fahrenheit since the early 20th Century. 1.4° Fahrenheit may seem like a small change, but it's an unusual event in Earth's recent history, and as we are seeing, even small changes in temperature can cause enormous changes in the environment.

The planet's climate record, preserved in tree rings, ice cores, and coral reefs, shows that the global average temperature has been stable over long periods of time. For example, at the end of the last ice age, when the Northeast United States was covered by more than 3,000 feet of ice, average global temperatures were only 5° to 9° Fahrenheit cooler than today. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5° to 10° Fahrenheit over the next century. Therefore, significant changes to the environment are expected in the near future.

The consequences of global climate change include more frequent and severe weather, worsening air pollution by increasing ground level ozone, higher rates of plant and animal extinction, more acidic and oxygen depleted oceans, strain on food and water resources, and threats to densely populated coastal and low lying areas from sea level rise.

The impacts of climate change are already visible in the Southwest United States. In California, the consequences of climate change include;

- A rise in sea levels resulting in the displacement of coastal businesses and residencies
- A reduction in the quality and supply of water from the Sierra snowpack
- Increased risk of large wildfires
- Exacerbation of air quality problems
- Reductions in the quality and quantity of agricultural products
- An increased temperature and extreme weather events
- A decrease in the health and productivity of California's forests

3.1 Greenhouse Gases

Most scientists agree the main cause of the current global warming trend is anthropogenic (human-induced) augmentation of the greenhouse effect. The greenhouse effect refers to the way gases in the earth's atmosphere trap and re-emits long wave infrared radiation, acting like a blanket insulating the earth. Activities such as fossil fuel combustion, industrial processes, agriculture, and waste decomposition have elevated the concentration of greenhouse gases in the atmosphere beyond the level of naturally occurring concentrations.

GHGs comprise less than 0.1 percent of the total atmospheric composition, yet they play an essential role in influencing climate. Greenhouse gases include naturally occurring compounds such as carbon dioxide (CO_2), methane (CH_4), water vapor (H_2O), and nitrous oxide (N_2O), while others are synthetic. Man-made GHGs include the chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs), as well as sulfur hexafluoride (SF_6). Different GHGs have different effects on the Earth's warming. GHGs differ from each other in their ability to absorb energy (their "radiative efficiency") and how long they stay in the atmosphere, also known as the "lifetime".

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more than a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases and allows policymakers to compare emissions reduction opportunities across sectors and gases.

Table 8 lists the 100-year GWP of GHGs from the Intergovernmental Panel on Climate Change (IPCC) fifth assessment report (AR4).

Table 8
Global Warming Potential of Greenhouse Gases[1, 2]

Gas Name	Formula	Lifetime (years)	GWP
Carbon Dioxide	CO_2		1
Methane	CH_4	12	25
Nitrous Oxide	N_2O	114	298
Sulphur Hexafluoride	SF_6	3200	22,800
Nitrogen Trifluoride	NF_3	740	17,200
Hexafluoroethane (PFC-116)	C_2F_6	10,000	12,200
Octafluoropropane (PFC-218)	C_3F_8	2,600	8,830
Octafluorocyclobutane (PFC-318)	C_4F_8	3,200	10,300
Tetrafluoromethane (PFC-14)	CF_4	50,000	7,390
Hydrofluorocarbon 125	HFC-125	29	3,500
Hydrofluorocarbon 134a	HFC-134a	14	1,430
Hydrofluorocarbon 143a	HFC-143a	52	4,470
Hydrofluorocarbon 152a	HFC-152a	1	124
Hydrofluorocarbon 227ea	HFC-227ea	34	3,220
Hydrofluorocarbon 23	HFC-23	270	14,800
Hydrofluorocarbon 236fa	HFC-236fa	240	9,810
Hydrofluorocarbon 245fa	HFC-245fa	8	1,030
Hydrofluorocarbon 32	HFC-32	5	675
Hydrofluorocarbon 365mfc	HFC-365mfc	9	794
Hydrofluorocarbon 43-10mee	HFC-43-10mee	16	1,640

[1] Source: IPCC Fifth Assessment Report (AR4)
[2] GWPs are used to convert GHG emission values to "carbon dioxide equivalent" (CO_2e) units

3.2 GHG Regulatory Setting - International

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020, a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period, and Amendments to several articles of the Kyoto Protocol, which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

The Paris Agreement. The Paris agreement is the first comprehensive global climate agreement to be ratified by the United States, United Nations, China, and India; the largest producers of greenhouse gas emissions in the world. The agreement was negotiated by a total of 195 nations and entered into force on November 4, 2016. The central aim is to strengthen the global response to the threat of climate change by keeping the global temperature rise this century well below 2 degrees Celsius compared to pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the

impacts of climate change. Currently, 122 parties have ratified the agreement. As of June 2017, the United States federal government, under the direction of the Trump administration, has withdrawn from participating in the Paris Agreement.

3.3 GHG Regulatory Setting – National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy (CAFE) law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They required these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards were estimated to cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

The second phase of the national program for passenger cars, light-duty trucks, and medium-duty passenger vehicles covers model years 2017 through 2025. The final standards were established in 2012 and were projected to result in an average industry fleet-wide level of 163 grams/mile of carbon dioxide (CO2) in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation also implemented the first national standards to reduce greenhouse gas emissions and improve the fuel efficiency of medium- and heavy-duty engines and vehicles trucks and buses in 2010. The standards applied to all on-road vehicles rated at a gross vehicle weight at or above 8,500 pounds, and the engines that power them, except those covered by the current GHG emissions and CAFE standards for light duty vehicles, for model year 2014 to 2018. In 2016, the EPA and NHTSA finalized phase 2 of the standards which applied to model years 2018 through 2027.

Under the direction of the current Trump administration, the NHTSA and EPA propose to amend the Corporate Average Fuel Economy (CAFE) and greenhouse gas emissions standards for passenger cars and light trucks and establish new standards, covering model years 2021 through 2026.

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaptation Planning. The EPA's Climate Change Adaptation Plan identifies priority actions the EPA will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. Under the Trump administration, the EPA has said it would continue to advance climate adaptation efforts and that the agency recognizes the challenges that communities face in adapting to a changing climate. The EPA currently runs the Climate Change Adaptation Resource Center (ARC-X) to help local governments prepare for climate change.

3.4 GHG Regulatory Setting – State of California

Tables 9 and 10 show the current climate change legislation and executive orders issued in the State of California.

Table 9
California Climate Change Legislation

Date	Legislation	Description
July 26, 2017	Assembly Bill 617 (Christina Garcia, Chapter 136, Statutes of 2017)	Companion to Cap-and-Trade Extension Establishes a groundbreaking program to measure and reduce air pollution from mobile and stationary sources at the neighborhood level in the communities most impacted by air pollutants. Requires the Air Resources Board to work closely with local air districts and communities to establish neighborhood air quality monitoring networks and to develop and implement plans to reduce emissions. The focus on community-based air monitoring and emission reductions will provide a national model for enhanced community protection.
July 25, 2017	Assembly Bill 398 (Eduardo Garcia, Chapter 135, Statutes of 2017)	Cap-and-Trade Extension Extends and improves the Cap and Trade Program, which will enable the state to meet its 2030 emission reduction goals in the most cost-effective manner. Furthermore, extending the Cap and Trade Program will provide billions of dollars in auction proceeds to invest in communities across California.
September 19, 2016	Senate Bill 1383 (Lara, Chapter 395, Statutes of 2016)	Short-lived Climate Pollutants Establishes statewide reduction targets for short-lived climate pollutants.
September 8, 2016	Assembly Bill 197 (Eduardo Garcia, Chapter 250, Statutes of 2016)	**Greenhouse gas regulations** Prioritizes direct emission reductions from large stationary sources and mobile sources.
September 8, 2016	Senate Bill 32 (Pavley, Chapter 249, Statutes of 2016)	**Greenhouse Gas emission reduction target for 2030** Establishes a statewide greenhouse gas (GHG) emission reduction target of 40 percent below 1990 levels by 2030.
October 7, 2015	Senate Bill 350 (De León, Chapter 547, Statutes of 2015)	**Clean Energy and Pollution Reduction Act of 2015** Establishes targets to increase retail sales of renewable electricity to 50 percent by 2030 and double the energy efficiency savings in electricity and natural gas end uses by 2030.
September 21, 2014	Senate Bill 605 (Lara, Chapter 523, Statutes of 2014)	**Short-lived climate pollutants** Requires the State Air Resources Board to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants by January 1, 2016.

Table 9
California Climate Change Legislation

Date	Legislation	Description
September 21, 2014	Senate Bill 1275 (De León, Chapter 530, Statutes of 2014)	**Charge Ahead California Initiative** Establishes a state goal of 1 million zero-emission and near-zero-emission vehicles in service by 2020. Amends the enhanced fleet modernization program to provide a mobility option. Establishes the Charge Ahead California Initiative requiring planning and reporting on vehicle incentive programs, and increasing access to and benefits from zero-emission vehicles for disadvantaged, low-income, and moderate-income communities and consumers.
September 21, 2014	Senate Bill1204 (Lara, Chapter 524, Statutes of 2014)	**California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program** Creates the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program funded by the Greenhouse Gas Reduction Fund for development, demonstration, precommercial pilot, and early commercial deployment of zero- and near-zero emission truck, bus, and off-road vehicle and equipment technologies, with priority given to projects benefiting disadvantaged communities.
September 28, 2013	Assembly Bill 8 (Perea, Chapter 401, Statutes of 2013)	Alternative fuel and vehicle technologies: funding programs Extends until January 1, 2024, extra fees on vehicle registrations, boat registrations, and tire sales in order to fund the AB 118, Carl Moyer, and AB 923 programs that support the production, distribution, and sale of alternative fuels and vehicle technologies and air emissions reduction efforts. The bill suspends until 2024 ARB's regulation requiring gasoline refiners to provide hydrogen fueling stations and appropriates up to $220 million, of AB 118 money to create a hydrogen fueling infrastructure in the state.
September 28, 2013	Assembly Bill 1092 (Levine, Chapter 410, Statutes of 2013)	Building standards: electric vehicle charging infrastructure Requires the Building Standards Commission to adopt mandatory building standards for the installation of future electric vehicle charging infrastructure for parking spaces in multifamily dwellings and nonresidential development.

Table 9
California Climate Change Legislation

Date	Legislation	Description
September 30, 2012	Senate Bill 535 (De León, Chapter 830, Statutes of 2012)	Greenhouse Gas Reduction Fund and Disadvantaged Communities Requires the California Environmental Protection Agency to identify disadvantaged communities; requires that 25% of all funds allocated pursuant to an investment plan for the use of moneys collected through a cap-and-trade program be allocated to projects that benefit disadvantaged communities and 10 those 25% be use within disadvantaged communities; and requires the Department of Finance to include a description of how these requirements are fulfilled in an annual report.
September 30, 2012	Assembly Bill 1532 (J. Perez, Chapter 807, Statutes of 2012)	Greenhouse Gas Reduction Fund in the Budget Requires the Department of Finance to develop and submit to the Legislature an investment plan every three years for the use of the Greenhouse Gas Reduction Fund; requires revenue collected pursuant to a market-based compliance mechanism to be appropriated in the Annual Budget Act; requires the department to report annually to the Legislature on the status of projects funded; and specifies that findings issued by the Governor related to "linkage" as part of a market-base compliance mechanism are not subject to judicial review.
April 12, 2011	Senate Bill X1-2 (Simitian, Chapter 1, Statutes of 2011)	Governor Edmund G. Brown, Jr. signed Senate Bill X1-2 into law to codify the ambitious 33 percent by 2020 goal. SBX1-2 directs California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of electricity generated from eligible renewable energy resources per year to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2013, 25% by December 31, 2016 and 33% by December 31, 2020. The new RPS goals applies to all electricity retailers in the state including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. This new RPS preempts the California Air Resources Boards' 33 percent Renewable Electricity Standard.
September 29, 2011	Assembly Bill 1504 (Skinner, Chapter 534, Statutes of 2010)	Forest resources and carbon sequestration. Bill requires Department of Forestry and Fire Protection and Air Resources Board to assess the capacity of its forest and rangeland regulations to meet or exceed the state's greenhouse goals, pursuant to AB 32.

Table 9
California Climate Change Legislation

Date	Legislation	Description
September 30, 2008	Senate Bill 375 (Steinberg, Chapter 728, Statutes of 2008)	Sustainable Communities & Climate Protection Act of 2008 requires Air Resources Board to develop regional greenhouse gas emission reduction targets for passenger vehicles. ARB is to establish targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations.
October 14, 2007	Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007)	Alternative Fuels and Vehicles Technologies The bill would create the Alternative and Renewable Fuel and Vehicle Technology Program, to be administered by the Energy Commission, to provide funding to public projects to develop and deploy innovative technologies that transform California's fuel and vehicle types to help attain the state's climate change policies.
August 24, 2007	Senate Bill 97 (Dutton, Chapter 187, Statutes of 2007)	Directs Governor's Office of Planning and Research to develop CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions."
July 18. 2006	Assembly Bill 1803 (Committee on Budget, Chapter 77, Statutes of 2006)	Greenhouse gas inventory transferred to Air Resources Board from the Energy Commission.
August 21, 2006	Senate Bill 1 (Murray, Chapter 132, Statutes of 2006)	California's Million Solar Roofs plan is enhanced by PUC and CEC's adoption of the California Solar Initiative. SB1 directs PUC and CEC to expand this program to more customers and requiring the state's municipal utilities to create their own solar rebate programs. This bill would require beginning January 1, 2011, a seller of new homes to offer the option of a solar energy system to all customers negotiating to purchase a new home constructed on land meeting certain criteria and to disclose certain information.
September 26, 2006	Senate Bill 107 (Simitian, Chapter 464, Statutes of 2006)	SB 107 directs California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010.

Table 9
California Climate Change Legislation

Date	Legislation	Description
September 27, 2006	Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006)	California Global Warming Solutions Act of 2006. This bill would require Air Resources Board (ARB) to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020. ARB shall adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program. AB 32 directs Climate Action Team established by the Governor to coordinate the efforts set forth under Executive Order S-3-05 to continue its role in coordinating overall climate policy.
September 12, 2002	Senate Bill 1078 (Sher, Chapter 516, Statutes of 2002)	This bill establishes the California Renewables Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health and environmental benefits of the energy mix.
September 7, 2002	Senate Bill 812 (Sher, Chapter 423, Statutes of 2002)	This bill added forest management practices to the California Climate Action Registry members' reportable emissions actions and directed the Registry to adopt forestry procedures and protocols to monitor, estimate, calculate, report and certify carbon stores and carbon dioxide emissions that resulted from the conservation-based management of forests in California.
July 22, 2002	Assembly Bill 1493 (Pavley, Chapter 200, Statutes of 2002)	The "Pavley" bill requires the registry, in consultation with the State Air Resources Board, to adopt procedures and protocols for the reporting and certification of reductions in greenhouse gas emissions from mobile sources for use by the state board in granting the emission reduction credits. This bill requires the state board to develop and adopt, by January 1, 2005, regulations that achieve the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks.
October 11, 2001	Senate Bill 527 (Sher, Chapter 769, Statutes of 2001)	This bill revises the functions and duties of the California Climate Action Registry and requires the Registry, in coordination with CEC to adopt third-party verification metrics, developing GHG emissions protocols and qualifying third-party organizations to provide technical assistance and certification of emissions baselines and inventories. SB 527 amended SB 1771 to emphasize third-party verification.

Table 9
California Climate Change Legislation

Date	Legislation	Description
September 30, 2000	Senate Bill 1771 (Sher, Chapter 1018, Statutes of 2000)	SB 1771 establishes the creation of the non-profit organization, the California Climate Action Registry and specifies functions and responsibilities to develop a process to identify and qualify third-party organizations approved to provide technical assistance and advice in monitoring greenhouse gas emissions and setting greenhouse gas (GHG) emissions baselines in coordination with CEC. Also, the bill directs the Registry to enable participating entities to voluntarily record their annual GHG emissions inventories. Also, SB 1771 directs CEC to update the state's greenhouse gas inventory from an existing 1998 report and continuing to update it every five years.
September 28, 1988	Assembly Bill 4420 (Sher, Chapter 1506, Statutes of 1988)	The California Energy Commission (CEC) was statutorily directed to prepare and maintain the inventory of greenhouse gas emissions (GHG) and to study the effects of GHGs and the climate change impacts on the state's energy supply and demand, economy, environment, agriculture, and water supplies. The study also required recommendations for avoiding, reducing, and addressing related impacts - and required the CEC to coordinate the study and any research with federal, state, academic, and industry research projects.

[1] Source: http://www.climatechange.ca.gov/state/legislation.html

Table 10
California Climate Change Executive Orders

Date	Governor's Executive Order	Description
July 17, 2015	Executive Order # B-32-15	EO-B-32-15 directs State agencies to develop an integrated freight action plan by July 2016. Among other things, the plan calls for targets for transportation efficiency and a transition to near-zero-emission technologies.
April 29, 2015	Executive Order # B-30-15	EO-B-30-15 sets a greenhouse gas (GHG) emissions target for 2030 at 40 percent below 1990 levels.
April 25, 2012	Executive Order # B-18-12	EO-B-18-12 calls for significant reductions in state agencies' energy purchases and GHG emissions. The Executive Order included a Green Building Action Plan, which provided additional details and specific requirements for the implementation of the Executive Order
March 23, 2012	Executive Order # B-16-12	EO-B-16-12 orders State agencies to facilitate the rapid commercialization of zero-emission vehicles (ZEVs). The Executive Order sets a target for the number of 1.5 million ZEVs in California by 2025. Also, the Executive Order sets as a target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels.
November 14, 2008	Executive Order # S-13-08	EO-S-13-08 directs state agencies to plan for sea level rise and climate impacts through coordination of the state Climate Adaptation Strategy.
January 18, 2007	Executive Order # S-01-07	EO-S-01-07 establishes the 2020 target and Low Carbon Fuel Standard. The EO directs the Secretary of Cal/EPA as coordinator of 2020 target activities and requires the Secretary to report back to the Governor and Legislature biannually on progress toward meeting the 2020 target.
October 18, 2006	Executive Order # S-20-06	EO-S-20-06 establishes responsibilities and roles of the Secretary of Cal/EPA and state agencies in climate change.
April 25, 2006	Executive Order # S-06-06	EO-S-06-06 directs Secretary of Cal/EPA to participate in the Bio-Energy Interagency Working Group and addresses biofuels and bioenergy from renewable resources.
June 1, 2005	Executive Order # S-03-05	EO-S-3-05 establishes greenhouse gas emission reduction targets, creates the Climate Action Team and directs the Secretary of Cal/EPA to coordinate efforts with meeting the targets with the heads of other state agencies. The EO requires the Secretary to report back to the Governor and Legislature biannually on progress toward meeting the GHG targets, GHG impacts to California, Mitigation and Adaptation Plans.
December 14, 2004	Executive Order # S-20-04	EO-S-20-04 (Green Buildings) directs state agencies to reduce energy use in state owned buildings by 20% by 2015 and increase energy efficiency.

[1] Source: http://www.climatechange.ca.gov/state/executive_orders.html

3.5 GHG Emissions Inventory

Table 11 shows the latest GHG emission inventories at the national, state, regional and local levels.

Table 11
GHG Emissions Inventory[1]

United States (2016)[2]	State of California (2016)[3]	SCAG (2008)[4]	City of Corona (2008)[5]
6,511 $MMTCO_2e$	429 $MMTCO_2e$	230.7 $MMTCO_2e$	1.07 $MMTCO_2e$

[1] $MMTCO_2e$ = Million Metric Tons of Carbon Dioxide Equivalent
[2] https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks
[3] https://www.arb.ca.gov/cc/inventory/data/data.htm
[4] http://www.scag.ca.gov/programs/Pages/GreenhouseGases.aspx
[5] https://www.coronaca.gov/home/showpublisheddocument?id=18422

4.0 Modeling Parameters and Assumptions

The California Emissions Estimator Model Version 2016.3.2 (CalEEMod) was used to calculate criteria air pollutants and GHG emissions from the construction and operation of the project. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria air pollutant and GHG emissions.

The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from off-site energy generation, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies mitigation measures to reduce criteria pollutant and GHG emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

4.1 Construction Assumptions

Construction of the project is estimated to begin in the year 2021 and expected to last approximately 18 months. The project is expected to be fully operational by the year 2022. Construction activities are expected to consist of site preparation, grading, building construction, paving, and architectural coating. For purposes of this analysis, construction phases are not expected to overlap.

The project is expected to haul a total of 400,000 cubic yards of earth work off-site during grading phase. The project's construction schedule is based on the CalEEMod defaults. The CalEEMod default construction equipment list is based on survey data and the size of the site. The parameters used to estimate construction emissions, such as the worker and vendor trips and trip lengths, utilize the CalEEMod defaults. The construction equipment list is shown in Table 12.

The quantity of fugitive dust estimated by CalEEMod is based on the number of equipment used during site preparation and grading. CalEEMod estimates the worst-case fugitive dust impacts will occur during the grading phase. The maximum daily disturbance footprint would be 4 acres per 8-hour day with all equipment in use.

Table 12
Construction Equipment Assumptions Phase [1]

Phase	Equipment	Number	Hours Per Day	Soil Disturbance Rate (Acres/ 8hr-Day)	Off-Road Equipment Daily Disturbance Footprint (Acres)	Total Daily Disturbance Footprint (Acres)
Site Preparation	Rubber Tired Dozers	3	8	0.5	1.50	3.5
	Tractors/Loaders/ Backhoes	4	8	0.5	2.00	
Grading	Excavators	2	8	0.0	0.00	4.0
	Graders	1	8	0.5	0.50	
	Rubber Tired Dozers	1	8	0.5	0.50	
	Scrappers	2	8	1.0	2.00	
	Tractors/Loaders/ Backhoes	2	8	0.5	1.00	
Building Construction	Cranes	1	7	0.0	0.00	1.3
	Forklifts	3	8	0.0	0.00	
	Generator Sets	1	8	0.0	0.00	
	Tractors/Loaders/ Backhoes	3	7	0.5	1.31	
	Welders	1	8	0.0	0.00	
Paving	Pavers	2	8	0.0	0.00	0.0
	Paving Equipment	2	8	0.0	0.00	
	Rollers	2	8	0.0	0.00	
Architectural Coating	Air Compressors	1	6	0.0	0.00	0.0

[1] CalEEMod Defaults

4.2 Localized Construction Analysis Modeling Parameters

CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. This report identifies the following parameters in the project design or applicable mitigation measures in order to compare CalEEMod reported emissions against the localized significance threshold lookup tables:

1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2) The maximum number of acres disturbed on the peak day.

