AIR QUALITY, GREENHOUSE GAS, AND ENERGY IMPACT ANALYSIS

SLOVER-JUNIPER INDUSTRIAL BUILDING PROJECT

FONTANA, CALIFORNIA

LSA

July 2020

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EXECUTIVE SUMMARY

LSA has prepared an air quality, greenhouse gas (GHG), and energy impact study for the Slover-Juniper Industrial Building Project (project) to be located in Fontana, California. The proposed project involves the development of a warehouse building for industrial uses. The proposed project is would begin construction in late 2021 or early 2022 and begin operations 6 to 8 months later.

This air quality, GHG, and energy impact analysis provides a discussion of the proposed project, the physical setting of the project area, and the regulatory framework for air quality, GHG, and energy. The report provides data on existing air quality and energy use and evaluates potential air quality, GHG, and energy impacts associated with the proposed project. Modeled vehicle emissions and energy use are based on the trip generation and fleet mix data from the *Slover-Juniper Industrial Building Project Trip Generation Memorandum* (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 any of the existing residences surrounding the project site.

Pollutant emissions from project operation, also calculated with CalEEMod, would not exceed any of the SCAQMD criteria pollutant thresholds. 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.

Project-related energy use was also projected for project construction and operation. Implementation of the proposed project would not result in a substantial increase in energy uses, nor would the project result in the wasteful, inefficient, or unnecessary consumption of fuel or energy during project construction or operation. Energy impacts would be less than significant, and no mitigation measures would be necessary.

The proposed project is in San Bernardino County, which has been found to have serpentine and ultramafic rock in its soil (DOC 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 not exceed this threshold.

The proposed project includes a General Plan Amendment and Zone Change from General Commercial (C-2) to Light Industrial (M-1). The proposed industrial use would result in traffic impacts similar to the existing designation and General Commercial 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 2020a). 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
avg.	average
Basin	South Coast Air Basin
Bio-CO_2	biologically generated carbon dioxide
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
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 Fontana
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
cy	cubic yards
DOC	California Department of Conservation
EO	Executive Order
EPA	United States Environmental Protection Agency
ft	foot/feet
GCC	global climate change
GHG	greenhouse gas
GWh	gigawatt hour
GWP	global warming potential
H_2S	hydrogen sulfide
HFCs	hydrofluorocarbons
I-10	Interstate 10
IEPR	Integrated Energy Policy Report

IPCC	Intergovernmental Panel on Climate Change
kBTU	thousand British thermal units
kWh	kilowatt-hours
lbs/day	pounds per day
LEED	Leadership in Energy and Environmental Design
LOS	level of service
LST	localized significance threshold
MATES	*Multiple Air Toxics Exposure Study*
max.	maximum
mg/m^3	milligrams per cubic meter
mi	mile/miles
MMT	million metric tons
MMT CO_2e	million metric tons of carbon dioxide equivalent
mpg	miles per gallon
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
MWELO	Model Water Efficient Landscape Ordinance
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NBio-CO_2	non-biologically generated carbon dioxide
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone (or smog)
OPR	Governor's Office of Planning and Research
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	Slover-Juniper Industrial Building Project
PV	photovoltaic
ROC	reactive organic compound
ROG	reactive organic gas
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

SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SO_X	sulfur oxides
SRA	Source Receptor Area
State	State of California
UNFCCC	United Nations Framework Convention on Climate Change
UNH	University of New Hampshire
VOC	volatile organic compound
VMT	vehicle miles traveled
Working Group	SCAQMD GHG CEQA Significance Threshold Working Group
ZE	zero emissions

INTRODUCTION

This air quality, greenhouse gas (GHG), and energy impact analysis has been prepared to evaluate the potential air quality, climate change, and energy impacts associated with the proposed Slover-Juniper Industrial Building Project (project) in Fontana, California. This report provides a project-specific air quality, climate change, and energy impact analysis by examining the potential impacts of the proposed uses on the regional air quality and energy system and to nearby sensitive uses. This air quality, GHG, and energy 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 2020a).

PROJECT LOCATION

The project site is at the northeast corner of Slover Avenue and Juniper Avenue, south of Interstate 10 (I-10) in Fontana, as shown on Figure 1.

PROJECT DESCRIPTION

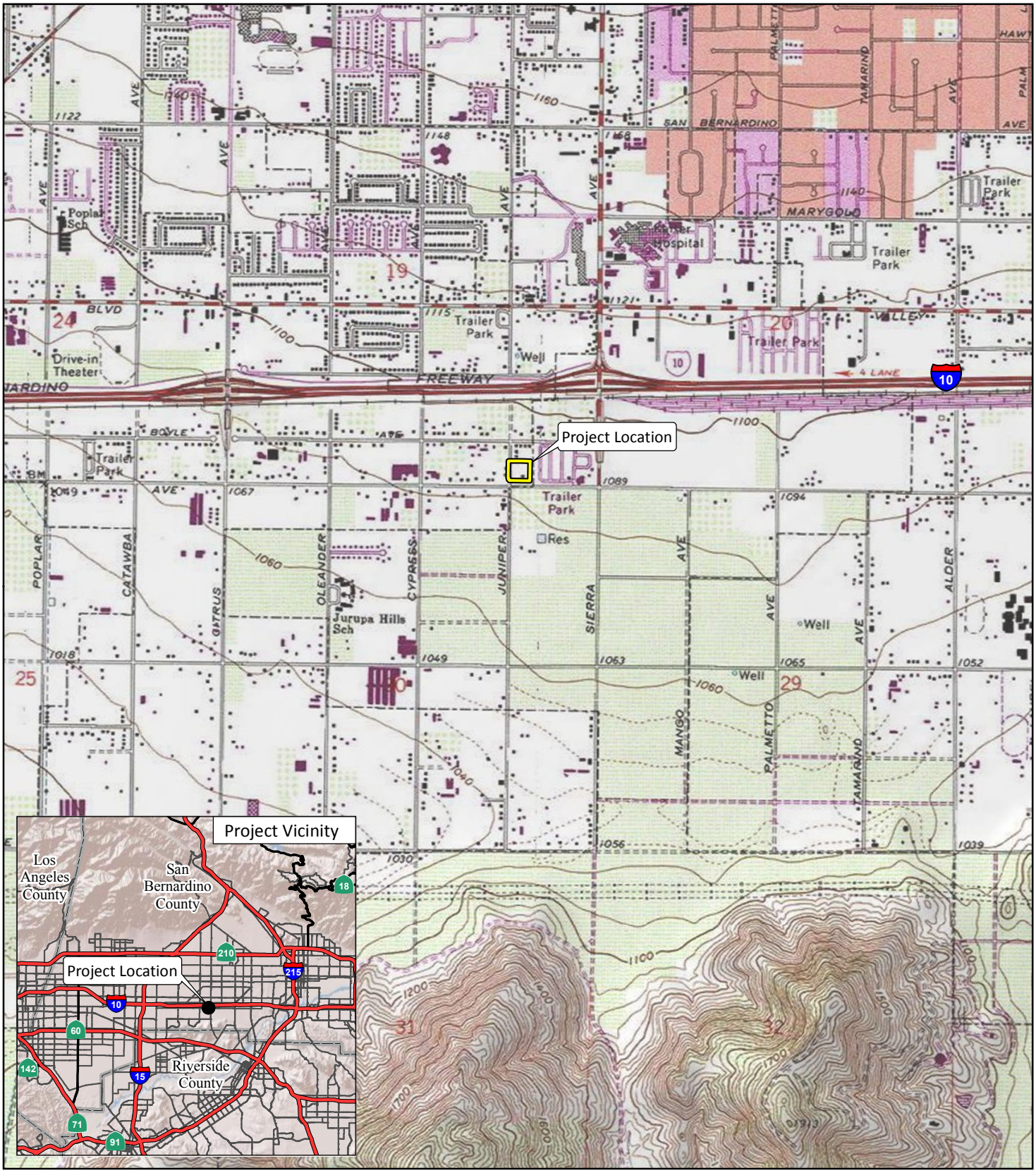
The proposed project would demolish the existing structures on site and construct a 39,667-square-foot (sf) industrial warehouse on the 2.06-acre (ac) site. The proposed project would also include 56 parking spaces and 14,631 sf of landscaping. Figure 2 depicts the proposed project's site plan. The proposed project includes a General Plan Amendment and Zone Change from General Commercial (C-2) to Light Industrial (M-1).

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 residential development, as shown in Figure 3. The areas adjacent to the project site include the following uses:

- **North:** Single-family homes. The closest residential building is approximately 40 feet (ft) from the northern boundary of construction and 200 ft northwest of the nearest loading dock.
- **East:** Single-family homes. The closest residential building is approximately 10 ft from the eastern boundary of construction and 115 ft east of the nearest loading dock.
- **South:** Slover Avenue with a vacant lot across the street and commercial beyond.
- **Southwest:** Single-family homes along Slover Avenue to the west of Juniper Avenue approximately 160 ft from the boundary of construction and 260 ft southwest of the nearest loading dock.
- **West:** Single-family homes, possibly uninhabited. The closest residential building is approximately 70 ft from the western boundary of construction and 250 ft west of the nearest loading dock.

Note: The distances listed here are from the center of the residential buildings to the closest possible construction activity and to the project loading docks, per air quality requirements. The Noise and Vibration Impact Analysis also discusses distances to sensitive receptors, but the distances are different because they are based on noise and vibration assessment procedures.



LSA

LEGEND

Project Location

FIGURE 1

N

0 1000 2000

FEET

Slover-Juniper Industrial Building Project

Regional and Project Location

SOURCE: USGS 7.5' Quad - *Fontana* (1980), CA

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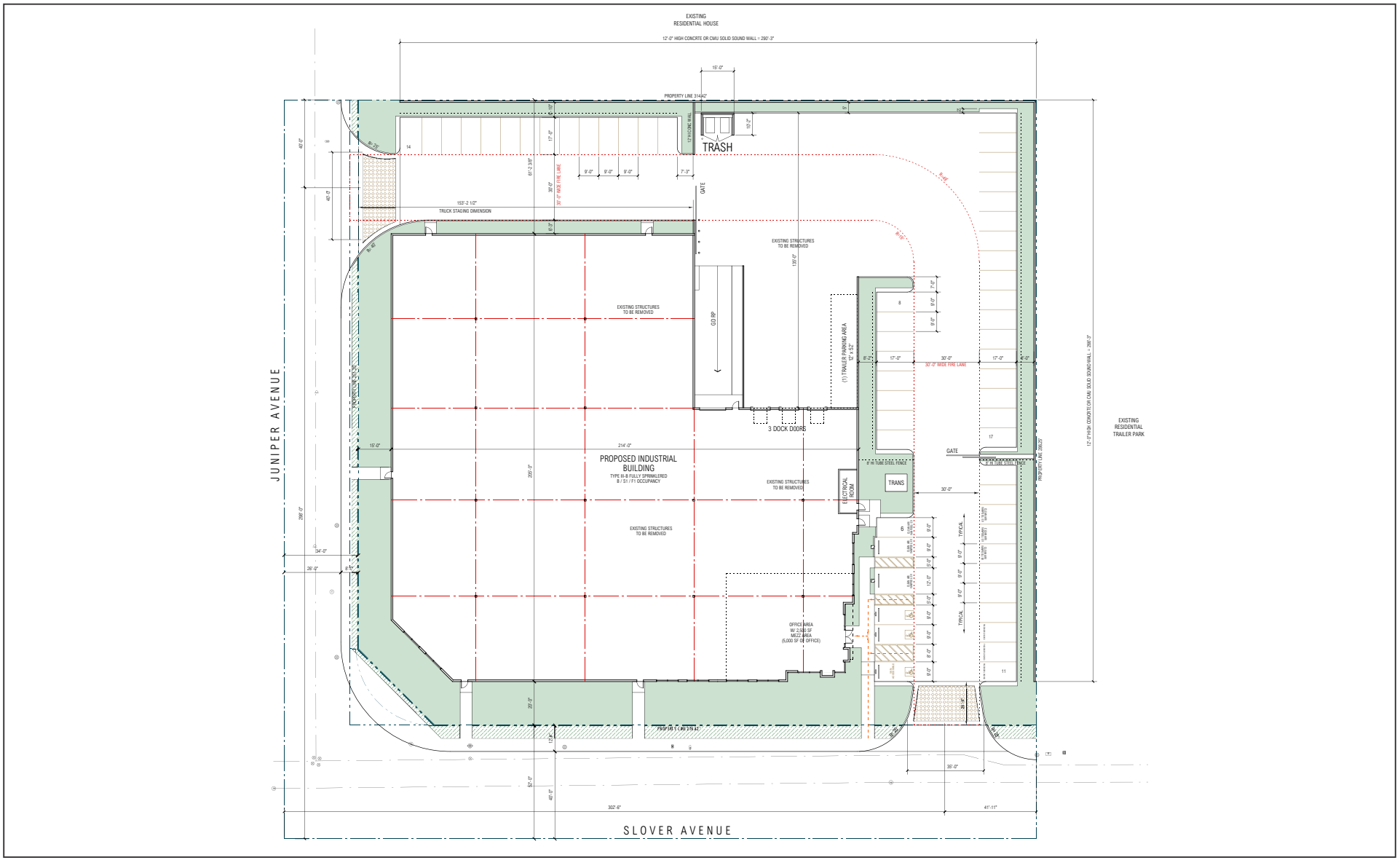

