AIR QUALITY AND GREENHOUSE GAS IMPACT ANALYSIS

190TH AND WESTERN COMMERCIAL CENTER

TORRANCE, CALIFORNIA

LSA

February 2022

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EXECUTIVE SUMMARY

LSA was retained by Calbay Development, LLC, to prepare an air quality and greenhouse gas (GHG) impact study for the proposed 190th and Western Commercial Center Project (project) located in Torrance, California. The City of Torrance (City) requires this study as part of the environmental review process to comply with the California Environmental Quality Act (CEQA).

The proposed project involves the development of a commercial center comprising three fast-food restaurants and two high-turnover sit-down restaurants in five buildings totaling 22,939 square feet. The site is located at 190th Street and Western Avenue in Torrance, California. The project would be constructed starting in late 2022 and would become operational in 2023.

This air quality and GHG impact analysis provides a discussion of the proposed project, the physical setting of the project area, and the regulatory framework for air quality and GHGs. The report provides data on existing air quality and evaluates potential air quality and GHG impacts associated with the proposed project. Modeled vehicle emissions are based on the trip generation data from the project Traffic Impact Analysis (AGA 2022).

Emissions with regional effects during project construction, calculated with the California Emissions Estimator Model (CalEEMod; Version 2020.4.0), would not exceed criteria pollutant thresholds established by the South Coast Air Quality Management District (SCAQMD). Compliance with SCAQMD Rules and Regulations during construction would reduce construction-related air quality impacts from fugitive dust emissions and construction equipment emissions. Standard dust suppression measures recommended by SCAQMD have been identified for short-term construction to meet the SCAQMD emissions thresholds. Construction emissions for the proposed project would not exceed the localized significance thresholds (LSTs) at the closest existing residences north of the project site across Interstate 405.

Pollutant emissions from project operations, also calculated with CalEEMod, would not exceed 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.

The proposed project is in Los Angeles County, which has been found to have serpentine and ultramafic rock in its soil (California Department of Conservation 2021). 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. Short-term construction and long-term operational emissions of the principal GHGs, including carbon dioxide and methane, are quantified, and their significance relative to the City's Climate Action Plan (CAP) (Torrance 2017) is discussed.

The proposed project is consistent with the City's 2009 General Plan land use designation and zoning; thus, it would result in air emissions that are consistent with the City's planning. 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 all City and State policies and goals. 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* (1993) and associated updates (SCAQMD 2022). 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.

TABLE OF CONTENTS

FIGURES

TABLES

APPENDIX

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
AGA	Albert Grover & Associates
AQMP	Air Quality Management Plan
AR4	IPCC Fourth Assessment Report
AR5	IPCC Fifth Assessment Report
Basin	South Coast Air Basin
Bio-CO_2	biologically generated carbon dioxide
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Torrance
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
EO	Executive Order
EPA	United States Environmental Protection Agency
ft	foot/feet
GCC	global climate change
GHG	greenhouse gas
GSP	gross state product
GWP	global warming potential
H_2S	hydrogen sulfide
HFCs	hydrofluorocarbons

I-405	Interstate 405
IPCC	Intergovernmental Panel on Climate Change
lbs/day	pounds per day
LOS	level(s) of service
LST	localized significance threshold
MATES	*Multiple Air Toxics Exposure Study*
mg/m^3	milligrams per cubic meter
mi	mile/miles
MMT	million metric tons
MMT CO_2e	million metric tons of carbon dioxide equivalent
mph	miles per hour
MPO	Metropolitan Planning Organization
MT	metric tons
MT CO_2e	metric tons of carbon dioxide equivalent
MT CO_2e/yr	metric tons of carbon dioxide equivalent per year
MT/yr	metric tons per year
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NBio-CO_2	non-biologically generated carbon dioxide
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
OPR	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	190th and Western Commercial Center Project
ROC	reactive organic compound
ROG	reactive organic gas
SB	Senate Bill
SBCCOG	South Bay Cities Council of Governments
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District

sf	square foot/feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	sulfur oxides
SRA	Source Receptor Area
State	State of California
TAC	toxic air contaminant
TIA	Traffic Impact Analysis
VMT	vehicle miles traveled
VOC	volatile organic compound

INTRODUCTION

This air quality and greenhouse gas (GHG) impact analysis has been prepared to evaluate the potential air quality and climate change impacts associated with the proposed 190th and Western Commercial Center Project (project) in the City of Torrance, Los Angeles County, California. This report provides a project-specific air quality and climate change impact analysis by examining the potential impacts of the proposed uses on the regional air quality and to adjacent sensitive uses,. This air quality and GHG impact analysis will follow guidelines identified by the South Coast Air Quality Management District (SCAQMD) in its *CEQA Air Quality Handbook* (1993) and associated updates (SCAQMD 2022).

PROJECT LOCATION

The project site is located at the northwestern corner of 190th Street and Western Avenue in the City of Torrance, as shown on Figure 1. Regional access to the site is provided by Interstate 405 (I-405), which is located just north of the site.

PROJECT DESCRIPTION

Calbay Development, LLC, proposes to construct a commercial center comprising five buildings totaling 22,939 square feet (sf), as shown on Figure 2. The buildings would house three fast-food restaurants, all with drive-through windows. Additionally, there would be two high-turnover sit-down restaurants. The project would include a 260-stall parking lot and water-efficient landscaping. The 5.28 acre (ac) site is zoned Commercial, which is consistent with the proposed land uses. The project would be constructed starting in late 2022 and would become operational in 2023.

Existing Sensitive Land Uses in the Project Area

Sensitive receptors include residences, schools, hospitals, and similar uses sensitive to air quality. Single-family residential developments are located to the north of I-405, as shown on Figure 1. The land uses near the project site include the following:

- **North:** I-405 with the residences beyond, the closest approximately 275 feet (ft) from the project site boundary
- **East:** A Mobil gas station approximately 135 ft and a fitness center approximately 330 ft from the project site boundary
- **South:** Commercial land uses approximately 190 ft from the project site boundary
- **West:** The Courtyard by Marriott Los Angeles hotel approximately 180 ft from the project site boundary

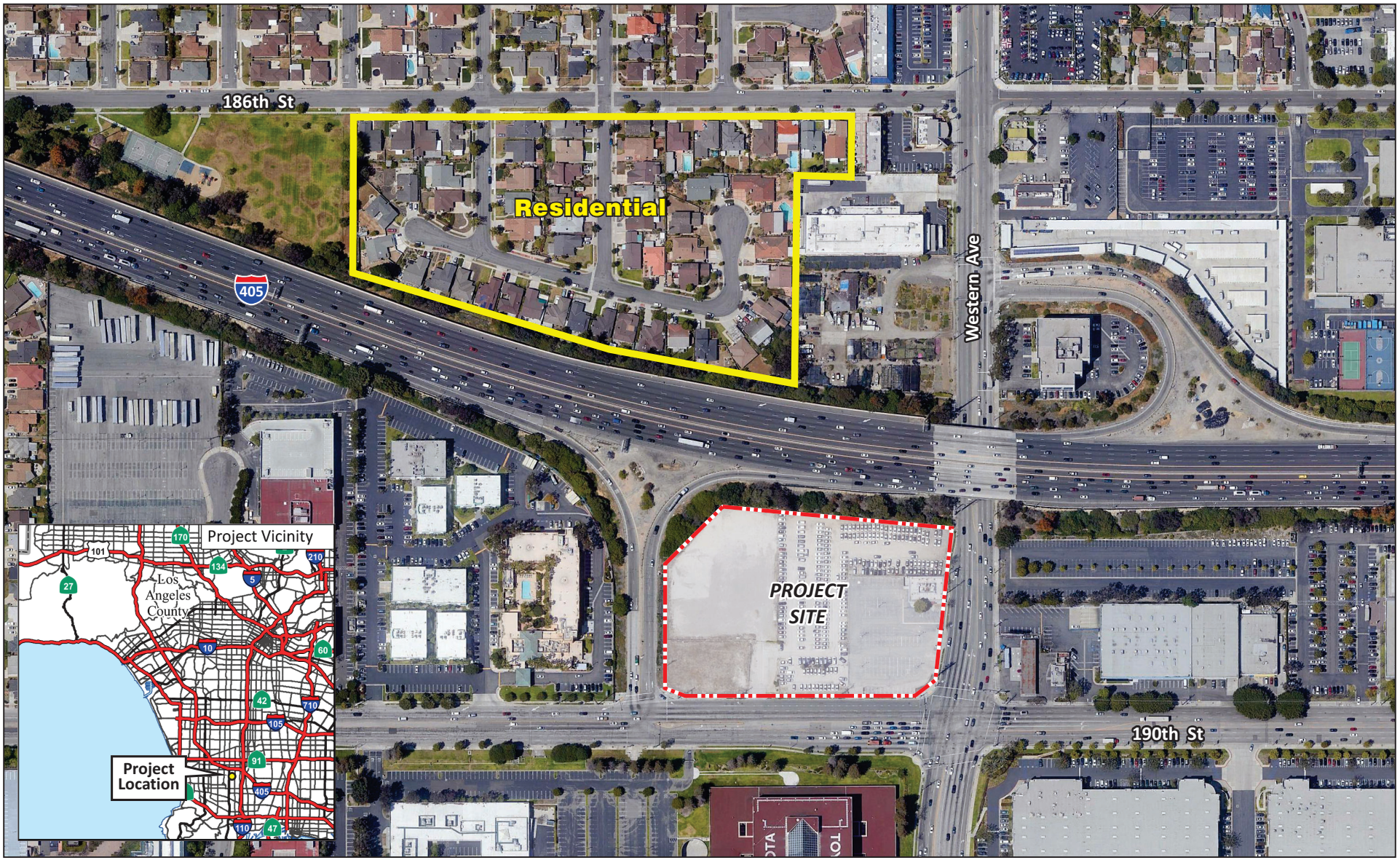

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FIGURE 1

190th and Western Commercial Center

Regional and Project Location and Sensitive Receptors

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FIGURE 2

0 15 30
FEET

SOURCE: McKently Malak Architects, Inc.

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190th and Western Commercial Center

Site Plan

PROJECT SETTING

REGIONAL CLIMATE AND AIR QUALITY

The project site is in Los Angeles County, California, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of SCAQMD. Both the State of California (State) 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, or installation, or combination thereof, that attracts or generates mobile-source emissions of any pollutant. In addition, area-source emissions that are generated when minor sources collectively emit a substantial amount of pollution are also managed by the local air districts. 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 combination of topography, low mixing height, abundant sunshine, and emissions from the second-largest urban area in the United States gives the Basin some of the worst air pollution problems in the nation.

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]
O_3[8]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
CO	1-Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
NO_2[10]	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
SO_2[11]	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	—		—	0.5 ppm (1,300 µg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30-Day Average	1.5 µg/m³	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[13]	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m³		
Visibility-Reducing Particles[14]	8-Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: Ambient Air Quality Standards (CARB 2016).

Footnotes are provided on the following page.

[1] California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1- and 24-hour), NO_2, and PM (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 AAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than for O_3 and PM and those based on the annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current national policies.

[3] Concentration expressed first in the 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 the CARB to give equivalent results at or near the level of the air quality standard may be used.

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

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

[7] The 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 O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

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

[11] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated as 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 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated as 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 mi visibility standard and the Lake Tahoe 30 mi visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
µg/m^3 = micrograms per cubic meter
AAQS = ambient air quality standards
CARB = California Air Resources Board
CO = carbon monoxide
EPA = United States Environmental Protection Agency
mg/m^3 = milligrams per cubic meter
mi = mile/miles
NO_2 = nitrogen dioxide
O_3 = ozone
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
SO_2 = sulfur dioxide

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)
CARB = California Air Resources Board

However, Torrance and other South Bay cities experience better air quality relative to other Basin cities due to the proximity of the ocean and prevailing temperature and wind patterns. For example, during the summer, when photochemical smog is normally at its worst, the sunlight needed to

create photochemical smog is often blocked out by morning fog and low clouds, which prevents the formation of smog along the coast.

The drilling and maintenance of oil wells also contribute to air pollution in Torrance. To minimize environmental impacts from oil well activities, the City has developed a policy to eliminate isolated wells as they are retired from use (primarily in residential areas) and to encourage producers to convert to a combined oil district method of pumping oil, whereby dispersed wells are consolidated at a primary pumping station, thereby reducing oil activities and associated negative environmental impacts.

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 Torrance Station (WRCC 2019). The monthly average maximum temperature recorded at this station ranged from 65.9°F in January to 78.6°F in August, with an annual average maximum of 71.9°F. The monthly average minimum temperature recorded at this station ranged from 44.3°F in January to 61.1°F in August, with an annual average minimum of 53.3°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 Torrance Station's monitored precipitation shows that the average monthly rainfall varied from 3.23 inches in February to 0.42 inch or less from May to October, with an annual total of 13.55 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

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 (GCC) 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 (CDPH 2013). However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus reducing the pollution associated with wildfires. GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced 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. Certain other gases (e.g., water vapor) are short-lived in the atmosphere compared to these GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes (e.g., oceanic evaporation). For the purposes of this air quality study, the term "GHGs" will refer collectively to the six gases identified in the bulleted list provided above.

These GHGs vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas in absorbing infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. For example, N_2O is from 265 to 310 times more potent at contributing to global warming than CO_2. GHG emissions are typically measured in terms of metric tons of CO_2 equivalents (MT CO_2e). Table C identifies the GWP for the three GHGs analyzed in this report. The EPA and CARB use GWP values from the 2007 IPCC Fourth

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

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 2013b), 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 2020).

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) (EPA 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 the State.

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.

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 2019, the United States emitted approximately 6.6 billion MT CO_2e. Total United States emissions increased by 1.8 percent from 1990 to 2019, down from a high of 15.6 percent above 1990 levels in 2007. Emissions decreased from 2018 to 2019 by 1.7 percent (113.1 million MT CO_2e). Overall, net emissions decreased 1.7 percent from 2018 to 2019 and decreased 13.0 percent from 2005 levels. The decline reflects the combined impacts of many long-term trends, including population, economic growth, energy market trends, technological changes including energy efficiency, and carbon intensity of energy fuel choices. Between 2018 and 2019, the decrease in total greenhouse gas emissions was largely driven by the decrease in CO_2 emissions from fossil fuel combustion (EPA 2022a).

State of California Emissions

According to CARB emission inventory estimates, the State emitted approximately 418.1 million metric tons of CO_2e (MMT CO_2e) emissions in 2019. This is a decrease of 7.1 MMT CO_2e from 2018 and almost 13 MMT CO_2e below the State's 2020 GHG target (CARB 2022).

[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.

CARB estimates that transportation was the source of approximately 39.7 percent of the State's GHG emissions in 2019, followed by electricity generation (both in-State and out-of-State) at 14.1 percent and industrial sources at 21.1 percent. The remaining sources of GHG emissions were residential and commercial activities at 10.5 percent and agriculture at 7.6 percent (CARB 2022).

Air Pollution Constituents and Attainment Status

CARB coordinates and oversees both State and federal air pollution control programs in the State. 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. Data collected at these stations are used by CARB and the EPA 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 (SIP).

- **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[1]	Nonattainment (30-day average)	Nonattainment (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 2022c).

[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 (particularly in 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.

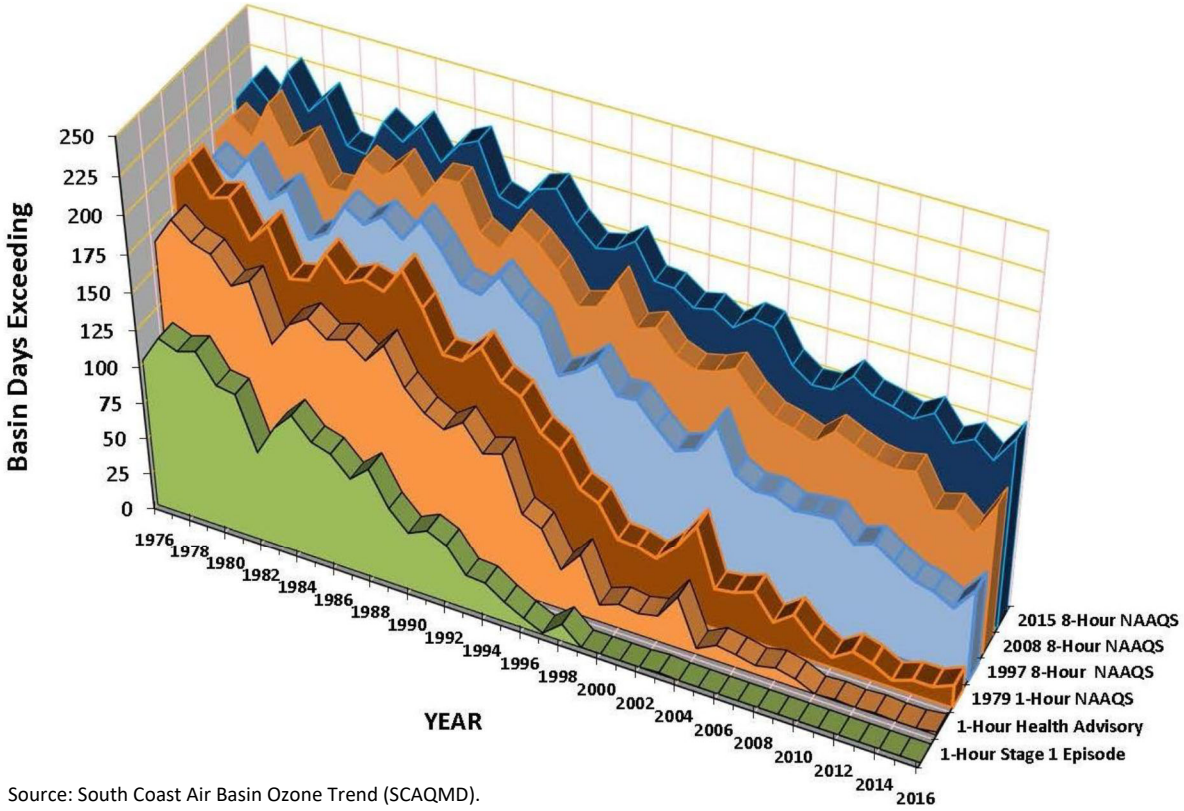
Regional Air Quality Improvement

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 in order 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. Ozone, 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 3 shows the ozone trend in the Basin.

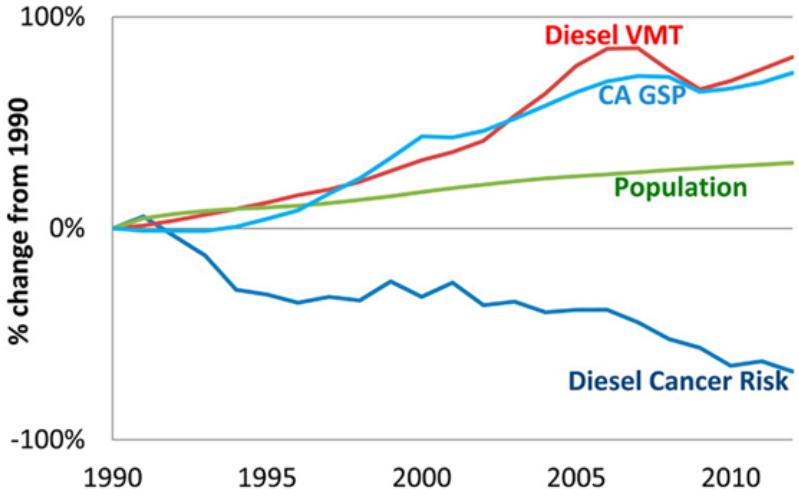
Toxic Air Contaminants Trends

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

Figure 3: South Coast Air Basin Ozone Trend



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

Figure 4: California Population, Gross State Product (GSP), Diesel Cancer Risk, Diesel Vehicle Miles Traveled (VMT)

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) *V* (SCAQMD 2021) 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 closest to the site is at 2425 Webster Street in Long Beach, approximately 6.5 miles (mi) southeast of the project site. CO, PM_{10}, and SO_2 levels are monitored at this station. The closest air quality monitoring station that monitors O_3 and NO_2 is the Compton Station at 700 N. Bullis Road, approximately 6.6 mi northeast of the project site. The closest air quality monitoring station that monitors $PM_{2.5}$ is the North Long Beach Station at 3648 North Long Beach Boulevard, approximately 7.4 mi east of the project site. The air quality trends from these stations are used to represent the ambient air quality in the project area. The ambient air quality data in Table E show that CO, O_3, NO_2, and SO_2 levels are below the applicable State and federal standards.

In the past 3 years, PM_{10} levels exceeded the State 24-hour standard from 3 to 4 days per year, and $PM_{2.5}$ levels exceeded the federal 24-hour standard from 0 to 6 days per year.

REGULATORY SETTINGS

Federal Regulations and Standards

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

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

The United States has historically had a voluntary approach to reducing GHG emissions; however, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO_2 emissions under the CAA.

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

In 2012, EPA and the National Highway Traffic Safety Administration promulgated new rules to set GHG emission and fuel economy standards for new motor vehicles. The rules created requirements for model years 2017–2021 and 2022–2025, which would become more stringent each year,

Table E: Air Quality Concentrations in the Project Vicinity

Pollutant	Standard	2018	2019	2020
CO (Long Beach [Webster Street] Station)				
Maximum 1-hour concentration (ppm)		4.7	3.9	4.7
No. of days exceeded	State: 20 ppm	0	0	0
	Federal: 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		2.1	2.6	2.1
No. of days exceeded	State: 9 ppm	0	0	0
	Federal: 9 ppm	0	0	0
O_3 (Long Beach [Webster Street] Station)				
Maximum 1-hour concentration (ppm)		0.075	0.100	0.152
No. of days exceeded	State: 0.09 ppm	0	2	3
Max 8-hr concentration (ppm)		0.063	0.079	0.115
No. of days exceeded	State: 0.07 ppm	0	1	4
	Federal: 0.07 ppm	0	1	4
PM_{10} (Long Beach [Webster Street] Station)				
Maximum 24-hour concentration (µg/m^3)		84	156	62
No. of days exceeded	State: 50 µg/m^3	4	4	3
	Federal: 150 µg/m^3	0	1	0
Annual avg. concentration (µg/m^3)		32.5	29.5	32.1
Exceeds Standard?	State: 20 µg/m^3	Yes	Yes	Yes
$PM_{2.5}$ (Long Beach [Long Beach Boulevard] Station)				
Maximum 24-hour concentration (µg/m^3)		80	28	66
No. of days exceeded	Federal: 35 µg/m^3	6	0	4
Annual avg. concentration (µg/m^3)		11.4	9.2	12.4
Exceeds Standard?	State: 12 µg/m^3	No	No	Yes
	Federal: 12 µg/m^3	No	No	Yes
NO_2 (Long Beach [Webster Street] Station)				
Maximum 1-hour concentration (ppb):		68.3	70.0	72.3
No. of days exceeded	State: 180 ppb	0	0	0
	Federal: 100 ppb	0	0	0
Annual avg. concentration (ppb):		15.0	14.1	14.4
Exceeds standard?	State: 30 ppb	No	No	No
	Federal: 53 ppb	No	No	No
SO_2 (Long Beach [Webster Street] Station)				
Maximum 1-hour concentration (ppb)		10.5	19.7	10.5
No. of days exceeded	State: 250 ppb	0	0	0
	Federal: 75 ppb	0	0	0

Sources: Air Data: Air Quality Data Collected at Outdoor Monitors across the US (EPA 2022b) and iADAM: Air Quality Data Statistics (CARB).
µg/m^3 = micrograms per cubic meter
CO = carbon monoxide
NO_2 = nitrogen dioxide
O_3 = ozone
$PM_{2.5}$ = particulate matter smaller than or equal to 2.5 microns in diameter
PM_{10} = particulate matter smaller than or equal to 10 microns in diameter
ppb = parts per billion
ppm = parts per million
SO_2 = sulfur dioxide

achieving greater GHG reductions over time. 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.

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 six criteria pollutants designated by the federal CAA as well as four others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

California Climate Action Milestones

In 1988, Assembly Bill (AB) 4420 directed the California Energy Commission (CEC) to report on "how global warming trends may affect the State's energy supply and demand, economy, environment, agriculture, and water supplies" and offer "recommendations for avoiding, reducing and addressing the impacts." This marked the first statutory direction to a State agency to address climate change.

The California Climate Action Registry was created to encourage voluntary reporting and early reductions of GHG emissions with the adoption of Senate Bill (SB) 1771 in 2000. CEC was directed to assist by developing metrics and identifying and qualifying third-party organizations to provide technical assistance and advice to GHG emission reporters. The next year, SB 527 amended SB 1771 to emphasize third-party verification.

SB 1771 also contained several additional requirements for CEC, including updating the State's GHG inventory from an existing 1998 report and continuing to update it every 5 years; acquiring, developing, and distributing information on GCC to agencies and businesses; establishing a State interagency task force to ensure policy coordination; and establishing a climate change advisory committee to make recommendations on the most equitable and efficient ways to implement climate change requirements. In 2006, AB 1803 transferred preparation of the inventory from CEC to CARB. CARB updates the inventory annually.

AB 1493, authored by Assemblymember Fran Pavley in 2002, directed CARB to adopt regulations to achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles. The so-called "Pavley regulations," or Clean Car regulations, were approved by CARB in 2004. On September 24, 2009, CARB adopted amendments to the Pavley regulations that reduced GHG emissions in new passenger vehicles from 2009 through 2016. AB 1493 also directed the State's Climate Action Registry to adopt protocols for reporting reductions in GHG emissions from mobile sources prior to the operative date of the regulations.

Executive Order (EO) S-3-05 (June 2005) established GHG targets for the State, including returning to year-2000 emission levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. EO S-3-05 directed the Secretary of the California Environmental Protection Agency to coordinate

efforts to meet the targets with the heads of other State agencies. This group became the Climate Action Team.

In 2006, the State legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multiyear program to reduce GHG emissions in California. AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by CARB in 2008, updated on May 22, 2014, and updated again on December 14, 2017. In 2016, the State Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the State legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The 2017 Scoping Plan update incorporates the 2030 target set by EO B-30-15 and codified by SB 32.

The governors of California, Arizona, New Mexico, Oregon, and Washington entered into a Memorandum of Understanding in February 2007 establishing the Western Climate Initiative. The governors agreed to set a regional goal for emissions reductions consistent with state-by-state goals, to develop a design for a regional market-based multisector mechanism to achieve the goals, and to participate in a multistate GHG registry. The initiative has since grown to include Montana, Utah, and the Canadian provinces of British Columbia, Manitoba, Ontario, and Québec.

California is implementing the world's first Low Carbon Fuel Standard for transportation fuels, pursuant to both EO S-01-07 (signed in January 2007) and AB 32. The standard requires a reduction of at least 10 percent in the CO intensity of the State's transportation fuels by 2020. This reduction is expected to reduce GHG emissions in 2020 by 17.6 MMT CO_2e. Also in 2007, AB 118 created the Alternative and Renewable Fuel and Vehicle Technology Program. CEC and CARB administer the program. This act provides funding for alternative fuel and vehicle technology research, development, and deployment to attain the State's climate change goals, to achieve the State's petroleum reduction objectives and clean air and GHG emission reduction standards, to develop public–private partnerships, and to ensure a secure and reliable fuel supply.

In addition to vehicle emissions regulations and the Low Carbon Fuel Standard, the third effort to reduce GHG emissions from transportation is the reduction in the demand for personal vehicle travel (i.e., VMT). This measure was addressed in September 2008 through the Sustainable Communities and Climate Protection Act of 2008, or SB 375. The enactment of SB 375 initiated an important new regional land use planning process to mitigate GHG emissions by integrating and aligning planning for housing, land use, and transportation for California's 18 MPOs. The bill directed CARB to set regional GHG emission reduction targets for most areas of the State. SB 375 also contained important elements related to federally mandated regional transportation plans and the alignment of State transportation and housing planning processes.

Also codified in 2008, SB 97 required the Governor's Office of Planning and Research (OPR) to develop GHG emissions criteria for use in determining project impacts under CEQA. These criteria were developed in 2009 and went into effect in 2010.

EO S-13-08 launched a major initiative for improving the State's adaptation to climate impacts from sea level rise, increased temperatures, shifting precipitation, and extreme weather events.

EO S-13-08 ordered a California Sea Level Rise Assessment Report request from the National Academy of Sciences. The order also mandated the development of a Climate Adaptation Strategy. The strategy, published in December 2009, assesses the State's vulnerability to climate change impacts and outlines possible solutions that can be implemented within and across State agencies to promote resiliency. The Strategy focused on seven areas: public health, biodiversity and habitat, ocean and coastal resources, water management, agriculture, forestry, and transportation and energy infrastructure.

The initiatives, EOs, and statutes outlined above constitute the major milestones in California's efforts to address climate change through coordinated action on climate research, GHG mitigation, and climate change adaptation. Numerous other related efforts have been undertaken by State agencies and departments to address specific questions and programmatic needs.

Regional Air Quality Planning Framework

The 1976 Lewis Air Quality Management Act established SCAQMD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

CARB is responsible for incorporating AQMPs for local air basins into an SIP for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary-source emissions and develop local nonattainment plans.

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 20-year horizon.

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

- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near-zero technologies

- Enhanced socioeconomic assessment, including an expanded environmental-justice analysis
- Attainment of the 24-hour $PM_{2.5}$ standard in 2019 with no additional measures
- Attainment of the annual $PM_{2.5}$ standard by 2025 with implementation of a portion of the O_3 strategy
- Attainment of the 1-hour O_3 standard by 2022 with no reliance on "black box" future technology (CAA Section 182(e)(5) measures)

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

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate the air quality issues associated with new development projects within the Basin, such as the proposed project. Instead, SCAQMD published the *CEQA Air Quality Handbook* (SCAQMD 1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in Environmental Impact Reports and was used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* (1993) with the *Air Quality Analysis Guidance Handbook* (SCAQMD 2022).

To assist the California Environmental Quality Act (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 the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

The following SCAQMD rules and regulations would be applicable 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 Torrance General Plan 2009

The Community Resources Element of the *City of Torrance General Plan 2009* (City of Torrance 2010) includes air quality policies intended to limit sources of air pollution and sensitive receptor exposure. The following objectives and policies are applicable to the project:

- **Objective CR.13: To contribute to the improvement of local and regional ambient air quality to benefit the health of all**
    - **Policy CR.13.1:** Continue to participate in the efforts of the State Air Resources Board and the South Coast Air Quality Management District to meet State and federal air quality standards.
    - **Policy CR.13.2:** Work with neighboring cities to implement local and regional projects that improve mobility on freeways and railways, reduce emissions, and improve air quality.
    - **Policy CR.13.3:** Support regional air quality goals through conscientious land use and transportation planning and the implementation of resource conservation measures.
    - **Policy CR.13.4:** Balance the achievement of clean air with other major goals of the City.
    - **Policy CR.13.5:** Support air quality and energy and resource conservation by encouraging alternative modes of transportation such as walking, bicycling, transit, and carpooling.
    - **Policy CR.13.6:** Promote citizen awareness and participation in programs to reduce air pollution and traffic congestion.
    - **Policy CR.13.7:** Encourage the use of alternative fuel vehicles and re-refined oil.
    - **Policy CR.13.8:** Promote energy-efficient building construction and operation practices that reduce emissions and improve air quality.
- **Objective CR.14: To reduce the City's overall carbon footprint and counteract the effects of global warming through a reduction in the emissions of greenhouse gases within Torrance**
    - **Policy CR.14.1:** Support the California Air Resources Board in its ongoing plans to implement AB 32, and fully follow any new AB 32–related regulations.
    - **Policy CR.14.2:** Develop and implement greenhouse gas emissions reduction measures, including discrete, early-action greenhouse gas–reducing measures that are technologically feasible and cost-effective.
    - **Policy CR.14.3:** Pursue actions recommended in the US Mayors Climate Protection Agreement to meet AB 32 requirements.
    - **Policy CR.14.4:** Act as a leader and example in sustainability and reduction in greenhouse gas emissions by conducting City business in the most greenhouse gas–sensitive way.

Additional Policies Relevant to the Project in the General Plan			
Issue Area	**Element**	**Section**	**Policy**
Emissions and Alternative Modes of Transportation	Land Use	2.2. Balancing New Development and Circulation	LU 4.1–4.2
		4.2. Commercial Districts Objectives and Policies	LU 6.3
		5.3. Mixed-Use Objectives and Policies	LU 7.2
		8.3. Urban Design Objectives and Policies	LU 11.7
	Circulation	2.3.6. Local Circulation Objectives and Policies	CI 3.5–3.6; CI 4.3–4.4
		3.5.3 Alternatives to the Automobile Objectives and Policies	CI 7.1–7.11; CI 8.1–8.11
Sustainable Development and Energy Efficiency	Land Use	2.2. Balancing New Development and Circulation	LU 3.2–3.3
	Community Resources	3.8.4. Energy Conservation Objectives and Policies	CR 20.1–20.9
		3.9.3. Sustainable Practices Objectives and Policies	CR 23.1–23.4
Urban Heat Island Effect	Land Use	3.2. Residential Objectives and Policies	LU 5.3
		7.3. Public and Quasi-public Uses Objectives and Policies	LU 9.1
	Circulation	2.3.6. Local Circulation Objectives and Policies	CI 6.2
	Community Resources	1.3. Open Space Objectives and Policies	CR 1.1–1.3; CR 2.1; CR 4.1–4.3
		2.4. Parks and Recreation Objectives and Policies	CR 7.5; CR 7.7
		3.5.2. Wildlife Habitat Objectives and Policies	CR 15.1–15.2
		3.7.4. Aesthetic Resources Objectives and Policies	CR 17.1–17.3
Recycling	Community Resources	3.9.3. Sustainable Practices Objectives and Policies	CR 22.1–22.7

City of Torrance Climate Action Plan 2017

The City adopted the Climate Action Plan (CAP) in December 2017. While this plan provides the City with goals and policies for reducing GHG emissions, it does not provide sufficient information to quantify GHG emissions reductions, and therefore is not considered a "qualified CAP" under CEQA. This plan can be used to show project consistency with the GHG emissions reduction goals and policies of the City. The CAP focuses on five broad categories of climate adaptation efforts:

- **Land Use and Transportation:** Facilitate pedestrian and neighborhood development, and identify ways to reduce automobile emissions, including supporting zero-emission vehicle infrastructure, improving pedestrian and bicycle infrastructure, enhancing public-transit service, and supporting reductions in single-occupancy vehicle use.
- **Energy Efficiency:** Emphasize energy efficiency retrofits for existing buildings, energy performance requirements for new construction, water-efficient landscaping, and financing programs that will allow home and business owners to obtain low-interest loans for implementing energy efficiency in their buildings.
- **Solid Waste:** Focus on increasing waste diversion and encouraging participation in recycling and composting throughout the community.
- **Urban Greening:** Create "carbon sinks" because they store GHG emissions that are otherwise emitted into the atmosphere as well as support the health of the community.

- **Energy Generation and Storage:** Demonstrate the City's commitment to support the implementation of clean, renewable energy while decreasing dependence on traditional, GHG-emitting power sources.

The CAP set forth a GHG emission reduction target of 15 percent below 2005 levels by 2020 and 45 percent below 2005 levels by 2035. The strategies outlined in the CAP would achieve an annual citywide reduction of 256,740 MT CO_2e by 2035, meeting the goals of the CAP.

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 *Guidelines for the Implementation of California Environmental Quality Act,* 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 Threshold (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: South Coast AQMD Air Quality Significance Thresholds (SCAQMD).
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 Southwest Coastal LA County area (SRA 3). 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 275 ft from the north boundary of construction.

If the total acreage disturbed is less than or equal to 5 ac per day, then the SCAQMD's screening look-up tables can be used to determine if a project has the potential to result in a significant impact. The project site is approximately 5 ac. Therefore, the 5 ac LSTs at the 275 ft distance were used for construction emissions.

On-site operational emissions would occur from stationary and mobile sources. On-site vehicle emissions are the largest source of emissions, and the on-site travel routes for the proposed project would be equivalent to driving over 5 ac of surface area. Therefore, the 5 ac LSTs at the 275 ft distance were used for operational emissions. 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 (5 ac, 275 ft distance)	198	2,408	56	16
Operations (5 ac, 275 ft distance)	198	2,408	14	4

Source: *Final Localized Significance Threshold Methodology* (SCAQMD 2008).
ac = acre/acres
CO = carbon monoxide
ft = foot/feet
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

GLOBAL CLIMATE CHANGE

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

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

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

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

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

The City adopted its CAP in December 2017. Since this is not a qualified CAP, the City has identified the SCAQMD draft screening GHG emissions threshold of 3,000 MT CO_2e per year as the appropriate threshold.

IMPACTS AND MITIGATION

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

CONSTRUCTION IMPACTS

Equipment Exhaust and Related Construction Activities

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

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 the on-road vehicle trips (worker, soil-hauling, and vendor trips). The proposed earthwork for the project assumes the site would be balanced (no import or export needed). CalEEMod results and defaults are assumed for the construction activities, off-road equipment, and on-road construction fleet mix and trip lengths. Table H lists the tentative project construction schedule for the proposed project. It is expected that construction would start in late 2022 and conclude in 2023.

Table H: Tentative Project Construction Schedule

Phase Name	Phase Start Date	Phase End Date	Number of Days
Demolition	9/1/2022	9/14/2022	10
Site Preparation	9/15/2022	9/21/2022	5
Grading	9/22/2022	10/19/2022	20
Building Construction	10/20/2022	3/31/2023	117
Architectural Coating	1/9/2023	3/31/2023	60
Paving	3/6/2023	3/31/2023	20

Source: Estimated by LSA Associates, Inc.; from the project information provided (January 2022).

The most recent version of CalEEMod (Version 2020.4.0) 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.

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. No exceedances of any criteria pollutants are expected. Standard measures are documented in the CalEEMod output included in Appendix A.

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
	Excavators	3	8	158	0.38
	Rubber-Tired Dozers	2	8	247	0.4
Site Preparation	Rubber-Tired Dozers	3	8	247	0.4
	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
	Graders	1	8	187	0.41
	Rubber-Tired Dozers	1	8	247	0.4
	Tractors/Loaders/Backhoes	3	8	97	0.37
Building Construction	Cranes	1	7	231	0.29
	Forklifts	3	8	89	0.2
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48
Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	132	0.36
	Rollers	2	8	80	0.38

Source: Compiled by LSA Associates, Inc., using CalEEMod defaults (January 2022).
CalEEMod = California Emission Estimator Model

Table J: Short-Term Regional Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (lbs/day)							
	VOCs	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Demolition	3	26	21	<1	<1	1	<1	1
Site Preparation	3	33	20	<1	9	2	5	1
Grading	2	21	16	<1	3	<1	2	<1
Building Construction	2	18	21	<1	1	<1	<1	<1
Paving	2	10	15	<1	<1	<1	<1	<1
Architectural Coating	3	1	2	<1	<1	<1	<1	<1
Peak Daily	**3**	**33**	**21**	**<1**	**11**		**6**	
SCAQMD Threshold	**75**	**100**	**550**	**150**	**150**		**55**	
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA Associates, Inc. (January 2022).
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

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 three 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 miles per hour (mph) or less.

These Rule 403 measures were incorporated in the CalEEMod analysis.

Architectural Coatings

Architectural coatings contain VOCs that are part of the O_3 precursors. Based on the proposed project, it is estimated that application of the architectural coatings for the proposed peak construction day would result in a peak of 3 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 emitted on the project site compared to the LST thresholds. 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	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	33	21	10	6
LST	**198**	**2,408**	**56**	**16**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (January 2022).
Note: The SRA is Southwest Coastal LA County, 5 ac, receptors at 275 ft.
ac = acre/acres
CO = carbon monoxide
ft = foot/feet
lbs/day = pounds per day
NO_X = nitrogen oxides
LST = localized significance threshold
$PM_{2.5}$ = 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 Construction Activities

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

SCAQMD Rule 402 regarding nuisances states, "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the proposed project.

Naturally Occurring Asbestos

The proposed project site is in Los Angeles County, which is among the counties found to have serpentine and ultramafic rock in their soils (California Department of Conservation 2021). 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 regional construction emissions would not exceed the daily thresholds of any criteria pollutant emission thresholds established by SCAQMD; thus, during construction, there would be no localized impacts.

LONG-TERM REGIONAL AIR QUALITY IMPACTS

Operational Emissions

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

Based on the project Traffic Impact Analysis (AGA 2022) the project operations would result in a net new average daily trip generation rate of 4,740. 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 cooking and 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	25	28	253	<1	56	15
Total Project Emissions	**26**	**29**	**254**	**<1**	**56**	**15**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (January 2022).
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 mobile sources. 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 trips, 8.4 mi for commercial-customer trips, and 6.9 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: Long-Term Operational Localized Impacts Analysis

Emissions Sources	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	2	13	3	<1
LST	**198**	**2,408**	**14**	**4**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (January 2022).
Note: The SRA is Southwest Coastal LA County, 5 ac, receptors at 275 ft. On-site traffic is assumed to be 5 percent of the total.
ac = acre/acres
CO = carbon monoxide
ft = foot/feet
LST = local significance thresholds
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

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

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 (LOS) 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 North Long Beach Station, the closest station with complete monitored CO data, showed a highest recorded 1-hour concentration of 4.7 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 2.6 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 shown in Table E, the existing CO concentrations in the project area are extremely low. The project TIA shows that the study intersections continue to function at the same LOS. Therefore, the project can be implemented in an existing setting with no significant peak-hour intersection impacts. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

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.

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 2020.4.0), using the same methodology as described above for the criteria pollutant emissions, are shown in Table N (details are provided in the CalEEMod output in Appendix A).

Table N: Short-Term Regional Construction Emissions

Construction Phase	Total Emissions per Phase (MT/yr)			Total Emissions per Phase (MT CO_2e/yr)
	CO_2	CH_4	N_2O	
Demolition	18	<1	0	18
Site Preparation	9	<1	0	9
Grading	27	<1	0	28
Building Construction	228	<1	0	231
Architectural Coating	13	<1	0	13
Paving	21	<1	0	22
Total Emissions for the Entire Construction Process				**320 MT CO_2e**
Total Construction Emissions Amortized over 30 Years				**11 MT CO_2e**

Source: Compiled by LSA Associates, Inc. (January 2022).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT CO_2e/yr = metric tons of carbon dioxide equivalent per year
MT/yr = metric tons per year
N_2O = nitrous oxide

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.

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

As shown in Table O, the proposed project would generate 6,383 MT CO_2e/yr. This is greater than SCAQMD's Tier 3 threshold of 3,000 MT CO_2e/yr. The project's GHG emissions would potentially result in a significant impact; therefore, demonstrating consistency with the CAP is required.

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	11	11	<1	0	11
Operational Emissions						
Area	0	<1	<1	0	0	<1
Energy	0	471	471	<1	<1	474
Mobile	0	5,655	5,655	<1	<1	5,739
Waste	54	0	54	3	0	133
Water	2	17	19	<1	<1	27
Total Project Emissions	**56**	**6,153**	**6,209**	**3**	**0**	**6,383**
SCAQMD Tier 3 Threshold						**3,000**
Would the Project Exceed the Threshold?						**Yes**

Source: Compiled by LSA Associates, Inc. (January 2022).
Bio-CO_2 = biologically generated CO_2 MT/yr = metric tons per year
CH_4 = methane N_2O = nitrous oxide
CO_2 = carbon dioxide NBio-CO_2 = non-biologically generated CO_2
CO_2e = carbon dioxide equivalent SCAQMD = South Coast Air Quality Management District

CLIMATE ACTION PLAN CONSISTENCY

As described above, the City adopted a CAP in December 2017. The consistency of the project with the goals of this CAP 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 GHG emissions concerns are addressed.

The proposed project would be consistent with the City CAP goal of increasing energy efficiency in new commercial buildings by complying with the 2020 California Building Code (Title 24), including the California Green Building Standards Code, as well as incorporating high efficiency lighting fixtures to minimize lighting electricity consumption. The California Green Building Standard Code,

referred to as CalGreen, is the first statewide Green Building Code. CalGreen lays out minimum requirements for newly constructed buildings in California to reduce GHG emissions through improved efficiency and process improvements. It requires builders to install plumbing that cuts indoor water use by as much as 20 percent, to divert 50 percent of construction waste from landfills to recycling, and to use low pollutant paints, carpets, and floors. As the project would comply with all of the above, the project would be consistent with all City and State GHG policies and goals. Therefore, through consistency with all applicable GHG policies and goals, the project would generate GHG emissions that would have a less than significant impact.

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 a commercial 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 land use is consistent with the General Plan zoning. Thus, the proposed project, as analyzed, would result in air emissions that are consistent with the City's plans. The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD *CEQA Air Quality Handbook*, consistency with the Basin 2016 AQMP is affirmed when a project would not increase the frequency or severity of an air quality standards violation or cause a new violation, and is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

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

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

STANDARD CONDITIONS

Construction

The project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with the best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source (SCAQMD 2005). In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors (SCAQMD Rule 403). 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 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.
- Pave construction access roads at least 100 ft (30 meters) onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.

The applicable California Department of Resources Recycling and Recovery (CalRecycle) Sustainable (Green) Building Program Measures are 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 2021a).
- 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 (CalRecycle 2021b).

Operations

The proposed project is required to comply with Title 24 of the California Code of Regulations established by 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 impact.

Similarly, the project's long-term operational emissions would not exceed SCAQMD's criteria pollutant thresholds. Again, each project would be required to comply with SCAQMD's operational emissions thresholds, which are designed to accomplish regional emissions goals. Therefore, the proposed project would not result in a significant cumulative impact related to long-term air quality emissions.

As climate change impacts are cumulative in nature, no typical single project can result in emissions of such a magnitude that it, in and by itself, would be significant on a project basis. As described above, the project would produce GHG emissions greater than the SCAQMD Tier 3 threshold and would be consistent with the City's CAP GHG policies and goals. Therefore, through consistency with all City and State GHG policies and goals, the project would generate GHG emissions that would have a less than significant impact.

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APPENDIX A

CALEEMOD PRINTOUTS

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

190th & Western Commercial Center

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	40.90	1000sqft	0.94	40,896.00	0
Parking Lot	3.82	Acre	3.82	166,399.20	0
Fast Food Restaurant with Drive Thru	11.54	1000sqft	0.26	11,539.00	0
Fast Food Restaurant w/o Drive Thru	11.40	1000sqft	0.26	11,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site is 5.28 acres.

Construction Phase - Assume architectural coating would be applied on each building during the building construction process and that paving also occurs during building construction.

Demolition -

Architectural Coating - Assume all architectural coatings would comply with SCAQMD Rule 1113.

Vehicle Trips - Used peak daily rates from traffic study (which includes pass-by reduction) for weekdays, proportioned the default weekend rates.

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area Coating - All architectural coatings would comply with SCAQMD Rule 1113.

Energy Use -

Water And Wastewater -

Solid Waste -

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

Mobile Land Use Mitigation -

Grading -

Area Mitigation -

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
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	50	100
tblAreaMitigation	UseLowVOCPaintParkingValue	50	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	230.00	117.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	11/22/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	9/28/2022	9/14/2022

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseEndDate	11/9/2022	10/19/2022
tblConstructionPhase	PhaseEndDate	10/25/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	10/12/2022	9/21/2022
tblConstructionPhase	PhaseStartDate	10/26/2023	1/9/2023
tblConstructionPhase	PhaseStartDate	11/10/2022	10/20/2022
tblConstructionPhase	PhaseStartDate	10/13/2022	9/22/2022
tblConstructionPhase	PhaseStartDate	9/28/2023	3/6/2023
tblConstructionPhase	PhaseStartDate	9/29/2022	9/15/2022
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	ST_TR	616.12	117.51
tblVehicleTrips	ST_TR	696.00	647.37
tblVehicleTrips	SU_TR	472.58	90.14
tblVehicleTrips	SU_TR	500.00	465.06
tblVehicleTrips	WD_TR	470.95	89.82
tblVehicleTrips	WD_TR	346.23	322.04

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	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					
2022	0.0965	0.8861	0.8512	1.7600e-003	0.1587	0.0414	0.2000	0.0697	0.0386	0.1083	0.0000	156.3445	156.3445	0.0317	3.4900e-003	158.1767
2023	0.1535	0.6681	0.8790	1.7900e-003	0.0502	0.0305	0.0807	0.0135	0.0287	0.0422	0.0000	159.6792	159.6792	0.0265	4.1100e-003	161.5669
Maximum	**0.1535**	**0.8861**	**0.8790**	**1.7900e-003**	**0.1587**	**0.0414**	**0.2000**	**0.0697**	**0.0386**	**0.1083**	**0.0000**	**159.6792**	**159.6792**	**0.0317**	**4.1100e-003**	**161.5669**

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					
2022	0.0965	0.8861	0.8512	1.7600e-003	0.0917	0.0414	0.1331	0.0369	0.0386	0.0754	0.0000	156.3443	156.3443	0.0317	3.4900e-003	158.1765
2023	0.1535	0.6681	0.8790	1.7900e-003	0.0502	0.0305	0.0807	0.0135	0.0287	0.0422	0.0000	159.6791	159.6791	0.0265	4.1100e-003	161.5668
Maximum	**0.1535**	**0.8861**	**0.8790**	**1.7900e-003**	**0.0917**	**0.0414**	**0.1331**	**0.0369**	**0.0386**	**0.0754**	**0.0000**	**159.6791**	**159.6791**	**0.0317**	**4.1100e-003**	**161.5668**

	ROG	NOx	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**	**32.05**	**0.00**	**23.85**	**39.48**	**0.00**	**21.84**	**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)

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1	**9-1-2022**	**11-30-2022**	0.7630	0.7630
2	**12-1-2022**	**2-28-2023**	0.6727	0.6727
3	**3-1-2023**	**5-31-2023**	0.3528	0.3528
		Highest	0.7630	0.7630

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	0.1031	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Energy	0.0320	0.2907	0.2442	1.7400e-003		0.0221	0.0221		0.0221	0.0221	0.0000	471.4203	471.4203	0.0191	7.3900e-003	474.1003
Mobile	2.8145	3.2085	28.7040	0.0605	6.2229	0.0450	6.2678	1.6601	0.0417	1.7018	0.0000	5,654.5416	5,654.5416	0.3967	0.2508	5,739.1828
Waste						0.0000	0.0000		0.0000	0.0000	53.6404	0.0000	53.6404	3.1701	0.0000	132.8917
Water						0.0000	0.0000		0.0000	0.0000	2.2091	16.9549	19.1640	0.2283	5.5300e-003	26.5202
Total	**2.9496**	**3.4992**	**28.9490**	**0.0623**	**6.2229**	**0.0670**	**6.2899**	**1.6601**	**0.0638**	**1.7239**	**55.8494**	**6,142.9185**	**6,198.7679**	**3.8142**	**0.2637**	**6,372.6969**

Mitigated Operational

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive 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	0.1031	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Energy	0.0320	0.2907	0.2442	1.7400e-003		0.0221	0.0221		0.0221	0.0221	0.0000	471.4203	471.4203	0.0191	7.3900e-003	474.1003
Mobile	2.8145	3.2085	28.7040	0.0605	6.2229	0.0450	6.2678	1.6601	0.0417	1.7018	0.0000	5,654.5416	5,654.5416	0.3967	0.2508	5,739.1828
Waste						0.0000	0.0000		0.0000	0.0000	53.6404	0.0000	53.6404	3.1701	0.0000	132.8917
Water						0.0000	0.0000		0.0000	0.0000	2.2091	16.9549	19.1640	0.2283	5.5300e-003	26.5202
Total	**2.9496**	**3.4992**	**28.9490**	**0.0623**	**6.2229**	**0.0670**	**6.2899**	**1.6601**	**0.0638**	**1.7239**	**55.8494**	**6,142.9185**	**6,198.7679**	**3.8142**	**0.2637**	**6,372.6969**

	ROG	NOx	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	9/1/2022	9/14/2022	5	10	
2	Site Preparation	Site Preparation	9/15/2022	9/21/2022	5	5	
3	Grading	Grading	9/22/2022	10/19/2022	5	20	
4	Building Construction	Building Construction	10/20/2022	3/31/2023	5	117	
5	Paving	Paving	3/6/2023	3/31/2023	5	20	

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6	Architectural Coating	Architectural Coating	1/9/2023	3/31/2023	5	60	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 20

Acres of Paving: 4.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 34,409; Non-Residential Outdoor: 11,470; Striped Parking Area: 12,438

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	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6	15.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	97.00	38.00	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	19.00	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 - 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					
Fugitive Dust					1.7300e-003	0.0000	1.7300e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1286	0.1030	1.9000e-004		6.2100e-003	6.2100e-003		5.7800e-003	5.7800e-003	0.0000	16.9951	16.9951	4.7700e-003	0.0000	17.1145

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**0.0132**	**0.1286**	**0.1030**	**1.9000e-004**	**1.7300e-003**	**6.2100e-003**	**7.9400e-003**	**2.6000e-004**	**5.7800e-003**	**6.0400e-003**	**0.0000**	**16.9951**	**16.9951**	**4.7700e-003**	**0.0000**	**17.1145**

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	4.0000e-005	1.4200e-003	3.2000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4941	0.4941	3.0000e-005	8.0000e-005	0.5182
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	2.6000e-004	2.1000e-004	2.7800e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6803	0.6803	2.0000e-005	2.0000e-005	0.6863
Total	**3.0000e-004**	**1.6300e-003**	**3.1000e-003**	**1.0000e-005**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**1.1744**	**1.1744**	**5.0000e-005**	**1.0000e-004**	**1.2044**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.8000e-004	0.0000	7.8000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Off-Road	0.0132	0.1286	0.1030	1.9000e-004		6.2100e-003	6.2100e-003		5.7800e-003	5.7800e-003	0.0000	16.9951	16.9951	4.7700e-003	0.0000	17.1144
Total	**0.0132**	**0.1286**	**0.1030**	**1.9000e-004**	**7.8000e-004**	**6.2100e-003**	**6.9900e-003**	**1.2000e-004**	**5.7800e-003**	**5.9000e-003**	**0.0000**	**16.9951**	**16.9951**	**4.7700e-003**	**0.0000**	**17.1144**

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	4.0000e-005	1.4200e-003	3.2000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4941	0.4941	3.0000e-005	8.0000e-005	0.5182
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	2.6000e-004	2.1000e-004	2.7800e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6803	0.6803	2.0000e-005	2.0000e-005	0.6863
Total	**3.0000e-004**	**1.6300e-003**	**3.1000e-003**	**1.0000e-005**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**1.1744**	**1.1744**	**5.0000e-005**	**1.0000e-004**	**1.2044**

3.3 Site Preparation - 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					

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3599	8.3599	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3599**	**8.3599**	**2.7000e-003**	**0.0000**	**8.4274**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.3000e-004	1.6700e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4082	0.4082	1.0000e-005	1.0000e-005	0.4118
Total	**1.5000e-004**	**1.3000e-004**	**1.6700e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4082**	**0.4082**	**1.0000e-005**	**1.0000e-005**	**0.4118**

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

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	tons/yr										MT/yr					
Fugitive Dust					0.0221	0.0000	0.0221	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3598	8.3598	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0221**	**4.0300e-003**	**0.0261**	**0.0114**	**3.7100e-003**	**0.0151**	**0.0000**	**8.3598**	**8.3598**	**2.7000e-003**	**0.0000**	**8.4274**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.3000e-004	1.6700e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4082	0.4082	1.0000e-005	1.0000e-005	0.4118
Total	**1.5000e-004**	**1.3000e-004**	**1.6700e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4082**	**0.4082**	**1.0000e-005**	**1.0000e-005**	**0.4118**

3.4 Grading - 2022

Unmitigated Construction On-Site

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive 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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0708**	**9.4100e-003**	**0.0802**	**0.0343**	**8.6600e-003**	**0.0429**	**0.0000**	**26.0548**	**26.0548**	**8.4300e-003**	**0.0000**	**26.2654**

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	5.1000e-004	4.3000e-004	5.5700e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3606	1.3606	4.0000e-005	4.0000e-005	1.3726
Total	**5.1000e-004**	**4.3000e-004**	**5.5700e-003**	**1.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3606**	**1.3606**	**4.0000e-005**	**4.0000e-005**	**1.3726**

Mitigated Construction On-Site

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive 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					0.0319	0.0000	0.0319	0.0154	0.0000	0.0154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654
Total	**0.0195**	**0.2086**	**0.1527**	**3.0000e-004**	**0.0319**	**9.4100e-003**	**0.0413**	**0.0154**	**8.6600e-003**	**0.0241**	**0.0000**	**26.0547**	**26.0547**	**8.4300e-003**	**0.0000**	**26.2654**

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	5.1000e-004	4.3000e-004	5.5700e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3606	1.3606	4.0000e-005	4.0000e-005	1.3726
Total	**5.1000e-004**	**4.3000e-004**	**5.5700e-003**	**1.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3606**	**1.3606**	**4.0000e-005**	**4.0000e-005**	**1.3726**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0444	0.4060	0.4255	7.0000e-004		0.0210	0.0210		0.0198	0.0198	0.0000	60.2486	60.2486	0.0144	0.0000	60.6094
Total	**0.0444**	**0.4060**	**0.4255**	**7.0000e-004**		**0.0210**	**0.0210**		**0.0198**	**0.0198**	**0.0000**	**60.2486**	**60.2486**	**0.0144**	**0.0000**	**60.6094**

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	1.9300e-003	0.0508	0.0169	1.9000e-004	6.2300e-003	4.6000e-004	6.6900e-003	1.8000e-003	4.4000e-004	2.2400e-003	0.0000	18.8666	18.8666	6.3000e-004	2.7200e-003	19.6934
Worker	8.6400e-003	7.2000e-003	0.0936	2.5000e-004	0.0276	1.8000e-004	0.0278	7.3400e-003	1.7000e-004	7.5100e-003	0.0000	22.8763	22.8763	6.5000e-004	6.2000e-004	23.0777
Total	**0.0106**	**0.0580**	**0.1105**	**4.4000e-004**	**0.0339**	**6.4000e-004**	**0.0345**	**9.1400e-003**	**6.1000e-004**	**9.7500e-003**	**0.0000**	**41.7429**	**41.7429**	**1.2800e-003**	**3.3400e-003**	**42.7711**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0444	0.4060	0.4255	7.0000e-004		0.0210	0.0210		0.0198	0.0198	0.0000	60.2485	60.2485	0.0144	0.0000	60.6093
Total	**0.0444**	**0.4060**	**0.4255**	**7.0000e-004**		**0.0210**	**0.0210**		**0.0198**	**0.0198**	**0.0000**	**60.2485**	**60.2485**	**0.0144**	**0.0000**	**60.6093**

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	1.9300e-003	0.0508	0.0169	1.9000e-004	6.2300e-003	4.6000e-004	6.6900e-003	1.8000e-003	4.4000e-004	2.2400e-003	0.0000	18.8666	18.8666	6.3000e-004	2.7200e-003	19.6934
Worker	8.6400e-003	7.2000e-003	0.0936	2.5000e-004	0.0276	1.8000e-004	0.0278	7.3400e-003	1.7000e-004	7.5100e-003	0.0000	22.8763	22.8763	6.5000e-004	6.2000e-004	23.0777
Total	**0.0106**	**0.0580**	**0.1105**	**4.4000e-004**	**0.0339**	**6.4000e-004**	**0.0345**	**9.1400e-003**	**6.1000e-004**	**9.7500e-003**	**0.0000**	**41.7429**	**41.7429**	**1.2800e-003**	**3.3400e-003**	**42.7711**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

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	0.0511	0.4675	0.5279	8.8000e-004		0.0227	0.0227		0.0214	0.0214	0.0000	75.3365	75.3365	0.0179	0.0000	75.7846
Total	**0.0511**	**0.4675**	**0.5279**	**8.8000e-004**		**0.0227**	**0.0227**		**0.0214**	**0.0214**	**0.0000**	**75.3365**	**75.3365**	**0.0179**	**0.0000**	**75.7846**

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	1.4000e-003	0.0498	0.0186	2.3000e-004	7.7800e-003	2.4000e-004	8.0200e-003	2.2500e-003	2.3000e-004	2.4800e-003	0.0000	22.4551	22.4551	7.5000e-004	3.2300e-003	23.4368
Worker	0.0100	7.9500e-003	0.1077	3.0000e-004	0.0346	2.1000e-004	0.0348	9.1800e-003	2.0000e-004	9.3700e-003	0.0000	27.8421	27.8421	7.3000e-004	7.2000e-004	28.0737
Total	**0.0114**	**0.0577**	**0.1263**	**5.3000e-004**	**0.0423**	**4.5000e-004**	**0.0428**	**0.0114**	**4.3000e-004**	**0.0119**	**0.0000**	**50.2972**	**50.2972**	**1.4800e-003**	**3.9500e-003**	**51.5106**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0511	0.4675	0.5279	8.8000e-004		0.0227	0.0227		0.0214	0.0214	0.0000	75.3365	75.3365	0.0179	0.0000	75.7845
Total	**0.0511**	**0.4675**	**0.5279**	**8.8000e-004**		**0.0227**	**0.0227**		**0.0214**	**0.0214**	**0.0000**	**75.3365**	**75.3365**	**0.0179**	**0.0000**	**75.7845**

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	1.4000e-003	0.0498	0.0186	2.3000e-004	7.7800e-003	2.4000e-004	8.0200e-003	2.2500e-003	2.3000e-004	2.4800e-003	0.0000	22.4551	22.4551	7.5000e-004	3.2300e-003	23.4368
Worker	0.0100	7.9500e-003	0.1077	3.0000e-004	0.0346	2.1000e-004	0.0348	9.1800e-003	2.0000e-004	9.3700e-003	0.0000	27.8421	27.8421	7.3000e-004	7.2000e-004	28.0737
Total	**0.0114**	**0.0577**	**0.1263**	**5.3000e-004**	**0.0423**	**4.5000e-004**	**0.0428**	**0.0114**	**4.3000e-004**	**0.0119**	**0.0000**	**50.2972**	**50.2972**	**1.4800e-003**	**3.9500e-003**	**51.5106**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	5.0000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0153**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.8000e-004	5.1200e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3248	1.3248	3.0000e-005	3.0000e-005	1.3358
Total	**4.8000e-004**	**3.8000e-004**	**5.1200e-003**	**1.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3248**	**1.3248**	**3.0000e-005**	**3.0000e-005**	**1.3358**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	5.0000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0153**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.8000e-004	5.1200e-003	1.0000e-005	1.6400e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3248	1.3248	3.0000e-005	3.0000e-005	1.3358

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**4.8000e-004**	**3.8000e-004**	**5.1200e-003**	**1.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3248**	**1.3248**	**3.0000e-005**	**3.0000e-005**	**1.3358**

3.7 Architectural Coating - 2023

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	0.0676					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7500e-003	0.0391	0.0543	9.0000e-005		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	7.6598	7.6598	4.6000e-004	0.0000	7.6712
Total	**0.0733**	**0.0391**	**0.0543**	**9.0000e-005**		**2.1200e-003**	**2.1200e-003**		**2.1200e-003**	**2.1200e-003**	**0.0000**	**7.6598**	**7.6598**	**4.6000e-004**	**0.0000**	**7.6712**

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

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Worker	1.8100e-003	1.4400e-003	0.0195	5.0000e-005	6.2500e-003	4.0000e-005	6.2800e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.0341	5.0341	1.3000e-004	1.3000e-004	5.0760
Total	**1.8100e-003**	**1.4400e-003**	**0.0195**	**5.0000e-005**	**6.2500e-003**	**4.0000e-005**	**6.2800e-003**	**1.6600e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.0341**	**5.0341**	**1.3000e-004**	**1.3000e-004**	**5.0760**

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	0.0676					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7500e-003	0.0391	0.0543	9.0000e-005		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	7.6598	7.6598	4.6000e-004	0.0000	7.6712
Total	**0.0733**	**0.0391**	**0.0543**	**9.0000e-005**		**2.1200e-003**	**2.1200e-003**		**2.1200e-003**	**2.1200e-003**	**0.0000**	**7.6598**	**7.6598**	**4.6000e-004**	**0.0000**	**7.6712**

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

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.8100e-003	1.4400e-003	0.0195	5.0000e-005	6.2500e-003	4.0000e-005	6.2800e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.0341	5.0341	1.3000e-004	1.3000e-004	5.0760
Total	**1.8100e-003**	**1.4400e-003**	**0.0195**	**5.0000e-005**	**6.2500e-003**	**4.0000e-005**	**6.2800e-003**	**1.6600e-003**	**4.0000e-005**	**1.6900e-003**	**0.0000**	**5.0341**	**5.0341**	**1.3000e-004**	**1.3000e-004**	**5.0760**

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	2.8145	3.2085	28.7040	0.0605	6.2229	0.0450	6.2678	1.6601	0.0417	1.7018	0.0000	5,654.5416	5,654.5416	0.3967	0.2508	5,739.1828
Unmitigated	2.8145	3.2085	28.7040	0.0605	6.2229	0.0450	6.2678	1.6601	0.0417	1.7018	0.0000	5,654.5416	5,654.5416	0.3967	0.2508	5,739.1828

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,036.43	1,355.95	1040.07	3,268,930	3,268,930
Fast Food Restaurant w/o Drive Thru	3,671.26	7,380.02	5301.68	13,295,927	13,295,927

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	4,707.69	8,735.97	6,341.75	16,564,857	16,564,857

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
Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	100	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Fast Food Restaurant w/o Drive Thru	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Parking Lot	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive 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	154.9506	154.9506	0.0131	1.5900e-003	155.7499
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.9506	154.9506	0.0131	1.5900e-003	155.7499
NaturalGas Mitigated	0.0320	0.2907	0.2442	1.7400e-003		0.0221	0.0221		0.0221	0.0221	0.0000	316.4698	316.4698	6.0700e-003	5.8000e-003	318.3504
NaturalGas Unmitigated	0.0320	0.2907	0.2442	1.7400e-003		0.0221	0.0221		0.0221	0.0221	0.0000	316.4698	316.4698	6.0700e-003	5.8000e-003	318.3504

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					
Fast Food Restaurant w/o Drive Thru	2.94724e+006	0.0159	0.1445	0.1214	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.2761	157.2761	3.0100e-003	2.8800e-003	158.2107
Fast Food Restaurant with Drive Thru	2.98318e+006	0.0161	0.1462	0.1228	8.8000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	159.1937	159.1937	3.0500e-003	2.9200e-003	160.1397
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0320**	**0.2907**	**0.2442**	**1.7500e-003**		**0.0221**	**0.0221**		**0.0221**	**0.0221**	**0.0000**	**316.4698**	**316.4698**	**6.0600e-003**	**5.8000e-003**	**318.3504**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Fast Food Restaurant w/o Dr...Thr...	2.94724e+006	0.0159	0.1445	0.1214	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.2761	157.2761	3.0100e-003	2.8800e-003	158.2107
Fast Food Restaurant with Dr...Thr...	2.98318e+006	0.0161	0.1462	0.1228	8.8000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	159.1937	159.1937	3.0500e-003	2.9200e-003	160.1397
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0320**	**0.2907**	**0.2442**	**1.7500e-003**		**0.0221**	**0.0221**		**0.0221**	**0.0221**	**0.0000**	**316.4698**	**316.4698**	**6.0600e-003**	**5.8000e-003**	**318.3504**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Dr...Thr...	405270	71.8728	6.0700e-003	7.4000e-004	72.2436
Fast Food Restaurant with Dr...Thr...	410211	72.7492	6.1400e-003	7.4000e-004	73.1245

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	58239.7	10.3286	8.7000e-004	1.1000e-004	10.3818
Total		**154.9506**	**0.0131**	**1.5900e-003**	**155.7499**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Dr... Thr...	405270	71.8728	6.0700e-003	7.4000e-004	72.2436
Fast Food Restaurant with Dr... Thr...	410211	72.7492	6.1400e-003	7.4000e-004	73.1245
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	58239.7	10.3286	8.7000e-004	1.1000e-004	10.3818
Total		**154.9506**	**0.0131**	**1.5900e-003**	**155.7499**

6.0 Area Detail

6.1 Mitigation Measures Area

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive 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	0.1031	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Unmitigated	0.1031	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-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	6.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Total	**0.1031**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.7900e-003**

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.7900e-003
Total	**0.1031**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.7900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.1640	0.2283	5.5300e-003	26.5202

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated	19.1640	0.2283	5.5300e-003	26.5202

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	3.46028 / 0.220869	9.5235	0.1135	2.7500e-003	13.1792
Fast Food Restaurant with Drive Thru	3.50278 / 0.223582	9.6405	0.1149	2.7800e-003	13.3411
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		**19.1640**	**0.2283**	**5.5300e-003**	**26.5203**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fast Food Restaurant w/o Dr... Thr...	3.46028 / 0.220869	9.5235	0.1135	2.7500e-003	13.1792
Fast Food Restaurant with Dr... Thr...	3.50278 / 0.223582	9.6405	0.1149	2.7800e-003	13.3411
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		**19.1640**	**0.2283**	**5.5300e-003**	**26.5203**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	53.6404	3.1701	0.0000	132.8917
Unmitigated	53.6404	3.1701	0.0000	132.8917

8.2 Waste by Land Use

Unmitigated

190th & Western Commercial Center - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	131.32	26.6568	1.5754	0.0000	66.0410
Fast Food Restaurant with Drive Thru	132.93	26.9836	1.5947	0.0000	66.8507
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		**53.6404**	**3.1701**	**0.0000**	**132.8917**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	131.32	26.6568	1.5754	0.0000	66.0410
Fast Food Restaurant with Drive Thru	132.93	26.9836	1.5947	0.0000	66.8507
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total		**53.6404**	**3.1701**	**0.0000**	**132.8917**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

190th & Western Commercial Center

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	40.90	1000sqft	0.94	40,896.00	0
Parking Lot	3.82	Acre	3.82	166,399.20	0
Fast Food Restaurant with Drive Thru	11.54	1000sqft	0.26	11,539.00	0
Fast Food Restaurant w/o Drive Thru	11.40	1000sqft	0.26	11,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site is 5.28 acres.

Construction Phase - Assume architectural coating would be applied on each building during the building construction process and that paving also occurs during building construction.

Demolition -

Architectural Coating - Assume all architectural coatings would comply with SCAQMD Rule 1113.

Vehicle Trips - Used peak daily rates from traffic study (which includes pass-by reduction) for weekdays, proportioned the default weekend rates.

Date: 1/24/2022 5:11 PM

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area Coating - All architectural coatings would comply with SCAQMD Rule 1113.

Energy Use -

Water And Wastewater -

Solid Waste -

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

Mobile Land Use Mitigation -

Grading -

Area Mitigation -

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
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	50	100
tblAreaMitigation	UseLowVOCPaintParkingValue	50	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	230.00	117.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	11/22/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	9/28/2022	9/14/2022

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseEndDate	11/9/2022	10/19/2022
tblConstructionPhase	PhaseEndDate	10/25/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	10/12/2022	9/21/2022
tblConstructionPhase	PhaseStartDate	10/26/2023	1/9/2023
tblConstructionPhase	PhaseStartDate	11/10/2022	10/20/2022
tblConstructionPhase	PhaseStartDate	10/13/2022	9/22/2022
tblConstructionPhase	PhaseStartDate	9/28/2023	3/6/2023
tblConstructionPhase	PhaseStartDate	9/29/2022	9/15/2022
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	ST_TR	616.12	117.51
tblVehicleTrips	ST_TR	696.00	647.37
tblVehicleTrips	SU_TR	472.58	90.14
tblVehicleTrips	SU_TR	500.00	465.06
tblVehicleTrips	WD_TR	470.95	89.82
tblVehicleTrips	WD_TR	346.23	322.04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	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					
2022	3.2324	33.1290	21.2479	0.0443	19.8582	1.6139	21.4721	10.1558	1.4848	11.6406	0.0000	4,363.0109	4,363.0109	1.1972	0.1395	4,421.2369
2023	6.0133	27.6306	37.9515	0.0727	1.7077	1.2969	3.0046	0.4584	1.2138	1.6722	0.0000	7,131.8383	7,131.8383	1.3972	0.1397	7,208.3852
Maximum	**6.0133**	**33.1290**	**37.9515**	**0.0727**	**19.8582**	**1.6139**	**21.4721**	**10.1558**	**1.4848**	**11.6406**	**0.0000**	**7,131.8383**	**7,131.8383**	**1.3972**	**0.1397**	**7,208.3852**

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					
2022	3.2324	33.1290	21.2479	0.0443	9.0469	1.6139	10.6607	4.5995	1.4848	6.0842	0.0000	4,363.0109	4,363.0109	1.1972	0.1395	4,421.2369
2023	6.0133	27.6306	37.9515	0.0727	1.7077	1.2969	3.0046	0.4584	1.2138	1.6722	0.0000	7,131.8383	7,131.8383	1.3972	0.1397	7,208.3852
Maximum	**6.0133**	**33.1290**	**37.9515**	**0.0727**	**9.0469**	**1.6139**	**10.6607**	**4.5995**	**1.4848**	**6.0842**	**0.0000**	**7,131.8383**	**7,131.8383**	**1.3972**	**0.1397**	**7,208.3852**

	ROG	NOx	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**	**50.13**	**0.00**	**44.17**	**52.35**	**0.00**	**41.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Energy	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561
Mobile	25.4175	25.4774	252.7037	0.5441	55.2063	0.3914	55.5977	14.7046	0.3633	15.0679		56,030.3179	56,030.3179	3.7087	2.2867	56,804.4551
Total	**26.1580**	**27.0704**	**254.0487**	**0.5536**	**55.2063**	**0.5125**	**55.7188**	**14.7046**	**0.4844**	**15.1890**		**57,941.8298**	**57,941.8298**	**3.7454**	**2.3217**	**58,727.3270**

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	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Energy	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561
Mobile	25.4175	25.4774	252.7037	0.5441	55.2063	0.3914	55.5977	14.7046	0.3633	15.0679		56,030.3179	56,030.3179	3.7087	2.2867	56,804.4551

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**26.1580**	**27.0704**	**254.0487**	**0.5536**	**55.2063**	**0.5125**	**55.7188**	**14.7046**	**0.4844**	**15.1890**		**57,941.8298**	**57,941.8298**	**3.7454**	**2.3217**	**58,727.3270**

	ROG	NOx	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	9/1/2022	9/14/2022	5	10	
2	Site Preparation	Site Preparation	9/15/2022	9/21/2022	5	5	
3	Grading	Grading	9/22/2022	10/19/2022	5	20	
4	Building Construction	Building Construction	10/20/2022	3/31/2023	5	117	
5	Paving	Paving	3/6/2023	3/31/2023	5	20	
6	Architectural Coating	Architectural Coating	1/9/2023	3/31/2023	5	60	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 20

Acres of Paving: 4.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 34,409; Non-Residential Outdoor: 11,470; Striped Parking Area: 12,438

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	97.00	38.00	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

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating		1	19.00	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 - 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					
Fugitive Dust					0.3459	0.0000	0.3459	0.0524	0.0000	0.0524			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.3459**	**1.2427**	**1.5886**	**0.0524**	**1.1553**	**1.2076**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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					

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hauling	7.4500e-003	0.2687	0.0627	9.9000e-004	0.0280	2.0000e-003	0.0300	7.6800e-003	1.9100e-003	9.5900e-003		108.9241	108.9241	5.7900e-003	0.0173	114.2188
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
Worker	0.0519	0.0379	0.5912	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		156.0191	156.0191	4.2200e-003	3.7500e-003	157.2432
Total	**0.0594**	**0.3066**	**0.6539**	**2.5200e-003**	**0.1957**	**3.0700e-003**	**0.1987**	**0.0522**	**2.9000e-003**	**0.0550**		**264.9432**	**264.9432**	**0.0100**	**0.0210**	**271.4620**

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					0.1557	0.0000	0.1557	0.0236	0.0000	0.0236			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1557**	**1.2427**	**1.3983**	**0.0236**	**1.1553**	**1.1788**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	7.4500e-003	0.2687	0.0627	9.9000e-004	0.0280	2.0000e-003	0.0300	7.6800e-003	1.9100e-003	9.5900e-003		108.9241	108.9241	5.7900e-003	0.0173	114.2188
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
Worker	0.0519	0.0379	0.5912	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		156.0191	156.0191	4.2200e-003	3.7500e-003	157.2432
Total	**0.0594**	**0.3066**	**0.6539**	**2.5200e-003**	**0.1957**	**3.0700e-003**	**0.1987**	**0.0522**	**2.9000e-003**	**0.0550**		**264.9432**	**264.9432**	**0.0100**	**0.0210**	**271.4620**

3.3 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	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
Worker	0.0623	0.0455	0.7094	1.8400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		187.2229	187.2229	5.0700e-003	4.5000e-003	188.6918
Total	**0.0623**	**0.0455**	**0.7094**	**1.8400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**187.2229**	**187.2229**	**5.0700e-003**	**4.5000e-003**	**188.6918**

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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.8457**	**1.6126**	**10.4582**	**4.5461**	**1.4836**	**6.0297**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	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
Worker	0.0623	0.0455	0.7094	1.8400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		187.2229	187.2229	5.0700e-003	4.5000e-003	188.6918
Total	**0.0623**	**0.0455**	**0.7094**	**1.8400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**187.2229**	**187.2229**	**5.0700e-003**	**4.5000e-003**	**188.6918**

3.4 Grading - 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					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	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
Worker	0.0519	0.0379	0.5912	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		156.0191	156.0191	4.2200e-003	3.7500e-003	157.2432
Total	**0.0519**	**0.0379**	**0.5912**	**1.5300e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**156.0191**	**156.0191**	**4.2200e-003**	**3.7500e-003**	**157.2432**

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**3.1872**	**0.9409**	**4.1280**	**1.5411**	**0.8656**	**2.4067**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	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
Worker	0.0519	0.0379	0.5912	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		156.0191	156.0191	4.2200e-003	3.7500e-003	157.2432
Total	**0.0519**	**0.0379**	**0.5912**	**1.5300e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**156.0191**	**156.0191**	**4.2200e-003**	**3.7500e-003**	**157.2432**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0748	1.8614	0.6382	7.4400e-003	0.2434	0.0177	0.2611	0.0701	0.0170	0.0871		799.7541	799.7541	0.0267	0.1153	834.7655
Worker	0.3357	0.2451	3.8231	9.9200e-003	1.0842	6.9500e-003	1.0912	0.2875	6.4000e-003	0.2939		1,008.9233	1,008.9233	0.0273	0.0243	1,016.8392
Total	**0.4105**	**2.1065**	**4.4613**	**0.0174**	**1.3276**	**0.0247**	**1.3523**	**0.3576**	**0.0234**	**0.3810**		**1,808.6773**	**1,808.6773**	**0.0540**	**0.1395**	**1,851.6047**

Mitigated Construction On-Site

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

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0748	1.8614	0.6382	7.4400e-003	0.2434	0.0177	0.2611	0.0701	0.0170	0.0871		799.7541	799.7541	0.0267	0.1153	834.7655
Worker	0.3357	0.2451	3.8231	9.9200e-003	1.0842	6.9500e-003	1.0912	0.2875	6.4000e-003	0.2939		1,008.9233	1,008.9233	0.0273	0.0243	1,016.8392
Total	**0.4105**	**2.1065**	**4.4613**	**0.0174**	**1.3276**	**0.0247**	**1.3523**	**0.3576**	**0.0234**	**0.3810**		**1,808.6773**	**1,808.6773**	**0.0540**	**0.1395**	**1,851.6047**

3.5 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0438	1.4586	0.5651	7.0700e-003	0.2434	7.3300e-003	0.2507	0.0701	7.0100e-003	0.0771		761.0734	761.0734	0.0255	0.1094	794.3182
Worker	0.3106	0.2166	3.5150	9.6000e-003	1.0842	6.5400e-003	1.0908	0.2875	6.0200e-003	0.2936		982.2344	982.2344	0.0245	0.0224	989.5172
Total	**0.3544**	**1.6751**	**4.0801**	**0.0167**	**1.3276**	**0.0139**	**1.3415**	**0.3576**	**0.0130**	**0.3707**		**1,743.3078**	**1,743.3078**	**0.0500**	**0.1318**	**1,783.8354**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0438	1.4586	0.5651	7.0700e-003	0.2434	7.3300e-003	0.2507	0.0701	7.0100e-003	0.0771		761.0734	761.0734	0.0255	0.1094	794.3182
Worker	0.3106	0.2166	3.5150	9.6000e-003	1.0842	6.5400e-003	1.0908	0.2875	6.0200e-003	0.2936		982.2344	982.2344	0.0245	0.0224	989.5172
Total	**0.3544**	**1.6751**	**4.0801**	**0.0167**	**1.3276**	**0.0139**	**1.3415**	**0.3576**	**0.0130**	**0.3707**		**1,743.3078**	**1,743.3078**	**0.0500**	**0.1318**	**1,783.8354**

3.6 Paving - 2023

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.5004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**1.5332**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0480	0.0335	0.5436	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		151.8919	151.8919	3.7800e-003	3.4600e-003	153.0181
Total	**0.0480**	**0.0335**	**0.5436**	**1.4800e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**151.8919**	**151.8919**	**3.7800e-003**	**3.4600e-003**	**153.0181**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	0.5004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5332**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0480	0.0335	0.5436	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		151.8919	151.8919	3.7800e-003	3.4600e-003	153.0181
Total	**0.0480**	**0.0335**	**0.5436**	**1.4800e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**151.8919**	**151.8919**	**3.7800e-003**	**3.4600e-003**	**153.0181**

3.7 Architectural Coating - 2023

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					

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Archit. Coating	2.2525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**2.4442**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.0608	0.0424	0.6885	1.8800e-003	0.2124	1.2800e-003	0.2137	0.0563	1.1800e-003	0.0575		192.3964	192.3964	4.7900e-003	4.3900e-003	193.8230
Total	**0.0608**	**0.0424**	**0.6885**	**1.8800e-003**	**0.2124**	**1.2800e-003**	**0.2137**	**0.0563**	**1.1800e-003**	**0.0575**		**192.3964**	**192.3964**	**4.7900e-003**	**4.3900e-003**	**193.8230**

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

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Archit. Coating	2.2525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**2.4442**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.0608	0.0424	0.6885	1.8800e-003	0.2124	1.2800e-003	0.2137	0.0563	1.1800e-003	0.0575		192.3964	192.3964	4.7900e-003	4.3900e-003	193.8230
Total	**0.0608**	**0.0424**	**0.6885**	**1.8800e-003**	**0.2124**	**1.2800e-003**	**0.2137**	**0.0563**	**1.1800e-003**	**0.0575**		**192.3964**	**192.3964**	**4.7900e-003**	**4.3900e-003**	**193.8230**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	25.4175	25.4774	252.7037	0.5441	55.2063	0.3914	55.5977	14.7046	0.3633	15.0679		56,030.3170	56,030.3170	3.7087	2.2867	56,804.4551
Unmitigated	25.4175	25.4774	252.7037	0.5441	55.2063	0.3914	55.5977	14.7046	0.3633	15.0679		56,030.3170	56,030.3170	3.7087	2.2867	56,804.4551

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,036.43	1,355.95	1040.07	3,268,930	3,268,930
Fast Food Restaurant w/o Drive Thru	3,671.26	7,380.02	5301.68	13,295,927	13,295,927
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	4,707.69	8,735.97	6,341.75	16,564,857	16,564,857

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
Fast Food Restaurant with Drive Th	16.60	8.40	6.90	2.20	78.80	19.00	100	0	0
Fast Food Restaurant w/o Drive Th	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fast Food Restaurant with Drive Thru	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Fast Food Restaurant w/o Drive Thru	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Parking Lot	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

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	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561
NaturalGas Unmitigated	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561

5.2 Energy by Land Use - NaturalGas

Unmitigated

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fast Food Restaurant w/o Drive Thru	8074.64	0.0871	0.7916	0.6650	4.7500e-003		0.0602	0.0602		0.0602	0.0602		949.9571	949.9571	0.0182	0.0174	955.6023
Fast Food Restaurant with Drive Thru	8173.09	0.0881	0.8013	0.6731	4.8100e-003		0.0609	0.0609		0.0609	0.0609		961.5399	961.5399	0.0184	0.0176	967.2539
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		**0.1752**	**1.5929**	**1.3381**	**9.5600e-003**		**0.1211**	**0.1211**		**0.1211**	**0.1211**		**1,911.4971**	**1,911.4971**	**0.0366**	**0.0351**	**1,922.8561**

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					
Fast Food Restaurant w/o Drive Thru	8.07464	0.0871	0.7916	0.6650	4.7500e-003		0.0602	0.0602		0.0602	0.0602		949.9571	949.9571	0.0182	0.0174	955.6023
Fast Food Restaurant with Drive Thru	8.17309	0.0881	0.8013	0.6731	4.8100e-003		0.0609	0.0609		0.0609	0.0609		961.5399	961.5399	0.0184	0.0176	967.2539
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		**0.1752**	**1.5929**	**1.3381**	**9.5600e-003**		**0.1211**	**0.1211**		**0.1211**	**0.1211**		**1,911.4971**	**1,911.4971**	**0.0366**	**0.0351**	**1,922.8561**

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Unmitigated	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158

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	0.0370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Consumer Products	0.5276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4000e-004	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Total	**0.5653**	**6.0000e-005**	**6.9100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0148**	**0.0148**	**4.0000e-005**		**0.0158**

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	0.0370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4000e-004	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Total	**0.5653**	**6.0000e-005**	**6.9100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0148**	**0.0148**	**4.0000e-005**		**0.0158**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

190th & Western Commercial Center - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

190th & Western Commercial Center

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	40.90	1000sqft	0.94	40,896.00	0
Parking Lot	3.82	Acre	3.82	166,399.20	0
Fast Food Restaurant with Drive Thru	11.54	1000sqft	0.26	11,539.00	0
Fast Food Restaurant w/o Drive Thru	11.40	1000sqft	0.26	11,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Site is 5.28 acres.

Construction Phase - Assume architectural coating would be applied on each building during the building construction process and that paving also occurs during building construction.

Demolition -

Architectural Coating - Assume all architectural coatings would comply with SCAQMD Rule 1113.

Vehicle Trips - Used peak daily rates from traffic study (which includes pass-by reduction) for weekdays, proportioned the default weekend rates.

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area Coating - All architectural coatings would comply with SCAQMD Rule 1113.

Energy Use -

Water And Wastewater -

Solid Waste -

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

Mobile Land Use Mitigation -

Grading -

Area Mitigation -

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
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	50	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	50	100
tblAreaMitigation	UseLowVOCPaintParkingValue	50	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	230.00	117.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	11/22/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	9/28/2022	9/14/2022

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseEndDate	11/9/2022	10/19/2022
tblConstructionPhase	PhaseEndDate	10/25/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	10/12/2022	9/21/2022
tblConstructionPhase	PhaseStartDate	10/26/2023	1/9/2023
tblConstructionPhase	PhaseStartDate	11/10/2022	10/20/2022
tblConstructionPhase	PhaseStartDate	10/13/2022	9/22/2022
tblConstructionPhase	PhaseStartDate	9/28/2023	3/6/2023
tblConstructionPhase	PhaseStartDate	9/29/2022	9/15/2022
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PR_TP	29.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	ST_TR	616.12	117.51
tblVehicleTrips	ST_TR	696.00	647.37
tblVehicleTrips	SU_TR	472.58	90.14
tblVehicleTrips	SU_TR	500.00	465.06
tblVehicleTrips	WD_TR	470.95	89.82
tblVehicleTrips	WD_TR	346.23	322.04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	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					
2022	3.2368	33.1338	21.2006	0.0438	19.8582	1.6139	21.4721	10.1558	1.4848	11.6406	0.0000	4,309.9673	4,309.9673	1.1973	0.1413	4,368.7394
2023	6.0430	27.7297	37.5855	0.0721	1.7077	1.2970	3.0046	0.4584	1.2138	1.6722	0.0000	7,063.1863	7,063.1863	1.3976	0.1420	7,140.4428
Maximum	**6.0430**	**33.1338**	**37.5855**	**0.0721**	**19.8582**	**1.6139**	**21.4721**	**10.1558**	**1.4848**	**11.6406**	**0.0000**	**7,063.1863**	**7,063.1863**	**1.3976**	**0.1420**	**7,140.4428**

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					
2022	3.2368	33.1338	21.2006	0.0438	9.0469	1.6139	10.6607	4.5995	1.4848	6.0842	0.0000	4,309.9673	4,309.9673	1.1973	0.1413	4,368.7394
2023	6.0430	27.7297	37.5855	0.0721	1.7077	1.2970	3.0046	0.4584	1.2138	1.6722	0.0000	7,063.1863	7,063.1863	1.3976	0.1420	7,140.4427
Maximum	**6.0430**	**33.1338**	**37.5855**	**0.0721**	**9.0469**	**1.6139**	**10.6607**	**4.5995**	**1.4848**	**6.0842**	**0.0000**	**7,063.1863**	**7,063.1863**	**1.3976**	**0.1420**	**7,140.4427**

	ROG	NOx	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**	**50.13**	**0.00**	**44.17**	**52.35**	**0.00**	**41.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Energy	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561
Mobile	24.9315	27.5344	247.5208	0.5208	55.2063	0.3916	55.5979	14.7046	0.3635	15.0681		53,643.8462	53,643.8462	3.8252	2.3907	54,451.9088
Total	**25.6720**	**29.1274**	**248.8657**	**0.5303**	**55.2063**	**0.5127**	**55.7190**	**14.7046**	**0.4846**	**15.1892**		**55,555.3580**	**55,555.3580**	**3.8618**	**2.4258**	**56,374.7807**

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	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Energy	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561
Mobile	24.9315	27.5344	247.5208	0.5208	55.2063	0.3916	55.5979	14.7046	0.3635	15.0681		53,643.8462	53,643.8462	3.8252	2.3907	54,451.9088

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	25.6720	29.1274	248.8657	0.5303	55.2063	0.5127	55.7190	14.7046	0.4846	15.1892		55,555.3580	55,555.3580	3.8618	2.4258	56,374.7807

	ROG	NOx	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	9/1/2022	9/14/2022	5	10	
2	Site Preparation	Site Preparation	9/15/2022	9/21/2022	5	5	
3	Grading	Grading	9/22/2022	10/19/2022	5	20	
4	Building Construction	Building Construction	10/20/2022	3/31/2023	5	117	
5	Paving	Paving	3/6/2023	3/31/2023	5	20	
6	Architectural Coating	Architectural Coating	1/9/2023	3/31/2023	5	60	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 20

Acres of Paving: 4.76

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 34,409; Non-Residential Outdoor: 11,470; Striped Parking Area: 12,438

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	97.00	38.00	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

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating		1	19.00	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 - 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					
Fugitive Dust					0.3459	0.0000	0.3459	0.0524	0.0000	0.0524			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.3459**	**1.2427**	**1.5886**	**0.0524**	**1.1553**	**1.2076**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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					

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hauling	7.2800e-003	0.2796	0.0638	9.9000e-004	0.0280	2.0000e-003	0.0300	7.6800e-003	1.9100e-003	9.5900e-003		108.9560	108.9560	5.7800e-003	0.0173	114.2522
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
Worker	0.0556	0.0419	0.5428	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.7700	147.7700	4.2700e-003	4.0100e-003	149.0720
Total	**0.0629**	**0.3215**	**0.6066**	**2.4400e-003**	**0.1957**	**3.0700e-003**	**0.1988**	**0.0522**	**2.9000e-003**	**0.0550**		**256.7260**	**256.7260**	**0.0101**	**0.0213**	**263.3242**

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					0.1557	0.0000	0.1557	0.0236	0.0000	0.0236			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1557**	**1.2427**	**1.3983**	**0.0236**	**1.1553**	**1.1788**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Hauling	7.2800e-003	0.2796	0.0638	9.9000e-004	0.0280	2.0000e-003	0.0300	7.6800e-003	1.9100e-003	9.5900e-003		108.9560	108.9560	5.7800e-003	0.0173	114.2522
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
Worker	0.0556	0.0419	0.5428	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.7700	147.7700	4.2700e-003	4.0100e-003	149.0720
Total	**0.0629**	**0.3215**	**0.6066**	**2.4400e-003**	**0.1957**	**3.0700e-003**	**0.1988**	**0.0522**	**2.9000e-003**	**0.0550**		**256.7260**	**256.7260**	**0.0101**	**0.0213**	**263.3242**

3.3 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Unmitigated Construction Off-Site

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	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
Worker	0.0667	0.0503	0.6514	1.7400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		177.3240	177.3240	5.1300e-003	4.8100e-003	178.8864
Total	**0.0667**	**0.0503**	**0.6514**	**1.7400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**177.3240**	**177.3240**	**5.1300e-003**	**4.8100e-003**	**178.8864**

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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**8.8457**	**1.6126**	**10.4582**	**4.5461**	**1.4836**	**6.0297**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

Mitigated Construction Off-Site

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	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
Worker	0.0667	0.0503	0.6514	1.7400e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0546		177.3240	177.3240	5.1300e-003	4.8100e-003	178.8864
Total	**0.0667**	**0.0503**	**0.6514**	**1.7400e-003**	**0.2012**	**1.2900e-003**	**0.2025**	**0.0534**	**1.1900e-003**	**0.0546**		**177.3240**	**177.3240**	**5.1300e-003**	**4.8100e-003**	**178.8864**

3.4 Grading - 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					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	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
Worker	0.0556	0.0419	0.5428	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.7700	147.7700	4.2700e-003	4.0100e-003	149.0720
Total	**0.0556**	**0.0419**	**0.5428**	**1.4500e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**147.7700**	**147.7700**	**4.2700e-003**	**4.0100e-003**	**149.0720**

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**3.1872**	**0.9409**	**4.1280**	**1.5411**	**0.8656**	**2.4067**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	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
Worker	0.0556	0.0419	0.5428	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.7700	147.7700	4.2700e-003	4.0100e-003	149.0720
Total	**0.0556**	**0.0419**	**0.5428**	**1.4500e-003**	**0.1677**	**1.0700e-003**	**0.1687**	**0.0445**	**9.9000e-004**	**0.0455**		**147.7700**	**147.7700**	**4.2700e-003**	**4.0100e-003**	**149.0720**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0739	1.9381	0.6603	7.4500e-003	0.2434	0.0178	0.2612	0.0701	0.0170	0.0871		800.0545	800.0545	0.0266	0.1154	835.1081
Worker	0.3594	0.2708	3.5102	9.3900e-003	1.0842	6.9500e-003	1.0912	0.2875	6.4000e-003	0.2939		955.5792	955.5792	0.0276	0.0259	963.9990
Total	**0.4333**	**2.2090**	**4.1704**	**0.0168**	**1.3276**	**0.0248**	**1.3524**	**0.3576**	**0.0234**	**0.3811**		**1,755.6337**	**1,755.6337**	**0.0543**	**0.1413**	**1,799.1072**

Mitigated Construction On-Site

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

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0739	1.9381	0.6603	7.4500e-003	0.2434	0.0178	0.2612	0.0701	0.0170	0.0871		800.0545	800.0545	0.0266	0.1154	835.1081
Worker	0.3594	0.2708	3.5102	9.3900e-003	1.0842	6.9500e-003	1.0912	0.2875	6.4000e-003	0.2939		955.5792	955.5792	0.0276	0.0259	963.9990
Total	**0.4333**	**2.2090**	**4.1704**	**0.0168**	**1.3276**	**0.0248**	**1.3524**	**0.3576**	**0.0234**	**0.3811**		**1,755.6337**	**1,755.6337**	**0.0543**	**0.1413**	**1,799.1072**

3.5 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0423	1.5271	0.5828	7.0800e-003	0.2434	7.3800e-003	0.2508	0.0701	7.0600e-003	0.0771		762.3572	762.3572	0.0254	0.1097	795.6862
Worker	0.3337	0.2392	3.2309	9.0900e-003	1.0842	6.5400e-003	1.0908	0.2875	6.0200e-003	0.2936		930.4499	930.4499	0.0248	0.0239	938.1958
Total	**0.3760**	**1.7663**	**3.8137**	**0.0162**	**1.3276**	**0.0139**	**1.3416**	**0.3576**	**0.0131**	**0.3707**		**1,692.8071**	**1,692.8071**	**0.0502**	**0.1336**	**1,733.8820**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	0.0423	1.5271	0.5828	7.0800e-003	0.2434	7.3800e-003	0.2508	0.0701	7.0600e-003	0.0771		762.3572	762.3572	0.0254	0.1097	795.6862
Worker	0.3337	0.2392	3.2309	9.0900e-003	1.0842	6.5400e-003	1.0908	0.2875	6.0200e-003	0.2936		930.4499	930.4499	0.0248	0.0239	938.1958
Total	**0.3760**	**1.7663**	**3.8137**	**0.0162**	**1.3276**	**0.0139**	**1.3416**	**0.3576**	**0.0131**	**0.3707**		**1,692.8071**	**1,692.8071**	**0.0502**	**0.1336**	**1,733.8820**

3.6 Paving - 2023

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.5004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**1.5332**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0516	0.0370	0.4996	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		143.8840	143.8840	3.8300e-003	3.7000e-003	145.0818
Total	**0.0516**	**0.0370**	**0.4996**	**1.4100e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**143.8840**	**143.8840**	**3.8300e-003**	**3.7000e-003**	**145.0818**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	0.5004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5332**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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	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
Worker	0.0516	0.0370	0.4996	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		143.8840	143.8840	3.8300e-003	3.7000e-003	145.0818
Total	**0.0516**	**0.0370**	**0.4996**	**1.4100e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**143.8840**	**143.8840**	**3.8300e-003**	**3.7000e-003**	**145.0818**

3.7 Architectural Coating - 2023

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					

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Archit. Coating	2.2525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**2.4442**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.0654	0.0469	0.6329	1.7800e-003	0.2124	1.2800e-003	0.2137	0.0563	1.1800e-003	0.0575		182.2531	182.2531	4.8600e-003	4.6800e-003	183.7703
Total	**0.0654**	**0.0469**	**0.6329**	**1.7800e-003**	**0.2124**	**1.2800e-003**	**0.2137**	**0.0563**	**1.1800e-003**	**0.0575**		**182.2531**	**182.2531**	**4.8600e-003**	**4.6800e-003**	**183.7703**

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

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Archit. Coating	2.2525					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**2.4442**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	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
Worker	0.0654	0.0469	0.6329	1.7800e-003	0.2124	1.2800e-003	0.2137	0.0563	1.1800e-003	0.0575		182.2531	182.2531	4.8600e-003	4.6800e-003	183.7703
Total	**0.0654**	**0.0469**	**0.6329**	**1.7800e-003**	**0.2124**	**1.2800e-003**	**0.2137**	**0.0563**	**1.1800e-003**	**0.0575**		**182.2531**	**182.2531**	**4.8600e-003**	**4.6800e-003**	**183.7703**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	24.9315	27.5344	247.5208	0.5208	55.2063	0.3916	55.5979	14.7046	0.3635	15.0681		53,643.8462	53,643.8462	3.8252	2.3907	54,451.9088
Unmitigated	24.9315	27.5344	247.5208	0.5208	55.2063	0.3916	55.5979	14.7046	0.3635	15.0681		53,643.8462	53,643.8462	3.8252	2.3907	54,451.9088

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,036.43	1,355.95	1040.07	3,268,930	3,268,930
Fast Food Restaurant w/o Drive Thru	3,671.26	7,380.02	5301.68	13,295,927	13,295,927
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	4,707.69	8,735.97	6,341.75	16,564,857	16,564,857

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
Fast Food Restaurant with Drive Th	16.60	8.40	6.90	2.20	78.80	19.00	100	0	0
Fast Food Restaurant w/o Drive Th	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fast Food Restaurant with Drive Thru	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Fast Food Restaurant w/o Drive Thru	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Parking Lot	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

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	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561
NaturalGas Unmitigated	0.1752	1.5929	1.3381	9.5600e-003		0.1211	0.1211		0.1211	0.1211		1,911.4971	1,911.4971	0.0366	0.0350	1,922.8561

5.2 Energy by Land Use - NaturalGas

Unmitigated

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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					
Fast Food Restaurant w/o Drive Thru	8074.64	0.0871	0.7916	0.6650	4.7500e-003		0.0602	0.0602		0.0602	0.0602		949.9571	949.9571	0.0182	0.0174	955.6023
Fast Food Restaurant with Drive Thru	8173.09	0.0881	0.8013	0.6731	4.8100e-003		0.0609	0.0609		0.0609	0.0609		961.5399	961.5399	0.0184	0.0176	967.2539
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		**0.1752**	**1.5929**	**1.3381**	**9.5600e-003**		**0.1211**	**0.1211**		**0.1211**	**0.1211**		**1,911.4971**	**1,911.4971**	**0.0366**	**0.0351**	**1,922.8561**

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					
Fast Food Restaurant w/o Drive Thru	8.07464	0.0871	0.7916	0.6650	4.7500e-003		0.0602	0.0602		0.0602	0.0602		949.9571	949.9571	0.0182	0.0174	955.6023
Fast Food Restaurant with Drive Thru	8.17309	0.0881	0.8013	0.6731	4.8100e-003		0.0609	0.0609		0.0609	0.0609		961.5399	961.5399	0.0184	0.0176	967.2539
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		**0.1752**	**1.5929**	**1.3381**	**9.5600e-003**		**0.1211**	**0.1211**		**0.1211**	**0.1211**		**1,911.4971**	**1,911.4971**	**0.0366**	**0.0351**	**1,922.8561**

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Unmitigated	0.5653	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158

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	0.0370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Consumer Products	0.5276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4000e-004	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Total	**0.5653**	**6.0000e-005**	**6.9100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0148**	**0.0148**	**4.0000e-005**		**0.0158**

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	0.0370					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4000e-004	6.0000e-005	6.9100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0148	0.0148	4.0000e-005		0.0158
Total	**0.5653**	**6.0000e-005**	**6.9100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0148**	**0.0148**	**4.0000e-005**		**0.0158**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

190th & Western Commercial Center - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation