The Shops at Jurupa Valley

Air Quality and Greenhouse Gas Impact Study

City of Jurupa Valley, CA

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Sound Solutions for Planning and Design

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GLOSSARY OF TERMS

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH_4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
GHG	Greenhouse gas
HFCs	Hydrofluorocarbons
LST	Localized Significant Thresholds
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO_2	Nitrogen dioxide
N_2O	Nitrous oxide
O_3	Ozone
PFCs	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SF_6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
SRA	Source/Receptor Area
TAC	Toxic air contaminants
VOC	Volatile organic compounds
WRCC	Western Regional Climate Center

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This air quality and greenhouse gas (GHG) analysis was prepared to evaluate whether the estimated criteria pollutants and GHG emissions generated from the project would cause a significant impact to the air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The assessment is consistent with the methodology and emission factors endorsed by South Coast Air Quality Management District (SCAQMD), California Air Resource Board (CARB), and the United States Environmental Protection Agency (US EPA).

1.2 Project Summary

1.2.1 Site Location

The project site is located at the northeast corner of Mission Boulevard and Pyrite Street in Jurupa Valley, California, as shown in Exhibit A. The site's current land use classification is Commercial Retail (CR) according to the City of Jurupa Valley General Plan Land Use Map and the proposed use is commercial. Land uses surrounding the site include commercial, single-family residential, and a mobile home park to the south (across Mission Boulevard), single-family residential uses (across Pyrite Street) to the west, single-family residential uses and vacant land to the east, and the Interstate 60 Freeway to the north.

1.2.2 Project Description

The Project proposes to develop a convenience market/gas station with 12 vehicle fuel positions, a single-tunnel automated car wash, 151,300 square feet of retail space, 46,000 square feet of office space, a hotel with 60 rooms, and 18,400 square feet of drive-thru restaurant space on approximately 32 acres. Exhibit B demonstrates the site plan for the project.

Construction activities within the Project area will consist of site preparation, on-site grading, building, paving, and architectural coating. Table 1 summarizes the land use description for the Project Site.

Table 1: Land Use Summary

Land Use	Unit Amount	Size Metric
General Office Building	46.00	TSF
Fast Food Restaurant with Drive Thru	18.40	TSF
Hotel[2]	60	RM
Automobile Care Center[3]	4.80	TSF
Gasoline/Service Station[4]	12.00	Pump

Regional Shopping Center	151.30	TSF
Other Asphalt Surfaces	6.40	Ac
Other Non-Asphalt Surfaces	8.14	Ac
Parking Lot	1,324.00	Space
[1] TSF=thousand square foot, RM=room, Ac=Acre		
[2] Hotel is 2-stories with a 26,000 square foot footprint.		
[3] CalEEMod does not have a car wash land use available in its database; therefore, the proposed car wash was modeled as an Automobile Care Center (Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017, Land Use Code 942), as this is the closest land use to a car wash available.		
[4] Convenience Market is 3,500 SF.		

1.2.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc).

The closest existing sensitive receptors (to the site area) are the residential land uses located adjacent to the east, approximately 80 feet south (across Mission Boulevard), and approximately 60 feet west (across Pyrite Street) of the project site.

1.3 Executive Summary of Findings and Mitigation Measures

The following is a summary of the analysis results:

Construction-Source Emissions
Project construction-source emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. For localized emissions, the project will not exceed applicable Localized Significance Thresholds (LSTs) established by the SCAQMD.

Project construction-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-

term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

Operational-Source Emissions

Even with incorporation of mitigation, project operational-sourced emissions would still exceed applicable regional thresholds of significance established by the SCAQMD, **regional operational impacts are considered to be significant and unavoidable.** Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the Operations-Related Local Air Quality Impacts section of this report. Additionally, project-related traffic will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO "hotspots). Project operational-source emissions would therefore adversely affect sensitive receptors within the vicinity of the project.

Even with incorporation of mitigation, **project operational-source emissions exceed regional operational thresholds and would conflict with the Basin Air Quality Management Plan (AQMP). The project's emissions exceed SCAQMD regional thresholds and will result in a significant and unavoidable cumulative impact.** The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential operational-source odor impacts are therefore considered less-than significant.

The proposed project is estimated to have approximately 1.87MM gallons of through put per year which equates to an approximate 3.138 in a million maximum individual cancer risk (MICR) per SCAQMD's gasoline station health risk assessment (HRA) screening tables for receptors located at 50 meters from fuel source. The risk is below SCAQMD's 10 in a million threshold.

Even with incorporation of mitigation, project-related GHG emissions exceed the SCAQMD threshold of 3,000 MTCO2e per year for all land uses. **Therefore, project-related GHG emissions are considered to potentially have a significant and unavoidable cumulative impact to global climate change.** However, the project would be consistent with the goals of the CARB Scoping Plan, AB-32, SB-32 and the WRCOG Subregional Climate Action Plan (CAP); therefore, the project would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Mitigation Measures

A. <u>Construction Measures</u>

Adherence to SCAQMD Rule 403 is required.

Mitigation Measure 1. Architectural coatings applied to project buildings are to be limited to 50 grams per liter VOC and traffic paints shall be limited to 100 g/L VOC content per compliance with SCAQMD Rule 1113.

B. Operational Measures to Reduce Emissions

Mitigation Measure 1. The project applicant shall provide sidewalks within the project boundary connecting off-site.

Mitigation Measure 2. The project applicant shall require that all faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20% per CalGreen Standards.

Mitigation Measure 3. The project applicant shall require that water-efficient irrigation systems are used on-site per City requirements.

Mitigation Measure 4. The project applicant shall require that ENERGY STAR-compliant appliances are installed wherever appliances are required on-site.

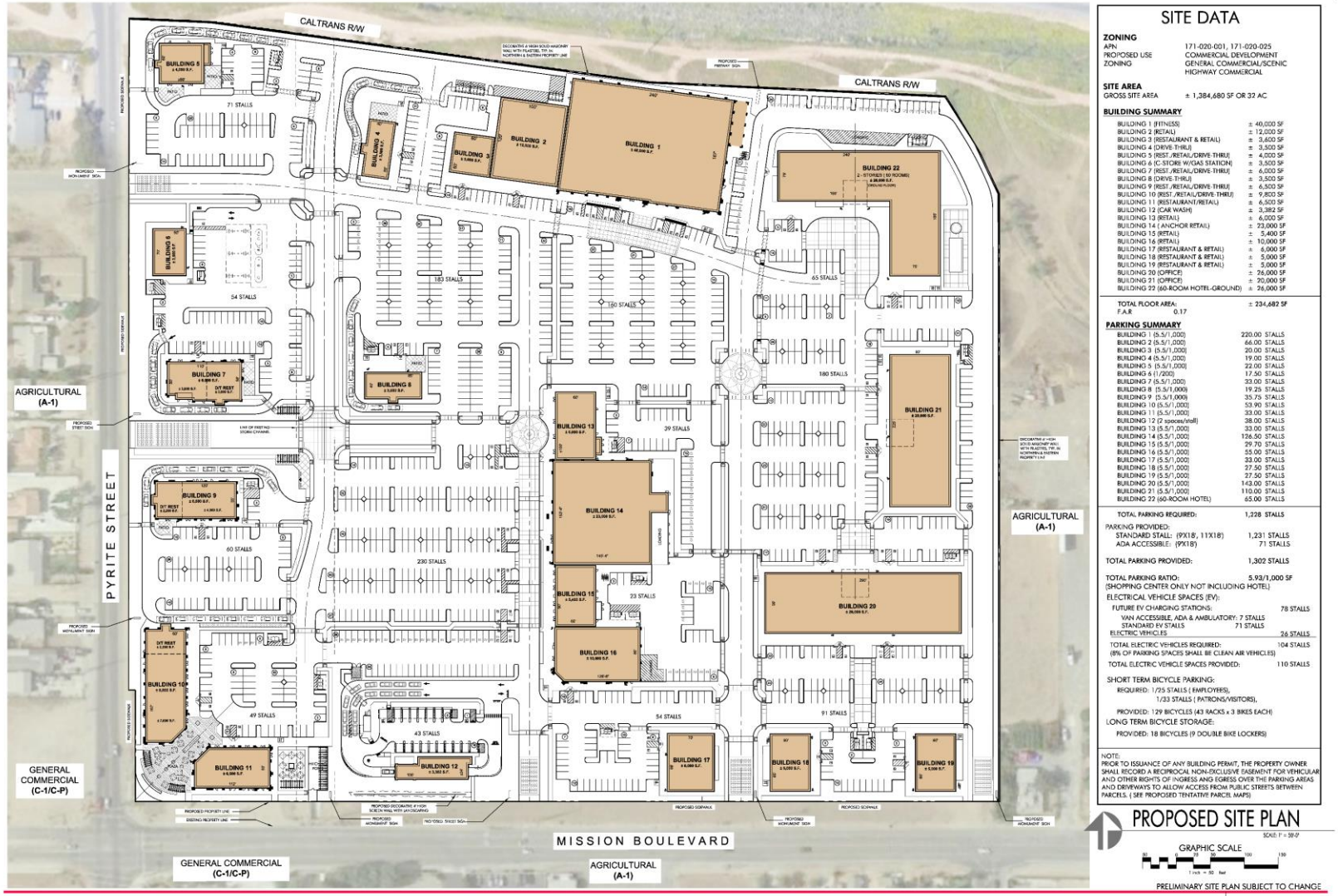
Mitigation Measure 5. The project applicant shall require recycling programs that reduces waste to landfills by a minimum of 75 percent (per AB 341).

Mitigation Measure 6. Re-application of architectural coatings to project buildings will be limited to 50 grams per liter VOC and traffic paints shall be limited to 100 g/L VOC content per compliance with SCAQMD Rule 1113.

Exhibit A
Location Map

Exhibit B

Site Plan



SITE DATA

ZONING

APN	171-020-001, 171-020-025
PROPOSED USE	COMMERCIAL DEVELOPMENT
ZONING	GENERAL COMMERCIAL/SCENIC HIGHWAY COMMERCIAL

SITE AREA

GROSS SITE AREA	± 1,384,680 SF OR 32 AC

BUILDING SUMMARY

BUILDING 1 (FITNESS)	± 40,000 SF
BUILDING 2 (RETAIL)	± 12,000 SF
BUILDING 3 (RESTAURANT & RETAIL)	± 3,600 SF
BUILDING 4 (DRIVE-THRU)	± 3,500 SF
BUILDING 5 (REST./RETAIL/DRIVE-THRU)	± 4,000 SF
BUILDING 6 (C-STORE W/GAS STATION)	± 3,500 SF
BUILDING 7 (REST./RETAIL/DRIVE-THRU)	± 6,000 SF
BUILDING 8 (DRIVE-THRU)	± 3,500 SF
BUILDING 9 (REST./RETAIL/DRIVE-THRU)	± 6,500 SF
BUILDING 10 (REST./RETAIL/DRIVE-THRU)	± 9,800 SF
BUILDING 11 (RESTAURANT/RETAIL)	± 6,500 SF
BUILDING 12 (CAR WASH)	± 3,382 SF
BUILDING 13 (RETAIL)	± 6,000 SF
BUILDING 14 (ANCHOR RETAIL)	± 23,000 SF
BUILDING 15 (RETAIL)	± 5,400 SF
BUILDING 16 (RETAIL)	± 10,000 SF
BUILDING 17 (RESTAURANT & RETAIL)	± 6,000 SF
BUILDING 18 (RESTAURANT & RETAIL)	± 5,000 SF
BUILDING 19 (RESTAURANT & RETAIL)	± 5,000 SF
BUILDING 20 (OFFICE)	± 26,000 SF
BUILDING 21 (OFFICE)	± 20,000 SF
BUILDING 22 (60-ROOM HOTEL-GROUND)	± 26,000 SF
TOTAL FLOOR AREA:	± 234,682 SF
F.A.R	0.17

PARKING SUMMARY

BUILDING 1 (5.5/1,000)	220.00 STALLS
BUILDING 2 (5.5/1,000)	66.00 STALLS
BUILDING 3 (5.5/1,000)	20.00 STALLS
BUILDING 4 (5.5/1,000)	19.00 STALLS
BUILDING 5 (5.5/1,000)	22.00 STALLS
BUILDING 6 (1/200)	17.50 STALLS
BUILDING 7 (5.5/1,000)	33.00 STALLS
BUILDING 8 (5.5/1,000)	19.25 STALLS
BUILDING 9 (5.5/1,000)	35.75 STALLS
BUILDING 10 (5.5/1,000)	53.90 STALLS
BUILDING 11 (5.5/1,000)	33.00 STALLS
BUILDING 12 (2 spaces/stall)	38.00 STALLS
BUILDING 13 (5.5/1,000)	33.00 STALLS
BUILDING 14 (5.5/1,000)	126.50 STALLS
BUILDING 15 (5.5/1,000)	29.70 STALLS
BUILDING 16 (5.5/1,000)	55.00 STALLS
BUILDING 17 (5.5/1,000)	33.00 STALLS
BUILDING 18 (5.5/1,000)	27.50 STALLS
BUILDING 19 (5.5/1,000)	27.50 STALLS
BUILDING 20 (5.5/1,000)	143.00 STALLS
BUILDING 21 (5.5/1,000)	110.00 STALLS
BUILDING 22 (60-ROOM HOTEL)	65.00 STALLS
TOTAL PARKING REQUIRED:	1,228 STALLS
PARKING PROVIDED:	
STANDARD STALL: (9'X18', 11'X18')	1,231 STALLS
ADA ACCESSIBLE: (9'X18')	71 STALLS
TOTAL PARKING PROVIDED:	1,302 STALLS
TOTAL PARKING RATIO: (SHOPPING CENTER ONLY NOT INCLUDING HOTEL)	5.93/1,000 SF
ELECTRICAL VEHICLE SPACES (EV):	
FUTURE EV CHARGING STATIONS:	78 STALLS
VAN ACCESSIBLE, ADA & AMBULATORY: 7 STALLS STANDARD EV STALLS 71 STALLS	
ELECTRIC VEHICLES	26 STALLS
TOTAL ELECTRIC VEHICLES REQUIRED: (8% OF PARKING SPACES SHALL BE CLEAN AIR VEHICLES)	104 STALLS
TOTAL ELECTRIC VEHICLE SPACES PROVIDED:	110 STALLS

SHORT TERM BICYCLE PARKING:
REQUIRED: 1/25 STALLS (EMPLOYEES),
1/33 STALLS (PATRONS/VISITORS),
PROVIDED: 129 BICYCLES (43 RACKS x 3 BIKES EACH)
LONG TERM BICYCLE STORAGE:
PROVIDED: 18 BICYCLES (9 DOUBLE BIKE LOCKERS)

NOTE:
PRIOR TO ISSUANCE OF ANY BUILDING PERMIT, THE PROPERTY OWNER SHALL RECORD A RECIPROCAL NON-EXCLUSIVE EASEMENT FOR VEHICULAR AND OTHER RIGHTS OF INGRESS AND EGRESS OVER THE PARKING AREAS AND DRIVEWAYS TO ALLOW ACCESS FROM PUBLIC STREETS BETWEEN PARCELS. (SEE PROPOSED TENTATIVE PARCEL MAPS)

PROPOSED SITE PLAN
SCALE: 1" = 59'-0"

GRAPHIC SCALE
1 inch = 50 feet

PRELIMINARY SITE PLAN SUBJECT TO CHANGE

PANORAMA DEVELOPMENT
2005 WINSTON COURT, UPLAND, CALIFORNIA 91784

THE SHOPS AT JURUPA VALLEY
NEC MISSION BOULEVARD & PYRITE STREET
JURUPA VALLEY, CALIFORNIA

McKenty Malak ARCHITECTS
35 Hugus Alley, Suite 200
Pasadena, California 91103-3648
TEL 626.583.8348 FAX 626.583.8387

OVERALL SITE PLAN
05.26.2020 19235MMA
SP-10

2.0 Regulatory Framework and Background

2.1 Air Quality Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

2.1.1 National and State

The EPA is responsible for global, international, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Air Quality Standards, also known as federal standards. There are six common air pollutants, called criteria pollutants, which were identified from the provisions of the Clean Air Act of 1970.

- Ozone
- Nitrogen Dioxide
- Lead
- Particulate Matter (PM10 and PM2.5)
- Carbon Monoxide
- Particulate Matter
- Sulfur Dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to project the public health.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. See http://www.arb.ca.gov/research/aaqs/aaqs.htm for additional information on criteria pollutants and air quality standards.

The federal and state ambient air quality standards are summarized in Table 2 and can also be found at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Table 2: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentrations[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O3)	1-Hour	0.09 ppm	Ultraviolet Photometry	- -	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm		0.070 ppm (147 µg/m³)		
Respirable Particulate Matter (PM10)[8]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µ/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		- -		
Fine Particulate Matter (PM2.5)[8]	24-Hour	- -	- -	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m³)	- -	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 µg/m³)		9 ppm (10 µg/m³)	- -	
	8-Hour (Lake Tahoe)	6 ppm (7 µg/m³)		- -	- -	
Nitrogen Dioxide (NO_2)[9]	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	- -	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (357 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	- -	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	- -		- -	0.5 ppm (1300 mg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[10]	- -	
	Annual Arithmetic Mean	- -		0.130ppm (for certain areas)[10]	- -	
Lead[11,12]	30 Day Average	1.5 µg/m³	Atomic Absorption	- -		
	Calendar Qrtr	- -		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	- -		0.15 µg/m³		
Visibility Reducing Particles[13]	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Notes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Several pollutants listed in Table 2 are not addressed in this analysis. Analysis of lead is not included in this report 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.

2.1.2 South Coast Air Quality Management District

The agency for air pollution control for the South Coast Air Basin (basin) 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 basin. 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 basin. 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 basin 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.

On March 23, 2017 CARB approved the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air.

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. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. Now that the plan has been approved by CARB, it has been forwarded to the U.S. Environmental Protection Agency for its review. If approved by EPA, the plan becomes federally enforceable

The 2012 AQMP built upon the approaches taken in the 2007 AQMP for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the federal criteria pollutant standards. Compared with the 2007 AQMP, the 2012 AQMP utilized revised emissions inventory projections that use 2008 as the base year. On-road emissions are calculated using CARB EMFAC2011 emission factors and the transportation activity data provided by SCAG from their 2012 Regional Transportation Plan (2012 RTP). Off-road emissions were updated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. Since the 2007 AQMP was finalized new area source categories such as liquid propane gas (LPG) transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. The 2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.

South Coast Air Quality Management District Rules

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. Some of the rules and regulations that apply 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.

Rule 403 requires that fugitive dust be 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, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable suppression techniques are indicated below and include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas in active for 10 days or more).
- Water active sites at least three times daily.
- Cover all trucks hauling dirt, san, soil, or other loose materials, or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) section 23114.
- Pave construction access roads at least 100 feet onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-iste streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets.

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.

Idling Diesel Vehicle Trucks – Idling for more than 5 minutes in any one location is prohibited within California borders.

Rule 2702. The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

2.1.3 City of Jurupa Valley

City of Jurupa Valley General Plan

Local jurisdictions, such as the City of Jurupa, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2016 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet federal and state standards. Instead, the City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The City of Jurupa Valley adopted their General Plan in September 2017. The Air Quality Element in the General Plan, contains the following air quality-related goals and policies that are applicable to the proposed project:

Goals

Be a City that:

AQ 1 Works with regional, sub-regional, and state agencies to protect and improve air quality and reduce greenhouse gas emissions.

AQ 2 Helps protect its residents, and especially senior citizens, youth and other sensitive receptors, from toxic air pollution.

AQ 3 Works to reduce emissions from stationary and mobile sources.

AQ 4 Employs measures to improve the jobs/housing balance and reduce commuting time.

Policies

AQ 2.1 Site Plan Designs. Require City land use planning efforts and site plan designs to protect people and land uses sensitive to air pollution, using barriers and/or distance from emissions sources, and protect sensitive receptors from polluting sources, wherever possible.

AQ 2.2 Pollution Control Measures. Strongly encourage the use of pollution control measures such as landscaping, vegetation and other materials that trap particulate matter or control pollution.

AQ 3.1 Efficient Building Materials/Equipment. Encourage the use of building materials/methods and heating equipment that are efficient and reduce emissions.

AQ 3.2 Centrally Heated Facilities. Encourage centrally heated facilities to utilize automated time clocks or occupant sensors to control heating.

AQ 3.3 Stationary Pollution Reduction. Require stationary pollution sources to prevent the release of toxic pollutants through the following:

1. Design features;
2. Operationg procedures;
3. Preventative maintenance;
4. Operator training; and
5. Emergency response planning

AQ 3.4 Emissions Mitigation. Require every project to mitigate any of its anticipated emissions that exceed allowable levels as established by the SCAQMD, the US EPA, and CARB, to the greatest extent possible.

AQ 3.5 Fugitive Dust Reduction Measures. Apply, as appropriate, measures contained in the County's Fugitive Dust Reduction to the entire City.

AQ 3.6 Grading in High Winds. Suspend all grading when wind speeds exceed 25 miles per hour.

AQ 4.1 State and Federal Legislation. Encourage stricter state and federal legislation on bias-belted tires, smoking vehicles, and vehicles that spill debris on streets and highways, to better control particulate matter.

AQ 4.2 Particulate Matter. Reduce particulate matter from agriculture, construction, demolition, debris hauling, street cleaning, utility maintenance, railroad rights of way, and off-road vehicles to the maximum extent possible.

AQ 4.3 Electric Service Units. Require the installation and use of electric service units at truck stops and distribution centers for heating and cooling truck cabs, and particularly for powering refrigeration trucks, in lieu of idling of engines for power

2.2 Greenhouse Gas Regulatory Setting

2.2.1 International

Many countries around the globe have made an effort to reduce GHGs since climate change is a global issue.

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.

2.2.2 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 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 Safety Administration 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 would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require 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 would 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 would involve proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

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 Adaption Plan. The EPA Plan identifies priority actions the Agency will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. The following link provides more information on the EPA Plan: https://www.epa.gov/arc-x/planning-climate-change-adaptation

2.2.3 California

California Code of Regulations (CCR) Title 24, Part 6. CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions,

electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013 and 2016 standards have been approved and became effective July 1, 2014 and January 1, 2016, respectively. 2019 standards were published July 1, 2019 and became effective January 1, 2020.

California Code of Regulations (CCR) Title 24, Part 11. All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards.. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. The following links provide more information on Title 24, Part 11:
https://www.dgs.ca.gov/BSC/Codes
https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle, during the 2016 to 2017 fiscal year. During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle.

The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

The 2019 CalGreen Code includes the following changes and/or additional regulations:

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy

than those under the 2016 standards. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades[1].

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the post-construction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require post-construction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of post-construction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regards to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regards to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regards to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regards to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in

[1] https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

order to be certified for occupancy. Enforcement is generally through the local building official. The following link provides more on CalGreen Building Standards:
http://www.bsc.ca.gov/Home/CALGreen.aspx

Executive Order S-3-05. California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following targets:

- By 2010, California shall reduce greenhouse gas emissions to 2000 levels;
- By 2020, California shall reduce greenhouse gas emissions to 1990 levels.
- By 2050, California shall reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-01-07. Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

SB 97. Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO2e) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO2e. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 MMTCO2e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, Including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.[4]

Senate Bill 100. Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

SB 375. Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 13 percent below 2005 per capita GHG emissions levels by 2035. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), which meets the CARB emission reduction requirements. The Housing Element Update is required by the State to be completed within 18 months after RTP/SCS adoption or by October 2013.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize, through

streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Assembly Bill 939 and Senate Bill 1374. Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resource Agency 2009) was adopted, which is the "… first statewide, multi-sector, region-specific, and information-based climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. Executive Order B-30-15, establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15. Executive Order B-29-15, mandates a statewide 25% reduction in potable water usage and was signed into law on April 1, 2015.

Executive Order B-37-16. Executive Order B-37-16, continuing the State's adopted water reduction, was signed into law on May 9, 2016. The water reduction builds off the mandatory 25% reduction called for in EO B-29-15.

2.2.4 South Coast Air Quality Management District

The Project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD Threshold Development

The SCAQMD has established recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"). SCAQMD has published a five-tiered draft GHG threshold which includes a 10,000 metric ton of CO_2e per year for stationary/industrial sources and 3,000 metric tons of CO_2e per year significance threshold for residential/commercial projects (South Coast Air Quality Management District 2010c). Tier 3 is anticipated to be the primary tier by which the SCAQMD will determine significance for projects. The Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90-precent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to CEQA analysis. The 90-percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the SCAQMD's annual Emissions Reporting Program.

The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
  - All land use types: 3,000 MTCO2e per year
  - Based on land use types: residential is 3,500 MTCO2e per year; commercial is 1,400 MTCO2e per year; and mixed use is 3,000 MTCO2e per year
- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3: Year 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO2e/SP/year for projects and 6.6 MTCO2e/SP/year for plans;
  - Option 3, 2035 target: 3.0 MTCO2e/SP/year for projects and 4.1 MTCO2e/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

2.2.5 City of Jurupa Valley

City of Jurupa Valley Climate Action Plan

The City of Jurupa Valley is a member of the Western Riverside Council of Governments (WRCOG). Western Riverside County is establishing itself as a leader in energy efficiency and sustainability efforts and each of WRCOG's member jurisdictions are addressing climate change through different local programs. Twelve cities in Western Riverside County have joined efforts to develop a Subregional CAP, which sets forth a subregional emissions reduction target, emissions reduction measures, and action steps to assist each community to demonstrate consistency with California's Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). In September of 2014, the WRGOG produced a Final Report of their Subregional Climate Action Plan (CAP). WRCOG's subregional emissions reduction targets are 15% below 2010 levels by 2020, and 49% below 2010 levels by 2035. The City of Jurupa Valley is participating in the Subregional CAP.

Furthermore, per the City of Jurupa Valley Planning Commission meeting on May 13, 2020, the City of Jurupa Valley is currently in the process of adopting the City of Jurupa Valley Environmental Review Guidelines and Thresholds of Significance (May 7, 2020). Per these guidelines, as the City has not yet adopted a Climate Action Plan, projects are considered significant if the project exceeds the thresholds per the General Plan Policy below:

AQ 9.5 GHG Thresholds Utilize the SCAQMD Draft GHG thresholds to evaluate development proposals until the City adopts a Climate Action Plan (CAP).

Therefore, to determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD draft local agency tier 3 threshold screening threshold of 3,000 MTCO2e per year for all land use types.

The project will be subject to the latest requirements of the California Green Building and Title 24 Energy Efficiency Standards (currently 2019) which would reduce project-related greenhouse gas emissions.

3.0 Setting

3.1 Existing Physical Setting

The project site is located in the City of Jurupa Valley, which is part of the South Coast Air Basin (SCAB) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

3.1.1 Local Climate and Meteorology

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. 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 basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas where the project site is located. The majority of the annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in the coastal regions and slightly heavier showers in the eastern portion of the basin along the coastal side of the mountains. Year-to-year patterns in rainfall are unpredictable because of fluctuations in the weather.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions that affect the basin include marine, subsidence, and high-pressure inversions.

Summers are often periods of hazy visibility and occasionally unhealthful air. Strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air

pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloudtrap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the City of Riverside, closest monitoring station to the project site, are in Table 3. Table 3 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 3: Meteorological Summary

Month	Temperature (˚F)		Average Precipitation (inches)
	Average High	Average Low	
January	69.1	42.3	1.81
February	69.8	44.3	2.39
March	73.1	46.4	1.79
April	77.6	49.8	0.70
May	82.4	54.9	0.19
June	88.4	58.9	0.08
July	94.6	63.3	0.04
August	95.7	64.1	0.12
September	91.5	60.7	0.15
October	83.5	54.1	0.46
November	72.6	44.9	0.78
December	68.8	41.6	1.39
Annual Average	**80.8**	**52.3**	**9.9**

Notes:
[1] Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7470

3.1.2 Local Air Quality

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in the City of Jurupa Valley in the Metropolitan Riverside County (Area 23). The nearest air monitoring station to the

project site is the Mira Loma Van Buren Station (Mira Loma Station). The Mira Loma Station is located approximately 2.06 miles southwest of the project site, however this location does not provide all ambient weather data. Therefore, additional data was pulled from the SCAQMD historical data for the Metropolitan Riverside County (Area 23) for both sulfur dioxide and carbon monoxide to provide the existing levels. Table 4 presents the monitored pollutant levels within the vicinity. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

Table 4: Local Area Air Quality Levels from the Mira Loma Van Buren Air Monitoring Station & Metropolitan Riverside County Area[1]

Pollutant (Standard)[2]	Year		
	2016	**2017**	**2018**
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.140	0.144	0.129
Days > CAAQS (0.09 ppm)	**34**	**41**	**21**
Maximum 8-Hour Concentration (ppm)	0.106	0.112	0.108
Days > NAAQS (0.07 ppm)	**65**	**64**	**57**
Days > CAAQS (0.070 ppm)	**70**	**72**	**57**
Carbon Monoxide:			
Maximum 1-Hour Concentration (ppm)	1.9	2.2	2.6
Days > NAAQS (20 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	1.40	2.00	2.4
Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppm)	0.065	0.065	0.055
Days > NAAQS (0.25 ppm)	0	0	0
Sulfur Dioxide:			
Maximum 1-Hour Concentration (ppm)	0.0056	0.0025	0.0017
Days > CAAQS (0.25 ppm)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour Concentration (ug/m^3)	116.3	111.6	98.9
Days > NAAQS (150 ug/m^3)	0	0	0
Days > CAAQS (50 ug/m^3)	**25**	**28**	**22**
Annual Average (ug/m^3)	45.6	42.8	44.6
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	**Yes**	**Yes**	**Yes**
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour Concentration (ug/m^3)	50.9	63.9	89.1
Days > NAAQS (35 ug/m^3)	**7**	**10**	**6**
Annual Average (ug/m^3)	14	13.5	14.1
Annual > NAAQS (15 ug/m3)	No	No	No
Annual > CAAQS (12 ug/m^3)	**Yes**	**Yes**	**Yes**

[1.] Source: obtained from https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year and /or https://www.arb.ca.gov/adam/topfour/topfour1.php

[2] CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million

[3] No data available.

The monitoring data presented in Table 4 shows that ozone and particulate matter (PM10 and PM2.5) are the air pollutants of primary concern in the project area, which are detailed below.

Ozone
During the 2016 to 2018 monitoring period, the State 1-hour concentration standard for ozone has been exceeded between 21 and 41 days each year at the Mira Loma Station. The State 8-hour ozone standard has been exceeded between 57 and 72 days each year over the past three years at the Mira Loma Station. The Federal 8-hour ozone standard has been exceeded between 57 and 65 days each year over the past three years at the Mira Loma Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide
CO is another important pollutant that is due mainly to motor vehicles. The Metropolitan Riverside County Area did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide
The Mira Loma Station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

Sulfur Dioxide
The Metropolitan Riverside County Area did not record an exceedance of the State SO_2 standards for the last three years.

Particulate Matter
During the 2016 to 2018 monitoring period, the State 24-hour concentration standard for PM10 was exceeded between 22 and 28 days each year at the Mira Loma Station. Over the same time period the Federal 24-hour and annual standards for PM10 have not been exceeded at the Mira Loma Station.

During the 2016 to 2018 monitoring period, the Federal 24-hour standard for PM2.5 was exceeded between six and 10 days each year at the Mira Loma Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered

sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

3.1.3 Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are 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. Table 5 lists the attainment status for the criteria pollutants in the basin.

Table 5: South Coast Air Basin Attainment Status

Pollutant	Averaging Time	National Standards[1]	Attainment Date[2]	California Standards[3]
1979 1-Hour Ozone[4]	1-Hour (0.12 ppm)	Nonattainment (Extreme)	11/15/2010 (Not attained[4])	Extreme Nonattainment
1997 8-Hour Ozone[5]	8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024	Nonattainment
2008 8-Hour Ozone	8-Hour (0.075 ppm)	Nonattainment (Extreme)	12/31/2032	
2015 8-Hour Ozone	8-Hour (0.070 ppm)	Designations Pending	~2037	
CO	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (Attained)	Maintenance
NO_2[6]	1-Hour (100 ppb) Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (Attained)	Attainment
SO_2[7]	1-Hour (75 ppb)	Designations Pending	Pending	Attainment
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/ Attainment	3/19/1979 (Attained)	
PM10	24-Hour (150 µg/m^3)	Nonattainment (Serious)[8]	12/31/2006 (Redesignation request submitted)[8]	Nonattainment
PM2.5	24-Hour (35 µg/m^3)	Nonattainment	12/31/2006 (Redesignation request submitted)[8]	Unclassified
Lead	3-Months Rolling (0.15 µg/m^3)	Nonattainment (Partial)[9]	12/31/2015	Nonattainment (Partial)[9]

Notes:
[1] Obtained from Draft 2012 AQMP, SCAQMD, 2012. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassified/Attainment or Unclassifiable.
[2] A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.
[3] Obtained from http://www.arb.ca.gov/desig/adm/adm.htm.
[4] 1-hour O_3 standard (0.13 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard based on 2008-2010 data has some continuing obligations under the former standard.
[5] 1997 8-hour O_3 standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the 1997 O3 standard and most related implementation rules remain in place until the 1997 standard is revoked by U.S. EPA.
[6] New NO_2 1-hour standard, effective August 2, 2010; attainment designations June, 2013; annual NO_2 standard retained.
[7] The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard. Area designations expected in 2012, with SSAB designated Unclassifiable/Attainment.
[8] Annual PM10 standard was revoked, effective December 18, 2006; redesignation request to Attainment of the 24-hour PM10 standard is pending with U.S. EPA
[9] Partial Nonattainment designation - Los Angeles County portion of Basin only.

3.2 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NO_2) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. Table 6 provides a description of each of the greenhouse gases and their global warming potential.

Additional information is available: https://www.arb.ca.gov/cc/inventory/data/data.htm

<Table 6 on next page>

Table 6: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N_20),also known as laughing gas is a colorless gas. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N_20.
Methane	Methane (CH_4) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 25.	A natural source of CH_4 is from the decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from the decay of organic material in landfills, fermentation of manure, and cattle farming.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). They are gases formed synthetically by replacing all hydrogen atoms in methane or methane with chlorine and/or fluorine atoms. Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone, therefore their production was stopped as required by the Montreal Protocol.
Hydrofluorocarbons	Hydrofluorocarbons (HFCs) are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above the Earth's surface. They have a lifetime 10,000 to 50,000 years. They have a global warming potential range of 6,200 to 9,500.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Notes:

1. Sources: Intergovernmental Panel on Climate Change 2014a and Intergovernmental Panel on Climate Change 2014b. https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

4.0 Modeling Parameters and Assumptions

4.1 Construction

Typical emission rates from construction activities were obtained from CalEEMod Version 2016.3.2 CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2014 computer program to calculate the emission rates specific for the northwestern portion of Riverside County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2014 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions were calculated and presented below. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

The analysis assesses the emissions associated with the construction of the proposed project as indicated in Table 1. Per the project-specific traffic impact analysis (TJW Engineering, Inc.) the proposed project is to be operational in 2021; therefore, construction is estimated to start no sooner than December 2020 and end by mid-December 2021. The phases of the construction activities which have been analyzed below are: 1) site preparation, 2) grading, 3) building, 4) paving, and 5) architectural coating. For details on construction modeling and construction equipment for each phase, please see Appendix A.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (approximately 32 acres) and the fact that the project won't export more than 5,000 cubic yards of material a day a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 is required.

4.2 Operations

Operational or long-term emissions occur over the life of the Project. Both mobile and area sources generate operational emissions. Area source emissions arise from consumer product usage, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile source emissions from motor vehicles are the largest single long-term source of air pollutants from the operation of the Project. Small amounts of emissions would also occur from area sources such as the consumption of natural gas for heating, hearths, from landscaping emissions, and consumer product usage. The operational emissions were estimated using the latest version of CalEEMod.

Mobile Sources
Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project are based upon the trip generation rates give in the project-specific traffic impact analysis (TJW Engineering, Inc.) which uses the ITE 10th Trip Generation Manual. The traffic study shows a trip generation rate of 102.67 trips per fuel pump for the gas station with convenience store (taking into consideration the 50 percent daily pass-by trip reduction), 309.58 trips per thousand square feet for the car wash (taking into consideration the 20 percent daily pass-by trip reduction), 33.97 trips per thousand square feet for retail (taking into consideration the 10 percent daily pass-by trip reduction), 240.16 trips per thousand square feet for the drive-through restaurants (taking into consideration the 49 percent daily pass-by trip reduction), 9.74 trips per thousand square foot for office, and 8.36 trips per room for the hotel.

The program then applies the emission factors for each trip which is provided by the EMFAC2014 model to determine the vehicular traffic pollutant emissions. The CalEEMod default trip lengths were used in this analysis. Please see CalEEMod output comments sections in Appendix A and B for details.

Area Sources
Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied after January 1, 2014 will be limited to an average of 50 grams per liter or less. The CalEEMod model default values were adjusted as necessary.

Energy Usage
2016.3.2 CalEEMod defaults were utilized.

4.3 Localized Construction Analysis

The SCAQMD has published a “Fact Sheet for Applying CalEEMod to Localized Significance Thresholds” (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions

based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

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.

The construction equipment showing the equipment associated with the maximum area of disturbance is shown in Table 7.

Table 7: Construction Equipment Assumptions[1]

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Site Preparation	Tractors/Loaders/Backhoes	1	0.5	0.5
Total Per Phase				0.5
Grading	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Scrapers	2	1	2
	Tractors/Loaders/Backhoes	2	0.5	1
Total Per Phase				4

Notes:

[1.] Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2

As shown in Table 7, the maximum number of acres disturbed in a day would be 4 acres.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were based on the Metropolitan Riverside County source receptor area (SRA 23) and a disturbance of 2 acres per day, to be conservative, at a distance of 25 meters (82 feet). According to LST methodology, any receptor located closer than 25 meters should be based on the 25 meter threshold. The closest receptors are adjacent to the east of the site.

4.4 Localized Operational Analysis

For operational emissions, the screening tables for a disturbance area of 5 acres and a distance of 25 meters were used to determine significance. The tables were compared to the project's onsite operational emissions.

5.0 Thresholds of Significance

5.1 Air Quality Thresholds of Significance

5.1.1 CEQA Guidelines for Air Quality

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

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 nonattainment under an applicable national or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

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

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. There are daily emission thresholds for construction and operation of a proposed project in the basin.

5.1.2 Regional Significance Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions are established for the Basin:

- 75 pounds per day (lbs/day) of VOC
- 100 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Projects in the basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under SCAQMD guidelines.

5.1.3 Regional Significance Thresholds for Operational Emissions

The daily operational emissions significance thresholds for the basin are as follows:

- 55 pounds per day (lbs/day) of VOC
- 55 lbs/day of NO_x

- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Local Microscale Concentration Standards The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO 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 one or more of these standards. If ambient levels already exceed a State or federal standard, 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. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

5.1.4 Thresholds for Localized Significance

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO2, CO, PM10, and PM2.5.

The emission thresholds were calculated based on the Metropolitan Riverside County source receptor area (SRA 23) and a disturbance of 2 acres per day, to be conservative, at a distance of 25 meters (82 feet), for construction and 5 acres a day for screening of localized operational emissions.

5.2 Greenhouse Gas Thresholds of Significance

5.2.1 CEQA Guidelines for Greenhouse Gas

CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on greenhouse gases, the type, level, and impact of emissions generated by the project must be evaluated.

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

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

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

However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency. As previously discussed (Section 2.2.4 of this report), SCAQMD has drafted interim thresholds. Per guidance from the City of Jurupa Valley, the SCAQMD screening threshold of 3,000 MTCO2e per year for all land uses was used in this analysis.

5.3 Toxic Air Contaminants

The threshold for toxic air contaminants (TACs) has a maximum incremental cancer risk of 10 per million and a non-cancer (acute and chronic) hazard index of 1.0 or greater. An exceedance to these values would be considered a significant impact.

6.0 Air Quality Emissions Impact

6.1 Construction Air Quality Emissions Impact

The latest version of CalEEMod was used to estimate the onsite and offsite construction emissions. The emissions incorporate Rule 402 and 403. Rule 402 and 403 (fugitive dust) are not considered mitigation measures as the project by default is required to incorporate these rules during construction.

6.1.1 Regional Construction Emissions

The construction emissions for the project would not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in Table 8, and therefore would be considered less than significant.

Table 8: Regional Significance - Construction Emissions (pounds/day)

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Site Preparation						
On-Site[2]	0.21	2.11	2.28	0.00	0.14	0.12
Off-Site[3]	0.09	0.06	0.73	0.00	0.20	0.05
Grading	**0.30**	**2.16**	**3.01**	**0.01**	**0.34**	**0.18**
On-Site[2]						
Off-Site[3]	4.45	50.20	31.96	0.06	5.56	3.40
Total	0.10	0.06	0.81	0.00	0.22	0.06
Building Construction	**4.55**	**50.26**	**32.76**	**0.06**	**5.78**	**3.46**
On-Site[2]						
Off-Site[3]	3.22	29.19	26.86	0.05	1.55	1.47
Total	3.30	23.22	25.31	0.12	8.06	2.23
Paving	**6.51**	**52.41**	**52.17**	**0.17**	**9.62**	**3.70**
On-Site[2]						
Off-Site[3]	2.61	12.92	14.65	0.02	0.68	0.62
Total	0.07	0.04	0.55	0.00	0.17	0.05
Architectural Coating[4]	**2.68**	**12.96**	**15.21**	**0.02**	**0.85**	**0.67**
On-Site[2]						
Off-Site[3]	45.94	1.53	1.82	0.00	0.09	0.09
Total	0.55	0.32	4.29	0.01	1.30	0.35
Total of overlapping phases[5]	**46.49**	**1.85**	**6.11**	**0.02**	**1.40**	**0.45**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds	No	No	No	No	No	No

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] On-site emissions from equipment operated on-site that is not operated on public roads.
[3] Off-site emissions from equipment operated on public roads.
[4] Architectural coating emissions include compliance with SCAQMD Rule 1113, which limits architectural coatings to 50 g/L VOC for buildings and 100 g/L VOC for parking lot striping.
[4] Construction, architectural coatings and paving phases may overlap.

6.1.2 Localized Construction Emissions

The data provided in Table 9 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 9: Localized Significance – Construction

Phase	On-Site Pollutant Emissions (pounds/day)[1]			
	NOx	**CO**	**PM10**	**PM2.5**
Site Preparation	2.11	2.28	0.14	0.12
Grading	50.20	31.96	5.56	3.40
Building Construction	29.19	26.86	1.55	1.47
Paving	12.92	14.65	0.68	0.62
Architectural Coating	1.53	1.82	0.09	0.09
Total of overlapping phases	43.63	43.33	2.33	2.19
SCAQMD Threshold for 25 meters (82 feet) or less[2]	**170**	**883**	**7**	**4**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for two acres, to be conservative, in Metropolitan Riverside County Source Receptor Area (SRA 23). Project will disturb a maximum of 4 acres per day (see Table 7).
[2] The nearest sensitive receptors are located adjacent to the east of the project site, however according to LST methodology any receptor located closer than 25 meters should be based on the 25 meter threshold.

6.1.3 Odors

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project.

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from the service station operations. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project. Furthermore, Gasoline dispensing facilities are required to use Phase I/II EVR (enhanced vapor recovery) systems. Vehicle emissions are vapor recovery systems are addressed in Section 6.2.2.

6.1.4 Construction-Related Toxic Air Contaminant Impact

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. The Office of Environmental Health Hazard Assessment (OEHHA) has issued the Air Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments, February 2015 to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or non-cancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure.

Given the relatively limited number of heavy-duty construction equipment and construction schedule, the proposed project would not result in a long-term substantial source of toxic air containment emissions and corresponding individual cancer risk. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

6.2 Operational Air Quality Emissions Impact

6.2.1 Regional Operational Emissions

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of CalEEMod model. The operating emissions were based on year 2021, which is the anticipated opening year for the project per the project-specific traffic impact analysis (TJW Engineering, Inc.). The summer and winter emissions created by the proposed project's long-term operations were calculated and the highest emissions from either summer or winter are summarized in Table 10.

Table 10: Regional Significance - Unmitigated Operational Emissions (lbs/day)

Activity	Pollutant Emissions (pounds/day)[1]					
	VOC	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Area Sources[2]	6.68	0.00	0.16	0.00	0.00	0.00
Energy Usage[3]	0.26	2.40	2.01	0.01	0.18	0.18
Mobile Sources[4]	23.53	160.88	223.58	0.90	62.23	17.24
Total Emissions	**30.47**	**163.28**	**225.76**	**0.92**	**62.41**	**17.43**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	**Yes**	No	No	No	No

[1] Source: CalEEMod Version 2016.3.2
[2] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of emissions from on-site natural gas usage.
[4] Mobile sources consist of emissions from vehicles and road dust.

Table 10 provides the project's unmitigated operational emissions. Table 10 shows that the project would exceed SCAQMD regional thresholds for NOx only. Therefore, a potentially significant regional air quality impact would occur from operation of the proposed project and mitigation measures are required to reduce the project's emissions.

The NOx emissions would be primarily created from motor vehicles (including trucks and passenger vehicles) that will be operated by future patrons and employees of the project. Mitigation measures 1 through 6 are provided to reduce NOx.

Table 11: Regional Significance – Mitigated Operational Emissions (lbs/day)

	Pollutant Emissions (pounds/day)[1]					
Activity	**VOC**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Area Sources[2]	6.33	0.00	0.16	0.00	0.00	0.00
Energy Usage[3]	0.22	2.00	1.68	0.01	0.15	0.15
Mobile Sources[4]	20.32	129.78	125.19	0.47	26.83	7.40
Total Emissions	**26.86**	**131.78**	**127.03**	**0.49**	**26.98**	**7.55**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	**Yes**	No	No	No	No

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of emissions from on-site natural gas usage.
[4] Mobile sources consist of emissions from vehicles and road dust.

The data in Table 11 shows that even with incorporation of mitigation measures 1 through 6, emissions from the operation of the proposed project would still exceed SCAQMD operational thresholds for NOx. Therefore, even with mitigation, a potentially significant regional air quality impact would occur from operation of the proposed project.

6.2.2 Localized Operational Emissions

Table 12 shows the calculated emissions for the proposed operational activities compared with appropriate LSTs. The LST analysis only includes on-site sources; however, the CalEEMod software outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in Table 12 include all on-site project-related stationary sources and 10% of the project-related new mobile sources. This percentage is an estimate of the amount of project-related new vehicle traffic that will occur on-site.

<Table 12, next page>

Table 12: Localized Significance – Unmitigated Operational Emissions

On-Site Emission Source	On-Site Pollutant Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Area Sources[2]	0.00	0.16	0.00	0.00
Energy Usage[3]	2.40	2.01	0.18	0.18
On-Site Vehicle Emissions[4]	16.09	22.36	6.22	1.72
Total Emissions	**18.48**	**24.54**	**6.41**	**1.91**
SCAQMD Threshold for 25 meters (82 feet)[5]	**270**	**1,577**	**4**	**2**
Exceeds Threshold?	No	No	**Yes**	No

Notes:
[1] Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for five acres in Metropolitan Riverside County Source Receptor Area (SRA 23).
[2] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of emissions from generation of electricity and on-site natural gas usage.
[4] On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.
[5] The nearest sensitive receptors are located adjacent to the east of the project site, however according to LST methodology any receptor located closer than 25 meters should be based on the 25 meter threshold.

Table 12 indicates that the local operational emission would exceed the LST threshold for NOx at the nearest sensitive receptors, located adjacent to the project. Therefore, a potentially significant local air quality impact would occur from operation of the proposed project and mitigation measures are required to reduce the project's emissions.

The data in Table 13 shows that with incorporation of mitigation measures 1 through 6, emissions from the operation of the proposed project would no longer exceed the LST threshold for NOx. Therefore, with mitigation, impacts would be considered less than significant.

Table 13: Localized Significance – Mitigated Operational Emissions

On-Site Emission Source	On-Site Pollutant Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Area Sources[2]	0.00	0.16	0.00	0.00
Energy Usage[3]	2.00	1.68	0.15	0.15
On-Site Vehicle Emissions[4]	12.98	12.52	2.68	0.74
Total Emissions	**14.98**	**14.37**	**2.84**	**0.89**
SCAQMD Threshold for 25 meters (82 feet)[5]	**270**	**1,577**	**4**	**2**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for five acres in Metropolitan Riverside County Source Receptor Area (SRA 23).
[2] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of emissions from generation of electricity and on-site natural gas usage.
[4] On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.
[5] The nearest sensitive receptors are located adjacent to the south of the project site, however according to LST methodology any receptor located closer than 25 meters should be based on the 25 meter threshold.

6.3 CO Hot Spot Emissions

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented in above in Section 5.0.

To determine if the proposed project could cause emission levels in excess of the CO standards discussed above in Section 5.0, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a Level of Service E or worse.

Micro-scale air quality emissions have traditionally been analyzed in environmental documents where the air basin was a non-attainment area for CO. However, the SCAQMD has demonstrated in the CO attainment redesignation request to EPA that there are no "hot spots" anywhere in the air basin, even at intersections with much higher volumes, much worse congestion, and much higher background CO levels than anywhere in Riverside County. If the worst-case intersections in the air basin have no "hot spot" potential, any local impacts will be below thresholds.

The traffic study showed that the project would generate a total of 13,228 daily vehicle trips. The 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. The volume of traffic at project buildout with cumulative projects would be well below 100,000 vehicles and below the necessary volume to even get close to causing a violation of the CO standard. Therefore no CO "hot spot" modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

6.4 Cumulative Regional Air Quality Impacts

Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature.

The project area is out of attainment for both ozone and PM10 particulate matter. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant

and do not add to the overall cumulative impact. However, with respect to long-term emissions, even with incorporation of mitigation, this project would create a significant cumulative impact.

6.5 Air Quality Compliance

The California Environmental Quality Act (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 of 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.

Both of these criteria are evaluated in the following sections.

A. Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that, even with incorporation of mitigation, long-term operations impacts will result in significant impacts based on the SCAQMD local and regional thresholds of significance.

Therefore, the proposed project is projected to contribute to the exceedance of any air pollutant concentration standards and is found to be inconsistent with the AQMP for the first criterion.

B. 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. The 2016-2040 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2016, includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Jurupa Valley Land Use Plan defines the assumptions that are represented in the AQMP.

The proposed project site's current land use classification is Commercial Retail according to the City of Jurupa Valley General Plan Land Use Map and the proposed project is consistent with the current land use classification. Furthermore, the proposed project site's existing zoning is Scenic Highway Commercial (C-P-S), General Commercial (C-1/C-P), and Light Agricultural (A-1). The project includes a Change of Zone from C-P-S and A-1 to C-1/C-P. Therefore, although the project is consistent with the current land use designation it is not fully consistent with the current zoning designation. However, once the Change of Zone is approved, the project would be consistent with the zoning designation. Although the project and Change of Zone may initially result in an inconsistency with the AQMP this inconsistency does not necessarily create a conflict with the AQMP. The SCAQMD recognizes that strict consistency with all aspects of the AQMP is not required in order for there to be no conflict. A project is considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. Furthermore, the project would implement contemporary energy-efficient technologies and regulatory programs required per Title 24, CalGreen and City standards. Compliance with SCAQMD emissions reductions and control requirements also act to reduce project air pollutant emissions. Project compliance with regulatory programs is consistent with and supports AQMP air pollution reduction strategies. Project support of these strategies promotes timely attainment of AQMP air quality standards and would bring the project into conformance with the AQMP. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

However, based on the failure of Criterion 1 above, the proposed project will result in an inconsistency with the SCAQMD AQMP. Therefore, a significant impact will potentially occur.

7.0 Greenhouse Gas Impact Analysis

7.1 Construction Greenhouse Gas Emissions Impact

The greenhouse gas emissions from project construction equipment and worker vehicles are shown in Table 12. The emissions are from all phases of construction. The total construction emissions amortized over a period of 30 years are estimated at 55.7 metric tons of CO_2e per year. Annual CalEEMod output calculations are provided in Appendix B.

Table 14: Construction Greenhouse Gas Emissions

Activity	Emissions ($MTCO_2e$)[1]		
	Onsite	Offsite	Total
Site Preparation	2.8	1.7	4.4
Grading	123.6	4.0	127.6
Building Construction	390.8	1,087.8	1,478.7
Paving	35.3	2.3	37.7
Coating	4.5	18.1	22.5
Total	557.0	1,113.9	1,670.9
Averaged over 30 years[2]	19	37	55.70

Notes:
[1.] $MTCO_2e$=metric tons of carbon dioxide equivalents (includes carbon dioxide, methane and nitrous oxide).
[2.] The emissions are averaged over 30 years because the average is added to the operational emissions, pursuant to SCAQMD.
* CalEEMod output (Appendix B)

7.2 Operational Greenhouse Gas Emissions Impact

Operational emissions occur over the life of the project. The operational emissions for the project are 16,789.03 metric tons of CO_2e per year resulting in 27.39 MTCO2e/SP/year in Table 15.

<Table 15, next page>

Table 15: Opening Year Unmitigated Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)[1]					
	Bio-CO2	**NonBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[2]	0.00	0.04	0.04	0.00	0.00	0.04
Energy Usage[3]	0.00	1,888.06	1,888.06	0.07	0.02	1,895.94
Mobile Sources[4]	0.00	14,383.07	14,383.07	0.89	0.00	14,405.22
Solid Waste[5]	95.66	0.00	95.66	5.65	0.00	237.00
Water[6]	8.60	157.67	166.27	0.89	0.02	195.13
Construction[7]	0.00	61.84	61.84	0.01	0.00	55.70
Total Emissions	104.26	16,490.69	16,594.95	7.50	0.04	**16,789.03**
SCAQMD Draft Screening Threshold						**3,000**
Exceeds Threshold?						**Yes**
SCAQMD 2020 Target Service Population Threshold 4.8 MTCO2e/SP/year for projects[8]						**27.39**
Exceeds Threshold?						**Yes**

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
[3] Energy usage consist of GHG emissions from electricity and natural gas usage.
[4] Mobile sources consist of GHG emissions from vehicles.
[5] Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[6] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[7] Construction GHG emissions based on a 30 year amortization rate.
[8] Service Population estimated at 1 employee for every 500 square feet for commercial retail and commercial tourist use and 1 employee for every 300 square feet for commercial office use per the Riverside County General Plan Appendix E, Socioeconomic Build-Out Projections, Assumptions and Methodology.

The data provided in Table 16 shows that the proposed project's mitigated emissions would be reduced to 9,568.86 $MTCO_2e$ per year resulting in 15.61 MTCO2e/SP/year and a 43% reduction in GHGs when compared to the unmitigated scenario. The reduction in emissions within Table 16 incorporate the following: utilizing low-flow fixtures that would reduce indoor water demand by 20% per CalGreen Standards, utilizing water-efficient irrigation systems, recycling programs that reduces waste to landfills by a minimum of 75 percent (per AB 341), architectural coatings limited to 50 grams per liter VOC content for buildings and 100 grams per liter VOC content for parking lot striping per SCAQMD Rule 1113, EnergyStar appliances to be utilized on-site, compliance with 2019 Title 24 standards; and incorporation of the CAPCOA-based land use and site enhancement reduction measures: LUT-1 Increased Density, LUT-4 Improved Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network (please see CalEEMod annual output for details). Therefore, the proposed project's emissions would still exceed both the SCAQMD screening threshold for all land uses of 3,000 metric tons of CO_2e per year and the tier 4 SCAQMD 2020 Target Service Population Threshold of 4.8 MTCO2e/SP/year. Therefore, with incorporation of mitigation, the proposed project's GHG emissions are considered to be significant and unavoidable. Operation of the proposed project would create a significant cumulative impact to global climate change.

<Table 16, next page>

Table 16: Opening Year Mitigated Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)[1]					
	Bio-CO2	**NonBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[2]	0.00	0.04	0.04	0.00	0.00	0.04
Energy Usage[3]	0.00	1,665.78	1,665.78	0.06	0.02	1,672.68
Mobile Sources[4]	0.00	7,598.54	7,598.54	0.70	0.00	7,616.01
Solid Waste[5]	23.92	0.00	23.92	1.41	0.00	59.25
Water[6]	6.88	135.19	142.07	0.71	0.02	165.18
Construction[7]	0.00	61.84	61.84	0.01	0.00	55.70
Total Emissions	30.79	9,461.38	9,492.17	2.89	0.04	**9,568.86**
% Reduction from Unmitigated Scenario						**43%**
SCAQMD Draft Screening Threshold						**3,000**
Exceeds Threshold?						**Yes**
SCAQMD 2020 Target Service Population Threshold 4.8 MTCO2e/SP/year for projects[8]						**15.61**
Exceeds Threshold?						**Yes**

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
[3] Energy usage consist of GHG emissions from electricity and natural gas usage.
[4] Mobile sources consist of GHG emissions from vehicles.
[5] Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[6] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[7] Construction GHG emissions based on a 30 year amortization rate.
[8] Service Population estimated at 1 employee for every 500 square feet for commercial retail and commercial tourist use and 1 employee for every 300 square feet for commercial office use per the Riverside County General Plan Appendix E, Socioeconomic Build-Out Projections, Assumptions and Methodology.

7.3 Greenhouse Gas Plan Consistency

The proposed project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Per the City of Jurupa Valley Planning Commission meeting on May 13, 2020, the City of Jurupa Valley is currently in the process of adopting the City of Jurupa Valley Environmental Review Guidelines and Thresholds of Significance (May 7, 2020). Per these guidelines, as the City has not yet adopted a Climate Action Plan, the proposed project would be considered significant if it is inconsistent with the goals of either the Western Riverside Council of Governments (WRCOG) Subregional Climate Action Plan (WRCOG Subregional CAP) or the CARB Climate Change Scoping Plan.

WRCOG Subregional CAP Consistency

The City of Jurupa Valley is participating in the Western Riverside Council of Governments (WRCOG) Subregional Climate Action Plan (CAP). The WRCOG Subregional CAP establishes a community-wide emissions reduction target of 15% below 2010, following guidance from CARB and the Governor's Office of Planning and Research. CARB and the California Attorney General have determined this approach to be consistent with the state-wide AB 32 goal of reducing emissions to 1990 levels.

As shown in Table 16 above, the proposed project has a 43% reduction in GHGs when compared to the unmitigated scenario. Furthermore, as shown in Table 17, the project is consistent with applicable local

reduction measures identified in the WRCOG Subregional CAP and would result in a less than significant impact.

CARB Scoping Plan Consistency

The ARB Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (California Air Resources Board 2008). The measures in the Scoping Plan have been in place since 2012.

This Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman and child in California down to about 10 tons per person by 2020.

In May 2014, CARB released its *First Update to the Climate Change Scoping Plan* (CARB 2014). This *Update* identifies the next steps for California's leadership on climate change. While California continues on its path to meet the near-term 2020 greenhouse gas limit, it must also set a clear path toward long-term, deep GHG emission reductions. This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

In November 2017, CARB release the 2017 Scoping Plan. This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals, and includes a description of a suite of specific actions to meet the State's 2030 GHG limit. In addition, Chapter 4 provides a broader description of the many actions and proposals being explored across the sectors, including the natural resources sector, to achieve the State's mid and long-term climate goals.

Guided by legislative direction, the actions identified in the 2017 Scoping Plan reduce overall GHG emissions in California and deliver policy signals that will continue to drive investment and certainty in a low carbon economy. The 2017 Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and Trade Program, which constrains and reduces emissions at covered sources.

As the latest, 2017 Scoping Plan builds upon previous versions, project consistency with applicable strategies of both the 2008 and 2017 Plan are assessed in Table 18. As shown in Table 18, the project is consistent with the applicable strategies and would result in a less than significant impact.

Therefore, the project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Furthermore, the project will also comply with applicable Green Building Standards and City of Jurupa Valley's policies regarding sustainability (as dictated by the City's General Plan).

Table 17: Applicable WRCOG Subregional CAP Local Reduction Measure Project Comparison1

WRCOG Local Reduction Measure	Measure Description	Project Compliance with Measure
E-1: Energy Action Plan	Improve municipal and community wide energy efficiency and reduce energy consumption through the adoption of local Energy Action Plans (EAP).	Not directly applicable to the project; however, the project will be compliant with the current Title 24 standards and includes a mitigation measure requiring the use of Energy-Star appliances on site.
E-3: Shade Trees	Strategically plant trees to reduce the urban heat island effect.	The proposed project is to include trees throughout the parking areas per City requirements.
T-2: Bicycle Parking	Provide additional options for bicycle parking.	Per the site plan, the proposed project is to include 129 short-term bicycle parking spaces and 18 long-term bicycle storage spaces.
T-3: End of Trip Facilities	Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.	Per the site plan the proposed project is to include 129 short-term bicycle parking spaces and 18 long-term bicycle storage spaces. In addition, the project includes a mitigation measures requiring the installation of sidewalks on- and connecting off-site.
T-8: Density	Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.	The proposed project includes the development of the site with a convenience market/gas station with 12 vehicle fuel positions, a single-tunnel automated car wash, 151,300 square feet of retail space, 46,000 square feet of office space, a hotel with 60 rooms, and 18,400 square feet of drive-thru restaurant space. This development would provide additional employment in the area. Furthermore, the site is surrounded by existing residential and commercial development.

T-9: Mixed-Use Development	Provide for a variety of development types and uses.	The proposed project includes a mix of commercial, office, and hotel uses including a convenience market/gas station with 12 vehicle fuel positions, a single-tunnel automated car wash, 151,300 square feet of retail space, 46,000 square feet of office space, a hotel with 60 rooms, and 18,400 square feet of drive-thru restaurant space.
T-10: Design/Site Planning	Design neighborhoods and sites to reduce VMT.	The project site is surrounded by existing residential and commercial development. The proposed project includes the development of the site with a convenience market/gas station with 12 vehicle fuel positions, a single-tunnel automated car wash, 151,300 square feet of retail space, 46,000 square feet of office space, a hotel with 60 rooms, and 18,400 square feet of drive-thru restaurant space. Therefore, as residential uses surround the site, the development of the project site with commercial uses would assist in reducing VMT.
T-11: Pedestrian Only Access	Encourage walking by providing pedestrian-only community areas.	The project includes a mitigation measure requiring the installation of sidewalks on- and connecting off-site.
T-14: Voluntary Transportation Demand Management	Reduce demand for roadway travel through incentives for alternative modes of transportation and disincentives for driving	Per the site plan the proposed project is to include 129 short-term bicycle parking spaces and 18 long-term bicycle storage spaces. In addition, the project includes a mitigation measures requiring the installation of sidewalks on- and connecting off-site. The site is also in close proximity to multiple Riverside Transit (RTA) stops, the closest of which being Route 49 stop Mission at Pyrite which is located approximately 0.01 miles south of the project site. Furthermore, the site is surrounded by existing residential and commercial development.
T-17: Neighborhood Electric Vehicle Programs	Implement development requirements to accommodate Neighborhood Electric Vehicles and supporting infrastructure.	Per the project site plan, the project is to include parking areas with a total of 1,302 parking spaces with 110 of these parking spaces being designated for electric vehicles.
SW-1: Yard Waste Collection	Provide green waste collection bins community-wide.	The project will be required to comply with City programs, such as City's recycling and waste reduction program, which comply, with the 75

		percent reduction required by 2020 per AB 341.
SW-2: Food Scrap and Paper Division	Divert food and paper waste from landfills by implementing collection system.	The project will be required to comply with City programs, such as City's recycling and waste reduction program, which comply, with the 75 percent reduction required by 2020 per AB 341.

[1] Source: WRCOG Subregional Climate Action Plan (2014).

Table 18: CARB Scoping Plan Measure Project Comparison

2008 Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. The project will be compliant with the current Title 24 standards. In addition, the project is to include a mitigation measure requiring the use of Energy-Star appliances on site.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2019 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The project will be subject to these mandatory standards.
High Global Warming Potential Gases – Adopt measures to reduce high global warming potential gases.	Consistent. CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access the project that are required to comply with the measures will comply with the strategy.
Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and	Consistent. The state is currently developing a regulation to reduce methane emissions from municipal solid waste

commercial recycling. Move toward zero-waste.	landfills. The project will be required to comply with City programs, such as City's recycling and waste reduction program, which comply, with the 75 percent reduction required by 2020 per AB 341.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The project is to include the use of low-flow fixtures and water-efficient irrigation systems. The project will comply with all applicable City ordinances and CAL Green requirements.
2017 Scoping Plan Recommended Actions to Reduce Greenhouse Gas Emissions	**Project Compliance with Recommended Action**
Implement Mobile Source Strategy: Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Car regulations.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025 and at least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Implement SB 350 by 2030: Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.	Consistent. The project will be compliant with the current Title 24 standards. Further, the project is to include a mitigation measure requiring the use of energy efficient appliances.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	Consistent. The project will be required to comply with City programs, such as City's recycling and waste reduction program, which comply, with the 75 percent reduction required by 2020 per AB 341.

[1] Source: CARB Scoping Plan (2008 and 2017)

8.0 Health Risk Assessment

CARB (and CAPCOA) recommend a 50-foot separation between gas stations and sensitive receptors; therefore, the approximately 200-foot separation from the single-family residential dwelling units to the west to the fueling pumps should be more than adequate. Furthermore, the attached (Appendix C) SCAQMD gasoline station HRA screening tables show that the MICR at residential receptors 50 meters (the tanks and pumps are located further away @ approximately 61 meters) from the fuel source would not even exceed 1.678 in a million (per 1,000,000 gallons of through put); which is a reasonable assumption given the size of the project and number of pumps). The proposed project is estimated to have approximately 1.87MM gallons of through put per year which equates to an approximate 3.138 in a million MICR, at a distance of approximately 50 meters. The risk is below SCAQMD's 10 in a million threshold and therefore no additional mitigation is required.

Furthermore, the project includes the construction and operation of a convenience market with 12 fuel pumps. The fuel pump-portion of the project will be permitted by SCAQMD and fuel-related emissions will be regulated by the SCAQMD Rule 461 and be required to obtain a Permit To Operate. Gasoline dispensing facilities are required to use Phase I/II EVR (enhanced vapor recovery) systems. Phase II EVR have an average efficiency of 95.1 percent and Phase I EVR have an average efficiency of 98 percent. Therefore, the potential for fugitive VOC or TAC emissions from the gasoline pumps is negligible. As such, the project will not be a source of toxic air contaminants or fugitive VOC emissions and sensitive receptors (located as close as approximately 200 feet from the proposed gasoline fueling pumps) would not be exposed to toxic sources of air pollution. The separating distance between the gas station and closest sensitive receptors is greater than the SCAQMD's minimum 50-foot separation.

According to the ARB's: *Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities (12/23/2013)*[2], both Phase I and Phase II EVR systems have a minimum 95.1% efficiency at capturing emissions. Emission inventory is based upon two (2) factors: 8.4 lbs of TOG per thousand gallons dispensed (lbs/kgal) and 0.74 lbs/kgal for Gasoline Dispensing Facilities with Phase II pre-EVR vapor recovery.

These factors are based upon pre-EVR vapor recovery systems. Assuming a 95% vapor recovery rate, the majority of the emissions would be captured and the additional VOCs that would potentially escape these mandatory recovery systems is anticipated to be relatively small. Per Table 11, the project's mitigated operational VOC emissions are 26.86 lbs/day. At 5,123 gallons per day the calculated uncontrolled ORVR VOC would be 43 lbs/day. Even if an additional 43 lbs/day (the **uncontrolled** [no ORVR or phase II] vehicle fueling emission factor for each 1,000 gallons pumped) were added to the project's operational VOC emissions), the total emissions of 69.86 lbs/day would only slightly exceed the SCAQMD's operational threshold of significance of 55 lbs per day for VOC. However, the vehicle fueling emissions factor with ORVR and Phase II EVR in place is 0.021 lbs per

[2] https://www.arb.ca.gov/vapor/gdf-emisfactor/gdf%20umbrella%20document%20-%2020%20nov%202013.pdf

thousand gallons which equates to 0.107 lbs/day. The emissions amount is below the VOC threshold of significance and the impact is less than significant. Furthermore, both ORVR and Phase II EVRs are required per regulation in California.

To exceed the VOC daily emissions threshold the gas pumps at the project site would have to pump over a million gallons of fuel per day to exceed the daily VOC threshold.

9.0 References

The following references were used in the preparing this analysis.

California Air Pollution Control Officers Association
2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board
2008 Resolution 08-43

2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

2008 Climate Change Scoping Plan, a framework for change.

2011 Supplement to the AB 32 Scoping Plan Functional Equivalent Document

2013 Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities

2014 First Update to the Climate Change Scoping Plan, Building on the Framework Pursuant to AB32, the California Global Warming Solutions Act of 2006. May.

2018 Historical Air Quality, Top 4 Summary

City of Jurupa Valley
2017 City of Jurupa Valley 2017 General Plan. September.

Governor's Office of Planning and Research
2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

2009 CEQA Guideline Sections to be Added or Amended

Office of Environmental Health Hazard Assessment
2015 Air Toxics Hot Spots Program Risk Assessment Guidelines

South Coast Air Quality Management District
1993 CEQA Air Quality Handbook

2005 Rule 403 Fugitive Dust
2007 2007 Air Quality Management Plan

2008 Final Localized Significance Threshold Methodology, Revised

2011 Appendix A Calculation Details for CalEEMod

2012 Final 2012 Air Quality Management Plan

2016 Final 2016 Air Quality Management Plan

TJW Engineering, Inc.
2020 The Shops at Jurupa Valley Traffic Impact Analysis, City of Jurupa Valley, CA.

Western Riverside Council of Governments (WRCOG)
2014 Subregional Climate Action Plan. September.

Appendix A:

CalEEMod Daily Emission Output

06892002 The Shops at Jurupa Valley

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	46.00	1000sqft	1.06	46,000.00	0
Other Asphalt Surfaces	6.40	Acre	6.40	278,784.00	0
Other Non-Asphalt Surfaces	8.14	Acre	8.14	354,578.40	0
Parking Lot	1,302.00	Space	11.72	520,800.00	0
Fast Food Restaurant with Drive Thru	18.40	1000sqft	0.42	18,400.00	0
Hotel	60.00	Room	0.60	52,000.00	0
Automobile Care Center	4.80	1000sqft	0.11	4,800.00	0
Gasoline/Service Station	12.00	Pump	0.08	3,500.00	0
Regional Shopping Center	151.30	1000sqft	3.47	151,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
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 - 32ac w/ 12FP gas stn w/ 3.5TSF mrkt, 4.8TSF carwash, 151.3TSF shopping, 18.4 TSF FF rest w/DT, 46TSF office, 60RM Hotel (26TSF footprint), 1,302 spc prkg lot, ~20% site (6.4ac) paving on-site rds, & rmndr lndscpng/hrdscpe (~8.14ac).

Construction Phase - Construction anticipated to start no sooner than December 2020 and be operational in 2021. Vacant lot, no demo only site prep to remove existing trees.

Off-road Equipment - CalEEMod default construction timing for building construction decreased by ~60%; therefore, ~60% more equipment added to CalEEMod default values.

Off-road Equipment - Site preparation of only less than 1% of site to remove existing trees; therefore, CalEEMod default construction equipment list reduced.

Trips and VMT -

Grading - Site anticipated to balance. Site prep of less than ~1% (~0.32ac) of site to remove existing trees.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50 g/L VOC for buildings & 100 g/L VOC for parking lot striping.

Vehicle Trips - TIA, 102.67trips/FP gas (w/50%pb), 309.58trips/TSF carwash (w/20%pb), 33.97trips/TSF shopping (w/10%pb), 240.16trips/TSF FF (w/49%pb), 9.74trips/TSF office, 8.36trips/RM hotel. Pass-by to 0 split primary/div.

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Mobile Land Use Mitigation - ~0.01 miles N RTA Rte 49 & ~1.68 miles NE dwntwn Jurupa Valley. Sidewalks on/offsite. 1emp/300sf office & 1emp/500sf comm retail/tourist = 613 emp/5.74 job ac (job ac=bldg footprint only) = ~107emp/job ac.

Area Mitigation - SCAQMD Rule 1113 limits architectural coatings to 50 g/L VOC for buildings & 100 g/L VOC for parking lot striping.

Energy Mitigation - 2019 Title 24 Standards for nonresidential buildings will use about 30 percent less energy than with 2016 Title 24 standards. Energy Star Appliances used on-site.

Water Mitigation - CalGreen requires indoor water use reduction of 20%. Outdoor landscaping irrigation will be water efficient.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	500.00	200.00

tblGrading	AcresOfGrading	0.00	0.32
tblLandUse	LandUseSquareFeet	87,120.00	52,000.00
tblLandUse	LandUseSquareFeet	1,694.10	3,500.00
tblLandUse	LotAcreage	2.00	0.60
tblLandUse	LotAcreage	0.04	0.08
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblVehicleTrips	DV_TP	51.00	65.00
tblVehicleTrips	DV_TP	21.00	46.00
tblVehicleTrips	DV_TP	27.00	57.00
tblVehicleTrips	DV_TP	35.00	40.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	21.00	35.00
tblVehicleTrips	PR_TP	29.00	54.00
tblVehicleTrips	PR_TP	14.00	43.00
tblVehicleTrips	PR_TP	54.00	60.00
tblVehicleTrips	ST_TR	23.72	309.58
tblVehicleTrips	ST_TR	722.03	240.16

tblVehicleTrips	ST_TR	168.56	102.67
tblVehicleTrips	ST_TR	2.46	9.74
tblVehicleTrips	ST_TR	8.19	8.36
tblVehicleTrips	ST_TR	49.97	33.97
tblVehicleTrips	SU_TR	11.88	309.58
tblVehicleTrips	SU_TR	542.72	240.16
tblVehicleTrips	SU_TR	168.56	102.67
tblVehicleTrips	SU_TR	1.05	9.74
tblVehicleTrips	SU_TR	5.95	8.36
tblVehicleTrips	SU_TR	25.24	33.97
tblVehicleTrips	WD_TR	23.72	309.58
tblVehicleTrips	WD_TR	496.12	240.16
tblVehicleTrips	WD_TR	168.56	102.67
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	8.17	8.36
tblVehicleTrips	WD_TR	42.70	33.97

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					
2020	4.5519	50.2577	32.7647	0.0642	8.8969	2.1753	11.0722	3.6558	2.0012	5.6570	0.0000	6,226.1842	6,226.1842	1.9481	0.0000	6,274.8858
2021	55.6844	67.2087	73.4800	0.2077	9.4457	2.4141	11.8598	3.6558	2.2687	5.4835	0.0000	20,737.2028	20,737.2028	2.3371	0.0000	20,795.6300
Maximum	**55.6844**	**67.2087**	**73.4800**	**0.2077**	**9.4457**	**2.4141**	**11.8598**	**3.6558**	**2.2687**	**5.6570**	**0.0000**	**20,737.2028**	**20,737.2028**	**2.3371**	**0.0000**	**20,795.6300**

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					
2020	4.5519	50.2577	32.7647	0.0642	3.6062	2.1753	5.7814	1.4619	2.0012	3.4632	0.0000	6,226.1842	6,226.1842	1.9481	0.0000	6,274.8858
2021	55.6844	67.2087	73.4800	0.2077	9.4457	2.4141	11.8598	2.5391	2.2687	4.8078	0.0000	20,737.2028	20,737.2028	2.3371	0.0000	20,795.6300
Maximum	**55.6844**	**67.2087**	**73.4800**	**0.2077**	**9.4457**	**2.4141**	**11.8598**	**2.5391**	**2.2687**	**4.8078**	**0.0000**	**20,737.2028**	**20,737.2028**	**2.3371**	**0.0000**	**20,795.6300**

	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**	**28.84**	**0.00**	**23.07**	**45.28**	**0.00**	**25.76**	**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	6.6779	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Energy	0.2635	2.3951	2.0119	0.0144		0.1820	0.1820		0.1820	0.1820		2,874.1302	2,874.1302	0.0551	0.0527	2,891.2097
Mobile	23.5305	160.8805	223.5828	0.9029	61.5998	0.6171	62.2169	16.4821	0.5789	17.0610		92,213.6883	92,213.6883	5.2910		92,345.9625
Total	**30.4719**	**163.2771**	**225.7596**	**0.9173**	**61.5998**	**0.7997**	**62.3995**	**16.4821**	**0.7615**	**17.2437**		**95,088.1706**	**95,088.1706**	**5.3470**	**0.0527**	**95,237.5478**

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	6.3274	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Energy	0.2203	2.0023	1.6820	0.0120		0.1522	0.1522		0.1522	0.1522		2,402.7814	2,402.7814	0.0461	0.0441	2,417.0600
Mobile	20.3166	129.7778	125.1857	0.4745	26.5029	0.3164	26.8193	7.0913	0.2965	7.3878		48,666.4475	48,666.4475	4.0877		48,768.6389
Total	**26.8643**	**131.7816**	**127.0326**	**0.4865**	**26.5029**	**0.4692**	**26.9721**	**7.0913**	**0.4493**	**7.5406**		**51,069.5811**	**51,069.5811**	**4.1346**	**0.0441**	**51,186.0744**

	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	**11.84**	**19.29**	**43.73**	**46.96**	**56.98**	**41.33**	**56.78**	**56.98**	**41.01**	**56.27**	**0.00**	**46.29**	**46.29**	**22.67**	**16.40**	**46.25**

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	12/1/2020	12/28/2020	5	20	
2	Grading	Grading	12/29/2020	3/1/2021	5	45	
3	Building Construction	Building Construction	3/2/2021	12/6/2021	5	200	
4	Paving	Paving	10/10/2021	11/26/2021	5	35	
5	Architectural Coating	Architectural Coating	10/28/2021	12/15/2021	5	35	

Acres of Grading (Site Preparation Phase): 0.32

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 26.26

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 414,000; Non-Residential Outdoor: 138,000; Striped Parking Area: 69,250 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	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	2	7.00	231	0.29
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Welders	2	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	1	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	14	580.00	234.00	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	116.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

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					0.0170	0.0000	0.0170	1.8300e-003	0.0000	1.8300e-003			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0170**	**0.1331**	**0.1501**	**1.8300e-003**	**0.1225**	**0.1243**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 2020

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	0.0916	0.0542	0.7258	1.9900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		198.2870	198.2870	5.0800e-003		198.4141
Total	**0.0916**	**0.0542**	**0.7258**	**1.9900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**198.2870**	**198.2870**	**5.0800e-003**		**198.4141**

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					6.6200e-003	0.0000	6.6200e-003	7.1000e-004	0.0000	7.1000e-004			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**6.6200e-003**	**0.1331**	**0.1397**	**7.1000e-004**	**0.1225**	**0.1232**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 2020

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	0.0916	0.0542	0.7258	1.9900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		198.2870	198.2870	5.0800e-003		198.4141
Total	**0.0916**	**0.0542**	**0.7258**	**1.9900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**198.2870**	**198.2870**	**5.0800e-003**		**198.4141**

3.3 Grading - 2020

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.3 Grading - 2020

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	0.1018	0.0602	0.8064	2.2100e-003	0.2236	1.3500e-003	0.2249	0.0593	1.2500e-003	0.0605		220.3189	220.3189	5.6500e-003		220.4601
Total	**0.1018**	**0.0602**	**0.8064**	**2.2100e-003**	**0.2236**	**1.3500e-003**	**0.2249**	**0.0593**	**1.2500e-003**	**0.0605**		**220.3189**	**220.3189**	**5.6500e-003**		**220.4601**

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					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.3826**	**2.1739**	**5.5565**	**1.4026**	**2.0000**	**3.4026**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.3 Grading - 2020

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	0.1018	0.0602	0.8064	2.2100e-003	0.2236	1.3500e-003	0.2249	0.0593	1.2500e-003	0.0605		220.3189	220.3189	5.6500e-003		220.4601
Total	**0.1018**	**0.0602**	**0.8064**	**2.2100e-003**	**0.2236**	**1.3500e-003**	**0.2249**	**0.0593**	**1.2500e-003**	**0.0605**		**220.3189**	**220.3189**	**5.6500e-003**		**220.4601**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			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**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**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	0.0000	0.0000	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	0.0948	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	**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**

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					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			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**	**3.3826**	**1.9853**	**5.3679**	**1.4026**	**1.8265**	**3.2292**	**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	0.0000	0.0000	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	0.0948	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	**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**

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	3.2155	29.1883	26.8593	0.0454		1.5542	1.5542		1.4686	1.4686		4,284.0910	4,284.0910	0.9660		4,308.2403
Total	**3.2155**	**29.1883**	**26.8593**	**0.0454**		**1.5542**	**1.5542**		**1.4686**	**1.4686**		**4,284.0910**	**4,284.0910**	**0.9660**		**4,308.2403**

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	0.5463	21.6542	3.8635	0.0606	1.4984	0.0412	1.5396	0.4314	0.0394	0.4708		6,394.0739	6,394.0739	0.4574		6,405.5098
Worker	2.7498	1.5665	21.4433	0.0620	6.4830	0.0382	6.5212	1.7193	0.0352	1.7545		6,175.5553	6,175.5553	0.1473		6,179.2366
Total	**3.2960**	**23.2207**	**25.3068**	**0.1226**	**7.9814**	**0.0794**	**8.0608**	**2.1507**	**0.0746**	**2.2253**		**12,569.6292**	**12,569.6292**	**0.6047**		**12,584.7463**

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	3.2155	29.1883	26.8593	0.0454		1.5542	1.5542		1.4686	1.4686	0.0000	4,284.0910	4,284.0910	0.9660		4,308.2403
Total	**3.2155**	**29.1883**	**26.8593**	**0.0454**		**1.5542**	**1.5542**		**1.4686**	**1.4686**	**0.0000**	**4,284.0910**	**4,284.0910**	**0.9660**		**4,308.2403**

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	0.5463	21.6542	3.8635	0.0606	1.4984	0.0412	1.5396	0.4314	0.0394	0.4708		6,394.0739	6,394.0739	0.4574		6,405.5098
Worker	2.7498	1.5665	21.4433	0.0620	6.4830	0.0382	6.5212	1.7193	0.0352	1.7545		6,175.5553	6,175.5553	0.1473		6,179.2366
Total	**3.2960**	**23.2207**	**25.3068**	**0.1226**	**7.9814**	**0.0794**	**8.0608**	**2.1507**	**0.0746**	**2.2253**		**12,569.6292**	**12,569.6292**	**0.6047**		**12,584.7463**

3.5 Paving - 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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.3564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6120**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 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	0.0711	0.0405	0.5546	1.6000e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		159.7126	159.7126	3.8100e-003		159.8078
Total	**0.0711**	**0.0405**	**0.5546**	**1.6000e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**159.7126**	**159.7126**	**3.8100e-003**		**159.8078**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.3564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6120**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 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	0.0711	0.0405	0.5546	1.6000e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		159.7126	159.7126	3.8100e-003		159.8078
Total	**0.0711**	**0.0405**	**0.5546**	**1.6000e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**159.7126**	**159.7126**	**3.8100e-003**		**159.8078**

3.6 Architectural Coating - 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					
Archit. Coating	45.7210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**45.9399**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 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	0.5500	0.3133	4.2887	0.0124	1.2966	7.6400e-003	1.3043	0.3439	7.0300e-003	0.3509		1,235.1111	1,235.1111	0.0295		1,235.8473
Total	**0.5500**	**0.3133**	**4.2887**	**0.0124**	**1.2966**	**7.6400e-003**	**1.3043**	**0.3439**	**7.0300e-003**	**0.3509**		**1,235.1111**	**1,235.1111**	**0.0295**		**1,235.8473**

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	45.7210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**45.9399**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 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	0.5500	0.3133	4.2887	0.0124	1.2966	7.6400e-003	1.3043	0.3439	7.0300e-003	0.3509		1,235.1111	1,235.1111	0.0295		1,235.8473
Total	**0.5500**	**0.3133**	**4.2887**	**0.0124**	**1.2966**	**7.6400e-003**	**1.3043**	**0.3439**	**7.0300e-003**	**0.3509**		**1,235.1111**	**1,235.1111**	**0.0295**		**1,235.8473**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	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	20.3166	129.7778	125.1857	0.4745	26.5029	0.3164	26.8193	7.0913	0.2965	7.3878		48,666.4475	48,666.4475	4.0877		48,768.6389
Unmitigated	23.5305	160.8805	223.5828	0.9029	61.5998	0.6171	62.2169	16.4821	0.5789	17.0610		92,213.6883	92,213.6883	5.2910		92,345.9625

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	1,485.98	1,485.98	1485.98	2,999,693	1,290,598
Fast Food Restaurant with Drive Thru	4,418.94	4,418.94	4418.94	8,739,740	3,760,215
Gasoline/Service Station	1,232.04	1,232.04	1232.04	2,125,590	914,521
General Office Building	448.04	448.04	448.04	1,443,343	620,989
Hotel	501.60	501.60	501.60	1,196,903	514,960
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	5,139.66	5,139.66	5139.66	12,377,679	5,325,414
Total	13,226.27	13,226.27	13,226.27	28,882,949	12,426,697

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	35	65	0
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	54	46	0
Gasoline/Service Station	16.60	8.40	6.90	2.00	79.00	19.00	43	57	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	60	40	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Gasoline/Service Station	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Office Building	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

06892002 The Shops at Jurupa Valley - Riverside-South Coast County, Summer

Exceed Title 24

Install Energy Efficient Appliances

	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	0.2203	2.0023	1.6820	0.0120		0.1522	0.1522		0.1522	0.1522		2,402.7814	2,402.7814	0.0461	0.0441	2,417.0600
NaturalGas Unmitigated	0.2635	2.3951	2.0119	0.0144		0.1820	0.1820		0.1820	0.1820		2,874.1302	2,874.1302	0.0551	0.0527	2,891.2097

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					
Automobile Care Center	427.266	4.6100e-003	0.0419	0.0352	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003		50.2666	50.2666	9.6000e-004	9.2000e-004	50.5653
Fast Food Restaurant with Drive Thru	13784.4	0.1487	1.3514	1.1352	8.1100e-003		0.1027	0.1027		0.1027	0.1027		1,621.6909	1,621.6909	0.0311	0.0297	1,631.3278
Gasoline/Service Station	311.548	3.3600e-003	0.0305	0.0257	1.8000e-004		2.3200e-003	2.3200e-003		2.3200e-003	2.3200e-003		36.6527	36.6527	7.0000e-004	6.7000e-004	36.8705
General Office Building	437.315	4.7200e-003	0.0429	0.0360	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003		51.4488	51.4488	9.9000e-004	9.4000e-004	51.7546
Hotel	8549.37	0.0922	0.8382	0.7041	5.0300e-003		0.0637	0.0637		0.0637	0.0637		1,005.8082	1,005.8082	0.0193	0.0184	1,011.7852
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
Other Non-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
Parking Lot	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
Regional Shopping Center	920.236	9.9200e-003	0.0902	0.0758	5.4000e-004		6.8600e-003	6.8600e-003		6.8600e-003	6.8600e-003		108.2630	108.2630	2.0800e-003	1.9800e-003	108.9064
Total		**0.2635**	**2.3951**	**2.0119**	**0.0144**		**0.1820**	**0.1820**		**0.1820**	**0.1820**		**2,874.1302**	**2,874.1302**	**0.0551**	**0.0527**	**2,891.2097**

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					
Automobile Care Center	0.366667	3.9500e-003	0.0360	0.0302	2.2000e-004		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		43.1373	43.1373	8.3000e-004	7.9000e-004	43.3937
Fast Food Restaurant with Drive Thru	12.6097	0.1360	1.2363	1.0385	7.4200e-003		0.0940	0.0940		0.0940	0.0940		1,483.4996	1,483.4996	0.0284	0.0272	1,492.3153
Gasoline/Service Station	0.267362	2.8800e-003	0.0262	0.0220	1.6000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003		31.4543	31.4543	6.0000e-004	5.8000e-004	31.6412
General Office Building	0.306121	3.3000e-003	0.0300	0.0252	1.8000e-004		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003		36.0142	36.0142	6.9000e-004	6.6000e-004	36.2282
Hotel	6.19227	0.0668	0.6071	0.5100	3.6400e-003		0.0461	0.0461		0.0461	0.0461		728.5028	728.5028	0.0140	0.0134	732.8320
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
Other Non-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
Parking Lot	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
Regional Shopping Center	0.681472	7.3500e-003	0.0668	0.0561	4.0000e-004		5.0800e-003	5.0800e-003		5.0800e-003	5.0800e-003		80.1732	80.1732	1.5400e-003	1.4700e-003	80.6496
Total		**0.2203**	**2.0023**	**1.6820**	**0.0120**		**0.1522**	**0.1522**		**0.1522**	**0.1522**		**2,402.7814**	**2,402.7814**	**0.0461**	**0.0441**	**2,417.0600**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	6.3274	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Unmitigated	6.6779	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755

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	0.7889					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0154	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Total	**6.6779**	**1.5100e-003**	**0.1649**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3521**	**0.3521**	**9.4000e-004**		**0.3755**

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	0.4384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0154	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Total	**6.3274**	**1.5100e-003**	**0.1649**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3521**	**0.3521**	**9.4000e-004**		**0.3755**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

06892002 The Shops at Jurupa Valley

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	46.00	1000sqft	1.06	46,000.00	0
Other Asphalt Surfaces	6.40	Acre	6.40	278,784.00	0
Other Non-Asphalt Surfaces	8.14	Acre	8.14	354,578.40	0
Parking Lot	1,302.00	Space	11.72	520,800.00	0
Fast Food Restaurant with Drive Thru	18.40	1000sqft	0.42	18,400.00	0
Hotel	60.00	Room	0.60	52,000.00	0
Automobile Care Center	4.80	1000sqft	0.11	4,800.00	0
Gasoline/Service Station	12.00	Pump	0.08	3,500.00	0
Regional Shopping Center	151.30	1000sqft	3.47	151,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
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 - 32ac w/ 12FP gas stn w/ 3.5TSF mrkt, 4.8TSF carwash, 151.3TSF shopping, 18.4 TSF FF rest w/DT, 46TSF office, 60RM Hotel (26TSF footprint), 1,302 spc prkg lot, ~20% site (6.4ac) paving on-site rds, & rmndr lndscpng/hrdscpe (~8.14ac).

Construction Phase - Construction anticipated to start no sooner than December 2020 and be operational in 2021. Vacant lot, no demo only site prep to remove existing trees.

Off-road Equipment - CalEEMod default construction timing for building construction decreased by ~60%; therefore, ~60% more equipment added to CalEEMod default values.

Off-road Equipment - Site preparation of only less than 1% of site to remove existing trees; therefore, CalEEMod default construction equipment list reduced.

Trips and VMT -

Grading - Site anticipated to balance. Site prep of less than ~1% (~0.32ac) of site to remove existing trees.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50 g/L VOC for buildings & 100 g/L VOC for parking lot striping.

Vehicle Trips - TIA, 102.67trips/FP gas (w/50%pb), 309.58trips/TSF carwash (w/20%pb), 33.97trips/TSF shopping (w/10%pb), 240.16trips/TSF FF (w/49%pb), 9.74trips/TSF office, 8.36trips/RM hotel. Pass-by to 0 split primary/div.

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Mobile Land Use Mitigation - ~0.01 miles N RTA Rte 49 & ~1.68 miles NE dwntwn Jurupa Valley. Sidewalks on/offsite. 1emp/300sf office & 1emp/500sf comm retail/tourist = 613 emp/5.74 job ac (job ac=bldg footprint only) = ~107emp/job ac.

Area Mitigation - SCAQMD Rule 1113 limits architectural coatings to 50 g/L VOC for buildings & 100 g/L VOC for parking lot striping.

Energy Mitigation - 2019 Title 24 Standards for nonresidential buildings will use about 30 percent less energy than with 2016 Title 24 standards. Energy Star Appliances used on-site.

Water Mitigation - CalGreen requires indoor water use reduction of 20%. Outdoor landscaping irrigation will be water efficient.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	500.00	200.00

tblGrading	AcresOfGrading	0.00	0.32
tblLandUse	LandUseSquareFeet	87,120.00	52,000.00
tblLandUse	LandUseSquareFeet	1,694.10	3,500.00
tblLandUse	LotAcreage	2.00	0.60
tblLandUse	LotAcreage	0.04	0.08
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblVehicleTrips	DV_TP	51.00	65.00
tblVehicleTrips	DV_TP	21.00	46.00
tblVehicleTrips	DV_TP	27.00	57.00
tblVehicleTrips	DV_TP	35.00	40.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	21.00	35.00
tblVehicleTrips	PR_TP	29.00	54.00
tblVehicleTrips	PR_TP	14.00	43.00
tblVehicleTrips	PR_TP	54.00	60.00
tblVehicleTrips	ST_TR	23.72	309.58
tblVehicleTrips	ST_TR	722.03	240.16

tblVehicleTrips	ST_TR	168.56	102.67
tblVehicleTrips	ST_TR	2.46	9.74
tblVehicleTrips	ST_TR	8.19	8.36
tblVehicleTrips	ST_TR	49.97	33.97
tblVehicleTrips	SU_TR	11.88	309.58
tblVehicleTrips	SU_TR	542.72	240.16
tblVehicleTrips	SU_TR	168.56	102.67
tblVehicleTrips	SU_TR	1.05	9.74
tblVehicleTrips	SU_TR	5.95	8.36
tblVehicleTrips	SU_TR	25.24	33.97
tblVehicleTrips	WD_TR	23.72	309.58
tblVehicleTrips	WD_TR	496.12	240.16
tblVehicleTrips	WD_TR	168.56	102.67
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	8.17	8.36
tblVehicleTrips	WD_TR	42.70	33.97

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					
2020	4.5498	50.2598	32.6106	0.0640	8.8969	2.1753	11.0722	3.6558	2.0012	5.6570	0.0000	6,203.5124	6,203.5124	1.9473	0.0000	6,252.1956
2021	55.6554	67.0879	69.1187	0.1976	9.4457	2.4153	11.8610	3.6558	2.2699	5.4835	0.0000	19,717.7494	19,717.7494	2.3658	0.0000	19,776.8937
Maximum	**55.6554**	**67.0879**	**69.1187**	**0.1976**	**9.4457**	**2.4153**	**11.8610**	**3.6558**	**2.2699**	**5.6570**	**0.0000**	**19,717.7494**	**19,717.7494**	**2.3658**	**0.0000**	**19,776.8937**

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					
2020	4.5498	50.2598	32.6106	0.0640	3.6062	2.1753	5.7814	1.4619	2.0012	3.4632	0.0000	6,203.5124	6,203.5124	1.9473	0.0000	6,252.1956
2021	55.6554	67.0879	69.1187	0.1976	9.4457	2.4153	11.8610	2.5391	2.2699	4.8090	0.0000	19,717.7494	19,717.7494	2.3658	0.0000	19,776.8937
Maximum	**55.6554**	**67.0879**	**69.1187**	**0.1976**	**9.4457**	**2.4153**	**11.8610**	**2.5391**	**2.2699**	**4.8090**	**0.0000**	**19,717.7494**	**19,717.7494**	**2.3658**	**0.0000**	**19,776.8937**

	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**	**28.84**	**0.00**	**23.07**	**45.28**	**0.00**	**25.75**	**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	6.6779	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Energy	0.2635	2.3951	2.0119	0.0144		0.1820	0.1820		0.1820	0.1820		2,874.1302	2,874.1302	0.0551	0.0527	2,891.2097
Mobile	19.7184	159.6925	199.6206	0.8308	61.5998	0.6262	62.2260	16.4821	0.5876	17.0698		84,933.7331	84,933.7331	5.5717		85,073.0264
Total	**26.6598**	**162.0891**	**201.7974**	**0.8452**	**61.5998**	**0.8088**	**62.4087**	**16.4821**	**0.7702**	**17.2524**		**87,808.2154**	**87,808.2154**	**5.6278**	**0.0527**	**87,964.6116**

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	6.3274	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Energy	0.2203	2.0023	1.6820	0.0120		0.1522	0.1522		0.1522	0.1522		2,402.7814	2,402.7814	0.0461	0.0441	2,417.0600
Mobile	16.7195	127.0476	120.9918	0.4336	26.5029	0.3255	26.8285	7.0913	0.3052	7.3965		44,486.3232	44,486.3232	4.4569		44,597.7452
Total	**23.2672**	**129.0514**	**122.8386**	**0.4457**	**26.5029**	**0.4783**	**26.9812**	**7.0913**	**0.4580**	**7.5493**		**46,889.4568**	**46,889.4568**	**4.5039**	**0.0441**	**47,015.1807**

	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	**12.73**	**20.38**	**39.13**	**47.27**	**56.98**	**40.86**	**56.77**	**56.98**	**40.54**	**56.24**	**0.00**	**46.60**	**46.60**	**19.97**	**16.40**	**46.55**

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	12/1/2020	12/28/2020	5	20	
2	Grading	Grading	12/29/2020	3/1/2021	5	45	
3	Building Construction	Building Construction	3/2/2021	12/6/2021	5	200	
4	Paving	Paving	10/10/2021	11/26/2021	5	35	
5	Architectural Coating	Architectural Coating	10/28/2021	12/15/2021	5	35	

Acres of Grading (Site Preparation Phase): 0.32

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 26.26

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 414,000; Non-Residential Outdoor: 138,000; Striped Parking Area: 69,250 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	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	2	7.00	231	0.29
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Welders	2	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	1	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	14	580.00	234.00	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	116.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

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					0.0170	0.0000	0.0170	1.8300e-003	0.0000	1.8300e-003			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0170**	**0.1331**	**0.1501**	**1.8300e-003**	**0.1225**	**0.1243**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 2020

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	0.0897	0.0560	0.5871	1.7900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		177.8824	177.8824	4.4200e-003		177.9929
Total	**0.0897**	**0.0560**	**0.5871**	**1.7900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**177.8824**	**177.8824**	**4.4200e-003**		**177.9929**

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					6.6200e-003	0.0000	6.6200e-003	7.1000e-004	0.0000	7.1000e-004			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**6.6200e-003**	**0.1331**	**0.1397**	**7.1000e-004**	**0.1225**	**0.1232**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 2020

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	0.0897	0.0560	0.5871	1.7900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		177.8824	177.8824	4.4200e-003		177.9929
Total	**0.0897**	**0.0560**	**0.5871**	**1.7900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**177.8824**	**177.8824**	**4.4200e-003**		**177.9929**

3.3 Grading - 2020

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.3 Grading - 2020

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	0.0997	0.0623	0.6524	1.9800e-003	0.2236	1.3500e-003	0.2249	0.0593	1.2500e-003	0.0605		197.6472	197.6472	4.9100e-003		197.7699
Total	**0.0997**	**0.0623**	**0.6524**	**1.9800e-003**	**0.2236**	**1.3500e-003**	**0.2249**	**0.0593**	**1.2500e-003**	**0.0605**		**197.6472**	**197.6472**	**4.9100e-003**		**197.7699**

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					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.3826**	**2.1739**	**5.5565**	**1.4026**	**2.0000**	**3.4026**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

3.3 Grading - 2020

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	0.0997	0.0623	0.6524	1.9800e-003	0.2236	1.3500e-003	0.2249	0.0593	1.2500e-003	0.0605		197.6472	197.6472	4.9100e-003		197.7699
Total	**0.0997**	**0.0623**	**0.6524**	**1.9800e-003**	**0.2236**	**1.3500e-003**	**0.2249**	**0.0593**	**1.2500e-003**	**0.0605**		**197.6472**	**197.6472**	**4.9100e-003**		**197.7699**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			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**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**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	0.0000	0.0000	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	0.0931	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	**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**

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					3.3826	0.0000	3.3826	1.4026	0.0000	1.4026			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**	**3.3826**	**1.9853**	**5.3679**	**1.4026**	**1.8265**	**3.2292**	**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	0.0000	0.0000	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	0.0931	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	**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**

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	3.2155	29.1883	26.8593	0.0454		1.5542	1.5542		1.4686	1.4686		4,284.0910	4,284.0910	0.9660		4,308.2403
Total	**3.2155**	**29.1883**	**26.8593**	**0.0454**		**1.5542**	**1.5542**		**1.4686**	**1.4686**		**4,284.0910**	**4,284.0910**	**0.9660**		**4,308.2403**

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	0.5802	21.4677	4.5703	0.0584	1.4984	0.0424	1.5408	0.4314	0.0406	0.4720		6,153.5733	6,153.5733	0.5097		6,166.3157
Worker	2.6985	1.6201	17.3089	0.0556	6.4830	0.0382	6.5212	1.7193	0.0352	1.7545		5,540.1226	5,540.1226	0.1280		5,543.3231
Total	**3.2787**	**23.0878**	**21.8792**	**0.1139**	**7.9814**	**0.0806**	**8.0621**	**2.1507**	**0.0758**	**2.2265**		**11,693.6959**	**11,693.6959**	**0.6377**		**11,709.6388**

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	3.2155	29.1883	26.8593	0.0454		1.5542	1.5542		1.4686	1.4686	0.0000	4,284.0910	4,284.0910	0.9660		4,308.2403
Total	**3.2155**	**29.1883**	**26.8593**	**0.0454**		**1.5542**	**1.5542**		**1.4686**	**1.4686**	**0.0000**	**4,284.0910**	**4,284.0910**	**0.9660**		**4,308.2403**

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	0.5802	21.4677	4.5703	0.0584	1.4984	0.0424	1.5408	0.4314	0.0406	0.4720		6,153.5733	6,153.5733	0.5097		6,166.3157
Worker	2.6985	1.6201	17.3089	0.0556	6.4830	0.0382	6.5212	1.7193	0.0352	1.7545		5,540.1226	5,540.1226	0.1280		5,543.3231
Total	**3.2787**	**23.0878**	**21.8792**	**0.1139**	**7.9814**	**0.0806**	**8.0621**	**2.1507**	**0.0758**	**2.2265**		**11,693.6959**	**11,693.6959**	**0.6377**		**11,709.6388**

3.5 Paving - 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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.3564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6120**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 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	0.0698	0.0419	0.4476	1.4400e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		143.2790	143.2790	3.3100e-003		143.3618
Total	**0.0698**	**0.0419**	**0.4476**	**1.4400e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**143.2790**	**143.2790**	**3.3100e-003**		**143.3618**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	1.3564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6120**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 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	0.0698	0.0419	0.4476	1.4400e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		143.2790	143.2790	3.3100e-003		143.3618
Total	**0.0698**	**0.0419**	**0.4476**	**1.4400e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**143.2790**	**143.2790**	**3.3100e-003**		**143.3618**

3.6 Architectural Coating - 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					
Archit. Coating	45.7210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**45.9399**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 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	0.5397	0.3240	3.4618	0.0111	1.2966	7.6400e-003	1.3043	0.3439	7.0300e-003	0.3509		1,108.0245	1,108.0245	0.0256		1,108.6646
Total	**0.5397**	**0.3240**	**3.4618**	**0.0111**	**1.2966**	**7.6400e-003**	**1.3043**	**0.3439**	**7.0300e-003**	**0.3509**		**1,108.0245**	**1,108.0245**	**0.0256**		**1,108.6646**

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	45.7210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**45.9399**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 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	0.5397	0.3240	3.4618	0.0111	1.2966	7.6400e-003	1.3043	0.3439	7.0300e-003	0.3509		1,108.0245	1,108.0245	0.0256		1,108.6646
Total	**0.5397**	**0.3240**	**3.4618**	**0.0111**	**1.2966**	**7.6400e-003**	**1.3043**	**0.3439**	**7.0300e-003**	**0.3509**		**1,108.0245**	**1,108.0245**	**0.0256**		**1,108.6646**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	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	16.7195	127.0476	120.9918	0.4336	26.5029	0.3255	26.8285	7.0913	0.3052	7.3965		44,486.3232	44,486.3232	4.4569		44,597.7452
Unmitigated	19.7184	159.6925	199.6206	0.8308	61.5998	0.6262	62.2260	16.4821	0.5876	17.0698		84,933.7331	84,933.7331	5.5717		85,073.0264

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	1,485.98	1,485.98	1485.98	2,999,693	1,290,598
Fast Food Restaurant with Drive Thru	4,418.94	4,418.94	4418.94	8,739,740	3,760,215
Gasoline/Service Station	1,232.04	1,232.04	1232.04	2,125,590	914,521
General Office Building	448.04	448.04	448.04	1,443,343	620,989
Hotel	501.60	501.60	501.60	1,196,903	514,960
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	5,139.66	5,139.66	5139.66	12,377,679	5,325,414
Total	13,226.27	13,226.27	13,226.27	28,882,949	12,426,697

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	35	65	0
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	54	46	0
Gasoline/Service Station	16.60	8.40	6.90	2.00	79.00	19.00	43	57	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	60	40	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Gasoline/Service Station	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Office Building	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

06892002 The Shops at Jurupa Valley - Riverside-South Coast County, Winter

Install Energy Efficient Appliances

Exceed Title 24

	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	0.2203	2.0023	1.6820	0.0120		0.1522	0.1522		0.1522	0.1522		2,402.7814	2,402.7814	0.0461	0.0441	2,417.0600
NaturalGas Unmitigated	0.2635	2.3951	2.0119	0.0144		0.1820	0.1820		0.1820	0.1820		2,874.1302	2,874.1302	0.0551	0.0527	2,891.2097

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					
Automobile Care Center	427.266	4.6100e-003	0.0419	0.0352	2.5000e-004		3.1800e-003	3.1800e-003		3.1800e-003	3.1800e-003		50.2666	50.2666	9.6000e-004	9.2000e-004	50.5653
Fast Food Restaurant with Drive Thru	13784.4	0.1487	1.3514	1.1352	8.1100e-003		0.1027	0.1027		0.1027	0.1027		1,621.6909	1,621.6909	0.0311	0.0297	1,631.3278
Gasoline/Service Station	311.548	3.3600e-003	0.0305	0.0257	1.8000e-004		2.3200e-003	2.3200e-003		2.3200e-003	2.3200e-003		36.6527	36.6527	7.0000e-004	6.7000e-004	36.8705
General Office Building	437.315	4.7200e-003	0.0429	0.0360	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003		51.4488	51.4488	9.9000e-004	9.4000e-004	51.7546
Hotel	8549.37	0.0922	0.8382	0.7041	5.0300e-003		0.0637	0.0637		0.0637	0.0637		1,005.8082	1,005.8082	0.0193	0.0184	1,011.7852
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
Other Non-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
Parking Lot	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
Regional Shopping Center	920.236	9.9200e-003	0.0902	0.0758	5.4000e-004		6.8600e-003	6.8600e-003		6.8600e-003	6.8600e-003		108.2630	108.2630	2.0800e-003	1.9800e-003	108.9064
Total		**0.2635**	**2.3951**	**2.0119**	**0.0144**		**0.1820**	**0.1820**		**0.1820**	**0.1820**		**2,874.1302**	**2,874.1302**	**0.0551**	**0.0527**	**2,891.2097**

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					
Automobile Care Center	0.366667	3.9500e-003	0.0360	0.0302	2.2000e-004		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		43.1373	43.1373	8.3000e-004	7.9000e-004	43.3937
Fast Food Restaurant with Drive Thru	12.6097	0.1360	1.2363	1.0385	7.4200e-003		0.0940	0.0940		0.0940	0.0940		1,483.4996	1,483.4996	0.0284	0.0272	1,492.3153
Gasoline/Service Station	0.267362	2.8800e-003	0.0262	0.0220	1.6000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003		31.4543	31.4543	6.0000e-004	5.8000e-004	31.6412
General Office Building	0.306121	3.3000e-003	0.0300	0.0252	1.8000e-004		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003		36.0142	36.0142	6.9000e-004	6.6000e-004	36.2282
Hotel	6.19227	0.0668	0.6071	0.5100	3.6400e-003		0.0461	0.0461		0.0461	0.0461		728.5028	728.5028	0.0140	0.0134	732.8320
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
Other Non-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
Parking Lot	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
Regional Shopping Center	0.681472	7.3500e-003	0.0668	0.0561	4.0000e-004		5.0800e-003	5.0800e-003		5.0800e-003	5.0800e-003		80.1732	80.1732	1.5400e-003	1.4700e-003	80.6496
Total		**0.2203**	**2.0023**	**1.6820**	**0.0120**		**0.1522**	**0.1522**		**0.1522**	**0.1522**		**2,402.7814**	**2,402.7814**	**0.0461**	**0.0441**	**2,417.0600**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	6.3274	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Unmitigated	6.6779	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755

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	0.7889					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0154	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Total	**6.6779**	**1.5100e-003**	**0.1649**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3521**	**0.3521**	**9.4000e-004**		**0.3755**

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	0.4384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0154	1.5100e-003	0.1649	1.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		0.3521	0.3521	9.4000e-004		0.3755
Total	**6.3274**	**1.5100e-003**	**0.1649**	**1.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**		**0.3521**	**0.3521**	**9.4000e-004**		**0.3755**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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:

CalEEMod Annual Emission Output

06892002 The Shops at Jurupa Valley

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	46.00	1000sqft	1.06	46,000.00	0
Other Asphalt Surfaces	6.40	Acre	6.40	278,784.00	0
Other Non-Asphalt Surfaces	8.14	Acre	8.14	354,578.40	0
Parking Lot	1,302.00	Space	11.72	520,800.00	0
Fast Food Restaurant with Drive Thru	18.40	1000sqft	0.42	18,400.00	0
Hotel	60.00	Room	0.60	52,000.00	0
Automobile Care Center	4.80	1000sqft	0.11	4,800.00	0
Gasoline/Service Station	12.00	Pump	0.08	3,500.00	0
Regional Shopping Center	151.30	1000sqft	3.47	151,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
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 - 32ac w/ 12FP gas stn w/ 3.5TSF mrkt, 4.8TSF carwash, 151.3TSF shopping, 18.4 TSF FF rest w/DT, 46TSF office, 60RM Hotel (26TSF footprint), 1,302 spc prkg lot, ~20% site (6.4ac) paving on-site rds, & rmndr lndscpng/hrdscpe (~8.14ac).

Construction Phase - Construction anticipated to start no sooner than December 2020 and be operational in 2021. Vacant lot, no demo only site prep to remove existing trees.

Off-road Equipment - CalEEMod default construction timing for building construction decreased by ~60%; therefore, ~60% more equipment added to CalEEMod default values.

Off-road Equipment - Site preparation of only less than 1% of site to remove existing trees; therefore, CalEEMod default construction equipment list reduced.

Trips and VMT -

Grading - Site anticipated to balance. Site prep of less than ~1% (~0.32ac) of site to remove existing trees.

Architectural Coating - SCAQMD Rule 1113 limits architectural coatings to 50 g/L VOC for buildings & 100 g/L VOC for parking lot striping.

Vehicle Trips - TIA, 102.67trips/FP gas (w/50%pb), 309.58trips/TSF carwash (w/20%pb), 33.97trips/TSF shopping (w/10%pb), 240.16trips/TSF FF (w/49%pb), 9.74trips/TSF office, 8.36trips/RM hotel. Pass-by to 0 split primary/div.

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Mobile Land Use Mitigation - ~0.01 miles N RTA Rte 49 & ~1.68 miles NE dwntwn Jurupa Valley. Sidewalks on/offsite. 1emp/300sf office & 1emp/500sf comm retail/tourist = 613 emp/5.74 job ac (job ac=bldg footprint only) = ~107emp/job ac.

Area Mitigation - SCAQMD Rule 1113 limits architectural coatings to 50 g/L VOC for buildings & 100 g/L VOC for parking lot striping.

Energy Mitigation - 2019 Title 24 Standards for nonresidential buildings will use about 30 percent less energy than with 2016 Title 24 standards. Energy Star Appliances used on-site.

Water Mitigation - CalGreen requires indoor water use reduction of 20%. Outdoor landscaping irrigation will be water efficient.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	500.00	200.00

tblGrading	AcresOfGrading	0.00	0.32
tblLandUse	LandUseSquareFeet	87,120.00	52,000.00
tblLandUse	LandUseSquareFeet	1,694.10	3,500.00
tblLandUse	LotAcreage	2.00	0.60
tblLandUse	LotAcreage	0.04	0.08
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblVehicleTrips	DV_TP	51.00	65.00
tblVehicleTrips	DV_TP	21.00	46.00
tblVehicleTrips	DV_TP	27.00	57.00
tblVehicleTrips	DV_TP	35.00	40.00
tblVehicleTrips	PB_TP	28.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	21.00	35.00
tblVehicleTrips	PR_TP	29.00	54.00
tblVehicleTrips	PR_TP	14.00	43.00
tblVehicleTrips	PR_TP	54.00	60.00
tblVehicleTrips	ST_TR	23.72	309.58
tblVehicleTrips	ST_TR	722.03	240.16

tblVehicleTrips	ST_TR	168.56	102.67
tblVehicleTrips	ST_TR	2.46	9.74
tblVehicleTrips	ST_TR	8.19	8.36
tblVehicleTrips	ST_TR	49.97	33.97
tblVehicleTrips	SU_TR	11.88	309.58
tblVehicleTrips	SU_TR	542.72	240.16
tblVehicleTrips	SU_TR	168.56	102.67
tblVehicleTrips	SU_TR	1.05	9.74
tblVehicleTrips	SU_TR	5.95	8.36
tblVehicleTrips	SU_TR	25.24	33.97
tblVehicleTrips	WD_TR	23.72	309.58
tblVehicleTrips	WD_TR	496.12	240.16
tblVehicleTrips	WD_TR	168.56	102.67
tblVehicleTrips	WD_TR	11.03	9.74
tblVehicleTrips	WD_TR	8.17	8.36
tblVehicleTrips	WD_TR	42.70	33.97

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					
2020	9.7400e-003	0.0970	0.0780	1.5000e-004	0.0712	4.6100e-003	0.0758	0.0120	4.2400e-003	0.0163	0.0000	12.8323	12.8323	3.5700e-003	0.0000	12.9217
2021	1.5754	6.5033	5.9537	0.0182	1.0012	0.2188	1.2200	0.2958	0.2055	0.5012	0.0000	1,653.1331	1,653.1331	0.1924	0.0000	1,657.9432
Maximum	**1.5754**	**6.5033**	**5.9537**	**0.0182**	**1.0012**	**0.2188**	**1.2200**	**0.2958**	**0.2055**	**0.5012**	**0.0000**	**1,653.1331**	**1,653.1331**	**0.1924**	**0.0000**	**1,657.9432**

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					
2020	9.7400e-003	0.0970	0.0780	1.5000e-004	0.0292	4.6100e-003	0.0338	5.0700e-003	4.2400e-003	9.3100e-003	0.0000	12.8323	12.8323	3.5700e-003	0.0000	12.9217
2021	1.5754	6.5033	5.9537	0.0182	0.8877	0.2188	1.1065	0.2495	0.2055	0.4549	0.0000	1,653.1324	1,653.1324	0.1924	0.0000	1,657.9425
Maximum	**1.5754**	**6.5033**	**5.9537**	**0.0182**	**0.8877**	**0.2188**	**1.1065**	**0.2495**	**0.2055**	**0.4549**	**0.0000**	**1,653.1324**	**1,653.1324**	**0.1924**	**0.0000**	**1,657.9425**

	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**	**14.50**	**0.00**	**12.00**	**17.31**	**0.00**	**10.30**	**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	12-1-2020	2-28-2021	1.1525	1.1525
2	3-1-2021	5-31-2021	1.9314	1.9314
3	6-1-2021	8-31-2021	1.9360	1.9360
4	9-1-2021	9-30-2021	0.6313	0.6313
		Highest	1.9360	1.9360

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	1.2178	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0399	0.0399	1.1000e-004	0.0000	0.0426
Energy	0.0481	0.4371	0.3672	2.6200e-003		0.0332	0.0332		0.0332	0.0332	0.0000	1,888.0626	1,888.0626	0.0674	0.0208	1,895.9425
Mobile	3.5861	29.5998	37.0937	0.1551	11.0281	0.1129	11.1410	2.9548	0.1059	3.0607	0.0000	14,383.0716	14,383.0716	0.8861	0.0000	14,405.2238
Waste						0.0000	0.0000		0.0000	0.0000	95.6615	0.0000	95.6615	5.6534	0.0000	236.9974
Water						0.0000	0.0000		0.0000	0.0000	8.5979	157.6749	166.2728	0.8896	0.0222	195.1278
Total	**4.8520**	**30.0371**	**37.4814**	**0.1577**	**11.0281**	**0.1462**	**11.1743**	**2.9548**	**0.1392**	**3.0940**	**104.2594**	**16,428.8490**	**16,533.1084**	**7.4966**	**0.0430**	**16,733.3340**

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	1.1539	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0399	0.0399	1.1000e-004	0.0000	0.0426
Energy	0.0402	0.3654	0.3070	2.1900e-003		0.0278	0.0278		0.0278	0.0278	0.0000	1,665.7759	1,665.7759	0.0600	0.0181	1,672.6761
Mobile	3.0304	23.5842	21.9819	0.0816	4.7448	0.0582	4.8030	1.2713	0.0546	1.3259	0.0000	7,598.5374	7,598.5374	0.6990	0.0000	7,616.0117
Waste						0.0000	0.0000		0.0000	0.0000	23.9154	0.0000	23.9154	1.4134	0.0000	59.2493
Water						0.0000	0.0000		0.0000	0.0000	6.8783	135.1879	142.0661	0.7121	0.0178	165.1825
Total	**4.2245**	**23.9498**	**22.3095**	**0.0838**	**4.7448**	**0.0861**	**4.8308**	**1.2713**	**0.0824**	**1.3537**	**30.7937**	**9,399.5411**	**9,430.3348**	**2.8845**	**0.0360**	**9,513.1622**

	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	**12.93**	**20.27**	**40.48**	**46.86**	**56.98**	**41.12**	**56.77**	**56.98**	**40.80**	**56.25**	**70.46**	**42.79**	**42.96**	**61.52**	**16.35**	**43.15**

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	12/1/2020	12/28/2020	5	20	
2	Grading	Grading	12/29/2020	3/1/2021	5	45	
3	Building Construction	Building Construction	3/2/2021	12/6/2021	5	200	
4	Paving	Paving	10/10/2021	11/26/2021	5	35	
5	Architectural Coating	Architectural Coating	10/28/2021	12/15/2021	5	35	

Acres of Grading (Site Preparation Phase): 0.32

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 26.26

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 414,000; Non-Residential Outdoor: 138,000; Striped Parking Area: 69,250 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	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	2	7.00	231	0.29
Building Construction	Forklifts	4	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	7.00	97	0.37
Building Construction	Welders	2	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	1	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	14	580.00	234.00	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	116.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

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					1.7000e-004	0.0000	1.7000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-003	0.0211	0.0228	3.0000e-005		1.3300e-003	1.3300e-003		1.2200e-003	1.2200e-003	0.0000	2.7285	2.7285	8.8000e-004	0.0000	2.7506
Total	**2.1000e-003**	**0.0211**	**0.0228**	**3.0000e-005**	**1.7000e-004**	**1.3300e-003**	**1.5000e-003**	**2.0000e-005**	**1.2200e-003**	**1.2400e-003**	**0.0000**	**2.7285**	**2.7285**	**8.8000e-004**	**0.0000**	**2.7506**

3.2 Site Preparation - 2020

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	8.3000e-004	5.8000e-004	6.1900e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6553	1.6553	4.0000e-005	0.0000	1.6563
Total	**8.3000e-004**	**5.8000e-004**	**6.1900e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6553**	**1.6553**	**4.0000e-005**	**0.0000**	**1.6563**

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					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-003	0.0211	0.0228	3.0000e-005		1.3300e-003	1.3300e-003		1.2200e-003	1.2200e-003	0.0000	2.7285	2.7285	8.8000e-004	0.0000	2.7506
Total	**2.1000e-003**	**0.0211**	**0.0228**	**3.0000e-005**	**7.0000e-005**	**1.3300e-003**	**1.4000e-003**	**1.0000e-005**	**1.2200e-003**	**1.2300e-003**	**0.0000**	**2.7285**	**2.7285**	**8.8000e-004**	**0.0000**	**2.7506**

3.2 Site Preparation - 2020

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	8.3000e-004	5.8000e-004	6.1900e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6553	1.6553	4.0000e-005	0.0000	1.6563
Total	**8.3000e-004**	**5.8000e-004**	**6.1900e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6553**	**1.6553**	**4.0000e-005**	**0.0000**	**1.6563**

3.3 Grading - 2020

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					0.0687	0.0000	0.0687	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6800e-003	0.0753	0.0479	9.0000e-005		3.2600e-003	3.2600e-003		3.0000e-003	3.0000e-003	0.0000	8.1726	8.1726	2.6400e-003	0.0000	8.2387
Total	**6.6800e-003**	**0.0753**	**0.0479**	**9.0000e-005**	**0.0687**	**3.2600e-003**	**0.0720**	**0.0114**	**3.0000e-003**	**0.0144**	**0.0000**	**8.1726**	**8.1726**	**2.6400e-003**	**0.0000**	**8.2387**

3.3 Grading - 2020

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	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2759	0.2759	1.0000e-005	0.0000	0.2761
Total	**1.4000e-004**	**1.0000e-004**	**1.0300e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2759**	**0.2759**	**1.0000e-005**	**0.0000**	**0.2761**

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					0.0268	0.0000	0.0268	4.4500e-003	0.0000	4.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6800e-003	0.0753	0.0479	9.0000e-005		3.2600e-003	3.2600e-003		3.0000e-003	3.0000e-003	0.0000	8.1726	8.1726	2.6400e-003	0.0000	8.2387
Total	**6.6800e-003**	**0.0753**	**0.0479**	**9.0000e-005**	**0.0268**	**3.2600e-003**	**0.0301**	**4.4500e-003**	**3.0000e-003**	**7.4500e-003**	**0.0000**	**8.1726**	**8.1726**	**2.6400e-003**	**0.0000**	**8.2387**

3.3 Grading - 2020

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	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2759	0.2759	1.0000e-005	0.0000	0.2761
Total	**1.4000e-004**	**1.0000e-004**	**1.0300e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2759**	**0.2759**	**1.0000e-005**	**0.0000**	**0.2761**

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					0.1861	0.0000	0.1861	0.0760	0.0000	0.0760	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0880	0.9744	0.6485	1.3000e-003		0.0417	0.0417		0.0384	0.0384	0.0000	114.4395	114.4395	0.0370	0.0000	115.3648
Total	**0.0880**	**0.9744**	**0.6485**	**1.3000e-003**	**0.1861**	**0.0417**	**0.2278**	**0.0760**	**0.0384**	**0.1143**	**0.0000**	**114.4395**	**114.4395**	**0.0370**	**0.0000**	**115.3648**

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	0.0000	0.0000	0.0000	0.0000	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	1.8000e-003	1.2100e-003	0.0132	4.0000e-005	4.6200e-003	3.0000e-005	4.6400e-003	1.2300e-003	3.0000e-005	1.2500e-003	0.0000	3.7332	3.7332	9.0000e-005	0.0000	3.7353
Total	**1.8000e-003**	**1.2100e-003**	**0.0132**	**4.0000e-005**	**4.6200e-003**	**3.0000e-005**	**4.6400e-003**	**1.2300e-003**	**3.0000e-005**	**1.2500e-003**	**0.0000**	**3.7332**	**3.7332**	**9.0000e-005**	**0.0000**	**3.7353**

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					0.0726	0.0000	0.0726	0.0296	0.0000	0.0296	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0880	0.9744	0.6485	1.3000e-003		0.0417	0.0417		0.0384	0.0384	0.0000	114.4393	114.4393	0.0370	0.0000	115.3646
Total	**0.0880**	**0.9744**	**0.6485**	**1.3000e-003**	**0.0726**	**0.0417**	**0.1143**	**0.0296**	**0.0384**	**0.0680**	**0.0000**	**114.4393**	**114.4393**	**0.0370**	**0.0000**	**115.3646**

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	0.0000	0.0000	0.0000	0.0000	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	1.8000e-003	1.2100e-003	0.0132	4.0000e-005	4.6200e-003	3.0000e-005	4.6400e-003	1.2300e-003	3.0000e-005	1.2500e-003	0.0000	3.7332	3.7332	9.0000e-005	0.0000	3.7353
Total	**1.8000e-003**	**1.2100e-003**	**0.0132**	**4.0000e-005**	**4.6200e-003**	**3.0000e-005**	**4.6400e-003**	**1.2300e-003**	**3.0000e-005**	**1.2500e-003**	**0.0000**	**3.7332**	**3.7332**	**9.0000e-005**	**0.0000**	**3.7353**

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	0.3216	2.9188	2.6859	4.5300e-003		0.1554	0.1554		0.1469	0.1469	0.0000	388.6462	388.6462	0.0876	0.0000	390.8370
Total	**0.3216**	**2.9188**	**2.6859**	**4.5300e-003**		**0.1554**	**0.1554**		**0.1469**	**0.1469**	**0.0000**	**388.6462**	**388.6462**	**0.0876**	**0.0000**	**390.8370**

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	0.0558	2.1819	0.4198	5.9700e-003	0.1478	4.1700e-003	0.1520	0.0426	3.9900e-003	0.0466	0.0000	570.8973	570.8973	0.0436	0.0000	571.9860
Worker	0.2487	0.1676	1.8259	5.7000e-003	0.6375	3.8200e-003	0.6413	0.1693	3.5200e-003	0.1728	0.0000	515.5309	515.5309	0.0120	0.0000	515.8311
Total	**0.3045**	**2.3494**	**2.2457**	**0.0117**	**0.7853**	**7.9900e-003**	**0.7933**	**0.2119**	**7.5100e-003**	**0.2194**	**0.0000**	**1,086.4282**	**1,086.4282**	**0.0556**	**0.0000**	**1,087.8172**

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	0.3216	2.9188	2.6859	4.5300e-003		0.1554	0.1554		0.1469	0.1469	0.0000	388.6457	388.6457	0.0876	0.0000	390.8365
Total	**0.3216**	**2.9188**	**2.6859**	**4.5300e-003**		**0.1554**	**0.1554**		**0.1469**	**0.1469**	**0.0000**	**388.6457**	**388.6457**	**0.0876**	**0.0000**	**390.8365**

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	0.0558	2.1819	0.4198	5.9700e-003	0.1478	4.1700e-003	0.1520	0.0426	3.9900e-003	0.0466	0.0000	570.8973	570.8973	0.0436	0.0000	571.9860
Worker	0.2487	0.1676	1.8259	5.7000e-003	0.6375	3.8200e-003	0.6413	0.1693	3.5200e-003	0.1728	0.0000	515.5309	515.5309	0.0120	0.0000	515.8311
Total	**0.3045**	**2.3494**	**2.2457**	**0.0117**	**0.7853**	**7.9900e-003**	**0.7933**	**0.2119**	**7.5100e-003**	**0.2194**	**0.0000**	**1,086.4282**	**1,086.4282**	**0.0556**	**0.0000**	**1,087.8172**

3.5 Paving - 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	0.0220	0.2261	0.2564	4.0000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	35.0411	35.0411	0.0113	0.0000	35.3244
Paving	0.0237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0457**	**0.2261**	**0.2564**	**4.0000e-004**		**0.0119**	**0.0119**		**0.0109**	**0.0109**	**0.0000**	**35.0411**	**35.0411**	**0.0113**	**0.0000**	**35.3244**

3.5 Paving - 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	1.1300e-003	7.6000e-004	8.2600e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9000e-003	7.7000e-004	2.0000e-005	7.8000e-004	0.0000	2.3332	2.3332	5.0000e-005	0.0000	2.3346
Total	**1.1300e-003**	**7.6000e-004**	**8.2600e-003**	**3.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9000e-003**	**7.7000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.3332**	**2.3332**	**5.0000e-005**	**0.0000**	**2.3346**

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	0.0220	0.2261	0.2564	4.0000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	35.0411	35.0411	0.0113	0.0000	35.3244
Paving	0.0237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0457**	**0.2261**	**0.2564**	**4.0000e-004**		**0.0119**	**0.0119**		**0.0109**	**0.0109**	**0.0000**	**35.0411**	**35.0411**	**0.0113**	**0.0000**	**35.3244**

3.5 Paving - 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	1.1300e-003	7.6000e-004	8.2600e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9000e-003	7.7000e-004	2.0000e-005	7.8000e-004	0.0000	2.3332	2.3332	5.0000e-005	0.0000	2.3346
Total	**1.1300e-003**	**7.6000e-004**	**8.2600e-003**	**3.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9000e-003**	**7.7000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.3332**	**2.3332**	**5.0000e-005**	**0.0000**	**2.3346**

3.6 Architectural Coating - 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					
Archit. Coating	0.8001					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8300e-003	0.0267	0.0318	5.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	4.4682	4.4682	3.1000e-004	0.0000	4.4759
Total	**0.8040**	**0.0267**	**0.0318**	**5.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.6500e-003**	**1.6500e-003**	**0.0000**	**4.4682**	**4.4682**	**3.1000e-004**	**0.0000**	**4.4759**

3.6 Architectural Coating - 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	8.7000e-003	5.8700e-003	0.0639	2.0000e-004	0.0223	1.3000e-004	0.0225	5.9200e-003	1.2000e-004	6.0500e-003	0.0000	18.0436	18.0436	4.2000e-004	0.0000	18.0541
Total	**8.7000e-003**	**5.8700e-003**	**0.0639**	**2.0000e-004**	**0.0223**	**1.3000e-004**	**0.0225**	**5.9200e-003**	**1.2000e-004**	**6.0500e-003**	**0.0000**	**18.0436**	**18.0436**	**4.2000e-004**	**0.0000**	**18.0541**

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	0.8001					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8300e-003	0.0267	0.0318	5.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	4.4682	4.4682	3.1000e-004	0.0000	4.4759
Total	**0.8040**	**0.0267**	**0.0318**	**5.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.6500e-003**	**1.6500e-003**	**0.0000**	**4.4682**	**4.4682**	**3.1000e-004**	**0.0000**	**4.4759**

3.6 Architectural Coating - 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	8.7000e-003	5.8700e-003	0.0639	2.0000e-004	0.0223	1.3000e-004	0.0225	5.9200e-003	1.2000e-004	6.0500e-003	0.0000	18.0436	18.0436	4.2000e-004	0.0000	18.0541
Total	**8.7000e-003**	**5.8700e-003**	**0.0639**	**2.0000e-004**	**0.0223**	**1.3000e-004**	**0.0225**	**5.9200e-003**	**1.2000e-004**	**6.0500e-003**	**0.0000**	**18.0436**	**18.0436**	**4.2000e-004**	**0.0000**	**18.0541**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	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	3.0304	23.5842	21.9819	0.0816	4.7448	0.0582	4.8030	1.2713	0.0546	1.3259	0.0000	7,598.5374	7,598.5374	0.6990	0.0000	7,616.0117
Unmitigated	3.5861	29.5998	37.0937	0.1551	11.0281	0.1129	11.1410	2.9548	0.1059	3.0607	0.0000	14,383.0716	14,383.0716	0.8861	0.0000	14,405.2238

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	1,485.98	1,485.98	1485.98	2,999,693	1,290,598
Fast Food Restaurant with Drive Thru	4,418.94	4,418.94	4418.94	8,739,740	3,760,215
Gasoline/Service Station	1,232.04	1,232.04	1232.04	2,125,590	914,521
General Office Building	448.04	448.04	448.04	1,443,343	620,989
Hotel	501.60	501.60	501.60	1,196,903	514,960
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	5,139.66	5,139.66	5139.66	12,377,679	5,325,414
Total	13,226.27	13,226.27	13,226.27	28,882,949	12,426,697

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	35	65	0
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	54	46	0
Gasoline/Service Station	16.60	8.40	6.90	2.00	79.00	19.00	43	57	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	60	40	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Gasoline/Service Station	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Office Building	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Hotel	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Regional Shopping Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	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	1,267.9685	1,267.9685	0.0524	0.0108	1,272.5047
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,412.2181	1,412.2181	0.0583	0.0121	1,417.2703
NaturalGas Mitigated	0.0402	0.3654	0.3070	2.1900e-003		0.0278	0.0278		0.0278	0.0278	0.0000	397.8074	397.8074	7.6200e-003	7.2900e-003	400.1714
NaturalGas Unmitigated	0.0481	0.4371	0.3672	2.6200e-003		0.0332	0.0332		0.0332	0.0332	0.0000	475.8445	475.8445	9.1200e-003	8.7200e-003	478.6722

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					
Automobile Care Center	155952	8.4000e-004	7.6400e-003	6.4200e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.3222	8.3222	1.6000e-004	1.5000e-004	8.3717
Fast Food Restaurant with Drive Thru	5.0313e+006	0.0271	0.2466	0.2072	1.4800e-003		0.0187	0.0187		0.0187	0.0187	0.0000	268.4891	268.4891	5.1500e-003	4.9200e-003	270.0846
Gasoline/Service Station	113715	6.1000e-004	5.5700e-003	4.6800e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0683	6.0683	1.2000e-004	1.1000e-004	6.1043
General Office Building	159620	8.6000e-004	7.8200e-003	6.5700e-003	5.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	8.5179	8.5179	1.6000e-004	1.6000e-004	8.5686
Hotel	3.12052e+006	0.0168	0.1530	0.1285	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.5228	166.5228	3.1900e-003	3.0500e-003	167.5124
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
Other Non-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
Parking Lot	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
Regional Shopping Center	335886	1.8100e-003	0.0165	0.0138	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9242	17.9242	3.4000e-004	3.3000e-004	18.0307
Total		**0.0481**	**0.4371**	**0.3672**	**2.6300e-003**		**0.0332**	**0.0332**		**0.0332**	**0.0332**	**0.0000**	**475.8445**	**475.8445**	**9.1200e-003**	**8.7200e-003**	**478.6722**

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					
Automobile Care Center	133834	7.2000e-004	6.5600e-003	5.5100e-003	4.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	7.1419	7.1419	1.4000e-004	1.3000e-004	7.1843
Fast Food Restaurant with Drive Thru	4.60256e+006	0.0248	0.2256	0.1895	1.3500e-003		0.0172	0.0172		0.0172	0.0172	0.0000	245.6100	245.6100	4.7100e-003	4.5000e-003	247.0695
Gasoline/Service Station	97587	5.3000e-004	4.7800e-003	4.0200e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.2076	5.2076	1.0000e-004	1.0000e-004	5.2386
General Office Building	111734	6.0000e-004	5.4800e-003	4.6000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9626	5.9626	1.1000e-004	1.1000e-004	5.9980
Hotel	2.26018e+006	0.0122	0.1108	0.0931	6.6000e-004		8.4200e-003	8.4200e-003		8.4200e-003	8.4200e-003	0.0000	120.6118	120.6118	2.3100e-003	2.2100e-003	121.3286
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
Other Non-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
Parking Lot	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
Regional Shopping Center	248737	1.3400e-003	0.0122	0.0102	7.0000e-005		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	13.2736	13.2736	2.5000e-004	2.4000e-004	13.3524
Total		**0.0402**	**0.3654**	**0.3070**	**2.1800e-003**		**0.0278**	**0.0278**		**0.0278**	**0.0278**	**0.0000**	**397.8074**	**397.8074**	**7.6200e-003**	**7.2900e-003**	**400.1714**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	48720	15.5232	6.4000e-004	1.3000e-004	15.5788
Fast Food Restaurant with Drive Thru	873632	278.3579	0.0115	2.3800e-003	279.3537
Gasoline/Service Station	35525	11.3190	4.7000e-004	1.0000e-004	11.3595
General Office Building	437920	139.5307	5.7600e-003	1.1900e-003	140.0299
Hotel	943280	300.5492	0.0124	2.5700e-003	301.6244
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	182280	58.0783	2.4000e-003	5.0000e-004	58.2861
Regional Shopping Center	1.91092e+006	608.8597	0.0251	5.2000e-003	611.0380
Total		**1,412.2181**	**0.0583**	**0.0121**	**1,417.2704**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	44774.4	14.2661	5.9000e-004	1.2000e-004	14.3171
Fast Food Restaurant with Drive Thru	805294	256.5841	0.0106	2.1900e-003	257.5020
Gasoline/Service Station	32648	10.4024	4.3000e-004	9.0000e-005	10.4396
General Office Building	391897	124.8668	5.1600e-003	1.0700e-003	125.3135
Hotel	833690	265.6315	0.0110	2.2700e-003	266.5818
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	182280	58.0783	2.4000e-003	5.0000e-004	58.2861
Regional Shopping Center	1.68896e+006	538.1395	0.0222	4.6000e-003	540.0647
Total		**1,267.9685**	**0.0524**	**0.0108**	**1,272.5047**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	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	1.1539	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0399	0.0399	1.1000e-004	0.0000	0.0426
Unmitigated	1.2178	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0399	0.0399	1.1000e-004	0.0000	0.0426

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	0.1440					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9300e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0399	0.0399	1.1000e-004	0.0000	0.0426
Total	**1.2178**	**1.9000e-004**	**0.0206**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0399**	**0.0399**	**1.1000e-004**	**0.0000**	**0.0426**

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	0.0800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9300e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0399	0.0399	1.1000e-004	0.0000	0.0426
Total	**1.1539**	**1.9000e-004**	**0.0206**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0399**	**0.0399**	**1.1000e-004**	**0.0000**	**0.0426**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	142.0661	0.7121	0.0178	165.1825
Unmitigated	166.2728	0.8896	0.0222	195.1278

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.451589 / 0.276781	2.9966	0.0148	3.7000e-004	3.4782
Fast Food Restaurant with Drive Thru	5.58502 / 0.356491	26.2048	0.1830	4.5100e-003	32.1224
Gasoline/Service Station	0.159383 / 0.0976861	1.0576	5.2400e-003	1.3000e-004	1.2276
General Office Building	8.17575 / 5.01095	54.2513	0.2685	6.7300e-003	62.9708
Hotel	1.52201 / 0.169112	7.3960	0.0499	1.2300e-003	9.0095
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	11.2072 / 6.86891	74.3667	0.3681	9.2300e-003	86.3192
Total		**166.2728**	**0.8896**	**0.0222**	**195.1278**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.361271 / 0.276781	2.5932	0.0119	3.0000e-004	2.9792
Fast Food Restaurant with Drive Thru	4.46802 / 0.356491	21.2162	0.1464	3.6100e-003	25.9512
Gasoline/Service Station	0.127506 / 0.0976861	0.9152	4.1900e-003	1.1000e-004	1.0515
General Office Building	6.5406 / 5.01095	46.9487	0.2150	5.4200e-003	53.9370
Hotel	1.2176 / 0.169112	6.0365	0.0399	9.9000e-004	7.3278
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	8.96574 / 6.86891	64.3564	0.2947	7.4200e-003	73.9358
Total		**142.0662**	**0.7121**	**0.0179**	**165.1825**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.9154	1.4134	0.0000	59.2493
Unmitigated	95.6615	5.6534	0.0000	236.9974

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	18.34	3.7229	0.2200	0.0000	9.2232
Fast Food Restaurant with Drive Thru	211.95	43.0239	2.5426	0.0000	106.5900
Gasoline/Service Station	6.47	1.3134	0.0776	0.0000	3.2538
General Office Building	42.78	8.6840	0.5132	0.0000	21.5141
Hotel	32.85	6.6683	0.3941	0.0000	16.5203
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	158.87	32.2492	1.9059	0.0000	79.8960
Total		**95.6615**	**5.6534**	**0.0000**	**236.9974**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	4.585	0.9307	0.0550	0.0000	2.3058
Fast Food Restaurant with Drive Thru	52.9875	10.7560	0.6357	0.0000	26.6475
Gasoline/Service Station	1.6175	0.3283	0.0194	0.0000	0.8134
General Office Building	10.695	2.1710	0.1283	0.0000	5.3785
Hotel	8.2125	1.6671	0.0985	0.0000	4.1301
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	39.7175	8.0623	0.4765	0.0000	19.9740
Total		**23.9154**	**1.4134**	**0.0000**	**59.2493**

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:

Screening Tables for Gasoline Dispensing Facilities & CARB 2005 Air Quality and Land Use Handbook Table 1-1

Table 12.1A – Screening Tables for Gasoline Dispensing Facilities

Underground Storage Tank (UST) **Residential**

MICR per One Million Gallons of Gasoline

		Downwind Distance (meters)							
Station Abbr.	Location	25	50	75	100	200	300	500	1000
AZUS	Azusa	2.884	1.040	0.550	0.340	0.093	0.045	0.018	0.006
BNAP	Banning	4.208	1.703	0.940	0.603	0.186	0.093	0.039	0.013
CELA	Central L.A.	2.484	0.876	0.455	0.287	0.085	0.041	0.017	0.005
ELSI	Lake Elsinore	2.978	1.075	0.558	0.347	0.103	0.051	0.021	0.007
FONT	Fontana	3.306	1.254	0.677	0.423	0.124	0.060	0.025	0.007
MSVJ	Mission Viejo	2.721	0.981	0.515	0.319	0.094	0.047	0.018	0.006
PERI	Perris	3.494	1.310	0.695	0.436	0.127	0.063	0.026	0.008
PICO	Pico Rivera	2.629	0.956	0.509	0.316	0.091	0.044	0.018	0.005
RDLD	Redlands	3.562	1.325	0.691	0.418	0.113	0.055	0.024	0.007
UPLA	Upland	3.108	1.133	0.609	0.384	0.111	0.054	0.022	0.007
KBUR	Burbank Airport	3.097	1.198	0.655	0.410	0.125	0.062	0.026	0.008
KCNO	Chino Airport.	4.084	1.609	0.870	0.549	0.166	0.082	0.033	0.010
KCQT	USC/Downtown L.A.	3.382	1.244	0.656	0.407	0.110	0.052	0.021	0.007
KFUL	Fullerton Airport	2.726	1.027	0.553	0.348	0.104	0.052	0.021	0.007
KHHR	Hawthorne Airport	3.225	1.197	0.640	0.405	0.123	0.061	0.025	0.007
KLAX	Los Angeles Int'l Airport	4.456	1.830	1.010	0.648	0.204	0.102	0.044	0.013
KLGB	Long Beach Airport	3.417	1.394	0.764	0.488	0.151	0.076	0.033	0.010
KONT	Ontario Airport	4.834	2.006	1.111	0.710	0.222	0.112	0.047	0.015
KPSP	Palm Springs Airport	3.363	1.352	0.736	0.467	0.144	0.073	0.031	0.010
KRAL	Riverside Airport	4.141	1.678	0.922	0.588	0.177	0.088	0.038	0.013
KSMO	Santa Monica Airport	3.444	1.336	0.731	0.462	0.139	0.068	0.028	0.008
KSNA	John Wayne Int'l Airport	4.041	1.605	0.870	0.549	0.164	0.079	0.032	0.010
KTRM	Desert Hot Springs Airport	3.820	1.553	0.848	0.540	0.163	0.082	0.035	0.010
KVNY	Van Nuys Airport	2.909	1.132	0.608	0.378	0.111	0.055	0.022	0.007

Table 12.2A – Screening Tables for Gasoline Dispensing Facilities

Aboveground Storage Tank (AST) **Residential**

MICR per One Million Gallons of Gasoline

		Downwind Distance (meters)							
Station Abbr.	**Location**	**25**	**50**	**75**	**100**	**200**	**300**	**500**	**1000**
AZUS	**Azusa**	4.447	1.603	0.827	0.496	0.114	0.050	0.020	0.006
BNAP	**Banning**	5.469	2.176	1.185	0.748	0.210	0.101	0.042	0.013
CELA	**Central L.A.**	3.610	1.258	0.641	0.392	0.100	0.046	0.019	0.006
ELSI	**Lake Elsinore**	4.056	1.458	0.748	0.452	0.119	0.057	0.024	0.008
FONT	**Fontana**	4.812	1.787	0.940	0.569	0.145	0.067	0.027	0.008
MSVJ	**Mission Viejo**	3.600	1.276	0.650	0.395	0.108	0.052	0.021	0.007
PERI	**Perris**	4.639	1.733	0.904	0.558	0.144	0.069	0.029	0.009
PICO	**Pico Rivera**	3.720	1.342	0.699	0.421	0.106	0.049	0.019	0.006
RDLD	**Redlands**	5.809	2.218	1.154	0.685	0.132	0.062	0.026	0.008
UPLA	**Upland**	4.693	1.677	0.871	0.532	0.130	0.060	0.025	0.008
KBUR	**Burbank Airport**	3.940	1.493	0.808	0.493	0.139	0.069	0.028	0.008
KCNO	**Chino Airport.**	4.971	1.950	1.047	0.658	0.188	0.091	0.037	0.011
KCQT	**USC/Downtown L.A.**	5.393	1.959	1.002	0.604	0.133	0.058	0.024	0.007
KFUL	**Fullerton Airport**	3.614	1.336	0.699	0.429	0.118	0.058	0.024	0.007
KHHR	**Hawthorne Airport**	4.415	1.593	0.837	0.511	0.140	0.067	0.027	0.008
KLAX	**Los Angeles Int'l Airport**	5.624	2.316	1.257	0.794	0.227	0.111	0.047	0.015
KLGB	**Long Beach Airport**	4.450	1.829	0.993	0.621	0.172	0.083	0.035	0.011
KONT	**Ontario Airport**	5.990	2.494	1.370	0.862	0.249	0.121	0.051	0.017
KPSP	**Palm Springs Airport**	4.148	1.691	0.915	0.573	0.163	0.080	0.034	0.010
KRAL	**Riverside Airport**	5.770	2.318	1.244	0.776	0.202	0.096	0.041	0.013
KSMO	**Santa Monica Airport**	4.771	1.829	0.977	0.596	0.159	0.074	0.031	0.009
KSNA	**John Wayne Int'l Airport**	5.072	2.017	1.085	0.674	0.186	0.088	0.036	0.010
KTRM	**Desert Hot Springs Airport**	4.681	1.917	1.040	0.660	0.183	0.091	0.039	0.012
KVNY	**Van Nuys Airport**	3.673	1.428	0.760	0.467	0.127	0.060	0.025	0.008

Table 1-1

Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities*

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloro-ethylene	• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

*Notes:

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in Table 1-2.