3) Any emission control devices added onto off-road equipment.
4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

Based on recent discussions with SCAQMD, the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds should no longer be used to determine disturbance acreage for the localized analysis.

4.3 Operational Assumptions

Operational emissions occur over the life of the project and are considered "long-term" sources of emissions. Operational emissions include both direct and indirect sources. This section briefly describes the operational sources of emissions analyzed for the project.

4.3.1 Mobile Source Emissions

Mobile source emissions are the largest source of long-term air pollutants from the operation of the project. Mobile sources are direct sources of project emissions that are primarily attributed to tailpipe exhaust and road dust (tire, brake, clutch, and road surface wear) from motor vehicles traveling to and from the site.

Estimates of mobile source emissions require information on four parameters: trip generation, trip length, vehicle/fleet mix, and emission factors (quantity of emission for each mile traveled or time spent idling by each vehicle).

The trip generation rates and vehicle fleet mix for this project are consistent with the Skyline Village Commercial Center Traffic Impact Study, RK Engineering Group, Inc., March 2021, and the latest version of the ITE Trip Generation Manual. Operational vehicle trip assumptions include trip lengths, trip type, and diverted/pass-by trips. The CalEEMod default trip assumptions are shown Appendix B.

The Emission Factors (EMFAC) 2014 model is used to estimate the mobile source emissions are embedded in the CalEEMod emissions model. No adjustments have been made to default emission factors.

The project's total estimated vehicle miles traveled are shown in the Table 13 for all the land uses for this project.

Table 13
Operational Vehicle Miles Traveled

Land Use	Annual VMT (Unmitigated)[1]
Project Total	6,408,811

[1] CalEEMod Defaults

The operational vehicle fleet mix for the residential use of the project is shown in Table 14. The CalEEMod default fleet mix for the project has been adjusted based on the TIA.

Table 14
Residential Uses Vehicle Mix [1]

Vehicle Classification	Vehicle Mix (%)
Light Duty Automobile (LDA)	60.38%
Light Duty Truck (LDTI)	4.08%
Light Duty Truck (LDT2)	20.59%
Medium Duty Truck (MDV)	12.77%
Light Heavy Truck (LHD1)	1.68%
Light Heavy Truck (LHD2)	0.00%
Medium Heavy Truck (MHD)	0.00%
Heavy Heavy Truck (HHD)	0.00%
Other Bus (OBUS)	0.00%
Urban Bus (UBUS)	0.00%
Motorcycle (MCY)	0.50%
School Bus (SBUS)	0.00%
Motor Home (MH)	0.00%
Total	**100.0%**

[1] Vehicle Fleet Mix are based on the Skyline Village Commercial Center TIA, RK Engineering, 2020, which does not include the operation of heavy trucks.

The operational vehicle fleet mix for the commercial use of the project is shown in Table 15. The CalEEMod default fleet mix for the project has been adjusted based on the TIA.

Table 15
Commercial Uses Vehicle Mix[1]

Vehicle Classification	Vehicle Mix (%)
Light Duty Automobile (LDA)	59.17%
Light Duty Truck (LDTI)	4.00%
Light Duty Truck (LDT2)	20.18%
Medium Duty Truck (MDV)	12.51%
Light Heavy Truck (LHD1)	1.65%
Light Heavy Truck (LHD2)	0.10%
Medium Heavy Truck (MHD)	0.36%
Heavy Heavy Truck (HHD)	1.44%
Other Bus (OBUS)	0.03%
Urban Bus (UBUS)	0.02%
Motorcycle (MCY)	0.49%
School Bus (SBUS)	0.02%
Motor Home (MH)	0.02%
Total	**100.0%**

[1] Vehicle Fleet Mix are based on the Skyline Village Commercial Center TIA, RK Engineering, 2020 and includes 2% truck mix.

4.3.2 Energy Source Emissions

Energy usage includes both direct and indirect sources of emissions. Direct sources of emissions include on-site natural gas usage (non-hearth) for heating, while indirect emissions include electricity generated by offsite power plants. Natural gas use is measured in units of a thousand British Thermal Units (kBTU) per size metric for each land use subtype and electricity use is measured in kilowatt hours (kWh) per size metric for each land use subtype.

CalEEMod divides building electricity and natural gas use into uses that are subject to Title 24 standards and those that are not. Lighting electricity usage is also calculated as a separate category in CalEEMod. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24, such as space heating, space cooling, water heating, and ventilation. Non-Title 24 uses include all other end uses, such as appliances, electronics, and other miscellaneous plug-in uses. Because some lighting is not considered as part of the building envelope energy budget, and since a

separate mitigation measure is applicable to this end use, CalEEMod makes lighting a separate category.

For natural gas, uses are likewise categorized as Title 24 or Non-Title 24. Title 24 uses including building heating and hot water end uses. Non-Title 24 natural gas uses include cooking and appliances (including pool/spa heaters).

The baseline values are based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies.

Table 16 shows the total annual expected electricity and natural gas usage for the proposed project.

Table 16
Electricity and Natural Gas Usage

Land Use	Electricity Usage[1] (kWhr/yr)[2]	Natural Gas Usage[1] (kBTU/yr)[2]
Multifamily Housing (Condo/Townhouse)	440,081.00	1,767,760.00
Fast Food Restaurant w/o Drive Thru	93,060.80	535,942.00
Drinking Place (High Turnover (Sit Down Restaurant))	358,474.00	2,064,470.00
Coffee/Donut Shop Without Drive-Thru (Quality Restaurant)	74,543.00	429,301.00
Retail (Regional Shopping Center)	70,601.00	12,409.80
Day Spa (Strip Mall)	58,350.60	10,256.40
General Office Building	43,982.40	16,031.40
Total	**1,139,092.80**	**4,836,170.60**

[1] CalEEMod default estimates.

[2] kWhr/yr = Kilowatt Hours per Year
kBTU/yr = Thousand British Thermal Units per Year

4.3.3 Area Source Emissions

Area source emissions are direct sources of emissions that fall under four categories; hearths, consumer products, architectural coatings, and landscaping equipment. Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore,

no wood hearths are included in this project. Consumer products are various solvents used in non-industrial applications which emit ROGs during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics and toiletries.

4.3.4 Other Sources of Operational Emissions

Water. Greenhouse gas emissions are generated from the upstream energy required to supply and treat the water used on the project site. Indirect emissions from water usage are counted as part of the project's overall impact. The estimated water usage for the project is reported in Table 16 and recommendations to reduce water usage are discussed in Section 6.0.

Waste. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses. The program quantifies the GHG emissions associated with the decomposition of the waste which generates methane based on the total amount of degradable organic carbon.

The estimated waste generation by the project is reported in Table 17 and recommendations to reduce waste generation in landfills are discussed in Section 6.0.

Table 17
Operational Water Usage and Waste Generation[1]

Land Use	Water Usage (gallons/year)			Waste Generation (tons/year)
	Indoor	Outdoor	Total	
Multifamily Housing (Condo/Townhouse)	5,082,014.00	3,203,878.39	8,285,892.39	35.88
Fast Food Restaurant w/o Drive Thru	594,956.00	37,974.00	632,930.00	22.58
Drinking Place (High Turnover (Sit Down Restaurant))	2,291,680.00	146,277.00	2,437,957.00	89.84
Coffee/Donut Shop Without Drive-Thru (Quality Restaurant)	476,548.00	304,179.00	780,727.00	1.43
Retail (Regional Shopping Center)	414,065.00	304,179.00	718,244.00	5.87
Day Spa (Strip Mall)	342,215.00	209,745.00	551,960.00	4.85
General Office Building	414,065.40	253,782.02	667,847.42	4.3
Total	**9,615,543.40**	**4,460,014.41**	**14,075,557.81**	**164.75**

[1] CalEEMod default estimates.

5.0 Significance Thresholds

5.1 Air Quality Regional Significance Thresholds

The SCAQMD has established air quality emissions thresholds for criteria air pollutants for the purposes of determining whether a project may have a significant effect on the environment per Section 15002(g) of the Guidelines for implementing CEQA. By complying with the thresholds of significance, the project would be in compliance with the SCAQMD Air Quality Management Plan (AQMP) and the federal and state air quality standards.

Table 18 lists the air quality significance thresholds for the six air pollutants analyzed in this report. Lead is not included as part of this analysis as the project is not expected to emit lead in any significant measurable quantity.

Table 18
SCAQMD Regional Significance Thresholds

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550

[1] Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf

5.2 Air Quality Localized Significance Thresholds

Air quality emissions were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold (LST) Look-up Tables.

Table 19 lists the Localized Significance Thresholds (LST) used to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard.

LSTs are developed based on the ambient concentrations of four applicable air pollutants for source receptor area (SRA) 22 –Corona Valley.

The nearest existing sensitive receptors are residential uses located to the east of the property line along San Remo Avenue. The nearest structures to the property, where people would be expected to stay for 24-hours or longer are approximately 13-15 meters away, less than 25 meters from the potential areas of construction activities. Although receptors are located closer than 25 meters to the site, SCAQMD LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

The daily disturbance area is calculated to be 4 acres, however LST thresholds are only based on 1, 2 and 5-acre sites. In order to be conservative, a linear progression model was used to estimate the threshold for 4-acre site based on the established LST thresholds.

Table 19
SCAQMD Localized Significance Thresholds[1] (LST)

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	235.2	235.2
CO	1,461.2	1,461.2
PM_{10}	10.0	2.6
$PM_{2.5}$	6.9	1.9

[1] Source: SCAQMD Mass Rate Localized Significance Thresholds for 4-acre site in SRA-22 at 25 meters

5.3 Microscale CO Concentration Standards

The significance of localized CO impacts depends on whether ambient CO levels in the vicinity of the project are above or below federal or state standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of the AAQS. If ambient levels already exceed State or federal standards, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

Current CO levels in the SCAB are in attainment of both federal and state standards, and local air quality monitoring data indicates there have not been any localized exceedances of

CO over the past three years. Therefore, the project must not contribute to an exceedance of a federal or state ambient air quality standard.

5.4 City of Corona General Plan

City of Corona General Plan 2020-2040 Environmental Resources Air Resources establishes goals, policies and programs that are meant to balance the City's actions regarding land use, circulation and other issues with their potential effects on air quality and global climate change.

In order for the project's air quality and GHG impact to be considered less than significant, the project should not conflict with, or obstruct implementation of, the Corona City's General Plan Air Resources Element.

5.5 City of Corona Climate Action Plan

The project is required to comply with the emissions thresholds and mitigation measures established in the City of Corona Climate Action Plan Update (CAP), 2019. The CAP identifies a baseline community-wide GHG emissions inventory and established goals and policies to reduce GHG emissions through land use management, education, energy and water use, air quality, transportation, waste reduction, economic development, and natural habitats.

The CAP includes a set of mitigation measures to fulfill the requirements of AB 32 and ensure the City is consistent with the State and international efforts of stabilizing climate change.

The CAP Screening Tables have been developed to enforce specific reduction strategies as part of the CEQA process for development projects. Projects that garner at least 100 points will be consistent with the reduction quantities anticipated in the City's CAP. As such, those projects that garner a total of 100 points or greater would not require quantification of project specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

The project is required to comply with the City of Corona Climate Action Plan Update (CAP), 2019 Greenhouse Gas Emissions Reduction Screening Tables for Commercial

Development. The project must garner 100 points to be consistent with the reduction quantities anticipated in the City's CAP. Screening tables are provided in Appendix C.

6.0 Air Quality Impact Analysis

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality would occur if the proposed project is determined to:

a) Conflict with, or obstruct implementation of, the applicable air quality plan?

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

c) Expose sensitive receptors to substantial pollutant concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

6.1 Short Term Air Quality Impacts - Construction

6.1.1 Regional Emissions - Construction

Regional air quality emissions include both on-site and off-site emissions associated with construction of the project. Regional daily emissions of criteria pollutants are compared to the SCAQMD regional thresholds of significance.

As shown in Table 20, regional daily emissions of criteria pollutants are expected to be below the allowable thresholds of significance, with the exception of NOx. In order to ensure the project emissions levels are within the allowable threshold limits, the following mitigation measures are required to reduce daily NOx emissions.

MM – 1: Require all construction equipment to have Tier 4 low emission "clean diesel" engines that include diesel oxidation catalysts and diesel particulate filters that meet the latest CARB best available control technology.

MM – 2: Limit the amount of material to be hauled from the site to 200 truckloads per day or less.

The regional construction emissions with the implementation of the proposed mitigation measures are shown in Table 21.

Table 20

Regional Construction Emissions - Unmitigated

Maximum Daily Emissions (lbs/day)[1]						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	3.97	40.55	21.82	0.04	9.16	5.73
Grading	12.82	411.17	87.04	1.32	36.45	12.42
Building Construction	2.81	22.69	23.57	0.06	3.17	1.51
Paving	1.89	11.16	15.09	0.02	0.74	0.57
Architectural Coating	40.09	1.49	2.94	0.01	0.45	0.18
Maximum[1]	40.09	411.17	87.04	1.32	36.45	12.42
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**Yes**	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

Table 21
Regional Construction Emissions - Mitigated

Maximum Daily Emissions (lbs/day)[1]						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	0.55	2.07	21.53	0.04	7.17	3.92
Grading	2.90	90.89	46.93	0.37	10.29	3.65
Building Construction	1.24	7.50	24.46	0.06	2.25	0.65
Paving	1.07	1.25	17.81	0.02	0.21	0.08
Architectural Coating	39.92	0.21	2.96	0.01	0.37	0.10
Maximum[1]	39.92	90.89	46.93	0.37	10.29	3.92
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

With the implementation of the recommended mitigation measures, the project's daily construction emissions will be below the applicable SCAQMD regional air quality standards and thresholds of significance. As a result, the project would not contribute substantially to an existing or projected air quality violation.

Furthermore, by complying with the SCAQMD thresholds of significance, the project would not contribute to a cumulatively considerable net increase of any criteria pollutant for

which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The project's short-term construction impact on regional air resources is less than significant with mitigation.

CalEEMod daily emissions outputs are provided in Appendix A.

6.1.2 Localized Emissions - Construction

Table 22 illustrates the construction related localized emissions and compares the results to SCAQMD LST thresholds. As shown in Table 22, the emissions will be below the SCAQMD thresholds of significance for localized construction emissions. The project must follow all standard SCAQMD rules and requirements with regards to fugitive dust control, as described in Section 6.1.3. Compliance with the dust control is considered a standard requirement and included as part of the project's design features, not mitigation.

The project's short-term construction impact to localized air resources is less than significant.

Table 22
Localized Construction Emissions - Unmitigated

Maximum Daily Emissions (lbs/day)[1]				
Activity	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
On-site Emissions	46.40	30.88	8.95	5.68
SCAQMD Construction Threshold[2]	235.2	1,461.2	10.0	6.9
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes on-site project emissions only.
[2] Reference 2006-2008 SCAQMD Mass Rate Localized Significant Thresholds for construction and operation. SRA-22, Corona Valley, 4-acre site, receptor distance 25 meters.

6.1.3 Fugitive Dust - Construction

The Project is required to comply with local and regional rules that assist in reducing short-term air pollutant emissions associated with suspended particulate matter, also known as fugitive dust. Fugitive dust emissions are commonly associated with land clearing activities, cut-and-fill grading operations, and exposure of soils to the air and wind. SCAQMD Rule

403 requires that fugitive dust is controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rules 402 and 403 require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site.

Applicable suppression techniques are as follows:

1. All active construction areas shall be watered two (2) times daily.
2. Speed on unpaved roads shall be reduced to less than 15 mph.
3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
6. Access points shall be washed or swept daily.
7. Construction sites shall be sandbagged for erosion control.
8. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
9. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.
10. Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.
11. Replace the ground cover of disturbed areas as quickly possible.
12. A fugitive dust control plan should be prepared and submitted to SCAQMD prior to the start of construction.

Localized construction emissions, shown in Section 6.1.2, indicate daily construction emissions, with the recommended design features, would be below the applicable thresholds established by the SCAQMD. Compliance with the standard rules and requirements for fugitive dust control is considered to be a project design feature, not mitigation.

6.1.4 Odors - Construction

Heavy-duty equipment in the project area during construction will emit odors; however, the construction activity would cease to occur after individual construction is completed. The project is required to comply with Rule 402 during construction, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. No other sources of objectionable odors have been identified for the proposed Project. Therefore, the project impact from odor emissions is less than significant.

6.1.5 Asbestos - Construction

Asbestos is a mineral fiber that has been used commonly in a variety of building construction materials for insulation and as a fire-retardant. When asbestos-containing materials are damaged or disturbed by repair, remodeling or demolition activities, microscopic fibers become airborne and can be inhaled into the lungs, where they can cause significant health problems. No structures are proposed to be demolished as part of this project.

Based on the California Division of Mines and Geology General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, naturally occurring asbestos, found in serpentine and ultramafic rock, has not been shown to occur within in the vicinity of the project site. Therefore, the potential risk for naturally occurring asbestos (NOA) during project construction is small. However, in the event NOA is found on the site, the project will be required to comply with the NESHAP standards. An Asbestos NESHAP Notification Form shall be completed and submitted to the CARB immediately upon discovery of the contaminant. The project will be required to follow NESHAP standards for emissions control during site renovation, waste transport and waste disposal. A person certified in asbestos removal procedures will be required to supervise on-site activities.

By following the required asbestos abatement protocols, the project impact is less than significant.

6.1.6 Diesel Particulate Matter - Construction

The greatest potential for toxic air contaminant emissions from the project would be related to diesel particulate matter (DPM) emissions associated with heavy diesel equipment used during construction. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of standard risk-assessment methodology.

As shown in Tables 21 and 22, construction-based particulate matter (PM) emissions would be below the regional and localized emissions levels and given the short-term construction schedule, the proposed project's construction activity is not expected to be a substantial source of toxic air contaminant emissions that would indicate long-term exposure and elevated cancer risk. It should be noted, however, that a quantified health risk assessment has not been performed for this project.

In September 2000, the CARB adopted the Diesel Risk Reduction Plan, which recommends several control measures to reduce the risks associated with diesel particulate matter (DPM). The key elements of the Plan are to clean up existing engines through engine retrofit emission control devices, to adopt stringent standards for new diesel engines, to lower the sulfur content of diesel fuel, and implement advanced technology emission control devices on diesel engines.

In order to ensure the level of DPM exposure is reduced as much as possible, the project should implement the best available pollution control strategies to minimize potential health risks. The follow DPM control measures include:

- Utilize low emission "clean diesel" equipment with new or modified engines (Tier 4 or better) that include diesel oxidation catalysts, diesel particulate filters or Moyer Program retrofits that meet CARB best available control technology.

- Establish staging areas for the construction equipment that are as distant as possible from adjacent sensitive receptors;

- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible;

- Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

6.2 Long Terms Air Quality Impacts - Operation

6.2.1 Regional Emissions - Operation

Long-term operational air pollutant impacts from the project are shown in Table 23. The project is not expected to exceed any of the allowable daily emissions thresholds for criteria pollutants at the regional level. CalEEMod daily emissions outputs are provided in Appendix A.

The project's daily operational emissions will be below the applicable SCAQMD regional air quality standards and thresholds of significance, and the project would not contribute substantially to an existing or projected air quality violation. Furthermore, by complying with the SCAQMD standards, the project would not contribute to a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The project related long-term air quality impacts are less than significant.

Table 23
Regional Operational Emissions

Maximum Daily Emissions (lbs/day)[1]						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	7.37	14.82	66.12	0.20	18.91	5.11
Energy Sources	0.14	1.27	0.88	0.01	0.10	0.10
Area Sources	2.70	1.17	6.91	0.01	0.12	0.12
Total	10.21	17.26	73.92	0.22	19.14	5.34
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

6.2.2 Localized Operational Emissions - Operation

Table 24 shows the localized operational emissions and compares the results to SCAQMD LST thresholds of significance. As shown in Table 24, the emissions will be below the SCAQMD thresholds of significance for localized operational emissions. The project will result in less than significant localized operational emissions impacts.

Table 24
Localized Operational Emissions

Maximum Daily Emissions (lbs/day)[1]				
LST Pollutants	NOx (lbs/day)	CO (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
On-site Emissions[1]	3.19	11.10	1.2	0.5
SCAQMD Operation Threshold[2]	235.2	1,461.2	2.6	1.9
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Maximum daily emission in summer or winter.
[2] Mobile source emissions include on-site vehicle emissions only. It is estimated that approximately 5% of mobile emissions will occur on the project site.
[3] Reference: 2006-2008 SCAQMD Mass Rate Localized Significant Thresholds for construction and operation Table C-1 through C-6; SRA 22, Corona Valley disturbance area of 4-acre and receptor distance of 25 meters.

6.2.3 Odors - Operation

Land uses that commonly receive odor complaints include agricultural uses (farming and livestock), chemical plants, composting operations, dairies, fiberglass molding facilities, food processing plants, landfills, refineries, rail yards, and wastewater treatment plants. The project is located within a rural/agricultural community and any odor emitting agricultural activities would be consistent with the surrounding uses and environment.

The project will be required to comply with standard building code requirements related to exhaust ventilation, as well as comply with SCAQMD Rule 402. Rule 402 requires that a person may not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Project related odors are not expected to meet the criteria of being a nuisance. The project's operation would result in less than significant odor impacts.

6.2.4 Toxic Air Contaminants - Operations

A Toxic Air Contaminant (TAC) is defined as air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health, and for which there is no concentration that does not present some risk. The primary source of TACs from non-industrial land use development projects would include diesel particulate matter (DPM) generated from diesel exhaust emissions.

The project would consist of single-family residential uses. This type of project does not include major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations. Therefore, the project impact is considered less than significant.

6.3 CO Hot Spot Emissions

A CO hot spot is a localized concentration of carbon monoxide (CO) that is above the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. At the time of the publishing of the 1993 CEQA Air Quality Handbook, the SCAB was designated nonattainment, and projects were required to perform hot spot analyses to ensure they did not exacerbate an existing problem. Since this time, the SCAB has achieved attainment status and the potential for hot spots caused by vehicular traffic congestion has been greatly reduced. In fact, the SCAQMD AQMP found that peak CO concentrations were primarily the result of unusual meteorological and topographical conditions, not traffic congestion. Additionally, the 2003 SCAQMD AQMP found that, at four of the busiest intersections in SCAB, there were no CO hot spots concentrations.

Furthermore, the Skyline Village Commercial Center Project Traffic Impact Study, RK Engineering Group, Inc. (March 2021), found that all significant project traffic impacts would be mitigated to less than significant levels. Therefore, it is reasonable to conclude that the project would not significantly increase traffic congestion in the vicinity of the site that would lead to the formation of CO Hot Spots. The project impact to CO Hot Spots is less than significant.

6.4 SCAQMD Air Quality Management Plan Consistency

CEQA requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies in the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies.

The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

6.4.1 Criterion 1 - Increase in the Frequency or Severity of Violations

The results of the short-term construction emission levels and long-term operational emission levels show that the project would not result in significant impacts based on the SCAQMD regional and local thresholds of significance with the implementation of the recommended mitigation measures.

Therefore, with the implementation of the recommended mitigation measures described in Section 6.1.1, the proposed project would not contribute to the exceedance of an air pollutant concentration standard and is found to be consistent with the AQMP for the first criterion.

6.4.2 Criterion 2 - Exceed Assumptions in the AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. In particular, projects seeking a zone change, general plan amendment or other land use and transportation projects not previously identified in local/regional plans may exceed the assumptions of the AQMP and should be reviewed for consistency.

Pursuant to California Health and Safety Code Section 40460, the Southern California Association of Governments (SCAG) has the responsibility of preparing and approving the portions of the AQMP relating to regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. The SCAQMD combines its portion of the Plan with those prepared by SCAG in the *2016-2040 Regional Transportation/Sustainable Communities Strategy (RTP/SCS)*.

The project is proposing to change the existing land use and zoning designations of the site to allow for specific plan-mixed use development. As a result, additional air pollutant emissions would occur beyond what was likely projected for the vacant low density residential site used in the 2016 AQMP. However, the estimated criteria air pollutant emissions would be within the allowable regional and localized thresholds set forth by SCAQMD.

Furthermore, the proposed project would incorporate many of the land use strategies recommended in the 2016 RTP/SCS, including planning for growth around livable corridors, providing more options for short trips and neighborhood mobility areas, supporting zero emission vehicles and expanding electric charging stations, supporting local sustainability planning and promoting active transportation.

Therefore, the project impact on the AQMP is considered less than significant with the implementation of the mitigation measures described in Section 6.1.1.

7.0 Greenhouse Gas Impact Analysis

Consistent with CEQA Guidelines, a significant impact related to greenhouse gas would occur if the proposed project is determined to:

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

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

7.1 Greenhouse Gas Emissions - Construction

Greenhouse gas emissions are estimated for on-site and off-site construction activity using CalEEMod. Table 25 shows the construction greenhouse gas emissions, including equipment and worker vehicle emissions for all phases of construction. Construction emissions are amortized over 30 years and added to the long-term operational emissions, pursuant to SCAQMD recommendations.

CalEEMod annual GHG output calculations are provided in Appendix B.

Table 25
Construction Greenhouse Gas Emissions

Activity	Emissions ($MTCO_2e/yr$)[1]		
	On-site	Off-site	Total
Site Preparation	16.85	0.80	17.65
Grading	343.35	1,807.59	2,150.94
Building Construction	349.60	408.22	757.82
Paving	20.19	1.29	21.48
Architectural Coating	2.56	2.83	5.39
Total	**732.55**	**2,220.73**	**2,953.28**
Averaged over 30 years[2]	**24.42**	**74.02**	**98.44**

[1] $MTCO_2e/yr$ = metric tons of carbon dioxide equivalents per year.
[2] The emissions are amortized over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.

7.2 Greenhouse Gas Emissions - Operation

Greenhouse gas emissions are estimated for on-site and off-site operational activity using CalEEMod. Greenhouse gas emissions from mobile sources, area sources and energy sources are shown in Table 26. CalEEMod annual GHG output calculations are provided in Appendix B.

As shown in Table 26, the project GHG emissions would exceed the SCAQMD Tier 3 significance thresholds, which limit GHG emissions to 3,000 $MTCO_2e$. Therefore, mitigation measures are required to ensure the project does not cause a significant impact on the environment. Additionally, the project is required to comply with the City of Corona Climate Action Plan Update (CAP) screening tables.

Table 26
Operational Greenhouse Gas Emissions

Emission Source	GHG Emissions ($MTCO_2e$)[1]
	Unmitigated
Mobile Source	2,211.12
Energy Source	623.85
Area Source	17.36
Water	70.95
Waste	82.85
Construction (30-year average)	98.44
Total Annual Emissions	**3,104.57**
SCAQMD Tier 3 Significance Threshold[2]	3,000 MTCO2e/year
Exceed Tier 3 Threshold?	Yes

[1] $MTCO_2e$ = metric tons of carbon dioxide equivalents
[2] Per South Coast Air Quality Management District (SCAQMD) Draft Guidance Document - Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008

As shown in Table 24, the project has the potential to exceed the SCAQMD Tier 3 threshold of significance for GHG. The project will be required to implement mitigation measures that are consistent with the Corona CAP, as discussed in the following section.

The project will also be required to comply with the mandatory requirements of Title 24 part 11 of the California Building Standards Code (CALGreen), the Title 24 Part 6 Building Efficiency Standards to further reduce energy usage and GHG emissions. CALGreen and building code compliance are considered part of the project's design features

7.3 City of Corona Climate Action Plan Consistency

The project is proposing to change the existing land use from low density residential to medium density residential on 8.07 acres and general commercial on 8.95 acres. As a result, the project's GHG emissions may differ from what was previously estimated for this site in CAP. In order to ensure the project is consistent with Corona CAP and the applicable policies adopted for the purpose of reducing emissions of greenhouse gases, the project is required to implement the following mitigation measure:

MM – 3: Comply with the City of Corona Climate Action Plan Update (CAP), 2019 Greenhouse Gas Emissions Reduction Screening Tables for Commercial Development. The project must garner 100 points to be consistent with the reduction quantities anticipated in the City's CAP. Screening tables are provided in Appendix C.

For mixed use projects, that project should fill out both the residential and commercial screening tables. Points achieved from the reduction should be proportioned based on the residential vs. commercial mix of the project. As an example, a mixed use project that is 50% commercial uses and 50% residential uses will show ½ point for each assigned point value in Table 1 and Table 2. Add the points from both tables. Mixed use Projects that garner at least 100 points will be consistent with the reduction quantities in the City's CAP and are considered less than significant for GHG emissions

With the implementation of the recommended mitigation measures, the project will not conflict with an applicable plan, policy or regulation for the purpose of reducing the emissions of greenhouse gases and the impact is considered less than significant with mitigation.

8.0 References

The following references were used in the preparing this analysis.

CalEEMod. California Emissions Estimator Model. Version 2016.3.2. Website: http://caleemod.com/.

California Air Pollution Control Officers Association. 2008. CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Website: www.capcoa.org/.

California Air Pollution Control Officers Association. 2010. Quantifying Greenhouse Gas Mitigation Measures. August 2010. Website: http://www.capcoa.org/documents.

California Air Resources Board. 2006. EMFAC2007 Mobile Source Emission Model. Website: www.arb.ca.gov/msei/onroad/latest_version.htm.

California Air Resources Board. 2007. Staff Report. California 1990 Greenhouse Gas Level and 2020 Emissions Limit. November 16, 2007. Website: www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf.

California Air Resources Board. 2017. Climate Change Scoping Plan Update. January 2017. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf

California Air Resources Board. 2010d. Greenhouse Gas Inventory – 2020 Forecast. Website: http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Accessed July 2012.

California Air Resources Board. 2011d. Landfill Methane Control Measure. Website: http://arb.ca.gov/cc/landfills/landfills.htm. Accessed October 3, 2011.

California Air Resources Board. 2011e. Advanced Clean Cars. Website: http://www.arb.ca.gov/msprog/consumer_info/advanced_clean_cars/consumer_acc.htm. Accessed October 3, 2011.

California Air Resources Board. 2011f. Refrigerant Management Program Regulation for Non-Residential Refrigeration Systems. Website: http://www.arb.ca.gov/cc/reftrack/reftrack.htm. Accessed October 3, 2011.

City of Corona. Climate Action Plan. https://www.coronaca.gov/government/departments/community-development/planning-division.

City of Corona. General Plan. Website: https://www.coronaca.gov/Home/ShowDocument?id=4637

Federal Clean Air Act, U.S. Code Title 42, Chapter 85, § 7401 et seq.

Intergovernmental Panel on Climate Change. 2001. Climate Change 2001: The Scientific Basis. Website: http://www.grida.no/climate/ipcc_tar/wg1/pdf/WG1_TAR-FRONT.pdf. Accessed August 2012.

Intergovernmental Panel on Climate Change. 2007a. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, Website:

www.ipcc.ch/ipccreports/ar4-wg1.htm. Accessed April 22, 2011.
Intergovernmental Panel on Climate Change. 2007b. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland. Accessed Aug 2012. Website: www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html
Moser et al. 2009. Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. California Energy Commission, PIER Energy-Related Environmental Research Program. CEC-500-2008-071. Website: www.energy.ca.gov/2008publications/CEC-500-2008-071/CEC-500-2008-071.PDF. Accessed: August 2011.
South Coast Air Quality Management District. 2008c. Draft Guidance Document – Interim CEQA Greenhouse (GHG) Significance Threshold Document. Website: http://www.aqmd.gov/hb/2008/December/081231a.htm. (Attachment E) Accessed: August 2012
U.S Environmental Protection Agency 2010a, Final GHG Tailoring Rule, 40 CFR Parts 51, 52, 70, et al., May 2010.

Exhibits

Exhibit A

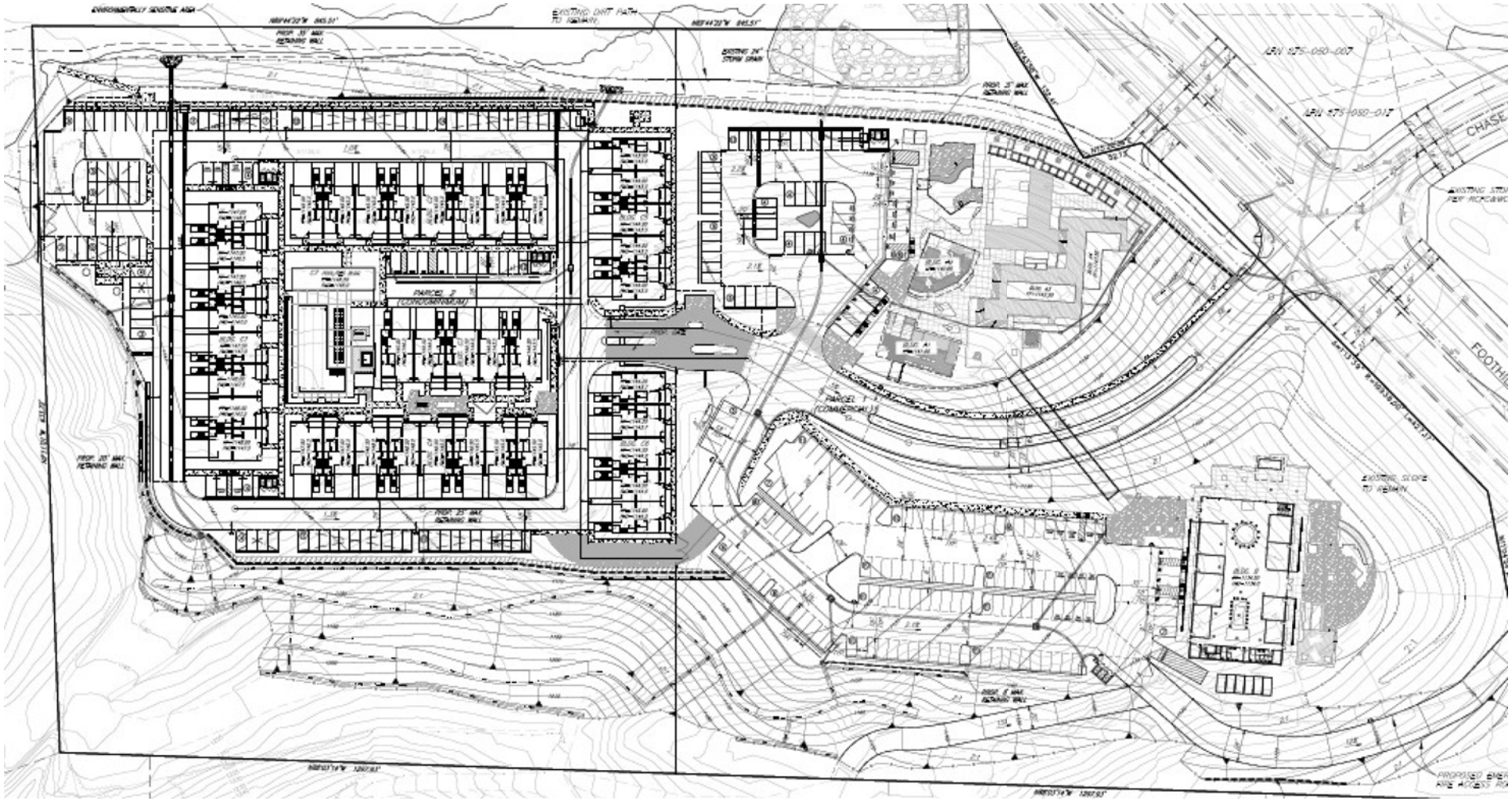
Location Map

N

Legend:

– – = Site Boundary

Exhibit B
Site Plan



N

Appendices

Appendix A

Daily Emissions Calculations Output
(CalEEMod)

Skyline Village AQ & GHG - Unmitigated

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.62	1000sqft	0.11	4,620.00	0
Other Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Fast Food Restaurant w/o Drive Thru	1.96	1000sqft	0.04	1,960.00	0
High Turnover (Sit Down Restaurant)	7.55	1000sqft	0.17	7,550.00	0
Quality Restaurant	1.57	1000sqft	0.04	1,570.00	0
Condo/Townhouse	78.00	Dwelling Unit	4.88	78,000.00	223
Regional Shopping Center	5.59	1000sqft	0.13	5,590.00	0
Strip Mall	4.62	1000sqft	0.11	4,620.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Skyline Village AQ & GHG - Unmitigated - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - The project is proposing to use the following land uses:
1. Mulitifamily housing (Condo/Townhouse): 78 DU
2. Fast Food Restaurant w/o Drive Thru: 1.96 TSU
3. General Office Building: 4.62 TSF
4. Drinking Place (High Turnover (Sit Down Restaurant)): 7.55 TSF
5. On-site Pavement (Other Asphalt Surfaces): 5.5 Acres
6. Coffee/Donut Shop Without Drive-Thru (Quality Restaurant): 1.57 TSF
7. Retail (Regional Shopping Center): 5.587 TSF
8. Day Spa (Strip Mall): 4.620 TSF

Grading - The project is expected to export a total of 400,000 cubic yards of earthwork off-site.

Architectural Coating -

Vehicle Trips - Trip Generation rates are based on Skyline Village Commercial Project Traffic Impact Study, RK Engineering, 2020

Woodstoves - Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.90	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01

tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02

tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	4.9700e-003	0.00
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	MCY	4.5470e-003	5.0330e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13

tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	SBUS	9.3200e-004	0.00

tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	UBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblGrading	MaterialExported	0.00	400,000.00
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	94.36	673.64
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	ST_TR	42.04	50.80
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	SU_TR	72.16	421.82
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	SU_TR	20.43	50.80
tblVehicleTrips	WD_TR	5.81	7.32

tblVehicleTrips	WD_TR	716.00	175.00
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	127.15	113.60
tblVehicleTrips	WD_TR	89.95	687.30
tblVehicleTrips	WD_TR	42.70	31.32
tblVehicleTrips	WD_TR	44.32	13.30
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	12.3988	408.7141	79.2550	1.3193	39.7392	3.0897	42.8289	11.9031	2.8830	14.7861	0.0000	139,442.5003	139,442.5003	9.6859	0.0000	139,684.6479
2022	40.0949	20.5591	22.8227	0.0574	2.1885	0.8274	3.0158	0.5879	0.7783	1.3663	0.0000	5,666.0489	5,666.0489	0.7461	0.0000	5,684.7008
Maximum	**40.0949**	**408.7141**	**79.2550**	**1.3193**	**39.7392**	**3.0897**	**42.8289**	**11.9031**	**2.8830**	**14.7861**	**0.0000**	**139,442.5003**	**139,442.5003**	**9.6859**	**0.0000**	**139,684.6479**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	12.3988	408.7141	79.2550	1.3193	33.3408	3.0897	36.4305	9.5244	2.8830	12.4074	0.0000	139,442.5003	139,442.5003	9.6859	0.0000	139,684.6479
2022	40.0949	20.5591	22.8227	0.0574	2.1885	0.8274	3.0158	0.5879	0.7783	1.3663	0.0000	5,666.0489	5,666.0489	0.7461	0.0000	5,684.7008
Maximum	**40.0949**	**408.7141**	**79.2550**	**1.3193**	**33.3408**	**3.0897**	**36.4305**	**9.5244**	**2.8830**	**12.4074**	**0.0000**	**139,442.5003**	**139,442.5003**	**9.6859**	**0.0000**	**139,684.6479**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.26**	**0.00**	**13.96**	**19.04**	**0.00**	**14.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236
Total	**10.1962**	**17.1590**	**73.9185**	**0.2171**	**18.7797**	**0.3566**	**19.1363**	**4.9897**	**0.3468**	**5.3365**	**0.0000**	**23,227.8989**	**23,227.8989**	**0.7926**	**0.0543**	**23,263.9010**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236
Total	**10.1962**	**17.1590**	**73.9185**	**0.2171**	**18.7797**	**0.3566**	**19.1363**	**4.9897**	**0.3468**	**5.3365**	**0.0000**	**23,227.8989**	**23,227.8989**	**0.7926**	**0.0543**	**23,263.9010**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	4/23/2021	5	30	
3	Building Construction	Building Construction	4/24/2021	6/17/2022	5	300	
4	Paving	Paving	6/18/2022	7/15/2022	5	20	
5	Architectural Coating	Architectural Coating	7/16/2022	8/12/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.5

Residential Indoor: 157,950; Residential Outdoor: 52,650; Non-Residential Indoor: 38,865; Non-Residential Outdoor: 12,955; Striped Parking Area: 14,375 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	50,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	166.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0853	0.0486	0.6655	1.9200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		191.6552	191.6552	4.5700e-003		191.7694
Total	**0.0853**	**0.0486**	**0.6655**	**1.9200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**191.6552**	**191.6552**	**4.5700e-003**		**191.7694**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**6.9103**	**2.0445**	**8.9548**	**3.7985**	**1.8809**	**5.6794**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0853	0.0486	0.6655	1.9200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		191.6552	191.6552	4.5700e-003		191.7694
Total	**0.0853**	**0.0486**	**0.6655**	**1.9200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**191.6552**	**191.6552**	**4.5700e-003**		**191.7694**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.3618	0.0000	10.3618	3.8522	0.0000	3.8522			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**10.3618**	**1.9853**	**12.3471**	**3.8522**	**1.8265**	**5.6787**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1128	362.2603	47.6371	1.2551	29.1539	1.1030	30.2569	7.9917	1.0553	9.0470		133,222.5067	133,222.5067	7.7380		133,415.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0948	0.0540	0.7394	2.1400e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		212.9502	212.9502	5.0800e-003		213.0771
Total	**8.2076**	**362.3143**	**48.3766**	**1.2573**	**29.3774**	**1.1043**	**30.4818**	**8.0510**	**1.0565**	**9.1075**		**133,435.4568**	**133,435.4568**	**7.7431**		**133,629.0344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9634	0.0000	3.9634	1.4735	0.0000	1.4735			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**3.9634**	**1.9853**	**5.9487**	**1.4735**	**1.8265**	**3.3000**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.1128	362.2603	47.6371	1.2551	29.1539	1.1030	30.2569	7.9917	1.0553	9.0470		133,222.5067	133,222.5067	7.7380		133,415.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0948	0.0540	0.7394	2.1400e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		212.9502	212.9502	5.0800e-003		213.0771
Total	**8.2076**	**362.3143**	**48.3766**	**1.2573**	**29.3774**	**1.1043**	**30.4818**	**8.0510**	**1.0565**	**9.1075**		**133,435.4568**	**133,435.4568**	**7.7431**		**133,629.0344**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1214	4.8120	0.8586	0.0135	0.3330	9.1500e-003	0.3421	0.0959	8.7600e-003	0.1046		1,420.9053	1,420.9053	0.1017		1,423.4466
Worker	0.7870	0.4484	6.1372	0.0177	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,767.4865	1,767.4865	0.0421		1,768.5401
Total	**0.9084**	**5.2604**	**6.9958**	**0.0312**	**2.1885**	**0.0201**	**2.2086**	**0.5880**	**0.0188**	**0.6068**		**3,188.3918**	**3,188.3918**	**0.1438**		**3,191.9867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1214	4.8120	0.8586	0.0135	0.3330	9.1500e-003	0.3421	0.0959	8.7600e-003	0.1046		1,420.9053	1,420.9053	0.1017		1,423.4466
Worker	0.7870	0.4484	6.1372	0.0177	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,767.4865	1,767.4865	0.0421		1,768.5401
Total	**0.9084**	**5.2604**	**6.9958**	**0.0312**	**2.1885**	**0.0201**	**2.2086**	**0.5880**	**0.0188**	**0.6068**		**3,188.3918**	**3,188.3918**	**0.1438**		**3,191.9867**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1132	4.5400	0.7986	0.0134	0.3330	7.7000e-003	0.3407	0.0959	7.3600e-003	0.1032		1,408.8109	1,408.8109	0.0963		1,411.2177
Worker	0.7361	0.4035	5.6608	0.0171	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,702.9044	1,702.9044	0.0379		1,703.8508
Total	**0.8493**	**4.9435**	**6.4593**	**0.0304**	**2.1885**	**0.0184**	**2.2068**	**0.5879**	**0.0172**	**0.6051**		**3,111.7154**	**3,111.7154**	**0.1341**		**3,115.0685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1132	4.5400	0.7986	0.0134	0.3330	7.7000e-003	0.3407	0.0959	7.3600e-003	0.1032		1,408.8109	1,408.8109	0.0963		1,411.2177
Worker	0.7361	0.4035	5.6608	0.0171	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,702.9044	1,702.9044	0.0379		1,703.8508
Total	**0.8493**	**4.9435**	**6.4593**	**0.0304**	**2.1885**	**0.0184**	**2.2068**	**0.5879**	**0.0172**	**0.6051**		**3,111.7154**	**3,111.7154**	**0.1341**		**3,115.0685**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8233**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
Total	**0.0665**	**0.0365**	**0.5115**	**1.5400e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**153.8769**	**153.8769**	**3.4200e-003**		**153.9624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8233**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
Total	**0.0665**	**0.0365**	**0.5115**	**1.5400e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**153.8769**	**153.8769**	**3.4200e-003**		**153.9624**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**39.9485**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1463	0.0802	1.1253	3.4000e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		338.5292	338.5292	7.5300e-003		338.7173
Total	**0.1463**	**0.0802**	**1.1253**	**3.4000e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**338.5292**	**338.5292**	**7.5300e-003**		**338.7173**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**39.9485**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1463	0.0802	1.1253	3.4000e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		338.5292	338.5292	7.5300e-003		338.7173
Total	**0.1463**	**0.0802**	**1.1253**	**3.4000e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**338.5292**	**338.5292**	**7.5300e-003**		**338.7173**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236
Unmitigated	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	570.96	634.92	489.84	1,942,680	1,942,680
Fast Food Restaurant w/o Drive Thru	343.00	1,364.16	980.00	1,050,188	1,050,188
General Office Building	45.00	10.21	3.23	109,731	109,731
High Turnover (Sit Down Restaurant)	857.68	1,195.69	995.39	1,261,492	1,261,492
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	1,079.06	1,057.61	662.26	1,447,056	1,447,056
Regional Shopping Center	175.08	257.81	117.95	386,579	386,579
Strip Mall	61.45	234.70	234.70	211,085	211,085
Total	3,132.22	4,755.11	3,483.37	6,408,811	6,408,811

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.603778	0.040791	0.205896	0.127654	0.016847	0.000000	0.000000	0.000000	0.000000	0.000000	0.005033	0.000000	0.000000
Fast Food Restaurant w/o Drive Thru	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
General Office Building	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
High Turnover (Sit Down Restaurant)	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Other Asphalt Surfaces	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Quality Restaurant	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Regional Shopping Center	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Strip Mall	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Skyline Village AQ & GHG - Unmitigated - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
NaturalGas Unmitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4843.17	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1468.34	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	43.9216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5656.09	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1176.17	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	33.9995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	28.0997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4.84317	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1.46834	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	0.0439216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5.65609	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17617	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	0.0339995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	0.0280997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Unmitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Skyline Village AQ & GHG - Unmitigated

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.62	1000sqft	0.11	4,620.00	0
Other Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Fast Food Restaurant w/o Drive Thru	1.96	1000sqft	0.04	1,960.00	0
High Turnover (Sit Down Restaurant)	7.55	1000sqft	0.17	7,550.00	0
Quality Restaurant	1.57	1000sqft	0.04	1,570.00	0
Condo/Townhouse	78.00	Dwelling Unit	4.88	78,000.00	223
Regional Shopping Center	5.59	1000sqft	0.13	5,590.00	0
Strip Mall	4.62	1000sqft	0.11	4,620.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The project is proposing to use the following land uses:
1. Mulitifamily housing (Condo/Townhouse): 78 DU
2. Fast Food Restaurant w/o Drive Thru: 1.96 TSU
3. General Office Building: 4.62 TSF
4. Drinking Place (High Turnover (Sit Down Restaurant)): 7.55 TSF
5. On-site Pavement (Other Asphalt Surfaces): 5.5 Acres
6. Coffee/Donut Shop Without Drive-Thru (Quality Restaurant): 1.57 TSF
7. Retail (Regional Shopping Center): 5.587 TSF
8. Day Spa (Strip Mall): 4.620 TSF

Grading - The project is expected to export a total of 400,000 cubic yards of earthwork off-site.

Architectural Coating -

Vehicle Trips - Trip Generation rates are based on Skyline Village Commercial Project Traffic Impact Study, RK Engineering, 2020

Woodstoves - Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.90	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01

tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02

tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	4.9700e-003	0.00
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	MCY	4.5470e-003	5.0330e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13

tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	SBUS	9.3200e-004	0.00

tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	UBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblGrading	MaterialExported	0.00	400,000.00
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	94.36	673.64
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	ST_TR	42.04	50.80
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	SU_TR	72.16	421.82
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	SU_TR	20.43	50.80
tblVehicleTrips	WD_TR	5.81	7.32

tblVehicleTrips	WD_TR	716.00	175.00
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	127.15	113.60
tblVehicleTrips	WD_TR	89.95	687.30
tblVehicleTrips	WD_TR	42.70	31.32
tblVehicleTrips	WD_TR	44.32	13.30
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	12.8212	411.1708	87.0444	1.2874	39.7392	3.1058	42.8450	11.9031	2.8984	14.8016	0.0000	136,073.4183	136,073.4183	10.4127	0.0000	136,333.7355
2022	40.0926	20.5273	21.8739	0.0551	2.1885	0.8276	3.0160	0.5879	0.7786	1.3665	0.0000	5,437.6172	5,437.6172	0.7523	0.0000	5,456.4241
Maximum	**40.0926**	**411.1708**	**87.0444**	**1.2874**	**39.7392**	**3.1058**	**42.8450**	**11.9031**	**2.8984**	**14.8016**	**0.0000**	**136,073.4183**	**136,073.4183**	**10.4127**	**0.0000**	**136,333.7355**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	12.8212	411.1708	87.0444	1.2874	33.3408	3.1058	36.4466	9.5244	2.8984	12.4229	0.0000	136,073.4183	136,073.4183	10.4127	0.0000	136,333.7355
2022	40.0926	20.5273	21.8739	0.0551	2.1885	0.8276	3.0160	0.5879	0.7786	1.3665	0.0000	5,437.6172	5,437.6172	0.7523	0.0000	5,456.4241
Maximum	**40.0926**	**411.1708**	**87.0444**	**1.2874**	**33.3408**	**3.1058**	**36.4466**	**9.5244**	**2.8984**	**12.4229**	**0.0000**	**136,073.4183**	**136,073.4183**	**10.4127**	**0.0000**	**136,333.7355**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.26**	**0.00**	**13.95**	**19.04**	**0.00**	**14.71**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470
Total	**8.7428**	**17.2593**	**65.4816**	**0.1982**	**18.7797**	**0.3571**	**19.1368**	**4.9897**	**0.3474**	**5.3370**	**0.0000**	**21,340.6474**	**21,340.6474**	**0.7836**	**0.0543**	**21,376.4245**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470
Total	**8.7428**	**17.2593**	**65.4816**	**0.1982**	**18.7797**	**0.3571**	**19.1368**	**4.9897**	**0.3474**	**5.3370**	**0.0000**	**21,340.6474**	**21,340.6474**	**0.7836**	**0.0543**	**21,376.4245**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	4/23/2021	5	30	
3	Building Construction	Building Construction	4/24/2021	6/17/2022	5	300	
4	Paving	Paving	6/18/2022	7/15/2022	5	20	
5	Architectural Coating	Architectural Coating	7/16/2022	8/12/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.5

Residential Indoor: 157,950; Residential Outdoor: 52,650; Non-Residential Indoor: 38,865; Non-Residential Outdoor: 12,955; Striped Parking Area: 14,375 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	50,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	166.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0838	0.0503	0.5372	1.7200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		171.9348	171.9348	3.9700e-003		172.0342
Total	**0.0838**	**0.0503**	**0.5372**	**1.7200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**171.9348**	**171.9348**	**3.9700e-003**		**172.0342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**6.9103**	**2.0445**	**8.9548**	**3.7985**	**1.8809**	**5.6794**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0838	0.0503	0.5372	1.7200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		171.9348	171.9348	3.9700e-003		172.0342
Total	**0.0838**	**0.0503**	**0.5372**	**1.7200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**171.9348**	**171.9348**	**3.9700e-003**		**172.0342**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.3618	0.0000	10.3618	3.8522	0.0000	3.8522			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**10.3618**	**1.9853**	**12.3471**	**3.8522**	**1.8265**	**5.6787**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5370	364.7151	55.5691	1.2235	29.1539	1.1191	30.2730	7.9917	1.0707	9.0624		129,875.3362	129,875.3362	8.4655		130,086.9730
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0931	0.0559	0.5969	1.9200e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		191.0387	191.0387	4.4100e-003		191.1491
Total	**8.6300**	**364.7709**	**56.1659**	**1.2254**	**29.3774**	**1.1205**	**30.4979**	**8.0510**	**1.0719**	**9.1229**		**130,066.3749**	**130,066.3749**	**8.4699**		**130,278.1221**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9634	0.0000	3.9634	1.4735	0.0000	1.4735			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**3.9634**	**1.9853**	**5.9487**	**1.4735**	**1.8265**	**3.3000**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.5370	364.7151	55.5691	1.2235	29.1539	1.1191	30.2730	7.9917	1.0707	9.0624		129,875.3362	129,875.3362	8.4655		130,086.9730
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0931	0.0559	0.5969	1.9200e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		191.0387	191.0387	4.4100e-003		191.1491
Total	**8.6300**	**364.7709**	**56.1659**	**1.2254**	**29.3774**	**1.1205**	**30.4979**	**8.0510**	**1.0719**	**9.1229**		**130,066.3749**	**130,066.3749**	**8.4699**		**130,278.1221**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1289	4.7706	1.0156	0.0130	0.3330	9.4300e-003	0.3424	0.0959	9.0200e-003	0.1049		1,367.4607	1,367.4607	0.1133		1,370.2924
Worker	0.7723	0.4637	4.9539	0.0159	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,585.6213	1,585.6213	0.0366		1,586.5373
Total	**0.9013**	**5.2343**	**5.9695**	**0.0289**	**2.1885**	**0.0204**	**2.2088**	**0.5880**	**0.0191**	**0.6070**		**2,953.0820**	**2,953.0820**	**0.1499**		**2,956.8297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1289	4.7706	1.0156	0.0130	0.3330	9.4300e-003	0.3424	0.0959	9.0200e-003	0.1049		1,367.4607	1,367.4607	0.1133		1,370.2924
Worker	0.7723	0.4637	4.9539	0.0159	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,585.6213	1,585.6213	0.0366		1,586.5373
Total	**0.9013**	**5.2343**	**5.9695**	**0.0289**	**2.1885**	**0.0204**	**2.2088**	**0.5880**	**0.0191**	**0.6070**		**2,953.0820**	**2,953.0820**	**0.1499**		**2,956.8297**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1204	4.4945	0.9481	0.0129	0.3330	7.9400e-003	0.3409	0.0959	7.6000e-003	0.1035		1,355.5211	1,355.5211	0.1074		1,358.2056
Worker	0.7245	0.4171	4.5624	0.0153	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,527.7626	1,527.7626	0.0330		1,528.5863
Total	**0.8449**	**4.9117**	**5.5105**	**0.0282**	**2.1885**	**0.0186**	**2.2070**	**0.5879**	**0.0174**	**0.6053**		**2,883.2837**	**2,883.2837**	**0.1403**		**2,886.7919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1204	4.4945	0.9481	0.0129	0.3330	7.9400e-003	0.3409	0.0959	7.6000e-003	0.1035		1,355.5211	1,355.5211	0.1074		1,358.2056
Worker	0.7245	0.4171	4.5624	0.0153	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,527.7626	1,527.7626	0.0330		1,528.5863
Total	**0.8449**	**4.9117**	**5.5105**	**0.0282**	**2.1885**	**0.0186**	**2.2070**	**0.5879**	**0.0174**	**0.6053**		**2,883.2837**	**2,883.2837**	**0.1403**		**2,886.7919**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8233**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
Total	**0.0655**	**0.0377**	**0.4123**	**1.3800e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**138.0508**	**138.0508**	**2.9800e-003**		**138.1253**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8233**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
Total	**0.0655**	**0.0377**	**0.4123**	**1.3800e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**138.0508**	**138.0508**	**2.9800e-003**		**138.1253**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**39.9485**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1440	0.0829	0.9070	3.0500e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		303.7118	303.7118	6.5500e-003		303.8756
Total	**0.1440**	**0.0829**	**0.9070**	**3.0500e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**303.7118**	**303.7118**	**6.5500e-003**		**303.8756**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**39.9485**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1440	0.0829	0.9070	3.0500e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		303.7118	303.7118	6.5500e-003		303.8756
Total	**0.1440**	**0.0829**	**0.9070**	**3.0500e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**303.7118**	**303.7118**	**6.5500e-003**		**303.8756**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470
Unmitigated	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	570.96	634.92	489.84	1,942,680	1,942,680
Fast Food Restaurant w/o Drive Thru	343.00	1,364.16	980.00	1,050,188	1,050,188
General Office Building	45.00	10.21	3.23	109,731	109,731
High Turnover (Sit Down Restaurant)	857.68	1,195.69	995.39	1,261,492	1,261,492
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	1,079.06	1,057.61	662.26	1,447,056	1,447,056
Regional Shopping Center	175.08	257.81	117.95	386,579	386,579
Strip Mall	61.45	234.70	234.70	211,085	211,085
Total	3,132.22	4,755.11	3,483.37	6,408,811	6,408,811

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.603778	0.040791	0.205896	0.127654	0.016847	0.000000	0.000000	0.000000	0.000000	0.000000	0.005033	0.000000	0.000000
Fast Food Restaurant w/o Drive Thru	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
General Office Building	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
High Turnover (Sit Down Restaurant)	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Other Asphalt Surfaces	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Quality Restaurant	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Regional Shopping Center	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Strip Mall	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Skyline Village AQ & GHG - Unmitigated - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
NaturalGas Unmitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4843.17	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1468.34	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	43.9216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5656.09	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1176.17	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	33.9995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	28.0997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4.84317	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1.46834	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	0.0439216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5.65609	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17617	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	0.0339995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	0.0280997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Unmitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Skyline Village AQ & GHG - Mitigated

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.62	1000sqft	0.11	4,620.00	0
Other Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Fast Food Restaurant w/o Drive Thru	1.96	1000sqft	0.04	1,960.00	0
High Turnover (Sit Down Restaurant)	7.55	1000sqft	0.17	7,550.00	0
Quality Restaurant	1.57	1000sqft	0.04	1,570.00	0
Condo/Townhouse	78.00	Dwelling Unit	4.88	78,000.00	223
Regional Shopping Center	5.59	1000sqft	0.13	5,590.00	0
Strip Mall	4.62	1000sqft	0.11	4,620.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land Use - The project is proposing to use the following land uses:
1. Mulitifamily housing (Condo/Townhouse): 78 DU
2. Fast Food Restaurant w/o Drive Thru: 1.96 TSU
3. General Office Building: 4.62 TSF
4. Drinking Place (High Turnover (Sit Down Restaurant)): 7.55 TSF
5. On-site Pavement (Other Asphalt Surfaces): 5.5 Acres
6. Coffee/Donut Shop Without Drive-Thru (Quality Restaurant): 1.57 TSF
7. Retail (Regional Shopping Center): 5.587 TSF
8. Day Spa (Strip Mall): 4.620 TSF

Construction Phase - Grading phase has been adjusted to accomodate the total daily 200 truck trips for hauling.

Grading - The project is expected to export a total of 400,000 cubic yards of earthwork off-site.

Vehicle Trips - Trip Generation rates are based on Skyline Village Commercial Project Traffic Impact Study, RK Engineering, 2020.

Woodstoves - Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	30.00	125.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.90	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDA	0.55	0.59

tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02

tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	4.9700e-003	0.00
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	MCY	4.5470e-003	5.0330e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13

tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	SBUS	9.3200e-004	0.00
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004

tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	UBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblGrading	AcresOfGrading	312.50	75.00
tblGrading	MaterialExported	0.00	400,000.00
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	94.36	673.64
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	ST_TR	42.04	50.80
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	SU_TR	72.16	421.82
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	SU_TR	20.43	50.80
tblVehicleTrips	WD_TR	5.81	7.32
tblVehicleTrips	WD_TR	716.00	175.00

tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	127.15	113.60
tblVehicleTrips	WD_TR	89.95	687.30
tblVehicleTrips	WD_TR	42.70	31.32
tblVehicleTrips	WD_TR	44.32	13.30
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	9.0424	156.0888	66.6218	0.4235	18.2675	3.2301	20.3131	9.9840	3.0011	11.8660	0.0000	43,935.1509	43,935.1509	4.5648	0.0000	44,049.2713
2022	40.0949	20.5591	22.8227	0.0574	2.1885	0.8274	3.0158	0.5879	0.7783	1.3663	0.0000	5,666.0489	5,666.0489	0.7461	0.0000	5,684.7008
Maximum	**40.0949**	**156.0888**	**66.6218**	**0.4235**	**18.2675**	**3.2301**	**20.3131**	**9.9840**	**3.0011**	**11.8660**	**0.0000**	**43,935.1509**	**43,935.1509**	**4.5648**	**0.0000**	**44,049.2713**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.0397	97.7916	69.6275	0.4235	12.1108	0.4285	12.5392	3.8812	0.4156	4.2968	0.0000	43,935.1509	43,935.1509	4.5648	0.0000	44,049.2713
2022	39.9200	7.1782	23.9196	0.0574	2.1885	0.0591	2.2476	0.5879	0.0580	0.6459	0.0000	5,666.0489	5,666.0489	0.7461	0.0000	5,684.7008
Maximum	**39.9200**	**97.7916**	**69.6275**	**0.4235**	**12.1108**	**0.4285**	**12.5392**	**3.8812**	**0.4156**	**4.2968**	**0.0000**	**43,935.1509**	**43,935.1509**	**4.5648**	**0.0000**	**44,049.2713**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**10.54**	**40.58**	**-4.59**	**0.00**	**30.10**	**87.98**	**36.62**	**57.73**	**87.47**	**62.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236
Total	**10.1962**	**17.1590**	**73.9185**	**0.2171**	**18.7797**	**0.3566**	**19.1363**	**4.9897**	**0.3468**	**5.3365**	**0.0000**	**23,227.8989**	**23,227.8989**	**0.7926**	**0.0543**	**23,263.9010**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236
Total	**10.1962**	**17.1590**	**73.9185**	**0.2171**	**18.7797**	**0.3566**	**19.1363**	**4.9897**	**0.3468**	**5.3365**	**0.0000**	**23,227.8989**	**23,227.8989**	**0.7926**	**0.0543**	**23,263.9010**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	9/3/2021	5	125	
3	Building Construction	Building Construction	4/24/2021	6/17/2022	5	300	
4	Paving	Paving	6/18/2022	7/15/2022	5	20	
5	Architectural Coating	Architectural Coating	7/16/2022	8/12/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.5

Residential Indoor: 157,950; Residential Outdoor: 52,650; Non-Residential Indoor: 38,865; Non-Residential Outdoor: 12,955; Striped Parking Area: 14,375 (Architectural Coating – sqft)

OffRoad Equipment

Skyline Village AQ & GHG - Mitigated - Riverside-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	50,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	166.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0853	0.0486	0.6655	1.9200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		191.6552	191.6552	4.5700e-003		191.7694
Total	**0.0853**	**0.0486**	**0.6655**	**1.9200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**191.6552**	**191.6552**	**4.5700e-003**		**191.7694**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**6.9103**	**0.0621**	**6.9724**	**3.7985**	**0.0621**	**3.8606**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0853	0.0486	0.6655	1.9200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		191.6552	191.6552	4.5700e-003		191.7694
Total	**0.0853**	**0.0486**	**0.6655**	**1.9200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**191.6552**	**191.6552**	**4.5700e-003**		**191.7694**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0636	0.0000	7.0636	3.4403	0.0000	3.4403			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**7.0636**	**1.9853**	**9.0490**	**3.4403**	**1.8265**	**5.2668**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9471	86.9425	11.4329	0.3012	6.9969	0.2647	7.2617	1.9180	0.2533	2.1713		31,973.4016	31,973.4016	1.8571		32,019.8298
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0948	0.0540	0.7394	2.1400e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		212.9502	212.9502	5.0800e-003		213.0771
Total	**2.0419**	**86.9965**	**12.1723**	**0.3034**	**7.2205**	**0.2660**	**7.4865**	**1.9773**	**0.2545**	**2.2318**		**32,186.3518**	**32,186.3518**	**1.8622**		**32,232.9069**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7018	0.0000	2.7018	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**0.7616**	**3.3000**	**32.9991**	**0.0620**	**2.7018**	**0.1015**	**2.8034**	**1.3159**	**0.1015**	**1.4175**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9471	86.9425	11.4329	0.3012	6.9969	0.2647	7.2617	1.9180	0.2533	2.1713		31,973.4016	31,973.4016	1.8571		32,019.8298
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0948	0.0540	0.7394	2.1400e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		212.9502	212.9502	5.0800e-003		213.0771
Total	**2.0419**	**86.9965**	**12.1723**	**0.3034**	**7.2205**	**0.2660**	**7.4865**	**1.9773**	**0.2545**	**2.2318**		**32,186.3518**	**32,186.3518**	**1.8622**		**32,232.9069**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1214	4.8120	0.8586	0.0135	0.3330	9.1500e-003	0.3421	0.0959	8.7600e-003	0.1046		1,420.9053	1,420.9053	0.1017		1,423.4466
Worker	0.7870	0.4484	6.1372	0.0177	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,767.4865	1,767.4865	0.0421		1,768.5401
Total	**0.9084**	**5.2604**	**6.9958**	**0.0312**	**2.1885**	**0.0201**	**2.2086**	**0.5880**	**0.0188**	**0.6068**		**3,188.3918**	**3,188.3918**	**0.1438**		**3,191.9867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1214	4.8120	0.8586	0.0135	0.3330	9.1500e-003	0.3421	0.0959	8.7600e-003	0.1046		1,420.9053	1,420.9053	0.1017		1,423.4466
Worker	0.7870	0.4484	6.1372	0.0177	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,767.4865	1,767.4865	0.0421		1,768.5401
Total	**0.9084**	**5.2604**	**6.9958**	**0.0312**	**2.1885**	**0.0201**	**2.2086**	**0.5880**	**0.0188**	**0.6068**		**3,188.3918**	**3,188.3918**	**0.1438**		**3,191.9867**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1132	4.5400	0.7986	0.0134	0.3330	7.7000e-003	0.3407	0.0959	7.3600e-003	0.1032		1,408.8109	1,408.8109	0.0963		1,411.2177
Worker	0.7361	0.4035	5.6608	0.0171	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,702.9044	1,702.9044	0.0379		1,703.8508
Total	**0.8493**	**4.9435**	**6.4593**	**0.0304**	**2.1885**	**0.0184**	**2.2068**	**0.5879**	**0.0172**	**0.6051**		**3,111.7154**	**3,111.7154**	**0.1341**		**3,115.0685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1132	4.5400	0.7986	0.0134	0.3330	7.7000e-003	0.3407	0.0959	7.3600e-003	0.1032		1,408.8109	1,408.8109	0.0963		1,411.2177
Worker	0.7361	0.4035	5.6608	0.0171	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,702.9044	1,702.9044	0.0379		1,703.8508
Total	**0.8493**	**4.9435**	**6.4593**	**0.0304**	**2.1885**	**0.0184**	**2.2068**	**0.5879**	**0.0172**	**0.6051**		**3,111.7154**	**3,111.7154**	**0.1341**		**3,115.0685**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8233**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
Total	**0.0665**	**0.0365**	**0.5115**	**1.5400e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**153.8769**	**153.8769**	**3.4200e-003**		**153.9624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0010**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
Total	**0.0665**	**0.0365**	**0.5115**	**1.5400e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**153.8769**	**153.8769**	**3.4200e-003**		**153.9624**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**39.9485**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1463	0.0802	1.1253	3.4000e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		338.5292	338.5292	7.5300e-003		338.7173
Total	**0.1463**	**0.0802**	**1.1253**	**3.4000e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**338.5292**	**338.5292**	**7.5300e-003**		**338.7173**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**39.7737**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1463	0.0802	1.1253	3.4000e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		338.5292	338.5292	7.5300e-003		338.7173
Total	**0.1463**	**0.0802**	**1.1253**	**3.4000e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**338.5292**	**338.5292**	**7.5300e-003**		**338.7173**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236
Unmitigated	7.3697	14.7144	66.1231	0.2020	18.7797	0.1334	18.9130	4.9897	0.1236	5.1133		20,253.5078	20,253.5078	0.7246		20,271.6236

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	570.96	634.92	489.84	1,942,680	1,942,680
Fast Food Restaurant w/o Drive Thru	343.00	1,364.16	980.00	1,050,188	1,050,188
General Office Building	45.00	10.21	3.23	109,731	109,731
High Turnover (Sit Down Restaurant)	857.68	1,195.69	995.39	1,261,492	1,261,492
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	1,079.06	1,057.61	662.26	1,447,056	1,447,056
Regional Shopping Center	175.08	257.81	117.95	386,579	386,579
Strip Mall	61.45	234.70	234.70	211,085	211,085
Total	3,132.22	4,755.11	3,483.37	6,408,811	6,408,811

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.603778	0.040791	0.205896	0.127654	0.016847	0.000000	0.000000	0.000000	0.000000	0.000000	0.005033	0.000000	0.000000
Fast Food Restaurant w/o Drive Thru	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
General Office Building	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
High Turnover (Sit Down Restaurant)	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Other Asphalt Surfaces	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Quality Restaurant	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Regional Shopping Center	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Strip Mall	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Skyline Village AQ & GHG - Mitigated - Riverside-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
NaturalGas Unmitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4843.17	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1468.34	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	43.9216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5656.09	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1176.17	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	33.9995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	28.0997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4.84317	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1.46834	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	0.0439216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5.65609	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17617	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	0.0339995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	0.0280997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Unmitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Skyline Village AQ & GHG - Mitigated

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.62	1000sqft	0.11	4,620.00	0
Other Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Fast Food Restaurant w/o Drive Thru	1.96	1000sqft	0.04	1,960.00	0
High Turnover (Sit Down Restaurant)	7.55	1000sqft	0.17	7,550.00	0
Quality Restaurant	1.57	1000sqft	0.04	1,570.00	0
Condo/Townhouse	78.00	Dwelling Unit	4.88	78,000.00	223
Regional Shopping Center	5.59	1000sqft	0.13	5,590.00	0
Strip Mall	4.62	1000sqft	0.11	4,620.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land Use - The project is proposing to use the following land uses:
1. Mulitifamily housing (Condo/Townhouse): 78 DU
2. Fast Food Restaurant w/o Drive Thru: 1.96 TSU
3. General Office Building: 4.62 TSF
4. Drinking Place (High Turnover (Sit Down Restaurant)): 7.55 TSF
5. On-site Pavement (Other Asphalt Surfaces): 5.5 Acres
6. Coffee/Donut Shop Without Drive-Thru (Quality Restaurant): 1.57 TSF
7. Retail (Regional Shopping Center): 5.587 TSF
8. Day Spa (Strip Mall): 4.620 TSF

Construction Phase - Grading phase has been adjusted to accomodate the total daily 200 truck trips for hauling.

Grading - The project is expected to export a total of 400,000 cubic yards of earthwork off-site.

Vehicle Trips - Trip Generation rates are based on Skyline Village Commercial Project Traffic Impact Study, RK Engineering, 2020.

Woodstoves - Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	30.00	125.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.90	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDA	0.55	0.59

tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02

tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	4.9700e-003	0.00
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	MCY	4.5470e-003	5.0330e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13

tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	SBUS	9.3200e-004	0.00
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004

tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	UBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblGrading	AcresOfGrading	312.50	75.00
tblGrading	MaterialExported	0.00	400,000.00
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	94.36	673.64
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	ST_TR	42.04	50.80
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	SU_TR	72.16	421.82
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	SU_TR	20.43	50.80
tblVehicleTrips	WD_TR	5.81	7.32
tblVehicleTrips	WD_TR	716.00	175.00

tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	127.15	113.60
tblVehicleTrips	WD_TR	89.95	687.30
tblVehicleTrips	WD_TR	42.70	31.32
tblVehicleTrips	WD_TR	44.32	13.30
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	9.1353	156.6537	67.3566	0.4134	18.2675	3.2342	20.3131	9.9840	3.0051	11.8660	0.0000	42,874.6088	42,874.6088	4.7448	0.0000	42,993.2300
2022	40.0926	20.5273	21.8739	0.0551	2.1885	0.8276	3.0160	0.5879	0.7786	1.3665	0.0000	5,437.6172	5,437.6172	0.7523	0.0000	5,456.4241
Maximum	**40.0926**	**156.6537**	**67.3566**	**0.4134**	**18.2675**	**3.2342**	**20.3131**	**9.9840**	**3.0051**	**11.8660**	**0.0000**	**42,874.6088**	**42,874.6088**	**4.7448**	**0.0000**	**42,993.2300**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.1325	98.3565	70.3624	0.4134	12.1108	0.4326	12.5434	3.8812	0.4196	4.3008	0.0000	42,874.6088	42,874.6088	4.7448	0.0000	42,993.2300
2022	39.9177	7.1464	22.9707	0.0551	2.1885	0.0594	2.2478	0.5879	0.0582	0.6461	0.0000	5,437.6172	5,437.6172	0.7523	0.0000	5,456.4241
Maximum	**39.9177**	**98.3565**	**70.3624**	**0.4134**	**12.1108**	**0.4326**	**12.5434**	**3.8812**	**0.4196**	**4.3008**	**0.0000**	**42,874.6088**	**42,874.6088**	**4.7448**	**0.0000**	**42,993.2300**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**10.52**	**40.45**	**-4.60**	**0.00**	**30.10**	**87.89**	**36.60**	**57.73**	**87.37**	**62.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470
Total	**8.7428**	**17.2593**	**65.4816**	**0.1982**	**18.7797**	**0.3571**	**19.1368**	**4.9897**	**0.3474**	**5.3370**	**0.0000**	**21,340.6474**	**21,340.6474**	**0.7836**	**0.0543**	**21,376.4245**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Energy	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
Mobile	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470
Total	**8.7428**	**17.2593**	**65.4816**	**0.1982**	**18.7797**	**0.3571**	**19.1368**	**4.9897**	**0.3474**	**5.3370**	**0.0000**	**21,340.6474**	**21,340.6474**	**0.7836**	**0.0543**	**21,376.4245**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	9/3/2021	5	125	
3	Building Construction	Building Construction	4/24/2021	6/17/2022	5	300	
4	Paving	Paving	6/18/2022	7/15/2022	5	20	
5	Architectural Coating	Architectural Coating	7/16/2022	8/12/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.5

Residential Indoor: 157,950; Residential Outdoor: 52,650; Non-Residential Indoor: 38,865; Non-Residential Outdoor: 12,955; Striped Parking Area: 14,375 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	50,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	166.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0838	0.0503	0.5372	1.7200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		171.9348	171.9348	3.9700e-003		172.0342
Total	**0.0838**	**0.0503**	**0.5372**	**1.7200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**171.9348**	**171.9348**	**3.9700e-003**		**172.0342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9103	0.0000	6.9103	3.7985	0.0000	3.7985			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**6.9103**	**0.0621**	**6.9724**	**3.7985**	**0.0621**	**3.8606**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0838	0.0503	0.5372	1.7200e-003	0.2012	1.1900e-003	0.2024	0.0534	1.0900e-003	0.0545		171.9348	171.9348	3.9700e-003		172.0342
Total	**0.0838**	**0.0503**	**0.5372**	**1.7200e-003**	**0.2012**	**1.1900e-003**	**0.2024**	**0.0534**	**1.0900e-003**	**0.0545**		**171.9348**	**171.9348**	**3.9700e-003**		**172.0342**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0636	0.0000	7.0636	3.4403	0.0000	3.4403			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**7.0636**	**1.9853**	**9.0490**	**3.4403**	**1.8265**	**5.2668**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0489	87.5316	13.3366	0.2936	6.9969	0.2686	7.2655	1.9180	0.2570	2.1750		31,170.0807	31,170.0807	2.0317		31,220.8735
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0931	0.0559	0.5969	1.9200e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		191.0387	191.0387	4.4100e-003		191.1491
Total	**2.1419**	**87.5875**	**13.9334**	**0.2956**	**7.2205**	**0.2699**	**7.4904**	**1.9773**	**0.2582**	**2.2355**		**31,361.1194**	**31,361.1194**	**2.0361**		**31,412.0226**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7018	0.0000	2.7018	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0620		0.1015	0.1015		0.1015	0.1015	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**0.7616**	**3.3000**	**32.9991**	**0.0620**	**2.7018**	**0.1015**	**2.8034**	**1.3159**	**0.1015**	**1.4175**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0489	87.5316	13.3366	0.2936	6.9969	0.2686	7.2655	1.9180	0.2570	2.1750		31,170.0807	31,170.0807	2.0317		31,220.8735
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0931	0.0559	0.5969	1.9200e-003	0.2236	1.3200e-003	0.2249	0.0593	1.2100e-003	0.0605		191.0387	191.0387	4.4100e-003		191.1491
Total	**2.1419**	**87.5875**	**13.9334**	**0.2956**	**7.2205**	**0.2699**	**7.4904**	**1.9773**	**0.2582**	**2.2355**		**31,361.1194**	**31,361.1194**	**2.0361**		**31,412.0226**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1289	4.7706	1.0156	0.0130	0.3330	9.4300e-003	0.3424	0.0959	9.0200e-003	0.1049		1,367.4607	1,367.4607	0.1133		1,370.2924
Worker	0.7723	0.4637	4.9539	0.0159	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,585.6213	1,585.6213	0.0366		1,586.5373
Total	**0.9013**	**5.2343**	**5.9695**	**0.0289**	**2.1885**	**0.0204**	**2.2088**	**0.5880**	**0.0191**	**0.6070**		**2,953.0820**	**2,953.0820**	**0.1499**		**2,956.8297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1289	4.7706	1.0156	0.0130	0.3330	9.4300e-003	0.3424	0.0959	9.0200e-003	0.1049		1,367.4607	1,367.4607	0.1133		1,370.2924
Worker	0.7723	0.4637	4.9539	0.0159	1.8555	0.0109	1.8664	0.4921	0.0101	0.5022		1,585.6213	1,585.6213	0.0366		1,586.5373
Total	**0.9013**	**5.2343**	**5.9695**	**0.0289**	**2.1885**	**0.0204**	**2.2088**	**0.5880**	**0.0191**	**0.6070**		**2,953.0820**	**2,953.0820**	**0.1499**		**2,956.8297**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1204	4.4945	0.9481	0.0129	0.3330	7.9400e-003	0.3409	0.0959	7.6000e-003	0.1035		1,355.5211	1,355.5211	0.1074		1,358.2056
Worker	0.7245	0.4171	4.5624	0.0153	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,527.7626	1,527.7626	0.0330		1,528.5863
Total	**0.8449**	**4.9117**	**5.5105**	**0.0282**	**2.1885**	**0.0186**	**2.2070**	**0.5879**	**0.0174**	**0.6053**		**2,883.2837**	**2,883.2837**	**0.1403**		**2,886.7919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1204	4.4945	0.9481	0.0129	0.3330	7.9400e-003	0.3409	0.0959	7.6000e-003	0.1035		1,355.5211	1,355.5211	0.1074		1,358.2056
Worker	0.7245	0.4171	4.5624	0.0153	1.8555	0.0107	1.8661	0.4921	9.8000e-003	0.5019		1,527.7626	1,527.7626	0.0330		1,528.5863
Total	**0.8449**	**4.9117**	**5.5105**	**0.0282**	**2.1885**	**0.0186**	**2.2070**	**0.5879**	**0.0174**	**0.6053**		**2,883.2837**	**2,883.2837**	**0.1403**		**2,886.7919**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8233**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
Total	**0.0655**	**0.0377**	**0.4123**	**1.3800e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**138.0508**	**138.0508**	**2.9800e-003**		**138.1253**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.7205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0010**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
Total	**0.0655**	**0.0377**	**0.4123**	**1.3800e-003**	**0.1677**	**9.6000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**138.0508**	**138.0508**	**2.9800e-003**		**138.1253**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**39.9485**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1440	0.0829	0.9070	3.0500e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		303.7118	303.7118	6.5500e-003		303.8756
Total	**0.1440**	**0.0829**	**0.9070**	**3.0500e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**303.7118**	**303.7118**	**6.5500e-003**		**303.8756**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	39.7440					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**39.7737**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1440	0.0829	0.9070	3.0500e-003	0.3689	2.1200e-003	0.3710	0.0978	1.9500e-003	0.0998		303.7118	303.7118	6.5500e-003		303.8756
Total	**0.1440**	**0.0829**	**0.9070**	**3.0500e-003**	**0.3689**	**2.1200e-003**	**0.3710**	**0.0978**	**1.9500e-003**	**0.0998**		**303.7118**	**303.7118**	**6.5500e-003**		**303.8756**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470
Unmitigated	5.9163	14.8147	57.6861	0.1831	18.7797	0.1339	18.9135	4.9897	0.1241	5.1138		18,366.2563	18,366.2563	0.7156		18,384.1470

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	570.96	634.92	489.84	1,942,680	1,942,680
Fast Food Restaurant w/o Drive Thru	343.00	1,364.16	980.00	1,050,188	1,050,188
General Office Building	45.00	10.21	3.23	109,731	109,731
High Turnover (Sit Down Restaurant)	857.68	1,195.69	995.39	1,261,492	1,261,492
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	1,079.06	1,057.61	662.26	1,447,056	1,447,056
Regional Shopping Center	175.08	257.81	117.95	386,579	386,579
Strip Mall	61.45	234.70	234.70	211,085	211,085
Total	3,132.22	4,755.11	3,483.37	6,408,811	6,408,811

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.603778	0.040791	0.205896	0.127654	0.016847	0.000000	0.000000	0.000000	0.000000	0.000000	0.005033	0.000000	0.000000
Fast Food Restaurant w/o Drive Thru	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
General Office Building	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
High Turnover (Sit Down Restaurant)	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Other Asphalt Surfaces	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Quality Restaurant	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Regional Shopping Center	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Strip Mall	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Skyline Village AQ & GHG - Mitigated - Riverside-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603
NaturalGas Unmitigated	0.1429	1.2705	0.8822	7.7900e-003		0.0987	0.0987		0.0987	0.0987		1,558.7971	1,558.7971	0.0299	0.0286	1,568.0603

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4843.17	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1468.34	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	43.9216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5656.09	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1176.17	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	33.9995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	28.0997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	4.84317	0.0522	0.4463	0.1899	2.8500e-003		0.0361	0.0361		0.0361	0.0361		569.7842	569.7842	0.0109	0.0105	573.1701
Fast Food Restaurant w/o Drive Thru	1.46834	0.0158	0.1440	0.1209	8.6000e-004		0.0109	0.0109		0.0109	0.0109		172.7453	172.7453	3.3100e-003	3.1700e-003	173.7719
General Office Building	0.0439216	4.7000e-004	4.3100e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.1673	5.1673	1.0000e-004	9.0000e-005	5.1980
High Turnover (Sit Down Restaurant)	5.65609	0.0610	0.5545	0.4658	3.3300e-003		0.0421	0.0421		0.0421	0.0421		665.4221	665.4221	0.0128	0.0122	669.3764
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17617	0.0127	0.1153	0.0969	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003		138.3725	138.3725	2.6500e-003	2.5400e-003	139.1948
Regional Shopping Center	0.0339995	3.7000e-004	3.3300e-003	2.8000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9999	3.9999	8.0000e-005	7.0000e-005	4.0237
Strip Mall	0.0280997	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3059	3.3059	6.0000e-005	6.0000e-005	3.3255
Total		**0.1429**	**1.2705**	**0.8822**	**7.8000e-003**		**0.0987**	**0.0987**		**0.0987**	**0.0987**		**1,558.7971**	**1,558.7971**	**0.0299**	**0.0286**	**1,568.0603**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172
Unmitigated	2.6836	1.1741	6.9132	7.3600e-003		0.1245	0.1245		0.1245	0.1245	0.0000	1,415.5940	1,415.5940	0.0381	0.0257	1,424.2172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2178					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1423					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1287	1.0998	0.4680	7.0200e-003		0.0889	0.0889		0.0889	0.0889	0.0000	1,404.0000	1,404.0000	0.0269	0.0257	1,412.3433
Landscaping	0.1949	0.0743	6.4452	3.4000e-004		0.0356	0.0356		0.0356	0.0356		11.5940	11.5940	0.0112		11.8739
Total	**2.6836**	**1.1741**	**6.9132**	**7.3600e-003**		**0.1245**	**0.1245**		**0.1245**	**0.1245**	**0.0000**	**1,415.5940**	**1,415.5940**	**0.0381**	**0.0257**	**1,424.2172**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Annual Emission Calculations Output
(CalEEMod)

Skyline Village AQ & GHG - Unmitigated

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.62	1000sqft	0.11	4,620.00	0
Other Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Fast Food Restaurant w/o Drive Thru	1.96	1000sqft	0.04	1,960.00	0
High Turnover (Sit Down Restaurant)	7.55	1000sqft	0.17	7,550.00	0
Quality Restaurant	1.57	1000sqft	0.04	1,570.00	0
Condo/Townhouse	78.00	Dwelling Unit	4.88	78,000.00	223
Regional Shopping Center	5.59	1000sqft	0.13	5,590.00	0
Strip Mall	4.62	1000sqft	0.11	4,620.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Skyline Village AQ & GHG - Unmitigated - Riverside-South Coast County, Annual

Project Characteristics -

Land Use - The project is proposing to use the following land uses:
1. Mulitifamily housing (Condo/Townhouse): 78 DU
2. Fast Food Restaurant w/o Drive Thru: 1.96 TSU
3. General Office Building: 4.62 TSF
4. Drinking Place (High Turnover (Sit Down Restaurant)): 7.55 TSF
5. On-site Pavement (Other Asphalt Surfaces): 5.5 Acres
6. Coffee/Donut Shop Without Drive-Thru (Quality Restaurant): 1.57 TSF
7. Retail (Regional Shopping Center): 5.587 TSF
8. Day Spa (Strip Mall): 4.620 TSF

Grading - The project is expected to export a total of 400,000 cubic yards of earthwork off-site.

Architectural Coating -

Vehicle Trips - Trip Generation rates are based on Skyline Village Commercial Project Traffic Impact Study, RK Engineering, 2020

Woodstoves - Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.90	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01

tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02

tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	4.9700e-003	0.00
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	MCY	4.5470e-003	5.0330e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13

tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	SBUS	9.3200e-004	0.00

tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	UBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblGrading	MaterialExported	0.00	400,000.00
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	94.36	673.64
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	ST_TR	42.04	50.80
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	SU_TR	72.16	421.82
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	SU_TR	20.43	50.80
tblVehicleTrips	WD_TR	5.81	7.32

tblVehicleTrips	WD_TR	716.00	175.00
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	127.15	113.60
tblVehicleTrips	WD_TR	89.95	687.30
tblVehicleTrips	WD_TR	42.70	31.32
tblVehicleTrips	WD_TR	44.32	13.30
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4547	8.5028	3.3932	0.0249	0.8748	0.1448	1.0196	0.2790	0.1356	0.4146	0.0000	2,351.1049	2,351.1049	0.2036	0.0000	2,356.1942
2022	0.5690	1.3635	1.5006	3.6500e-003	0.1345	0.0562	0.1906	0.0362	0.0528	0.0889	0.0000	326.4901	326.4901	0.0474	0.0000	327.6751
Maximum	**0.5690**	**8.5028**	**3.3932**	**0.0249**	**0.8748**	**0.1448**	**1.0196**	**0.2790**	**0.1356**	**0.4146**	**0.0000**	**2,351.1049**	**2,351.1049**	**0.2036**	**0.0000**	**2,356.1942**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4547	8.5028	3.3932	0.0249	0.7230	0.1448	0.8678	0.2127	0.1356	0.3483	0.0000	2,351.1045	2,351.1045	0.2036	0.0000	2,356.1938
2022	0.5690	1.3635	1.5006	3.6500e-003	0.1345	0.0562	0.1906	0.0362	0.0528	0.0889	0.0000	326.4900	326.4900	0.0474	0.0000	327.6749
Maximum	**0.5690**	**8.5028**	**3.3932**	**0.0249**	**0.7230**	**0.1448**	**0.8678**	**0.2127**	**0.1356**	**0.3483**	**0.0000**	**2,351.1045**	**2,351.1045**	**0.2036**	**0.0000**	**2,356.1938**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.04**	**0.00**	**12.54**	**21.05**	**0.00**	**13.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	6.8731	6.8731
2	6-1-2021	8-31-2021	0.8379	0.8379
3	9-1-2021	11-30-2021	0.8281	0.8281
4	12-1-2021	2-28-2022	0.7683	0.7683
5	3-1-2022	5-31-2022	0.7591	0.7591
6	6-1-2022	8-31-2022	0.6867	0.6867
		Highest	6.8731	6.8731

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622
Energy	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	621.0160	621.0160	0.0199	7.8300e-003	623.8481
Mobile	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216
Waste						0.0000	0.0000		0.0000	0.0000	33.4428	0.0000	33.4428	1.9764	0.0000	82.8530
Water						0.0000	0.0000		0.0000	0.0000	3.1797	57.1050	60.2847	0.3289	8.2000e-003	70.9516
Total	**1.2524**	**2.1650**	**8.7162**	**0.0258**	**2.4048**	**0.0408**	**2.4457**	**0.6397**	**0.0396**	**0.6793**	**36.6225**	**2,904.4209**	**2,941.0434**	**2.4092**	**0.0163**	**3,006.1365**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622
Energy	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	621.0160	621.0160	0.0199	7.8300e-003	623.8481
Mobile	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216
Waste						0.0000	0.0000		0.0000	0.0000	33.4428	0.0000	33.4428	1.9764	0.0000	82.8530
Water						0.0000	0.0000		0.0000	0.0000	3.1797	57.1050	60.2847	0.3289	8.2000e-003	70.9516
Total	**1.2524**	**2.1650**	**8.7162**	**0.0258**	**2.4048**	**0.0408**	**2.4457**	**0.6397**	**0.0396**	**0.6793**	**36.6225**	**2,904.4209**	**2,941.0434**	**2.4092**	**0.0163**	**3,006.1365**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Skyline Village AQ & GHG - Unmitigated - Riverside-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	4/23/2021	5	30	
3	Building Construction	Building Construction	4/24/2021	6/17/2022	5	300	
4	Paving	Paving	6/18/2022	7/15/2022	5	20	
5	Architectural Coating	Architectural Coating	7/16/2022	8/12/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.5

Residential Indoor: 157,950; Residential Outdoor: 52,650; Non-Residential Indoor: 38,865; Non-Residential Outdoor: 12,955; Striped Parking Area: 14,375 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	50,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	166.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.6000e-004	2.8300e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8000	0.8000	2.0000e-005	0.0000	0.8004
Total	**3.9000e-004**	**2.6000e-004**	**2.8300e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8000**	**0.8000**	**2.0000e-005**	**0.0000**	**0.8004**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0346	0.0000	0.0346	0.0190	0.0000	0.0190	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0346**	**0.0102**	**0.0448**	**0.0190**	**9.4000e-003**	**0.0284**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.6000e-004	2.8300e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8000	0.8000	2.0000e-005	0.0000	0.8004
Total	**3.9000e-004**	**2.6000e-004**	**2.8300e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8000**	**0.8000**	**2.0000e-005**	**0.0000**	**0.8004**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1554	0.0000	0.1554	0.0578	0.0000	0.0578	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034
Total	**0.0629**	**0.6960**	**0.4632**	**9.3000e-004**	**0.1554**	**0.0298**	**0.1852**	**0.0578**	**0.0274**	**0.0852**	**0.0000**	**81.7425**	**81.7425**	**0.0264**	**0.0000**	**82.4034**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1244	5.5548	0.7659	0.0186	0.4310	0.0167	0.4476	0.1183	0.0159	0.1343	0.0000	1,793.7314	1,793.7314	0.1096	0.0000	1,796.4701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	8.7000e-004	9.4400e-003	3.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	8.9000e-004	0.0000	2.6665	2.6665	6.0000e-005	0.0000	2.6681
Total	**0.1257**	**5.5556**	**0.7753**	**0.0187**	**0.4343**	**0.0167**	**0.4509**	**0.1192**	**0.0160**	**0.1351**	**0.0000**	**1,796.3980**	**1,796.3980**	**0.1096**	**0.0000**	**1,799.1382**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0595	0.0000	0.0595	0.0221	0.0000	0.0221	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033
Total	**0.0629**	**0.6960**	**0.4632**	**9.3000e-004**	**0.0595**	**0.0298**	**0.0892**	**0.0221**	**0.0274**	**0.0495**	**0.0000**	**81.7424**	**81.7424**	**0.0264**	**0.0000**	**82.4033**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1244	5.5548	0.7659	0.0186	0.4310	0.0167	0.4476	0.1183	0.0159	0.1343	0.0000	1,793.7314	1,793.7314	0.1096	0.0000	1,796.4701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	8.7000e-004	9.4400e-003	3.0000e-005	3.3000e-003	2.0000e-005	3.3200e-003	8.8000e-004	2.0000e-005	8.9000e-004	0.0000	2.6665	2.6665	6.0000e-005	0.0000	2.6681
Total	**0.1257**	**5.5556**	**0.7753**	**0.0187**	**0.4343**	**0.0167**	**0.4509**	**0.1192**	**0.0160**	**0.1351**	**0.0000**	**1,796.3980**	**1,796.3980**	**0.1096**	**0.0000**	**1,799.1382**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1711	1.5689	1.4918	2.4200e-003		0.0863	0.0863		0.0811	0.0811	0.0000	208.4736	208.4736	0.0503	0.0000	209.7309
Total	**0.1711**	**1.5689**	**1.4918**	**2.4200e-003**		**0.0863**	**0.0863**		**0.0811**	**0.0811**	**0.0000**	**208.4736**	**208.4736**	**0.0503**	**0.0000**	**209.7309**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.4364	0.0840	1.1900e-003	0.0296	8.3000e-004	0.0304	8.5300e-003	8.0000e-004	9.3300e-003	0.0000	114.1795	114.1795	8.7100e-003	0.0000	114.3972
Worker	0.0641	0.0432	0.4703	1.4700e-003	0.1642	9.8000e-004	0.1652	0.0436	9.1000e-004	0.0445	0.0000	132.7937	132.7937	3.0900e-003	0.0000	132.8710
Total	**0.0752**	**0.4795**	**0.5543**	**2.6600e-003**	**0.1938**	**1.8100e-003**	**0.1956**	**0.0521**	**1.7100e-003**	**0.0538**	**0.0000**	**246.9731**	**246.9731**	**0.0118**	**0.0000**	**247.2682**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1711	1.5689	1.4918	2.4200e-003		0.0863	0.0863		0.0811	0.0811	0.0000	208.4733	208.4733	0.0503	0.0000	209.7307
Total	**0.1711**	**1.5689**	**1.4918**	**2.4200e-003**		**0.0863**	**0.0863**		**0.0811**	**0.0811**	**0.0000**	**208.4733**	**208.4733**	**0.0503**	**0.0000**	**209.7307**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.4364	0.0840	1.1900e-003	0.0296	8.3000e-004	0.0304	8.5300e-003	8.0000e-004	9.3300e-003	0.0000	114.1795	114.1795	8.7100e-003	0.0000	114.3972
Worker	0.0641	0.0432	0.4703	1.4700e-003	0.1642	9.8000e-004	0.1652	0.0436	9.1000e-004	0.0445	0.0000	132.7937	132.7937	3.0900e-003	0.0000	132.8710
Total	**0.0752**	**0.4795**	**0.5543**	**2.6600e-003**	**0.1938**	**1.8100e-003**	**0.1956**	**0.0521**	**1.7100e-003**	**0.0538**	**0.0000**	**246.9731**	**246.9731**	**0.0118**	**0.0000**	**247.2682**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0352	139.0352	0.0333	0.0000	139.8679
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0352**	**139.0352**	**0.0333**	**0.0000**	**139.8679**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9500e-003	0.2741	0.0521	7.9000e-004	0.0197	4.7000e-004	0.0202	5.6800e-003	4.5000e-004	6.1300e-003	0.0000	75.4649	75.4649	5.5000e-003	0.0000	75.6024
Worker	0.0400	0.0259	0.2888	9.4000e-004	0.1095	6.4000e-004	0.1101	0.0291	5.9000e-004	0.0297	0.0000	85.2986	85.2986	1.8500e-003	0.0000	85.3449
Total	**0.0470**	**0.3000**	**0.3410**	**1.7300e-003**	**0.1292**	**1.1100e-003**	**0.1303**	**0.0348**	**1.0400e-003**	**0.0358**	**0.0000**	**160.7634**	**160.7634**	**7.3500e-003**	**0.0000**	**160.9473**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0350	139.0350	0.0333	0.0000	139.8677
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0350**	**139.0350**	**0.0333**	**0.0000**	**139.8677**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9500e-003	0.2741	0.0521	7.9000e-004	0.0197	4.7000e-004	0.0202	5.6800e-003	4.5000e-004	6.1300e-003	0.0000	75.4649	75.4649	5.5000e-003	0.0000	75.6024
Worker	0.0400	0.0259	0.2888	9.4000e-004	0.1095	6.4000e-004	0.1101	0.0291	5.9000e-004	0.0297	0.0000	85.2986	85.2986	1.8500e-003	0.0000	85.3449
Total	**0.0470**	**0.3000**	**0.3410**	**1.7300e-003**	**0.1292**	**1.1100e-003**	**0.1303**	**0.0348**	**1.0400e-003**	**0.0358**	**0.0000**	**160.7634**	**160.7634**	**7.3500e-003**	**0.0000**	**160.9473**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	7.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0182**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.9000e-004	4.3500e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2846	1.2846	3.0000e-005	0.0000	1.2853
Total	**6.0000e-004**	**3.9000e-004**	**4.3500e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2846**	**1.2846**	**3.0000e-005**	**0.0000**	**1.2853**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	7.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0182**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.9000e-004	4.3500e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2846	1.2846	3.0000e-005	0.0000	1.2853
Total	**6.0000e-004**	**3.9000e-004**	**4.3500e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2846**	**1.2846**	**3.0000e-005**	**0.0000**	**1.2853**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3974					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.3995**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.6000e-004	9.5700e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8262	2.8262	6.0000e-005	0.0000	2.8277
Total	**1.3300e-003**	**8.6000e-004**	**9.5700e-003**	**3.0000e-005**	**3.6300e-003**	**2.0000e-005**	**3.6500e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.8262**	**2.8262**	**6.0000e-005**	**0.0000**	**2.8277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3974					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.3995**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.6000e-004	9.5700e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8262	2.8262	6.0000e-005	0.0000	2.8277
Total	**1.3300e-003**	**8.6000e-004**	**9.5700e-003**	**3.0000e-005**	**3.6300e-003**	**2.0000e-005**	**3.6500e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.8262**	**2.8262**	**6.0000e-005**	**0.0000**	**2.8277**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216
Unmitigated	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	570.96	634.92	489.84	1,942,680	1,942,680
Fast Food Restaurant w/o Drive Thru	343.00	1,364.16	980.00	1,050,188	1,050,188
General Office Building	45.00	10.21	3.23	109,731	109,731
High Turnover (Sit Down Restaurant)	857.68	1,195.69	995.39	1,261,492	1,261,492
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	1,079.06	1,057.61	662.26	1,447,056	1,447,056
Regional Shopping Center	175.08	257.81	117.95	386,579	386,579
Strip Mall	61.45	234.70	234.70	211,085	211,085
Total	3,132.22	4,755.11	3,483.37	6,408,811	6,408,811

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.603778	0.040791	0.205896	0.127654	0.016847	0.000000	0.000000	0.000000	0.000000	0.000000	0.005033	0.000000	0.000000
Fast Food Restaurant w/o Drive Thru	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
General Office Building	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
High Turnover (Sit Down Restaurant)	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Other Asphalt Surfaces	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Quality Restaurant	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Regional Shopping Center	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Strip Mall	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Skyline Village AQ & GHG - Unmitigated - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	362.9397	362.9397	0.0150	3.1000e-003	364.2381
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	362.9397	362.9397	0.0150	3.1000e-003	364.2381
NaturalGas Mitigated	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	258.0764	258.0764	4.9500e-003	4.7300e-003	259.6100
NaturalGas Unmitigated	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	258.0764	258.0764	4.9500e-003	4.7300e-003	259.6100

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.76776e+006	9.5300e-003	0.0815	0.0347	5.2000e-004		6.5900e-003	6.5900e-003		6.5900e-003	6.5900e-003	0.0000	94.3342	94.3342	1.8100e-003	1.7300e-003	94.8947
Fast Food Restaurant w/o Drive Thru	535942	2.8900e-003	0.0263	0.0221	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.5999	28.5999	5.5000e-004	5.2000e-004	28.7699
General Office Building	16031.4	9.0000e-005	7.9000e-004	6.6000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8555	0.8555	2.0000e-005	2.0000e-005	0.8606
High Turnover (Sit Down Restaurant)	2.06447e+006	0.0111	0.1012	0.0850	6.1000e-004		7.6900e-003	7.6900e-003		7.6900e-003	7.6900e-003	0.0000	110.1681	110.1681	2.1100e-003	2.0200e-003	110.8228
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	429301	2.3100e-003	0.0210	0.0177	1.3000e-004		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	22.9091	22.9091	4.4000e-004	4.2000e-004	23.0453
Regional Shopping Center	12409.8	7.0000e-005	6.1000e-004	5.1000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6622	0.6622	1.0000e-005	1.0000e-005	0.6662
Strip Mall	10256.4	6.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5473	0.5473	1.0000e-005	1.0000e-005	0.5506
Total		**0.0261**	**0.2319**	**0.1610**	**1.4200e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**258.0764**	**258.0764**	**4.9500e-003**	**4.7300e-003**	**259.6100**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.76776e+006	9.5300e-003	0.0815	0.0347	5.2000e-004		6.5900e-003	6.5900e-003		6.5900e-003	6.5900e-003	0.0000	94.3342	94.3342	1.8100e-003	1.7300e-003	94.8947
Fast Food Restaurant w/o Drive Thru	535942	2.8900e-003	0.0263	0.0221	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.5999	28.5999	5.5000e-004	5.2000e-004	28.7699
General Office Building	16031.4	9.0000e-005	7.9000e-004	6.6000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8555	0.8555	2.0000e-005	2.0000e-005	0.8606
High Turnover (Sit Down Restaurant)	2.06447e+006	0.0111	0.1012	0.0850	6.1000e-004		7.6900e-003	7.6900e-003		7.6900e-003	7.6900e-003	0.0000	110.1681	110.1681	2.1100e-003	2.0200e-003	110.8228
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	429301	2.3100e-003	0.0210	0.0177	1.3000e-004		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	22.9091	22.9091	4.4000e-004	4.2000e-004	23.0453
Regional Shopping Center	12409.8	7.0000e-005	6.1000e-004	5.1000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6622	0.6622	1.0000e-005	1.0000e-005	0.6662
Strip Mall	10256.4	6.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5473	0.5473	1.0000e-005	1.0000e-005	0.5506
Total		**0.0261**	**0.2319**	**0.1610**	**1.4200e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**258.0764**	**258.0764**	**4.9500e-003**	**4.7300e-003**	**259.6100**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	440081	140.2191	5.7900e-003	1.2000e-003	140.7208
Fast Food Restaurant w/o Drive Thru	93060.8	29.6512	1.2200e-003	2.5000e-004	29.7572
General Office Building	43982.4	14.0137	5.8000e-004	1.2000e-004	14.0639
High Turnover (Sit Down Restaurant)	358474	114.2175	4.7200e-003	9.8000e-004	114.6261
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	74543.6	23.7512	9.8000e-004	2.0000e-004	23.8362
Regional Shopping Center	70601.7	22.4952	9.3000e-004	1.9000e-004	22.5757
Strip Mall	58350.6	18.5918	7.7000e-004	1.6000e-004	18.6583
Total		**362.9397**	**0.0150**	**3.1000e-003**	**364.2381**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	440081	140.2191	5.7900e-003	1.2000e-003	140.7208
Fast Food Restaurant w/o Drive Thru	93060.8	29.6512	1.2200e-003	2.5000e-004	29.7572
General Office Building	43982.4	14.0137	5.8000e-004	1.2000e-004	14.0639
High Turnover (Sit Down Restaurant)	358474	114.2175	4.7200e-003	9.8000e-004	114.6261
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	74543.6	23.7512	9.8000e-004	2.0000e-004	23.8362
Regional Shopping Center	70601.7	22.4952	9.3000e-004	1.9000e-004	22.5757
Strip Mall	58350.6	18.5918	7.7000e-004	1.6000e-004	18.6583
Total		**362.9397**	**0.0150**	**3.1000e-003**	**364.2381**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622
Unmitigated	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6100e-003	0.0138	5.8500e-003	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.9211	15.9211	3.1000e-004	2.9000e-004	16.0157
Landscaping	0.0244	9.2900e-003	0.8057	4.0000e-005		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003	0.0000	1.3147	1.3147	1.2700e-003	0.0000	1.3465
Total	**0.4567**	**0.0230**	**0.8115**	**1.3000e-004**		**5.5600e-003**	**5.5600e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**17.2358**	**17.2358**	**1.5800e-003**	**2.9000e-004**	**17.3622**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6100e-003	0.0138	5.8500e-003	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.9211	15.9211	3.1000e-004	2.9000e-004	16.0157
Landscaping	0.0244	9.2900e-003	0.8057	4.0000e-005		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003	0.0000	1.3147	1.3147	1.2700e-003	0.0000	1.3465
Total	**0.4567**	**0.0230**	**0.8115**	**1.3000e-004**		**5.5600e-003**	**5.5600e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**17.2358**	**17.2358**	**1.5800e-003**	**2.9000e-004**	**17.3622**

7.0 Water Detail

7.1 Mitigation Measures Water

Skyline Village AQ & GHG - Unmitigated - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	60.2847	0.3289	8.2000e-003	70.9516
Unmitigated	60.2847	0.3289	8.2000e-003	70.9516

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.08201 / 3.20388	34.0378	0.1669	4.1900e-003	39.4589
Fast Food Restaurant w/o Drive Thru	0.594926 / 0.037974	2.7914	0.0195	4.8000e-004	3.4217
General Office Building	0.82113 / 0.503273	5.4487	0.0270	6.8000e-004	6.3245
High Turnover (Sit Down Restaurant)	2.29168 / 0.146277	10.7525	0.0751	1.8500e-003	13.1807
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.476548 / 0.0304179	2.2360	0.0156	3.8000e-004	2.7409
Regional Shopping Center	0.414065 / 0.253782	2.7476	0.0136	3.4000e-004	3.1892
Strip Mall	0.342215 / 0.209745	2.2708	0.0112	2.8000e-004	2.6358
Total		**60.2847**	**0.3289**	**8.2000e-003**	**70.9516**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.08201 / 3.20388	34.0378	0.1669	4.1900e-003	39.4589
Fast Food Restaurant w/o Drive Thru	0.594926 / 0.037974	2.7914	0.0195	4.8000e-004	3.4217
General Office Building	0.82113 / 0.503273	5.4487	0.0270	6.8000e-004	6.3245
High Turnover (Sit Down Restaurant)	2.29168 / 0.146277	10.7525	0.0751	1.8500e-003	13.1807
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.476548 / 0.0304179	2.2360	0.0156	3.8000e-004	2.7409
Regional Shopping Center	0.414065 / 0.253782	2.7476	0.0136	3.4000e-004	3.1892
Strip Mall	0.342215 / 0.209745	2.2708	0.0112	2.8000e-004	2.6358
Total		**60.2847**	**0.3289**	**8.2000e-003**	**70.9516**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.4428	1.9764	0.0000	82.8530
Unmitigated	33.4428	1.9764	0.0000	82.8530

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	35.88	7.2833	0.4304	0.0000	18.0441
Fast Food Restaurant w/o Drive Thru	22.58	4.5835	0.2709	0.0000	11.3555
General Office Building	4.3	0.8729	0.0516	0.0000	2.1625
High Turnover (Sit Down Restaurant)	89.84	18.2367	1.0778	0.0000	45.1807
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.43	0.2903	0.0172	0.0000	0.7192
Regional Shopping Center	5.87	1.1916	0.0704	0.0000	2.9520
Strip Mall	4.85	0.9845	0.0582	0.0000	2.4391
Total		**33.4428**	**1.9764**	**0.0000**	**82.8530**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	35.88	7.2833	0.4304	0.0000	18.0441
Fast Food Restaurant w/o Drive Thru	22.58	4.5835	0.2709	0.0000	11.3555
General Office Building	4.3	0.8729	0.0516	0.0000	2.1625
High Turnover (Sit Down Restaurant)	89.84	18.2367	1.0778	0.0000	45.1807
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.43	0.2903	0.0172	0.0000	0.7192
Regional Shopping Center	5.87	1.1916	0.0704	0.0000	2.9520
Strip Mall	4.85	0.9845	0.0582	0.0000	2.4391
Total		**33.4428**	**1.9764**	**0.0000**	**82.8530**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Skyline Village AQ & GHG - Mitigated

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	4.62	1000sqft	0.11	4,620.00	0
Other Asphalt Surfaces	5.50	Acre	5.50	239,580.00	0
Fast Food Restaurant w/o Drive Thru	1.96	1000sqft	0.04	1,960.00	0
High Turnover (Sit Down Restaurant)	7.55	1000sqft	0.17	7,550.00	0
Quality Restaurant	1.57	1000sqft	0.04	1,570.00	0
Condo/Townhouse	78.00	Dwelling Unit	4.88	78,000.00	223
Regional Shopping Center	5.59	1000sqft	0.13	5,590.00	0
Strip Mall	4.62	1000sqft	0.11	4,620.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Skyline Village AQ & GHG - Mitigated - Riverside-South Coast County, Annual

Project Characteristics -

Land Use - Land Use - The project is proposing to use the following land uses:
1. Mulitifamily housing (Condo/Townhouse): 78 DU
2. Fast Food Restaurant w/o Drive Thru: 1.96 TSU
3. General Office Building: 4.62 TSF
4. Drinking Place (High Turnover (Sit Down Restaurant)): 7.55 TSF
5. On-site Pavement (Other Asphalt Surfaces): 5.5 Acres
6. Coffee/Donut Shop Without Drive-Thru (Quality Restaurant): 1.57 TSF
7. Retail (Regional Shopping Center): 5.587 TSF
8. Day Spa (Strip Mall): 4.620 TSF

Construction Phase - Grading phase has been adjusted to accomodate the total daily 200 truck trips for hauling.

Grading - The project is expected to export a total of 400,000 cubic yards of earthwork off-site.

Vehicle Trips - Trip Generation rates are based on Skyline Village Commercial Project Traffic Impact Study, RK Engineering, 2020.

Woodstoves - Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project.

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	30.00	125.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	3.90	0.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	HHD	0.07	0.01
tblFleetMix	LDA	0.55	0.60
tblFleetMix	LDA	0.55	0.59

tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDA	0.55	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02

tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	4.9700e-003	0.00
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	LHD2	4.9700e-003	1.0300e-003
tblFleetMix	MCY	4.5470e-003	5.0330e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MCY	4.5470e-003	4.9320e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13

tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MH	9.6500e-004	2.0000e-004
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	MHD	0.02	3.6330e-003
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	OBUS	1.3970e-003	2.9000e-004
tblFleetMix	SBUS	9.3200e-004	0.00
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004

tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	SBUS	9.3200e-004	1.9300e-004
tblFleetMix	UBUS	1.1600e-003	0.00
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblFleetMix	UBUS	1.1600e-003	2.4000e-004
tblGrading	AcresOfGrading	312.50	75.00
tblGrading	MaterialExported	0.00	400,000.00
tblVehicleTrips	ST_TR	5.67	8.14
tblVehicleTrips	ST_TR	2.46	2.21
tblVehicleTrips	ST_TR	94.36	673.64
tblVehicleTrips	ST_TR	49.97	46.12
tblVehicleTrips	ST_TR	42.04	50.80
tblVehicleTrips	SU_TR	4.84	6.28
tblVehicleTrips	SU_TR	1.05	0.70
tblVehicleTrips	SU_TR	72.16	421.82
tblVehicleTrips	SU_TR	25.24	21.10
tblVehicleTrips	SU_TR	20.43	50.80
tblVehicleTrips	WD_TR	5.81	7.32
tblVehicleTrips	WD_TR	716.00	175.00

tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	127.15	113.60
tblVehicleTrips	WD_TR	89.95	687.30
tblVehicleTrips	WD_TR	42.70	31.32
tblVehicleTrips	WD_TR	44.32	13.30
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.6578	10.7095	4.8898	0.0279	1.1713	0.2391	1.4104	0.4390	0.2224	0.6614	0.0000	2,618.4001	2,618.4001	0.2875	0.0000	2,625.5872
2022	0.5690	1.3635	1.5006	3.6500e-003	0.1345	0.0562	0.1906	0.0362	0.0528	0.0889	0.0000	326.4901	326.4901	0.0474	0.0000	327.6751
Maximum	**0.6578**	**10.7095**	**4.8898**	**0.0279**	**1.1713**	**0.2391**	**1.4104**	**0.4390**	**0.2224**	**0.6614**	**0.0000**	**2,618.4001**	**2,618.4001**	**0.2875**	**0.0000**	**2,625.5872**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2848	6.4556	5.1006	0.0279	0.8429	0.0289	0.8718	0.2756	0.0280	0.3036	0.0000	2,618.3994	2,618.3994	0.2875	0.0000	2,625.5865
2022	0.4763	0.4487	1.5938	3.6500e-003	0.1345	4.0000e-003	0.1385	0.0362	3.9200e-003	0.0401	0.0000	326.4900	326.4900	0.0474	0.0000	327.6749
Maximum	**0.4763**	**6.4556**	**5.1006**	**0.0279**	**0.8429**	**0.0289**	**0.8718**	**0.2756**	**0.0280**	**0.3036**	**0.0000**	**2,618.3994**	**2,618.3994**	**0.2875**	**0.0000**	**2,625.5865**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**37.96**	**42.81**	**-4.76**	**0.00**	**25.15**	**88.87**	**36.90**	**34.39**	**88.39**	**54.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	4.5310	2.7944
2	6-1-2021	8-31-2021	5.4257	3.3459
3	9-1-2021	11-30-2021	0.9777	0.3828
4	12-1-2021	2-28-2022	0.7683	0.2716
5	3-1-2022	5-31-2022	0.7591	0.2741
6	6-1-2022	8-31-2022	0.6867	0.4752
		Highest	5.4257	3.3459

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622
Energy	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	621.0160	621.0160	0.0199	7.8300e-003	623.8481
Mobile	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216
Waste						0.0000	0.0000		0.0000	0.0000	33.4428	0.0000	33.4428	1.9764	0.0000	82.8530
Water						0.0000	0.0000		0.0000	0.0000	3.1797	57.1050	60.2847	0.3289	8.2000e-003	70.9516
Total	**1.2524**	**2.1650**	**8.7162**	**0.0258**	**2.4048**	**0.0408**	**2.4457**	**0.6397**	**0.0396**	**0.6793**	**36.6225**	**2,904.4209**	**2,941.0434**	**2.4092**	**0.0163**	**3,006.1365**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622
Energy	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	621.0160	621.0160	0.0199	7.8300e-003	623.8481
Mobile	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216
Waste						0.0000	0.0000		0.0000	0.0000	33.4428	0.0000	33.4428	1.9764	0.0000	82.8530
Water						0.0000	0.0000		0.0000	0.0000	3.1797	57.1050	60.2847	0.3289	8.2000e-003	70.9516
Total	**1.2524**	**2.1650**	**8.7162**	**0.0258**	**2.4048**	**0.0408**	**2.4457**	**0.6397**	**0.0396**	**0.6793**	**36.6225**	**2,904.4209**	**2,941.0434**	**2.4092**	**0.0163**	**3,006.1365**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/13/2021	9/3/2021	5	125	
3	Building Construction	Building Construction	4/24/2021	6/17/2022	5	300	
4	Paving	Paving	6/18/2022	7/15/2022	5	20	
5	Architectural Coating	Architectural Coating	7/16/2022	8/12/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.5

Residential Indoor: 157,950; Residential Outdoor: 52,650; Non-Residential Indoor: 38,865; Non-Residential Outdoor: 12,955; Striped Parking Area: 14,375 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	50,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	166.00	52.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	33.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.6000e-004	2.8300e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8000	0.8000	2.0000e-005	0.0000	0.8004
Total	**3.9000e-004**	**2.6000e-004**	**2.8300e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8000**	**0.8000**	**2.0000e-005**	**0.0000**	**0.8004**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0346	0.0000	0.0346	0.0190	0.0000	0.0190	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**2.3300e-003**	**0.0101**	**0.1043**	**1.9000e-004**	**0.0346**	**3.1000e-004**	**0.0349**	**0.0190**	**3.1000e-004**	**0.0193**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.6000e-004	2.8300e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8000	0.8000	2.0000e-005	0.0000	0.8004
Total	**3.9000e-004**	**2.6000e-004**	**2.8300e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8000**	**0.8000**	**2.0000e-005**	**0.0000**	**0.8004**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4415	0.0000	0.4415	0.2150	0.0000	0.2150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2620	2.9000	1.9299	3.8800e-003		0.1241	0.1241		0.1142	0.1142	0.0000	340.5936	340.5936	0.1102	0.0000	343.3475
Total	**0.2620**	**2.9000**	**1.9299**	**3.8800e-003**	**0.4415**	**0.1241**	**0.5656**	**0.2150**	**0.1142**	**0.3292**	**0.0000**	**340.5936**	**340.5936**	**0.1102**	**0.0000**	**343.3475**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1244	5.5548	0.7659	0.0186	0.4310	0.0167	0.4476	0.1183	0.0159	0.1343	0.0000	1,793.7314	1,793.7314	0.1096	0.0000	1,796.4701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3600e-003	3.6100e-003	0.0394	1.2000e-004	0.0137	8.0000e-005	0.0138	3.6500e-003	8.0000e-005	3.7200e-003	0.0000	11.1106	11.1106	2.6000e-004	0.0000	11.1171
Total	**0.1297**	**5.5584**	**0.8052**	**0.0188**	**0.4447**	**0.0167**	**0.4614**	**0.1220**	**0.0160**	**0.1380**	**0.0000**	**1,804.8420**	**1,804.8420**	**0.1098**	**0.0000**	**1,807.5871**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1689	0.0000	0.1689	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.2063	2.0624	3.8800e-003		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	340.5932	340.5932	0.1102	0.0000	343.3471
Total	**0.0476**	**0.2063**	**2.0624**	**3.8800e-003**	**0.1689**	**6.3500e-003**	**0.1752**	**0.0822**	**6.3500e-003**	**0.0886**	**0.0000**	**340.5932**	**340.5932**	**0.1102**	**0.0000**	**343.3471**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1244	5.5548	0.7659	0.0186	0.4310	0.0167	0.4476	0.1183	0.0159	0.1343	0.0000	1,793.7314	1,793.7314	0.1096	0.0000	1,796.4701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3600e-003	3.6100e-003	0.0394	1.2000e-004	0.0137	8.0000e-005	0.0138	3.6500e-003	8.0000e-005	3.7200e-003	0.0000	11.1106	11.1106	2.6000e-004	0.0000	11.1171
Total	**0.1297**	**5.5584**	**0.8052**	**0.0188**	**0.4447**	**0.0167**	**0.4614**	**0.1220**	**0.0160**	**0.1380**	**0.0000**	**1,804.8420**	**1,804.8420**	**0.1098**	**0.0000**	**1,807.5871**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1711	1.5689	1.4918	2.4200e-003		0.0863	0.0863		0.0811	0.0811	0.0000	208.4736	208.4736	0.0503	0.0000	209.7309
Total	**0.1711**	**1.5689**	**1.4918**	**2.4200e-003**		**0.0863**	**0.0863**		**0.0811**	**0.0811**	**0.0000**	**208.4736**	**208.4736**	**0.0503**	**0.0000**	**209.7309**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.4364	0.0840	1.1900e-003	0.0296	8.3000e-004	0.0304	8.5300e-003	8.0000e-004	9.3300e-003	0.0000	114.1795	114.1795	8.7100e-003	0.0000	114.3972
Worker	0.0641	0.0432	0.4703	1.4700e-003	0.1642	9.8000e-004	0.1652	0.0436	9.1000e-004	0.0445	0.0000	132.7937	132.7937	3.0900e-003	0.0000	132.8710
Total	**0.0752**	**0.4795**	**0.5543**	**2.6600e-003**	**0.1938**	**1.8100e-003**	**0.1956**	**0.0521**	**1.7100e-003**	**0.0538**	**0.0000**	**246.9731**	**246.9731**	**0.0118**	**0.0000**	**247.2682**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0295	0.2011	1.5714	2.4200e-003		3.6700e-003	3.6700e-003		3.6700e-003	3.6700e-003	0.0000	208.4733	208.4733	0.0503	0.0000	209.7307
Total	**0.0295**	**0.2011**	**1.5714**	**2.4200e-003**		**3.6700e-003**	**3.6700e-003**		**3.6700e-003**	**3.6700e-003**	**0.0000**	**208.4733**	**208.4733**	**0.0503**	**0.0000**	**209.7307**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.4364	0.0840	1.1900e-003	0.0296	8.3000e-004	0.0304	8.5300e-003	8.0000e-004	9.3300e-003	0.0000	114.1795	114.1795	8.7100e-003	0.0000	114.3972
Worker	0.0641	0.0432	0.4703	1.4700e-003	0.1642	9.8000e-004	0.1652	0.0436	9.1000e-004	0.0445	0.0000	132.7937	132.7937	3.0900e-003	0.0000	132.8710
Total	**0.0752**	**0.4795**	**0.5543**	**2.6600e-003**	**0.1938**	**1.8100e-003**	**0.1956**	**0.0521**	**1.7100e-003**	**0.0538**	**0.0000**	**246.9731**	**246.9731**	**0.0118**	**0.0000**	**247.2682**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1024	0.9369	0.9818	1.6200e-003		0.0485	0.0485		0.0457	0.0457	0.0000	139.0352	139.0352	0.0333	0.0000	139.8679
Total	**0.1024**	**0.9369**	**0.9818**	**1.6200e-003**		**0.0485**	**0.0485**		**0.0457**	**0.0457**	**0.0000**	**139.0352**	**139.0352**	**0.0333**	**0.0000**	**139.8679**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9500e-003	0.2741	0.0521	7.9000e-004	0.0197	4.7000e-004	0.0202	5.6800e-003	4.5000e-004	6.1300e-003	0.0000	75.4649	75.4649	5.5000e-003	0.0000	75.6024
Worker	0.0400	0.0259	0.2888	9.4000e-004	0.1095	6.4000e-004	0.1101	0.0291	5.9000e-004	0.0297	0.0000	85.2986	85.2986	1.8500e-003	0.0000	85.3449
Total	**0.0470**	**0.3000**	**0.3410**	**1.7300e-003**	**0.1292**	**1.1100e-003**	**0.1303**	**0.0348**	**1.0400e-003**	**0.0358**	**0.0000**	**160.7634**	**160.7634**	**7.3500e-003**	**0.0000**	**160.9473**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.1341	1.0476	1.6200e-003		2.4500e-003	2.4500e-003		2.4500e-003	2.4500e-003	0.0000	139.0350	139.0350	0.0333	0.0000	139.8677
Total	**0.0197**	**0.1341**	**1.0476**	**1.6200e-003**		**2.4500e-003**	**2.4500e-003**		**2.4500e-003**	**2.4500e-003**	**0.0000**	**139.0350**	**139.0350**	**0.0333**	**0.0000**	**139.8677**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.9500e-003	0.2741	0.0521	7.9000e-004	0.0197	4.7000e-004	0.0202	5.6800e-003	4.5000e-004	6.1300e-003	0.0000	75.4649	75.4649	5.5000e-003	0.0000	75.6024
Worker	0.0400	0.0259	0.2888	9.4000e-004	0.1095	6.4000e-004	0.1101	0.0291	5.9000e-004	0.0297	0.0000	85.2986	85.2986	1.8500e-003	0.0000	85.3449
Total	**0.0470**	**0.3000**	**0.3410**	**1.7300e-003**	**0.1292**	**1.1100e-003**	**0.1303**	**0.0348**	**1.0400e-003**	**0.0358**	**0.0000**	**160.7634**	**160.7634**	**7.3500e-003**	**0.0000**	**160.9473**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	7.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0182**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.9000e-004	4.3500e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2846	1.2846	3.0000e-005	0.0000	1.2853
Total	**6.0000e-004**	**3.9000e-004**	**4.3500e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2846**	**1.2846**	**3.0000e-005**	**0.0000**	**1.2853**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	7.2100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0100**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.9000e-004	4.3500e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2846	1.2846	3.0000e-005	0.0000	1.2853
Total	**6.0000e-004**	**3.9000e-004**	**4.3500e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2846**	**1.2846**	**3.0000e-005**	**0.0000**	**1.2853**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3974					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.3995**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.6000e-004	9.5700e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8262	2.8262	6.0000e-005	0.0000	2.8277
Total	**1.3300e-003**	**8.6000e-004**	**9.5700e-003**	**3.0000e-005**	**3.6300e-003**	**2.0000e-005**	**3.6500e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.8262**	**2.8262**	**6.0000e-005**	**0.0000**	**2.8277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3974					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.3977**	**1.2900e-003**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.6000e-004	9.5700e-003	3.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8262	2.8262	6.0000e-005	0.0000	2.8277
Total	**1.3300e-003**	**8.6000e-004**	**9.5700e-003**	**3.0000e-005**	**3.6300e-003**	**2.0000e-005**	**3.6500e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.8262**	**2.8262**	**6.0000e-005**	**0.0000**	**2.8277**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216
Unmitigated	0.7696	1.9101	7.7437	0.0243	2.4048	0.0173	2.4221	0.6397	0.0160	0.6557	0.0000	2,209.0641	2,209.0641	0.0823	0.0000	2,211.1216

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	570.96	634.92	489.84	1,942,680	1,942,680
Fast Food Restaurant w/o Drive Thru	343.00	1,364.16	980.00	1,050,188	1,050,188
General Office Building	45.00	10.21	3.23	109,731	109,731
High Turnover (Sit Down Restaurant)	857.68	1,195.69	995.39	1,261,492	1,261,492
Other Asphalt Surfaces	0.00	0.00	0.00		
Quality Restaurant	1,079.06	1,057.61	662.26	1,447,056	1,447,056
Regional Shopping Center	175.08	257.81	117.95	386,579	386,579
Strip Mall	61.45	234.70	234.70	211,085	211,085
Total	3,132.22	4,755.11	3,483.37	6,408,811	6,408,811

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.603778	0.040791	0.205896	0.127654	0.016847	0.000000	0.000000	0.000000	0.000000	0.000000	0.005033	0.000000	0.000000
Fast Food Restaurant w/o Drive Thru	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
General Office Building	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
High Turnover (Sit Down Restaurant)	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Other Asphalt Surfaces	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Quality Restaurant	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Regional Shopping Center	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200
Strip Mall	0.591703	0.039976	0.201779	0.125101	0.016510	0.001030	0.003633	0.014413	0.000290	0.000240	0.004932	0.000193	0.000200

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Skyline Village AQ & GHG - Mitigated - Riverside-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	362.9397	362.9397	0.0150	3.1000e-003	364.2381
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	362.9397	362.9397	0.0150	3.1000e-003	364.2381
NaturalGas Mitigated	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	258.0764	258.0764	4.9500e-003	4.7300e-003	259.6100
NaturalGas Unmitigated	0.0261	0.2319	0.1610	1.4200e-003		0.0180	0.0180		0.0180	0.0180	0.0000	258.0764	258.0764	4.9500e-003	4.7300e-003	259.6100

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.76776e+006	9.5300e-003	0.0815	0.0347	5.2000e-004		6.5900e-003	6.5900e-003		6.5900e-003	6.5900e-003	0.0000	94.3342	94.3342	1.8100e-003	1.7300e-003	94.8947
Fast Food Restaurant w/o Drive Thru	535942	2.8900e-003	0.0263	0.0221	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.5999	28.5999	5.5000e-004	5.2000e-004	28.7699
General Office Building	16031.4	9.0000e-005	7.9000e-004	6.6000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8555	0.8555	2.0000e-005	2.0000e-005	0.8606
High Turnover (Sit Down Restaurant)	2.06447e+006	0.0111	0.1012	0.0850	6.1000e-004		7.6900e-003	7.6900e-003		7.6900e-003	7.6900e-003	0.0000	110.1681	110.1681	2.1100e-003	2.0200e-003	110.8228
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	429301	2.3100e-003	0.0210	0.0177	1.3000e-004		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	22.9091	22.9091	4.4000e-004	4.2000e-004	23.0453
Regional Shopping Center	12409.8	7.0000e-005	6.1000e-004	5.1000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6622	0.6622	1.0000e-005	1.0000e-005	0.6662
Strip Mall	10256.4	6.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5473	0.5473	1.0000e-005	1.0000e-005	0.5506
Total		**0.0261**	**0.2319**	**0.1610**	**1.4200e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**258.0764**	**258.0764**	**4.9500e-003**	**4.7300e-003**	**259.6100**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.76776e+006	9.5300e-003	0.0815	0.0347	5.2000e-004		6.5900e-003	6.5900e-003		6.5900e-003	6.5900e-003	0.0000	94.3342	94.3342	1.8100e-003	1.7300e-003	94.8947
Fast Food Restaurant w/o Drive Thru	535942	2.8900e-003	0.0263	0.0221	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.5999	28.5999	5.5000e-004	5.2000e-004	28.7699
General Office Building	16031.4	9.0000e-005	7.9000e-004	6.6000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8555	0.8555	2.0000e-005	2.0000e-005	0.8606
High Turnover (Sit Down Restaurant)	2.06447e+006	0.0111	0.1012	0.0850	6.1000e-004		7.6900e-003	7.6900e-003		7.6900e-003	7.6900e-003	0.0000	110.1681	110.1681	2.1100e-003	2.0200e-003	110.8228
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	429301	2.3100e-003	0.0210	0.0177	1.3000e-004		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	22.9091	22.9091	4.4000e-004	4.2000e-004	23.0453
Regional Shopping Center	12409.8	7.0000e-005	6.1000e-004	5.1000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6622	0.6622	1.0000e-005	1.0000e-005	0.6662
Strip Mall	10256.4	6.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5473	0.5473	1.0000e-005	1.0000e-005	0.5506
Total		**0.0261**	**0.2319**	**0.1610**	**1.4200e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**258.0764**	**258.0764**	**4.9500e-003**	**4.7300e-003**	**259.6100**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	440081	140.2191	5.7900e-003	1.2000e-003	140.7208
Fast Food Restaurant w/o Drive Thru	93060.8	29.6512	1.2200e-003	2.5000e-004	29.7572
General Office Building	43982.4	14.0137	5.8000e-004	1.2000e-004	14.0639
High Turnover (Sit Down Restaurant)	358474	114.2175	4.7200e-003	9.8000e-004	114.6261
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	74543.6	23.7512	9.8000e-004	2.0000e-004	23.8362
Regional Shopping Center	70601.7	22.4952	9.3000e-004	1.9000e-004	22.5757
Strip Mall	58350.6	18.5918	7.7000e-004	1.6000e-004	18.6583
Total		**362.9397**	**0.0150**	**3.1000e-003**	**364.2381**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	440081	140.2191	5.7900e-003	1.2000e-003	140.7208
Fast Food Restaurant w/o Drive Thru	93060.8	29.6512	1.2200e-003	2.5000e-004	29.7572
General Office Building	43982.4	14.0137	5.8000e-004	1.2000e-004	14.0639
High Turnover (Sit Down Restaurant)	358474	114.2175	4.7200e-003	9.8000e-004	114.6261
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	74543.6	23.7512	9.8000e-004	2.0000e-004	23.8362
Regional Shopping Center	70601.7	22.4952	9.3000e-004	1.9000e-004	22.5757
Strip Mall	58350.6	18.5918	7.7000e-004	1.6000e-004	18.6583
Total		**362.9397**	**0.0150**	**3.1000e-003**	**364.2381**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622
Unmitigated	0.4567	0.0230	0.8115	1.3000e-004		5.5600e-003	5.5600e-003		5.5600e-003	5.5600e-003	0.0000	17.2358	17.2358	1.5700e-003	2.9000e-004	17.3622

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6100e-003	0.0138	5.8500e-003	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.9211	15.9211	3.1000e-004	2.9000e-004	16.0157
Landscaping	0.0244	9.2900e-003	0.8057	4.0000e-005		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003	0.0000	1.3147	1.3147	1.2700e-003	0.0000	1.3465
Total	**0.4567**	**0.0230**	**0.8115**	**1.3000e-004**		**5.5600e-003**	**5.5600e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**17.2358**	**17.2358**	**1.5800e-003**	**2.9000e-004**	**17.3622**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0397					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6100e-003	0.0138	5.8500e-003	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.9211	15.9211	3.1000e-004	2.9000e-004	16.0157
Landscaping	0.0244	9.2900e-003	0.8057	4.0000e-005		4.4500e-003	4.4500e-003		4.4500e-003	4.4500e-003	0.0000	1.3147	1.3147	1.2700e-003	0.0000	1.3465
Total	**0.4567**	**0.0230**	**0.8115**	**1.3000e-004**		**5.5600e-003**	**5.5600e-003**		**5.5600e-003**	**5.5600e-003**	**0.0000**	**17.2358**	**17.2358**	**1.5800e-003**	**2.9000e-004**	**17.3622**

7.0 Water Detail

7.1 Mitigation Measures Water

Skyline Village AQ & GHG - Mitigated - Riverside-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	60.2847	0.3289	8.2000e-003	70.9516
Unmitigated	60.2847	0.3289	8.2000e-003	70.9516

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.08201 / 3.20388	34.0378	0.1669	4.1900e-003	39.4589
Fast Food Restaurant w/o Drive Thru	0.594926 / 0.037974	2.7914	0.0195	4.8000e-004	3.4217
General Office Building	0.82113 / 0.503273	5.4487	0.0270	6.8000e-004	6.3245
High Turnover (Sit Down Restaurant)	2.29168 / 0.146277	10.7525	0.0751	1.8500e-003	13.1807
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.476548 / 0.0304179	2.2360	0.0156	3.8000e-004	2.7409
Regional Shopping Center	0.414065 / 0.253782	2.7476	0.0136	3.4000e-004	3.1892
Strip Mall	0.342215 / 0.209745	2.2708	0.0112	2.8000e-004	2.6358
Total		**60.2847**	**0.3289**	**8.2000e-003**	**70.9516**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	5.08201 / 3.20388	34.0378	0.1669	4.1900e-003	39.4589
Fast Food Restaurant w/o Drive Thru	0.594926 / 0.037974	2.7914	0.0195	4.8000e-004	3.4217
General Office Building	0.82113 / 0.503273	5.4487	0.0270	6.8000e-004	6.3245
High Turnover (Sit Down Restaurant)	2.29168 / 0.146277	10.7525	0.0751	1.8500e-003	13.1807
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.476548 / 0.0304179	2.2360	0.0156	3.8000e-004	2.7409
Regional Shopping Center	0.414065 / 0.253782	2.7476	0.0136	3.4000e-004	3.1892
Strip Mall	0.342215 / 0.209745	2.2708	0.0112	2.8000e-004	2.6358
Total		**60.2847**	**0.3289**	**8.2000e-003**	**70.9516**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	33.4428	1.9764	0.0000	82.8530
Unmitigated	33.4428	1.9764	0.0000	82.8530

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	35.88	7.2833	0.4304	0.0000	18.0441
Fast Food Restaurant w/o Drive Thru	22.58	4.5835	0.2709	0.0000	11.3555
General Office Building	4.3	0.8729	0.0516	0.0000	2.1625
High Turnover (Sit Down Restaurant)	89.84	18.2367	1.0778	0.0000	45.1807
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.43	0.2903	0.0172	0.0000	0.7192
Regional Shopping Center	5.87	1.1916	0.0704	0.0000	2.9520
Strip Mall	4.85	0.9845	0.0582	0.0000	2.4391
Total		**33.4428**	**1.9764**	**0.0000**	**82.8530**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	35.88	7.2833	0.4304	0.0000	18.0441
Fast Food Restaurant w/o Drive Thru	22.58	4.5835	0.2709	0.0000	11.3555
General Office Building	4.3	0.8729	0.0516	0.0000	2.1625
High Turnover (Sit Down Restaurant)	89.84	18.2367	1.0778	0.0000	45.1807
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.43	0.2903	0.0172	0.0000	0.7192
Regional Shopping Center	5.87	1.1916	0.0704	0.0000	2.9520
Strip Mall	4.85	0.9845	0.0582	0.0000	2.4391
Total		**33.4428**	**1.9764**	**0.0000**	**82.8530**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix C

City of Corona Climate Action Plan Screening Tables

Project score: 107.8 points out of 100.

113pts - 190,000 sf
88% = 99.44 pts

Table 1: Screening Table for GHG Reduction Measures for Residential Development

Feature	Description	Assigned Point Values	Project Points
Reduction Measure 2.1: Exceed Energy Efficiency Standards in New Residential Units			
2.1.A Building Envelope			
2.1.A.1 Insulation	• 2016 Title 24 Requirements (walls R-13, roof/attic R-30) • Modestly Enhanced Insulation (walls R-15, roof/attic R-38) • Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38) • Greatly Enhanced Insulation (spray foam wall insulated walls R-18 or higher, roof/attic R-38 or higher)	0 points 7 points 9 points 11 points	7
2.1.A.2 Windows	• 2016 Title 24 Windows (0.57 U-factor, 0.4 solar heat gain coefficient [SHGC]) • Modestly Enhanced Window (0.4 U-Factor, 0.32 SHGC) • Enhanced Window (0.32 U-Factor, 0.25 SHGC) • Greatly Enhanced Window (0.28 or less U-Factor, 0.22 or less SHGC)	0 points 3 points 4 points 5 points	5
2.1.A.3 Cool Roofs	• Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance) • Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance) • Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	6 points 7 points 8 points	7
2.1.A.4 Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage. • Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent) • Blower Door HERS Verified Envelope Leakage or equivalent	6 points 5 points	6
2.1.A.5 Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. • Modest Thermal Mass (10% of floor or 10% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials) • Enhanced Thermal Mass (20% of floor or 20% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials)	1 point 2 points	
2.1.B Indoor Space Efficiencies			
2.1.B.1 Heating/ Cooling Distribution System	• Minimum Duct Insulation (R-4.2 required) • Modest Duct insulation (R-6) • Enhanced Duct Insulation (R-8) • Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)	0 points 4 points 5 points 7 points	
2.1.B.2 Space Heating/ Cooling Equipment	• 2016 Title 24 Minimum HVAC Efficiency (SEER 13/75% AFUE or 7.7 HSPF) • Improved Efficiency HVAC (SEER 14/78% AFUE or 8 HSPF) • High Efficiency HVAC (SEER 15/80% AFUE or 8.5 HSPF) • Very High Efficiency HVAC (SEER 16/82% AFUE or 9 HSPF)	0 points 2 points 4 points 5 points	4
2.1.B.3 Water Heaters	• 2016 Title 24 Minimum Efficiency (0.57 Energy Factor) • Improved Efficiency Water Heater (0.675 Energy Factor) • High Efficiency Water Heater (0.72 Energy Factor) • Very High Efficiency Water Heater (0.92 Energy Factor) • Solar Pre-heat System (0.2 Net Solar Fraction) • Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	0 points 7 points 9 points 11 points 2 points 5 points	9

Feature	Description	Assigned Point Values	Project Points
2.1.B.4 Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours. • All peripheral rooms within the living space have at least one window (required) • All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.) • All rooms daylighted	 0 points 1 point 1 point	1
2.1.B.5 Artificial Lighting	• Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficiency is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40watt) • High Efficiency Lights (50% of in-unit fixtures are high efficiency) • Very High Efficiency Lights (100% of in-unit fixtures are high efficiency)	5 points 6 points 7 points	7
2.1.B.6 Appliances	• Energy Star Refrigerator (new) • Energy Star Dishwasher (new) • Energy Star Washing Machine (new)	1 point 1 point 1 point	3
2.1.C Miscellaneous Residential Building Efficiencies			
2.1.C.1 Building Placement	North/south alignment of building or other building placement such that the orientation of the buildings optimizes natural heating, cooling, and lighting.	3 points	
2.1.C.2 Shading	At least 90% of south-facing glazing will be shaded by vegetation or overhangs at noon on June 21st.	2 points	
2.1.C.3 Energy Star Homes	EPA Energy Star for Homes (version 3 or above)	15 points	
2.1.C.4 Independent Energy Efficiency Calculations	Provide point values based upon energy efficiency modeling of the project. Note that engineering data will be required documenting the energy efficiency and point values based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
2.1.C.5 Other	This allows innovation by the applicant to provide design features that increase the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
2.1.C.6 Existing Residential Retrofits	Having residential developments within walking and biking distances of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled (VMT). The suburban project will have at least three of the following on site and/or off site within ¼-mile: Residential Development, Retail Development, Park, Open Space, or Office. The mixed-use development should encourage walking and other non-auto modes of transport from residential to office/commercial locations (and vice versa). The project should minimize the need for external trips by including services/facilities for daycare, banking/ATM, restaurants, vehicle refueling, and shopping.	TBD	

Feature	Description	Assigned Point Values	Project Points
Reduction Measure 9.1: Clean Energy			
9.1.A Residential Renewable Energy Generation			
9.1.A.1 Photovoltaic	Solar Photovoltaic panels installed on individual homes or in collective neighborhood arrangements such that the total power provided augments: • 30 percent of the power needs of the project • 40 percent of the power needs of the project • 50 percent of the power needs of the project • 60 percent of the power needs of the project • 70 percent of the power needs of the project • 80 percent of the power needs of the project • 90 percent of the power needs of the project • 100 percent of the power needs of the project	 9 points 12 points 17 points 20 points 23 points 25 points 28 points 31 points	9
9.1.A.2 Wind Turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the areas' capability to support wind turbines should be evaluated prior to choosing this feature. Individual wind turbines at homes or collective neighborhood arrangements of wind turbines such that the total power provided augments: • 30 percent of the power needs of the project • 40 percent of the power needs of the project • 50 percent of the power needs of the project • 60 percent of the power needs of the project • 70 percent of the power needs of the project • 80 percent of the power needs of the project • 90 percent of the power needs of the project • 100 percent of the power needs of the project	 9 points 12 points 17 points 21 points 23 points 25 points 28 points 31 points	
9.1.A.3 Off-site Renewable Energy Project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing homes. These off-site renewable energy retrofit project proposals will be determined on a case-by-case basis and shall be accompanied by a detailed plan that documents the quantity of renewable energy the proposal would generate. Point values will be determined based upon the energy generated by the proposal.	TBD	
9.1.A.4 Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	
Reduction Measure 5.2: Exceed Water Efficiency Standards			
5.2.A Residential Irrigation and Landscaping			
5.2.A.1 Water Efficient Landscaping	• Limit conventional turf to < 25% of required landscape area • Limit conventional turf to < 50% of required landscape area • No conventional turf (warm season turf to < 50% of required landscape area and/or low water using plants are allowed) • Only California Native Plants that requires no irrigation or some supplemental irrigation	0 points 2 points 4 points 5 points	4
5.2.A.2 Water Efficient Irrigation Systems	• Low precipitation spray heads < .75"/hr or drip irrigation • Weather based irrigation control systems or moisture sensors (demonstrate 20% reduced water use)	1 point 2 points	2

Feature	Description	Assigned Point Values	Project Points
5.2.A.3 Stormwater Reuse Systems	Innovative on-site stormwater collection, filtration, and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	10
5.2.B Residential Potable Water			
5.2.B.1 Showers	Water Efficient Showerheads (2.0 gpm)	2 points	2
5.2.B.2 Toilets	Water Efficient Toilets (1.5 gpm)	2 points	2
5.2.B.3 Faucets	Water Efficient faucets (1.28 gpm)	2 points	2
5.2.B.4 Dishwasher	Water Efficient Dishwasher (6 gallons per cycle or less)	1 point	1
5.2.B.5 Washing Machine	Water Efficient Washing Machine (Water factor <5.5)	1 point	1
5.2.B.6 WaterSense	EPA WaterSense Certification	7 points	
5.2.C Increase Residential Reclaimed Water Use			
5.2.C.1 Recycled Water	5% of the total project's water use comes from recycled/reclaimed water	5 points	
Reduction Measure 7.1: Alternative Transportation Options			
7.1.A Increase Residential Density			
7.1.A.1 Residential Density	Designing the project with increased densities, where allowed by the General Plan and/or Zoning Ordinance, reduces GHG emissions associated with traffic in several ways. Increased densities affect the distance people travel and provide greater options for the modes of travel they choose. This strategy also provides a foundation for implementation of many other strategies, which would benefit from increased densities. 1 point is allowed for each 10% increase in density beyond 7 units/acre, up to 500% (50 points)	1–50 points	
7.1.B Mixed-Use Development			
7.1.B.1 Mixed-Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed-use projects will be determined based upon a Transportation Impact Analysis (TIA) demonstrating trip reductions and/or reductions in vehicle miles traveled. Suggested ranges: • Diversity of land uses complementing each other (2–28 points) • Increased destination accessibility other than transit (1–18 points) • Increased Transit Accessibility (1–25 points) • Infill location that reduces vehicle trips or VMT beyond the measures described above (points TBD based on traffic data).	TBD	10

Feature	Description	Assigned Point Values	Project Points
7.1.B.2 Residential Near Local Retail (Residential only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled (VMT). The suburban project will have at least three of the following on site and/or off site within ¼-mile: Residential Development, Retail Development, Park, Open Space, or Office. The mixed-use development should encourage walking and other non-auto modes of transport from residential to office/commercial locations (and vice versa). The project should minimize the need for external trips by including services/facilities for day care, banking/ATM, restaurants, vehicle refueling, and shopping.	1–16 points	16
7.1.C Traffic Flow Management Improvements			
7.1.C.1 Signal Synchronization	Techniques for improving traffic flow include: traffic signal coordination to reduce delay, incident management to increase response time to breakdowns and collisions, Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions, and speed management to reduce high free-flow speeds. • Signal synchronization • Traffic signals connected to existing ITS	 1 point/signal 3 points/signal	
7.1.D Increase Public Transit			
7.1.D.1 Public Transit Access	The point value of a projects ability to increase public transit use will be determined based upon a Transportation Impact Analysis (TIA) demonstrating decreased use of private vehicles and increased use of public transportation. Increased transit accessibility (1–15 points)	TBD	
Reduction Measure 7.2: Adopt and Implement a Bicycle Master Plan to Expand Bike Routes around the City			
7.2.A.1 Sidewalks	• Provide sidewalks on one side of the street (required) • Provide sidewalks on both sides of the street • Provide pedestrian linkage between residential and commercial uses within 1 mile	0 points 1 point 3 points	
7.2.A.2 Bicycle Paths	• Provide bicycle paths within project boundaries • Provide bicycle path linkages between residential and other land uses • Provide bicycle path linkages between residential and transit	TBD 2 points 5 points	2
Reduction Measure 8.1: Reduce Waste to Landfills			
8.1.A.1 Recycling	City-initiated recycling program diverting 100% of waste requires coordination in neighborhoods to realize this goal. The following recycling features will help the City fulfill this goal: • Provide green waste composting bins at each residential unit • Multi-family residential projects that provide dedicated recycling bins separated by types of recyclables combined with instructions/education program explaining how to use the bins and the importance or recycling	 4 points 3 points	3
Other GHG Reduction Feature Implementation			
O.A.1 Other GHG Emissions Reduction Features	This allows innovation by the applicant to provide residential design features for the GHG emissions from construction and/or operation of the project not provided in the table. Note that engineering data will be required documenting the GHG reduction amount and point values given based upon emission reductions calculations using approved models, methods, and protocols.	TBD	
Total Points Earned by Residential Project:			113

70 pts - 25,900 sf
12% = 8.4 pts

Table 2: Screening Table for GHG Reduction Measures for Commercial Development and Public Facilities

Feature	Description	Assigned Point Values	Project Points
Reduction Measure 4.1: Exceed Energy Efficiency Standards in New Commercial Units			
4.1.A Building Envelope			
4.1.A.1 Insulation	• 2017 Title 24 Requirements (walls R-13; roof/attic R-30) • Modestly Enhanced Insulation (walls R-13, roof/attic R-38) • Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38) • Greatly Enhanced Insulation (spray foam insulated walls R-15 or higher, roof/attic R-38 or higher)	0 points 9 points 11 points 12 points	11
4.1.A.2 Windows	• 2016 Title 24 Windows (0.57 U-factor, 0.4 SHGC) • Modestly Enhanced Window Insulation (0.4 U-factor, 0.32 SHGC) • Enhanced Window Insulation (0.32 U-factor, 0.25 SHGC) • Greatly Enhanced Window Insulation (0.28 or less U-factor, 0.22 or less SHGC)	0 points 4 points 5 points 7 points	5
4.1.A.3 Cool Roofs	• Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance) • Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance) • Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	7 points 8 points 10 points	8
4.1.A.4 Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage. • Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent) • Blower Door HERS Verified Envelope Leakage or equivalent	7 points 6 points	7
4.1.A.5 Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. • Modest Thermal Mass (10% of floor or 10% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials) • Enhanced Thermal Mass (20% of floor or 20% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials) • Enhanced Thermal Mass (80% of floor or 80% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials)	2 points 4 points 14 points	
4.1.B Indoor Space Efficiencies			
4.1.B.1 Heating/ Cooling Distribution System	• Minimum Duct Insulation (R-4.2 required) • Modest Duct insulation (R-6) • Enhanced Duct Insulation (R-8) • Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)	0 points 5 points 6 points 8 points	

Feature	Description	Assigned Point Values	Project Points
4.1.B.2 Space Heating/ Cooling Equipment	• 2016 Title 24 Minimum HVAC Efficiency (EER 13/75% AFUE or 7.7 HSPF) • Improved Efficiency HVAC (EER 14/78% AFUE or 8 HSPF) • High Efficiency HVAC (EER 15/80% AFUE or 8.5 HSPF) • Very High Efficiency HVAC (EER 16/82% AFUE or 9 HSPF)	0 points 4 points 5 points 7 points	4
4.1.B.3 Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	TBD	
4.1.B.4 Water Heaters	• 2016 Title 24 Minimum Efficiency (0.57 Energy Factor) • Improved Efficiency Water Heater (0.675 Energy Factor) • High Efficiency Water Heater (0.72 Energy Factor) • Very High Efficiency Water Heater (0.92 Energy Factor) • Solar Pre-heat System (0.2 Net Solar Fraction) • Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	0 points 8 points 10 points 11 points 2 points 5 points	11
4.1.B.5 Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours. • All peripheral rooms within building have at least one window or skylight • All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.) • All rooms daylighted	 0 points 1 point 1 point	
4.1.B.6 Artificial Lighting	• Efficient Lights (25% of in-unit fixtures considered high efficiency. High efficiency is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40watt) • High Efficiency Lights (50% of in-unit fixtures are high efficiency) • Very High Efficiency Lights (100% of in-unit fixtures are high efficiency)	5 points 7 points 8 points	7
4.1.B.7 Appliances	• Energy Star Commercial Refrigerator (new) • Energy Star Commercial Dishwasher (new) • Energy Star Commercial Clothes Washer	2 points 2 points 2 points	4
4.1.C Miscellaneous Commercial Building Efficiencies			
4.1.C.1 Building Placement	North/south alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting.	4 points	
4.1.C.2 Shading	At least 90% of south-facing glazing will be shaded by vegetation or overhangs at noon on Jun 21st.	6 points	
4.1.C.3 Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
4.1.C.4 Existing Commercial Buildings Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing commercial buildings to further the point value of their project. Retrofitting existing commercial buildings within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case-by-case basis and shall have the approval from the City of Corona Planning Department. The decision to allow applicants to participate in this program will be evaluated based upon, but not limited to the following: Will the energy efficiency retrofit project benefit low income or disadvantaged communities?	TBD	

Feature	Description	Assigned Point Values	Project Points
	Does the energy efficiency retrofit project provide co-benefits important to the City? Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.		
Reduction Measure 9.1: Clean Energy			
9.1.B Commercial/Industrial Renewable Energy Generation			
9.1.B.1 Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments: • 30 percent of the power needs of the project • 40 percent of the power needs of the project • 50 percent of the power needs of the project • 60 percent of the power needs of the project • 70 percent of the power needs of the project • 80 percent of the power needs of the project • 90 percent of the power needs of the project • 100 percent of the power needs of the project	 8 points 12 points 16 points 19 points 23 points 26 points 30 points 34 points	
9.1.B.2 Wind Turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature. Wind turbines as part of the commercial development such that the total power provided augments: • 30 percent of the power needs of the project • 40 percent of the power needs of the project • 50 percent of the power needs of the project • 60 percent of the power needs of the project • 70 percent of the power needs of the project • 80 percent of the power needs of the project • 90 percent of the power needs of the project • 100 percent of the power needs of the project	 8 points 12 points 16 points 19 points 23 points 26 points 30 points 34 points	
9.1.B.3 Off-site Renewable Energy Project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing residential or existing commercial/industrial. These off-site renewable energy retrofit project proposals will be determined on a case-by-case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate. Point values will be based upon the energy generated by the proposal.	TBD	
9.1.A.4 Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed would be decided based upon engineering data documenting the ability to generate electricity.	TBD	
Reduction Measure 5.2: Exceed Water Efficiency Standards			
5.2.D Commercial Irrigation and Landscaping			
5.2.D.1 Water Efficient Landscaping	• Eliminate conventional turf from landscaping • Only moderate water using plants • Only low water using plants • Only California Native landscape that requires no or only supplemental irrigation	0 point 2 points 3 points 5 points	3

Feature	Description	Assigned Point Values	Project Points
5.2.D.2 Water Efficient Irrigation Systems	• Low precipitation spray heads< .75"/hr or drip irrigation • Weather based irrigation control systems combined with drip irrigation (demonstrate 20% reduced water use)	1 point 3 points	3
5.2.D.3 Stormwater Reuse Systems	Innovative on-site stormwater collection, filtration, and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	
5.2.E Commercial Potable Water			
5.2.E.1 Showers	Water Efficient Showerheads (2.0 gpm)	2 points	
5.2.E.2 Toilets	• Water Efficient Toilets/Urinals (1.5 gpm) • Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	3 points 3 points	3
5.2.E.3 Faucets	Water Efficient faucets (1.28 gpm)	2 points	2
5.2.E.4 Commercial Dishwashers	Water Efficient dishwashers (20% water savings)	2 points	2
5.2.E.5 Commercial Laundry Washers	• Water Efficient laundry (15% water savings) • High Efficiency laundry Equipment that captures and reuses rinse water (30% water savings)	2 points 4 points	
5.2.E.6 Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	TBD	
5.2.F Increase Commercial/Industrial Reclaimed Water Use			
5.2.F.1 Recycled Water	Graywater (purple pipe) irrigation system on site	5 points	
Reduction Measure 7.1: Alternative Transportation Options			
7.1.E Mixed-Use Development			
7.1.E.1 Mixed-Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed-use projects will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled.	TBD	
7.1.E.2 Local Retail Near Residential (Commercial only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled.	TBD	
7.1.F Preferential Parking			
7.1.F.1 Parking	• Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles. • Provide larger parking spaces that can accommodate vans used for ride-sharing programs and reserve them for vanpools and include adequate passenger waiting/loading areas.	1 point 1 point	

Feature	Description	Assigned Point Values	Project Points
7.1.G Signal Synchronization and Intelligent Traffic Systems			
7.1.G.1 Signal Improvements	Techniques for improving traffic flow include: traffic signal coordination to reduce delay, incident management to increase response time to breakdowns and collisions, Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions, and speed management to reduce high free-flow speeds. • Synchronize signals along arterials used by project. • Connect signals along arterials to existing ITS.	 1 point/signal 3 points/signal	
7.1.H Increase Public Transit			
7.1.H.1 Public Transit	The point value of a projects ability to increase public transit use will be determined based upon a Transportation Impact Analysis (TIA) demonstrating decreased use of private vehicles and increased use of public transportation. Increased transit accessibility (1-15 points)	TBD	
Reduction Measure 7.2: Adopt and Implement a Bicycle Master Plan to Expand Bike Routes around the City			
7.2.B.1 Sidewalks	• Provide sidewalks on one side of the street (required) • Provide sidewalks on both sides of the street • Provide pedestrian linkage between commercial and residential land uses within 1 mile	0 point 1 point 3 points	
7.2.B.2 Bicycle Paths	• Provide bicycle paths within project boundaries • Provide bicycle path linkages between commercial and other land uses • Provide bicycle path linkages between commercial and transit	1 point 2 points 5 points	
Reduction Measure 8.1: Reduce Waste to Landfills			
8.1.B.1 Recycling	City initiated recycling program diverting 80% of waste requires coordination with commercial development to realize this goal. The following recycling features will help the City fulfill this goal: • Provide separated recycling bins within each commercial building/floor and provide large external recycling collection bins at central location for collection truck pick-up • Provide commercial/industrial recycling programs that fulfills an on-site goal of 80% diversion of solid waste	 2 points 5 points	
Other GHG Reduction Feature Implementation			
O.B.1 Other GHG Emissions Reduction Features	This allows innovation by the applicant to provide commercial design features that the GHG emissions from construction and/or operation of the project not provided in the table. Note that engineering data will be required documenting the GHG reduction amount and point values given based upon emission reductions calculations using approved models, methods, and protocols.	TBD	
Total Points Earned by Commercial/Industrial Project:			70