AIR QUALITY AND GREENHOUSE GAS ANALYSIS

AGUA MANSA INDUSTRIAL PROJECT

JURUPA VALLEY, CALIFORNIA

CASE NUMBER MA18008

LSA

March 2020

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Submitted to:

Carson Companies
100 Bayview Circle, Suite 3500
Newport Beach, California 92660

Prepared by:

LSA
20 Executive Park, Suite 200
Irvine, California 92614-4731
(949) 553-0666

Project No. CRN1801

LSA

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EXECUTIVE SUMMARY

LSA was retained by the Carson Companies to prepare an air quality and greenhouse gas (GHG) impact study for the Agua Mansa Industrial Project (project) to be located in Jurupa Valley, California.

The project involves the development of two buildings on an undeveloped site for industrial uses. The project is planned to be constructed starting in 2019 and is would become operational in 2020.

This air quality and GHG impact analysis provides a discussion of the proposed project, the physical setting of the project area, and the regulatory framework for air quality and GHG. The report provides data on existing air quality and evaluates potential air quality and GHG impacts associated with the proposed project. Modeled vehicle emissions are based on the trip generation and fleet mix data from the project traffic study (LSA 2020).

Emissions with regional effects during project construction, calculated with the California Emissions Estimator Model (CalEEMod; Version 2016.3.2), would not exceed criteria pollutant thresholds established by the South Coast Air Quality Management District (SCAQMD). Compliance with SCAQMD Rules and Regulations during construction would reduce construction-related air quality impacts from fugitive dust emissions and construction equipment emissions. Standard dust suppression measures recommended by SCAQMD have been identified for short-term construction to meet the SCAQMD emissions thresholds. Construction emissions for the proposed project would not exceed the localized significance thresholds (LSTs) at the closest existing residences north of the project site along El Rivino Road.

Pollutant emissions from project operation, also calculated with CalEEMod, would exceed the SCAQMD criteria pollutant threshold for NOx. This impact would be considered significant. LSTs would not be exceeded by long-term emissions from project operations. Historical air quality data show that existing carbon monoxide (CO) levels for the project area and the general vicinity do not exceed either State or federal ambient air quality standards. The proposed project would not result in substantial increases in CO concentrations at intersections in the project vicinity that would result in the exceedance of federal or State CO concentration standards.

The proposed project is in Riverside County, which has been found to have serpentine and ultramafic rock in its soil (California Department of Conservation 2020). However, according to the California Geological Survey, no such rock has been identified in the project vicinity. Therefore, the potential risk for naturally occurring asbestos during project construction is small and would be less than significant.

Although odor impacts are unlikely, the proposed project would be required to comply with SCAQMD Rule 402 in the event a nuisance complaint occurs. Impacts associated with objectionable odors would be less than significant.

This study addresses the potential of the proposed project to affect global climate change. In December 2008, SCAQMD identified interim GHG thresholds of significance based on a tiered

system. The applicable threshold for this project is 3,000 metric tons of carbon dioxide equivalent per year. Short-term construction and long-term operational emissions of the principal GHGs, including carbon dioxide and methane, were quantified and compared to this threshold. Project-related GHG emissions would exceed this threshold. Consistency with the policies and goals of the WRCOG CAP, adopted by Jurupa Valley, demonstrates that the project complies with the regional GHG emissions reduction goals.

The 2017 General Plan and the 1986 Agua Mansa Specific Plan No. 210 list the project site land use designation as Heavy Industrial, the existing zoning is Manufacturing/Service Commercial. The proposed logistics use would result in traffic impacts similar to the existing designation and zoning. Thus, the proposed project would result in air emissions that are consistent with the existing General Plan. The City's General Plan is consistent with the Southern California Association of Governments (SCAG) Regional Comprehensive Plan Guidelines and the SCAQMD Air Quality Management Plan (AQMP). Thus, the proposed project would be consistent with the regional AQMP.

Cumulative construction and operational emissions were found to be less than significant. The proposed project's design would result in project consistency with the California Climate Change Scoping Plan, and SCAG Regional Transportation Plan/Sustainable Communities Strategy. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the GHG emissions. Given this consistency, it is concluded that the proposed project's impact to the climate from GHG emissions would not be cumulatively considerable.

This evaluation was prepared in conformance with appropriate standards, using procedures and methodologies in the SCAQMD *CEQA Air Quality Handbook* (SCAQMD 1993) and associated updates (SCAQMD 2020). Air quality data posted on the California Air Resources Board and the United States Environmental Protection Agency websites are included to document the local air quality environment.

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LIST OF ABBREVIATIONS AND ACRONYMS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
ac	acre/acres
AQMP	Air Quality Management Plan
AR4	IPCC Fourth Assessment Report
AR5	IPCC Fifth Assessment Report
Basin	South Coast Air Basin
Bio-CO_2	biologically generated carbon dioxide
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Jurupa Valley
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
EO	Executive Order
EPA	United States Environmental Protection Agency
ft	feet/foot
GCC	global climate change
GHG	greenhouse gas
GWP	global warming potential
H_2S	hydrogen sulfide
HFCs	hydrofluorocarbons
hr	hour
IPCC	Intergovernmental Panel on Climate Change
lbs/day	pounds per day
LRR	low rolling resistance
LST	localized significance threshold
m	meter
MATES	*Multiple Air Toxics Exposure Study*
mg/m^3	milligrams per cubic meter

mi	mile(s)
MMT	million metric tons
MMT CO_2e	million metric tons of carbon dioxide equivalent
mph	miles per hour
MT	metric tons
MT CO_2e	metric tons of carbon dioxide equivalent
MT CO_2e/yr	metric tons of carbon dioxide equivalent per year
MT/yr	metric tons per year
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NBio-CO_2	non-biologically generated carbon dioxide
ND	no data available
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone (or smog)
PFCs	perfluorocarbons
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 microns in size
PM_{10}	particulate matter less than 10 microns in size
ppb	parts per billion
ppm	parts per million
project	Agua Mansa Industrial Project
ROCs	reactive organic compounds
ROGs	reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SAFE	Safer, Affordable, Fuel-Efficient (Vehicles)
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	square feet/foot
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	sulfur oxides
SRA	Source Receptor Area
State	State of California
UNFCCC	United Nations Framework Convention on Climate Change
VOC	volatile organic compound
VMT	vehicle miles traveled
Working Group	SCAQMD GHG CEQA Significance Threshold Working Group

INTRODUCTION

This air quality and greenhouse gas (GHG) impact analysis has been prepared to evaluate the potential air quality and climate change impacts associated with the proposed Agua Mansa Industrial Project (project) in Jurupa Valley, California. This report provides a project-specific air quality and climate change impact analysis by examining the potential impacts of the proposed uses on the regional air quality and to nearby sensitive uses. This air quality and GHG impact analysis will follow guidelines identified by the South Coast Air Quality Management District (SCAQMD) in its *CEQA Air Quality Handbook* (SCAQMD 1993) and associated updates (SCAQMD 2020).

PROJECT LOCATION

The Agua Mansa Industrial Project site is at 12340 Aqua Mansa Road in the Agua Mansa Industrial Corridor (AMIC) of Jurupa Valley, as shown on Figure 1. The project site is currently vacant.

PROJECT DESCRIPTION

The project would construct two separate buildings on the project site for industrial uses. Building A would be 140,198 square feet (sf) on an 8.94-acre lot, and Building B would be 194,804 sf in a 14.49-acre lot. The project would also include 234 parking spaces. Figure 2 depicts the project's proposed site plan.

Existing Sensitive Land Uses in the Project Area

Sensitive receptors include residences, schools, hospitals, and similar uses sensitive to air quality. The project site is surrounded primarily by industrial and residential development, as shown in Figure 3. The areas adjacent to the project site include the following uses:

- **North:** Industrial and residential development in the AMIC in Jurupa Valley. The closest residential building is approximately 460 feet from the northern boundary of construction and 550 feet north of the nearest loading docks and the closest industrial building is approximately 450 feet north of the nearest loading docks.
- **Northeast:** Residential development in the AMIC in unincorporated San Bernardino County.
- **East:** Industrial development in the AMIC in San Bernardino County.
- **South:** Industrial development in the AMIC in Jurupa Valley.
- **West:** Industrial development and undeveloped land in the AMIC in Jurupa Valley.

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FIGURE 1

Agua Mansa Industrial Project

Project Location

SOURCE: Bing (2018); Agua Mansa (07/1986)

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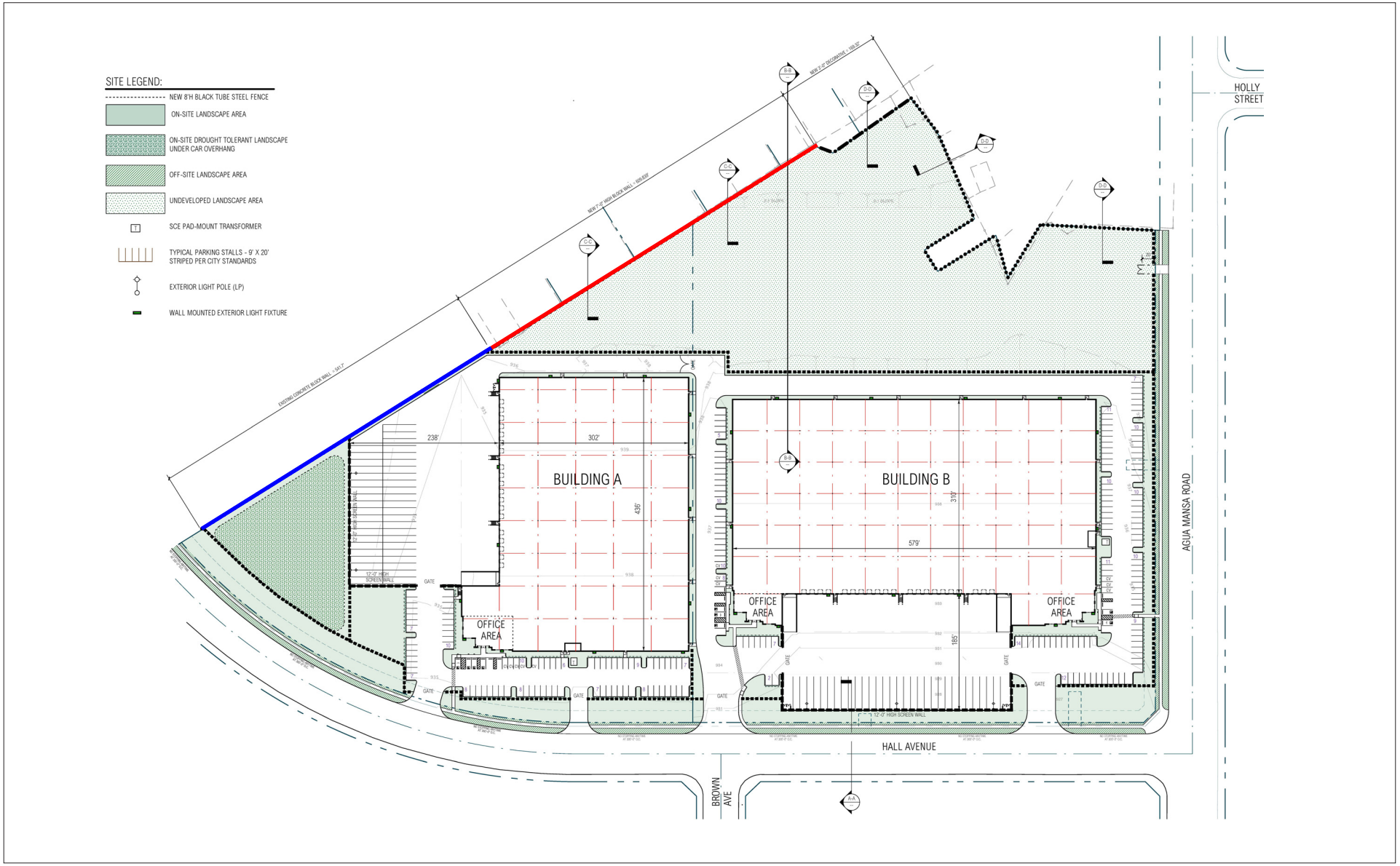

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LEGEND

Proposed 7 ft Block Wall

Existing Block Wall

FIGURE 2

N

0 110 220

FEET

SOURCE: RGA, 4/19

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Agua Mansa Industrial Project

Conceptual Site Plan

LSA

LEGEND

- Nearest Residents
- Nearest Workers
- Loading Docks

FIGURE 3

N

0 225 450

FEET

SOURCE: Google Earth (Aerial, 2018), Carson Companies (Site Plan)

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Agua Mansa Industrial Project

Sensitive Receptors

PROJECT SETTING

REGIONAL CLIMATE AND AIR QUALITY

The project site is in the nondesert portion of Riverside County, California, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of SCAQMD. This Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties.

Both the State of California and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As detailed in Table A, these pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in size (PM_{10}), particulate matter less than 2.5 microns in size ($PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table B summarizes the primary health effects and sources of common air pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (by the United States Environmental Protection Agency [EPA]), these health effects would not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are typically more stringent than federal AAQS. Among the pollutants, O_3 and particulate matter ($PM_{2.5}$ and PM_{10}) are considered pollutants with regional effects, while the others have more localized effects.

The California Clean Air Act (CCAA) provides SCAQMD and other air districts with the authority to manage transportation activities at indirect sources. Indirect sources of pollution include any facility, building, structure, or installation, or combination thereof that attracts or generates mobile source emissions of any pollutant. In addition, local air districts also manage area source emissions that are generated when minor sources collectively emit a substantial amount of pollution. Examples of this would be the motor vehicles at an intersection, at a mall, and on highways. SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. The California Air Resources Board (CARB) regulates direct emissions from motor vehicles.

Climate/Meteorology

Air quality in the planning area is not only affected by various emission sources (e.g., mobile and industry), but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Basin is primarily influenced by a wide range of emissions sources—such as dense population centers, heavy vehicular traffic, and industry—and meteorology.

Table A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	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 (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas)[11]	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m³)	
	1-Hour	0.25 ppm (655 µg/m³)		75 ppb (196 µg/m³)	—	
Lead[12,13]	30-Day Average	1.5 µg/m³	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[13]	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m³		
Visibility-Reducing Particles[14]	8-Hour	See footnote 14	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[12]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: Ambient Air Quality Standards (CARB 2016).

Footnotes are provided on the following page.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, 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 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the 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 CARB 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 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 EPA.

[8] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ 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 PM_{10} 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.

[10] To attain the 1-hour 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.

[11] On June 2, 2010, a new 1-hour SO_2 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 SO_2 national standards (24-hour and annual) remain in effect until 1 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.

[12] The CARB 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.

[13] 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 1 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 standards are approved.

[14] In 1989, the CARB 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.

°C = degrees Celsius
CARB = California Air Resources Board
EPA = United States Environmental Protection Agency
µg/m^3 = micrograms per cubic meter
mg/m^3 = milligrams per cubic meter
ppm = parts per million
ppb = parts per billion

Table B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutant	Health Effects	Examples of Sources
Particulate Matter ($PM_{2.5}$ and PM_{10}: less than or equal to 2.5 or 10 microns, respectively)	• Hospitalizations for worsened heart diseases • Emergency room visits for asthma • Premature death	• Cars and trucks (especially diesels) • Fireplaces, wood stoves • Windblown dust from roadways, agriculture, and construction
Ozone (O_3)	• Cough, chest tightness • Difficulty taking a deep breath • Worsened asthma symptoms • Lung inflammation	• Precursor sources[1]: motor vehicles, industrial emissions, and consumer products
Carbon Monoxide (CO)	• Chest pain in heart patients[2] • Headaches, nausea[2] • Reduced mental alertness[2] • Death at very high levels[2]	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Nitrogen Dioxide (NO_2)	• Increased response to allergens	• See carbon monoxide sources
Toxic Air Contaminants	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders	• Cars and trucks (especially diesels) • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Source: CARB Fact Sheet: Air Pollution and Health. (CARB 2009).

[1] Ozone is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form ozone in the atmosphere.

[2] Health effects from CO exposures occur at levels considerably higher than ambient.

CARB = California Air Resources Board

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site is the Riverside Fire Station 3 (Western Regional Climate Center). The monthly average maximum temperature recorded at this station ranged from 66.8°F in January to 94.4°F in August, with an annual average maximum of 79.5°F. The monthly average minimum temperature recorded at this station ranged from 39.1°F in January to 59.6°F in August, with an annual average minimum of 48.6°F. January is typically the coldest month, and July and August are typically the warmest months in this area of the Basin.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. Riverside Fire Station 3's monitored precipitation shows that average monthly rainfall varied from 2.20 inches in February to 0.44 inch or less from May to October, with an annual total of 10.21 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the

inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in midafternoon to late afternoon on hot summer days, when the smog appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in the project area blow predominantly from the south-southwest, with relatively low velocities. Wind speeds in the project area average about 5 miles per hour (mph). Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. The Santa Ana conditions tend to last for several days at a time.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and nitrogen oxides (NO_X) because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

Description of Global Climate Change and its Sources

Earth's natural warming process is known as the "greenhouse effect." This greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass allows solar radiation (sunlight) into Earth's atmosphere but prevents radiated heat from escaping, thus warming Earth's atmosphere. GHGs keep the average surface temperature of the Earth to approximately 60°F. However, excessive concentrations of GHGs in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences (IPCC 2013).

Scientists refer to the global warming context of the past century as the "enhanced greenhouse effect" to distinguish it from the natural greenhouse effect (Pew Center 2006). While the increase in temperature is known as "global warming," the resulting change in weather patterns is known as "global climate change." Global climate change is evidenced in changes to global temperature rise, warming oceans, shrinking ice sheets, glacial retreat, decreased snow cover, sea level rise, declining Arctic sea ice, extreme weather events, and ocean acidification (IPCC 2013).

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. While climate change may increase the concentration of ground-level ozone, the magnitude of the effect and, therefore, its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would exacerbate air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat related deaths, illnesses, and asthma attacks throughout the state (California Department of Public Health 2013). However, if higher temperatures are accompanied by

wetter, rather than drier conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus reducing the pollution associated with wildfires.

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change (GCC) are the following:[1]

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which can cause global warming. Although GHGs produced by human activities include naturally occurring GHGs (e.g., CO_2, CH_4, and N_2O), some gases (e.g., HFCs, PFCs, and SF_6) are completely new to the atmosphere. Water vapor is a GHG, but is generally excluded from the list of GHGs, because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes (e.g., oceanic evaporation). For the purposes of this air quality study, the term "GHGs" will refer collectively to the six gases identified in the bulleted list provided above.

These GHGs vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas in absorbing infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. For example, N_2O is 265 times more potent at contributing to global warming than CO_2. GHG emissions are typically measured in terms of metric tons[2] of "CO_2 equivalents" (MT CO_2e). Table C identifies the GWP for each type of GHG analyzed in this report. The EPA and CARB use GWP values from the 2007 IPCC Fourth Assessment Report. The IPCC has published the 2013 IPCC Fifth Assessment Report with updated GWP values.

1 The GHGs listed are consistent with the definition in Assembly Bill 32 (Government Code 38505), as discussed later in this section.

2 A metric ton is equivalent to approximately 1.1 tons.

Table C: Global Warming Potential for Selected Greenhouse Gases

Pollutant	Atmospheric Lifetime (Years)	Global Warming Potential (100-year)[1]
Carbon Dioxide (CO_2)	~100[2]	1 (by definition)
Methane (CH_4)	12.4	25–34
Nitrous Oxide (N_2O)	114–121	265–310

Sources: *California's 2017 Climate Change Scoping Plan* (CARB 2017), AR5 (IPCC 2013), and Climate Change 2007: The Physical Science Basis (IPCC 2007).