LSA

FIGURE 2

N

0 40 80

FEET

SOURCE: RGA Office of Architecture and Design

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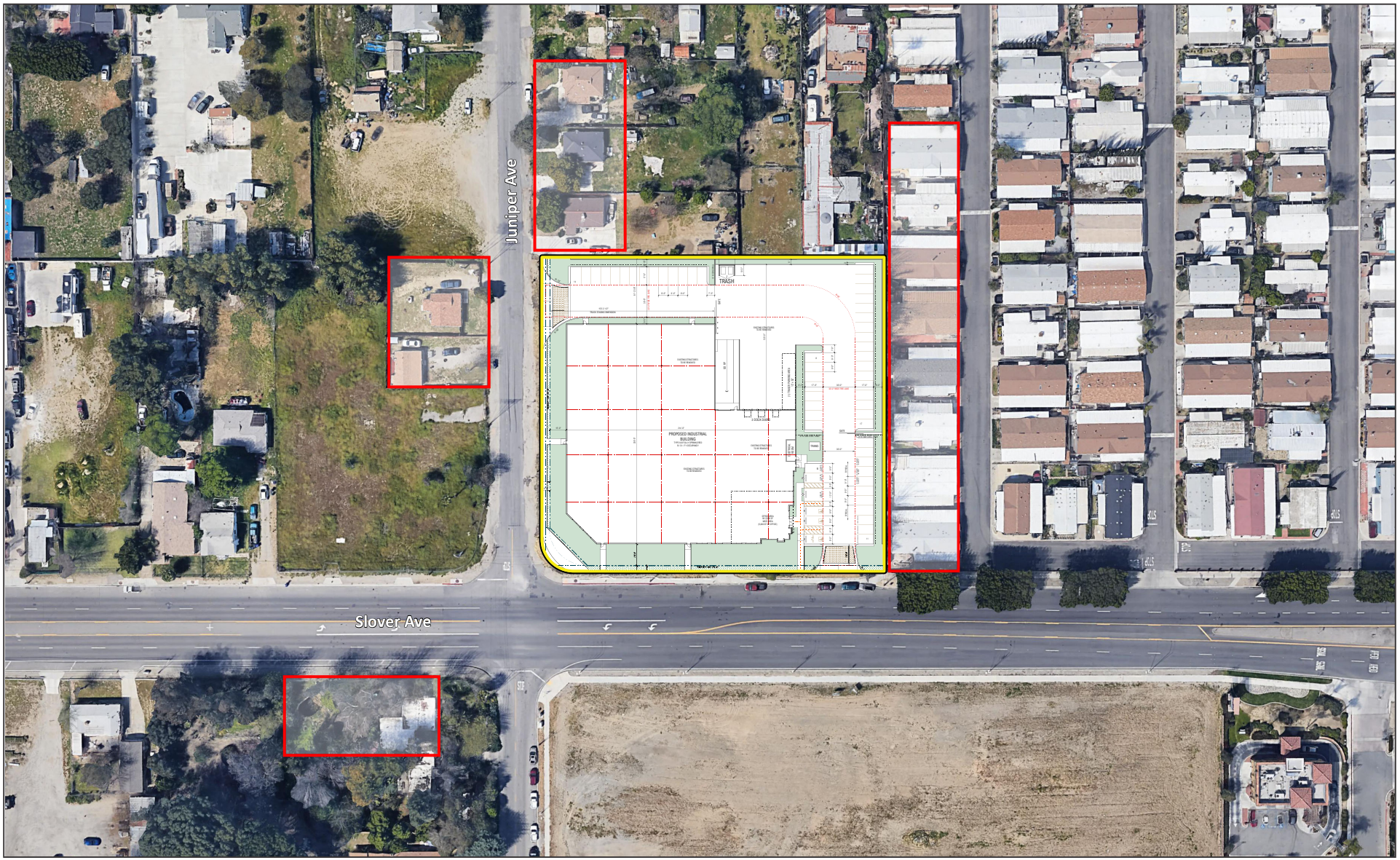
Slover-Juniper Industrial Building Project

Site Plan



LSA

LEGEND

Project Location

Single Family Homes

FIGURE 3

N

0 75 150

FEET

SOURCE: Google Earth (2020), RGA Office of Architecture and Design

Slover-Juniper Industrial Building Project

Sensitive Receptors

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PROJECT SETTING

REGIONAL CLIMATE AND AIR QUALITY

The project site is in the nondesert portion of San Bernardino 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 nondesert 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 most common health and environmental effects for each of the air pollutants for which there is a national and/or California AAQS, as well as for toxic air contaminants. 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, 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 affected not only 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 semiarid 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/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1-Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	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/m^3)		0.14 ppm (for certain areas)[11]	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)	—	
Lead[12,13]	30-Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[13]	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		
Visibility-Reducing Particles[14]	8-Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24-Hour	0.01 ppm (26 µg/m^3)	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 $\mu g/m^3$ 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 that can be shown to the satisfaction of 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 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ 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] 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 $\mu g/m^3$ 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, 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.

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

Table B: Summary of Health and Environmental Effects of the Criteria Air Pollutants

Pollutant	Effects on Health and the Environment
Ozone (O_3)	• Respiratory symptoms • Worsening of lung disease leading to premature death • Damage to lung tissue • Crop, forest and ecosystem damage • Damage to a variety of materials, including rubber, plastics, fabrics, paint and metals
$PM_{2.5}$ (particulate matter less than 2.5 microns in aerodynamic diameter)	• Premature death • Hospitalization for worsening of cardiovascular disease • Hospitalization for respiratory disease • Asthma-related emergency room visits • Increased symptoms, increased inhaler usage
PM_{10} (particulate matter less than 10 microns in aerodynamic diameter)	• Premature death & hospitalization, primarily for worsening of respiratory disease • Reduced visibility and material soiling
Nitrogen Oxides (NO_X)	• Lung irritation • Enhanced allergic responses
Carbon Monoxide (CO)	• Chest pain in patients with heart disease • Headache • Light-headedness • Reduced mental alertness
Sulfur Oxides (SO_X)	• Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits
Lead	• Impaired mental functioning in children • Learning disabilities in children • Brain and kidney damage
Hydrogen Sulfide (H_2S)	• Nuisance odor (rotten egg smell) • At high concentrations: headache & breathing difficulties
Sulfate	• Same as PM2.5, particularly worsening of asthma and other lung diseases • Reduces visibility
Vinyl Chloride	• Central nervous system effects, such as dizziness, drowsiness & headaches • Long-term exposure: liver damage & liver cancer
Visibility Reducing Particles	• Reduced airport safety, scenic enjoyment, road safety, and discourages tourism
Toxic Air Contaminants About 200 chemicals have been listed as toxic air contaminants	• Cancer • Reproductive and developmental effects • Neurological effects

Source: Common Air Pollutants (CARB 2020b)
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 Fontana Kaiser Station (WRCC 2020). The monthly

average maximum temperature recorded at this station ranged from 66.0°F in December to 96.2°F in August, with an annual average maximum of 78.5°F. The monthly average minimum temperature recorded at this station ranged from 41.5°F in January to 62.4°F in August, with an annual average minimum of 50.3°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. The Fontana Kaiser Station's monitored precipitation shows that average monthly rainfall varied from 4.13 inches in March to 0.77 inch or less from May to October, with an annual total of 18.81 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 (EPA 2017). 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.

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

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[1] 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 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report. The IPCC has published the 2013 IPCC Fifth Assessment Report with updated GWP values.

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).

[1] A metric ton is equivalent to approximately 1.1 tons.

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) (UNH 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 2018, the United States emitted approximately 6.7 billion MT CO_2e. Total United States emissions increased by 3.1 percent from 2017 to 2018. This increase was largely driven by an increase in emissions from fossil fuel combustion, which was a result of multiple factors, including more

[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.

electricity use due to greater heating and cooling needs due to a colder winter and hotter summer in 2018 in comparison to 2017. Relative to 1990, the baseline for this inventory, gross emissions in 2018 were higher by 3.7 percent, down from a high of 15.7 percent above 1990 levels in 2007. Overall, net emissions in 2018 were 10.2 percent below 2005 levels (EPA 2020a).

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 2020a).

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 2020a).

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.

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	Attainment[1] (30-day average)	Attainment[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 2020b).

[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

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.

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.

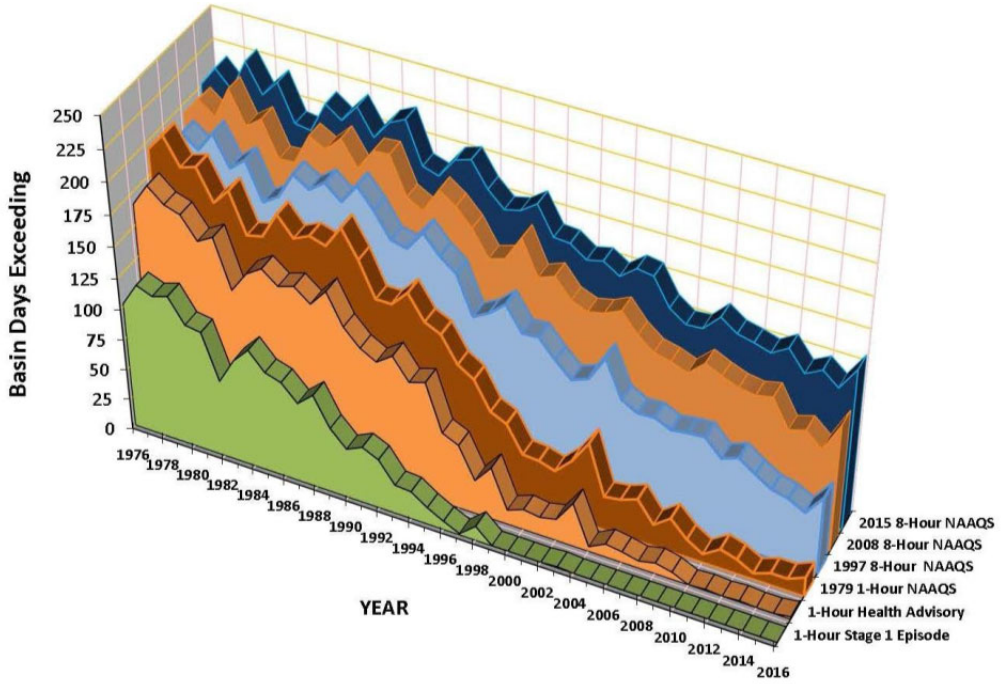
Visibility-Reducing Particles

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 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.

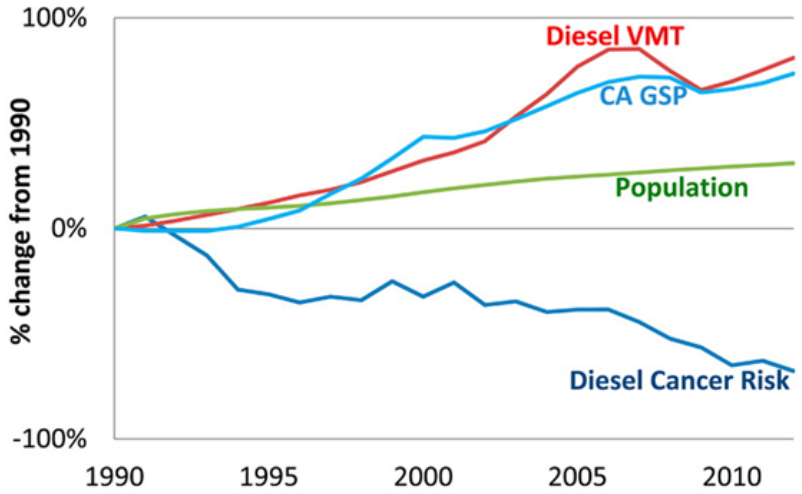


Source: South Coast Air Basin Ozone Trend (SCAQMD).

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, and 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 Fontana-Arrow Highway Station at 14360 Arrow Boulevard in Fontana, approximately 4 miles (mi) northwest 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 Fontana-Arrow Highway Station

Pollutant	Standard	2017	2018	2019
O_3				
Max. 1-hour concentration (ppm)		0.137	0.141	0.124
No. of days exceeded: State	>0.09 ppm	33	38	26
O_3				
Max. 8-hour concentration (ppm)		0.118	0.111	0.109
No. of days exceeded: State	>0.07 ppm	49	69	37
Federal	>0.07 ppm	49	69	37
CO				
Max. 1-hour concentration (ppm)		1.7	1.9	2.7
No. of days exceeded: State	>20 ppm	0	0	0
Federal	>35 ppm	0	0	0
Max. 8-hour concentration (ppm)		1.3	1.1	1.0
No. of days exceeded: State	>9.0 ppm	0	0	0
Federal	>9.0 ppm	0	0	0
PM_{10}				
Max. 24-hour concentration (µg/m^3)		75	64	88
No. of days exceeded: State	>50 µg/m^3	8	8	14
Federal	>150 µg/m^3	0	0	0
Annual avg. concentration (µg/m^3)		39.6	34.4	35.0
Exceeds Standard? State	>20 µg/m^3	Yes	Yes	Yes
$PM_{2.5}$				
Max. 24-hour concentration (µg/m^3)		39.2	29.2	81.3
No. of days exceeded: Federal	>35 µg/m^3	1	0	2
Annual avg. concentration (µg/m^3)		13.0	12.7	11.5
Exceeds Standard? State	>12 µg/m^3	Yes	Yes	No
Federal	>15 µg/m^3	No	No	No
NO_2				
Max. 1-hour concentration (ppb)		69.2	63.0	76.1
No. of days exceeded: State	>180 ppb	0	0	0
Federal	>100 ppb	0	0	0
Annual avg. concentration (ppb)		18.3	18.3	17.2
Exceeds Standard? State	>30 ppb	No	No	No
Federal	>53 ppb	No	No	No
SO_2				
Max. 1-hour concentration (ppb)		3.9	2.9	2.4
No. of days exceeded: State	>250 ppb	0	0	0
Federal	>75 ppb	0	0	0
Annual avg. concentration (ppb)		0.59	0.77	0.75
Exceeds Standard? Federal	>30 ppb	No	No	No

Source: Air Data: Air Quality Data Collected at Outdoor Monitors across the US (EPA 2020).

µg/m^3 = micrograms per cubic meter
avg. = average
CO = carbon monoxide
EPA = United States Environmental Protection Agency
max. = maximum
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
ppb = parts per billion
ppm = parts per million
SO_2 = sulfur dioxide

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.

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.

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.

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 fuel economy and GHG reductions over time. The standards specify minimum fuel consumption efficiency standards for new automobiles sold in the United States. The second phase of the CAFE (Corporate Average Fuel Economy) standards, finalized in 2012, covered model years 2017–2025, with an equivalency of approximately 54.5 mpg. On March 31, 2020, the agencies issued the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule that increases the stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026.

The Energy Policy Act of 2005 seeks to reduce reliance on nonrenewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel efficient appliances and products, building energy efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

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 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.

In 2002, the California Legislature passed Senate Bill (SB) 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels, for the Integrated Energy Policy Report (IEPR). The plan calls for the State to

assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the lowest environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission (ZE) vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

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), which 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 State legislature on the Cap-and-Trade Program, as described in AB 398, emphasizes 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 feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that

promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

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), the implementation of green building practices (i.e., the California Green Building Standards Code), energy efficiency and water conservation policies, and waste diversion efforts.

On February 20, 2020, the CEC adopted the *2019 Integrated Energy Policy Report* (CEC 2019). The *2019 Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The *2019 Integrated Energy Policy Report Update* covers a broad range of topics, including implementation of SB 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California energy demand preliminary forecast, the preliminary transportation energy demand forecast, renewable gas (in response to SB 1383), updates on Southern California electricity reliability, the natural gas outlook, and climate adaptation and resiliency.

Senate Bill 97 and CEQA Guidelines

In August 2007, the State legislature adopted SB 97, requiring the Governor's 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 on whether to do the following: (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 CALGreen. The first edition of CALGreen was released in 2008 and contained only voluntary standards. CALGreen was updated in 2016; this version became effective on January 1, 2017, and applies to nonresidential and residential developments. CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying 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 May 7, 2020, the Regional Council of SCAG approved Connect SoCal (2020–2045 Regional Transportation Plan). Connect SoCal is built around a series of strategies that would reduce overall VMT and achieve the region's targets for reducing GHG from autos and light-duty trucks by 19 percent per capita, from 2005 levels, by 2035. Fully implemented, the plan would save local jurisdictions $3.8 billion from reduced capital infrastructure and ongoing operations of maintenance costs due to the more efficient development patterns.

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 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (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 cobenefits 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 2020a).

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 the following: (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 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 Fontana General Plan Update 2015–2035

The *City of Fontana General Plan Update 2015–2035* (City of Fontana 2018) includes the following principles applicable to the project:

- Make healthy lifestyles easy and fun by creating policies and physical conditions that promote healthy lifestyles through easy access to physical activity, healthy food, and medical care.
- Pursue sustainability and resilience by making resource-efficient choices to conserve water, energy, and materials; improve air quality; and adjust to changing conditions.

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: Air Quality Significance Thresholds. (SCAQMD 1993).

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 compound

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's Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is the Central San Bernardino Valley area (SRA 34). 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 10 ft from the eastern boundary of construction and 115 ft east of the nearest proposed loading dock.

The LST methodology uses lookup tables based on site acreage and distance to the closest sensitive receptor to determine the significance of emissions for CEQA purposes. For construction of this proposed project, up to 2 ac could be disturbed per day; thus, LST screening thresholds from the 2 ac tables were used in this analysis. The LST methodology directs the use of thresholds for 25 meters (82 ft) for all situations where sensitive receptors are at that distance or closer.

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 2 ac of surface area. Therefore, the 2 ac thresholds would apply during project operations. Table G lists the emissions thresholds that apply during project construction and operation.

Table G: SCAQMD Localized Significance Thresholds

Emissions Source Category	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction (2 ac, 25 m [82 ft] distance)	170	972	7	4
Operations (2 ac, 25 m [82 ft] distance)	170	972	2	1

Source: *Final Localized Significance Threshold Methodology* (SCAQMD 2008).

ac = acre/acres
CO = carbon monoxide
ft = foot/feet
lbs/day = pounds per day
m = meter/meters
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

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; or

- 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 (SCAQMD 2020b). 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.

ENERGY

While no quantitative thresholds related to energy are included in the *State CEQA Guidelines*, the *State CEQA Guidelines* indicate that a project would normally have a significant adverse energy impact if the project would do either of the following:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation

- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency

For purposes of this analysis, impacts to energy resources will be considered significant if the project would result in the wasteful, inefficient, or unnecessary consumption of fuel or energy; and/or conversely if the project would not incorporate renewable energy or energy efficiency measures into building design, equipment use, transportation, or other project features.

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. The proposed project would increase the demand for electricity, natural gas, and gasoline when compared to the existing condition of the site.

CONSTRUCTION AIR QUALITY 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, and vendor trips). The proposed earthwork for the project estimates 6,000 cubic yards (cy) of soil would be cut and 500 cy would be used for fill, resulting in a net export of 5,500 cy of soil. CalEEMod results and defaults are assumed for the construction activities, off-road equipment, and on-road construction fleet mix and trip lengths.

The project is planned to begin construction in late 2021 or early 2022 and last for 6 to 8 months. Table H lists the tentative project construction schedule for the proposed project. Default construction phase durations from CalEEMod were used for all phases except the Building Construction and Architectural Coating phases, which were adjusted according to project plans.

Table H: Tentative Project Construction Schedule

Phase Name	Phase Start Date	Phase End Date	Number of Days per Week	Number of Days
Demolition	7/1/2021	7/28/2021	5	20
Site Preparation	7/29/2021	8/2/2021	5	3
Grading	8/3/2021	8/10/2021	5	6
Building Construction	8/11/2021	2/22/2022	5	140
Paving	2/23/2022	3/8/2022	5	10
Architectural Coating	1/3/2022	2/22/2022	5	37

Source: Estimated by LSA Associates, Inc., from the project plans (assuming a 2022 opening year) (July 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 I lists the estimated construction equipment that would be used during project construction as estimated by CalEEMod default values.

Table I: 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
Demolition	Concrete/Industrial Saws	1	8	81	0.73
	Rubber-Tired Dozers	1	8	247	0.4
	Tractors/Loaders/Backhoes	3	8	97	0.37
Site Preparation	Graders	1	8	187	0.41
	Scrapers	1	8	367	0.48
	Tractors/Loaders/Backhoes	1	7	97	0.37
Grading	Graders	1	8	187	0.41
	Rubber-Tired Dozers	1	8	247	0.4
	Tractors/Loaders/Backhoes	2	7	97	0.37
Building Construction	Cranes	1	8	231	0.29
	Forklifts	2	7	89	0.2
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	1	6	97	0.37
	Welders	3	8	46	0.45
Paving	Cement and Mortar Mixers	1	8	9	0.56
	Pavers	1	8	130	0.42
	Paving Equipment	1	8	132	0.36
	Rollers	2	8	80	0.38
	Tractors/Loaders/Backhoes	1	8	97	0.37
Architectural Coating	Air Compressors	1	6	78	0.48

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

The emission results are shown in Table J. It should be noted that the emissions rates shown in Table J 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. As shown in Table J, no exceedances of any criteria pollutants are expected. Standard measures are documented in the CalEEMod output included as Appendix A.

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 J 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 ft (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 mph or less.

These Rule 403 measures were incorporated in the CalEEMod analysis.

Table J: Short-Term Regional Construction Emissions

	Total Regional Pollutant Emissions (lbs/day)							
Construction Phase	**VOCs**	**NO_X**	**CO**	**SO_X**	**Fugitive PM_{10}**	**Exhaust PM_{10}**	**Fugitive $PM_{2.5}$**	**Exhaust $PM_{2.5}$**
Demolition	2	20	15	<1	<1	1	<1	<1
Site Preparation	2	18	11	<1	<1	<1	<1	<1
Grading	3	56	18	<1	5	1	2	<1
Building Construction	2	17	15	<1	<1	<1	<1	<1
Paving	1	9	12	<1	<1	<1	<1	<1
Architectural Coating	5	1	2	<1	<1	<1	<1	<1
Peak Daily	**7**	**56**	**18**	**<1**	**6**		**3**	
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**		**55**	
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA Associates, Inc. (July 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 compound

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

Table K: Construction Localized Impacts Analysis

Emissions Sources	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	20	15	4	2
LST	170	972	7	4
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (July 2020).
Note: Source Receptor Area – Central San Bernardino Valley, 2 acres, receptors at 25 meters.
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 the following:

> 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 San Bernardino County, which is among the counties found to have serpentine and ultramafic rock in their soils (DOC 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 J and K show that daily construction emissions would not exceed the daily regional thresholds of any criteria pollutant emission threshold established by SCAQMD, nor would there be any localized air quality impacts.

OPERATIONAL AIR QUALITY IMPACTS

Regional 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. It was assumed that the project would use two diesel-powered forklifts in the warehouse operations.

Based on the *Slover-Juniper Industrial Building Project Trip Generation Memorandum* (LSA 2020), the project operations would result in 43 truck trips and 203 total trips on a peak day. The CalEEMod fleet mix was adjusted to match the *Slover-Juniper Industrial Building Project Trip Generation Memorandum*. Table L 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 L: Opening Year Regional Operational Emissions

Source	Pollutant Emissions (lbs/day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	<1	<1	<1	0	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	3.74	5.36	<1	1.94	<1
Warehouse forklifts	<1	2.11	2.31	<1	<1	<1
Total Project Emissions	1.48	6.21	7.98	<1	2.11	<1
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (July 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 compound

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 5 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 5 percent is considered conservative because the average round-trip lengths assumed are 16.6 mi for

commercial-work, 8.4 mi for commercial-customer, and 6.98 mi for other types of trips. It is unlikely that the average on-site distance driven would be even 1,000 ft, which is approximately 2 percent of the total miles traveled. Considering the total trip length included in CalEEMod, the 5 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 Source	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	2	3	<1	<1
LST	170	972	2	1
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (July 2020).
Note: SRA—Central San Bernardino Valley, 2 ac, receptors at 25 m (82 ft), on-site traffic assumed to be 5 percent of total.
ac = acre/acres
CO = carbon monoxide
ft = foot/feet
LST = localized significance thresholds
m = meter/meters
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
SRA = Source Receptor Area

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 2.7 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.3 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 *Slover-Juniper Industrial Building Project Trip Generation Memorandum* (LSA 2020), all intersections surrounding the project site currently operate at a satisfactory level of service (LOS) without the proposed project. While the proposed project would contribute to the existing traffic at these intersections, the LOS would either stay the same or only slightly increase with the proposed 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 such that CO concentrations would exceed the State or federal CO standards. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

Operational Emissions Conclusions

Tables L and M show that daily operational emissions would not exceed the daily thresholds of any regional criteria pollutant emission threshold established by SCAQMD or result in any localized air quality impacts.

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

Furthermore, as described in the Criteria Pollutants section of this report, air quality trends for both emissions of NO_x, VOCs, and O_3 (which is a byproduct of NO_x and VOCs) have been trending downward within the Basin even as development has increased over the last several years. Therefore, since the proposed project will not exceed the SCAQMD's applicable numeric thresholds, the proposed project would not result in any Basin-wide increase in health effects.

As noted in the SCAQMD Amicus Curiae Brief (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 San Joaquin Valley Air Pollution Control District (SJVAPCD) Amicus Curiae Brief (SJVAPCD 2015), the 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 the SJVAPCD Amicus Curiae Brief).

Additionally, the SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 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 O_3 levels over the entire region. The SCAQMD states that based on its own modeling in its 2012 AQMP, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 lbs/day) of VOCs would reduce O_3 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 O_3-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations (see page 11 of the SCAQMD Amicus Curiae Brief).

To underscore this point, the SCAQMD goes on to state that it has only been able to correlate potential health outcomes for very large emissions sources—as part of its rulemaking activity, specifically 6,620 lbs/day of NO_x and 89,180 lbs/day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O_3.

The proposed project does not generate anywhere near 6,620 lbs/day of NO_x or 89,190 lbs/day of VOC emissions. As shown in Table J, the project would generate a maximum of 56 lbs/day of NO_x

during construction (0.8 percent of 6,620 lbs/day), and as shown in Table L would generate up to 9 lbs/day of NO_X, during operations (0.1 percent of 6,620 lbs/day). The project would also generate a maximum of 7 lbs/day of VOC emissions during construction and 2 lbs/day of VOC emissions during operations (0.008 percent and 0.002 percent of 89,190 lbs/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. Furthermore, the SJVAPCD acknowledges the same: "… the Air District is simply not equipped to analyze whether 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 the SJVAPCD Amicus Curiae Brief).

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 Amicus Curiae Brief and SJVAPCD Amicus Curiae Brief 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.

Emissions Analysis

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). 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.

- **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).

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 Operational Air Quality Impacts section above.

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	
2021				
Demolition	23	<1	0	23
Site Preparation	3	<1	0	3
Grading	36	<1	0	36
Building Construction	124	<1	0	125
2022				
Building Construction	44	<1	0	45
Paving	8	<1	0	9
Architectural Coating	5	<1	0	5
Total Emissions for the Entire Construction Process				245 MT CO_2e
Total Construction Emissions Amortized over 30 Years				8 MT CO_2e

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

Table O: Long-Term Operational Greenhouse Gas Emissions

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	8	8	<1	0	8
Operational Emissions						
Area	0	<1	<1	<1	0	<1
Energy	0	185	185	<1	<1	198
Mobile	0	321	321	<1	0	321
Warehouse Forklifts	0	35	35	<1	0	35
Waste	10	0	10	<1	0	26
Water	3	34	3	<1	<1	47
Total Project Emissions	**13**	**582**	**596**	**0**	**0**	**623**
SCAQMD Tier 3 Threshold						**3,000**
Exceeds Threshold?						**No**

Source: Compiled by LSA Associates, Inc. (July 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 623 MT CO_2e/yr, which is less than the SCAQMD Tier 3 threshold of 3,000 MT CO_2e/yr. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Scoping Plan Consistency

CARB's Scoping Plan (CARB 2017) outlines the main State strategies for meeting the emission reduction targets and to reduce GHGs that contribute to GCC. 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 GHG 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 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 GHG emissions. The proposed project would comply with CALGreen 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 proposed project would promote initiatives to reduce vehicle trips and VMT 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 P below.

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.

ENERGY

The proposed project would increase the demand for electricity, natural gas, and gasoline when compared to the existing vacant condition of the site. The discussion and analysis provided below is based on the data included in the CalEEMod output, which is included in Appendix A.

Construction-Period Energy Use

The anticipated construction schedule assumes that the proposed project would be built over approximately 6 to 8 months. The proposed project would require demolition, site preparation, grading, building construction, paving, and architectural coating during construction.

Construction of the proposed project would require energy for the manufacture and transportation of building materials and for preparation of the site for grading activities and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities.

Table P: 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 panels on roofs, as specified in Title 24 Part 6 and the CALGreen standards.
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and 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 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/quasipublic lands.	***Consistent***. The proposed project would provide outdoor electric outlets to facilitate the use of electric 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. (July 2020).
CALGreen = California Green Building Standards Code
LEED = Leadership in Energy and Environmental Design
MWELO = Model Water Efficient Landscape Ordinance
PV = photovoltaic

Construction activities are not anticipated to result in an inefficient use of energy, as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the proposed project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant, and no mitigation would be required.

Operational Energy Use

Energy use includes both direct and indirect sources of emissions. Direct sources of emissions include on-site natural gas usage for heating, while indirect sources include electricity generated by off-site power plants. Natural gas use in CalEEMod is measured in units of a thousand British thermal units (kBTU) per year; however, this analysis converts the results to natural gas in units of therms. Electricity use in CalEEMod is measured in kilowatt hours (kWh) per year.

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

For natural gas, uses are likewise categorized as Title 24 or Non-Title 24. Title 24 uses include building heating and hot water end uses. Non-Title 24 natural gas uses include appliances.

Table Q, below, shows the estimated potential increased electricity, natural gas, gasoline, and diesel demand associated with the proposed project. The electricity and natural gas rates are from the CalEEMod analysis, while the gasoline and diesel rates are based on the traffic impact analysis and VMT analysis (see the worksheet in Appendix B) in conjunction with United States Department of Transportation fuel efficiency data.

Table Q: Estimated Annual Energy Use of the Proposed Project

Land Use	Electricity Use (kWh per year)	Natural Gas Use (kBTU per year)	Gasoline (gallons per year)	Diesel (gallons per year)
Industrial	416,150	1,332,090	21,797	26,640

Source: Compiled by LSA Associates, Inc. (July 2020).
kBTU = thousand British thermal units
kWh = kilowatt hours

As shown in Table Q, the estimated potential increased electricity demand associated with the proposed project is 416,150 kWh per year. In 2018, California consumed approximately 281,120

gigawatt hours (GWh) or 281,120,200,000 kWh.[1] Of this total, San Bernardino County consumed 15,633 GWh or 15,633,655,242 kWh. Therefore, electricity demand associated with the proposed project would be less than 0.003 percent of San Bernardino County's total electricity demand.

As shown in Table Q, the estimated potential increased natural gas demand associated with the proposed project is 1,332,090 kBTU per year or 13,321 therms.[2] In 2018, California consumed approximately 12,571,000,000 therms, while San Bernardino County consumed approximately 500,082,474 therms. Therefore, natural gas demand associated with the proposed project would be less than 0.003 percent of San Bernardino County's total natural gas demand.

Furthermore, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 mpg in 1980 to 22.0 mpg in 2015 (DOT 2017). The average fuel economy for heavy-duty trucks in the United States has also steadily increased, from 5.7 mpg in 2013 to 6.7 mpg in 2019 (CEC 2015).

Using the EPA gasoline fuel economy estimates for 2015; the California diesel fuel economy estimates for 2019; and the traffic data, including the estimated truck trips, from the project traffic analyses, the proposed project would result in the annual consumption of approximately 21,797 gallons of gasoline and 26,640 gallons of diesel fuel. In 2015, vehicles in California consumed approximately 15.1 billion gallons of gasoline and 4.2 billion gallons of diesel fuel (CEC 2020). Therefore, gasoline and diesel demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline and diesel fuel consumption in California and, by extension, in San Bernardino County.

In addition, automobiles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. Similarly, the fuel efficiency of the trucks associated with project operations would also increase throughout the life of the project. As such, the fuel efficiency of vehicles associated with project operations would increase throughout the life of the proposed project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

Operational Energy Use Summary

As described above, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Impacts would be less than significant, and no mitigation measures would be necessary.

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1 California Energy Commission. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed July 2020).

2 California Energy Commission. Gas Consumption by County. Website: www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed July 2020).

Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources, and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impacts to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's *2019 Integrated Energy Policy Report*. In addition, as indicated above, the proposed project would comply with Title 24 and CALGreen standards and be consistent with Municipal Code requirements. Thus, as shown above, the proposed project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and not result in any irreversible or irretrievable commitments of energy. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant, and no mitigation measures would be necessary.

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.

The proposed project includes a General Plan Amendment and Zone Change from General Commercial (C-2) to Light Industrial (M-1). The proposed industrial use would result in traffic impacts similar to the existing designation and General Commercial 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 designations included in the City's air quality plan assumptions. 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 J, 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 ft (0.6 m) 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 ft (30 m) 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 the following:

- Recycle/reuse at least 50 percent of the construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) (CalRecycle 2020).

- 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 (CalRecyle 2019).

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.

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 proposed project's long-term operational emissions would not exceed the SCAQMD's criteria pollutant thresholds. As noted above, cumulative projects would all be required to comply with the SCAQMD's operational emissions thresholds, which are designed to accomplish regional emissions goals. Therefore, the proposed project would not have a significant long-term cumulative air quality impact.

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, the project would produce GHG emissions well below the SCAQMD Tier 3 threshold. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG and would have a less significant cumulative GHG emissions impact.

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APPENDIX A

CALEEMOD PRINTOUTS

Slover-Juniper Industrial Building

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	41.00	1000sqft	0.84	41,000.00	0
Other Non-Asphalt Surfaces	14.63	1000sqft	0.34	0.00	0
Parking Lot	36.45	1000sqft	0.84	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	601.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity factor adjusted for 2017 SCE Power Content Label assuming 32% renewables (601.59 lb/MWh).

Land Use - Building area per traffic analysis. "Other Non-Asphalt Surfaces" represents the landscaping

Construction Phase - It was assumed that architectural coatings would be applied during building construction.

Trips and VMT -

Demolition -

Grading -

Architectural Coating - Assume all coatings comply with SCAQMD Rule 1113

Vehicle Trips - Weekday trip rate from traffic study, weekend rates left at the CalEEMod defaults.

Area Coating - Assume all coatings comply with SCAQMD Rule 1113

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

Operational Off-Road Equipment - Assume two diesel forklifts would be in use.

Fleet Mix - Fleet mix based on project traffic study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Table Name	Column Name	Default Value	New Value
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
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	37.00
tblConstructionPhase	NumDays	220.00	140.00
tblConstructionPhase	PhaseEndDate	7/12/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/14/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/28/2022	3/8/2022
tblConstructionPhase	PhaseStartDate	6/29/2022	1/3/2022
tblConstructionPhase	PhaseStartDate	6/15/2022	2/23/2022
tblFleetMix	HHD	0.03	0.08
tblFleetMix	LDA	0.55	0.68
tblFleetMix	LDT1	0.04	0.09
tblFleetMix	LDT2	0.20	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.8630e-003	0.02

tblFleetMix	MCY	4.8030e-003	0.00
tblFleetMix	MDV	0.12	0.08
tblFleetMix	MH	8.9600e-004	0.00
tblFleetMix	MHD	0.02	0.01
tblFleetMix	OBUS	2.0870e-003	0.00
tblFleetMix	SBUS	7.0800e-004	0.00
tblFleetMix	UBUS	1.8180e-003	0.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	14,630.00	0.00
tblLandUse	LandUseSquareFeet	36,450.00	0.00
tblLandUse	LotAcreage	0.94	0.84
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	601.59
tblTripsAndVMT	HaulingTripNumber	813.00	812.00
tblVehicleTrips	WD_TR	6.97	4.96

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1416	1.2583	1.0099	2.1400e-003	0.0440	0.0568	0.1007	0.0162	0.0540	0.0702	0.0000	186.1765	186.1765	0.0323	0.0000	186.9835
2022	0.1410	0.3561	0.3749	6.8000e-004	5.7000e-003	0.0170	0.0227	1.5300e-003	0.0163	0.0178	0.0000	58.1206	58.1206	0.0105	0.0000	58.3825
Maximum	**0.1416**	**1.2583**	**1.0099**	**2.1400e-003**	**0.0440**	**0.0568**	**0.1007**	**0.0162**	**0.0540**	**0.0702**	**0.0000**	**186.1765**	**186.1765**	**0.0323**	**0.0000**	**186.9835**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1416	1.2583	1.0099	2.1400e-003	0.0312	0.0568	0.0880	0.0104	0.0540	0.0644	0.0000	186.1764	186.1764	0.0323	0.0000	186.9834
2022	0.1410	0.3561	0.3749	6.8000e-004	5.7000e-003	0.0170	0.0227	1.5300e-003	0.0163	0.0178	0.0000	58.1205	58.1205	0.0105	0.0000	58.3824
Maximum	**0.1416**	**1.2583**	**1.0099**	**2.1400e-003**	**0.0312**	**0.0568**	**0.0880**	**0.0104**	**0.0540**	**0.0644**	**0.0000**	**186.1764**	**186.1764**	**0.0323**	**0.0000**	**186.9834**

	ROG	NOx	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**	**25.64**	**0.00**	**10.31**	**32.71**	**0.00**	**6.58**	**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	**7-1-2021**	**9-30-2021**	0.7645	0.7645
2	**10-1-2021**	**12-31-2021**	0.6207	0.6207
3	**1-1-2022**	**3-31-2022**	0.5025	0.5025
		Highest	0.7645	0.7645

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1578	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Energy	7.1800e-003	0.0653	0.0549	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	184.6430	184.6430	6.8400e-003	2.4400e-003	185.5398

Mobile	0.0461	0.5355	0.7123	3.4300e-003	0.2646	2.9300e-003	0.2676	0.0708	2.7500e-003	0.0736	0.0000	320.9588	320.9588	0.0136	0.0000	321.2980
Offroad	0.0295	0.2743	0.3000	4.0000e-004		0.0182	0.0182		0.0167	0.0167	0.0000	34.9157	34.9157	0.0113	0.0000	35.1981
Waste						0.0000	0.0000		0.0000	0.0000	10.3201	0.0000	10.3201	0.6099	0.0000	25.5675
Water						0.0000	0.0000		0.0000	0.0000	3.0080	33.6881	36.6961	0.3106	7.6300e-003	46.7343
Total	**0.2406**	**0.8751**	**1.0683**	**4.2200e-003**	**0.2646**	**0.0261**	**0.2907**	**0.0708**	**0.0244**	**0.0952**	**13.3280**	**574.2079**	**587.5359**	**0.9522**	**0.0101**	**614.3401**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1578	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Energy	7.1800e-003	0.0653	0.0549	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	184.6430	184.6430	6.8400e-003	2.4400e-003	185.5398
Mobile	0.0461	0.5355	0.7123	3.4300e-003	0.2646	2.9300e-003	0.2676	0.0708	2.7500e-003	0.0736	0.0000	320.9588	320.9588	0.0136	0.0000	321.2980
Offroad	0.0295	0.2743	0.3000	4.0000e-004		0.0182	0.0182		0.0167	0.0167	0.0000	34.9157	34.9157	0.0113	0.0000	35.1981
Waste						0.0000	0.0000		0.0000	0.0000	10.3201	0.0000	10.3201	0.6099	0.0000	25.5675
Water						0.0000	0.0000		0.0000	0.0000	3.0080	33.6881	36.6961	0.3106	7.6300e-003	46.7343
Total	**0.2406**	**0.8751**	**1.0683**	**4.2200e-003**	**0.2646**	**0.0261**	**0.2907**	**0.0708**	**0.0244**	**0.0952**	**13.3280**	**574.2079**	**587.5359**	**0.9522**	**0.0101**	**614.3401**

	ROG	NOx	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	Demolition	Demolition	7/1/2021	7/28/2021	5	20	
2	Site Preparation	Site Preparation	7/29/2021	8/2/2021	5	3	
3	Grading	Grading	8/3/2021	8/10/2021	5	6	
4	Building Construction	Building Construction	8/11/2021	2/22/2022	5	140	
5	Paving	Paving	2/23/2022	3/8/2022	5	10	
6	Architectural Coating	Architectural Coating	1/3/2022	2/22/2022	5	37	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 61,500; Non-Residential Outdoor: 20,500; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56

Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Demolition	5	13.00	0.00	7.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	812.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	17.00	7.00	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	3.00	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 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4000e-004	0.0000	7.4000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060

Total	**0.0199**	**0.1970**	**0.1449**	**2.4000e-004**	**7.4000e-004**	**0.0104**	**0.0112**	**1.1000e-004**	**9.7100e-003**	**9.8200e-003**	**0.0000**	**21.0713**	**21.0713**	**5.3900e-003**	**0.0000**	**21.2060**

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	3.0000e-005	9.4000e-004	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2627	0.2627	2.0000e-005	0.0000	0.2631
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.0000e-004	4.5400e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2437	1.2437	3.0000e-005	0.0000	1.2445
Total	**5.7000e-004**	**1.3400e-003**	**4.7500e-003**	**1.0000e-005**	**1.4900e-003**	**1.0000e-005**	**1.5000e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.5063**	**1.5063**	**5.0000e-005**	**0.0000**	**1.5076**

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					3.3000e-004	0.0000	3.3000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
Total	**0.0199**	**0.1970**	**0.1449**	**2.4000e-004**	**3.3000e-004**	**0.0104**	**0.0107**	**5.0000e-005**	**9.7100e-003**	**9.7600e-003**	**0.0000**	**21.0713**	**21.0713**	**5.3900e-003**	**0.0000**	**21.2060**

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	3.0000e-005	9.4000e-004	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2627	0.2627	2.0000e-005	0.0000	0.2631
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.0000e-004	4.5400e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2437	1.2437	3.0000e-005	0.0000	1.2445
Total	**5.7000e-004**	**1.3400e-003**	**4.7500e-003**	**1.0000e-005**	**1.4900e-003**	**1.0000e-005**	**1.5000e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.5063**	**1.5063**	**5.0000e-005**	**0.0000**	**1.5076**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.3200e-003**	**0.0274**	**0.0161**	**4.0000e-005**	**2.3900e-003**	**1.0500e-003**	**3.4400e-003**	**2.6000e-004**	**9.7000e-004**	**1.2300e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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	5.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1148	0.1148	0.0000	0.0000	0.1149
Total	**5.0000e-005**	**4.0000e-005**	**4.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1148**	**0.1148**	**0.0000**	**0.0000**	**0.1149**

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					1.0700e-003	0.0000	1.0700e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3200e-003	0.0274	0.0161	4.0000e-005		1.0500e-003	1.0500e-003		9.7000e-004	9.7000e-004	0.0000	3.2290	3.2290	1.0400e-003	0.0000	3.2551
Total	**2.3200e-003**	**0.0274**	**0.0161**	**4.0000e-005**	**1.0700e-003**	**1.0500e-003**	**2.1200e-003**	**1.2000e-004**	**9.7000e-004**	**1.0900e-003**	**0.0000**	**3.2290**	**3.2290**	**1.0400e-003**	**0.0000**	**3.2551**

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	5.0000e-005	4.0000e-005	4.2000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1148	0.1148	0.0000	0.0000	0.1149
Total	**5.0000e-005**	**4.0000e-005**	**4.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1148**	**0.1148**	**0.0000**	**0.0000**	**0.1149**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0200	0.0000	0.0200	0.0102	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
Total	**5.4800e-003**	**0.0606**	**0.0293**	**6.0000e-005**	**0.0200**	**2.7500e-003**	**0.0228**	**0.0102**	**2.5300e-003**	**0.0127**	**0.0000**	**5.4312**	**5.4312**	**1.7600e-003**	**0.0000**	**5.4751**

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	3.1200e-003	0.1086	0.0239	3.1000e-004	6.9800e-003	3.3000e-004	7.3100e-003	1.9200e-003	3.2000e-004	2.2300e-003	0.0000	30.4692	30.4692	2.2000e-003	0.0000	30.5242
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2870	0.2870	1.0000e-005	0.0000	0.2872
Total	**3.2400e-003**	**0.1087**	**0.0250**	**3.1000e-004**	**7.3100e-003**	**3.3000e-004**	**7.6400e-003**	**2.0100e-003**	**3.2000e-004**	**2.3200e-003**	**0.0000**	**30.7562**	**30.7562**	**2.2100e-003**	**0.0000**	**30.8113**

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					9.0100e-003	0.0000	9.0100e-003	4.5700e-003	0.0000	4.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4800e-003	0.0606	0.0293	6.0000e-005		2.7500e-003	2.7500e-003		2.5300e-003	2.5300e-003	0.0000	5.4312	5.4312	1.7600e-003	0.0000	5.4751
Total	**5.4800e-003**	**0.0606**	**0.0293**	**6.0000e-005**	**9.0100e-003**	**2.7500e-003**	**0.0118**	**4.5700e-003**	**2.5300e-003**	**7.1000e-003**	**0.0000**	**5.4312**	**5.4312**	**1.7600e-003**	**0.0000**	**5.4751**

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	3.1200e-003	0.1086	0.0239	3.1000e-004	6.9800e-003	3.3000e-004	7.3100e-003	1.9200e-003	3.2000e-004	2.2300e-003	0.0000	30.4692	30.4692	2.2000e-003	0.0000	30.5242
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2870	0.2870	1.0000e-005	0.0000	0.2872
Total	**3.2400e-003**	**0.1087**	**0.0250**	**3.1000e-004**	**7.3100e-003**	**3.3000e-004**	**7.6400e-003**	**2.0100e-003**	**3.2000e-004**	**2.3200e-003**	**0.0000**	**30.7562**	**30.7562**	**2.2100e-003**	**0.0000**	**30.8113**

3.5 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	0.1053	0.8254	0.7500	1.2900e-003		0.0421	0.0421		0.0403	0.0403	0.0000	106.9391	106.9391	0.0210	0.0000	107.4651

Total	**0.1053**	**0.8254**	**0.7500**	**1.2900e-003**		**0.0421**	**0.0421**		**0.0403**	**0.0403**	**0.0000**	**106.9391**	**106.9391**	**0.0210**	**0.0000**	**107.4651**

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	1.0400e-003	0.0351	8.8600e-003	9.0000e-005	2.2700e-003	7.0000e-005	2.3400e-003	6.6000e-004	7.0000e-005	7.2000e-004	0.0000	8.7532	8.7532	5.6000e-004	0.0000	8.7673
Worker	3.6400e-003	2.7000e-003	0.0306	9.0000e-005	9.6100e-003	7.0000e-005	9.6800e-003	2.5500e-003	7.0000e-005	2.6200e-003	0.0000	8.3755	8.3755	2.3000e-004	0.0000	8.3811
Total	**4.6800e-003**	**0.0378**	**0.0394**	**1.8000e-004**	**0.0119**	**1.4000e-004**	**0.0120**	**3.2100e-003**	**1.4000e-004**	**3.3400e-003**	**0.0000**	**17.1287**	**17.1287**	**7.9000e-004**	**0.0000**	**17.1484**

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	0.1053	0.8254	0.7500	1.2900e-003		0.0421	0.0421		0.0403	0.0403	0.0000	106.9390	106.9390	0.0210	0.0000	107.4650
Total	**0.1053**	**0.8254**	**0.7500**	**1.2900e-003**		**0.0421**	**0.0421**		**0.0403**	**0.0403**	**0.0000**	**106.9390**	**106.9390**	**0.0210**	**0.0000**	**107.4650**

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	1.0400e-003	0.0351	8.8600e-003	9.0000e-005	2.2700e-003	7.0000e-005	2.3400e-003	6.6000e-004	7.0000e-005	7.2000e-004	0.0000	8.7532	8.7532	5.6000e-004	0.0000	8.7673
Worker	3.6400e-003	2.7000e-003	0.0306	9.0000e-005	9.6100e-003	7.0000e-005	9.6800e-003	2.5500e-003	7.0000e-005	2.6200e-003	0.0000	8.3755	8.3755	2.3000e-004	0.0000	8.3811
Total	**4.6800e-003**	**0.0378**	**0.0394**	**1.8000e-004**	**0.0119**	**1.4000e-004**	**0.0120**	**3.2100e-003**	**1.4000e-004**	**3.3400e-003**	**0.0000**	**17.1287**	**17.1287**	**7.9000e-004**	**0.0000**	**17.1484**

3.5 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	0.0343	0.2702	0.2655	4.6000e-004		0.0130	0.0130		0.0125	0.0125	0.0000	38.4208	38.4208	7.4100e-003	0.0000	38.6061
Total	**0.0343**	**0.2702**	**0.2655**	**4.6000e-004**		**0.0130**	**0.0130**		**0.0125**	**0.0125**	**0.0000**	**38.4208**	**38.4208**	**7.4100e-003**	**0.0000**	**38.6061**

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	3.5000e-004	0.0120	3.0100e-003	3.0000e-005	8.2000e-004	2.0000e-005	8.4000e-004	2.4000e-004	2.0000e-005	2.6000e-004	0.0000	3.1166	3.1166	2.0000e-004	0.0000	3.1215
Worker	1.2300e-003	8.8000e-004	0.0101	3.0000e-005	3.4500e-003	3.0000e-005	3.4800e-003	9.2000e-004	2.0000e-005	9.4000e-004	0.0000	2.9009	2.9009	7.0000e-005	0.0000	2.9027
Total	**1.5800e-003**	**0.0128**	**0.0132**	**6.0000e-005**	**4.2700e-003**	**5.0000e-005**	**4.3200e-003**	**1.1600e-003**	**4.0000e-005**	**1.2000e-003**	**0.0000**	**6.0175**	**6.0175**	**2.7000e-004**	**0.0000**	**6.0242**

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	0.0343	0.2702	0.2655	4.6000e-004		0.0130	0.0130		0.0125	0.0125	0.0000	38.4208	38.4208	7.4100e-003	0.0000	38.6061
Total	**0.0343**	**0.2702**	**0.2655**	**4.6000e-004**		**0.0130**	**0.0130**		**0.0125**	**0.0125**	**0.0000**	**38.4208**	**38.4208**	**7.4100e-003**	**0.0000**	**38.6061**

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	3.5000e-004	0.0120	3.0100e-003	3.0000e-005	8.2000e-004	2.0000e-005	8.4000e-004	2.4000e-004	2.0000e-005	2.6000e-004	0.0000	3.1166	3.1166	2.0000e-004	0.0000	3.1215
Worker	1.2300e-003	8.8000e-004	0.0101	3.0000e-005	3.4500e-003	3.0000e-005	3.4800e-003	9.2000e-004	2.0000e-005	9.4000e-004	0.0000	2.9009	2.9009	7.0000e-005	0.0000	2.9027
Total	**1.5800e-003**	**0.0128**	**0.0132**	**6.0000e-005**	**4.2700e-003**	**5.0000e-005**	**4.3200e-003**	**1.1600e-003**	**4.0000e-005**	**1.2000e-003**	**0.0000**	**6.0175**	**6.0175**	**2.7000e-004**	**0.0000**	**6.0242**

3.6 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	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	1.1000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.8100e-003**	**0.0467**	**0.0585**	**9.0000e-005**		**2.4400e-003**	**2.4400e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

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	2.9000e-004	2.1000e-004	2.4200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6918	0.6918	2.0000e-005	0.0000	0.6922
Total	**2.9000e-004**	**2.1000e-004**	**2.4200e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.6918**	**0.6918**	**2.0000e-005**	**0.0000**	**0.6922**

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	4.7100e-003	0.0467	0.0585	9.0000e-005		2.4400e-003	2.4400e-003		2.2500e-003	2.2500e-003	0.0000	7.7550	7.7550	2.4600e-003	0.0000	7.8165
Paving	1.1000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.8100e-003**	**0.0467**	**0.0585**	**9.0000e-005**		**2.4400e-003**	**2.4400e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**7.7550**	**7.7550**	**2.4600e-003**	**0.0000**	**7.8165**

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	2.9000e-004	2.1000e-004	2.4200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6918	0.6918	2.0000e-005	0.0000	0.6922
Total	**2.9000e-004**	**2.1000e-004**	**2.4200e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.6918**	**0.6918**	**2.0000e-005**	**0.0000**	**0.6922**

3.7 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	0.0950					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	3.7800e-003	0.0261	0.0336	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7235	4.7235	3.1000e-004	0.0000	4.7312
Total	**0.0988**	**0.0261**	**0.0336**	**5.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**4.7235**	**4.7235**	**3.1000e-004**	**0.0000**	**4.7312**

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	2.2000e-004	1.5000e-004	1.7900e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5119	0.5119	1.0000e-005	0.0000	0.5123
Total	**2.2000e-004**	**1.5000e-004**	**1.7900e-003**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5119**	**0.5119**	**1.0000e-005**	**0.0000**	**0.5123**

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	0.0950					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7800e-003	0.0261	0.0336	5.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	4.7235	4.7235	3.1000e-004	0.0000	4.7312
Total	**0.0988**	**0.0261**	**0.0336**	**5.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**4.7235**	**4.7235**	**3.1000e-004**	**0.0000**	**4.7312**

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	2.2000e-004	1.5000e-004	1.7900e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5119	0.5119	1.0000e-005	0.0000	0.5123
Total	**2.2000e-004**	**1.5000e-004**	**1.7900e-003**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5119**	**0.5119**	**1.0000e-005**	**0.0000**	**0.5123**

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	0.0461	0.5355	0.7123	3.4300e-003	0.2646	2.9300e-003	0.2676	0.0708	2.7500e-003	0.0736	0.0000	320.9588	320.9588	0.0136	0.0000	321.2980
Unmitigated	0.0461	0.5355	0.7123	3.4300e-003	0.2646	2.9300e-003	0.2676	0.0708	2.7500e-003	0.0736	0.0000	320.9588	320.9588	0.0136	0.0000	321.2980

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

General Light Industry	203.36	54.12	27.88	695,113	695,113
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	203.36	54.12	27.88	695,113	695,113

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-[illegible]	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
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
General Light Industry	0.678800	0.089700	0.020000	0.078700	0.019700	0.019700	0.010000	0.083400	0.000000	0.000000	0.000000	0.000000	0.000000
Other Non-Asphalt Surfaces	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896
Parking Lot	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896

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	113.5576	113.5576	5.4700e-003	1.1300e-003	114.0320
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	113.5576	113.5576	5.4700e-003	1.1300e-003	114.0320

NaturalGas Mitigated	7.1800e-003	0.0653	0.0549	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	71.0854	71.0854	1.3600e-003	1.3000e-003	71.5078
NaturalGas Unmitigated	7.1800e-003	0.0653	0.0549	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	71.0854	71.0854	1.3600e-003	1.3000e-003	71.5078

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					
General Light Industry	1.33209e+006	7.1800e-003	0.0653	0.0549	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	71.0854	71.0854	1.3600e-003	1.3000e-003	71.5078
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		**7.1800e-003**	**0.0653**	**0.0549**	**3.9000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**71.0854**	**71.0854**	**1.3600e-003**	**1.3000e-003**	**71.5078**

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					
General Light Industry	1.33209e+006	7.1800e-003	0.0653	0.0549	3.9000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	71.0854	71.0854	1.3600e-003	1.3000e-003	71.5078
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		**7.1800e-003**	**0.0653**	**0.0549**	**3.9000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**71.0854**	**71.0854**	**1.3600e-003**	**1.3000e-003**	**71.5078**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	416150	113.5576	5.4700e-003	1.1300e-003	114.0320
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		**113.5576**	**5.4700e-003**	**1.1300e-003**	**114.0320**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	416150	113.5576	5.4700e-003	1.1300e-003	114.0320
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		**113.5576**	**5.4700e-003**	**1.1300e-003**	**114.0320**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1578	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Unmitigated	0.1578	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003

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	9.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1482					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Total	**0.1578**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2900e-003**	**2.2900e-003**	**1.0000e-005**	**0.0000**	**2.4400e-003**

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	9.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1482					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2900e-003	2.2900e-003	1.0000e-005	0.0000	2.4400e-003
Total	**0.1578**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2900e-003**	**2.2900e-003**	**1.0000e-005**	**0.0000**	**2.4400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	36.6961	0.3106	7.6300e-003	46.7343
Unmitigated	36.6961	0.3106	7.6300e-003	46.7343

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	9.48125 / 0	36.6961	0.3106	7.6300e-003	46.7343

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		**36.6961**	**0.3106**	**7.6300e-003**	**46.7343**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	9.48125 / 0	36.6961	0.3106	7.6300e-003	46.7343
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		**36.6961**	**0.3106**	**7.6300e-003**	**46.7343**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.3201	0.6099	0.0000	25.5675

Unmitigated	10.3201	0.6099	0.0000	25.5675

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	50.84	10.3201	0.6099	0.0000	25.5675
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		**10.3201**	**0.6099**	**0.0000**	**25.5675**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	50.84	10.3201	0.6099	0.0000	25.5675
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		**10.3201**	**0.6099**	**0.0000**	**25.5675**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	2	8.00	260	89	0.20	Diesel

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0295	0.2743	0.3000	4.0000e-004		0.0182	0.0182		0.0167	0.0167	0.0000	34.9157	34.9157	0.0113	0.0000	35.1981
Total	**0.0295**	**0.2743**	**0.3000**	**4.0000e-004**		**0.0182**	**0.0182**		**0.0167**	**0.0167**	**0.0000**	**34.9157**	**34.9157**	**0.0113**	**0.0000**	**35.1981**

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

Slover-Juniper Industrial Building

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	41.00	1000sqft	0.84	41,000.00	0
Other Non-Asphalt Surfaces	14.63	1000sqft	0.34	0.00	0
Parking Lot	36.45	1000sqft	0.84	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	601.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity factor adjusted for 2017 SCE Power Content Label assuming 32% renewables (601.59 lb/MWh).

Land Use - Building area per traffic analysis. "Other Non-Asphalt Surfaces" represents the landscaping

Construction Phase - It was assumed that architectural coatings would be applied during building construction.

Trips and VMT -

Demolition -

Grading -

Architectural Coating - Assume all coatings comply with SCAQMD Rule 1113

Vehicle Trips - Weekday trip rate from traffic study, weekend rates left at the CalEEMod defaults.

Area Coating - Assume all coatings comply with SCAQMD Rule 1113

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

Operational Off-Road Equipment - Assume two diesel forklifts would be in use.

Fleet Mix - Fleet mix based on project traffic study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Table Name	Column Name	Default Value	New Value
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
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	37.00
tblConstructionPhase	NumDays	220.00	140.00
tblConstructionPhase	PhaseEndDate	7/12/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/14/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/28/2022	3/8/2022
tblConstructionPhase	PhaseStartDate	6/29/2022	1/3/2022
tblConstructionPhase	PhaseStartDate	6/15/2022	2/23/2022
tblFleetMix	HHD	0.03	0.08
tblFleetMix	LDA	0.55	0.68
tblFleetMix	LDT1	0.04	0.09
tblFleetMix	LDT2	0.20	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.8630e-003	0.02

tblFleetMix	MCY	4.8030e-003	0.00
tblFleetMix	MDV	0.12	0.08
tblFleetMix	MH	8.9600e-004	0.00
tblFleetMix	MHD	0.02	0.01
tblFleetMix	OBUS	2.0870e-003	0.00
tblFleetMix	SBUS	7.0800e-004	0.00
tblFleetMix	UBUS	1.8180e-003	0.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	14,630.00	0.00
tblLandUse	LandUseSquareFeet	36,450.00	0.00
tblLandUse	LotAcreage	0.94	0.84
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	601.59
tblTripsAndVMT	HaulingTripNumber	813.00	812.00
tblVehicleTrips	WD_TR	6.97	4.96

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.8975	55.3303	17.8869	0.1255	9.1504	1.0423	10.1763	4.0634	0.9727	5.0113	0.0000	13,383.1348	13,383.1348	1.4431	0.0000	13,419.2135
2022	7.2931	16.6986	17.0154	0.0319	0.2683	0.7867	1.0551	0.0722	0.7574	0.8296	0.0000	2,972.0411	2,972.0411	0.5459	0.0000	2,983.9587
Maximum	**7.2931**	**55.3303**	**17.8869**	**0.1255**	**9.1504**	**1.0423**	**10.1763**	**4.0634**	**0.9727**	**5.0113**	**0.0000**	**13,383.1348**	**13,383.1348**	**1.4431**	**0.0000**	**13,419.2135**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.8975	55.3303	17.8869	0.1255	5.4792	1.0423	6.5052	2.2011	0.9727	3.1490	0.0000	13,383.1348	13,383.1348	1.4431	0.0000	13,419.2135
2022	7.2931	16.6986	17.0154	0.0319	0.2683	0.7867	1.0551	0.0722	0.7574	0.8296	0.0000	2,972.0411	2,972.0411	0.5459	0.0000	2,983.9587
Maximum	**7.2931**	**55.3303**	**17.8869**	**0.1255**	**5.4792**	**1.0423**	**6.5052**	**2.2011**	**0.9727**	**3.1490**	**0.0000**	**13,383.1348**	**13,383.1348**	**1.4431**	**0.0000**	**13,419.2135**

	ROG	NOx	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**	**38.98**	**0.00**	**32.69**	**45.03**	**0.00**	**31.88**	**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	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Energy	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
Mobile	0.3489	3.6941	5.3638	0.0253	1.9185	0.0208	1.9393	0.5126	0.0195	0.5321		2,602.9535	2,602.9535	0.1067		2,605.6218
Offroad	0.2272	2.1098	2.3075	3.0600e-003		0.1398	0.1398		0.1286	0.1286		296.0617	296.0617	0.0958		298.4555
Total	**1.4802**	**6.1618**	**7.9812**	**0.0305**	**1.9185**	**0.1878**	**2.1063**	**0.5126**	**0.1753**	**0.6879**		**3,328.3955**	**3,328.3955**	**0.2108**	**7.8700e-003**	**3,336.0104**

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	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Energy	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
Mobile	0.3489	3.6941	5.3638	0.0253	1.9185	0.0208	1.9393	0.5126	0.0195	0.5321		2,602.9535	2,602.9535	0.1067		2,605.6218
Offroad	0.2272	2.1098	2.3075	3.0600e-003		0.1398	0.1398		0.1286	0.1286		296.0617	296.0617	0.0958		298.4555
Total	**1.4802**	**6.1618**	**7.9812**	**0.0305**	**1.9185**	**0.1878**	**2.1063**	**0.5126**	**0.1753**	**0.6879**		**3,328.3955**	**3,328.3955**	**0.2108**	**7.8700e-003**	**3,336.0104**

	ROG	NOx	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	Demolition	Demolition	7/1/2021	7/28/2021	5	20	
2	Site Preparation	Site Preparation	7/29/2021	8/2/2021	5	3	
3	Grading	Grading	8/3/2021	8/10/2021	5	6	
4	Building Construction	Building Construction	8/11/2021	2/22/2022	5	140	
5	Paving	Paving	2/23/2022	3/8/2022	5	10	
6	Architectural Coating	Architectural Coating	1/3/2022	2/22/2022	5	37	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 61,500; Non-Residential Outdoor: 20,500; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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

Demolition	5	13.00	0.00	7.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	812.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	17.00	7.00	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	3.00	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 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0738	0.0000	0.0738	0.0112	0.0000	0.0112			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.0738**	**1.0409**	**1.1147**	**0.0112**	**0.9715**	**0.9827**		**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

Unmitigated Construction Off-Site

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

Hauling	2.6600e-003	0.0908	0.0201	2.7000e-004	6.1100e-003	2.8000e-004	6.4000e-003	1.6800e-003	2.7000e-004	1.9500e-003		29.1642	29.1642	2.0600e-003		29.2156
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	0.0544	0.0355	0.4881	1.4400e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		143.8968	143.8968	3.8800e-003		143.9937
Total	**0.0571**	**0.1262**	**0.5082**	**1.7100e-003**	**0.1514**	**1.3600e-003**	**0.1528**	**0.0402**	**1.2600e-003**	**0.0415**		**173.0610**	**173.0610**	**5.9400e-003**		**173.2094**

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					0.0332	0.0000	0.0332	5.0300e-003	0.0000	5.0300e-003			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.0332**	**1.0409**	**1.0741**	**5.0300e-003**	**0.9715**	**0.9765**	**0.0000**	**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.6600e-003	0.0908	0.0201	2.7000e-004	6.1100e-003	2.8000e-004	6.4000e-003	1.6800e-003	2.7000e-004	1.9500e-003		29.1642	29.1642	2.0600e-003		29.2156
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	0.0544	0.0355	0.4881	1.4400e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		143.8968	143.8968	3.8800e-003		143.9937
Total	**0.0571**	**0.1262**	**0.5082**	**1.7100e-003**	**0.1514**	**1.3600e-003**	**0.1528**	**0.0402**	**1.2600e-003**	**0.0415**		**173.0610**	**173.0610**	**5.9400e-003**		**173.2094**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5908**	**0.7019**	**2.2926**	**0.1718**	**0.6457**	**0.8175**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0335	0.0218	0.3004	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5519	88.5519	2.3900e-003		88.6115
Total	**0.0335**	**0.0218**	**0.3004**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5519**	**88.5519**	**2.3900e-003**		**88.6115**

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					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**0.7158**	**0.7019**	**1.4177**	**0.0773**	**0.6457**	**0.7230**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0335	0.0218	0.3004	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5519	88.5519	2.3900e-003		88.6115
Total	**0.0335**	**0.0218**	**0.3004**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5519**	**88.5519**	**2.3900e-003**		**88.6115**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6749	0.0000	6.6749	3.3860	0.0000	3.3860			0.0000			0.0000

Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.6749**	**0.9158**	**7.5906**	**3.3860**	**0.8425**	**4.2285**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0285	35.0894	7.7510	0.1038	2.3637	0.1094	2.4731	0.6477	0.1047	0.7524		11,276.8335	11,276.8335	0.7947		11,296.7021
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	0.0419	0.0273	0.3755	1.1100e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.6898	110.6898	2.9800e-003		110.7644
Total	**1.0704**	**35.1167**	**8.1265**	**0.1049**	**2.4755**	**0.1102**	**2.5857**	**0.6773**	**0.1054**	**0.7828**		**11,387.5233**	**11,387.5233**	**0.7977**		**11,407.4665**

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					3.0037	0.0000	3.0037	1.5237	0.0000	1.5237			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**3.0037**	**0.9158**	**3.9194**	**1.5237**	**0.8425**	**2.3662**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0285	35.0894	7.7510	0.1038	2.3637	0.1094	2.4731	0.6477	0.1047	0.7524		11,276.8335	11,276.8335	0.7947		11,296.7021
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	0.0419	0.0273	0.3755	1.1100e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		110.6898	110.6898	2.9800e-003		110.7644
Total	**1.0704**	**35.1167**	**8.1265**	**0.1049**	**2.4755**	**0.1102**	**2.5857**	**0.6773**	**0.1054**	**0.7828**		**11,387.5233**	**11,387.5233**	**0.7977**		**11,407.4665**

3.5 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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0197	0.6704	0.1628	1.7700e-003	0.0448	1.3700e-003	0.0462	0.0129	1.3100e-003	0.0142		189.5206	189.5206	0.0117		189.8136
Worker	0.0712	0.0464	0.6383	1.8900e-003	0.1900	1.4100e-003	0.1914	0.0504	1.3000e-003	0.0517		188.1727	188.1727	5.0700e-003		188.2995
Total	**0.0908**	**0.7168**	**0.8011**	**3.6600e-003**	**0.2348**	**2.7800e-003**	**0.2376**	**0.0633**	**2.6100e-003**	**0.0659**		**377.6933**	**377.6933**	**0.0168**		**378.1131**

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0197	0.6704	0.1628	1.7700e-003	0.0448	1.3700e-003	0.0462	0.0129	1.3100e-003	0.0142		189.5206	189.5206	0.0117		189.8136
Worker	0.0712	0.0464	0.6383	1.8900e-003	0.1900	1.4100e-003	0.1914	0.0504	1.3000e-003	0.0517		188.1727	188.1727	5.0700e-003		188.2995
Total	**0.0908**	**0.7168**	**0.8011**	**3.6600e-003**	**0.2348**	**2.7800e-003**	**0.2376**	**0.0633**	**2.6100e-003**	**0.0659**		**377.6933**	**377.6933**	**0.0168**		**378.1131**

3.5 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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0185	0.6367	0.1541	1.7500e-003	0.0448	1.1900e-003	0.0460	0.0129	1.1400e-003	0.0140		187.8592	187.8592	0.0113		188.1421
Worker	0.0667	0.0419	0.5903	1.8200e-003	0.1900	1.3700e-003	0.1914	0.0504	1.2600e-003	0.0517		181.4347	181.4347	4.5800e-003		181.5494
Total	**0.0852**	**0.6787**	**0.7444**	**3.5700e-003**	**0.2348**	**2.5600e-003**	**0.2374**	**0.0633**	**2.4000e-003**	**0.0657**		**369.2939**	**369.2939**	**0.0159**		**369.6914**

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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0185	0.6367	0.1541	1.7500e-003	0.0448	1.1900e-003	0.0460	0.0129	1.1400e-003	0.0140		187.8592	187.8592	0.0113		188.1421
Worker	0.0667	0.0419	0.5903	1.8200e-003	0.1900	1.3700e-003	0.1914	0.0504	1.2600e-003	0.0517		181.4347	181.4347	4.5800e-003		181.5494
Total	**0.0852**	**0.6787**	**0.7444**	**3.5700e-003**	**0.2348**	**2.5600e-003**	**0.2374**	**0.0633**	**2.4000e-003**	**0.0657**		**369.2939**	**369.2939**	**0.0159**		**369.6914**

3.6 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356

Paving	0.2201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1612**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0589	0.0370	0.5208	1.6100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456		160.0895	160.0895	4.0500e-003		160.1906
Total	**0.0589**	**0.0370**	**0.5208**	**1.6100e-003**	**0.1677**	**1.2100e-003**	**0.1689**	**0.0445**	**1.1100e-003**	**0.0456**		**160.0895**	**160.0895**	**4.0500e-003**		**160.1906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.2201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1612**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0589	0.0370	0.5208	1.6100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456		160.0895	160.0895	4.0500e-003		160.1906
Total	**0.0589**	**0.0370**	**0.5208**	**1.6100e-003**	**0.1677**	**1.2100e-003**	**0.1689**	**0.0445**	**1.1100e-003**	**0.0456**		**160.0895**	**160.0895**	**4.0500e-003**		**160.1906**

3.7 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	5.1361					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	**5.3406**	**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	0.0118	7.4000e-003	0.1042	3.2000e-004	0.0335	2.4000e-004	0.0338	8.8900e-003	2.2000e-004	9.1200e-003		32.0179	32.0179	8.1000e-004		32.0381
Total	**0.0118**	**7.4000e-003**	**0.1042**	**3.2000e-004**	**0.0335**	**2.4000e-004**	**0.0338**	**8.8900e-003**	**2.2000e-004**	**9.1200e-003**		**32.0179**	**32.0179**	**8.1000e-004**		**32.0381**

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	5.1361					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	**5.3406**	**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	0.0118	7.4000e-003	0.1042	3.2000e-004	0.0335	2.4000e-004	0.0338	8.8900e-003	2.2000e-004	9.1200e-003		32.0179	32.0179	8.1000e-004		32.0381
Total	**0.0118**	**7.4000e-003**	**0.1042**	**3.2000e-004**	**0.0335**	**2.4000e-004**	**0.0338**	**8.8900e-003**	**2.2000e-004**	**9.1200e-003**		**32.0179**	**32.0179**	**8.1000e-004**		**32.0381**

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	0.3489	3.6941	5.3638	0.0253	1.9185	0.0208	1.9393	0.5126	0.0195	0.5321		2,602.9535	2,602.9535	0.1067		2,605.6218
Unmitigated	0.3489	3.6941	5.3638	0.0253	1.9185	0.0208	1.9393	0.5126	0.0195	0.5321		2,602.9535	2,602.9535	0.1067		2,605.6218

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	203.36	54.12	27.88	695,113	695,113
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	203.36	54.12	27.88	695,113	695,113

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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
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
General Light Industry	0.678800	0.089700	0.020000	0.078700	0.019700	0.019700	0.010000	0.083400	0.000000	0.000000	0.000000	0.000000	0.000000
Other Non-Asphalt Surfaces	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896
Parking Lot	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896

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	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
NaturalGas Unmitigated	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117

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					
General Light Industry	3649.56	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117

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		**0.0394**	**0.3578**	**0.3006**	**2.1500e-003**		**0.0272**	**0.0272**		**0.0272**	**0.0272**		**429.3602**	**429.3602**	**8.2300e-003**	**7.8700e-003**	**431.9117**

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					
General Light Industry	3.64956	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
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		**0.0394**	**0.3578**	**0.3006**	**2.1500e-003**		**0.0272**	**0.0272**		**0.0272**	**0.0272**		**429.3602**	**429.3602**	**8.2300e-003**	**7.8700e-003**	**431.9117**

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	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215

Unmitigated	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215

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	0.0521					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.8000e-004	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Total	**0.8647**	**9.0000e-005**	**9.4200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0202**	**0.0202**	**5.0000e-005**		**0.0215**

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	0.0521					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.8000e-004	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Total	**0.8647**	**9.0000e-005**	**9.4200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0202**	**0.0202**	**5.0000e-005**		**0.0215**

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
Forklifts	2	8.00	260	89	0.20	Diesel

UnMitigated/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
Equipment Type	lb/day										lb/day					
Forklifts	0.2272	2.1098	2.3075	3.0600e-003		0.1398	0.1398		0.1286	0.1286		296.0617	296.0617	0.0958		298.4555
Total	**0.2272**	**2.1098**	**2.3075**	**3.0600e-003**		**0.1398**	**0.1398**		**0.1286**	**0.1286**		**296.0617**	**296.0617**	**0.0958**		**298.4555**

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

Slover-Juniper Industrial Building

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	41.00	1000sqft	0.84	41,000.00	0
Other Non-Asphalt Surfaces	14.63	1000sqft	0.34	0.00	0
Parking Lot	36.45	1000sqft	0.84	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	601.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity factor adjusted for 2017 SCE Power Content Label assuming 32% renewables (601.59 lb/MWh).

Land Use - Building area per traffic analysis. "Other Non-Asphalt Surfaces" represents the landscaping

Construction Phase - It was assumed that architectural coatings would be applied during building construction.

Trips and VMT -

Demolition -

Grading -

Architectural Coating - Assume all coatings comply with SCAQMD Rule 1113

Vehicle Trips - Weekday trip rate from traffic study, weekend rates left at the CalEEMod defaults.

Area Coating - Assume all coatings comply with SCAQMD Rule 1113

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

Operational Off-Road Equipment - Assume two diesel forklifts would be in use.

Fleet Mix - Fleet mix based on project traffic study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Table Name	Column Name	Default Value	New Value
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
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	37.00
tblConstructionPhase	NumDays	220.00	140.00
tblConstructionPhase	PhaseEndDate	7/12/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/14/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/28/2022	3/8/2022
tblConstructionPhase	PhaseStartDate	6/29/2022	1/3/2022
tblConstructionPhase	PhaseStartDate	6/15/2022	2/23/2022
tblFleetMix	HHD	0.03	0.08
tblFleetMix	LDA	0.55	0.68
tblFleetMix	LDT1	0.04	0.09
tblFleetMix	LDT2	0.20	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.8630e-003	0.02

tblFleetMix	MCY	4.8030e-003	0.00
tblFleetMix	MDV	0.12	0.08
tblFleetMix	MH	8.9600e-004	0.00
tblFleetMix	MHD	0.02	0.01
tblFleetMix	OBUS	2.0870e-003	0.00
tblFleetMix	SBUS	7.0800e-004	0.00
tblFleetMix	UBUS	1.8180e-003	0.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialImported	0.00	500.00
tblLandUse	LandUseSquareFeet	14,630.00	0.00
tblLandUse	LandUseSquareFeet	36,450.00	0.00
tblLandUse	LotAcreage	0.94	0.84
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	601.59
tblTripsAndVMT	HaulingTripNumber	813.00	812.00
tblVehicleTrips	WD_TR	6.97	4.96

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9282	55.7655	18.3582	0.1237	9.1504	1.0423	10.1780	4.0634	0.9727	5.0128	0.0000	13,182.6378	13,182.6378	1.4727	0.0000	13,219.4552
2022	7.3023	16.7014	16.9657	0.0317	0.2683	0.7867	1.0551	0.0722	0.7575	0.8297	0.0000	2,953.6406	2,953.6406	0.5456	0.0000	2,965.5686
Maximum	**7.3023**	**55.7655**	**18.3582**	**0.1237**	**9.1504**	**1.0423**	**10.1780**	**4.0634**	**0.9727**	**5.0128**	**0.0000**	**13,182.6378**	**13,182.6378**	**1.4727**	**0.0000**	**13,219.4552**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9282	55.7655	18.3582	0.1237	5.4792	1.0423	6.5068	2.2011	0.9727	3.1505	0.0000	13,182.6378	13,182.6378	1.4727	0.0000	13,219.4552
2022	7.3023	16.7014	16.9657	0.0317	0.2683	0.7867	1.0551	0.0722	0.7575	0.8297	0.0000	2,953.6406	2,953.6406	0.5456	0.0000	2,965.5686
Maximum	**7.3023**	**55.7655**	**18.3582**	**0.1237**	**5.4792**	**1.0423**	**6.5068**	**2.2011**	**0.9727**	**3.1505**	**0.0000**	**13,182.6378**	**13,182.6378**	**1.4727**	**0.0000**	**13,219.4552**

	ROG	NOx	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**	**38.98**	**0.00**	**32.68**	**45.03**	**0.00**	**31.88**	**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	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Energy	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
Mobile	0.3366	3.7414	5.0018	0.0241	1.9185	0.0210	1.9395	0.5126	0.0197	0.5323		2,485.2474	2,485.2474	0.1081		2,487.9494
Offroad	0.2272	2.1098	2.3075	3.0600e-003		0.1398	0.1398		0.1286	0.1286		296.0617	296.0617	0.0958		298.4555
Total	**1.4679**	**6.2091**	**7.6193**	**0.0293**	**1.9185**	**0.1880**	**2.1064**	**0.5126**	**0.1755**	**0.6881**		**3,210.6894**	**3,210.6894**	**0.2121**	**7.8700e-003**	**3,218.3380**

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	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Energy	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
Mobile	0.3366	3.7414	5.0018	0.0241	1.9185	0.0210	1.9395	0.5126	0.0197	0.5323		2,485.2474	2,485.2474	0.1081		2,487.9494
Offroad	0.2272	2.1098	2.3075	3.0600e-003		0.1398	0.1398		0.1286	0.1286		296.0617	296.0617	0.0958		298.4555
Total	**1.4679**	**6.2091**	**7.6193**	**0.0293**	**1.9185**	**0.1880**	**2.1064**	**0.5126**	**0.1755**	**0.6881**		**3,210.6894**	**3,210.6894**	**0.2121**	**7.8700e-003**	**3,218.3380**

	ROG	NOx	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	Demolition	Demolition	7/1/2021	7/28/2021	5	20	
2	Site Preparation	Site Preparation	7/29/2021	8/2/2021	5	3	
3	Grading	Grading	8/3/2021	8/10/2021	5	6	
4	Building Construction	Building Construction	8/11/2021	2/22/2022	5	140	
5	Paving	Paving	2/23/2022	3/8/2022	5	10	
6	Architectural Coating	Architectural Coating	1/3/2022	2/22/2022	5	37	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 1.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 61,500; Non-Residential Outdoor: 20,500; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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

Demolition	5	13.00	0.00	7.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	812.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	17.00	7.00	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	3.00	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 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0738	0.0000	0.0738	0.0112	0.0000	0.0112			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.0738**	**1.0409**	**1.1147**	**0.0112**	**0.9715**	**0.9827**		**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

Unmitigated Construction Off-Site

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

Hauling	2.7300e-003	0.0919	0.0214	2.6000e-004	6.1100e-003	2.9000e-004	6.4000e-003	1.6800e-003	2.7000e-004	1.9500e-003		28.6635	28.6635	2.1300e-003		28.7168
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	0.0600	0.0390	0.4418	1.3500e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		134.9597	134.9597	3.6300e-003		135.0504
Total	**0.0627**	**0.1308**	**0.4632**	**1.6100e-003**	**0.1514**	**1.3700e-003**	**0.1528**	**0.0402**	**1.2600e-003**	**0.0415**		**163.6231**	**163.6231**	**5.7600e-003**		**163.7672**

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					0.0332	0.0000	0.0332	5.0300e-003	0.0000	5.0300e-003			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.0332**	**1.0409**	**1.0741**	**5.0300e-003**	**0.9715**	**0.9765**	**0.0000**	**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7300e-003	0.0919	0.0214	2.6000e-004	6.1100e-003	2.9000e-004	6.4000e-003	1.6800e-003	2.7000e-004	1.9500e-003		28.6635	28.6635	2.1300e-003		28.7168
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	0.0600	0.0390	0.4418	1.3500e-003	0.1453	1.0800e-003	0.1464	0.0385	9.9000e-004	0.0395		134.9597	134.9597	3.6300e-003		135.0504
Total	**0.0627**	**0.1308**	**0.4632**	**1.6100e-003**	**0.1514**	**1.3700e-003**	**0.1528**	**0.0402**	**1.2600e-003**	**0.0415**		**163.6231**	**163.6231**	**5.7600e-003**		**163.7672**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5908**	**0.7019**	**2.2926**	**0.1718**	**0.6457**	**0.8175**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0369	0.0240	0.2719	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		83.0521	83.0521	2.2300e-003		83.1079
Total	**0.0369**	**0.0240**	**0.2719**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**83.0521**	**83.0521**	**2.2300e-003**		**83.1079**

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					0.7158	0.0000	0.7158	0.0773	0.0000	0.0773			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**0.7158**	**0.7019**	**1.4177**	**0.0773**	**0.6457**	**0.7230**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0369	0.0240	0.2719	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		83.0521	83.0521	2.2300e-003		83.1079
Total	**0.0369**	**0.0240**	**0.2719**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**83.0521**	**83.0521**	**2.2300e-003**		**83.1079**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6749	0.0000	6.6749	3.3860	0.0000	3.3860			0.0000			0.0000

Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.6749**	**0.9158**	**7.5906**	**3.3860**	**0.8425**	**4.2285**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0551	35.5220	8.2580	0.1020	2.3637	0.1110	2.4748	0.6477	0.1062	0.7539		11,083.2112	11,083.2112	0.8245		11,103.8233
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	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849
Total	**1.1012**	**35.5520**	**8.5978**	**0.1031**	**2.4755**	**0.1119**	**2.5874**	**0.6773**	**0.1070**	**0.7843**		**11,187.0264**	**11,187.0264**	**0.8273**		**11,207.7082**

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					3.0037	0.0000	3.0037	1.5237	0.0000	1.5237			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**3.0037**	**0.9158**	**3.9194**	**1.5237**	**0.8425**	**2.3662**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0551	35.5220	8.2580	0.1020	2.3637	0.1110	2.4748	0.6477	0.1062	0.7539		11,083.2112	11,083.2112	0.8245		11,103.8233
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	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849
Total	**1.1012**	**35.5520**	**8.5978**	**0.1031**	**2.4755**	**0.1119**	**2.5874**	**0.6773**	**0.1070**	**0.7843**		**11,187.0264**	**11,187.0264**	**0.8273**		**11,207.7082**

3.5 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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0207	0.6688	0.1809	1.7200e-003	0.0448	1.4100e-003	0.0462	0.0129	1.3500e-003	0.0142		184.3617	184.3617	0.0125		184.6748
Worker	0.0784	0.0510	0.5778	1.7700e-003	0.1900	1.4100e-003	0.1914	0.0504	1.3000e-003	0.0517		176.4857	176.4857	4.7500e-003		176.6044
Total	**0.0991**	**0.7198**	**0.7587**	**3.4900e-003**	**0.2348**	**2.8200e-003**	**0.2376**	**0.0633**	**2.6500e-003**	**0.0659**		**360.8474**	**360.8474**	**0.0173**		**361.2791**

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	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

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	0.0207	0.6688	0.1809	1.7200e-003	0.0448	1.4100e-003	0.0462	0.0129	1.3500e-003	0.0142		184.3617	184.3617	0.0125		184.6748
Worker	0.0784	0.0510	0.5778	1.7700e-003	0.1900	1.4100e-003	0.1914	0.0504	1.3000e-003	0.0517		176.4857	176.4857	4.7500e-003		176.6044
Total	**0.0991**	**0.7198**	**0.7587**	**3.4900e-003**	**0.2348**	**2.8200e-003**	**0.2376**	**0.0633**	**2.6500e-003**	**0.0659**		**360.8474**	**360.8474**	**0.0173**		**361.2791**

3.5 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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0194	0.6348	0.1714	1.7100e-003	0.0448	1.2300e-003	0.0460	0.0129	1.1800e-003	0.0141		182.7155	182.7155	0.0121		183.0176
Worker	0.0737	0.0460	0.5334	1.7100e-003	0.1900	1.3700e-003	0.1914	0.0504	1.2600e-003	0.0517		170.1664	170.1664	4.2900e-003		170.2736
Total	**0.0932**	**0.6808**	**0.7047**	**3.4200e-003**	**0.2348**	**2.6000e-003**	**0.2374**	**0.0633**	**2.4400e-003**	**0.0657**		**352.8819**	**352.8819**	**0.0164**		**353.2912**

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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

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	0.0194	0.6348	0.1714	1.7100e-003	0.0448	1.2300e-003	0.0460	0.0129	1.1800e-003	0.0141		182.7155	182.7155	0.0121		183.0176
Worker	0.0737	0.0460	0.5334	1.7100e-003	0.1900	1.3700e-003	0.1914	0.0504	1.2600e-003	0.0517		170.1664	170.1664	4.2900e-003		170.2736
Total	**0.0932**	**0.6808**	**0.7047**	**3.4200e-003**	**0.2348**	**2.6000e-003**	**0.2374**	**0.0633**	**2.4400e-003**	**0.0657**		**352.8819**	**352.8819**	**0.0164**		**353.2912**

3.6 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356

Paving	0.2201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1612**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0651	0.0406	0.4706	1.5100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456		150.1468	150.1468	3.7800e-003		150.2414
Total	**0.0651**	**0.0406**	**0.4706**	**1.5100e-003**	**0.1677**	**1.2100e-003**	**0.1689**	**0.0445**	**1.1100e-003**	**0.0456**		**150.1468**	**150.1468**	**3.7800e-003**		**150.2414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.2201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1612**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0651	0.0406	0.4706	1.5100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456		150.1468	150.1468	3.7800e-003		150.2414
Total	**0.0651**	**0.0406**	**0.4706**	**1.5100e-003**	**0.1677**	**1.2100e-003**	**0.1689**	**0.0445**	**1.1100e-003**	**0.0456**		**150.1468**	**150.1468**	**3.7800e-003**		**150.2414**

3.7 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	5.1361					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	**5.3406**	**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	0.0130	8.1200e-003	0.0941	3.0000e-004	0.0335	2.4000e-004	0.0338	8.8900e-003	2.2000e-004	9.1200e-003		30.0294	30.0294	7.6000e-004		30.0483
Total	**0.0130**	**8.1200e-003**	**0.0941**	**3.0000e-004**	**0.0335**	**2.4000e-004**	**0.0338**	**8.8900e-003**	**2.2000e-004**	**9.1200e-003**		**30.0294**	**30.0294**	**7.6000e-004**		**30.0483**

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	5.1361					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	**5.3406**	**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	0.0130	8.1200e-003	0.0941	3.0000e-004	0.0335	2.4000e-004	0.0338	8.8900e-003	2.2000e-004	9.1200e-003		30.0294	30.0294	7.6000e-004		30.0483
Total	**0.0130**	**8.1200e-003**	**0.0941**	**3.0000e-004**	**0.0335**	**2.4000e-004**	**0.0338**	**8.8900e-003**	**2.2000e-004**	**9.1200e-003**		**30.0294**	**30.0294**	**7.6000e-004**		**30.0483**

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	0.3366	3.7414	5.0018	0.0241	1.9185	0.0210	1.9395	0.5126	0.0197	0.5323		2,485.2474	2,485.2474	0.1081		2,487.9494
Unmitigated	0.3366	3.7414	5.0018	0.0241	1.9185	0.0210	1.9395	0.5126	0.0197	0.5323		2,485.2474	2,485.2474	0.1081		2,487.9494

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	203.36	54.12	27.88	695,113	695,113
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	203.36	54.12	27.88	695,113	695,113

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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
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
General Light Industry	0.678800	0.089700	0.020000	0.078700	0.019700	0.019700	0.010000	0.083400	0.000000	0.000000	0.000000	0.000000	0.000000
Other Non-Asphalt Surfaces	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896
Parking Lot	0.552111	0.043066	0.201891	0.118512	0.015605	0.005863	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896

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	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
NaturalGas Unmitigated	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117

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					
General Light Industry	3649.56	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117

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		**0.0394**	**0.3578**	**0.3006**	**2.1500e-003**		**0.0272**	**0.0272**		**0.0272**	**0.0272**		**429.3602**	**429.3602**	**8.2300e-003**	**7.8700e-003**	**431.9117**

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					
General Light Industry	3.64956	0.0394	0.3578	0.3006	2.1500e-003		0.0272	0.0272		0.0272	0.0272		429.3602	429.3602	8.2300e-003	7.8700e-003	431.9117
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		**0.0394**	**0.3578**	**0.3006**	**2.1500e-003**		**0.0272**	**0.0272**		**0.0272**	**0.0272**		**429.3602**	**429.3602**	**8.2300e-003**	**7.8700e-003**	**431.9117**

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	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215

Unmitigated	0.8647	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215

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	0.0521					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.8000e-004	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Total	**0.8647**	**9.0000e-005**	**9.4200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0202**	**0.0202**	**5.0000e-005**		**0.0215**

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	0.0521					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.8000e-004	9.0000e-005	9.4200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0202	0.0202	5.0000e-005		0.0215
Total	**0.8647**	**9.0000e-005**	**9.4200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0202**	**0.0202**	**5.0000e-005**		**0.0215**

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
Forklifts	2	8.00	260	89	0.20	Diesel

UnMitigated/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
Equipment Type	lb/day										lb/day					
Forklifts	0.2272	2.1098	2.3075	3.0600e-003		0.1398	0.1398		0.1286	0.1286		296.0617	296.0617	0.0958		298.4555
Total	**0.2272**	**2.1098**	**2.3075**	**3.0600e-003**		**0.1398**	**0.1398**		**0.1286**	**0.1286**		**296.0617**	**296.0617**	**0.0958**		**298.4555**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

ENERGY WORKSHEET

Fuel Consumption Worksheet

Annual VMT from CalEEMod modeling	Gasoline-Fueled Percentage	Diesel-Fueled Percentage	Gasoline mpg	Gasoline Consumption	Diesel mpg	Diesel Consumption
658,009	72.9%	27.1%	22	21,797	6.7	26,640

		Fleet Mix from CalEEMod modeling												
Land Use	ADT	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial	203	0.58	0.09	0.02	0.068	0.0275	0.0275	0.02	0.167	0	0	0	0	0
Gasoline-powered:		98%	95%	75%	50%	50%	10%	5%	5%					
Diesel-powered:		2%	5%	25%	50%	50%	90%	95%	95%					

truck % = 42.00%