[1] The EPA and CARB use GWP values from AR4.

[2] CO_2 has a variable atmospheric lifetime and cannot be readily approximated as a single number.

AR4 = IPCC Fourth Assessment Report
AR5 = IPCC Fifth Assessment Report
CARB = California Air Resources Board
EPA = United States Environmental Protection Agency
GWP = global warming potential
IPCC = Intergovernmental Panel on Climate Change

The following discussion summarizes the characteristics of the six primary GHGs.

Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO_2 are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO_2 to the atmosphere. Natural removal processes (e.g., photosynthesis by land- and ocean-dwelling plant species) cannot keep pace with this extra input of human-made CO_2; consequently, the gas is building up in the atmosphere. The concentration of CO_2 in the atmosphere has risen from about 280 parts per million (ppm) prior to the Industrial Revolution to more than 400 ppm currently (NOAA 2016).

Methane

CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources of CH_4 include fires, geologic processes, and bacteria that produce CH_4 in a variety of settings (most notably, wetlands) (University of New Hampshire 2010). Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (e.g., the burning of coal, oil, and natural gas). As with CO_2, the major removal process of atmospheric CH_4—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Nitrous Oxide

N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N_2O is also a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion sources emit N_2O. The quantity of N_2O emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance

and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for O_3-depleting substances regulated under the Montreal Protocol.[1] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in the State; however, the rapid growth in the semiconductor industry, which is active in the State, has led to greater use of PFCs. However, there are no known project-related emissions of these three GHGs; therefore, these substances are not discussed further in this analysis.

Greenhouse Gas Emissions Sources and Inventories

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on national, State, and local GHG emission inventories. However, because GHGs persist for a long time in the atmosphere (Table C), accumulate over time, and are generally well mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

United States Emissions

In 2017, the United States emitted approximately 6.5 billion MT CO_2e. Total United States emissions increased by 1.6 percent from 1990 to 2017, and emissions decreased from 2016 to 2017 by 0.3 percent. The decrease in total GHG emissions between 2016 and 2017 was driven in part by a decrease in CO_2 emissions from fossil fuel combustion. The decrease in CO_2 emissions from fossil fuel combustion was a result of multiple factors, including a continued shift from coal to natural gas, increased use of renewables in the electric-power sector, and milder weather that contributed to less overall electricity use. Relative to 1990, the baseline for this inventory, gross emissions in 2017 were higher by 1.6 percent, down from a high of 15.7 percent above 1990 levels in 2007. Overall, net emissions in 2017 were 12.7 percent below 2005 levels (EPA 2020).

State of California Emissions

According to CARB emission inventory estimates, the State emitted approximately 424.1 million metric tons of CO_2e (MMT CO_2e) emissions in 2017. This is a decrease of 5 MMT CO_2e from 2016 and 7 MMT CO_2e below the State's 2020 GHG target (CARB 2020).

CARB estimates that transportation was the source of approximately 41 percent of the State's GHG emissions in 2017, followed by electricity generation (both in-state and out-of-state) at 15 percent and industrial sources at 24 percent. The remaining sources of GHG emissions were residential and commercial activities at 12 percent and agriculture at 8 percent (CARB 2020).

[1] The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for O_3 depletion and that are also potent GHGs.

Air Pollution Constituents and Attainment Status

CARB coordinates and oversees both State and federal air pollution control programs within California. CARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air districts. CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. CARB and the EPA use data collected at these stations to classify air basins as Attainment, Nonattainment, Nonattainment-Transitional, or Unclassified, based on air quality data for the most recent 3 calendar years compared with the AAQS.

Attainment areas may be the following:

- **Attainment/Unclassified** ("Unclassifiable" in some lists). These basins have never violated the air quality standard of interest or do not have enough monitoring data to establish Attainment or Nonattainment status.

- **Attainment-Maintenance** (national ambient air quality standards [NAAQS] only). These basins violated a NAAQS that is currently in use (were Nonattainment) in or after 1990, but now attain the standard and are officially redesignated as Attainment by the EPA with a Maintenance State Implementation Plan.

- **Attainment** (usually only for California ambient air quality standards [CAAQS], but sometimes for NAAQS). These basins have adequate monitoring data to show attainment, have never been Nonattainment, or, for NAAQS, have completed the official Maintenance period.

Nonattainment areas are imposed with additional restrictions as required by the EPA. The air quality data are also used to monitor progress in attaining air quality standards. Table D lists the attainment status for the criteria pollutants in the Basin.

Ozone

O_3 (smog) is formed by photochemical reactions between oxides of nitrogen and reactive organic gases (ROGs) rather than being directly emitted. O_3 is a pungent, colorless gas typical of Southern California smog. Elevated O_3 concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors (e.g., the sick, the elderly, and young children). O_3 levels peak during summer and early fall.

Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. CO is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions.

Table D: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3	Nonattainment (1-hour) Nonattainment (8-hour)	Extreme Nonattainment (1-hour) Extreme Nonattainment (8-hour)
PM_{10}	Nonattainment (24-hour) Nonattainment (Annual)	Attainment-Maintenance (24-hour)
$PM_{2.5}$	Nonattainment (Annual)	Serious Nonattainment (24-hour) Moderate Nonattainment (Annual)
CO	Attainment (1-hour) Attainment (8-hour)	Attainment-Maintenance (1-hour) Attainment-Maintenance (8-hour)
NO_2	Attainment (1-hour) Attainment (Annual)	Attainment/Unclassified (1-hour) Attainment-Maintenance (Annual)
SO_2	Attainment (1-hour) Attainment (24-hour)	Attainment/Unclassified (1-hour) Attainment/Unclassified (Annual)
Lead	Nonattainment[1] (30-day average)	Nonattainment[1] (3-month rolling)
All Others	Attainment/Unclassified	N/A

Sources: National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin (SCAQMD), and Nonattainment Areas for Criteria Pollutants (Green Book) (EPA Green Book).

[1] Only the Los Angeles County portion of the Basin is in nonattainment for lead.

Basin = South Coast Air Basin
CO = carbon monoxide
N/A = not applicable
NO_2 = nitrogen dioxide
O_3 = ozone
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_2 = sulfur dioxide

Nitrogen Oxides

NO_2, a reddish brown gas, and nitric oxide (NO), a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_X. NO_X is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Lead

Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the bloodstream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead.

Particulate Matter

Particulate matter (PM) is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (PM_{10}) derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and the resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle ($PM_{2.5}$) levels. Fine particles can also form in the atmosphere through chemical reactions. PM_{10} can accumulate in the respiratory system and aggravate health problems (e.g., asthma). The EPA's scientific review concluded that $PM_{2.5}$ particles, which penetrate deeply into the lungs, are more likely than coarse particles to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily for the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease [e.g., asthma]); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms.

Volatile Organic Compounds

Volatile organic compounds (VOCs; also known as ROGs, and reactive organic compounds [ROCs]) are formed from the combustion of fuels and the evaporation of organic solvents. VOCs are not defined as criteria pollutants; however, because VOCs accumulate in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower, they are a prime component of the photochemical smog reaction.

Sulfates

Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently is converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of the State due to regional meteorological features.

Hydrogen Sulfide

H_2S is a colorless gas with the odor of rotten eggs. H_2S is formed during bacterial decomposition of sulfur-containing organic substances. In addition, H_2S can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. In 1984, a CARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance.

Visibility-Reducing Particles

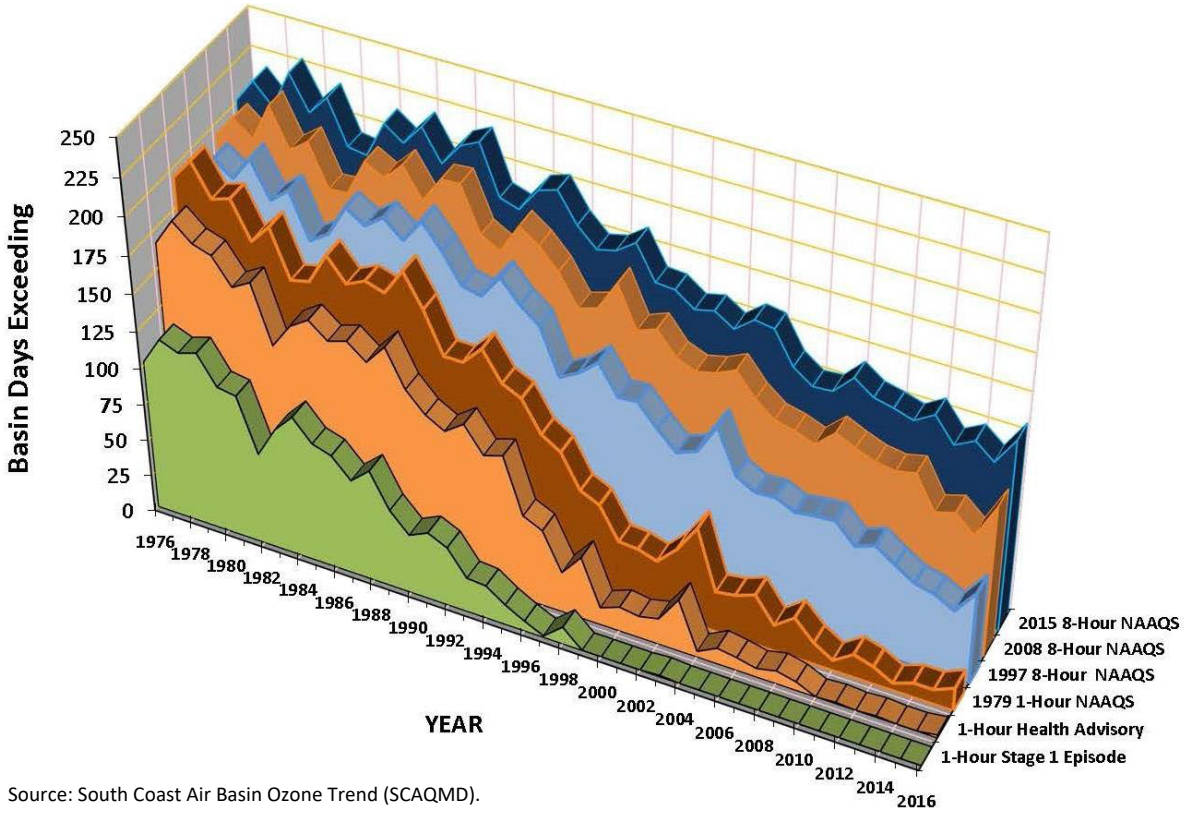
Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry, solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition and can be made up

of many different materials (e.g., metals, soot, soil, dust, and salt). The Statewide standard is intended to limit the frequency and the severity of visibility impairment due to regional haze.

REGIONAL AIR QUALITY IMPROVEMENT

Criteria Pollutants

As previously discussed, the project is under the jurisdiction of the SCAQMD, which is responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin to bring the area into compliance with federal and State air quality standards. Air quality in the Basin has improved as a result of the development of SCAQMD rules and control programs and the development and application of cleaner technology. O_3, NO_x, VOCs, and CO have been generally decreasing since 1975. The levels of PM_{10} and $PM_{2.5}$ in the air have decreased since 1975, and direct emissions of $PM_{2.5}$ have decreased, although direct emissions of PM_{10} have shown little change. Figure 4 shows the O_3 trend in the Basin.

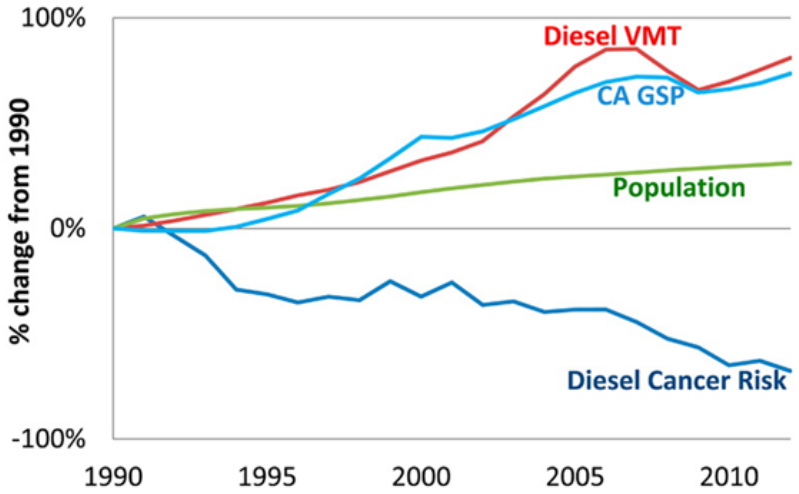


Source: South Coast Air Basin Ozone Trend (SCAQMD).

Figure 4: South Coast Air Basin Ozone Trend

Toxic Air Contaminants Trends

In 1984, CARB adopted regulations to reduce toxic air contaminant (TAC) emissions from mobile and stationary sources and consumer products. A CARB study showed that the ambient concentration and emissions of the seven TACS responsible for the most cancer risk from airborne exposure have declined by 76 percent between 1990 and 2012 (Propper et al. 2015). Concentrations of diesel PM, the most important TAC, have declined by 68 percent between 1990 and 2012, despite a 31 percent increase in State population and an 81 percent increase in diesel vehicle miles traveled (VMT), as shown in Figure 5. The study also found that the significant reductions in cancer risk to California residents from the implementation of air toxics controls are likely to continue.



Source: Ambient and Emission Trends of Toxic Air Contaminants in California (Propper et al. 2015).

Figure 5: California Population, Gross State Product, Diesel Cancer Risk, Diesel Vehicle Miles Traveled

Cancer Risk Trends

According to CARB, cancer risk in the Basin has declined since 1990. The SCAQMD study *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (MATES) *IV* (SCAQMD 2015b) showed a decrease in cancer risk of more than 55 percent since MATES III, published in 2005.

LOCAL AIR QUALITY

SCAQMD, together with CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station that monitors air pollutant data closest to the site is the Riverside-Rubidoux Station at 5888 Mission Boulevard in the Rubidoux neighborhood of Jurupa Valley, approximately 3 miles southwest of the project site. The air quality trends from this station are used to represent the ambient air quality in the project area. The ambient air quality data in Table E show that NO_2 and CO levels are below the applicable State and federal standards. However, PM_{10} and O_3 levels frequently exceed their respective standards and $PM_{2.5}$ levels occasionally exceed the federal 24-hour standard.

Table E: Air Quality Concentrations Measured at the Riverside-Rubidoux Station

Pollutant	Standard	2017	2018	2019
Ozone				
Max 1-hr concentration (ppm)		0.145	0.123	0.123
No. days exceeded: State	> 0.09 ppm	47	22	ND
Ozone				
Max 8-hr concentration (ppm)		0.118	0.101	0.096
No. days exceeded: State	> 0.07 ppm	81	53	ND
Federal	> 0.07 ppm	81	53	ND
Carbon Monoxide				
Max 1-hr concentration (ppm)		2.4	2.2	1.3
No. days exceeded: State	> 20 ppm	0	0	0
Federal	> 35 ppm	0	0	0
Max 8-hr concentration (ppm)		1.7	2.0	1.1
No. days exceeded: State	>9.0 ppm	0	0	0
Federal	>9.0 ppm	0	0	0
Particulate matter less than 10 microns in size (PM_{10})				
Max 24-hr concentration (µg/m^3)		92	86.5	80.0
No. days exceeded: State	> 50 µg/m^3	98	127	ND
Federal	> 150 µg/m^3	0	0	0
Annual avg. concentration (µg/m^3)		41.3	43.9	30.9
Exceeds Standard? State	> 20 µg/m^3	Yes	Yes	Yes
Particulate matter less than 2.5 microns in size ($PM_{2.5}$)				
Max 24-hr concentration (µg/m^3)		50.3	66.3	55.7
No. days exceeded: Federal	> 35 µg/m^3	7	3	2
Annual avg. concentration (µg/m^3)		12.2	12.5	10.8
Exceeds Standard? State	> 12 µg/m^3	Yes	Yes	No
Federal	> 15 µg/m^3	No	No	No
Nitrogen Dioxide				
Max 1-hr concentration (ppb)		63.0	55.4	53.3
No. days exceeded: State	> 180 ppb	0	0	0
Federal	> 100 ppb	0	0	0
Annual avg. concentration (ppb)		15.0	14.3	12.0
Exceeds Standard? State	> 30 ppb	No	No	No
Federal	> 53 ppb	No	No	No

Source: U.S. EPA, Air Data. Website: www.epa.gov/outdoor-air-quality-data (accessed March 2020).
µg/m^3 = micrograms per cubic meter
avg. = average
hr = hour
max = maximum
ppb = parts per billion
ppm = parts per million
U.S. EPA = United States Environmental Protection Agency

REGULATORY SETTINGS

Federal Regulations/Standards

Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established the NAAQS. The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations to protect public health.

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization responsible for ensuring compliance with the requirements of the CAA for the Basin.

The United States has historically had a voluntary approach to reducing GHG emissions; however, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO_2 emissions under the CAA. The Supreme Court ruled that GHGs fit within the CAA's definition of a pollutant and that the EPA did not have a valid rationale for not regulating GHGs. In December 2009, the EPA issued an endangerment finding for GHGs under the CAA.

On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to GCC.

In 2012, EPA and the National Highway Traffic Safety Administration promulgated new rules to set GHG emission and fuel economy standards for new motor vehicles. The rules created requirements for model years 2017–2021 and 2022–2025, which would become more stringent each year, achieving greater GHG reductions over time. In 2018, the agencies issued a proposed rule, the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, to freeze the standards at 2020 levels through 2026, rather than tightening them each year. The final SAFE rule has not yet been published. However, the agencies have finalized a portion of the rule that revokes California's authority to set motor vehicle regulations that are more climate-protective than the federal requirements, including GHG emissions standards that 15 other states have adopted and a zero-emission vehicle mandate embraced by 12 other states.

State Agencies, Regulations, and Standards

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish CARB. Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to the State's air pollution problems. California adopted the California Clean Air Act (CCAA) in 1988. CARB administers the CAAQS for the 10 air pollutants designated in the CCAA. These 10 State air pollutants are the 6 criteria pollutants designated by the federal CAA as well as 4 others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

The California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32, requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed to set a statewide GHG emissions limit and set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

In 2016, the Legislature passed and Governor Jerry Brown signed, Senate Bill (SB) 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps California on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels,

consistent with an IPCC analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 ppm CO_2e and reduce the likelihood of catastrophic impacts from climate change. The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions.

In December 2017, CARB adopted "California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target" (CARB 2017) that describes the actions the State will take to achieve the SB 32 climate goal of reducing GHG emissions at least 40 percent below 1990 levels by 2030. The 2017 Scoping Plan includes input from a range of State agencies and is the result of a 2-year development process, including extensive public and stakeholder outreach, designed to ensure that California's climate and air quality efforts continue to improve public health and drive development of a more sustainable economy. It outlines an approach that cuts across economic sectors to combine GHG reductions with reductions of smog-causing pollutants, while also safeguarding public health and economic goals. The 2017 Scoping Plan reflects the direction from the Legislature on the Cap-and-Trade Program, as described in AB 398, the need to extend key existing emissions reductions programs, and acknowledges the parallel actions required under AB 617 to strengthen monitoring and reduce air pollution at the community level.

The actions identified in the 2017 Scoping Plan can reduce overall GHG emissions in California and deliver strong 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 original Scoping Plan and the 2014 Scoping Plan, while also identifying new, technologically feasibility 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.

Although the 2017 Scoping Plan does not impose any specific mandates or policies that specifically apply to individual development projects such as the proposed project, the Scoping Plan encourages local municipalities to update building codes and establish sustainable development practices for accommodating future growth. Key policies that involve the residential and commercial building sectors that are indirectly applicable to the proposed Project include the implementation of SB 275 (promoting infill development and high density housing in high quality transit areas), implementing green building practices (i.e., the California Green Building Standards Code), energy efficiency and water conservation policies, and waste diversion efforts.

Senate Bill 97 and CEQA Guidelines

In August 2007, the Legislature adopted SB 97, requiring the Office of Planning and Research (OPR) to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the California Natural Resources Agency. OPR submitted its proposed guidelines to the Secretary for Natural Resources on April 13, 2009, and the CEQA Guidelines amendments were adopted on December 30, 2009 and became effective on March 18, 2010.

The CEQA Guidelines amendments do not specify a threshold of significance for GHG emissions or prescribe assessment methodologies or specific mitigation measures. Instead, the amendments encourage lead agencies to consider many factors in performing a CEQA analysis but rely on the lead

agencies in making their own significance determinations based upon substantial evidence. The CEQA Guidelines amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

The CEQA Guidelines amendments require a lead agency to make a good-faith effort based on the extent possible on scientific and factual data to describe, calculate or estimate the amount of GHG emissions resulting from a project. The CEQA Guidelines amendments give discretion to the lead agency whether to (1) use a model or methodology to quantify GHG emissions resulting from a project and which model or methodology to use and/or (2) rely on a qualitative analysis or performance-based standards. The California Natural Resources Agency is required to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to AB 32.

California Green Building Standards

The California Green Building Standards Code, which is Part 11 of the California Code of Regulations, is commonly referred to as the CALGreen Code. The first edition of the CALGreen Code was released in 2008 and contained only voluntary standards. The 2016 CALGreen Code was updated in 2016, became effective on January 1, 2017, and applies to non-residential and residential developments. The CALGreen Code contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning, which is a process for the verification that all building systems, such as heating and cooling equipment and lighting systems, function at their maximum efficiency.

Regional Air Quality Planning Framework

SCAG is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is a regional planning agency and a forum for regional issues relating to transportation, the economy and community development, and the environment. Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality.

On April 7, 2016, the Regional Council of SCAG adopted the *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and High Quality of Life* (2016–2040 RTP/SCS). The 2016–2040 RTP/SCS is an update to the 2012–2035 RTP/SCS that further integrates land use and transportation in certain areas so that the region as a whole can grow smartly and sustainably. Between 2015 and 2040, the region is anticipated to experience increases in population, households, and jobs. The 2016–2040 RTP/SCS includes land use strategies, based on local general plans, as well as input from local governments to achieve the AB 32 State-mandated reductions in GHG emissions through decreases in regional per capita VMT. The 2016–2040 RTP/SCS includes transportation network improvements and encourages more compact, infill, walkable, and mixed-use development strategies to accommodate new region's growth and to accommodate increases in population, households, employment, and travel demand.

South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with SCAG, county transportation commissions and local governments, and cooperates actively with State and federal government agencies. The SCAQMD develops air quality-related rules and regulations, establishes permitting requirements, inspects emissions sources, and provides regulatory enforcement through such measures as educational programs or fines, when necessary.

Regional Air Quality Management Plan

SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. SCAQMD prepares a new AQMP every 3 years, updating the previous plan and a 20-year horizon.

The latest plan is the 2016 AQMP (SCAQMD 2017), which incorporates the latest scientific and technological information and planning assumptions, including the 2016–2040 RTP/SCS and updated emission inventory methodologies for various source categories. The 2016 AQMP includes the integrated strategies and measures needed to meet the NAAQS, implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour O_3 NAAQS as well as the latest 24-hour and annual $PM_{2.5}$ standards. Key elements of the 2016 AQMP include the following:

- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near-zero technologies
- Enhanced socioeconomic assessment, including an expanded environmental-justice analysis
- Attainment of the 24-hour $PM_{2.5}$ standard in 2019 with no additional measures
- Attainment of the annual $PM_{2.5}$ standard by 2025 with implementation of a portion of the O_3 strategy
- Attainment of the 1-hour O_3 standard by 2022 with no reliance on “black box” future technology (CAA Section 182(e)(5) measures)

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operation. For example, SCAQMD Rule 403 requires the implementation of the best-available fugitive dust control measure during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with new development projects within the Basin, such as the proposed project. Instead, SCAQMD published the *CEQA Air Quality Handbook* (SCAQMD 1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties in evaluating potential air quality impacts of projects proposed in the Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in Environmental Impact Reports and was used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* (1993) with the *Air Quality Analysis Guidance Handbook* (SCAQMD 2020).

To assist the CEQA practitioner in conducting an air quality analysis in the interim while the replacement *Air Quality Analysis Guidance Handbook* is being prepared, supplemental guidance/information is provided on the SCAQMD website and includes (1) on-road vehicle emission factors, (2) background CO concentrations, (3) localized significance thresholds (LSTs), (4) mitigation measures and control efficiencies, (5) mobile-source toxics analysis, (6) off-road mobile-source emission factors, (7) $PM_{2.5}$ significance thresholds and calculation methodology, and (8) updated SCAQMD Air Quality Significance Thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

The following SCAQMD rules and regulations would apply to the proposed project:

- SCAQMD Rule 403 (SCAQMD 2005) requires projects to incorporate fugitive dust control measures.
- SCAQMD Rule 1113 (SCAQMD 2016) limits the VOC content of architectural coatings.

Local Regulations

City of Jurupa Valley General Plan 2017

The Air Quality Element of the *City of Jurupa Valley General Plan 2017* (City of Jurupa Valley 2017) includes air quality policies intended to limit sources of air pollution and sensitive receptor exposure. The following policies are applicable to the project:

- **Policy 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 form polluting sources, wherever possible.
- **Policy 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.
- **Policy AQ 3.1 Efficient Building Materials/Equipment.** Encourage the use of building materials/methods and heating equipment that are efficient and reduce emissions.
- **Policy AQ 3.2 Centrally Heated Facilities.** Encourage centrally heated facilities to utilize automated time clocks or occupant sensors to control heating.

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

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

- **Policy 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.
- **Policy AQ 5.2 Energy Conservation.** Encourage advanced energy conservation techniques and the incorporation of energy-efficient design elements for private and public developments, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling, and offer incentives, as appropriate.

Western Riverside Council of Governments Subregional Climate Action Plan June 2014

The Western Riverside Council of Governments (WRCOG) completed a Subregional Climate Action Plan (CAP) (WRCOG 2014) in June 2014. Twelve cities in Western Riverside County, including Jurupa Valley, joined efforts to develop this 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 32). The following policies are applicable to the project:

- **Measure SR-2: 2013 California Building Energy Efficiency Standards (Title 24, Part 6).** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).

- **Measure SR-4: HERO Commercial Program.** A public-private partnership administered by WRCOG, offering financing to business owners in the subregion for the installation of energy efficient, renewable energy, and water conservation improvements.

- **Measure SR-5: Utility Programs**. Southern California Edison (SCE) and Southern California Gas Company (SCG) each offer rebate programs to reduce energy consumption.

- **Measure SR-6: Pavley and Low Carbon Fuel Standard (LCFS).** CARB identified this measure as a "Discrete Early Action Measure." This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

- **Measure SR-10: Telecommuting.** Telecommuting would reduce GHG emissions associated with vehicles no longer on the road.

- **Measure SR-11: Goods Movement:** Efficient movement of goods through inland Southern California.

- **Measure SR-13: Construction and Demolition Waste Diversion.** Meet mandatory requirement to divert 50 percent of C&D waste from landfills by 2020 and exceed requirement by diverting 90 percent of C&D waste from landfills by 2035.

- **Measure SR-14: Water Conservation and Efficiency.** Reduce per capita water use by 20 percent by 2020. SB X7-7 is part of a California legislative package passed in 2009 that requires urban retail water suppliers to reduce per-capita water use by 10% from a baseline level by 2015, and to reduce per capita water use by 20 percent by 2020. Green accountability performance (GAP) Goal 16 directly aligns with SB X7-7. In Southern California, energy costs and GHG emissions associated with the transport, treatment, and delivery of water from outlying regions are high. Therefore, the region has extra incentive to reduce water consumption. While this is considered a state measure, it is up to the local water retailers, jurisdictions, and water users to meet these targets.

- **Measure E-1: Energy Action Plans:** Improve municipal and community-wide energy efficiency and reduce energy consumption through the adoption of local Energy Action Plans (EAP).

- **Measure E-3, Shade Trees:** Strategically plant trees at new nonresidential developments to reduce the urban heat island effect.

- **Measure T-3, End of Trip Facilities:** Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.

- **Measure T-4, Promotional Transportation Demand Management:** Encourage transportation demand management strategies.

- **Measure T-5: Transit Service Expansion;** Collaborate with local and regional transit providers to increase transit service provided in the subregion.

- **Measure T-6: Transit Frequency Expansion;** Collaborate with local and regional transit providers to provide more frequent transit in the subregion.

- **Measure T-7, Traffic Signal Coordination:** Incorporate technology to synchronize and coordinate traffic signals along local arterials.

- **Measure T-8, Density:** Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.

- **Measure T-10: Design/Site Planning:** Design neighborhoods and sites to reduce VMT.

THRESHOLDS OF SIGNIFICANCE

Certain air districts (e.g., SCAQMD) have created guidelines and requirements to conduct air quality analyses. SCAQMD's current guidelines, the *CEQA Air Quality Handbook* (SCAQMD 1993) with associated updates, were followed in this assessment of air quality and GCC impacts for the proposed project.

Based on the *State CEQA Guidelines,* Appendix G, (Public Resources Code Sections 15000–15387), a project would normally be considered to have a significant effect on air quality if the project would violate any CAAQS, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

POLLUTANTS WITH REGIONAL EFFECTS

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (SCAQMD 2017), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Regional Emissions Thresholds

Table F lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table F: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Thresholds (lbs/day)					
	VOCs	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_x
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD. Air Quality Significance Thresholds. (1993).
CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and which apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

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. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

LOCALIZED IMPACTS ANALYSIS

SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008 (SCAQMD 2008), recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the CAAQS for CO, NO_2, PM_{10} and $PM_{2.5}$, as shown in Table A. LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is the Metropolitan Riverside area (SRA 23). Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. As described above, the closest residential building is approximately 460 feet from the northern boundary of construction and 550 feet north of the nearest proposed loading docks.

The LST Methodology uses lookup tables based on site acreage to determine the significance of emissions for CEQA purposes. However, CalEEMod does not allow the user to mitigate construction emissions by directly modifying acreage disturbed. CalEEMod calculates construction emissions (off-road exhaust and fugitive dust) based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. For construction emissions, the localized significance for a project greater than 5 acres (ac) can be determined by following the CalEEMod guidance to approximate the amount of acres disturbed per day. For this project, approximately 4 ac would be disturbed per day, thus LST screening thresholds for the 5 ac and 2 ac tables were interpolated in this analysis. While the project site is approximately 23 ac, for screening purposes, the 5 ac LSTs were used for the operational LST analysis.

On-site operational emissions would occur from stationary and mobile sources. On-site vehicle emissions are the largest source of emissions, and the on-site travel routes for the proposed project would be equivalent to driving over 5 ac of surface area. Therefore, the 5 ac thresholds would apply during project operations. Thus, the following emissions thresholds apply during project construction and operations:

- **Construction LST (4 ac, 460 feet, Metropolitan Riverside)**
  - 385 pounds per day (lbs/day) of NO_X
  - 4,335 lbs/day of CO

- 67 lbs/day of PM_{10}
- 20 lbs/day of $PM_{2.5}$

- **Operation LST (5 ac, 550 feet, Metropolitan Riverside)**
  - 450 lbs/day of NO_X
  - 5,662 lbs/day of CO
  - 20 lbs/day of PM_{10}
  - 7 lbs/day of $PM_{2.5}$

GLOBAL CLIMATE CHANGE

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

Appendix G of the *State CEQA Guidelines* includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would do either of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

Currently, there is no Statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are still being developed and revised by air districts in California.

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group.[1] This Working Group proposed a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency. The applicable tier for this project is Tier 3, which states that if GHG emissions are less than 3,000 MT CO_2e per year, project-level and cumulative GHG emissions would be less than significant.

As described above, Jurupa Valley adopted the WRCOG CAP, which sets forth a subregional emissions reduction target, emissions reduction measures, and action steps to demonstrate consistency with AB 32.

[1] South Coast Air Quality Management District. Greenhouse Gases (GHG) CEQA Significance Thresholds. Website: www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/, accessed March 2019.

IMPACTS AND MITIGATION

Air pollutant emissions associated with the project would occur over the short term from construction activities and over the long term from project-related vehicular trips and due to energy consumption (e.g., electricity and natural gas usage) by the proposed land uses.

CONSTRUCTION IMPACTS

Equipment Exhaust and Related Construction Activities

Construction activities produce combustion emissions from various sources (utility engines, tenant improvements, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change.

The construction analysis includes estimating the construction equipment that would be used during each construction activity, the hours of use for that construction equipment, the quantities of earth and debris to be moved, and on-road vehicle trips (e.g., worker, soil hauling, vendor trips). The proposed earthwork for the project assumes 100,700 cubic yards would be exported. CalEEMod results and defaults are assumed for the construction activities, off-road equipment, and on-road construction fleet mix and trip lengths. Table G lists the tentative project construction schedule for the proposed project. It is expected that construction would start in 2020 and conclude in 2022. Default construction phase durations from CalEEMod were used for all phases except the Grading phase, which was extended to accommodate the soil export quantity and the Building Construction phase because the two buildings will be built simultaneously.

Table G: Tentative Project Construction Schedule

Phase Name	Phase Start Date	Phase End Date	Number of Days/Week	Number of Days
Site Preparation	6/1/2020	6/12/2020	5	10
Grading	6/13/2020	9/25/2020	5	75
Building Construction	9/26/2020	2/25/2022	5	370
Paving	2/26/2022	3/25/2022	5	20
Architectural Coating	3/26/2022	4/22/2022	5	20

Source: Estimated by LSA from the site plan (assuming a 2022 opening year) (March 2020).

The most recent version of CalEEMod (Version 2016.3.2) was used to develop the construction equipment inventory and calculate the construction emissions. Table H lists the estimated construction equipment that would be used during project construction as estimated by CalEEMod default values.

Table H: Diesel Construction Equipment Used by Construction Phase

Construction Phase	Off-Road Equipment Type	Off-Road Equipment Unit Amount	Hours Used per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	255	0.40
	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	162	0.38
	Graders	1	8	174	0.41
	Rubber Tired Dozers	1	8	255	0.40
	Scrapers	2	8	361	0.48
	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	226	0.29
	Forklifts	3	8	89	0.20
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
Paving	Pavers	2	8	125	0.42
	Paving Equipment	2	8	130	0.36
	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48

Source: Compiled by LSA Associates, Inc., using CalEEMod defaults (March 2020).
CalEEMod = California Emission Estimator Model

The emissions rates shown in Table I are from the CalEEMod output tables listed as "Mitigated Construction," even though the only measures that have been applied to the analysis are the required construction emissions control measures, or standard conditions. They are also the combination of the on- and off-site emissions and the greater of summer and winter emissions. No exceedances of any criteria pollutants are expected. Standard measures are documented in the CalEEMod output included as Appendix A

Table I: Short-Term Regional Construction Emissions

	Total Regional Pollutant Emissions (lbs/day)							
Construction Phase	VOC	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Site Preparation	4	42	22	<1	7	2	4	2
Grading	5	90	38	<1	7	2	2	2
Building Construction	5	38	37	<1	6	1	2	1
Paving	3	11	15	<1	<1	<1	<1	<1
Architectural Coating	19	2	5	<1	<1	<1	<1	<1
Peak Daily	**19**	**90**	**38**	**<1**	**9**		**6**	
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**		**55**	
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA Associates, Inc. (March 2020).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

Fugitive Dust

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction.

The construction calculations prepared for this project assumed that dust control measures (watering a minimum of two times daily) would be employed to reduce emissions of fugitive dust during site grading. Furthermore, all construction would need to comply with SCAQMD Rule 403 regarding the emission of fugitive dust. Table I lists total construction emissions (i.e., fugitive-dust emissions and construction-equipment exhausts) that have incorporated the following Rule 403 measures that would be implemented to significantly reduce PM_{10} emissions from construction:

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

These Rule 403 measures were incorporated in the CalEEMod analysis.

Architectural Coatings

Architectural coatings contain VOCs that are part of the O_3 precursors. Based on the proposed project, it is estimated that application of the architectural coatings for the proposed peak construction day would result in a peak of 19 pounds per day (lbs/day) of VOCs. Therefore, VOC emissions from architectural coating application would not exceed the SCAQMD VOC threshold of 75 lbs/day.

Localized Impacts Analysis

Table J shows the portion of the construction emissions that would be produced on the project site compared to the LSTs. Table J shows that the localized construction emissions would not result in a locally significant air quality impact.

Table J: Construction Localized Impacts Analysis

Emissions Sources	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	50	32	9	6
LST	385	4,335	67	20
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (March 2020).
Note: Source Receptor Area – Metropolitan Riverside, 4 acres, receptors at 460 feet.
CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Odors from Construction Activities

Heavy-duty equipment in the project area during construction would emit odors, primarily from the equipment exhaust. However, the construction-produced odors would cease to occur after individual construction is completed. No other sources of objectionable odors have been identified for the proposed project, and no mitigation measures are required.

SCAQMD Rule 402 regarding nuisances states,

> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the proposed project.

Naturally Occurring Asbestos

The proposed project site is in Riverside County, which is among the counties found to have serpentine and ultramafic rock in their soils (California Department of Conservation 2020). However, according to the California Geological Survey, no such rock has been identified in the project vicinity. Therefore, the potential risk for naturally occurring asbestos during project construction is small and less than significant.

Construction Emissions Conclusions

Tables I and J show that daily regional construction emissions would not exceed the daily thresholds of any criteria pollutant emission thresholds established by SCAQMD; thus, during construction, there would be no localized impacts.

LONG-TERM REGIONAL AIR QUALITY IMPACTS

Operational Emissions

Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The proposed project would result in net increases in both stationary and mobile-source emissions. The area source emission categories include sources such as consumer products and landscaping equipment.

Based on the Agua Mansa Traffic Impact Analysis (LSA 2020) the project operations would result in 282 truck trips and 1,317 total trips on a peak day. As the amount of project-related daily trips would vary from weekday to weekend, and the traffic impact peak day is a weekday (when there is more non-project related traffic), the default CalEEMod rates for Saturday and Sunday were used. The average haul truck round trip was assumed to be 25 miles (the SCAG average truck trip length is

17.41 miles; 25 miles was used to be conservative).[1] The CalEEMod fleet mix was adjusted to match the Agua Mansa Traffic Impact Analysis. Table K shows long-term operational emissions associated with the proposed project. Area sources include architectural coatings and landscaping. Energy sources include natural gas consumption for heating.

Table K: Opening Year Regional Operational Emissions (25 Mile Trip Length)

Source	Pollutant Emissions, lbs/day					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	7	<1	<1	0	<1	<1
Energy	<1	2	2	<1	<1	<1
Mobile	3	39	40	<1	18	5
Total Project Emissions	10	41	42	<1	18	5
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (March 2020).
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

To be conservative, a second analysis is included using an average haul truck round trip of 40 miles with the same fleet mix. Table L shows long-term operational emissions associated with the proposed project using a 40 mile trip length.

Table L: Opening Year Regional Operational Emissions (40 Mile Trip Length)

Source	Pollutant Emissions, lbs/day					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	7	<1	<1	0	<1	<1
Energy	<1	2	2	<1	<1	<1
Mobile	4	62	68	<1	27	8
Total Project Emissions	11	64	70	<1	27	8
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (March 2020).
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

As noted, typical truck length may be approximately 25 miles. Since a specific tenant for the proposed building as not yet been identified, the analysis findings will be based on the longer 40 mile trip length. Therefore, as shown in Table L, NOx emissions associated with the project would

[1] National Academies of Sciences, Engineering, and Medicine. 2008. *Forecasting Metropolitan Commercial and Freight Travel*. The top of Page 116 of the document spells out the following trip lengths: Light-Duty Trucks: 5.92 mi, Medium-Duty Trucks: 13.09 mi, Heavy-Duty Trucks: 22.4 mi. Thus: (average daily trips for each truck type * above trip lengths) / total daily truck trips = 17.41 mi.

exceed the SCAQMD's threshold of significance for operational emissions. This impact would be considered significant.

Localized Impacts Analysis

Table M shows the calculated emissions for the proposed operational activities compared with the appropriate LSTs. By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for operations. For a worst-case scenario assessment, the emissions shown in Table M include all on-site project-related stationary sources and 4 percent of the project-related new mobile sources, which is an estimate of the amount of project-related new vehicle traffic that would occur on site. A total of 4 percent is considered conservative because the average round-trip lengths assumed are 25 miles for commercial-work, 16.8 miles for commercial-customer, and 13.8 miles for other types of trips. It is unlikely that the average on-site distance driven would be even 1,000 feet, which is approximately 2 percent of the total miles traveled. Considering the total trip length included in the CalEEMod, the 4 percent assumption is conservative.

Table M shows that the operational emission rates would not exceed the LSTs for sensitive receptors in the project area. Therefore, the proposed operational activity would not result in a locally significant air quality impact.

Table M: Long-Term Operational Localized Impacts Analysis

Emissions Sources	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	2	2	<1	<1
LST	450	5,662	20	7
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (March 2020).
Note: Source Receptor Area – Metropolitan Riverside, 5 acres, receptors at 550 feet, on-site traffic assumed to be 4 percent of total.
CO = carbon monoxide
LST = local significance thresholds
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Odors from Operational Activities

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. No sources of objectionable odors have been identified for the proposed project; therefore, the impacts associated with odors would be less than significant and no mitigation measures are required.

CO Hot Spot Analysis

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic

flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the Riverside-Rubidoux Station, the closest station with complete monitored CO data, showed a highest recorded 1-hour concentration of 2.4 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 2.0 ppm (the State standard is 9 ppm) during the past 3 years (Table E). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

As described in the project traffic study (LSA 2020), certain intersections surrounding the project site currently operate at an unsatisfactory LOS without the project. While the project would contribute to the existing deficiency at these intersections, the LOS would either stay the same or only slightly increase with the project. Given the extremely low level of CO concentrations in the project area (see Table E), and minor traffic impact increases at affected intersections, project-related vehicles are not expected to contribute significantly to result in the CO concentrations exceeding the State or federal CO standards. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

ASSESSMENT OF PROJECT-RELATED HEALTH-RELATED IMPACTS

Although the project is not expected to exceed the SCAQMD's numeric regional mass daily emission thresholds, this does not in itself constitute a less than significant health impact to the population adjacent to the project site and within the Basin.

The SCAQMD's numeric regional thresholds are based in part on Section 180 (e) of the federal Clean Air Act (CAA)—it should be noted that the numeric regional mass daily thresholds have not changed since their adoption as part of the *CEQA Air Quality Handbook* published by SCAQMD in 1993 (over 20 years ago). The numeric regional mass daily thresholds are also intended to provide a means of consistency in significance determination within the environmental review process.

Notwithstanding, simply exceeding the SCAQMD's numeric regional mass daily thresholds does not constitute a particular health impact to an individual nearby. The reason for this is that the mass daily thresholds are in pounds per day emitted into the air whereas health effects are determined based on the concentration of emissions in the air at a particular location (e.g., parts per million by volume of air, or micrograms per cubic meter of air). State and federal ambient air quality standards were developed to protect the most susceptible population groups from adverse health effects and

were established in terms of parts per million or micrograms per cubic meter for the applicable emissions.

For this reason, the SCAQMD developed a methodology to assist lead agencies in analyzing localized air quality impacts from a proposed project as they relate to CO, NO_X, $PM_{2.5}$, and PM_{10}. This methodology is collectively referred to as the localized significance thresholds (LSTs). The LSTs differ from the numeric regional mass daily thresholds since the LSTs are based on the amount of emissions generated from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are based on the ambient concentrations of the pollutant and the relative distance to the nearest sensitive receptor (the SCAQMD performed air dispersion modeling to determine what amount of emissions generated a particular concentration at a particular distance).

This air quality analysis evaluated the Project's localized impact to air quality for emissions of CO, NO_X, $PM_{2.5}$, and PM_{10} by comparing the Project's on-site emissions to the SCAQMD's applicable LST thresholds. As shown in Tables J and M, the project would not result in emissions that exceed the SCAQMD's LSTs. Therefore, the project would not be expected to exceed the most stringent applicable federal or State ambient air quality standards for emissions of NO_X, $PM_{2.5}$, and PM_{10}. It should be noted that the ambient air quality standards are developed and represent levels at which the most susceptible persons (children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set low to protect children, elderly, and those with existing respiratory problems.

Furthermore, as described on page 16, air quality trends for both emissions of NOx, VOCs, and Ozone (which is a byproduct of NOx and VOCs) have been trending downward within the Basin even as development has increased over the last several years. Therefore, since the Project will not exceed the SCAQMD's applicable numeric thresholds, the project would not result in any Basin-wide increase in health effects.

As noted in the Brief of Amicus Curiae by the South Coast Air Quality Management District (SCAQMD 2015a), the SCAQMD has acknowledged that for criteria pollutants it would be extremely difficult, if not impossible to quantify health impacts for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Furthermore, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) (SJVAPCD 2015), SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts. (see Page 4 of SJVAPCD Brief of Amicus Curiae).

Additionally, the SCAQMD acknowledges that health effects quantification from ozone, as an example is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes. The SCAQMD goes on to state that it would take a large amount of additional emissions to result in a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 AQMP, a reduction of 432 tons (864,000 pounds) per day of NOx and a reduction of 187 tons (374,000 pounds per day) of VOCs would reduce ozone levels at highest monitored site by only 9 parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health

impacts caused by NOx or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations (see Page 11 of SCAQMD Brief of Amicus Curiae).

To underscore this point, the SCAQMD goes on to state that they have only been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 pounds per day of NOx and 89,180 pounds per day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone.

The proposed project does not generate anywhere near 6,620 pounds per day of NOx or 89,190 pounds per day of VOC emissions. As shown in Table I, the project would generate a maximum of 94 pounds per day of NOx during construction (1.4 percent of 6,620 pounds per day) and as shown in Tables K and L would generate up to 65 pounds per day of NO_X, during operations (1 percent of 6,620 pounds per day). The project would also generate a maximum of 19 pounds per day of VOC emissions during construction and 11 pounds per day of VOC emissions during operations (0.02 percent and 0.01 percent of 89,190 pounds per day, respectively).

Therefore, the project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a Basin-wide level. Further, SJVAPCD acknowledges the same: "…the Air District is simply not equipped to analyze and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area…even for projects with relatively high levels of emissions of criteria pollutant precursor emissions." (see Page 8 of SJVAPCD Brief of Amicus Curiae).

Notwithstanding, as previously noted, this air quality analysis does include a site-specific localized impact analysis that does correlate potential project health impacts on a local level to immediately adjacent land uses. The SCAQMD Brief of Amicus Curiae and SJVAPCD Brief of Amicus Curiae are incorporated by reference into this report and into the environmental documentation for this project, including all references therein.

Current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences.

GREENHOUSE GAS EMISSIONS

This section evaluates potential significant impacts to GCC that could result from implementation of the proposed project. Because it is not possible to tie specific GHG emissions to actual changes in climate, this evaluation focuses on the project's emission of GHGs.

Emissions Background

Emissions estimates for the proposed project are discussed below. Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis below is based on methodologies and information available to the City and the applicant at the time this analysis was prepared. Estimation of GHG emissions in the future does not account for all changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is worse than that which is likely to be

encountered (after energy-efficient technologies have been implemented). While information is presented below to assist the public and decision-makers in understanding the project's potential contribution to GCC impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts or between any particular proposed mitigation measure and any reduction in climate change impacts.

Construction and operation of the proposed project would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the project's operation (as opposed to during its construction). Typically, more than 80 percent of the total energy consumption takes place during the use of buildings, and less than 20 percent of energy is consumed during construction (UNEP 2007).

Overall, the following activities associated with the proposed project could directly or indirectly contribute to the generation of GHG emissions.

- **Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs (e.g., CO_2, CH_4, and N_2O). Furthermore, CH_4 is emitted during the fueling of heavy equipment.
- **Gas, Electricity, and Water Use:** Natural gas use results in the emission of two GHGs: CH_4 (the major component of natural gas) and CO_2 (from the combustion of natural gas). Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive. Water-related electricity use is 48 terawatt hours per year and accounts for nearly 20 percent of California's total electricity consumption. (CEC 2005).
- **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is 25 times more potent a GHG than CO_2. However, landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.

Preliminary guidance from the OPR and letters from the State Attorney General critical of CEQA documents that have taken different approaches indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, and construction activities. The construction emissions, calculated using CalEEMod (Version 2016.3.2), using the same methodology as described above for the criteria pollutant emissions, are shown in Table N (details are provided in the CalEEMod output in Appendix A).

Table N: Short-Term Regional Construction Emissions

Construction Phase	Total Emissions per Phase (MT/yr)			Total Emissions per Phase (MT CO_2e/yr)
	CO_2	CH_4	N_2O	
2020				
Site Preparation	18	<1	0	18
Grading	668	<1	0	670
Building Construction	358	<1	0	359
2021				
Building Construction	1,332	<1	0	1,335
2022				
Building Construction	201	<1	0	201
Paving	21	<1	0	21
Architectural Coatings	10	<1	0	10
Total Emissions For Entire Construction Process				2,613 MT CO_2e
Total Construction Emissions Amortized over 30 years				87 MT CO_2e

Source: Compiled by LSA Associates, Inc. (March 2020).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT = metric tons
MT/yr = metric tons per year
N_2O = nitrous oxide

GHG emissions from vehicular traffic, energy consumption, water conveyance and treatment, and waste generation were also calculated using CalEEMod using the same methodology as described above for the criteria pollutant emissions. Based on SCAQMD guidance, construction emissions were amortized over 30 years (a typical project lifetime) and added to the total project operational emissions as shown in Table O. The GHG emission estimates presented in Table O show the emissions associated with the level of development envisioned by the proposed project at opening using the same parameters described in the Long-Term Regional Air Quality Impacts, Operational Emissions section above and a 25-mile average truck trip length.

Table O: Long-Term Operational Greenhouse Gas Emissions (25 Mile Trip Length)

Source	Pollutant Emissions (MT/yr)					
	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Construction Emissions Amortized over 30 Years	0	87	87	<1	0	87
Operational Emissions						
Area	0	<1	<1	<1	0	<1
Energy	0	1,256	1,256	<1	<1	1,262
Mobile	0	3,320	3,320	<1	0	3,323
Waste	84	0	84	5	0	209
Water	25	321	346	3	<1	428
Total Project Emissions	109	4,984	5,093	8	0	5,309

Source: Compiled by LSA Associates, Inc. (March 2020).
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide
NBio-CO_2 = non-biologically generated CO_2
SCAQMD = South Coast Air Quality Management District

As shown in Table O, the project will result in GHG emissions of 5,309 MT CO_2e/yr, which is greater than the SCAQMD Tier 3 threshold of 3,000 MT CO_2e/yr.

As above, to be conservative a second analysis is included using an average haul truck round trip of 40 miles with the same fleet mix. Table P shows long-term GHG emissions associated with the proposed project using a 40 mile trip length.

Table P: Long-Term Operational Greenhouse Gas Emissions (40 Mile Trip Length)

Source	Pollutant Emissions (MT/yr)					
	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Construction Emissions Amortized over 30 Years	0	87	87	<1	0	87
Operational Emissions						
Area	0	<1	<1	<1	0	<1
Energy	0	1,253	1,253	<1	<1	1,258
Mobile	0	5,003	5,003	<1	0	5,007
Waste	84	0	84	5	0	209
Water	25	321	346	3	<1	428
Total Project Emissions	109	6,664	6,773	8	0	6,989

Source: Compiled by LSA Associates, Inc. (March 2020).
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide
NBio-CO_2 = non-biologically generated CO_2
SCAQMD = South Coast Air Quality Management District

As shown in Table P, when assuming an average 40-mile truck trip length, the project would result in GHG emissions of 6,989 MT CO_2e/yr, which is also greater than the SCAQMD Tier 3 threshold of 3,000 MT CO_2e/yr.

Mobile- source emissions of GHGs would include project-generated vehicle trips associated with on-site facilities and customers/visitors to the project site. Area-source emissions would be associated with activities including landscaping and maintenance of proposed land uses, natural gas for heating, and other sources. Increases in stationary-source emissions would also occur at off-site utility providers as a result of the proposed project's demand for electricity, natural gas, and water.

The GHG emissions shown in Tables O and P are principally (63 and 72 percent, respectively) from mobile source emissions. As discussed below, the project would incorporate project design features that would reduce GHG emissions from the sources the project has control over and demonstrate consistency with the WRCOG CAP. However, the mobile source emissions are controlled by the State and federal governments. Thus, there are no feasible mitigation measures available to reduce the total project GHG emissions to less than 3,000 MT CO_2e/yr and regardless of the average truck trip length assumed these emissions would result in a significant, unavoidable impact.

In June 2014, the City adopted the WRCOG CAP, which qualifies as a plan for the reduction of GHG emissions pursuant to the State CEQA Guidelines. The WRCOG CAP identifies local GHG reduction measures by sector and the GHG reduction potential associated with each measure. The proposed project incorporates certain measures as design features. Table Q details the project design features

that are necessary to ensure consistency with applicable local reduction measures of the WRCOG CAP. With implementation of these project design features, the project would be consistent with the WRCOG CAP.

Table Q: Western Riverside Council of Governments Climate Action Plan (WRCOG CAP) Consistency Analysis

Measures by Sector	WRCOG CAP Consistency Analysis
State and Regional Measures	
Energy	
Measure SR-2: 2013 California Building Energy Efficiency Standards (Title 24, Part 6). Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Consistent.** The proposed project would comply with the requirements of the 2016 California Building Energy Efficiency Standards (Title 24, Part 6), including measures to incorporate energy-efficient building design features detailed in Subchapter 3 (Nonresidential Mandatory Requirements), Section 120.7 (Mandatory Insulation Requirements) and Section 120.8 (Nonresidential Building Commissioning).
Measure SR-4: HERO Commercial Program. A public-private partnership administered by WRCOG, offering financing to business owners in the subregion for the installation of energy efficient, renewable energy, and water conservation improvements.	**Consistent.** The proposed project would work with WRCOG to determine any project features that are eligible and to add any new features, as appropriate.
Measure SR-5: Utility Programs. Southern California Edison (SCE) and Southern California Gas Company (SCG) each offer rebate programs to reduce energy consumption.	**Consistent.** The proposed project would work with SCE and SCG to determine any project features that are eligible and to add any new features, as appropriate.
Water	
Measure SR-14: Water Conservation and Efficiency. Reduce per capita water use by 20 percent by 2020. SB X7-7 is part of a California legislative package passed in 2009 that requires urban retail water suppliers to reduce per-capita water use by 10 percent from a baseline level by 2015, and to reduce per capita water use by 20% by 2020. Green accountability performance (GAP) Goal 16 directly aligns with SB X7-7. In Southern California, energy costs and GHG emissions associated with the transport, treatment, and delivery of water from outlying regions are high. Therefore, the region has extra incentive to reduce water consumption. While this is considered a state measure, it is up to the local water retailers, jurisdictions, and water users to meet these targets.	**Consistent.** The proposed Project will install water-efficient irrigation systems and devices and drought-tolerant landscaping.
Solid Waste	
Measure SR-13: Construction and Demolition Waste Diversion. Meet mandatory requirement to divert 50 percent of C&D waste from landfills by 2020 and exceed requirement by diverting 90 percent of C&D waste from landfills by 2035.	**Consistent.** The proposed project will comply with California Green Building Standards Code requirements. At least 50 percent of all nonhazardous construction waste generated by the proposed project (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard) will be recycled and/or salvaged.
Transportation	
Measure SR-6: Pavley and Low Carbon Fuel Standard (LCFS). CARB identified this measure as a "Discrete Early Action Measure." This measure would reduce the carbon	**Consistent.** The proposed project does not involve the manufacture, sale, or purchase of vehicles. However, vehicles that operate within and access the project site will

Table Q: Western Riverside Council of Governments Climate Action Plan (WRCOG CAP) Consistency Analysis

Measures by Sector	WRCOG CAP Consistency Analysis
intensity of California's transportation fuels by at least 10 percent by 2020.	comply with Pavley and the Low Carbon Fuel Standard. Passenger cars and medium- and heavy-duty trucks and trailers making deliveries will be subject to aerodynamic and hybridization requirements as established by the CARB; no feature of the project will interfere with implementation of these requirements and programs.
Measure SR-10: Telecommuting. Telecommuting would reduce GHG emissions associated with vehicles no longer on the road.	**Consistent.** The proposed project would provide telecommuting materials to encourage future tenants to telecommute.
Measure SR-11: Goods Movement Efficient movement of goods through inland Southern California.	**Consistent.** The proposed project would provide efficient movement of goods through inland Southern California by optimizing business practices.
Local Reduction Measures	
Energy	
Measure E-1: Energy Action Plans Improve municipal and community-wide energy efficiency and reduce energy consumption through the adoption of local Energy Action Plans (EAP).	**Consistent.** Building energy efficiency elements shall include, at a minimum, 2016 Title 24 Energy Code standards, as amended. The installation and use of on-site renewable energy systems shall be investigated to reduce demand on existing energy grid infrastructure and to support the City of Jurupa Valley energy efficiency goals. Buildings will be designed to maximize daylight access for interior occupied spaces. Top lighting and side lighting strategies shall be combined to optimize daylight access for building occupants. Daylighting strategies to be investigated for feasibility include, but are not limited to, exterior/interior light shelves, skylights and monitors, clerestory windows, tubular skylights, and light wells. Nonessential exterior lighting shall be turned off by automatic controllers from 11:00 p.m. until the following evening at dusk. Lighting shall be ramped up to full power (based on zones) when motion is detected in the vicinity.
Measure E-3, Shade Trees: Strategically plant trees at new nonresidential developments to reduce the urban heat island effect.	**Consistent.** As established by the landscape plan and/or determined by the owner/residents, shade trees would be provided on site. Shade trees in new landscape designs would be provided to reduce heat island impacts (when shading paved/developed surfaces) and to support the City of Jurupa Valley goals.
Transportation	
Measure T-3, End of Trip Facilities: Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters. **Measure T-4, Promotional Transportation Demand Management:** Encourage transportation demand management strategies. **Measure T-5: Transit Service Expansion;** Collaborate with local and regional transit providers to increase transit service provided in the subregion. **Measure T-6: Transit Frequency Expansion**; Collaborate	**Consistent.** Project development will be within already-urbanized parts of Jurupa Valley, utilizing existing facilities and infrastructure to promote pedestrian, bicycle, and transit-oriented mobility. The Riverside Transit Agency currently provides bus service to the project site; the Downtown Riverside – Eastvale route runs along Market Street and Rubidoux Boulevard near the project site and connects to other bus routes in Jurupa Valley and the surrounding communities. Two bus stops facilitate bus service to the project site, supporting

Table Q: Western Riverside Council of Governments Climate Action Plan (WRCOG CAP) Consistency Analysis

Measures by Sector	WRCOG CAP Consistency Analysis
with local and regional transit providers to provide more frequent transit in the subregion. **Measure T-7, Traffic Signal Coordination:** Incorporate technology to synchronize and coordinate traffic signals along local arterials. **Measure T-8, Density:** Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities. **Measure T-10: Design/Site Planning**: Design neighborhoods and sites to reduce VMT.	the City's General Plan objectives and policies related to alternative modes of transportation. Because the project site is located in close proximity to an existing bus route, the proposed project would be accessible to existing transit systems. The project site is in a rapidly developing area, it is expected that existing bus service will be expanded to provide more convenient service to the project.

Source: Western Riverside Council of Governments *Subregional Climate Action Plan* (WRCOG 2014). Adopted June 2014 and LSA, 2020.
CARB = California Air Resources Board

SCOPING PLAN CONSISTENCY

The CARB's Scoping Plan (CARB 2017) outlines the main State strategies for meeting the emission reduction targets and to reduce greenhouse gases that contribute to global climate change. Pursuant to AB 32, the Scoping Plan must "*identify and make recommendations on direct emission reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives*" in order to achieve the 2020 goal, and achieve "*the maximum technologically feasible and cost-effective greenhouse gas emission reductions*" by 2020 and maintain and continue reductions beyond 2020.

The companion bill to SB 32, AB 197, provides additional direction to CARB on the following areas related to the adoption of strategies to reduce greenhouse gas emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficiency measures are intended to maximize energy efficient building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The proposed project would be constructed to CalGreen Building Code standards. Therefore, the proposed project would not conflict with AB 197 energy efficiency measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions. The proposed project would comply with the Cal Green Building Code standards and would include low-flow plumbing fixtures, drought-

tolerant landscaping, and other features that would reduce water demand. Therefore, the proposed project would not conflict with any of the AB 197 water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. The project would promote initiatives to reduce vehicle trips and vehicle miles traveled and would increase the use of alternate means of transportation. Therefore, the proposed project would not conflict with the identified AB 197 transportation and motor vehicle measures.

A summary of the proposed project's consistency with the 2035 Scoping Plan's mitigation measures identified in Appendix B of the 2017 Scoping Plan is shown in Table R below.

Table R: Project Consistency with Applicable 2017 Scoping Plan Appendix B Measures

2017 Scoping Plan Appendix B Measures	Project Consistency
Dedicate on-site parking for shared vehicles.	***Consistent***. The proposed project would include dedicated on-site parking for shared vehicles.
Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing.	***Consistent***. The proposed project would incorporate cool roof materials.
Require solar-ready roofs.	***Consistent***. The proposed project would include provisions for PV solar panel on roofs, as specified in Title 24 Part 6 and the CalGreen Building Code standards..
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the Model Water Efficient Landscape Ordinance [MWELO], which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.	***Consistent***. The proposed project would include new low-water landscaping and trees throughout the project site. Additionally, weather based smart irrigation controllers would be used.
Encourage new construction, including municipal building construction, to achieve third-party green building certifications, such as the GreenPoint Rated program, LEED rating system, or Living Building Challenge.	***Consistent***. The proposed project would be constructed to Title 24 Part 6 and CalGreen Building Code standards.
Expand urban forestry and green infrastructure in new land development.	***Consistent***. The proposed project would include new low-water landscaping and trees throughout the project site. Additionally, weather based smart irrigation controllers would be used.
Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands.	***Consistent***. The proposed project would provide outdoor electric outlets to discourage gas powered landscape equipment.
Require the landscaping design for parking lots to utilize tree cover and compost/mulch.	***Consistent***. The proposed project would include new low-water landscaping and trees throughout the project site. Additionally, weather based smart irrigation controllers would be used.

Source: LSA Associates, Inc. (December 2018).

The proposed project would not conflict with applicable regional or Statewide action measures. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The proposed project is an industrial development that would not house more than 1,000 persons, occupy more than 40 ac of land, or encompass more than 650,000 sf of floor area. Thus, the proposed project would not be defined as a regionally significant project under CEQA; therefore, it does not meet SCAG's Intergovernmental Review criteria.

A modification to the General Plan Mira Loma Warehouse Overlay to allow logistics use would be required. The 2017 General Plan and the 1986 Agua Mansa Specific Plan No. 210 list the project site land use designation as Heavy Industrial, the existing zoning is Manufacturing/Service Commercial. The proposed logistics use would result in traffic impacts similar to the existing designation and zoning. Thus, even though the project requires a General Plan modification, the proposed project, as analyzed, would result in air emissions that are consistent with the City's plans. The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD *CEQA Air Quality Handbook*, consistency with the Basin 2016 AQMP is affirmed when a project would not increase the frequency or severity of an air quality standards violation or cause a new violation and is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, as demonstrated above; therefore, the project would not result in an increase in the frequency or severity of an air quality standard violation or cause a new air quality standard violation.
2. The *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electricity-generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities; therefore, the proposed project is not defined as significant.

Based on the consistency analysis presented above, the proposed project would be consistent with the regional AQMP.

STANDARD CONDITIONS

Construction

The project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with the 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 (SCAQMD 2005). In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors (SCAQMD 2005). As shown in Table I, implementation of Rule 403 measures results in dust emissions below SCAQMD thresholds.

The applicable Rule 403 measures are as follows:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meters) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Pave construction access roads at least 100 feet (30 meters) onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.

The applicable California Department of Resources Recycling and Recovery (CalRecycle) Sustainable (Green) Building Program Measures are:

- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) (CalRecycle).
- Use "green building materials" such as those materials that are rapidly renewable or resource-efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project, as specified on the CalRecycle website.

Operations

The proposed project is required to comply with Title 24 of the California Code of Regulations established by the CEC regarding energy conservation and green building standards.

MINIMIZATION MEASURES

To ensure that the proposed project minimizes operational NOx and GHG emissions to the extent feasible; and to ensure that the project complies with and would not conflict with or impede the

implementation of the GHG reduction goals identified in AB 32, the Governor's EO S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor, the project would implement a variety of measures that would reduce its criteria pollutant and GHG emissions. To the extent feasible, and to the satisfaction of the City, the following measures would be incorporated into the design of the project:

MM-1 Energy Efficiency Measures

- Design all project buildings to meet or exceed the California Building Code's (CBC) Title 24 energy standard, including, but not limited to, any combination of the following:
  - Increase insulation such that heat transfer and thermal bridging is minimized;
  - Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption; and
  - Incorporate ENERGY STAR® or better rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment.
- Install efficient lighting and lighting control systems. Use daylight as an integral part of the lighting systems in buildings.

MM-2 Water Conservation and Efficiency Measures

- Devise a comprehensive water conservation strategy appropriate for the project and its location. The strategy may include the following, plus other innovative measures that may be appropriate:
  - Create water-efficient landscapes within the development.
  - Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
  - Use reclaimed water, if available, for landscape irrigation within the project. Install the infrastructure to deliver and use reclaimed water, if available.
  - Design buildings to be water-efficient. Install water-efficient fixtures and appliances, including low-flow faucets and waterless urinals.
  - Restrict watering methods (e.g., prohibit systems that apply water to nonvegetated surfaces) and control runoff.

MM-3 Truck Emissions Control Measures

- Mandate that trucks operating at the project facility comply with the EPA SmartWay program to reduce freight transportation-related climate change and air pollutant emissions by accelerating the use of advanced fuel-saving technologies including:
  - aerodynamic devices for trailers
  - low rolling resistance (LRR) tires for tractors and trailers.

In addition, the project would be subject to all applicable regulatory requirements, which would also reduce the criteria pollutant and GHG emissions of the project. Even with implementation of these measures, the project would still continue to exceed the SCAQMD interim emissions threshold for GHG emissions and operational NOx emissions. Therefore, the project's GHG emissions and operational NOx emissions would remain significant.

CUMULATIVE IMPACTS

The project would contribute criteria pollutants to the area during temporary project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with SCAQMD's standard construction measures. The proposed project's short-term construction emissions would not exceed the significance thresholds. Therefore, it would not have a significant short-term cumulative air quality impact.

The project's long-term operational emissions would exceed SCAQMD's criteria pollutant threshold for NOx. However, cumulative projects would be required to comply with SCAQMD's operational emissions thresholds, which are designed to accomplish regional emissions goals. However, because the proposed project would result in a significant operational NOx impact, this would also be considered a cumulative impact related to long-term air quality emissions.

As climate change impacts are cumulative in nature, no typical single project can result in emissions of such a magnitude that it, in and by itself, would be significant on a project basis. As described above, with implementation of the project design features listed in Table Q the project would be consistent with the WRCOG CAP. Therefore, through consistency with a qualified CAP, the project would generate GHG emissions that would have a less significant cumulative impact.

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APPENDIX A

CALEEMOD PRINTOUTS

Agua Mansa Industrial Project

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	335.00	1000sqft	7.69	335,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	3.60	Acre	3.60	156,816.00	0
Parking Lot	234.00	Space	2.11	93,600.00	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total site is 23.43 acres.

Construction Phase - Extended Grading phase due to amount of soil export planned. Building construction duration from project plans.

Grading - Soil export amount from project plans.

Architectural Coating - Assume all architectural coatins comply with SCAQMD Rule 1113. Buildings to be tilt-up concrete requiring minimal painting.

Vehicle Trips - Weekday trip rate from traffic study. Assume manufacturing work trucks average 25 mile trip lengths.

Area Coating - Assume all architectural coatins comply with SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403.

Operational Off-Road Equipment - .

Fleet Mix - Fleet percentages from TIA.

Energy Use - Assume project includes Tier 2 Nonresidential Voluntary Measures of California's Green Building Standards Code Sections A5.106.5.1.2 and A5.106.5.2.2 in addition to compliance with 2019 CBC, resulting in overall 25 percent energy use reduction.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	167,500.00	20,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	502,500.00	100,000.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_Nonresidential_Exterior	167500	20000
tblAreaCoating	Area_Nonresidential_Interior	502500	100000
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	75.00
tblConstructionPhase	PhaseEndDate	7/31/2020	9/25/2020
tblConstructionPhase	PhaseEndDate	12/31/2021	2/25/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	3/25/2022
tblConstructionPhase	PhaseEndDate	2/25/2022	4/22/2022
tblConstructionPhase	PhaseStartDate	8/1/2020	9/26/2020
tblConstructionPhase	PhaseStartDate	1/1/2022	2/26/2022
tblConstructionPhase	PhaseStartDate	1/29/2022	3/26/2022
tblEnergyUse	LightingElect	2.93	2.20
tblEnergyUse	LightingElect	0.35	0.26
tblEnergyUse	NT24E	5.02	3.77
tblEnergyUse	NT24NG	17.13	12.85
tblEnergyUse	T24E	2.20	1.65

tblEnergyUse	T24NG	15.36	11.52
tblFleetMix	HHD	0.07	0.12
tblFleetMix	LDA	0.55	0.63
tblFleetMix	LDT1	0.04	0.08
tblFleetMix	LDT2	0.19	0.04
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	4.9700e-003	0.01
tblFleetMix	MCY	4.5470e-003	0.00
tblFleetMix	MDV	0.12	0.04
tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	SBUS	9.3200e-004	0.00
tblFleetMix	UBUS	1.1600e-003	0.00
tblGrading	MaterialExported	0.00	100,700.00
tblVehicleTrips	CW_TL	16.60	25.00
tblVehicleTrips	WD_TR	3.82	3.93

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	0.3817	4.9321	2.7398	0.0113	0.7388	0.1403	0.8790	0.2714	0.1301	0.4016	0.0000	1,042.8081	1,042.8081	0.1345	0.0000	1,046.1708
2021	0.5401	4.4687	4.3165	0.0146	0.7530	0.1327	0.8857	0.2031	0.1247	0.3278	0.0000	1,331.6058	1,331.6058	0.1251	0.0000	1,334.7328

2022	0.2958	0.7560	0.8251	2.5500e-003	0.1265	0.0238	0.1503	0.0341	0.0223	0.0564	0.0000	231.8418	231.8418	0.0254	0.0000	232.4773
Maximum	**0.5401**	**4.9321**	**4.3165**	**0.0146**	**0.7530**	**0.1403**	**0.8857**	**0.2714**	**0.1301**	**0.4016**	**0.0000**	**1,331.6058**	**1,331.6058**	**0.1345**	**0.0000**	**1,334.7328**

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	0.3817	4.9321	2.7398	0.0113	0.4814	0.1403	0.6216	0.1583	0.1301	0.2884	0.0000	1,042.8077	1,042.8077	0.1345	0.0000	1,046.1705
2021	0.5401	4.4687	4.3164	0.0146	0.7530	0.1327	0.8857	0.2031	0.1247	0.3278	0.0000	1,331.6055	1,331.6055	0.1251	0.0000	1,334.7325
2022	0.2958	0.7560	0.8251	2.5500e-003	0.1265	0.0238	0.1503	0.0341	0.0223	0.0564	0.0000	231.8417	231.8417	0.0254	0.0000	232.4772
Maximum	**0.5401**	**4.9321**	**4.3164**	**0.0146**	**0.7530**	**0.1403**	**0.8857**	**0.2031**	**0.1301**	**0.3278**	**0.0000**	**1,331.6055**	**1,331.6055**	**0.1345**	**0.0000**	**1,334.7325**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.91**	**0.00**	**13.44**	**22.25**	**0.00**	**14.40**	**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	**6-1-2020**	**8-31-2020**	2.9260	2.9260
2	**9-1-2020**	**11-30-2020**	1.8506	1.8506
3	**12-1-2020**	**2-28-2021**	1.2753	1.2753
4	**3-1-2021**	**5-31-2021**	1.2595	1.2595
5	**6-1-2021**	**8-31-2021**	1.2607	1.2607
6	**9-1-2021**	**11-30-2021**	1.2447	1.2447
7	**12-1-2021**	**2-28-2022**	1.1404	1.1404
8	**3-1-2022**	**5-31-2022**	0.3330	0.3330
		Highest	2.9260	2.9260

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	1.2742	7.0000e-005	7.4500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Energy	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	1,255.9877	1,255.9877	0.0422	0.0150	1,261.5112
Mobile	0.3301	5.6616	5.1179	0.0355	2.4763	0.0256	2.5019	0.6690	0.0241	0.6931	0.0000	3,320.0001	3,320.0001	0.1208	0.0000	3,323.0207
Waste						0.0000	0.0000		0.0000	0.0000	84.3225	0.0000	84.3225	4.9833	0.0000	208.9053
Water						0.0000	0.0000		0.0000	0.0000	24.5773	321.4000	345.9773	2.5376	0.0624	427.9973
Total	**1.6483**	**6.0618**	**5.4615**	**0.0379**	**2.4763**	**0.0561**	**2.5324**	**0.6690**	**0.0546**	**0.7235**	**108.8997**	**4,897.4022**	**5,006.3019**	**7.6840**	**0.0773**	**5,221.4499**

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	1.2742	7.0000e-005	7.4500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Energy	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	1,255.9877	1,255.9877	0.0422	0.0150	1,261.5112
Mobile	0.3301	5.6616	5.1179	0.0355	2.4763	0.0256	2.5019	0.6690	0.0241	0.6931	0.0000	3,320.0001	3,320.0001	0.1208	0.0000	3,323.0207
Waste						0.0000	0.0000		0.0000	0.0000	84.3225	0.0000	84.3225	4.9833	0.0000	208.9053
Water						0.0000	0.0000		0.0000	0.0000	24.5773	321.4000	345.9773	2.5376	0.0624	427.9973

Total	1.6483	6.0618	5.4615	0.0379	2.4763	0.0561	2.5324	0.6690	0.0546	0.7235	108.8997	4,897.4022	5,006.3019	7.6840	0.0773	5,221.4499

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	6/12/2020	5	10	
2	Grading	Grading	6/13/2020	9/25/2020	5	75	
3	Building Construction	Building Construction	9/26/2020	2/25/2022	5	370	
4	Paving	Paving	2/26/2022	3/25/2022	5	20	
5	Architectural Coating	Architectural Coating	3/26/2022	4/22/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 15.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 100,000; Non-Residential Outdoor: 20,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	12,588.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	429.00	167.00	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	86.00	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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

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	4.1000e-004	2.9000e-004	3.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8276	0.8276	2.0000e-005	0.0000	0.8282
Total	**4.1000e-004**	**2.9000e-004**	**3.0900e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8276**	**0.8276**	**2.0000e-005**	**0.0000**	**0.8282**

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0352**	**0.0110**	**0.0462**	**0.0194**	**0.0101**	**0.0295**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

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	4.1000e-004	2.9000e-004	3.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8276	0.8276	2.0000e-005	0.0000	0.8282
Total	**4.1000e-004**	**2.9000e-004**	**3.0900e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8276**	**0.8276**	**2.0000e-005**	**0.0000**	**0.8282**

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					0.3316	0.0000	0.3316	0.1358	0.0000	0.1358	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1669	1.8824	1.1984	2.3300e-003		0.0815	0.0815		0.0750	0.0750	0.0000	204.3161	204.3161	0.0661	0.0000	205.9681
Total	**0.1669**	**1.8824**	**1.1984**	**2.3300e-003**	**0.3316**	**0.0815**	**0.4132**	**0.1358**	**0.0750**	**0.2108**	**0.0000**	**204.3161**	**204.3161**	**0.0661**	**0.0000**	**205.9681**

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	0.0331	1.5261	0.1975	4.7400e-003	0.1085	4.7800e-003	0.1133	0.0298	4.5700e-003	0.0344	0.0000	456.3742	456.3742	0.0286	0.0000	457.0892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4500e-003	2.4200e-003	0.0258	8.0000e-005	8.2400e-003	5.0000e-005	8.2900e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	6.8969	6.8969	1.7000e-004	0.0000	6.9013
Total	**0.0365**	**1.5285**	**0.2233**	**4.8200e-003**	**0.1168**	**4.8300e-003**	**0.1216**	**0.0320**	**4.6200e-003**	**0.0366**	**0.0000**	**463.2711**	**463.2711**	**0.0288**	**0.0000**	**463.9905**

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					0.1293	0.0000	0.1293	0.0530	0.0000	0.0530	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1669	1.8824	1.1984	2.3300e-003		0.0815	0.0815		0.0750	0.0750	0.0000	204.3159	204.3159	0.0661	0.0000	205.9679
Total	**0.1669**	**1.8824**	**1.1984**	**2.3300e-003**	**0.1293**	**0.0815**	**0.2109**	**0.0530**	**0.0750**	**0.1280**	**0.0000**	**204.3159**	**204.3159**	**0.0661**	**0.0000**	**205.9679**

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	0.0331	1.5261	0.1975	4.7400e-003	0.1085	4.7800e-003	0.1133	0.0298	4.5700e-003	0.0344	0.0000	456.3742	456.3742	0.0286	0.0000	457.0892

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4500e-003	2.4200e-003	0.0258	8.0000e-005	8.2400e-003	5.0000e-005	8.2900e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	6.8969	6.8969	1.7000e-004	0.0000	6.9013
Total	**0.0365**	**1.5285**	**0.2233**	**4.8200e-003**	**0.1168**	**4.8300e-003**	**0.1216**	**0.0320**	**4.6200e-003**	**0.0366**	**0.0000**	**463.2711**	**463.2711**	**0.0288**	**0.0000**	**463.9905**

3.4 Building Construction - 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					
Off-Road	0.0731	0.6619	0.5813	9.3000e-004		0.0385	0.0385		0.0362	0.0362	0.0000	79.9054	79.9054	0.0195	0.0000	80.3928
Total	**0.0731**	**0.6619**	**0.5813**	**9.3000e-004**		**0.0385**	**0.0385**		**0.0362**	**0.0362**	**0.0000**	**79.9054**	**79.9054**	**0.0195**	**0.0000**	**80.3928**

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	0.0164	0.5993	0.1172	1.4800e-003	0.0364	3.3900e-003	0.0398	0.0105	3.2400e-003	0.0137	0.0000	141.6682	141.6682	0.0113	0.0000	141.9513
Worker	0.0680	0.0477	0.5089	1.5100e-003	0.1627	1.0000e-003	0.1637	0.0432	9.2000e-004	0.0441	0.0000	136.1043	136.1043	3.4100e-003	0.0000	136.1895
Total	**0.0844**	**0.6469**	**0.6262**	**2.9900e-003**	**0.1991**	**4.3900e-003**	**0.2035**	**0.0537**	**4.1600e-003**	**0.0579**	**0.0000**	**277.7725**	**277.7725**	**0.0147**	**0.0000**	**278.1408**

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	0.0731	0.6619	0.5813	9.3000e-004		0.0385	0.0385		0.0362	0.0362	0.0000	79.9054	79.9054	0.0195	0.0000	80.3927
Total	**0.0731**	**0.6619**	**0.5813**	**9.3000e-004**		**0.0385**	**0.0385**		**0.0362**	**0.0362**	**0.0000**	**79.9054**	**79.9054**	**0.0195**	**0.0000**	**80.3927**

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	0.0164	0.5993	0.1172	1.4800e-003	0.0364	3.3900e-003	0.0398	0.0105	3.2400e-003	0.0137	0.0000	141.6682	141.6682	0.0113	0.0000	141.9513
Worker	0.0680	0.0477	0.5089	1.5100e-003	0.1627	1.0000e-003	0.1637	0.0432	9.2000e-004	0.0441	0.0000	136.1043	136.1043	3.4100e-003	0.0000	136.1895
Total	**0.0844**	**0.6469**	**0.6262**	**2.9900e-003**	**0.1991**	**4.3900e-003**	**0.2035**	**0.0537**	**4.1600e-003**	**0.0579**	**0.0000**	**277.7725**	**277.7725**	**0.0147**	**0.0000**	**278.1408**

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.0520	2.0321	0.3910	5.5600e-003	0.1376	3.8800e-003	0.1415	0.0397	3.7200e-003	0.0434	0.0000	531.7030	531.7030	0.0406	0.0000	532.7170
Worker	0.2400	0.1618	1.7624	5.5000e-003	0.6153	3.6900e-003	0.6190	0.1634	3.4000e-003	0.1668	0.0000	497.6162	497.6162	0.0116	0.0000	497.9060
Total	**0.2920**	**2.1938**	**2.1534**	**0.0111**	**0.7530**	**7.5700e-003**	**0.7606**	**0.2031**	**7.1200e-003**	**0.2102**	**0.0000**	**1,029.3192**	**1,029.3192**	**0.0522**	**0.0000**	**1,030.6230**

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095

Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.0520	2.0321	0.3910	5.5600e-003	0.1376	3.8800e-003	0.1415	0.0397	3.7200e-003	0.0434	0.0000	531.7030	531.7030	0.0406	0.0000	532.7170
Worker	0.2400	0.1618	1.7624	5.5000e-003	0.6153	3.6900e-003	0.6190	0.1634	3.4000e-003	0.1668	0.0000	497.6162	497.6162	0.0116	0.0000	497.9060
Total	**0.2920**	**2.1938**	**2.1534**	**0.0111**	**0.7530**	**7.5700e-003**	**0.7606**	**0.2031**	**7.1200e-003**	**0.2102**	**0.0000**	**1,029.3192**	**1,029.3192**	**0.0522**	**0.0000**	**1,030.6230**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0341	0.3123	0.3273	5.4000e-004		0.0162	0.0162		0.0152	0.0152	0.0000	46.3451	46.3451	0.0111	0.0000	46.6226
Total	**0.0341**	**0.3123**	**0.3273**	**5.4000e-004**		**0.0162**	**0.0162**		**0.0152**	**0.0152**	**0.0000**	**46.3451**	**46.3451**	**0.0111**	**0.0000**	**46.6226**

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	7.4400e-003	0.2934	0.0558	8.4000e-004	0.0211	5.0000e-004	0.0216	6.0900e-003	4.8000e-004	6.5600e-003	0.0000	80.7861	80.7861	5.8900e-003	0.0000	80.9333
Worker	0.0345	0.0223	0.2488	8.1000e-004	0.0943	5.5000e-004	0.0949	0.0250	5.1000e-004	0.0256	0.0000	73.4801	73.4801	1.6000e-003	0.0000	73.5200
Total	**0.0419**	**0.3157**	**0.3046**	**1.6500e-003**	**0.1154**	**1.0500e-003**	**0.1165**	**0.0311**	**9.9000e-004**	**0.0321**	**0.0000**	**154.2662**	**154.2662**	**7.4900e-003**	**0.0000**	**154.4533**

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	0.0341	0.3123	0.3273	5.4000e-004		0.0162	0.0162		0.0152	0.0152	0.0000	46.3450	46.3450	0.0111	0.0000	46.6226
Total	**0.0341**	**0.3123**	**0.3273**	**5.4000e-004**		**0.0162**	**0.0162**		**0.0152**	**0.0152**	**0.0000**	**46.3450**	**46.3450**	**0.0111**	**0.0000**	**46.6226**

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	7.4400e-003	0.2934	0.0558	8.4000e-004	0.0211	5.0000e-004	0.0216	6.0900e-003	4.8000e-004	6.5600e-003	0.0000	80.7861	80.7861	5.8900e-003	0.0000	80.9333
Worker	0.0345	0.0223	0.2488	8.1000e-004	0.0943	5.5000e-004	0.0949	0.0250	5.1000e-004	0.0256	0.0000	73.4801	73.4801	1.6000e-003	0.0000	73.5200
Total	**0.0419**	**0.3157**	**0.3046**	**1.6500e-003**	**0.1154**	**1.0500e-003**	**0.1165**	**0.0311**	**9.9000e-004**	**0.0321**	**0.0000**	**154.2662**	**154.2662**	**7.4900e-003**	**0.0000**	**154.4533**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0269**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	6.0000e-004	3.9000e-004	4.3500e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2846	1.2846	3.0000e-005	0.0000	1.2853
Total	**6.0000e-004**	**3.9000e-004**	**4.3500e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.2846**	**1.2846**	**3.0000e-005**	**0.0000**	**1.2853**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0269**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

Mitigated Construction Off-Site

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

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1868					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.1888**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4500e-003	2.2400e-003	0.0249	8.0000e-005	9.4500e-003	6.0000e-005	9.5100e-003	2.5100e-003	5.0000e-005	2.5600e-003	0.0000	7.3651	7.3651	1.6000e-004	0.0000	7.3691
Total	**3.4500e-003**	**2.2400e-003**	**0.0249**	**8.0000e-005**	**9.4500e-003**	**6.0000e-005**	**9.5100e-003**	**2.5100e-003**	**5.0000e-005**	**2.5600e-003**	**0.0000**	**7.3651**	**7.3651**	**1.6000e-004**	**0.0000**	**7.3691**

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	0.1868					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.1888**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4500e-003	2.2400e-003	0.0249	8.0000e-005	9.4500e-003	6.0000e-005	9.5100e-003	2.5100e-003	5.0000e-005	2.5600e-003	0.0000	7.3651	7.3651	1.6000e-004	0.0000	7.3691
Total	**3.4500e-003**	**2.2400e-003**	**0.0249**	**8.0000e-005**	**9.4500e-003**	**6.0000e-005**	**9.5100e-003**	**2.5100e-003**	**5.0000e-005**	**2.5600e-003**	**0.0000**	**7.3651**	**7.3651**	**1.6000e-004**	**0.0000**	**7.3691**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Mitigated	0.3301	5.6616	5.1179	0.0355	2.4763	0.0256	2.5019	0.6690	0.0241	0.6931	0.0000	3,320.0001	3,320.0001	0.1208	0.0000	3,323.0207
Unmitigated	0.3301	5.6616	5.1179	0.0355	2.4763	0.0256	2.5019	0.6690	0.0241	0.6931	0.0000	3,320.0001	3,320.0001	0.1208	0.0000	3,323.0207

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,316.55	499.15	207.70	6,363,292	6,363,292
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		
Total	1,316.55	499.15	207.70	6,363,292	6,363,292

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
Manufacturing	25.00	8.40	6.90	59.00	28.00	13.00	92	5	3
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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.629000	0.079000	0.039000	0.039000	0.012000	0.012000	0.070000	0.120000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Other Non-Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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	820.3729	820.3729	0.0339	7.0100e-003	823.3078
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	820.3729	820.3729	0.0339	7.0100e-003	823.3078
NaturalGas Mitigated	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034
NaturalGas Unmitigated	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034

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					
Manufacturing	8.16311e+006	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034
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
Total		**0.0440**	**0.4002**	**0.3361**	**2.4000e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**435.6148**	**435.6148**	**8.3500e-003**	**7.9900e-003**	**438.2034**

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					
Manufacturing	8.16311e+006	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034
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
Total		**0.0440**	**0.4002**	**0.3361**	**2.4000e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**435.6148**	**435.6148**	**8.3500e-003**	**7.9900e-003**	**438.2034**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	2.55019e+006	812.5444	0.0336	6.9400e-003	815.4513
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	24570	7.8285	3.2000e-004	7.0000e-005	7.8565
Total		**820.3729**	**0.0339**	**7.0100e-003**	**823.3078**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	2.55019e+006	812.5444	0.0336	6.9400e-003	815.4513
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	24570	7.8285	3.2000e-004	7.0000e-005	7.8565
Total		**820.3729**	**0.0339**	**7.0100e-003**	**823.3078**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2742	7.0000e-005	7.4500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Unmitigated	1.2742	7.0000e-005	7.4500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154

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	0.0187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.4500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Total	**1.2742**	**7.0000e-005**	**7.4500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0145**	**0.0145**	**4.0000e-005**	**0.0000**	**0.0154**

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	0.0187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.9000e-004	7.0000e-005	7.4500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Total	**1.2742**	**7.0000e-005**	**7.4500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0145**	**0.0145**	**4.0000e-005**	**0.0000**	**0.0154**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	345.9773	2.5376	0.0624	427.9973
Unmitigated	345.9773	2.5376	0.0624	427.9973

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	77.4688 / 0	345.9773	2.5376	0.0624	427.9973
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
Total		**345.9773**	**2.5376**	**0.0624**	**427.9973**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	77.4688 / 0	345.9773	2.5376	0.0624	427.9973
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
Total		**345.9773**	**2.5376**	**0.0624**	**427.9973**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	84.3225	4.9833	0.0000	208.9053
Unmitigated	84.3225	4.9833	0.0000	208.9053

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	415.4	84.3225	4.9833	0.0000	208.9053
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
Total		**84.3225**	**4.9833**	**0.0000**	**208.9053**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	415.4	84.3225	4.9833	0.0000	208.9053
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
Total		**84.3225**	**4.9833**	**0.0000**	**208.9053**

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

Agua Mansa Industrial Project

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	335.00	1000sqft	7.69	335,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	3.60	Acre	3.60	156,816.00	0
Parking Lot	234.00	Space	2.11	93,600.00	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total site is 23.43 acres.

Construction Phase - Extended Grading phase due to amount of soil export planned. Building construction duration from project plans.

Grading - Soil export amount from project plans.

Architectural Coating - Assume all architectural coatins comply with SCAQMD Rule 1113. Buildings to be tilt-up concrete requiring minimal painting.

Vehicle Trips - Weekday trip rate from traffic study. Assume manufacturing work trucks average 25 mile trip lengths.

Area Coating - Assume all architectural coatins comply with SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403.

Operational Off-Road Equipment - .

Fleet Mix - Fleet percentages from TIA.

Energy Use - Assume project includes Tier 2 Nonresidential Voluntary Measures of California's Green Building Standards Code Sections A5.106.5.1.2 and A5.106.5.2.2 in addition to compliance with 2019 CBC, resulting in overall 25 percent energy use reduction.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	167,500.00	20,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	502,500.00	100,000.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_Nonresidential_Exterior	167500	20000
tblAreaCoating	Area_Nonresidential_Interior	502500	100000
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	75.00
tblConstructionPhase	PhaseEndDate	7/31/2020	9/25/2020
tblConstructionPhase	PhaseEndDate	12/31/2021	2/25/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	3/25/2022
tblConstructionPhase	PhaseEndDate	2/25/2022	4/22/2022
tblConstructionPhase	PhaseStartDate	8/1/2020	9/26/2020
tblConstructionPhase	PhaseStartDate	1/1/2022	2/26/2022
tblConstructionPhase	PhaseStartDate	1/29/2022	3/26/2022
tblEnergyUse	LightingElect	2.93	2.20
tblEnergyUse	LightingElect	0.35	0.26
tblEnergyUse	NT24E	5.02	3.77
tblEnergyUse	NT24NG	17.13	12.85
tblEnergyUse	T24E	2.20	1.65

tblEnergyUse	T24NG	15.36	11.52
tblFleetMix	HHD	0.07	0.12
tblFleetMix	LDA	0.55	0.63
tblFleetMix	LDT1	0.04	0.08
tblFleetMix	LDT2	0.19	0.04
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	4.9700e-003	0.01
tblFleetMix	MCY	4.5470e-003	0.00
tblFleetMix	MDV	0.12	0.04
tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	SBUS	9.3200e-004	0.00
tblFleetMix	UBUS	1.1600e-003	0.00
tblGrading	MaterialExported	0.00	100,700.00
tblVehicleTrips	CW_TL	16.60	25.00
tblVehicleTrips	WD_TR	3.82	3.93

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	5.4151	89.9999	37.6683	0.1920	18.2675	2.3019	20.4661	9.9840	2.1224	12.0068	0.0000	19,783.7500	19,783.7500	2.7560	0.0000	19,852.6502
2021	4.3247	34.0448	35.1931	0.1160	5.8646	1.0163	6.8809	1.5796	0.9554	2.5350	0.0000	11,684.4374	11,684.4374	1.0514	0.0000	11,710.7221

2022	19.2604	31.2388	33.5573	0.1140	5.8645	0.8612	6.7258	1.5796	0.8101	2.3897	0.0000	11,479.6636	11,479.6636	1.0190	0.0000	11,505.1375
Maximum	**19.2604**	**89.9999**	**37.6683**	**0.1920**	**18.2675**	**2.3019**	**20.4661**	**9.9840**	**2.1224**	**12.0068**	**0.0000**	**19,783.7500**	**19,783.7500**	**2.7560**	**0.0000**	**19,852.6502**

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	5.4151	89.9999	37.6683	0.1920	7.2470	2.3019	9.4457	3.9263	2.1224	5.9491	0.0000	19,783.7500	19,783.7500	2.7560	0.0000	19,852.6502
2021	4.3247	34.0448	35.1931	0.1160	5.8646	1.0163	6.8809	1.5796	0.9554	2.5350	0.0000	11,684.4374	11,684.4374	1.0514	0.0000	11,710.7221
2022	19.2604	31.2388	33.5573	0.1140	5.8645	0.8612	6.7258	1.5796	0.8101	2.3897	0.0000	11,479.6636	11,479.6636	1.0190	0.0000	11,505.1375
Maximum	**19.2604**	**89.9999**	**37.6683**	**0.1920**	**7.2470**	**2.3019**	**9.4457**	**3.9263**	**2.1224**	**5.9491**	**0.0000**	**19,783.7500**	**19,783.7500**	**2.7560**	**0.0000**	**19,852.6502**

	ROG	NOx	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**	**36.74**	**0.00**	**32.34**	**46.09**	**0.00**	**35.78**	**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	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758

Mobile	2.6071	38.4301	40.4811	0.2573	17.4818	0.1775	17.6593	4.7156	0.1673	4.8829		26,492.1993	26,492.1993	0.9204		26,515.2097
Total	**9.8321**	**40.6233**	**42.3825**	**0.2704**	**17.4818**	**0.3444**	**17.8262**	**4.7156**	**0.3342**	**5.0498**		**29,123.4670**	**29,123.4670**	**0.9712**	**0.0482**	**29,162.1214**

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	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
Mobile	2.6071	38.4301	40.4811	0.2573	17.4818	0.1775	17.6593	4.7156	0.1673	4.8829		26,492.1993	26,492.1993	0.9204		26,515.2097
Total	**9.8321**	**40.6233**	**42.3825**	**0.2704**	**17.4818**	**0.3444**	**17.8262**	**4.7156**	**0.3342**	**5.0498**		**29,123.4670**	**29,123.4670**	**0.9712**	**0.0482**	**29,162.1214**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	6/12/2020	5	10	
2	Grading	Grading	6/13/2020	9/25/2020	5	75	
3	Building Construction	Building Construction	9/26/2020	2/25/2022	5	370	
4	Paving	Paving	2/26/2022	3/25/2022	5	20	
5	Architectural Coating	Architectural Coating	3/26/2022	4/22/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 15.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 100,000; Non-Residential Outdoor: 20,000; Striped Parking Area:

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	12,588.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Building Construction	9	429.00	167.00	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	86.00	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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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					8.8434	0.0000	8.8434	3.6223	0.0000	3.6223			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**	**8.8434**	**2.1739**	**11.0173**	**3.6223**	**2.0000**	**5.6222**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.8632	39.7422	4.9036	0.1278	2.9362	0.1266	3.0628	0.8049	0.1211	0.9260		13,557.5658	13,557.5658	0.8079		13,577.7644
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	**0.9650**	**39.8023**	**5.7100**	**0.1300**	**3.1597**	**0.1280**	**3.2877**	**0.8642**	**0.1224**	**0.9866**		**13,777.8847**	**13,777.8847**	**0.8136**		**13,798.2245**

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					3.4489	0.0000	3.4489	1.4127	0.0000	1.4127			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**	**3.4489**	**2.1739**	**5.6228**	**1.4127**	**2.0000**	**3.4127**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.8632	39.7422	4.9036	0.1278	2.9362	0.1266	3.0628	0.8049	0.1211	0.9260		13,557.5658	13,557.5658	0.8079		13,577.7644
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	**0.9650**	**39.8023**	**5.7100**	**0.1300**	**3.1597**	**0.1280**	**3.2877**	**0.8642**	**0.1224**	**0.9866**		**13,777.8847**	**13,777.8847**	**0.8136**		**13,798.2245**

3.4 Building Construction - 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					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.4655	17.1829	3.1435	0.0436	1.0694	0.0977	1.1671	0.3079	0.0935	0.4014		4,599.0284	4,599.0284	0.3450		4,607.6521
Worker	2.1831	1.2911	17.2979	0.0475	4.7952	0.0290	4.8243	1.2717	0.0267	1.2985		4,725.8406	4,725.8406	0.1211		4,728.8689
Total	**2.6486**	**18.4740**	**20.4414**	**0.0911**	**5.8646**	**0.1268**	**5.9914**	**1.5796**	**0.1202**	**1.6999**		**9,324.8690**	**9,324.8690**	**0.4661**		**9,336.5211**

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.4655	17.1829	3.1435	0.0436	1.0694	0.0977	1.1671	0.3079	0.0935	0.4014		4,599.0284	4,599.0284	0.3450		4,607.6521
Worker	2.1831	1.2911	17.2979	0.0475	4.7952	0.0290	4.8243	1.2717	0.0267	1.2985		4,725.8406	4,725.8406	0.1211		4,728.8689
Total	**2.6486**	**18.4740**	**20.4414**	**0.0911**	**5.8646**	**0.1268**	**5.9914**	**1.5796**	**0.1202**	**1.6999**		**9,324.8690**	**9,324.8690**	**0.4661**		**9,336.5211**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

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	0.3899	15.4540	2.7573	0.0433	1.0694	0.0294	1.0988	0.3079	0.0281	0.3360		4,563.2921	4,563.2921	0.3265		4,571.4536
Worker	2.0339	1.1587	15.8606	0.0459	4.7952	0.0283	4.8235	1.2717	0.0260	1.2977		4,567.7814	4,567.7814	0.1089		4,570.5043
Total	**2.4237**	**16.6127**	**18.6179**	**0.0891**	**5.8646**	**0.0577**	**5.9222**	**1.5796**	**0.0541**	**1.6337**		**9,131.0735**	**9,131.0735**	**0.4354**		**9,141.9578**

Mitigated Construction On-Site

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

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	0.3899	15.4540	2.7573	0.0433	1.0694	0.0294	1.0988	0.3079	0.0281	0.3360		4,563.2921	4,563.2921	0.3265		4,571.4536
Worker	2.0339	1.1587	15.8606	0.0459	4.7952	0.0283	4.8235	1.2717	0.0260	1.2977		4,567.7814	4,567.7814	0.1089		4,570.5043

Total	**2.4237**	**16.6127**	**18.6179**	**0.0891**	**5.8646**	**0.0577**	**5.9222**	**1.5796**	**0.0541**	**1.6337**		**9,131.0735**	**9,131.0735**	**0.4354**		**9,141.9578**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

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

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	0.3635	14.5804	2.5646	0.0429	1.0693	0.0247	1.0940	0.3079	0.0236	0.3315		4,524.4505	4,524.4505	0.3092		4,532.1800
Worker	1.9024	1.0427	14.6293	0.0442	4.7952	0.0275	4.8227	1.2717	0.0253	1.2970		4,400.8795	4,400.8795	0.0978		4,403.3253
Total	**2.2660**	**15.6232**	**17.1939**	**0.0871**	**5.8645**	**0.0522**	**5.9168**	**1.5796**	**0.0490**	**1.6286**		**8,925.3300**	**8,925.3300**	**0.4070**		**8,935.5053**

Mitigated Construction On-Site

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

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	0.3635	14.5804	2.5646	0.0429	1.0693	0.0247	1.0940	0.3079	0.0236	0.3315		4,524.4505	4,524.4505	0.3092		4,532.1800
Worker	1.9024	1.0427	14.6293	0.0442	4.7952	0.0275	4.8227	1.2717	0.0253	1.2970		4,400.8795	4,400.8795	0.0978		4,403.3253
Total	**2.2660**	**15.6232**	**17.1939**	**0.0871**	**5.8645**	**0.0522**	**5.9168**	**1.5796**	**0.0490**	**1.6286**		**8,925.3300**	**8,925.3300**	**0.4070**		**8,935.5053**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.5864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6892**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.5864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6892**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

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

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.6745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**18.8791**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3814	0.2090	2.9327	8.8500e-003	0.9613	5.5200e-003	0.9668	0.2549	5.0800e-003	0.2600		882.2276	882.2276	0.0196		882.7179
Total	**0.3814**	**0.2090**	**2.9327**	**8.8500e-003**	**0.9613**	**5.5200e-003**	**0.9668**	**0.2549**	**5.0800e-003**	**0.2600**		**882.2276**	**882.2276**	**0.0196**		**882.7179**

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	18.6745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**18.8791**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3814	0.2090	2.9327	8.8500e-003	0.9613	5.5200e-003	0.9668	0.2549	5.0800e-003	0.2600		882.2276	882.2276	0.0196		882.7179
Total	**0.3814**	**0.2090**	**2.9327**	**8.8500e-003**	**0.9613**	**5.5200e-003**	**0.9668**	**0.2549**	**5.0800e-003**	**0.2600**		**882.2276**	**882.2276**	**0.0196**		**882.7179**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6071	38.4301	40.4811	0.2573	17.4818	0.1775	17.6593	4.7156	0.1673	4.8829		26,492.1993	26,492.1993	0.9204		26,515.2097
Unmitigated	2.6071	38.4301	40.4811	0.2573	17.4818	0.1775	17.6593	4.7156	0.1673	4.8829		26,492.1993	26,492.1993	0.9204		26,515.2097

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,316.55	499.15	207.70	6,363,292	6,363,292
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		
Total	1,316.55	499.15	207.70	6,363,292	6,363,292

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
Manufacturing	25.00	8.40	6.90	59.00	28.00	13.00	92	5	3
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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.629000	0.079000	0.039000	0.039000	0.012000	0.012000	0.070000	0.120000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Other Non-Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
NaturalGas Unmitigated	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758

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					
Manufacturing	22364.7	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

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					
Manufacturing	22.3647	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Unmitigated	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5400e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Total	**6.9839**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1359**

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5400e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Total	**6.9839**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1359**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Agua Mansa Industrial Project - Riverside-South Coast County, Winter

Agua Mansa Industrial Project

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	335.00	1000sqft	7.69	335,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	3.60	Acre	3.60	156,816.00	0
Parking Lot	234.00	Space	2.11	93,600.00	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total site is 23.43 acres.

Construction Phase - Extended Grading phase due to amount of soil export planned. Building construction duration from project plans.

Grading - Soil export amount from project plans.

Architectural Coating - Assume all architectural coatins comply with SCAQMD Rule 1113. Buildings to be tilt-up concrete requiring minimal painting.

Vehicle Trips - Weekday trip rate from traffic study. Assume manufacturing work trucks average 25 mile trip lengths.

Area Coating - Assume all architectural coatins comply with SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403.

Operational Off-Road Equipment - .

Fleet Mix - Fleet percentages from TIA.

Energy Use - Assume project includes Tier 2 Nonresidential Voluntary Measures of California's Green Building Standards Code Sections A5.106.5.1.2 and A5.106.5.2.2 in addition to compliance with 2019 CBC, resulting in overall 25 percent energy use reduction.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	167,500.00	20,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	502,500.00	100,000.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_Nonresidential_Exterior	167500	20000
tblAreaCoating	Area_Nonresidential_Interior	502500	100000
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	75.00
tblConstructionPhase	PhaseEndDate	7/31/2020	9/25/2020
tblConstructionPhase	PhaseEndDate	12/31/2021	2/25/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	3/25/2022
tblConstructionPhase	PhaseEndDate	2/25/2022	4/22/2022
tblConstructionPhase	PhaseStartDate	8/1/2020	9/26/2020
tblConstructionPhase	PhaseStartDate	1/1/2022	2/26/2022
tblConstructionPhase	PhaseStartDate	1/29/2022	3/26/2022
tblEnergyUse	LightingElect	2.93	2.20
tblEnergyUse	LightingElect	0.35	0.26
tblEnergyUse	NT24E	5.02	3.77
tblEnergyUse	NT24NG	17.13	12.85
tblEnergyUse	T24E	2.20	1.65

tblEnergyUse	T24NG	15.36	11.52
tblFleetMix	HHD	0.07	0.12
tblFleetMix	LDA	0.55	0.63
tblFleetMix	LDT1	0.04	0.08
tblFleetMix	LDT2	0.19	0.04
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	4.9700e-003	0.01
tblFleetMix	MCY	4.5470e-003	0.00
tblFleetMix	MDV	0.12	0.04
tblFleetMix	MH	9.6500e-004	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3970e-003	0.00
tblFleetMix	SBUS	9.3200e-004	0.00
tblFleetMix	UBUS	1.1600e-003	0.00
tblGrading	MaterialExported	0.00	100,700.00
tblVehicleTrips	CW_TL	16.60	25.00
tblVehicleTrips	WD_TR	3.82	3.93

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	5.4577	90.3495	38.3538	0.1886	18.2675	2.3037	20.4661	9.9840	2.1241	12.0068	0.0000	19,421.8829	19,421.8829	2.8317	0.0000	19,492.6749
2021	4.3109	33.9514	32.6395	0.1097	5.8646	1.0172	6.8817	1.5796	0.9563	2.5359	0.0000	11,042.7970	11,042.7970	1.0745	0.0000	11,069.6586

2022	19.2544	31.1280	31.1989	0.1078	5.8645	0.8620	6.7266	1.5796	0.8109	2.3905	0.0000	10,855.8956	10,855.8956	1.0420	0.0000	10,881.9444
Maximum	**19.2544**	**90.3495**	**38.3538**	**0.1886**	**18.2675**	**2.3037**	**20.4661**	**9.9840**	**2.1241**	**12.0068**	**0.0000**	**19,421.8829**	**19,421.8829**	**2.8317**	**0.0000**	**19,492.6749**

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	5.4577	90.3495	38.3538	0.1886	7.2470	2.3037	9.4457	3.9263	2.1241	5.9491	0.0000	19,421.8829	19,421.8829	2.8317	0.0000	19,492.6749
2021	4.3109	33.9514	32.6395	0.1097	5.8646	1.0172	6.8817	1.5796	0.9563	2.5359	0.0000	11,042.7970	11,042.7970	1.0745	0.0000	11,069.6585
2022	19.2544	31.1280	31.1989	0.1078	5.8645	0.8620	6.7266	1.5796	0.8109	2.3905	0.0000	10,855.8956	10,855.8956	1.0420	0.0000	10,881.9444
Maximum	**19.2544**	**90.3495**	**38.3538**	**0.1886**	**7.2470**	**2.3037**	**9.4457**	**3.9263**	**2.1241**	**5.9491**	**0.0000**	**19,421.8829**	**19,421.8829**	**2.8317**	**0.0000**	**19,492.6749**

	ROG	NOx	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**	**36.74**	**0.00**	**32.34**	**46.09**	**0.00**	**35.77**	**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	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758

Mobile	2.2990	38.7610	34.5199	0.2425	17.4818	0.1790	17.6608	4.7156	0.1687	4.8843		25,009.6236	25,009.6236	0.9579		25,033.5712
Total	**9.5241**	**40.9541**	**36.4213**	**0.2557**	**17.4818**	**0.3458**	**17.8276**	**4.7156**	**0.3356**	**5.0512**		**27,640.8913**	**27,640.8913**	**1.0087**	**0.0482**	**27,680.4829**

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	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
Mobile	2.2990	38.7610	34.5199	0.2425	17.4818	0.1790	17.6608	4.7156	0.1687	4.8843		25,009.6236	25,009.6236	0.9579		25,033.5712
Total	**9.5241**	**40.9541**	**36.4213**	**0.2557**	**17.4818**	**0.3458**	**17.8276**	**4.7156**	**0.3356**	**5.0512**		**27,640.8913**	**27,640.8913**	**1.0087**	**0.0482**	**27,680.4829**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2020	6/12/2020	5	10	
2	Grading	Grading	6/13/2020	9/25/2020	5	75	
3	Building Construction	Building Construction	9/26/2020	2/25/2022	5	370	
4	Paving	Paving	2/26/2022	3/25/2022	5	20	
5	Architectural Coating	Architectural Coating	3/26/2022	4/22/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 15.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 100,000; Non-Residential Outdoor: 20,000; Striped Parking Area:

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	12,588.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Building Construction	9	429.00	167.00	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	86.00	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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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					8.8434	0.0000	8.8434	3.6223	0.0000	3.6223			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**	**8.8434**	**2.1739**	**11.0173**	**3.6223**	**2.0000**	**5.6222**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.9080	40.0897	5.7432	0.1246	2.9362	0.1284	3.0646	0.8049	0.1229	0.9278		13,218.3704	13,218.3704	0.8844		13,240.4793
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	**1.0076**	**40.1520**	**6.3955**	**0.1266**	**3.1597**	**0.1298**	**3.2895**	**0.8642**	**0.1241**	**0.9883**		**13,416.0176**	**13,416.0176**	**0.8893**		**13,438.2491**

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					3.4489	0.0000	3.4489	1.4127	0.0000	1.4127			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**	**3.4489**	**2.1739**	**5.6228**	**1.4127**	**2.0000**	**3.4127**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.9080	40.0897	5.7432	0.1246	2.9362	0.1284	3.0646	0.8049	0.1229	0.9278		13,218.3704	13,218.3704	0.8844		13,240.4793
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	0.0097	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	**1.0076**	**40.1520**	**6.3955**	**0.1266**	**3.1597**	**0.1298**	**3.2895**	**0.8642**	**0.1241**	**0.9883**		**13,416.0176**	**13,416.0176**	**0.8893**		**13,438.2491**

3.4 Building Construction - 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					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.4910	17.0929	3.6807	0.0420	1.0694	0.0989	1.1683	0.3079	0.0946	0.4025		4,426.2141	4,426.2141	0.3839		4,435.8104
Worker	2.1379	1.3356	13.9928	0.0425	4.7952	0.0290	4.8243	1.2717	0.0267	1.2985		4,239.5316	4,239.5316	0.1053		4,242.1641
Total	**2.6289**	**18.4286**	**17.6735**	**0.0845**	**5.8646**	**0.1279**	**5.9925**	**1.5796**	**0.1213**	**1.7010**		**8,665.7457**	**8,665.7457**	**0.4892**		**8,677.9745**

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.4910	17.0929	3.6807	0.0420	1.0694	0.0989	1.1683	0.3079	0.0946	0.4025		4,426.2141	4,426.2141	0.3839		4,435.8104
Worker	2.1379	1.3356	13.9928	0.0425	4.7952	0.0290	4.8243	1.2717	0.0267	1.2985		4,239.5316	4,239.5316	0.1053		4,242.1641
Total	**2.6289**	**18.4286**	**17.6735**	**0.0845**	**5.8646**	**0.1279**	**5.9925**	**1.5796**	**0.1213**	**1.7010**		**8,665.7457**	**8,665.7457**	**0.4892**		**8,677.9745**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

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	0.4141	15.3210	3.2617	0.0417	1.0694	0.0303	1.0996	0.3079	0.0290	0.3369		4,391.6528	4,391.6528	0.3638		4,400.7467
Worker	1.9959	1.1983	12.8026	0.0411	4.7952	0.0283	4.8235	1.2717	0.0260	1.2977		4,097.7803	4,097.7803	0.0947		4,100.1476
Total	**2.4100**	**16.5193**	**16.0643**	**0.0828**	**5.8646**	**0.0585**	**5.9231**	**1.5796**	**0.0550**	**1.6346**		**8,489.4331**	**8,489.4331**	**0.4585**		**8,500.8943**

Mitigated Construction On-Site

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

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	0.4141	15.3210	3.2617	0.0417	1.0694	0.0303	1.0996	0.3079	0.0290	0.3369		4,391.6528	4,391.6528	0.3638		4,400.7467
Worker	1.9959	1.1983	12.8026	0.0411	4.7952	0.0283	4.8235	1.2717	0.0260	1.2977		4,097.7803	4,097.7803	0.0947		4,100.1476

Total	**2.4100**	**16.5193**	**16.0643**	**0.0828**	**5.8646**	**0.0585**	**5.9231**	**1.5796**	**0.0550**	**1.6346**		**8,489.4331**	**8,489.4331**	**0.4585**		**8,500.8943**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

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

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	0.3866	14.4344	3.0447	0.0413	1.0693	0.0255	1.0948	0.3079	0.0244	0.3323		4,353.3082	4,353.3082	0.3449		4,361.9296
Worker	1.8725	1.0780	11.7908	0.0396	4.7952	0.0275	4.8227	1.2717	0.0253	1.2970		3,948.2538	3,948.2538	0.0852		3,950.3826
Total	**2.2591**	**15.5124**	**14.8355**	**0.0809**	**5.8645**	**0.0530**	**5.9176**	**1.5796**	**0.0497**	**1.6293**		**8,301.5620**	**8,301.5620**	**0.4300**		**8,312.3122**

Mitigated Construction On-Site

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

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	0.3866	14.4344	3.0447	0.0413	1.0693	0.0255	1.0948	0.3079	0.0244	0.3323		4,353.3082	4,353.3082	0.3449		4,361.9296
Worker	1.8725	1.0780	11.7908	0.0396	4.7952	0.0275	4.8227	1.2717	0.0253	1.2970		3,948.2538	3,948.2538	0.0852		3,950.3826
Total	**2.2591**	**15.5124**	**14.8355**	**0.0809**	**5.8645**	**0.0530**	**5.9176**	**1.5796**	**0.0497**	**1.6293**		**8,301.5620**	**8,301.5620**	**0.4300**		**8,312.3122**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.5864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6892**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.5864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.6892**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

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

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.6745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**18.8791**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3754	0.2161	2.3637	7.9400e-003	0.9613	5.5200e-003	0.9668	0.2549	5.0800e-003	0.2600		791.4914	791.4914	0.0171		791.9182
Total	**0.3754**	**0.2161**	**2.3637**	**7.9400e-003**	**0.9613**	**5.5200e-003**	**0.9668**	**0.2549**	**5.0800e-003**	**0.2600**		**791.4914**	**791.4914**	**0.0171**		**791.9182**

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	18.6745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**18.8791**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3754	0.2161	2.3637	7.9400e-003	0.9613	5.5200e-003	0.9668	0.2549	5.0800e-003	0.2600		791.4914	791.4914	0.0171		791.9182
Total	**0.3754**	**0.2161**	**2.3637**	**7.9400e-003**	**0.9613**	**5.5200e-003**	**0.9668**	**0.2549**	**5.0800e-003**	**0.2600**		**791.4914**	**791.4914**	**0.0171**		**791.9182**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2990	38.7610	34.5199	0.2425	17.4818	0.1790	17.6608	4.7156	0.1687	4.8843		25,009.6236	25,009.6236	0.9579		25,033.5712
Unmitigated	2.2990	38.7610	34.5199	0.2425	17.4818	0.1790	17.6608	4.7156	0.1687	4.8843		25,009.6236	25,009.6236	0.9579		25,033.5712

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,316.55	499.15	207.70	6,363,292	6,363,292
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		
Total	1,316.55	499.15	207.70	6,363,292	6,363,292

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
Manufacturing	25.00	8.40	6.90	59.00	28.00	13.00	92	5	3
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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.629000	0.079000	0.039000	0.039000	0.012000	0.012000	0.070000	0.120000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Other Non-Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
NaturalGas Unmitigated	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758

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					
Manufacturing	22364.7	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

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					
Manufacturing	22.3647	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Unmitigated	6.9839	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5400e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Total	**6.9839**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1359**

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5400e-003	5.4000e-004	0.0596	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1359
Total	**6.9839**	**5.4000e-004**	**0.0596**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1359**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Agua Mansa Industrial Project - 40 Mile Trip Lengths

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	335.00	1000sqft	7.69	335,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	3.60	Acre	3.60	156,816.00	0
Parking Lot	234.00	Space	2.11	93,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
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 - Total site is 23.43 acres.

Construction Phase - Operational-only analysis.

Grading -

Architectural Coating -

Vehicle Trips - Weekday trip rate from traffic study. Assume manufacturing work trucks average 40 mile trip lengths.

Area Coating - Assume all architectural coatins comply with SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - .

Fleet Mix - Fleet percentages from TIA.

Energy Use - Assume project includes Tier 2 Nonresidential Voluntary Measures of California's Green Building Standards Code Sections A5.106.5.1.2 and A5.106.5.3.2 in addition to compliance with 2019 CBC, resulting in overall 25 percent energy use reduction.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_Nonresidential_Exterior	167500	20000
tblAreaCoating	Area_Nonresidential_Interior	502500	100000
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblEnergyUse	LightingElect	2.93	2.20
tblEnergyUse	LightingElect	0.35	0.26
tblEnergyUse	NT24E	5.02	3.77
tblEnergyUse	NT24NG	17.13	12.85
tblEnergyUse	T24E	2.20	1.62
tblEnergyUse	T24NG	15.36	11.52
tblFleetMix	HHD	0.07	0.12
tblFleetMix	LDA	0.54	0.63
tblFleetMix	LDT1	0.04	0.08
tblFleetMix	LDT2	0.18	0.04
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	5.3390e-003	0.01
tblFleetMix	MCY	4.6290e-003	0.00
tblFleetMix	MDV	0.12	0.04
tblFleetMix	MH	1.1200e-003	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3650e-003	0.00
tblFleetMix	SBUS	9.5900e-004	0.00

tblFleetMix	UBUS	1.2130e-003	0.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	WD_TR	3.82	3.93

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					
2019	0.0221	0.2282	0.1137	2.0000e-004	0.0913	0.0120	0.1033	0.0499	0.0110	0.0609	0.0000	17.9390	17.9390	5.4300e-003	0.0000	18.0747
Maximum	**0.0221**	**0.2282**	**0.1137**	**2.0000e-004**	**0.0913**	**0.0120**	**0.1033**	**0.0499**	**0.0110**	**0.0609**	**0.0000**	**17.9390**	**17.9390**	**5.4300e-003**	**0.0000**	**18.0747**

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					
2019	0.0221	0.2282	0.1137	2.0000e-004	0.0913	0.0120	0.1033	0.0499	0.0110	0.0609	0.0000	17.9390	17.9390	5.4300e-003	0.0000	18.0747
Maximum	**0.0221**	**0.2282**	**0.1137**	**2.0000e-004**	**0.0913**	**0.0120**	**0.1033**	**0.0499**	**0.0110**	**0.0609**	**0.0000**	**17.9390**	**17.9390**	**5.4300e-003**	**0.0000**	**18.0747**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2019	9-30-2019	0.2146	0.2146
		Highest	0.2146	0.2146

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	1.2743	7.0000e-005	7.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Energy	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	1,252.7855	1,252.7855	0.0421	0.0150	1,258.2976
Mobile	0.5003	9.0688	8.5216	0.0536	3.6938	0.0818	3.7756	0.9979	0.0777	1.0755	0.0000	5,002.9896	5,002.9896	0.1651	0.0000	5,007.1175
Waste						0.0000	0.0000		0.0000	0.0000	84.3225	0.0000	84.3225	4.9833	0.0000	208.9053
Water						0.0000	0.0000		0.0000	0.0000	24.5773	321.4000	345.9773	2.5376	0.0624	427.9973
Total	**1.8185**	**9.4690**	**8.8653**	**0.0560**	**3.6938**	**0.1122**	**3.8060**	**0.9979**	**0.1081**	**1.1060**	**108.8997**	**6,577.1896**	**6,686.0893**	**7.7281**	**0.0773**	**6,902.3331**

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	1.2743	7.0000e-005	7.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Energy	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	1,252.7855	1,252.7855	0.0421	0.0150	1,258.2976
Mobile	0.5003	9.0688	8.5216	0.0536	3.6938	0.0818	3.7756	0.9979	0.0777	1.0755	0.0000	5,002.9896	5,002.9896	0.1651	0.0000	5,007.1175
Waste						0.0000	0.0000		0.0000	0.0000	84.3225	0.0000	84.3225	4.9833	0.0000	208.9053
Water						0.0000	0.0000		0.0000	0.0000	24.5773	321.4000	345.9773	2.5376	0.0624	427.9973
Total	**1.8185**	**9.4690**	**8.8653**	**0.0560**	**3.6938**	**0.1122**	**3.8060**	**0.9979**	**0.1081**	**1.1060**	**108.8997**	**6,577.1896**	**6,686.0893**	**7.7281**	**0.0773**	**6,902.3331**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/12/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 15.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	4.5000e-004	3.3000e-004	3.4100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8547	0.8547	2.0000e-005	0.0000	0.8552
Total	**4.5000e-004**	**3.3000e-004**	**3.4100e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8547**	**0.8547**	**2.0000e-005**	**0.0000**	**0.8552**

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	4.5000e-004	3.3000e-004	3.4100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8547	0.8547	2.0000e-005	0.0000	0.8552
Total	**4.5000e-004**	**3.3000e-004**	**3.4100e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8547**	**0.8547**	**2.0000e-005**	**0.0000**	**0.8552**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5003	9.0688	8.5216	0.0536	3.6938	0.0818	3.7756	0.9979	0.0777	1.0755	0.0000	5,002.9896	5,002.9896	0.1651	0.0000	5,007.1175
Unmitigated	0.5003	9.0688	8.5216	0.0536	3.6938	0.0818	3.7756	0.9979	0.0777	1.0755	0.0000	5,002.9896	5,002.9896	0.1651	0.0000	5,007.1175

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,316.55	499.15	207.70	9,491,526	9,491,526
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		
Total	1,316.55	499.15	207.70	9,491,526	9,491,526

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
Manufacturing	40.00	8.40	6.90	59.00	28.00	13.00	92	5	3
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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.629000	0.079000	0.039000	0.039000	0.012000	0.012000	0.070000	0.120000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

Other Non-Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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	817.1708	817.1708	0.0337	6.9800e-003	820.0942
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	817.1708	817.1708	0.0337	6.9800e-003	820.0942
NaturalGas Mitigated	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034
NaturalGas Unmitigated	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034

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					
Manufacturing	8.16311e+006	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034
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
Total		**0.0440**	**0.4002**	**0.3361**	**2.4000e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**435.6148**	**435.6148**	**8.3500e-003**	**7.9900e-003**	**438.2034**

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					
Manufacturing	8.16311e+006	0.0440	0.4002	0.3361	2.4000e-003		0.0304	0.0304		0.0304	0.0304	0.0000	435.6148	435.6148	8.3500e-003	7.9900e-003	438.2034
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
Total		**0.0440**	**0.4002**	**0.3361**	**2.4000e-003**		**0.0304**	**0.0304**		**0.0304**	**0.0304**	**0.0000**	**435.6148**	**435.6148**	**8.3500e-003**	**7.9900e-003**	**438.2034**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	2.54014e+006	809.3422	0.0334	6.9100e-003	812.2377
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	24570	7.8285	3.2000e-004	7.0000e-005	7.8565
Total		**817.1708**	**0.0337**	**6.9800e-003**	**820.0942**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	2.54014e+006	809.3422	0.0334	6.9100e-003	812.2377
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	24570	7.8285	3.2000e-004	7.0000e-005	7.8565
Total		**817.1708**	**0.0337**	**6.9800e-003**	**820.0942**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2743	7.0000e-005	7.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154

Unmitigated	1.2743	7.0000e-005	7.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154

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	0.0187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-004	7.0000e-005	7.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Total	**1.2742**	**7.0000e-005**	**7.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0145**	**0.0145**	**4.0000e-005**	**0.0000**	**0.0154**

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	0.0187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-004	7.0000e-005	7.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0145	0.0145	4.0000e-005	0.0000	0.0154
Total	**1.2742**	**7.0000e-005**	**7.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0145**	**0.0145**	**4.0000e-005**	**0.0000**	**0.0154**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	345.9773	2.5376	0.0624	427.9973
Unmitigated	345.9773	2.5376	0.0624	427.9973

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	77.4688 / 0	345.9773	2.5376	0.0624	427.9973
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
Total		**345.9773**	**2.5376**	**0.0624**	**427.9973**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	77.4688 / 0	345.9773	2.5376	0.0624	427.9973
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
Total		**345.9773**	**2.5376**	**0.0624**	**427.9973**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	84.3225	4.9833	0.0000	208.9053
Unmitigated	84.3225	4.9833	0.0000	208.9053

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	415.4	84.3225	4.9833	0.0000	208.9053
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
Total		**84.3225**	**4.9833**	**0.0000**	**208.9053**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	415.4	84.3225	4.9833	0.0000	208.9053
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
Total		**84.3225**	**4.9833**	**0.0000**	**208.9053**

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

Agua Mansa Industrial Project - 40 Mile Trip Lengths

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	335.00	1000sqft	7.69	335,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	3.60	Acre	3.60	156,816.00	0
Parking Lot	234.00	Space	2.11	93,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
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 - Total site is 23.43 acres.

Construction Phase - Operational-only analysis.

Grading -

Architectural Coating -

Vehicle Trips - Weekday trip rate from traffic study. Assume manufacturing work trucks average 40 mile trip lengths.

Area Coating - Assume all architectural coatins comply with SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - .

Fleet Mix - Fleet percentages from TIA.

Energy Use - Assume project includes Tier 2 Nonresidential Voluntary Measures of California's Green Building Standards Code Sections A5.106.5.1.2 and A5.106.5.3.2 in addition to compliance with 2019 CBC, resulting in overall 25 percent energy use reduction.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_Nonresidential_Exterior	167500	20000
tblAreaCoating	Area_Nonresidential_Interior	502500	100000
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblEnergyUse	LightingElect	2.93	2.20
tblEnergyUse	LightingElect	0.35	0.26
tblEnergyUse	NT24E	5.02	3.77
tblEnergyUse	NT24NG	17.13	12.85
tblEnergyUse	T24E	2.20	1.62
tblEnergyUse	T24NG	15.36	11.52
tblFleetMix	HHD	0.07	0.12
tblFleetMix	LDA	0.54	0.63
tblFleetMix	LDT1	0.04	0.08
tblFleetMix	LDT2	0.18	0.04
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	5.3390e-003	0.01
tblFleetMix	MCY	4.6290e-003	0.00
tblFleetMix	MDV	0.12	0.04
tblFleetMix	MH	1.1200e-003	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3650e-003	0.00
tblFleetMix	SBUS	9.5900e-004	0.00

tblFleetMix	UBUS	1.2130e-003	0.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	WD_TR	3.82	3.93

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					
2019	4.4341	45.6335	22.8627	0.0401	18.2675	2.3916	20.6591	9.9840	2.2003	12.1843	0.0000	3,971.2069	3,971.2069	1.1974	0.0000	4,001.1419
Maximum	**4.4341**	**45.6335**	**22.8627**	**0.0401**	**18.2675**	**2.3916**	**20.6591**	**9.9840**	**2.2003**	**12.1843**	**0.0000**	**3,971.2069**	**3,971.2069**	**1.1974**	**0.0000**	**4,001.1419**

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					
2019	4.4341	45.6335	22.8627	0.0401	18.2675	2.3916	20.6591	9.9840	2.2003	12.1843	0.0000	3,971.2069	3,971.2069	1.1974	0.0000	4,001.1419
Maximum	**4.4341**	**45.6335**	**22.8627**	**0.0401**	**18.2675**	**2.3916**	**20.6591**	**9.9840**	**2.2003**	**12.1843**	**0.0000**	**3,971.2069**	**3,971.2069**	**1.1974**	**0.0000**	**4,001.1419**

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

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	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
Mobile	3.8865	60.8608	68.1545	0.3888	26.0764	0.5679	26.6443	7.0340	0.5395	7.5736		39,949.6386	39,949.6386	1.2778		39,981.5844
Total	**11.1116**	**63.0540**	**70.0562**	**0.4019**	**26.0764**	**0.7347**	**26.8111**	**7.0340**	**0.7064**	**7.7404**		**42,580.9063**	**42,580.9063**	**1.3286**	**0.0482**	**42,628.4962**

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	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
Mobile	3.8865	60.8608	68.1545	0.3888	26.0764	0.5679	26.6443	7.0340	0.5395	7.5736		39,949.6386	39,949.6386	1.2778		39,981.5844
Total	**11.1116**	**63.0540**	**70.0562**	**0.4019**	**26.0764**	**0.7347**	**26.8111**	**7.0340**	**0.7064**	**7.7404**		**42,580.9063**	**42,580.9063**	**1.3286**	**0.0482**	**42,628.4962**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/12/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 15.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.0991	0.0608	0.7997	2.0600e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		204.7540	204.7540	5.7300e-003		204.8973
Total	**0.0991**	**0.0608**	**0.7997**	**2.0600e-003**	**0.2012**	**1.2400e-003**	**0.2024**	**0.0534**	**1.1400e-003**	**0.0545**		**204.7540**	**204.7540**	**5.7300e-003**		**204.8973**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.0991	0.0608	0.7997	2.0600e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		204.7540	204.7540	5.7300e-003		204.8973
Total	**0.0991**	**0.0608**	**0.7997**	**2.0600e-003**	**0.2012**	**1.2400e-003**	**0.2024**	**0.0534**	**1.1400e-003**	**0.0545**		**204.7540**	**204.7540**	**5.7300e-003**		**204.8973**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.8865	60.8608	68.1545	0.3888	26.0764	0.5679	26.6443	7.0340	0.5395	7.5736		39,949.6386	39,949.6386	1.2778		39,981.5844

Unmitigated	3.8865	60.8608	68.1545	0.3888	26.0764	0.5679	26.6443	7.0340	0.5395	7.5736		39,949.6386	39,949.6386	1.2778		39,981.5844

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,316.55	499.15	207.70	9,491,526	9,491,526
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		
Total	1,316.55	499.15	207.70	9,491,526	9,491,526

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
Manufacturing	40.00	8.40	6.90	59.00	28.00	13.00	92	5	3
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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.629000	0.079000	0.039000	0.039000	0.012000	0.012000	0.070000	0.120000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Other Non-Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
NaturalGas Unmitigated	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758

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					
Manufacturing	22364.7	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

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					
Manufacturing	22.3647	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Unmitigated	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6300e-003	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Total	**6.9840**	**5.5000e-004**	**0.0599**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1361**

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6300e-003	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Total	**6.9840**	**5.5000e-004**	**0.0599**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1361**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Agua Mansa Industrial Project - Riverside-South Coast County, Winter

Agua Mansa Industrial Project - 40 Mile Trip Lengths

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	335.00	1000sqft	7.69	335,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	3.60	Acre	3.60	156,816.00	0
Parking Lot	234.00	Space	2.11	93,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
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 - Total site is 23.43 acres.

Construction Phase - Operational-only analysis.

Grading -

Architectural Coating -

Vehicle Trips - Weekday trip rate from traffic study. Assume manufacturing work trucks average 40 mile trip lengths.

Area Coating - Assume all architectural coatins comply with SCAQMD Rule 1113.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - .

Fleet Mix - Fleet percentages from TIA.

Energy Use - Assume project includes Tier 2 Nonresidential Voluntary Measures of California's Green Building Standards Code Sections A5.106.5.1.2 and A5.106.5.3.2 in addition to compliance with 2019 CBC, resulting in overall 25 percent energy use reduction.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_Nonresidential_Exterior	167500	20000
tblAreaCoating	Area_Nonresidential_Interior	502500	100000
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblEnergyUse	LightingElect	2.93	2.20
tblEnergyUse	LightingElect	0.35	0.26
tblEnergyUse	NT24E	5.02	3.77
tblEnergyUse	NT24NG	17.13	12.85
tblEnergyUse	T24E	2.20	1.62
tblEnergyUse	T24NG	15.36	11.52
tblFleetMix	HHD	0.07	0.12
tblFleetMix	LDA	0.54	0.63
tblFleetMix	LDT1	0.04	0.08
tblFleetMix	LDT2	0.18	0.04
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	5.3390e-003	0.01
tblFleetMix	MCY	4.6290e-003	0.00
tblFleetMix	MDV	0.12	0.04
tblFleetMix	MH	1.1200e-003	0.00
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3650e-003	0.00
tblFleetMix	SBUS	9.5900e-004	0.00

tblFleetMix	UBUS	1.2130e-003	0.00
tblVehicleTrips	CW_TL	16.60	40.00
tblVehicleTrips	WD_TR	3.82	3.93

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					
2019	4.4319	45.6357	22.7111	0.0398	18.2675	2.3916	20.6591	9.9840	2.2003	12.1843	0.0000	3,950.1460	3,950.1460	1.1967	0.0000	3,980.0622
Maximum	**4.4319**	**45.6357**	**22.7111**	**0.0398**	**18.2675**	**2.3916**	**20.6591**	**9.9840**	**2.2003**	**12.1843**	**0.0000**	**3,950.1460**	**3,950.1460**	**1.1967**	**0.0000**	**3,980.0622**

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					
2019	4.4319	45.6357	22.7111	0.0398	18.2675	2.3916	20.6591	9.9840	2.2003	12.1843	0.0000	3,950.1460	3,950.1460	1.1967	0.0000	3,980.0622
Maximum	**4.4319**	**45.6357**	**22.7111**	**0.0398**	**18.2675**	**2.3916**	**20.6591**	**9.9840**	**2.2003**	**12.1843**	**0.0000**	**3,950.1460**	**3,950.1460**	**1.1967**	**0.0000**	**3,980.0622**

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

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	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
Mobile	3.4698	62.1869	57.0807	0.3668	26.0764	0.5699	26.6463	7.0340	0.5414	7.5755		37,752.4817	37,752.4817	1.2949		37,784.8542
Total	**10.6949**	**64.3801**	**58.9823**	**0.3800**	**26.0764**	**0.7367**	**26.8131**	**7.0340**	**0.7083**	**7.7423**		**40,383.7494**	**40,383.7494**	**1.3457**	**0.0482**	**40,431.7660**

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	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Energy	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
Mobile	3.4698	62.1869	57.0807	0.3668	26.0764	0.5699	26.6463	7.0340	0.5414	7.5755		37,752.4817	37,752.4817	1.2949		37,784.8542
Total	**10.6949**	**64.3801**	**58.9823**	**0.3800**	**26.0764**	**0.7367**	**26.8131**	**7.0340**	**0.7083**	**7.7423**		**40,383.7494**	**40,383.7494**	**1.3457**	**0.0482**	**40,431.7660**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/12/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 15.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.0968	0.0630	0.6481	1.8400e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		183.6931	183.6931	4.9800e-003		183.8177
Total	**0.0968**	**0.0630**	**0.6481**	**1.8400e-003**	**0.2012**	**1.2400e-003**	**0.2024**	**0.0534**	**1.1400e-003**	**0.0545**		**183.6931**	**183.6931**	**4.9800e-003**		**183.8177**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.0968	0.0630	0.6481	1.8400e-003	0.2012	1.2400e-003	0.2024	0.0534	1.1400e-003	0.0545		183.6931	183.6931	4.9800e-003		183.8177
Total	**0.0968**	**0.0630**	**0.6481**	**1.8400e-003**	**0.2012**	**1.2400e-003**	**0.2024**	**0.0534**	**1.1400e-003**	**0.0545**		**183.6931**	**183.6931**	**4.9800e-003**		**183.8177**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4698	62.1869	57.0807	0.3668	26.0764	0.5699	26.6463	7.0340	0.5414	7.5755		37,752.4817	37,752.4817	1.2949		37,784.8542

Unmitigated	3.4698	62.1869	57.0807	0.3668	26.0764	0.5699	26.6463	7.0340	0.5414	7.5755		37,752.4817	37,752.4817	1.2949		37,784.8542

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,316.55	499.15	207.70	9,491,526	9,491,526
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		
Total	1,316.55	499.15	207.70	9,491,526	9,491,526

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
Manufacturing	40.00	8.40	6.90	59.00	28.00	13.00	92	5	3
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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.629000	0.079000	0.039000	0.039000	0.012000	0.012000	0.070000	0.120000	0.000000	0.000000	0.000000	0.000000	0.000000
Other Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Other Non-Asphalt Surfaces	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120
Parking Lot	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive 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	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
NaturalGas Unmitigated	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758

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					
Manufacturing	22364.7	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

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					
Manufacturing	22.3647	0.2412	2.1926	1.8418	0.0132		0.1666	0.1666		0.1666	0.1666		2,631.1402	2,631.1402	0.0504	0.0482	2,646.7758
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
Total		**0.2412**	**2.1926**	**1.8418**	**0.0132**		**0.1666**	**0.1666**		**0.1666**	**0.1666**		**2,631.1402**	**2,631.1402**	**0.0504**	**0.0482**	**2,646.7758**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Unmitigated	6.9839	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6300e-003	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Total	**6.9840**	**5.5000e-004**	**0.0599**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1361**

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	0.1023					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6300e-003	5.5000e-004	0.0599	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		0.1275	0.1275	3.4000e-004		0.1361
Total	**6.9840**	**5.5000e-004**	**0.0599**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**		**0.1275**	**0.1275**	**3.4000e-004**		**0.1361**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation