

AIR QUALITY & GREENHOUSE GAS TECHNICAL STUDY

FOR THE

LUCIA PARK PROJECT

625 N. Maryland Avenue and 620 N. Brand Boulevard Glendale, California 91203

PREPARED FOR:

Cimmarusti Holdings, LLC 3061 Riverside Drive Los Angeles, CA 90039

PREPARED BY:

Westlake Village Office 920 Hampshire Road, Suite A5 Westlake Village, CA 91361



Los Angeles Office 706 S. Hill Street, 11th Floor Los Angeles, CA 90014

December 2021

Table of Contents

Section

Page

Executive Summary	1
Project Description	2
Regulatory Setting	5
Environmental Setting	17
Existing Operational Emissions	20
Methodology	22
Significance Thresholds	25
Impact Analysis	29

Attachments

- A CalEEMod Air Quality Emission Output Files
 - A.1 Existing (Summer)
 - A.2 Existing (Winter)
 - A.3 Proposed (Summer)
 - A.4 Proposed (Winter)
- B CalEEMod Greenhouse Gas Emission Output Files
 - B.1 Existing (Annual)
 - B.2 Proposed (Annual)

Tables

Table		Page
1	Sources and Health Effects of Criteria Air Pollutants	6
2	Ambient Air Quality Standards	8
3	Air Quality Monitoring Summary	18
4	South Coast Air Basin Attainment Status	19
5	California GHG Inventory 2011-2019	19
6	Existing Operational Air Quality Emissions to be Removed	20
7	Existing Operational GHG Emissions to be Removed	22
8	Construction Thresholds	26
9	Localized Significance Thresholds	27
10	Operational Thresholds	27
11	Project Construction Schedule	29
12	Project Construction Diesel Equipment Inventory	30
13	Maximum Construction Emissions	31
14	Maximum Operational Emissions	32
15	Localized Construction and Operational Emissions	32
16	Construction GHG Emissions	35
17	Operational GHG Emissions	35
18	Project Consistency with Greener Glendale Plan	37

Figures

Figure	Page
1	Regional and Local Vicinity Map3
2	Site Map, Existing Conditions4
3	Sensitive Receptor Map 21

EXECUTIVE SUMMARY

Cimmarusti Holdings is proposing to demolish an existing parking structure, two-story office building, and surface parking lots to construct a 24-story (265.5 feet) 294-unit apartment building containing 247 one-bedroom and 47 two-bedroom apartments. A parking garage containing 502 parking spaces, including 373 parking spaces for the proposed apartments and 129 replacement parking spaces for the existing Chase Bank building that would remain on site, is also proposed as part of the Project.

In accordance with requirements under the California Environmental Quality Act (CEQA), this Air Quality and Greenhouse Gas Study provides an estimate of emissions for the Project and the potential impacts from associated construction and operation activities. The report includes the categories and types of emission sources resulting from the Project, the calculation procedures used in the analysis, and any assumptions or limitations.

This report also summarizes the potential for the Project to conflict with an applicable air quality plan, violate an air quality standard or threshold, result in a cumulatively net increase of criteria pollutant emissions, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people.

The findings of the analyses are as follows:

- The Project would be consistent with air quality policies set forth by the South Coast Air Quality Management District (SCAQMD) and the Air Quality Management Plan.
- Construction and operational emissions would not contribute to short- or long-term emissions that would increase the carcinogenic effects on sensitive receptors. Emissions associated with construction and operation would not exceed the SCAQMD thresholds. Thus, the Project would not result in a regional violation of applicable air quality standards or jeopardize the timely attainment of such standards in South Coast Area Basin.
- Operation of the Project will not employ toxic air contaminant-emitting processes. No substantial pollutant concentration would be generated.
- Project construction and operations would not result in significant levels of odors.
- The Project would result in less than significant cumulative air quality impacts during construction and operation of the Project.
- The Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- The Project would not conflict with applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Based upon a worst-case assessment, the proposed Project does not result in significant impacts to surrounding land uses from air quality.

PROJECT DESCRIPTION

The Project site is located directly south of State Route (SR-) 134 (Ventura) Freeway, east of Interstate (I-) 5 and west of SR-2 as shown in **Figure 1: Regional and Local Vicinity Map**. The Project site is located at 625 N. Maryland Avenue and 620 N. Brand Boulevard and bounded by the SR-134 Eastbound On-Ramp to the north, an existing commercial building, and an associated surface parking lot to the south, N. Brand Boulevard to the west, and N. Maryland Avenue to the east as shown in **Figure 2: Site Map, Existing Conditions**. The Project site includes two parcels, Assessor Parcel Numbers (APNs) 5643018032 and 5643018031.

The Project site is currently occupied by a two-story office building providing 5,297 square feet of floor area, an existing six-story commercial Chase Bank building providing approximately 45,125 square feet of office floor area, an associated parking structure, and surface parking lots. Cimmarusti Holdings is proposing to demolish the existing parking structure, two-story office building, and surface parking lots and construct a 24-story (265.5 feet) 294-unit apartment building containing 247 one-bedroom and 47 two-bedroom apartments. A parking garage containing 502 parking spaces, including 373 parking spaces for the proposed apartments and 129 replacement parking spaces for the existing Chase Bank building that would remain, is also proposed as part of the Project.

The Project would include landscaping and a publicly accessible open space plaza on the first level, a number of community spaces throughout the building, including outdoor and private terraces and a pool on the fourth-floor and a dog park on the fifth floor. Terraces are also proposed on the sixth, seventeenth, nineteenth, and twenty-first floors, including roof terraces on the twenty-third and twenty-fourth floors. The existing six-story commercial Chase Bank building would remain on site but the Project would demolish the existing parking structure. The Project when complete would include 129 replacement parking spaces for the existing commercial Chase Bank building in the two above ground levels of parking in addition to the four-level subterranean parking garage containing 373 parking spaces for the proposed apartments. The total 502 automobile parking spaces and 115 bicycle parking spaces (96 long term and 19 short term) would be proposed.



SOURCE: Google Earth - 2021; Meridian Consultants, LLC - 2021



FIGURE 1

Regional and Local Vicinity



SOURCE: Google Earth - 2021

FIGURE 2



Site Map, Existing Conditions

184-003-21

REGULATORY SETTING

Ambient air quality emissions present complex environmental issues that require regulatory attention on both large and small scales. The cumulative nature of project-level and localized emissions contributing to greater regional conditions warrants that regulatory policies be instituted on national, State, and regional levels to address air quality concerns. The following sections outline the applicable regulatory framework that exists at the national, State, and regional levels for air quality.

Background

The United States Environmental Protection Agency (USEPA) is responsible for federal oversight and enforcement of air quality management policies under the 1970 Clean Air Act (CAA). Each individual state is tasked with preparing and adhering to State Implementation Plans¹ (SIPs) for achieving the goals set forth within the CAA. California has some of the most stringent air quality policies in the country and, through the California Air Resources Board (CARB) branch of the California Environmental Protection Agency (CalEPA), has developed its own ambient air quality standards (AAQS). The State is divided into air quality jurisdictions; each jurisdiction is governed by a regional air district that oversees policy implementation, permitting of air pollution emission sources, and enforcement of regulatory requirements. Six criteria air pollutants (CAPs) are monitored at the federal, State, and regional levels. These six CAPs–ozone, particulate matter PM10 and PM2.5, nitrogen dioxide, carbon monoxide, lead, and sulfur dioxide–were identified based on a consensus of decades of research that concluded inhalation of each of the chemicals results in adverse health effects in humans. The six pollutants are identified below in **Table 1: Sources and Health Effects of Criteria Air Pollutants**, along with their common sources and primary health effects from inhalation exposure.

¹ A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards.

TABLE 1						
SOURCES AND HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS						
Pollutants	Sources	Primary Effects				
Ozone (O3)	Formed through chemical reactions between pollutants emitted from vehicles, factories and other industrial sources, fossil fuels, combustion, consumer products, evaporation of paints, and many other sources; VOCs and NOx react in the presence of sunlight	Respiratory symptoms; worsening of lung disease; lung tissue damage; ecosystem damage; damage to rubber and some plastics				
Respirable particulate matter (PM10)	Emissions from combustion of gasoline, oil, diesel fuel or wood; dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, wind-blown dust from open lands, pollen, and fragments of bacteria; chemical reactions of gases and certain organic compounds	Premature death and hospitalization; worsening of respiratory disease; reduced visibility; surface soiling				
Fine particulate matter (PM2.5)	Emissions from combustion of gasoline, oil, diesel fuel or wood; chemical reactions of gases and certain organic compounds	Premature death; hospitalization; asthma-related emergencies; increased asthma symptoms and inhaler use				
Carbon monoxide (CO)	Incomplete combustion of CO-containing fuels such as natural gas, gasoline, or wood; emitted by a wide variety of combustion sources, including motor vehicles, power plants, wildfires, and incinerators	Chest pain in heart disease patients; headaches; light- headedness; reduced mental alertness				
Nitrogen dioxide (NO2)	Emitted from combustion sources similar to CO; formed in the atmosphere through reactions between NO and other air pollutants that require the presence of sunlight (photochemical reactions).	Lung irritation; enhanced allergic responses				
Lead (Pb)	Present in soils; ore and metals processing; waste incinerators, utilities, and lead-acid battery manufacturers	Impaired mental function; learning disabilities; brain and kidney damage				
Sulfur dioxide (SO2)	Emitted when sulfur-containing fuel is burned; industrial processes, such as natural gas and petroleum extraction, oil refining, and metal processing; volcanic activity and from geothermal fields	Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits; acid rain				

Source: California Air Resources Board, "Common Air Pollutants," https://ww2.arb.ca.gov/resources/common-air-pollutants (accessed August 2021).

Ozone

Ozone (O3) is a gas formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOx), both byproducts of internal combustion engine exhaust and other sources, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months, when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

Volatile Organic Compounds

VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to form secondary air pollutants,

including ozone. VOCs themselves are not criteria pollutants; however, they contribute to the formation of ozone and are regulated under State policies.

Respirable Particulate Matter

Respirable particulate matter (PM10) consists of extremely small, suspended particles or droplets 10 micrometers (μ m) or smaller in diameter. Some sources of PM10, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM10 is caused by road dust, diesel soot, combustion products, the abrasion of tires and brakes, and construction activities.

Fine Particulate Matter

PM2.5 refers to fine particulate matter that is 2.5 μ m or smaller in size. Sources of PM2.5 include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles, such as buses and trucks. These fine particles are also formed in the atmosphere when gases, such as sulfur dioxide (SO2), NOx, and VOCs are transformed in the air by chemical reactions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and because motor vehicles operating at slow speeds are the primary source of CO in the South Coast Air Basin (Basin), the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Nitrogen Dioxide

Nitrogen dioxide (NO2) is a reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitric oxide (NO). NO2 is also a byproduct of fuel combustion. The principal form of NO2 produced by combustion is NO, but NO reacts quickly to form NO2, creating the mixture of NO and NO2 referred to as NOx. NO2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NOx is only potentially irritating. NO2 absorbs blue light, the result of which is a brownish-red cast to the atmosphere and reduced visibility.

Lead

Lead (Pb) occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for onroad motor vehicles, so most such combustion emissions are associated with off-road vehicles, such as race cars, which use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries; sanding or removal of lead-based paint; ink; ceramics; ammunition; and secondary lead smelters.

Sulfur Dioxide

SO2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of the burning of high-sulfur-content fuel oils and coal, as well as from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4).

Federal

The USEPA sets national vehicle and stationary source emission standards; oversees approval of all SIPs; provides research and guidance for air pollution programs; and sets National Ambient Air Quality Standards (NAAQS). The NAAQS for the six CAPs are shown in **Table 2: Ambient Air Quality Standards** and were identified from provisions of the 1970 CAA. The sections of the CAA that are most applicable to the Project include Title I: Nonattainment Provisions and Title II: Mobile Source Provisions.

TABLE 2 AMBIENT AIR QUALITY STANDARDS							
	Averaging	Californi	a Standards	Fe	deral Standa	rds	
Pollutant	Time	Concentration	Method	Primary	Secondary	Method	
	1 hour	0.09 ppm (180 μg/m ³)		_	Same as		
Ozone (O3)	8 hours	0.07 ppm (137 µg/m ³)	Ultraviolet photometry	0.075 ppm (147 μg/m³)	primary standard	Ultraviolet photometry	
	24 hours	50 µg/m ³		150 µg/m ³	_	Inertial	
Respirable particulate matter (PM10)	Annual arithmetic mean	20 µg/m ³	Gravimetric or beta attenuation	_	Same as primary standard	separation and gravimetric analysis	
	24 hours	No separate State standard		35 µg/m ³	_	Inertial	
Fine particulate matter (PM2.5)	Annual arithmetic mean	12 µg/m ³	Gravimetric or beta attenuation	15 µg/m³	Same as sep primary standard gra a	separation and gravimetric analysis	
Carbon	8 hours	9.0 ppm (10 mg/m ³)	Nondispersive infrared	9 ppm (10 mg/m ³)	None		
monoxide (CO)	1 hour	20 ppm (23 mg/m ³)	photometry (NDIR)	35 ppm (40 mg/m ³)	None	NDIK	
Nitrogen dioxide	Annual arithmetic mean	0.03 ppm (57 µg/m ³)	Gas phase chemilumi-	0.053 ppm (100 µg/m ³)	Same as primary	Gas phase chemilumi-	
(NUZ)	1 hour	0.18 ppm (339 µg/m ³)	nescence	0.100 ppm (188 µg/m ³)	standard	nescence	

Source: California Air Resources Board website at: http://www.arb.ca.gov/research/aaqs/aaqs.htm (accessed August 2021). Note: ppm = parts per million.

The CAA and the promulgated standards have evolved as a living document over time as research into the effects of air pollution has enhanced regulatory understanding of the associated issues. The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. On the national level, the USEPA designates regions as achieving "attainment" or suffering from "nonattainment" of the NAAQS based on air quality monitoring data. Regions that are designated as being in nonattainment are responsible for devising localized strategies for reducing emissions of CAPs and achieving regional attainment within a predetermined timeframe set by the USEPA.

The NAAQS were further amended in July 1997 to include an 8-hour standard for ozone and to adopt an NAAQS for PM2.5. The NAAQS were amended again in September 2006 to include an established methodology for calculating PM2.5, as well as to revoke the annual PM10 threshold. Additional revisions to the AAQS may be implemented in the future as the science of air quality progresses.

State

The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. CARB is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs.

CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions and the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the State. The CAAQS are provided in **Table 2**. It should be noted that the CAAQS are generally more stringent than the NAAQS, reflecting California's diligent efforts toward reducing air pollution and improving air quality.

Regional

In California, jurisdiction over air quality management, enforcement, and planning divided into 35 geographic regions. Within each region, a local air district is responsible for oversight of air quality monitoring, modeling, permitting, and enforcement to ensure that regulatory violations are avoided wherever possible.

The Project site is located within the 6,700-square-mile Basin and is under the SCAQMD's jurisdiction. The Basin includes the southern two-thirds of Los Angeles County, all of Orange County, and the western urbanized portions of Riverside and San Bernardino Counties.

South Coast Air Quality Management District

SCAQMD shares responsibility with CARB for ensuring that all State and federal AAQS are achieved and maintained over an area of approximately 10,743 square miles. This area includes the South Coast and Salton Sea Air Basins, all of Orange County, and the nondesert portions of Los Angeles, Riverside, and San

Bernardino Counties. It does not include the Antelope Valley or the nondesert portion of western San Bernardino County.

SCAQMD is responsible for controlling emissions, primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the air basins. SCAQMD, in coordination with the Southern California Association of Governments (SCAG), is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the air basins. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as being in nonattainment of the NAAQS or CAAQS. The term "nonattainment area" is used to refer to an air basin in which one or more AAQS are exceeded. SCAQMD also prepares the SIP for its jurisdiction and promulgates rules and regulations. The SIP includes strategies and tactics to be used to attain the federal ozone standards in the South Coast Air Basin. The SIP elements are taken from the most recent AQMP.

SCAQMD approved a Final 2016 AQMP on March 3, 2017.² The 2016 AQMP includes transportation control measures developed by SCAG from its 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, as well as the integrated strategies and measures needed to meet the NAAQS. The 2016 AQMP demonstrates attainment of the 1-hour and 8-hour ozone NAAQS, as well as the latest 24-hour and annual PM2.5 standards. It should be noted that on September 3, 2020, SCAG adopted the 2020-2045 RTP/SCS,³ which includes a SCS that addresses regional development and growth forecasts.

SCAQMD is responsible for limiting the number of emissions that can be generated throughout the air basins by various stationary, area, and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board that limit the emissions that can be generated by various uses/activities and identifying specific pollution-reduction measures that must be implemented in association with various uses and activities. These rules regulate not only the emissions of the federal and State criteria pollutants, but also toxic air contaminants (TACs) and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

Among the SCAQMD rules applicable to the Project are Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Rule 403 requires the use of stringent best available control measures (BACMs) to minimize PM10 emissions during grading and construction activities. Rule 1113 limits the VOC content of coatings, with a VOC content limit for flat coatings of 50 grams per liter (g/L).⁴ Additional details regarding these rules and other potentially applicable rules are presented as follows.

² SCAQMD, "Final 2016 Air Quality Management Plan" (2016), https://www.aqmd.gov/docs/default-source/clean-airplans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15, accessed August 2021.

³ Southern California Association of Governments (SCAG), Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies Draft, "Chapter 1," https://www.connectsocal.org/Pages/Connect-SoCal-Draft-Plan.aspx, accessed August 2021.

⁴ SCAQMD, "Rule 1113 Architectural Coating" (amended September 6, 2013), http://www.aqmd.gov/docs/defaultsource/rule-book/reg-xi/r1113.pdf, accessed August 2021.

Rule 402 (Nuisance). This rule states that a "person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."⁵

Rule 403 (Fugitive Dust). This rule requires fugitive dust sources to implement BACMs for all sources and prohibits all forms of visible particulate matter from crossing any property line. BACMs may include application of water or chemical stabilizers to disturbed soils covering haul vehicles; restricting vehicle speeds on unpaved roads to 15 miles per hour (mph); sweeping loose dirt from paved site-access roadways; cessation of construction activity when winds exceed 25 mph; and establishing a permanent ground cover on finished sites. SCAQMD Rule 403 is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

Rule 1113 (Architectural Coatings). This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters). This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NOx emissions from natural-gas-fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1186 (PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations). This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the number of stationary emissions being generated and uses this information in developing AQMPs.

South Glendale Community Plan EIR

According to the South Glendale Community Plan EIR,⁶ Policy AQ-1 requires conditions of approval for construction projects near sensitive receptors and/or that would generate substantial levels of mass emissions to implement emissions reduction strategies. This includes but is not limited to, the use of

⁵ SCAQMD, "Rule 402—Nuisance," http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf, accessed August 2021.

⁶ City of Glendale, South Glendale Community Plan Environmental Impact Report, https://www.glendaleca.gov/government/departments/community-development/planning/community-plans/sgcp-eir, accessed August 2021.

electric-powered construction equipment, phasing construction activities, using alternative fuel such as high-performance renewable diesel for construction equipment and vehicles, and ensuring that construction equipment is maintained and tuned according to manufacturer specifications. Furthermore, Policies AQ-8 through AQ-10 would reduce AQ emissions by improving transit opportunities in the City and encouraging transit-oriented land uses to improve transit ridership and reduce automobile use and traffic congestion.

Greenhouse Gas

Greenhouse Gas Reduction Targets

Executive Order S-3-05, signed by Governor Arnold Schwarzenegger and issued in June 2005, proclaimed that California is vulnerable to the impacts of climate change.⁷ It declared that increased temperatures could reduce the Sierra snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established the following total GHG emission targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive Order B-30-15, signed by Governor Edmund Gerald "Jerry" Brown and issued on April 29, 2015, established a new Statewide policy goal to reduce GHG emissions to 40 percent below their 1990 levels by 2030. Reducing GHG emissions by 40 percent below 1990 levels in 2030, and by 80 percent below 1990 levels by 2050 (consistent with Executive Order S-3-05), aligns with scientifically established levels needed to limit global warming to less than 2 degrees Celsius.⁸

AB 32, the Global Warming Solutions Act of 2006, requires a sharp reduction of GHG emissions to 1990 levels by 2020. To achieve these goals, which are consistent with the California Climate Action Team, which works to coordinate statewide efforts to implement global warming emission reduction programs and the state's Climate Adaptation Strategy after the passing of AB 32, AB 32 mandates that CARB establish a quantified emissions cap and institute a schedule to meet the cap; implement regulations to reduce Statewide GHG emissions from stationary sources consistent with the California Climate Action Team strategies; and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. To reach the reduction targets, AB 32 requires CARB to adopt—in an open, public process—rules and regulations that achieve the maximum technologically feasible and cost-effective GHG reductions.

⁷ National Resources Conservation Service, Emerging Issues Committee Members, https://www.nrcs.usda.gov/Internet/FSE DOCUMENTS/nrcs143 008701.pdf. Accessed August 2021.

Office of the Governor, Governor Brown Established Most Ambitious Greenhouse Gas Reduction Target in North America (April 29, 2015), https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html. Accessed August 2021.

Climate Change Scoping Plan

CARB approved a Climate Change Scoping Plan (Scoping Plan) on December 11, 2008, as required by AB 32. The Scoping Plan proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health.".⁹ The Scoping Plan had a range of GHG reduction actions, including direct regulations; alternative compliance mechanisms; monetary and nonmonetary incentives; voluntary actions; market-based mechanisms, such as a cap-and-trade system; and an AB 32 implementation regulation to fund the program.

The Scoping Plan called for a "coordinated set of strategies" to address all major categories of GHG emissions.¹⁰ Transportation emissions were to be addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard, ¹¹ and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to implement energy efficiency practices. Utility energy supplies will change to include more renewable energy sources through implementation of the Renewables Portfolio Standard. This will be complemented with emphasis on local generation, including rooftop photovoltaics and solar hot water installations. Additionally, the Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicated that substantial savings of electricity and natural gas would be accomplished through improving energy efficiency.

CARB updated the Scoping Plan in May 2014 (2014 Scoping Plan). The 2014 Scoping Plan ¹² adjusted the 1990 GHG emissions levels to 431 million metric tons of carbon dioxide equivalents (MMTCO₂e); the updated 2020 GHG emissions forecast is 509 MMTCO₂e, which credited for certain GHG emission reduction measures already in place (e.g., the RPS). The 2014 Scoping Plan also recommended a 40 percent reduction in GHG emissions from 1990 levels by 2030, and a 60 percent reduction in GHG emissions from 1990 levels by 2030.

The 2017 Scoping Plan, ¹³ approved on December 14, 2017, builds on previous programs, and takes aim at the 2030 target established by the SB 32 (Pavley), which is further discussed below. The 2017 Scoping Plan outlines options to meet California's aggressive goals to reduce GHGs by 40 percent below 1990 levels by 2030. In addition, the plan incorporates the State's updated RPS requiring utilities to procure 50 percent of their electricity from renewable energy sources by 2030. It also raises the State's Low

 ⁹ CARB, Climate Change Scoping Plan: A Framework for Change, https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed August 2021.
 10 Oliver to Plane Control of Plane Control o

¹⁰ CARB, Climate Change Scoping Plan, p. ES-7.

¹¹ Office of the Governor, Executive Order S-01-07, (January 18, 2007), https://climateactionnetwork.ca/wp-content/uploads/2011/06/eos0107.pdf. Accessed August 2021.

¹² CARB, First Update to the Climate Change Scoping Plan: Building on the Framework (May 2014).

¹³ CARB, California's 2017 Climate Change Scoping Plan, https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf. Accessed August 2021.

Carbon Fuel Standard.¹⁴ and aims to reduce emissions of methane and hydrofluorocarbons by 40 percent from 2013 levels by 2030 and emissions of black carbon by 50 percent from 2013 levels.

The 2017 Scoping Plan¹⁵ advises that absent conformity with a qualified GHG reduction plan, projects should incorporate all feasible GHG reduction measures and that achieving "no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development."

Transportation

Executive Order S-1-07, the Low Carbon Fuel Standard (issued on January 18, 2007), requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020.¹⁶ Regulatory proceedings and implementation of the Low Carbon Fuel Standard have been directed to CARB. CARB has identified the Low Carbon Fuel Standard as a discrete early action item in the adopted Scoping Plan. CARB expects the Low Carbon Fuel Standard to achieve the minimum 10 percent reduction goal; however, many of the early action items outlined in the Scoping Plan work in tandem with one another. Other specific emission reduction measures included are the Million Solar Roofs Program¹⁷ and Assembly Bill (AB) 1493 (Pavley I), Vehicle Emissions: Greenhouse Gases, which establishes motor vehicle GHG emissions standards.¹⁸ To avoid the potential for double-counting emission reductions associated with AB 1493, the Scoping Plan has modified the aggregate reduction expected from the Low Carbon Fuel Standard to 9.1 percent. CARB released a draft version of the Low Carbon Fuel Standard in October 2008. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010; the Low Carbon Fuel Standard became effective on the same day.

Additionally, SCAG has prepared and adopted the 2020-2045 RTP/SCS, ¹⁹ which includes a Sustainable Communities Strategy that addresses regional development and growth forecasts. The SCAG 2020-2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, with a specific goal of achieving an 8 percent reduction in

¹⁴ Office of the Governor, Executive Order S-01-07, (January 18, 2007), https://climateactionnetwork.ca/wp-content/uploads/2011/06/eos0107.pdf. Accessed August 2021.

¹⁵ California Air Resources Board, 2017. California's 2017 Climate Change Scoping Plan. pp. 100-101.Available: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf. Accessed August 2021.

¹⁶ Office of the Governor, Executive Order S-01-07 (January 18, 2007), https://www.arb.ca.gov/fuels/lcfs/eos0107.pdf. Accessed August 2021.

¹⁷ US Department of Energy, Laying the Foundation for Solar America: The Million Solar Roofs Initiative, https://www.nrel.gov/docs/fy07osti/40483.pdf. Accessed August 2021.

¹⁸ The standards enacted in Pavley I are the first GHG standards in the nation for passenger vehicles and took effect for model years starting in 2009 and going through 2016. Pavley I could potentially result in 27.7 million metric tons CO2e reduction in 2020. Pavley II will cover model years 2017 to 2025 and potentially result in an additional reduction of 4.1 million metric tons CO2e.

¹⁹ Southern California Association of Governments (SCAG), Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies Draft, Chapter 1, https://www.connectsocal.org/Pages/Connect-SoCal-Draft-Plan.aspx. Accessed August 2021.

passenger vehicle GHG emissions on a per capita basis by 2020, 19 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level.

Energy

The California Energy Commission (CEC) first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is mandatory for all new buildings constructed in the State and establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality. The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential uses; the new measures took effect on January 1, 2020.

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the State's Renewables Portfolio Standard to 33 percent renewable power by 2020. Pursuant to Executive Order S-21-09, CARB was also preparing regulations to supplement the Renewables Portfolio Standard with a Renewable Energy Standard that will result in a total renewable energy requirement for utilities of 33 percent by 2020. But on April 12, 2011, Governor Jerry Brown signed SB X1-2 to increase California's Renewables Portfolio Standard to 33 percent by 2020. SB 350 (Chapter 547, Statues of 2015), signed into law on October 7, 2015, further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027.

Greener Glendale Plan

In March 2012, the City completed the Greener Glendale Plan,²⁰ consisting of the Greener Glendale 2010 Report, the Greener Glendale Plan for Municipal Operations, and the Greener Glendale Plan for Community Activities. The Greener Glendale Plan analyzes City activities related to sustainability and GHG emissions to show how implementing sustainability measures will result in reduced GHG emissions. The list of quantifiable GHG reduction categories in the Greener Glendale Plan includes 2020 emissions reduction targets to be achieved through California vehicle and fuel standards, building energy efficiency audits and upgrades, smart grid applications, green building standards, Zero Waste Plans, EV charging station installation, and a plastic bag ban to name a few. The Greener Glendale Plan identified 2035 reduction targets through continued implementation of California vehicle and fuel standards, building energy and water efficiency audits and upgrades, Zero Waste Plan 90 percent diversion by 2030, tree planning programs, and turf reduction rebates.

The Greener Glendale Plan incorporates 12 measures in addition to the mandatory Green Building Standards for new construction projects. These measures went into effect on June 7, 2011. The 12 measures include:

- 1. Expand applicability of green building standards to residential buildings over 3-stories.
- 2. Exceed California Energy Code requirements by 15 percent.
- 3. Reduce baseline water usage by 20 percent.
- 4. A radian roof barrier shall be installed.
- 5. Gas fired tankless water heaters shall have an energy factor of at least 0.80.
- 6. Gas-fired storage-tank type water heaters shall have an energy factor of at 0.61.
- 7. Buildings shall be "solar ready."
- 8. At least 20 percent of certain paved areas in residential projects shall be permeable.
- 9. Residential gas-fired heating equipment shall be high efficiency units.
- 10. Residential air conditioning equipment shall be high-efficiency units.
- 11. Natural light ventilation in residential habitable room shall be increased.
- 12. New single-family dwellings with floor area greater than 5,000 square feet shall be required to meet CALGreen Tier 1.

²⁰ City of Glendale, Greener Glendale, https://www.glendaleca.gov/government/departments/management-services/office-of-sustainability/greener-glendale, accessed August 2021.

South Glendale Community Plan EIR

According to the South Glendale Community Plan EIR,²¹ Policy GHG-1 requires the City to update the Greener Glendale Plan for community and municipal operations and establish GHG reduction goals that are consistent with California's established goals of 40 percent below baseline emissions by 2030 and 80 percent below baseline emissions by 2050. This update would be evaluated against potential environmental impacts with the objective of qualifying the Greener Glendale Plan as the City's Climate Action Plan. The updated plan would include quantifiable and feasible measures that the City can implement to achieve established GHG reduction targets. Furthermore, Policy GHG-3 requires the City to reduce GHG emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; and promoting energy-efficient building design and site planning.

ENVIRONMENTAL SETTING

Air Quality

USEPA is the federal agency responsible for overseeing the country's air quality and setting the NAAQS for the CAPs. The NAAQS were devised based on extensive modeling and monitoring of air pollution across the country; they are designed to protect public health and prevent the formation of atmospheric ozone. Air quality of a region is considered to be in attainment of the NAAQS if the measured ambient air pollutant levels do not exceed the applicable concentration threshold. **Table 2** presents the federal and State AAQS.

As noted previously, CARB is the State agency responsible for setting the CAAQS. Air quality of a region is considered to be in attainment of the CAAQS if the measured ambient air pollutant levels for O3, CO, NO2, SO2, PM10, PM2.5, and Pb are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive 3-year period. The CAAQS are also presented in **Table 2**.

For evaluation purposes, the SCAQMD territory is divided into 38 source receptor areas (SRAs). These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area.

The Project site is within SRA 7, East San Fernando Valley.²² The nearest air monitoring station SCAQMD operates is located at 1630 North Main Street.²³ This station monitors O3, NO2, PM10 and PM2.5.

²¹ City of Glendale, South Glendale Community Plan Environmental Impact Report, https://www.glendaleca.gov/government/departments/community-development/planning/community-plans/sgcp-eir, accessed August 2021.

²² SCAQMD, General Forecast Areas and Air Monitoring Areas, map, http://www.aqmd.gov/docs/default-source/defaultdocument-library/map-of-monitoring-areas.pdf, accessed August 2021.

²³ South Coast Air Quality Management District, Site Survey Report for Los Angeles (Central)–North Main Street, AQS ID 060371103, http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-monitoring-network-plan/aaqmnplosangeles.pdf?sfvrsn=16, accessed August 2021.

Table 3: Air Quality Monitoring Summary summarizes published monitoring data from 2017 through 2019, the most recent 3-year period available. The data shows that during the past few years, the region has exceeded the O3, and PM10, PM2.5 standards.

USEPA and the CARB designate air basins where AAQS are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The current attainment designations for the Basin are shown in **Table 4: South Coast Air Basin Attainment Status**. The Basin is currently designated as being in nonattainment at the federal level for O3 and PM2.5; and at the State level for O3, PM10, and PM2.5.

TABLE 3 AIR QUALITY MONITORING SUMMARY							
Air Pollutant	Average Time (Units)	2017	2018	2019			
	State Max 1 hour (ppm)	0.116	0.098	0.093			
	Days > CAAQS threshold (0.09 ppm)	6	2	0			
$O_{\text{Topo}}(\Omega^2)$	National Max 8 hour (ppm)	0.086	0.073	0.080			
020110 (03)	Days > NAAQS threshold (0.075 ppm)	14	4	2			
	State Max 8 hour (ppm)	0.086	0.074	0.080			
	Days > CAAQS threshold (0.07 ppm)	16	4	2			
Carbon monoxide (CO)		—	_	_			
	National Max 1 hour (ppm)	0.081	0.070	0.070			
Nitrogon diavida (NO2)	Days > NAAQS threshold (0.100 ppm)	0	0	0			
Nitrogen dioxide (NOZ)	State Max 1 hour (ppm)	0.080	0.070	0.069			
	Days > CAAQS threshold (0.18 ppm)	0	0	0			
	National Max (µg/m3)	64.6	68.2	62.4			
	National Annual Average (µg/m3)	25.7	30.2	23.0			
Respirable particulate	Days > NAAQS threshold (150 µg/m3)	0	0	0			
matter (PM10)	State Max (µg/m3)	96.2	81.2	93.9			
	State Annual Average (µg/m3)	—	34.0	_			
	Days > CAAQS threshold (50 µg/m3)	40	31	15			
Fine particulate matter	National Max (µg/m3)	54.9	61.4	43.5			
(PM2.5)	National Annual Average (µg/m3)	12.0	12.8	10.8			
	Days > NAAQS threshold (35 µg/m3)	6	6	1			
	State Max (µg/m3)	61.7	65.3	43.5			
	State Annual Average (µg/m3)	16.3	16.0	10.8			

Source: CARB, iADAM: Air Quality Data Statistics.

TABLE 4 SOUTH COAST AIR BASIN ATTAINMENT STATUS						
Pollutant	State Status	National Status				
Ozone (O3)	Nonattainment	Nonattainment				
Carbon monoxide (CO)	Attainment	Unclassified/Attainment				
Nitrogen dioxide (NO2)	Attainment	Unclassified/Attainment				
Sulfur dioxide (SO2)	Attainment	Unclassified/Attainment				
Respirable particulate matter (PM10)	Nonattainment	Attainment				
Fine particulate matter (PM2.5)	Nonattainment	Nonattainment				

Source: California Air Resources Board (CARB) Area Designation Maps / State and National, https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations, accessed August 2021.

Greenhouse Gases

California is the second largest contributor of GHGs in the United States and the 16th largest in the world. ²⁴ In 2019, California produced 418.2 million metric tons of carbon dioxide equivalents ($MMTCO_2e$), including imported electricity, and excluding combustion of international fuels and carbon sinks or storage. The major source of GHGs in California is transportation, contributing to 40 percent of the State's total GHG emissions. The Statewide inventory of GHGs by sector is shown in Table 5: California GHG Inventory 2011-2019.

TABLE 5 CALIFORNIA GHG INVENTORY 2011 2019									
	Emissions (MMTCO ₂ e)								
Main Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019
Transportation ^a	161.8	161.4	161.3	162.6	166.2	169.8	171.2	169.6	166.1
Electric Power	89.2	98.2	91.4	88.9	84.8	68.6	62.1	63.1	58.8
Industrial ^b	89.4	88.9	91.7	92.5	90.3	89.0	88.8	89.2	88.2
Commercial and									
Residential	46.0	43.5	44.2	38.2	38.8	40.6	41.3	41.4	43.8
Agriculture	34.4	35.5	33.8	34.7	33.5	33.3	32.5	32.7	31.8
High GWP ^{c,d}	14.5	15.5	16.8	17.7	18.6	19.2	20.0	20.4	20.6
Recycled and waste	8.4	8.3	8.4	8.4	8.5	8.6	8.7	8.7	8.9
Total Emissions	443.7	451.3	447.6	443.0	440.7	429.1	424.6	425.1	418.2

Source: CARB, GHG Current California Emission Inventory Data, https://ww2.arb.ca.gov/ghg-inventory-data, accessed August 2021.

^a Includes equipment used in construction, mining, oil drilling, industrial and airport ground operations.

^b Reflects emissions from combustion of natural gas, diesel, and lease fuel plus fugitive emissions.

^c These categories are listed in the Industrial sector of CARB's GHG Emission Inventory sectors.

^d This category is listed in the Electric Power sector of CARB's GHG Emission Inventory sectors.

Note: MMTCO₂e - million metric tons of carbon dioxide equivalent emissions

²⁴ California Energy Commission, Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report, CEC-600-2006-013-SF (December 2006).

EXISTING OPERATIONAL EMISSIONS

SCAQMD considers a sensitive receptor to be a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant. Sensitive receptors are identified near sources of air pollution to determine the potential for health hazards. Locations evaluated for exposure to air pollution include but are not limited to residences, schools, hospitals, and convalescent facilities.

The Project site is predominantly surrounded by a mix of high-rise commercial office buildings as well as high-rise and one to two-story residential buildings. As mentioned previously, the Project site is bounded by the SR-134 Eastbound On-Ramp to the north, an existing commercial building, and an associated surface parking lot to the south, N. Brand Boulevard to the west, and N. Maryland Avenue to the east. The nearest sensitive receptors to the Project site include:

- Residential uses approximately 200 feet to the east (621 N. Louise Street and 263 E. Doran Street)
- Residential uses approximately 400 feet to the north (222 Monterey Road)
- Residential uses approximately 600 feet to the west (531 N. Orange Street)

Figure 3: Sensitive Receptor Map provides a detailed image of the proximal land uses and identifies the sensitive receptors closest to the Project site. These uses represent the nearest sensitive receptors who may be impacted by emissions of air pollutants due to the Project.

Air Quality Emissions

As discussed previously, the Project site is currently occupied by a two-story office building providing 5,297 square feet of floor area, an existing six-story commercial Chase Bank building providing approximately 45,125 square feet of office floor area, an associated parking structure, and surface parking. Access to the site is provided by multiple driveways located along Brand Boulevard and Maryland Avenue. The proposed Project would demolish the existing parking structure, approximately 5,297 square feet of the existing office use, and surface parking lots. The current site usage generates existing vehicle trips and air quality emissions from operations related to these uses. Additionally, the two office building generates approximately 49 daily vehicle trips.²⁵ Table 6: Existing Operational Air Quality Emissions to be Removed identifies the emissions from the existing two-story office building and parking structure.

TABLE 6 EXISTING OPERATIONAL AIR QUALITY EMISSIONS TO BE REMOVED							
	VOC	NOx	CO	SOx	PM10	PM2.5	
Source			P	ounds/day			
Area	<1	<1	<1	0	<1	<1	
Energy	<1	<1	<1	<1	<1	<1	
Mobile ^a	<1	<1	2	<1	<1	<1	
Total	<1	<1	2	<1	<1	<1	

Source: Refer to the data sheets in Attachment A.1 Existing (Summer) and Attachment A.2 Existing (Winter). Note: Totals may not add up exactly due to rounding in the modeling calculations. Emissions do not include existing Chase Bank building to remain.

Linscott, Law, & Greenspan, Engineers, Transportation Impact Analysis, 606 N. Maryland Avenue Residential Project, June 22, 2021. Existing office to be removed currently generates 52 trips including 3 transit trips, for a total of 49 driveway trips.



SOURCE: Google Earth - 2021

FIGURE 3



Sensitive Receptors

184-003-21

Greenhouse Gases

The GHG emissions from the existing two-story office building and parking structure are provided in **Table 7: Existing Operational GHG Emissions to be Removed.** Similar to the air quality emissions provided above, the emissions were estimated using CalEEMod. As mentioned previously, current uses to be removed from the site include the existing parking structure and approximately 5,297 square feet of the existing office use. As shown in **Table 7**, the existing two office building and parking structure currently generate 131 MTCO₂e per year.

TABLE 7 EXISTING OPERATIONAL GHG EMISSIONS TO BE REMOVED					
GHG Emissions Source	Existing Emissions (MTCO ₂ e/year)				
Area	<1				
Energy	76				
Mobile	44				
Waste	2				
Water	9				
Annual Total	131				

MTCO2e = metric tons of carbon dioxide emissions.

Refer to **Attachment B.1: Existing (Annual)**, Section 2.2 for maximum annual operation emissions. Note: Emissions do not include existing Chase Bank building to remain.

METHODOLOGY

Air Quality

Construction

Construction of the Project's new residential building has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as tractors and forklifts, and through vehicle trips generated from workers and haul trucks traveling to and from the Project site. Mobile-source emissions, primarily NOx, would result from the use of construction equipment, such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The Project would be required comply with SCAQMD Rule 403, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located with SCAB. Therefore, the following condition—which would be required to reduce fugitive dust in compliance with SCAQMD Rule 403:

• **Control Efficiency of PM10.** During construction, methods and techniques should be applied to various operations or equipment when appropriate to reduce estimated emissions related to particulate matter. This includes replacing ground cover in disturbed areas as quick as possible, yielding to emission reduction efficiency of 15 - 49 percent.²⁶

In addition, SCAQMD Staff recommends that the Lead Agency require the use of Tier 4 construction equipment of 50 horsepower or greater during construction. Alternative, applicable strategies include equipment outfitted with Best Available Control Technology (BACT) devices and CARB certified Level 3 Diesel Particulate Filters (DPF). Level 3 DPFs are capable of achieving at least an 85 percent reduction in particulate matter emissions.²⁷ Therefore, the following condition would be recommended by SCAQMD:

• **Construction Equipment Controls.** During construction, all off-road construction equipment greater than 50 horsepower shall meet USEPA Tier 3 emission standards with Level 3 DPF to minimize emissions of NOx associated with diesel construction equipment.

The emissions are estimated using the CalEEMod (Version 2020.4.0) software, an emissions inventory software program recommended by SCAQMD. The emissions are estimated using the SCAQMD-recommended CalEEMod software. CalEEMod is based on outputs from the CARB off-road emissions model (OFFROAD) and the CARB on-road vehicle emissions model (EMFAC), which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on-and off-road vehicles. The input values used in this analysis are based on conservative assumptions in CalEEMod, with appropriate, Project-specific adjustments based on equipment types and expected construction activities. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in **Attachment A**.

Operation

Operation of the Project has the potential to generate criteria pollutant emissions through vehicle trips traveling to and from the Project site. In addition, emissions would result from area sources on site, such as natural gas combustion, landscaping equipment, and use of consumer products.

Operational emissions were estimated using the CalEEMod software, which was used to forecast the daily regional emissions from area sources that would occur during long-term Project operations. In calculating mobile-source emissions, trip-length values were based on the distances provided in CalEEMod.

²⁶ SCAQMD, CEQA Handbook, Tables 11-4, p. 11-15 and A11-9-A, page A11-77, http://www.aqmd.gov/docs/defaultsource/ceqa/handbook/localized-significance-thresholds/final-sample-construction-scenario-report.pdf, accessed August 2021.

²⁷ California Air Resources Board, Verification Procedure: Stationary, https://ww2.arb.ca.gov/ourwork/programs/verification-procedure-warranty-and-use-compliance-requirements-use-strategies-4, accessed August 2021.

Area-source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product (including paint) usage rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission's California Commercial End Use Survey data set, which provides energy demand by building type and climate zone.

Greenhouse Gases

The analysis of the Project's GHG emissions consists of a quantitative analysis of the GHG emissions generated by the construction and operation activities and a qualitative analysis of the proposed Project's consistency with adopted GHG-related legislation, plans, and policies. This approach is in accordance with CEQA Guidelines Section 15064.4(a), which affirms the discretion of a lead agency to determine, in the context of a particular project, whether to use quantitative and/or qualitative methodologies to determine the significance of a project's impacts.

Emissions Inventory Modeling

The total GHG emissions from the Project were quantified to determine the level of the Project's estimated annual GHG emissions. As with the Air Quality section calculations, construction emissions were estimated using CalEEMod by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile-source emissions factors. The modeling used the same input values as previously discussed under the methodology section for air quality. SCAQMD's *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold*²⁸ recognizes that construction-related GHG emissions from projects occur over a relatively short-term period of time and contributes a relatively small portion of a project's overall lifetime GHG emissions. The guidance recommends that a project's construction-related GHG emissions be amortized over a 30-year project lifetime so that GHG reduction measures will address construction GHG emissions as part of the operation GHG reduction strategies. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in **Attachment B**.

CalEEMod was also used to estimate operational GHG emissions from electricity, natural gas, solid waste, water and wastewater, fireplaces, and landscaping equipment. CalEEMod calculates energy use from systems covered by Title 24 (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting. Mobile-source emissions were estimated based on the CARB EMFAC model. For mobile sources, CalEEMod was used to generate the vehicle miles traveled from the existing and Project uses based on the Project traffic impact analysis (TIA).²⁹

²⁸ SCAQMD, Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold (October 2008).

²⁹ Linscott, Law, & Greenspan, Engineers, Transportation Impact Analysis, 606 N. Maryland Avenue Residential Project, June 22, 2021.

With regard to energy demand, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Energy demand rates were estimated based on square footage as well as predicted water supply needs for this use. Energy demand (off-site electricity generation and on-site natural gas consumption) for the Project was calculated within CalEEMod using the CEC's CEUS data set, which provides energy demand by building type and climate zone.

Emissions of GHGs from solid waste disposal were also calculated using CalEEMod software. The emissions are based on the waste disposal rate for the land uses, the waste diversion rate, and the GHG emission factors for solid waste decomposition. The GHG emission factors, particularly for methane, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are Statewide averages, were used in this assessment.

Emissions of GHGs from water and wastewater result from the required energy to supply and distribute the water and treat the wastewater. Wastewater also results in emissions of GHGs from wastewater treatment systems. Emissions are calculated using CalEEMod and are based on the water usage rate for the restaurant use; the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment; the GHG emission factors for the electricity utility provider; and the emission factors for the wastewater treatment process.

With respect to emission rates, CalEEMod incorporates EMFAC2017 emission rates by vehicle class and vehicle process. Specific CO2 emissions, EMFAC and subsequently CalEEMod take into account the following emission processes related to CO2 on an annual basis:

- **<u>Start Exhaust</u>**: Extra emissions that occur when starting a vehicle.
- <u>Idle Exhaust</u>: Emissions occur during extended idling events or when the vehicle is not operating any significant distance.
- <u>Run Exhaust</u>: Emissions occur when traveling on the road, including at speed, and idling, as part of normal driving.

SIGNIFICANCE THRESHOLDS

Air Quality

The determination of a project's significance on air quality shall be made considering the factors provided in the SCAQMD *CEQA Air Quality Handbook* (Handbook). The City has not adopted specific Citywide significance thresholds for air quality impacts; rather, the thresholds and methodologies contained in the SCAQMD Handbook for both construction and operational emissions are utilized for evaluating projects in the City. These thresholds are described below.

Construction Emission Thresholds

The Project will have a significant impact if it exceeds the construction thresholds listed in **Table 8: Construction Thresholds**.

CONSTRUCTION THRESHOLDS					
Pollutant	Construction Emissions (pounds/day)				
Volatile organic compounds (VOCs)	75				
Nitrogen dioxide (NO2)	100				
Carbon monoxide (CO)	550				
Sulfur dioxide (SO2)	150				
Respirable particulate matter (PM10)	150				
Fine particulate matter (PM2.5)	55				

TABLE 8 CONSTRUCTION THRESHOLDS

Construction and Operational Localized Significance Thresholds

The local significance thresholds are based on the SCAQMD's Final Localized Significance Threshold (LST) Methodology (LST Methodology)³⁰ guidance document for short-duration construction activities. The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project site because of construction activities. The SCAQMD provides voluntary guidance on the evaluation of localized air quality impacts to public agencies conducting environmental review of projects located within its jurisdiction. Localized air quality impacts are evaluated by examining the on-site generation of pollutants and their resulting downwind concentrations. For construction, pollutant concentrations are compared to significance thresholds for particulates (PM10 and PM2.5), CO, and NO2. The significance threshold for PM10 represents compliance with SCAQMD Rule 403 (Fugitive Dust). The threshold for PM2.5 is designed to limit emissions and to allow progress toward attainment of the AAQS. Thresholds for CO and NO2 represent the allowable increase in concentrations above background levels that would not cause or contribute to an exceedance of their respective AAQS.

The LST Methodology provides lookup tables of emissions that are based on construction projects of up to 5 acres in size. These LST lookup tables were developed to assist lead agencies with a simple tool for evaluating the impacts from small typical projects. Ambient conditions for East San Fernando Valley, as recorded in SRA 7 by the SCAQMD, were used for ambient conditions in determining appropriate threshold levels. Thresholds for each criteria pollutant for construction activity and Project operation of the 1.46-acre Project site are listed in **Table 9: Localized Significance Thresholds**.

Based on the SCAQMD Handbook, thresholds for each criteria pollutant for the operations of the Project are provided in Table 10: Operational Thresholds.

³⁰ South Coast Air Quality Management District, Final Localized Significance Threshold (LST) Methodology, (June 2003, rev. July 2008).

TABLE 9 LOCALIZED SIGNIFICANCE THRESHOLDS

	Construction	Operational
Pollutant	pounds	s/day
Nitrogen dioxide (NO2)	95	95
Carbon monoxide (CO)	885	885
Respirable particulate matter (PM10)	17	4
Fine particulate matter (PM2.5)	5	1

Notes:

Based on a distance to sensitive receptors of 50 meters (164 feet). SCAQMD's Localized Significance Threshold (LST) Methodology for CEQA Evaluations guidance document provides that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 50 meters.

TABLE 10 OPERATIONAL THRESHOLDS					
Pollutant	Operational Emissions (pounds/day)				
Volatile organic compounds (VOCs)	55				
Nitrogen dioxide (NO2)	55				
Carbon monoxide (CO)	550				
Sulfur dioxide (SO2)	150				
Respirable particulate matter (PM10)	150				
Fine particulate matter (PM2.5)	55				

Toxic Air Contaminants

As set forth in the SCAQMD Handbook, the determination of significance of a project with respect TACs shall be made on a case-by-case basis, considering the following factors:

- Regulatory framework for toxic materials and process involved;
- Proximity of TACs to sensitive receptors;
- Quantity, volume, and toxicity of the contaminants expected to be emitted;
- Likelihood and potential level of exposure; and
- Degree to which project design will reduce risk of exposure.

Consistency with Applicable Air Quality Plans

Section 15125 of the State CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD Handbook, the following criteria were

used to evaluate the Project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP:

- Will the Project result in any of the following:
- Increase the frequency or severity of existing air quality violations?
- Cause or contribute to new air quality violations?
- Delay the timely attainment of the air quality standards or the interim emission reductions specified in the AQMP?
- Will the Project exceed the assumptions utilized in preparing the AQMP?
- Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based?
- Does the Project include air quality mitigation measures?
- To what extent is Project development consistent with the AQMP land use policies?

Cumulative Threshold

SCAQMD recommends that a project be considered to result in a cumulatively considerable impact to air quality if any construction-related emissions and operational emissions from individual development projects exceed the mass daily emissions thresholds for individual projects.³¹

The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

A project is also considered to result in a cumulatively considerable contribution to significant impacts if the population and employment projections for the project exceed the rate of growth defined in SCAQMD's AQMP.

Greenhouse Gases

Pursuant to CEQA Guidelines Section 15064.4, the methods suitable for analysis of GHG emissions are:

- Use a model or methodology to quantify greenhouse gas emissions resulting from a project. The Lead Agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The Lead Agency should explain the limitation of the particular model or methodology selected for use.
- 2. Rely on a qualitative analysis or performance-based standards.

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions. Nor have SCAQMD, OPR, CARB, CAPCOA, or any other state or regional agency adopted a

³¹ SCAQMD, White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, board meeting, Agenda No. 29 (September 5, 2003), Appendix D, p. D-3.

numerical significance threshold for assessing GHG emissions that is applicable to the Project. Assessing the significance of a project's contribution to cumulative global climate change involves: (1) developing pertinent inventories of GHG emissions, and (2) considering project consistency with applicable emission reduction strategies and goals. This evaluation of consistency with such plans is the sole basis for determining the significance of the Project's GHG-related impacts on the environment.

IMPACT ANALYSIS

Air Quality

Emissions of air pollutants were estimated for construction and operation of the Project. In California, the California Air Pollution Control Officer's Association recommends the use CalEEMod to calculate and organize emissions data for new development projects. CalEEMod is a program that relies on project-specific information pertaining to geographic setting, utility service provision, construction scheduling and equipment inventory, and operational design features to generate estimates of air pollutant and GHG emissions. Information needed to parameterize the Project in CalEEMod was obtained from the construction engineer and the Project architect.

Table 11: Project Construction Schedule provides the dates and durations of each of the activities that will take place during construction of the new residential building, as well as a brief description of the scope of work. Future dates represent approximations based on the general Project timeline and are subject to change pending unpredictable circumstances that may arise.

TABLE 11 PROJECT CONSTRUCTION SCHEDULE							
Construction Activity	Approximate Start Date	Approximate End Date ^{a,b}	Duration (Days)	Description			
Demolition	8/1/22	8/31/22	23	Removal of existing two-story office building and parking structure			
Grading	9/1/22	12/15/22	76	Grading of site and export of 76,000 cubic yards of soil			
Building Construction	12/1/22	6/15/2025	662	Construction of 294-unit apartment building and parking structure			
Paving	9/1/24	12/2/24	66	Paving of asphalt surfaces			
Architectural Coating ^c	1/1/24	6/15/25	380	Application of architectural coatings to building materials			

Note: Refer to Attachment A.3 Proposed (Summer) and Attachment A.4 Proposed (Winter), Section 3.0: Construction Detail. ^a Construction of the proposed Project would occur over approximately 35 months.

b The proposed Project would be subject to a Development Agreement that currently has a six (6) year term. While the construction could start as early as August 2022, it could start as late as July 2028 depending on when the entitlements are approved. The most conservative analysis of construction impacts would be to assume construction would begin August 2022 through June 2022 as emissions would be higher in earlier years. Thus, this study analyzes construction impacts between August 2022 through June 2025.

^c Architectural coating will be taking place intermittently throughout building construction.

Construction

An assessment of air pollutant emissions was prepared utilizing the construction schedule in Table 11. Table 12: Project Construction Diesel Equipment Inventory displays the construction equipment required for each activity described in **Table 11**. Under regulatory compliance measures in CalEEMod, construction would be required to adhere to SCAQMD Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings). Additionally, regulatory compliance measures would include all heavy-duty diesel equipment engines would meet minimum Tier 3 standards in accordance with CARB fleet requirements.

TABLE 12 PROJECT CONSTRUCTION DIESEL EQUIPMENT INVENTORY						
Phase	Off Road Equipment Type	Amount	Daily Hours	Horsepower [HP] (Load Factor)		
	Concrete/Industrial Saws	1	8	81 (0.73)		
Demolition	Rubber Tired Dozers	1	8	247 (0.40)		
	Tractors/Loaders/Backhoes	3	8	97 (0.37)		
	Graders	1	8	187 (0.41)		
Grading	Rubber Tired Dozers	1	8	247 (0.40)		
	Tractors/Loaders/Backhoes	2	7	97 (0.37)		
	Cranes	1	6	231 (0.29)		
	Forklifts	1	6	89 (0.20)		
Building Construction	Generator Sets	1	8	84 (0.74)		
	Tractors/Loaders/Backhoes	1	6	97 (0.37)		
	Welders	3	8	46 (0.45)		
Architectural Coating	Air compressors	1	6	78 (0.48)		
	Cement and Mortar Mixers	1	6	9 (0.56)		
	Pavers	1	6	130 (0.42)		
Paving	Paving Equipment	1	8	132 (0.36)		
	Rollers	2	7	80 (0.38)		
	Tractors/Loaders/Backhoes	1	8	97 (0.37)		

Refer to Attachment A.3 Proposed (Summer) and Attachment A.4 Proposed (Winter), Section 3.0: Construction Detail, for equipment inventory information.

Maximum daily emissions of air pollutants during construction of the Project's new residential building were calculated using CalEEMod. Construction activities involving grading and excavation would primarily generate PM2.5 and PM10 emissions. Approximately 76,000 cubic yards of soil would be exported for the subterranean parking garage. Mobile sources (such as diesel-fueled equipment on-site and vehicles traveling to and from the Project site) would primarily generate NOx emissions. The application of architectural coatings would primarily result in the release of VOC emissions. **Table 13: Maximum Construction Emissions** identifies daily emissions that are estimated for peak construction days for each construction year. It is important to note, emissions presented in **Table 13** do not include regulatory compliance measures such as construction equipment controls (Tier 3 emissions standards with Level 3 DPF per CARB requirements)³² or control efficiency of PM10 (dust control measures per SCAQMD Rule 403) to provide a worst-case scenario analysis. Based on the modeling, construction of the Project's new

³² California Air Resources Board, Guide to Off-Road Vehicle & Equipment Regulations, website: https://ww3.arb.ca.gov/msprog/offroadzone/pdfs/offroad_booklet.pdf, accessed August 2021.

residential building would not exceed regional VOC, NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. All criteria air pollutants would be below SCAQMD construction thresholds. Construction of the Project would not generate any significant environmental impacts associated with air quality compliance.

TABLE 13 MAXIMUM CONSTRUCTION EMISSIONS						
	VOC	NOx	CO	SOx	PM10	PM2.5
Source			pound	ls/day		
2022	5	43	38	<1	13	6
2023	3	15	24	<1	4	2
2024	10	22	36	<1	5	2
2025	9	15	26	<1	5	2
Maximum	10	43	38	<1	13	6
SCAQMD Mass Daily Threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Source: CalEEMod.

Notes: Cal Economic Notes: Nox = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds. Refer to Attachment A.3 Proposed (Summer) and Attachment A.4 Proposed (Winter), Sections 3.2 through 3.7, for maximum

on-site plus off-site emission's during both the summer and winter seasons.

Operation

As mentioned previously, the proposed development includes construction of a 24-story 294-unit apartment building with a 4-level subterranean parking garage containing 502 parking spaces. The existing Chase Bank building would remain on site and continue to be operational as part of the proposed Project. Operational emissions would result primarily from passenger vehicles traveling to and from the Project site. The results presented in Table 14: Maximum Operational Emissions are compared to the SCAQMD-established operational significance thresholds. More specifically, the proposed Project would generate approximately 1,247 daily trips.³³ As shown in Table 14, the operational emissions would not exceed the regional VOC, NOx, CO, SOx, PM10, and PM2.5 concentration thresholds. Operation of the Project would not generate any significant environmental impacts associated with air quality compliance.

Localized Significance Thresholds

The result of the LST analysis are provided in Table 15: Localized Construction and Operational Emissions. These estimates assume the maximum area that would be disturbed during construction on any given day during Project buildout. It is important to note, emissions presented in Table 15 do not include regulatory compliance measures such as construction equipment controls (Tier 3 emissions standards with Level 3 DPF per CARB requirements)³⁴ or control efficiency of PM10 (dust control

³³ Linscott, Law, & Greenspan, Engineers, Transportation Impact Analysis, 606 N. Maryland Avenue Residential Project, June 22, 2021. Proposed apartments would generate 1,313 trips including 66 transit trips, for a total of 1,247 driveway trips.

³⁴ California Air Resources Board, Guide to Off-Road Vehicle & Equipment Regulations, website: https://ww3.arb.ca.gov/msprog/offroadzone/pdfs/offroad_booklet.pdf, accessed August 2021.

measures per SCAQMD Rule 403) to provide a worst-case scenario analysis. As shown in Table 15, emissions would not exceed the localized significance construction and operational thresholds.

TABLE 14 MAXIMUM OPERATIONAL EMISSIONS						
	VOC	NOx	со	SOx	PM10	PM 2.5
Source	pounds/day					
Area	10	4	26	<1	<1	<1
Energy	<1	1	<1	<1	<1	<1
Mobile	4	4	38	<1	9	2
Total	14	9	64	<1	10	3
Existing	<1	<1	2	<1	<1	<1
Net Total	13	9	62	<1	9	3
SCAQMD Mass Daily Threshold	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Source: CalEEMod.

Notes: Totals in table may not appear to add exactly due to rounding in the computer model calculations. Emissions do not include existing Chase Bank building to remain.

CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SOx = sulfur oxides; VOC = volatile organic compounds.

Refer to Attachment A.3 Proposed (Summer) and Attachment A.4 Proposed (Winter), Section 2.2, for maximum operational emissions during both the summer and winter seasons.

TABLE 15 LOCALIZED CONSTRUCTION AND OPERATIONAL EMISSIONS							
	NOx	CO	PM10	PM2.5			
Source	On Site Emissions (pounds/day)						
Construction							
Total maximum emissions	30	22	8	5 ^b			
LST threshold ^a	95	885	17	5			
Threshold Exceeded?	No	No	No	No			
Operational							
Project area/energy emissions	5	26	<1	<1			
LST threshold ^a	95	885	4	1			
Threshold Exceeded?	No No No No						
Notes:							

Totals in table may not appear to add exactly due to rounding in the computer model calculations. Emissions do not include existing Chase Bank building to remain.

CO = carbon monoxide; NOx = nitrogen oxide; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns.

Refer to Attachment A.3 Proposed (Summer) and Attachment A.4 Proposed (Winter), Sections 3.2 through 3.7, for maximum on-site emissions during both the summer and winter seasons.

^a The Project site is approximately 1.46 acres. Consistent with SCAQMD's Localized Significance Threshold (LST) Methodology, the localized thresholds are based on a 1.46-acre site with a receptor distance of 25 meters (82 feet) in SCAQMD's SRA 7. ^b Exact localized PM2.5 emissions would be approximately 4.7 pounds per day; thus, the threshold would not be exceeded.

Toxic Air Contaminants

Project construction would result in short-term emissions of diesel particulate matter, which is a TAC. Off-road heavy-duty diesel equipment would emit diesel particulate matter over the course of the construction period. Localized diesel particulate emissions (strongly correlated with PM2.5 emissions) would be minimal and would be substantially below localized thresholds, as shown in Table 15. Project compliance with the CARB anti-idling measure, which limits idling to no more than 5 minutes at any
location for diesel-fueled commercial vehicles, would further minimize diesel particulate matter emissions in the Project area.

Project operations would generate only minor amounts of diesel emissions from delivery trucks and incidental maintenance activities. Trucks would comply with the applicable provisions of the CARB Truck and Bus regulation to minimize and reduce emission from existing diesel trucks. In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings or household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed uses within the Project site. Based on the uses expected on the Project site, potential long-term operational impacts associated with the release of TACs would be minimal and would not be expected to exceed the SCAQMD thresholds of significance.

Odors

As shown in **Table 15**, the construction of the Project would result in emissions below the localized significance thresholds. Mandatory compliance with SCAQMD Rule 1113 would limit the number of VOCs in architectural coatings and solvents. According to SCAQMD, while almost any source may emit objectionable odors, some land uses are more likely to produce odors because of their operation. Land uses more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding manufacturing, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The Project does not contain any active manufacturing activities and would not convert current agricultural land to residential land uses. Therefore, objectionable odors would not be emitted by the proposed uses.

Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402. As previously noted, Rule 402 prohibits the discharge of air contaminants that harm, endanger, or annoy individuals or the public; endanger the comfort, health or safety of individuals or the public; or cause injury or damage to business or property. Failure to comply with Rule 402 could subject the offending facility to possible fines and/or operational limitations in an approved odor control or odor abatement plan.

Consistency with AQMP

The Basin is designated nonattainment at the federal level for O3 and PM2.5 and State level for O3, PM10, and PM2.5. SCAQMD developed regional emissions thresholds, as shown in **Table 8** and **Table 9**, to determine whether a project would contribute to air pollutant violations. If a project exceeds the regional air pollutant thresholds, then it would significantly contribute to air quality violations in the Basin.

As shown in **Table 13**, temporary emissions associated with construction of the Project would fall below SCAQMD thresholds for VOCs, NOx, CO, SOx, PM10, and PM2.5.

As shown in **Table 14**, long-term emissions associated with operation of the Project would not exceed SCAQMD thresholds for VOCs, NOx, CO, SOx, PM10, and PM2.5.

The Project's maximum potential NOx, CO, PM10, and PM2.5 daily emissions during construction and operation were analyzed to determine potential effects on localized concentrations and to determine if the potential exists for such emissions to cause or affect a violation of an applicable AAQS. As shown in **Table 15**, NOx, CO, PM10, and PM2.5 emissions would not exceed the SCAQMD localized significance thresholds.

The Project is also located in an urban area, which would reduce vehicle trips and vehicle miles traveled due to the Project's urban infill characteristic and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce air emissions.

Cumulative

Development of the Project in conjunction with any related projects near the Project would result in an increase in construction and operational emissions in an already urbanized area of the City. However, cumulative air quality impacts from construction, based on SCAQMD guidelines, are not analyzed in a manner similar to project-specific air quality impacts. Instead, SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. According to SCAQMD, individual development projects that generate construction or operational emissions that exceed SCAQMD recommended daily regional or localized thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

With the implementation of regulatory compliance measures such as Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coating), the Project's construction and operational emissions are not expected to significantly contribute to cumulative emissions for CO, NOx, PM10, and PM2.5. As such, the Project's contribution to cumulative air quality emissions in combination with any related projects would not be cumulatively considerable.

As discussed previously, the Project would not jeopardize the attainment of air quality standards in the 2016 AQMP for the South Coast Air Basin and the Los Angeles County portion of the South Coast Air Basin. As such, the Project would not have a cumulatively considerable contribution to a potential conflict with or obstruction of the implementation of the AQMP regional reduction plans.

Greenhouse Gas Emissions

The forecasting of construction-related GHG emissions requires assumptions regarding the timing of construction as the emission factors for some of the Project's construction-related GHG emission sources decline over time. As shown in **Table 16: Construction GHG Emissions**, total construction emissions would be 2,266 metric tons of CO2e (MTCO2e). One-time, short-term emissions are converted to average annual emissions by amortizing them over the service life of a building. For buildings in general, it is

reasonable to look at a 30-year time frame because this is a typical interval before a new building requires its first major renovation.³⁵ As shown in Table 16, when amortized over an average 30-year Project lifetime, average annual construction emissions from the Project would be 76 MTCO2e per year.

TABLE 16 CONSTRUCTION GHG EMISSION	5
Construction Phase	MTCO2e/Year
2022	281
2023	738
2024	877
2025	370
Overall Total	2,266
30-Year Annual Amortized Rate	76

Annual Amortiz

Refer to **Attachment B.2: Proposed (Annual)**, Section 2.1 for overall construction emissions. Notes: GHG = greenhouse gas; MTCO2e = metric tons of carbon dioxide equivalent.

Operation of the proposed Project has the potential to generate GHG emissions through vehicle trips traveling to and from the Project site. In addition, emissions would result from area sources on site, such as natural gas combustion, landscaping equipment, and use of consumer products. Emissions from mobile and area sources and indirect emissions from energy and water use, wastewater, as well as waste management would occur every year after full development of the uses allowed by the Project. Operational Project emissions from area sources, energy sources, mobile sources, solid waste, and water and wastewater conveyance are shown in Table 17: Operational GHG Emissions below. As shown in Table 17, average annual net operational emissions from the proposed Project would be 2,773 MTCO2e per year.

TABLE 17 OPERATIONAL GHG EMISSIONS											
	Unmitigated										
Source	MTCO2e per year										
Construction (amortized)	76										
Area	65										
Energy	1,129										
Mobile	1,374										
Waste	68										
Water	192										
Total	2,904										
Existing	131										
Net Total	2,773										

Refer to Attachment B.2: Proposed (Annual), Section 2.2 for maximum annual operation emissions. Abbreviation: MTCO2e = metric tons of carbon dioxide emissions. Note: Emissions do not include existing Chase Bank building to remain.

³⁵ International Energy Agency (IEA), Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings, IEA Information Paper (2008).

Conflict with Applicable Greenhouse Gas Reduction Plans, Policies, or Regulations

There are no federal, State, or local quantitative adopted thresholds of significance for addressing a project's GHG emissions. In the absence of any adopted, numeric threshold, this analysis evaluates the significance of a project by considering whether the project conflicts with applicable regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction of mitigation of greenhouse gas emissions. The following analysis describes the extent the Project complies with the regulations and policies outlined in SCAG's 2020-2045 RTP/SCS, the City's Greener Glendale Plan, and the City's South Glendale Community Plan EIR.

Consistency with SCAG's 2020-2045 RTP/SCS

The 2020-2045 RTP/SCS identifies strategies and investments to support expanded housing choices for all income levels in areas with a range of transportation choices. Conclusions within the document stated that a comprehensive approach is needed in order to identify housing opportunities within Priority Growth Areas (PGAs) such as job centers, Transit Priority Areas (TPAs) found within half a mile of a major transit station, and High Quality Transit Areas (HQTAs) which include generally walkable transit oriented areas within one half-mile or a 15 minute walk of a well serviced transit stop. These developments would offer alternative modes of transportation which would reduce vehicle miles traveled (VMT's) and GHG emissions associated with vehicles.

The Project site is located in an urbanized area of the City and is considered a TPA per SB 375. The Project site is within the Gateway District which includes mainly high-rise, commercial development with some residential uses and is focused on furthering the number of residential buildings in the area to enhance the character of the existing area and provide more opportunities for close access to downtown via walking, bicycling, and public transportation. Public transit service within the Project vicinity is currently provided by the City (Glendale Beeline), Los Angeles County Metropolitan Transit Authority (Metro), and the Los Angeles Department of Transportation (LADOT) Transit Commuter Express. Moreover, the Project would include 115 bicycle parking spaces (96 long term and 19 short term) that comply with the Glendale Municipal Code-required bicycle parking. These features would offer alternative modes of transportation and would reduce VMT's, thereby reducing GHG emissions.

For these reasons, the proposed Project would not conflict with SCAG's 2020-2045 RTP/SCS.

Consistency with Greener Glendale Plan

As discussed previously, the City adopted the Greener Glendale Plan.³⁶ The Greener Glendale Plan incorporates 12 measures in addition to the mandatory Green Building Standards for new construction projects. These measures went into effect on July 7, 2011. The 12 measures and applicability to the Project are provided in **Table 18: Project Consistency with Greener Glendale Plan**. These measures would be imposed by a conditions of approval (COA) upon approval of the Project. By complying with the 12 measures listed in **Table 18**, the Project would be consistent with the Greener Glendale Plan.

³⁶ City of Glendale, Greener Glendale, https://www.glendaleca.gov/government/departments/management-services/officeof-sustainability/greener-glendale, accessed August 2021.

	PROJECT CONSISTENC	Y WITH GREENER GLENDALE PLAN
	Measure	Applicability
1.	Expand applicability of green building standards to residential buildings over 3-stories.	No Conflict. The proposed Project is proposed to include development of a 24-story multi-family residential building and would be required to comply with the green building standard.
2.	Exceed California Energy Code requirements by 15 percent.	No Conflict. The Project's new residential building would reduce consumption of electricity and natural gas by exceeding the California Energy Code Title 24 requirements by 15 percent as required by Glendale's building codes.
3.	Reduce baseline water usage by 20 percent.	No Conflict. The proposed residential building would utilize water-conserving fixtures such as irrigation control, low-flow faucets and shower heads and any other combination of fixtures that demonstrate an aggregate savings of at least 20 percent when compared to nonwater-conserving fixtures.
4.	A radian roof barrier shall be installed.	No Conflict. The Project's new residential building would install a radian roof barrier which reduces the amount of heat that enters through the building's roof.
5.	Gas fired tankless water heaters shall have an energy factor of at least 0.80.	No Conflict. The proposed residential building would install high efficiency water heaters with an identified "energy factor" of at least 0.80. Less natural gas would be consumed to heat water for showers, washing dishes, laundry, etc.
6.	Gas-fired storage-tank type water heaters shall have an energy factor of at 0.61.	No Conflict. The Project's new residential building would install high efficiency storage-type water heater that would consume less natural gas.
7.	Buildings shall be "solar ready."	No Conflict. The Project would include photovoltaic arrays on the roof (6,856 square feet in area) of the new residential building. 242 solar panels at 300 watts each would be installed, producing approximately 220,825 kilowatt-hours annually.
8.	At least 20 percent of certain paved areas in residential projects shall be permeable.	No Conflict. The Project would integrate bricks, paving stones, or other permeable material into the pavement design to achieve at the minimum 20 percent permeability of areas not covered by buildings. Approximately 4,901 square feet of landscaping would be provided on Level 1.
9.	Residential gas-fired heating equipment shall be high efficiency units.	No Conflict. The Project would install high efficiency gas fired heating equipment with a minimum annual fuel utilization ration (AFUE) of 0.90 or higher within the new residential building. ³⁷
10.	Residential air conditioning equipment shall be high-efficiency units.	No Conflict. The Project's new residential building would install air conditioning equipment that has a seasonal energy efficiency ratio higher than 13.0 and energy efficiency ratio of at least 11.5, which would reduce cooling costs by 30 percent. ³⁸
11.	Natural light ventilation in residential habitable room shall be increased.	No Conflict. The new residential building would be designed to incorporate natural light equal to at least 10 percent of the floor area and would incorporate ventilation equal to at least 5 percent of the floor area in each habitable room. This would be achieved by enlarged windows and doors to increase the available natural light and ventilation.
12.	New single-family dwellings with floor area greater than 5,000 square feet shall be required to meet CALGreen Tier 1.	No Conflict. The Project includes multi-family residential development and this measure does not apply.

Source: City of Glendale, Greener Glendale, https://www.glendaleca.gov/government/departments/management-services/office-of-sustainability/greener-glendale, accessed August 2021.

³⁷ On November 4, 2021, the Sustainability Commission of the City approved a motion (Motion 5a) to recommend the City Council hire a consultant to assist in the preparation of reach code(s) that include building electrification. No reach codes have been adopted as of this SCEA that would be applicable to the proposed Project. For this reason, the proposed Project would install high efficiency gas fired heating equipment consistent with the Greener Glendale Plan.

³⁸ It is understood GWP has signed a four-year contract to deploy a smart thermostat demand response program for both residential and commercial GWP electric customers. Participation in this program is voluntary with customers having the option to receive a rebate on a smart thermostat and participate in "demand response." Demand response means responding to high energy demands through customer reductions in energy usage. Should the proposed Project or its future residents volunteer for this program, the proposed Project would continue to be consistent with the Greener Glendale Plan as the air conditioning equipment proposed would reduce colling costs by 30 percent.

Consistency with South Glendale Community Plan EIR

As discussed previously, Policy GHG-3 of the South Glendale Community Plan EIR requires the City to reduce GHG emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; and promoting energy-efficient building design and site planning. As mentioned previously, the Project site is located within a TPA, which is defined as an area within one-half mile of major transit stop that is existing or planned. Furthermore, the Project is committed to meeting the requirements of the CALGreen Code by incorporating strategies such as low-flow toilets, low-flow faucets and other energy and resource conservation measures. The Project would comply with applicable energy, water, and waste efficiency measures specified in the Title 24 Building Energy Efficiency Standards and CALGreen standards. As such, the Project would be consistent with the policies mentioned in the South Glendale Community Plan EIR.

For the reasons described above, the Project would be consistent with State-applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions, impacts would not be considered significant.

Cumulative Impacts

To achieve Statewide goals, CARB is in the process of establishing and implementing regulations to reduce Statewide GHG emissions. Currently, there is no generally accepted methodology that exists to determine whether GHG emissions associated with a specific project represent new emissions or existing and/or displaced emissions. Therefore, consistent with CEQA Guidelines Section 15064h(3), this analysis has determined that the Project's contribution to cumulative GHG emission and global climate change would be less than significant if the Project is consistent with the applicable regulatory plans and polices to reduce GHG emissions. Accordingly, the analysis above considered the potential for the Project to contribute to the cumulative impact of global climate change. As stated above, with compliance of regulatory measures and implementation of CALGreen Building Standards, the Project would not conflict with applicable plans including SCAG's 2020-2045 RTP/SCS, the City's Greener Glendale Plan, and the City's South Glendale Community Plan EIR. As such, cumulative impacts would be less than significant during construction and operation.

Attachment A CalEEMod Air Quality Emission Output Files



EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Lucia Park - Existing to be Removed

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.29	1000sqft	0.38	5,288.00	0
Enclosed Parking with Elevator	18.82	1000sqft	0.85	18,819.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2021
Utility Company	Glendale Water and Power				
CO2 Intensity (Ib/MWhr)	948.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity (Ib/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Existing only.

Land Use - Project would remove existing office building and parking structure.

Construction Phase - Existing only.

Vehicle Trips - Based on project TIS.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	1129	0
tblConstructionPhase	NumDays	20.00	0.00
tblFleetMix	HHD	8.0220e-003	0.00
tblFleetMix	LDA	0.55	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7300e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	МН	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	5,290.00	5,288.00
tblLandUse	LandUseSquareFeet	18,820.00	18,819.00
tblLandUse	LotAcreage	0.12	0.38
tblLandUse	LotAcreage	0.43	0.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblVehicleTrips	ST_TR	2.21	2.10
tblVehicleTrips	SU_TR	0.70	0.67
tblVehicleTrips	WD_TR	9.74	9.27

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	СО	SO2	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/e	day		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	lb/day											lb/day					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

	ROG	NOx	со	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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							
Area	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003			
Energy	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771			
Mobile	0.1628	0.1972	1.6935	3.4900e- 003	0.3326	3.4300e- 003	0.3360	0.0886	3.2100e- 003	0.0918		355.7179	355.7179	0.0239	0.0150	360.7921			
Total	0.2894	0.2118	1.7083	3.5800e- 003	0.3326	4.5500e- 003	0.3371	0.0886	4.3300e- 003	0.0929		373.2958	373.2958	0.0243	0.0153	378.4749			

Mitigated Operational

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003		
Energy	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771		
Mobile	0.1628	0.1972	1.6935	3.4900e- 003	0.3326	3.4300e- 003	0.3360	0.0886	3.2100e- 003	0.0918		355.7179	355.7179	0.0239	0.0150	360.7921		
Total	0.2894	0.2118	1.7083	3.5800e- 003	0.3326	4.5500e- 003	0.3371	0.0886	4.3300e- 003	0.0929		373.2958	373.2958	0.0243	0.0153	378.4749		

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	со	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	8/19/2021	8/18/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/•	day		
Off-Road	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Not Applied

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/	day		
Off-Road	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	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	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	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Not Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day				lb/c	day					
Mitigated	0.1628	0.1972	1.6935	3.4900e-	0.3326	3.4300e-	0.3360	0.0886	3.2100e-	0.0918		355.7179	355.7179	0.0239	0.0150	360.7921
Unmitigated	0.1628	0.1972	1.6935	3.4900e-	0.3326	3.4300e-	0.3360	0.0886	3.2100e-	0.0918		355.7179	355.7179	0.0239	0.0150	360.7921

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	49.04	11.11	3.54	119,583	119,583
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	49.04	11.11	3.54	119,583	119,583

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Enclosed Parking with Elevator	16.60 8.40 16.60 8.40		6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Enclosed Parking with Elevator	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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/d	day		
NaturalGas Mitigated	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
NaturalGas Unmitigated	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	со	SO2	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/e	day		
Enclosed Parking with Elevator	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
General Office Building	149.368	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
Total		1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	со	SO2	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/e	day		
Enclosed Parking with Elevator	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
General Office Building	0.149368	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
Total		1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771

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/e	day							lb/e	day		
Mitigated	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

					 ,	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			 ,	Reasonseeses .	.gamaanaanaanaanaanaana		
Unmitigated	0 1250	2 0000e-	2 4700e-	0 0000	1 0000e-	1 0000e-		1 0000e-	1 0000e-005	5 2800e-	5 2800e-	1 0000e-	1	5 6300e-003
ommigatou	0.1200	2.00000	2.11000	0.0000	1.00000	1.00000		1.00000	1.00000 000	0.20000	0.20000	1.00000	Í	0.00000 000
		005	002		005	005		005		002	002	005	1	
		005	003		005	005		005		003	1 003	005	í	i .
		1			. 7					, 7	: · · ·	1	i	

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	со	SO2	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/c	day							lb/c	day		
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e- 004	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003
Total	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003

Mitigated

	ROG	NOx	СО	SO2	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/d	day							lb/c	lay		
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1114					0.0000	0.0000		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 Not Applied

Landscaping	2.3000e-	2.0000e-	2.4700e-	0.0000	1.0000e-	1.0000e-	 1.0000e-	1.0000e-005	5.2800e-	5.2800e-	1.0000e-	 5.6300e-003
	004	005	003		005	005	005		003	003	005	
Total	0.1250	2.0000e-	2.4700e-	0.0000	1.0000e-	1.0000e-	1.0000e-	1.0000e-005	5.2800e-	5.2800e-	1.0000e-	5.6300e-003
		005	003		005	005	005		003	003	005	

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type Number

11.0 Vegetation



EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Lucia Park - Existing to be Removed

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.29	1000sqft	0.38	5,288.00	0
Enclosed Parking with Elevator	18.82	1000sqft	0.85	18,819.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2021
Utility Company	Glendale Water and Power				
CO2 Intensity (Ib/MWhr)	948.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity ((Ib/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Existing only.

Land Use - Project would remove existing office building and parking structure.

Construction Phase - Existing only.

Vehicle Trips - Based on project TIS.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	1129	0
tblConstructionPhase	NumDays	20.00	0.00
tblFleetMix	HHD	8.0220e-003	0.00
tblFleetMix	LDA	0.55	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7300e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	5,290.00	5,288.00
tblLandUse	LandUseSquareFeet	18,820.00	18,819.00
tblLandUse	LotAcreage	0.12	0.38
tblLandUse	LotAcreage	0.43	0.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblVehicleTrips	ST_TR	2.21	2.10
tblVehicleTrips	SU_TR	0.70	0.67
tblVehicleTrips	WD_TR	9.74	9.27

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	СО	SO2	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/e	day		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	СО	SO2	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/e	day		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.4081	0.0000	0.0000	0.3893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	со	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/o	day		
Area	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003
Energy	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
Mobile	0.1600	0.2121	1.6462	3.3400e- 003	0.3326	3.4400e- 003	0.3360	0.0886	3.2100e- 003	0.0918		340.3731	340.3731	0.0246	0.0157	345.6732
Total	0.2866	0.2268	1.6610	3.4300e- 003	0.3326	4.5600e- 003	0.3371	0.0886	4.3300e- 003	0.0929		357.9511	357.9511	0.0250	0.0160	363.3560

Mitigated Operational

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003
Energy	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
Mobile	0.1600	0.2121	1.6462	3.3400e- 003	0.3326	3.4400e- 003	0.3360	0.0886	3.2100e- 003	0.0918		340.3731	340.3731	0.0246	0.0157	345.6732
Total	0.2866	0.2268	1.6610	3.4300e- 003	0.3326	4.5600e- 003	0.3371	0.0886	4.3300e- 003	0.0929		357.9511	357.9511	0.0250	0.0160	363.3560

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	со	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	8/19/2021	8/18/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
	Count	Number	Number	Number	Length	Length	Length	Class	Vehicle Class	Vehicle Class
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/	day		
Off-Road	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Not Applied

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/e	day		
Off-Road	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	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	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	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Not Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Mitigated	0.1600	0.2121	1.6462	3.3400e-	0.3326	3.4400e-	0.3360	0.0886	3.2100e-	0.0918		340.3731	340.3731	0.0246	0.0157	345.6732
Unmitigated	0.1600	0.2121	1.6462	3.3400e-	0.3326	3.4400e-	0.3360	0.0886	3.2100e-	0.0918		340.3731	340.3731	0.0246	0.0157	345.6732

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	49.04	11.11	3.54	119,583	119,583
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	49.04	11.11	3.54	119,583	119,583

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Enclosed Parking with Elevator	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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/e	day		
NaturalGas Mitigated	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
NaturalGas Unmitigated	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGas Use	ROG	NOx	СО	SO2	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/e	day		
Enclosed Parking with Elevator	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
General Office Building	149.368	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
Total		1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	NaturalGas Use	ROG	NOx	со	SO2	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/e	day		
Enclosed Parking with Elevator	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
General Office Building	0.149368	1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771
Total		1.6100e- 003	0.0146	0.0123	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e-003		17.5727	17.5727	3.4000e- 004	3.2000e- 004	17.6771

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/e	day							lb/e	day		
Mitigated	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0 1250	2 0000e-	2 4700e-	0.0000	 1 0000e-	1 0000e-	 1 0000e-	1 0000e-005	5 2800e-	5 2800e-	1 0000e-	5 6300	e-003
onningatou	0.1200	005	003	0.0000	005	005	005	1.00000 000	003	003	005	0.0000	0 000
		000	000		000	000	000		000	000	000		

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/d	day							lb/o	day		
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1114					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3000e- 004	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003
Total	0.1250	2.0000e- 005	2.4700e- 003	0.0000		1.0000e- 005	1.0000e- 005		1.0000e- 005	1.0000e-005		5.2800e- 003	5.2800e- 003	1.0000e- 005		5.6300e-003

Mitigated

	ROG	NOx	СО	SO2	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/e	day							lb/c	lay		
Architectural Coating	0.0134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1114					0.0000	0.0000		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 Not Applied

Landscaping	2.3000e- 004	2.0000e- 005	2.4700e- 003	0.0000	1.0000e- 005	1.0000e- 005	 1.0000e- 005	1.0000e-005	 5.2800e- 003	5.2800e- 003	1.0000e- 005	 5.6300e-003
Total	0.1250	2.0000e- 005	2.4700e- 003	0.0000	1.0000e- 005	1.0000e- 005	1.0000e- 005	1.0000e-005	5.2800e- 003	5.2800e- 003	1.0000e- 005	5.6300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type Number

11.0 Vegetation



Lucia Park - Project - Los Angeles-South Coast County, Summer

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

Lucia Park - Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	502.00	Space	0.00	200,800.00	0
Apartments High Rise	294.00	Dwelling Unit	1.23	417,135.00	841

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2025
Utility Company	Glendale Water and Power				
CO2 Intensity (Ib/MWhr)	948.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity (Ib/MWhr)).004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Build area is approximately 1.23 acres.

Construction Phase - Construction schedule per applicant.

Trips and VMT - Haul trucks would travel to Scholl Canyon Landfill (6.8 miles).

Demolition -

Grading -

Architectural Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Vehicle Trips - Based on project TIS.

Woodstoves - No woodstoves.

Area Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Lucia Park - Project - Los Angeles-South Coast County, Summer

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

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403 Fugitive Dust requirements.

Area Mitigation - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	281,566.00	241,463.00
tblArchitecturalCoating	ConstArea_Residential_Interior	844,698.00	724,389.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_Residential_Exterior	281566	241463
tblAreaCoating	Area_Residential_Interior	844698	724389
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	380.00
tblConstructionPhase	NumDays	200.00	662.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	4.00	76.00
tblConstructionPhase	NumDays	10.00	66.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	14.70	0.00
tblGrading	AcresOfGrading	76.00	43.00
tblGrading	MaterialExported	0.00	76,000.00
tblLandUse	LandUseSquareFeet	294,000.00	417,135.00
tblLandUse	LotAcreage	4.52	0.00
tblLandUse	LotAcreage	4.74	1.23
tblTripsAndVMT	HaulingTripLength	20.00	6.80
tblVehicleTrips	ST_TR	4.53	4.32

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

tblVehicleTrips	SU_TR	3.59	3.42
tblVehicleTrips	WD_TR	4.45	4.24
tblWoodstoves	NumberCatalytic	14.70	0.00
tblWoodstoves	NumberNoncatalytic	14.70	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	со	SO2	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	4.6611	42.0962	37.8828	0.1151	11.3112	1.4371	12.7483	4.6219	1.3523	5.9742	0.0000	11,662.099 6	11,662.099 6	1.2854	0.7680	11,923.0897
2023	2.5448	14.8277	24.2890	0.0633	3.7185	0.5468	4.2653	0.9955	0.5270	1.5225	0.0000	6,280.9293	6,280.9293	0.4575	0.2526	6,367.6426
2024	9.4259	21.3385	36.4966	0.0857	4.5233	0.8288	5.3521	1.2089	0.7889	1.9979	0.0000	8,493.3952	8,493.3952	0.8878	0.2607	8,593.2765
2025	8.5933	14.6441	26.3224	0.0695	4.3780	0.4784	4.8564	1.1704	0.4621	1.6325	0.0000	6,957.9545	6,957.9545	0.4587	0.2497	7,043.8424
Maximum	9.4259	42.0962	37.8828	0.1151	11.3112	1.4371	12.7483	4.6219	1.3523	5.9742	0.0000	11,662.099 6	11,662.099 6	1.2854	0.7680	11,923.0897

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/o	day		
2022	2.6171	34.9012	41.5597	0.1151	6.8087	1.3225	8.1312	2.3542	1.3171	3.6713	0.0000	11,662.099 6	11,662.099 6	1.2854	0.7680	11,923.0897
2023	1.6623	15.1941	25.1565	0.0633	3.7185	0.7638	4.4824	0.9955	0.7617	1.7572	0.0000	6,280.9293	6,280.9293	0.4575	0.2526	6,367.6426
2024	8.2268	23.2687	38.5062	0.0857	4.5233	1.2492	5.7725	1.2089	1.2468	2.4557	0.0000	8,493.3952	8,493.3952	0.8878	0.2607	8,593.2765
2025	7.7980	16.5195	27.3849	0.0695	4.3780	0.8610	5.2390	1.1704	0.8587	2.0291	0.0000	6,957.9545	6,957.9545	0.4587	0.2497	7,043.8424
Maximum	8.2268	34.9012	41.5597	0.1151	6.8087	1.3225	8.1312	2.3542	1.3171	3.6713	0.0000	11,662.099 6	11,662.099 6	1.2854	0.7680	11,923.0897

	ROG	NOx	со	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	19.51	3.25	-6.09	0.00	18.81	-27.51	13.21	28.36	-33.67	10.91	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day											lb/d	lay		
Area	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847
Energy	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546

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

Mobile	3.7198	3.7012	37.6797	0.0847	9.1381	0.0601	9.1982	2.4342	0.0558	2.4900		8,852.8747	8,852.8747	0.5612	0.3444	8,969.5274
Total	13.9895	8.9248	64.0670	0.1175	9.1381	0.5945	9.7326	2.4342	0.5902	3.0244	0.0000	15,208.055 7	15,208.055 7	0.7242	0.4601	15,363.2667

Mitigated Operational

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		lb/day .1763 I 4.4250 I 26.0475 I 0.0277 I I 0.4698 I 0.4698 I 0.4698 I 0.4698 I											lb/c	lay		
Area	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847
Energy	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
Mobile	3.7198	3.7012	37.6797	0.0847	9.1381	0.0601	9.1982	2.4342	0.0558	2.4900		8,852.8747	8,852.8747	0.5612	0.3444	8,969.5274
Total	13.9895	8.9248	64.0670	0.1175	9.1381	0.5945	9.7326	2.4342	0.5902	3.0244	0.0000	15,208.055 7	15,208.055 7	0.7242	0.4601	15,363.2667

	ROG	NOx	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 1	Demolition	Demolition	8/1/2022	8/31/2022	5	23	

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

2	Grading	Grading	9/1/2022	12/15/2022	5	76	
3	Building Construction	Building Construction	12/1/2022	6/15/2025	5	662	
4	Architectural Coating	Architectural Coating	1/1/2024	6/15/2025	5	380	
5	Paving	Paving	9/1/2024	12/2/2024	5	66	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43

Acres of Paving: 0

Residential Indoor: 724,389; Residential Outdoor: 241,463; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 12,048

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	6	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38

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

Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	150.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	9,500.00	14.70	6.90	6.80	LD_Mix	HDT_Mix	HHDT
Building Construction	7	296.00	64.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	59.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/	day		
Fugitive Dust					1.4086	0.0000	1.4086	0.2133	0.0000	0.2133			0.0000			0.0000

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

Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	 2,323.4168	2,323.4168	0.5921	 2,338.2191
Total	1.6889	16.6217	13.9605	0.0241	1.4086	0.8379	2.2465	0.2133	0.7829	0.9962	2,323.4168	2,323.4168	0.5921	2,338.2191

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0304	1.0953	0.2554	4.0500e- 003	0.1142	8.1400e- 003	0.1223	0.0313	7.7900e- 003	0.0391		443.9841	443.9841	0.0236	0.0704	465.5659
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	0.0450	0.0329	0.5124	1.3300e- 003	0.1453	9.3000e- 004	0.1462	0.0385	8.6000e- 004	0.0394		135.2165	135.2165	3.6600e- 003	3.2500e- 003	136.2774
Total	0.0754	1.1282	0.7678	5.3800e- 003	0.2595	9.0700e- 003	0.2685	0.0698	8.6500e- 003	0.0785		579.2006	579.2006	0.0272	0.0737	601.8433

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Fugitive Dust					0.4670	0.0000	0.4670	0.0707	0.0000	0.0707			0.0000			0.0000

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

Off-Road	0.5621	12.1033	15.4154	0.0241		0.7182	0.7182		0.7182	0.7182	0.0000	2,323.4168	2,323.4168	0.5921	2,338.2191
Total	0.5621	12.1033	15.4154	0.0241	0.4670	0.7182	1.1851	0.0707	0.7182	0.7889	0.0000	2,323.4168	2,323.4168	0.5921	2,338.2191

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/o	day		
Hauling	0.0304	1.0953	0.2554	4.0500e- 003	0.1142	8.1400e- 003	0.1223	0.0313	7.7900e- 003	0.0391		443.9841	443.9841	0.0236	0.0704	465.5659
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	0.0450	0.0329	0.5124	1.3300e- 003	0.1453	9.3000e- 004	0.1462	0.0385	8.6000e- 004	0.0394		135.2165	135.2165	3.6600e- 003	3.2500e- 003	136.2774
Total	0.0754	1.1282	0.7678	5.3800e- 003	0.2595	9.0700e- 003	0.2685	0.0698	8.6500e- 003	0.0785		579.2006	579.2006	0.0272	0.0737	601.8433

3.3 Grading - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/	day		
Fugitive Dust					6.7352	0.0000	6.7352	3.3921	0.0000	3.3921			0.0000			0.0000

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

Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	1,995.4825	1,995.4825	0.6454	2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	6.7352	0.7423	7.4775	3.3921	0.6829	4.0750	1,995.4825	1,995.4825	0.6454	2,011.6169

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/o	day		
Hauling	0.2871	8.7013	2.8009	0.0287	0.7457	0.0542	0.7998	0.2046	0.0518	0.2564		3,135.3313	3,135.3313	0.1603	0.4973	3,287.5331
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	0.0346	0.0253	0.3941	1.0200e- 003	0.1118	7.2000e- 004	0.1125	0.0296	6.6000e- 004	0.0303		104.0127	104.0127	2.8200e- 003	2.5000e- 003	104.8288
Total	0.3217	8.7266	3.1950	0.0297	0.8574	0.0549	0.9123	0.2342	0.0525	0.2867		3,239.3440	3,239.3440	0.1631	0.4998	3,392.3619

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Fugitive Dust					2.2327	0.0000	2.2327	1.1245	0.0000	1.1245			0.0000			0.0000

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

Off-Road	0.5043	10.2150	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	1,995.4825	1,995.4825	0.6454	2,011.6169
Total	0.5043	10.2150	12.1450	0.0206	2.2327	0.4850	2.7177	1.1245	0.4850	1.6095	0.0000	1,995.4825	1,995.4825	0.6454	2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/e	day		
Hauling	0.2871	8.7013	2.8009	0.0287	0.7457	0.0542	0.7998	0.2046	0.0518	0.2564		3,135.3313	3,135.3313	0.1603	0.4973	3,287.5331
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	0.0346	0.0253	0.3941	1.0200e- 003	0.1118	7.2000e- 004	0.1125	0.0296	6.6000e- 004	0.0303		104.0127	104.0127	2.8200e- 003	2.5000e- 003	104.8288
Total	0.3217	8.7266	3.1950	0.0297	0.8574	0.0549	0.9123	0.2342	0.0525	0.2867		3,239.3440	3,239.3440	0.1631	0.4998	3,392.3619

3.4 Building Construction - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	day		
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

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

Total	1.6487	12.5031	12.7264	0.0221	0.5889	0.5889	0.5689	0.5689	2,001.5429	2,001.5429	0.3486	2,010.2581

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	lay		
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	0.1259	3.1350	1.0749	0.0125	0.4099	0.0299	0.4398	0.1180	0.0286	0.1466		1,346.9542	1,346.9542	0.0450	0.1941	1,405.9209
Worker	1.0245	0.7479	11.6663	0.0303	3.3086	0.0212	3.3298	0.8775	0.0195	0.8970		3,078.7761	3,078.7761	0.0833	0.0741	3,102.9319
Total	1.1504	3.8829	12.7412	0.0428	3.7185	0.0511	3.7696	0.9955	0.0481	1.0436		4,425.7303	4,425.7303	0.1284	0.2682	4,508.8528

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

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

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
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	0.1259	3.1350	1.0749	0.0125	0.4099	0.0299	0.4398	0.1180	0.0286	0.1466		1,346.9542	1,346.9542	0.0450	0.1941	1,405.9209
Worker	1.0245	0.7479	11.6663	0.0303	3.3086	0.0212	3.3298	0.8775	0.0195	0.8970		3,078.7761	3,078.7761	0.0833	0.0741	3,102.9319
Total	1.1504	3.8829	12.7412	0.0428	3.7185	0.0511	3.7696	0.9955	0.0481	1.0436		4,425.7303	4,425.7303	0.1284	0.2682	4,508.8528

3.4 Building Construction - 2023

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/e	day		
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858

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

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	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	0.0737	2.4565	0.9517	0.0119	0.4100	0.0124	0.4223	0.1180	0.0118	0.1299		1,281.8078	1,281.8078	0.0430	0.1843	1,337.7991
Worker	0.9479	0.6608	10.7262	0.0293	3.3086	0.0200	3.3286	0.8775	0.0184	0.8958		2,997.3338	2,997.3338	0.0746	0.0683	3,019.5577
Total	1.0215	3.1174	11.6779	0.0412	3.7185	0.0323	3.7509	0.9955	0.0302	1.0257		4,279.1417	4,279.1417	0.1176	0.2526	4,357.3568

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/d	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

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

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0737	2.4565	0.9517	0.0119	0.4100	0.0124	0.4223	0.1180	0.0118	0.1299		1,281.8078	1,281.8078	0.0430	0.1843	1,337.7991
Worker	0.9479	0.6608	10.7262	0.0293	3.3086	0.0200	3.3286	0.8775	0.0184	0.8958		2,997.3338	2,997.3338	0.0746	0.0683	3,019.5577
Total	1.0215	3.1174	11.6779	0.0412	3.7185	0.0323	3.7509	0.9955	0.0302	1.0257		4,279.1417	4,279.1417	0.1176	0.2526	4,357.3568

3.4 Building Construction - 2024

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/d	day		
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	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	0.0714	2.4615	0.9314	0.0117	0.4100	0.0124	0.4224	0.1180	0.0119	0.1299		1,262.5575	1,262.5575	0.0431	0.1817	1,317.7856
Worker	0.8835	0.5901	9.9841	0.0285	3.3086	0.0192	3.3277	0.8775	0.0176	0.8951		2,935.5474	2,935.5474	0.0675	0.0635	2,956.1678
Total	0.9549	3.0517	10.9155	0.0402	3.7185	0.0316	3.7501	0.9955	0.0295	1.0250		4,198.1048	4,198.1048	0.1107	0.2452	4,273.9534

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	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	0.0714	2.4615	0.9314	0.0117	0.4100	0.0124	0.4224	0.1180	0.0119	0.1299		1,262.5575	1,262.5575	0.0431	0.1817	1,317.7856
Worker	0.8835	0.5901	9.9841	0.0285	3.3086	0.0192	3.3277	0.8775	0.0176	0.8951		2,935.5474	2,935.5474	0.0675	0.0635	2,956.1678
Total	0.9549	3.0517	10.9155	0.0402	3.7185	0.0316	3.7501	0.9955	0.0295	1.0250		4,198.1048	4,198.1048	0.1107	0.2452	4,273.9534

3.4 Building Construction - 2025

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248

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

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	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	0.0694	2.4499	0.9143	0.0115	0.4100	0.0125	0.4224	0.1180	0.0119	0.1300		1,239.8265	1,239.8265	0.0434	0.1786	1,294.1251
Worker	0.8263	0.5303	9.3049	0.0275	3.3086	0.0183	3.3269	0.8775	0.0168	0.8943		2,863.7188	2,863.7188	0.0609	0.0593	2,882.9239
Total	0.8957	2.9801	10.2192	0.0390	3.7185	0.0307	3.7493	0.9955	0.0287	1.0242		4,103.5452	4,103.5452	0.1043	0.2379	4,177.0489

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/e	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	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	0.0694	2.4499	0.9143	0.0115	0.4100	0.0125	0.4224	0.1180	0.0119	0.1300		1,239.8265	1,239.8265	0.0434	0.1786	1,294.1251
Worker	0.8263	0.5303	9.3049	0.0275	3.3086	0.0183	3.3269	0.8775	0.0168	0.8943		2,863.7188	2,863.7188	0.0609	0.0593	2,882.9239
Total	0.8957	2.9801	10.2192	0.0390	3.7185	0.0307	3.7493	0.9955	0.0287	1.0242		4,103.5452	4,103.5452	0.1043	0.2379	4,177.0489

3.5 Architectural Coating - 2024

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	6.2181	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	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	0.1761	0.1176	1.9901	5.6700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		585.1260	585.1260	0.0135	0.0127	589.2362
Total	0.1761	0.1176	1.9901	5.6700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		585.1260	585.1260	0.0135	0.0127	589.2362

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	6.0968	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443

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

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	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	0.1761	0.1176	1.9901	5.6700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		585.1260	585.1260	0.0135	0.0127	589.2362
Total	0.1761	0.1176	1.9901	5.6700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		585.1260	585.1260	0.0135	0.0127	589.2362

3.5 Architectural Coating - 2025

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e- 003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	6.2082	1.1455	1.8091	2.9700e- 003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	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	0.1647	0.1057	1.8547	5.4800e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		570.8088	570.8088	0.0121	0.0118	574.6369
Total	0.1647	0.1057	1.8547	5.4800e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		570.8088	570.8088	0.0121	0.0118	574.6369

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/e	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319
Total	6.0968	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/o	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	0.1647	0.1057	1.8547	5.4800e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		570.8088	570.8088	0.0121	0.0118	574.6369
Total	0.1647	0.1057	1.8547	5.4800e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		570.8088	570.8088	0.0121	0.0118	574.6369

3.6 Paving - 2024

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/o	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	0.0388	0.0259	0.4385	1.2500e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		128.9261	128.9261	2.9700e- 003	2.7900e- 003	129.8317
Total	0.0388	0.0259	0.4385	1.2500e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		128.9261	128.9261	2.9700e- 003	2.7900e- 003	129.8317

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Off-Road	0.3195	6.6399	9.8512	0.0136		0.3864	0.3864		0.3864	0.3864	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3195	6.6399	9.8512	0.0136		0.3864	0.3864		0.3864	0.3864	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/o	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	0.0388	0.0259	0.4385	1.2500e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		128.9261	128.9261	2.9700e- 003	2.7900e- 003	129.8317
Total	0.0388	0.0259	0.4385	1.2500e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		128.9261	128.9261	2.9700e- 003	2.7900e- 003	129.8317

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Mitigated	3.7198	3.7012	37.6797	0.0847	9.1381	0.0601	9.1982	2.4342	0.0558	2.4900		8,852.8747	8,852.8747	0.5612	0.3444	8,969.5274
Unmitigated	3.7198	3.7012	37.6797	0.0847	9.1381	0.0601	9.1982	2.4342	0.0558	2.4900		8,852.8747	8,852.8747	0.5612	0.3444	8,969.5274

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

	Ave	rage Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,246.56	1,270.08	1005.48	4,153,480	4,153,480
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	1,246.56	1,270.08	1,005.48	4,153,480	4,153,480

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	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
Apartments High Rise	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Enclosed Parking with Elevator	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

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

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

NaturalGas Mitigated	0.0934	0.7985	0.3398	5.1000e- 003	0.0646	0.0646	0.0646	0.0646	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
NaturalGas Unmitigated	0.0934	0.7985	0.3398	5.1000e- 003	0.0646	0.0646	0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGas Use	ROG	NOx	СО	SO2	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/d	day		
Apartments High Rise	8664.87	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
Enclosed Parking with Elevator	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		0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546

Mitigated

	NaturalGas Use	ROG	NOx	со	SO2	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/d	day		
Apartments High Rise	8.66487	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
Enclosed Parking with Elevator	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

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

Total	0.0934	0.7985	0.3398	5.1000e-	0.0646	0.0646	0.0646	0.0646	1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
				003									

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use Low VOC Cleaning Supplies

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/c	lay		
Mitigated	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847
Unmitigated	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847

6.2 Area by SubCategory

<u>Unmitigated</u>

Page 1 of 1

Lucia Park - Project - 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	со	SO2	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/c	lay		
Architectural Coating	0.6286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4851	4.1454	1.7640	0.0265		0.3352	0.3352		0.3352	0.3352	0.0000	5,292.0000	5,292.0000	0.1014	0.0970	5,323.4477
Landscaping	0.7323	0.2796	24.2835	1.2800e- 003		0.1346	0.1346		0.1346	0.1346		43.7842	43.7842	0.0421		44.8370
Total	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847

Mitigated

	ROG	NOx	СО	SO2	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/c	lay					lb/day					
Architectural Coating	0.6286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4851	4.1454	1.7640	0.0265		0.3352	0.3352		0.3352	0.3352	0.0000	5,292.0000	5,292.0000	0.1014	0.0970	5,323.4477
Landscaping	0.7323	0.2796	24.2835	1.2800e- 003		0.1346	0.1346		0.1346	0.1346		43.7842	43.7842	0.0421		44.8370
Total	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847

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

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Numbor	Hours/Day	Dave/Voar	Horse Power	Load Easter	Fuel Type
	Number	Tiours/Day	Days/Teal	TIOISE FOWER	LUau Factor	Fuertype

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



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

Lucia Park - Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	502.00	Space	0.00	200,800.00	0
Apartments High Rise	294.00	Dwelling Unit	1.23	417,135.00	841

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2025
Utility Company	Glendale Water and Power				
CO2 Intensity (Ib/MWhr)	948.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity ((Ib/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Build area is approximately 1.23 acres.

Construction Phase - Construction schedule per applicant.

Trips and VMT - Haul trucks would travel to Scholl Canyon Landfill (6.8 miles).

Demolition -

Grading -

Architectural Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Vehicle Trips - Based on project TIS.

Woodstoves - No woodstoves.

Area Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

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

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403 Fugitive Dust requirements.

Area Mitigation - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	281,566.00	241,463.00
tblArchitecturalCoating	ConstArea_Residential_Interior	844,698.00	724,389.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_Residential_Exterior	281566	241463
tblAreaCoating	Area_Residential_Interior	844698	724389
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	380.00
tblConstructionPhase	NumDays	200.00	662.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	4.00	76.00
tblConstructionPhase	NumDays	10.00	66.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	14.70	0.00
tblGrading	AcresOfGrading	76.00	43.00
tblGrading	MaterialExported	0.00	76,000.00
tblLandUse	LandUseSquareFeet	294,000.00	417,135.00
tblLandUse	LotAcreage	4.52	0.00
tblLandUse	LotAcreage	4.74	1.23
tblTripsAndVMT	HaulingTripLength	20.00	6.80
tblVehicleTrips	ST_TR	4.53	4.32

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

tblVehicleTrips	SU_TR	3.59	3.42
tblVehicleTrips	WD_TR	4.45	4.24
tblWoodstoves	NumberCatalytic	14.70	0.00
tblWoodstoves	NumberNoncatalytic	14.70	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	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	4.7203	42.6808	37.0220	0.1135	11.3112	1.4375	12.7487	4.6219	1.3527	5.9746	0.0000	11,496.824 1	11,496.824 1	1.2856	0.7739	11,759.5779
2023	2.6128	15.0123	23.4518	0.0617	3.7185	0.5469	4.2654	0.9955	0.5271	1.5226	0.0000	6,125.0687	6,125.0687	0.4584	0.2578	6,213.3367
2024	9.5089	21.5308	35.5329	0.0838	4.5233	0.8289	5.3522	1.2089	0.7890	1.9979	0.0000	8,303.4768	8,303.4768	0.8888	0.2665	8,405.1219
2025	8.6714	14.8256	25.4665	0.0678	4.3780	0.4784	4.8565	1.1704	0.4622	1.6326	0.0000	6,779.7458	6,779.7458	0.4597	0.2550	6,867.2278
Maximum	9.5089	42.6808	37.0220	0.1135	11.3112	1.4375	12.7487	4.6219	1.3527	5.9746	0.0000	11,496.824 1	11,496.824 1	1.2856	0.7739	11,759.5779

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/o	day							lb/o	day		
2022	2.6764	35.4858	40.6990	0.1135	6.8087	1.3229	8.1316	2.3542	1.3175	3.6717	0.0000	11,496.824 1	11,496.824 1	1.2856	0.7739	11,759.5779
2023	1.7303	15.3786	24.3194	0.0617	3.7185	0.7639	4.4824	0.9955	0.7618	1.7573	0.0000	6,125.0687	6,125.0687	0.4584	0.2578	6,213.3367
2024	8.3098	23.4610	37.5424	0.0838	4.5233	1.2493	5.7726	1.2089	1.2468	2.4558	0.0000	8,303.4767	8,303.4767	0.8888	0.2665	8,405.1219
2025	7.8761	16.7010	26.5290	0.0678	4.3780	0.8610	5.2391	1.1704	0.8588	2.0292	0.0000	6,779.7458	6,779.7458	0.4597	0.2550	6,867.2278
Maximum	8.3098	35.4858	40.6990	0.1135	6.8087	1.3229	8.1316	2.3542	1.3175	3.6717	0.0000	11,496.824 1	11,496.824 1	1.2856	0.7739	11,759.5779

	ROG	NOx	со	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	19.29	3.21	-6.27	0.00	18.81	-27.51	13.21	28.36	-33.66	10.91	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/d	lay		
Area	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847
Energy	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546

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

Mobile	3.6541	3.9947	36.9090	0.0811	9.1381	0.0601	9.1982	2.4342	0.0558	2.4901		8,478.7901	8,478.7901	0.5763	0.3592	8,600.2484
Total	13.9238	9.2182	63.2963	0.1139	9.1381	0.5945	9.7326	2.4342	0.5902	3.0244	0.0000	14,833.971 1	14,833.971 1	0.7394	0.4749	14,993.9876

Mitigated Operational

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Area	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847
Energy	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
Mobile	3.6541	3.9947	36.9090	0.0811	9.1381	0.0601	9.1982	2.4342	0.0558	2.4901		8,478.7901	8,478.7901	0.5763	0.3592	8,600.2484
Total	13.9238	9.2182	63.2963	0.1139	9.1381	0.5945	9.7326	2.4342	0.5902	3.0244	0.0000	14,833.971 1	14,833.971 1	0.7394	0.4749	14,993.9876

	ROG	NOx	со	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	8/1/2022	8/31/2022	5	23	
EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2	Grading	Grading	9/1/2022	12/15/2022	5	76	
3	Building Construction	Building Construction	12/1/2022	6/15/2025	5	662	
4	Architectural Coating	Architectural Coating	1/1/2024	6/15/2025	5	380	
5	Paving	Paving	9/1/2024	12/2/2024	5	66	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43

Acres of Paving: 0

Residential Indoor: 724,389; Residential Outdoor: 241,463; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 12,048

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38

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

					_
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	150.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	9,500.00	14.70	6.90	6.80	LD_Mix	HDT_Mix	HHDT
Building Construction	7	296.00	64.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	59.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		Ib/day												day		
Fugitive Dust					1.4086	0.0000	1.4086	0.2133	0.0000	0.2133			0.0000			0.0000

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

Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	2,323.4168	2,323.4168	0.5921	2,338.2191
Total	1.6889	16.6217	13.9605	0.0241	1.4086	0.8379	2.2465	0.2133	0.7829	0.9962	2,323.4168	2,323.4168	0.5921	2,338.2191

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	day		
Hauling	0.0297	1.1398	0.2599	4.0500e- 003	0.1142	8.1500e- 003	0.1223	0.0313	7.8000e- 003	0.0391		444.1142	444.1142	0.0235	0.0705	465.7019
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	0.0482	0.0363	0.4704	1.2600e- 003	0.1453	9.3000e- 004	0.1462	0.0385	8.6000e- 004	0.0394		128.0673	128.0673	3.7000e- 003	3.4800e- 003	129.1958
Total	0.0778	1.1761	0.7303	5.3100e- 003	0.2595	9.0800e- 003	0.2686	0.0698	8.6600e- 003	0.0785		572.1816	572.1816	0.0272	0.0740	594.8977

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day				lb/e	day					
Fugitive Dust					0.4670	0.0000	0.4670	0.0707	0.0000	0.0707			0.0000			0.0000

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

Off-Road	0.5621	12.1033	15.4154	0.0241		0.7182	0.7182		0.7182	0.7182	0.0000	2,323.4168	2,323.4168	0.5921	2,338.2191
Total	0.5621	12.1033	15.4154	0.0241	0.4670	0.7182	1.1851	0.0707	0.7182	0.7889	0.0000	2,323.4168	2,323.4168	0.5921	2,338.2191

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	day		
Hauling	0.0297	1.1398	0.2599	4.0500e- 003	0.1142	8.1500e- 003	0.1223	0.0313	7.8000e- 003	0.0391		444.1142	444.1142	0.0235	0.0705	465.7019
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	0.0482	0.0363	0.4704	1.2600e- 003	0.1453	9.3000e- 004	0.1462	0.0385	8.6000e- 004	0.0394		128.0673	128.0673	3.7000e- 003	3.4800e- 003	129.1958
Total	0.0778	1.1761	0.7303	5.3100e- 003	0.2595	9.0800e- 003	0.2686	0.0698	8.6600e- 003	0.0785		572.1816	572.1816	0.0272	0.0740	594.8977

3.3 Grading - 2022

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/	day		
Fugitive Dust					6.7352	0.0000	6.7352	3.3921	0.0000	3.3921			0.0000			0.0000

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

Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	 1,995.4825	1,995.4825	0.6454	 2,011.6169
Total	1.5403	16.9836	9.2202	0.0206	6.7352	0.7423	7.4775	3.3921	0.6829	4.0750	1,995.4825	1,995.4825	0.6454	2,011.6169

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Hauling	0.2731	9.0755	2.8901	0.0287	0.7457	0.0545	0.8002	0.2046	0.0521	0.2567		3,137.8310	3,137.8310	0.1595	0.4977	3,290.1359
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	0.0371	0.0279	0.3619	9.7000e- 004	0.1118	7.2000e- 004	0.1125	0.0296	6.6000e- 004	0.0303		98.5133	98.5133	2.8500e- 003	2.6700e- 003	99.3813
Total	0.3102	9.1034	3.2520	0.0297	0.8574	0.0552	0.9126	0.2342	0.0528	0.2870		3,236.3443	3,236.3443	0.1624	0.5004	3,389.5172

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	day		
Fugitive Dust					2.2327	0.0000	2.2327	1.1245	0.0000	1.1245			0.0000			0.0000

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

Off-Road	0.5043	10.2150	12.1450	0.0206		0.4850	0.4850		0.4850	0.4850	0.0000	1,995.4825	1,995.4825	0.6454	2,011.6169
Total	0.5043	10.2150	12.1450	0.0206	2.2327	0.4850	2.7177	1.1245	0.4850	1.6095	0.0000	1,995.4825	1,995.4825	0.6454	2,011.6169

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2731	9.0755	2.8901	0.0287	0.7457	0.0545	0.8002	0.2046	0.0521	0.2567		3,137.8310	3,137.8310	0.1595	0.4977	3,290.1359
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	0.0371	0.0279	0.3619	9.7000e- 004	0.1118	7.2000e- 004	0.1125	0.0296	6.6000e- 004	0.0303		98.5133	98.5133	2.8500e- 003	2.6700e- 003	99.3813
Total	0.3102	9.1034	3.2520	0.0297	0.8574	0.0552	0.9126	0.2342	0.0528	0.2870		3,236.3443	3,236.3443	0.1624	0.5004	3,389.5172

3.4 Building Construction - 2022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	day		
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

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

Total	1.6487	12.5031	12.7264	0.0221	0.5889	0.5889	0.5689	0.5689	2,001.5429	2,001.5429	0.3486	2,010.2581

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	lay		
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	0.1244	3.2642	1.1120	0.0125	0.4099	0.0300	0.4399	0.1180	0.0287	0.1467		1,347.4603	1,347.4603	0.0449	0.1944	1,406.4979
Worker	1.0967	0.8264	10.7114	0.0287	3.3086	0.0212	3.3298	0.8775	0.0195	0.8970		2,915.9941	2,915.9941	0.0843	0.0791	2,941.6878
Total	1.2212	4.0907	11.8235	0.0412	3.7185	0.0512	3.7697	0.9955	0.0482	1.0437		4,263.4544	4,263.4544	0.1292	0.2735	4,348.1857

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/e	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

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

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
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	0.1244	3.2642	1.1120	0.0125	0.4099	0.0300	0.4399	0.1180	0.0287	0.1467		1,347.4603	1,347.4603	0.0449	0.1944	1,406.4979
Worker	1.0967	0.8264	10.7114	0.0287	3.3086	0.0212	3.3298	0.8775	0.0195	0.8970		2,915.9941	2,915.9941	0.0843	0.0791	2,941.6878
Total	1.2212	4.0907	11.8235	0.0412	3.7185	0.0512	3.7697	0.9955	0.0482	1.0437		4,263.4544	4,263.4544	0.1292	0.2735	4,348.1857

3.4 Building Construction - 2023

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/e	day		
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858

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

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
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	0.0712	2.5720	0.9816	0.0119	0.4100	0.0124	0.4224	0.1180	0.0119	0.1299		1,283.9699	1,283.9699	0.0428	0.1848	1,340.1031
Worker	1.0184	0.7300	9.8592	0.0277	3.3086	0.0200	3.3286	0.8775	0.0184	0.8958		2,839.3111	2,839.3111	0.0757	0.0730	2,862.9479
Total	1.0896	3.3019	10.8408	0.0397	3.7185	0.0324	3.7509	0.9955	0.0303	1.0258		4,123.2810	4,123.2810	0.1184	0.2578	4,203.0510

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

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

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/e	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	0.0712	2.5720	0.9816	0.0119	0.4100	0.0124	0.4224	0.1180	0.0119	0.1299		1,283.9699	1,283.9699	0.0428	0.1848	1,340.1031
Worker	1.0184	0.7300	9.8592	0.0277	3.3086	0.0200	3.3286	0.8775	0.0184	0.8958		2,839.3111	2,839.3111	0.0757	0.0730	2,862.9479
Total	1.0896	3.3019	10.8408	0.0397	3.7185	0.0324	3.7509	0.9955	0.0303	1.0258		4,123.2810	4,123.2810	0.1184	0.2578	4,203.0510

3.4 Building Construction - 2024

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/c	lay							lb/d	day		
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	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	0.0688	2.5772	0.9610	0.0117	0.4100	0.0125	0.4225	0.1180	0.0120	0.1300		1,264.7317	1,264.7317	0.0429	0.1822	1,320.0975
Worker	0.9524	0.6517	9.1851	0.0270	3.3086	0.0192	3.3277	0.8775	0.0176	0.8951		2,781.0380	2,781.0380	0.0685	0.0678	2,802.9665
Total	1.0211	3.2289	10.1461	0.0387	3.7185	0.0317	3.7502	0.9955	0.0296	1.0251		4,045.7698	4,045.7698	0.1115	0.2500	4,123.0640

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563

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/d	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	0.0688	2.5772	0.9610	0.0117	0.4100	0.0125	0.4225	0.1180	0.0120	0.1300		1,264.7317	1,264.7317	0.0429	0.1822	1,320.0975
Worker	0.9524	0.6517	9.1851	0.0270	3.3086	0.0192	3.3277	0.8775	0.0176	0.8951		2,781.0380	2,781.0380	0.0685	0.0678	2,802.9665
Total	1.0211	3.2289	10.1461	0.0387	3.7185	0.0317	3.7502	0.9955	0.0296	1.0251		4,045.7698	4,045.7698	0.1115	0.2500	4,123.0640

3.4 Building Construction - 2025

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/o	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	0.0667	2.5652	0.9436	0.0115	0.4100	0.0125	0.4225	0.1180	0.0120	0.1300		1,241.9999	1,241.9999	0.0432	0.1790	1,296.4323
Worker	0.8937	0.5854	8.5669	0.0260	3.3086	0.0183	3.3269	0.8775	0.0168	0.8943		2,713.3156	2,713.3156	0.0619	0.0633	2,733.7383
Total	0.9604	3.1506	9.5104	0.0376	3.7185	0.0308	3.7494	0.9955	0.0288	1.0243		3,955.3155	3,955.3155	0.1051	0.2424	4,030.1706

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/e	day		
Off-Road	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	0.6407	12.0767	13.4786	0.0221		0.7315	0.7315		0.7315	0.7315	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	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	0.0667	2.5652	0.9436	0.0115	0.4100	0.0125	0.4225	0.1180	0.0120	0.1300		1,241.9999	1,241.9999	0.0432	0.1790	1,296.4323
Worker	0.8937	0.5854	8.5669	0.0260	3.3086	0.0183	3.3269	0.8775	0.0168	0.8943		2,713.3156	2,713.3156	0.0619	0.0633	2,733.7383
Total	0.9604	3.1506	9.5104	0.0376	3.7185	0.0308	3.7494	0.9955	0.0288	1.0243		3,955.3155	3,955.3155	0.1051	0.2424	4,030.1706

3.5 Architectural Coating - 2024

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/e	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	6.2181	1.2188	1.8101	2.9700e- 003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	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	0.1898	0.1299	1.8308	5.3700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		554.3285	554.3285	0.0137	0.0135	558.6994
Total	0.1898	0.1299	1.8308	5.3700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		554.3285	554.3285	0.0137	0.0135	558.6994

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/o	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	6.0968	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	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	0.1898	0.1299	1.8308	5.3700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		554.3285	554.3285	0.0137	0.0135	558.6994
Total	0.1898	0.1299	1.8308	5.3700e- 003	0.6595	3.8200e- 003	0.6633	0.1749	3.5100e- 003	0.1784		554.3285	554.3285	0.0137	0.0135	558.6994

3.5 Architectural Coating - 2025

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/o	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e- 003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	6.2082	1.1455	1.8091	2.9700e- 003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	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	0.1781	0.1167	1.7076	5.1900e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		540.8298	540.8298	0.0123	0.0126	544.9006
Total	0.1781	0.1167	1.7076	5.1900e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		540.8298	540.8298	0.0123	0.0126	544.9006

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	day		
Archit. Coating	6.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319
Total	6.0968	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	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	0.1781	0.1167	1.7076	5.1900e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		540.8298	540.8298	0.0123	0.0126	544.9006
Total	0.1781	0.1167	1.7076	5.1900e- 003	0.6595	3.6400e- 003	0.6631	0.1749	3.3500e- 003	0.1783		540.8298	540.8298	0.0123	0.0126	544.9006

3.6 Paving - 2024

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.8688	1,297.8688	0.4114		1,308.1547

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	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	0.0418	0.0286	0.4034	1.1800e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		122.1402	122.1402	3.0100e- 003	2.9800e- 003	123.1033
Total	0.0418	0.0286	0.4034	1.1800e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		122.1402	122.1402	3.0100e- 003	2.9800e- 003	123.1033

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	day		
Off-Road	0.3195	6.6399	9.8512	0.0136		0.3864	0.3864		0.3864	0.3864	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3195	6.6399	9.8512	0.0136		0.3864	0.3864		0.3864	0.3864	0.0000	1,297.8688	1,297.8688	0.4114		1,308.1547

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/•	day							lb/d	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	0.0418	0.0286	0.4034	1.1800e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		122.1402	122.1402	3.0100e- 003	2.9800e- 003	123.1033
Total	0.0418	0.0286	0.4034	1.1800e- 003	0.1453	8.4000e- 004	0.1462	0.0385	7.7000e- 004	0.0393		122.1402	122.1402	3.0100e- 003	2.9800e- 003	123.1033

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Mitigated	3.6541	3.9947	36.9090	0.0811	9.1381	0.0601	9.1982	2.4342	0.0558	2.4901		8,478.7901	8,478.7901	0.5763	0.3592	8,600.2484
Unmitigated	3.6541	3.9947	36.9090	0.0811	9.1381	0.0601	9.1982	2.4342	0.0558	2.4901		8,478.7901	8,478.7901	0.5763	0.3592	8,600.2484

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

	Ave	rage Daily Trip Ra	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,246.56	1,270.08	1005.48	4,153,480	4,153,480
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	1,246.56	1,270.08	1,005.48	4,153,480	4,153,480

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	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
Apartments High Rise	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Enclosed Parking with Elevator	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

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

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

NaturalGas Mitigated	0.0934	0.7985	0.3398	5.1000e- 003	0.0646	0.0646	0.0646	0.0646	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
NaturalGas Unmitigated	0.0934	0.7985	0.3398	5.1000e- 003	0.0646	0.0646	0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGas Use	ROG	NOx	СО	SO2	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/d	day		
Apartments High Rise	8664.87	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
Enclosed Parking with Elevator	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		0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546

Mitigated

	NaturalGas Use	ROG	NOx	СО	SO2	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		
Apartments High Rise	8.66487	0.0934	0.7985	0.3398	5.1000e- 003		0.0646	0.0646		0.0646	0.0646		1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
Enclosed Parking with Elevator	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

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

Total	0.0934	0.7985	0.3398	5.1000e-	0.0646	0.0646	0.0646	0.0646	1,019.3968	1,019.3968	0.0195	0.0187	1,025.4546
				003									

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use Low VOC Cleaning Supplies

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/c	lay		
Mitigated	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847
Unmitigated	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847

6.2 Area by SubCategory

<u>Unmitigated</u>

Page 1 of 1

Lucia Park - Project - 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	со	SO2	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/e	day							lb/c	lay		
Architectural Coating	0.6286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4851	4.1454	1.7640	0.0265		0.3352	0.3352		0.3352	0.3352	0.0000	5,292.0000	5,292.0000	0.1014	0.0970	5,323.4477
Landscaping	0.7323	0.2796	24.2835	1.2800e- 003		0.1346	0.1346		0.1346	0.1346		43.7842	43.7842	0.0421		44.8370
Total	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847

Mitigated

	ROG	NOx	СО	SO2	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/d	day							lb/d	lay		
Architectural Coating	0.6286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4851	4.1454	1.7640	0.0265		0.3352	0.3352		0.3352	0.3352	0.0000	5,292.0000	5,292.0000	0.1014	0.0970	5,323.4477
Landscaping	0.7323	0.2796	24.2835	1.2800e- 003		0.1346	0.1346		0.1346	0.1346		43.7842	43.7842	0.0421		44.8370
Total	10.1763	4.4250	26.0475	0.0277		0.4698	0.4698		0.4698	0.4698	0.0000	5,335.7842	5,335.7842	0.1435	0.0970	5,368.2847

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

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type Number

11.0 Vegetation

Attachment B CalEEMod Greenhouse Gas Emission Output Files



EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Lucia Park - Existing to be Removed

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	5.29	1000sqft	0.38	5,288.00	0
Enclosed Parking with Elevator	18.82	1000sqft	0.85	18,819.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2021
Utility Company	Glendale Water and Power				
CO2 Intensity (Ib/MWhr)	948.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity ((Ib/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Existing only.

Land Use - Project would remove existing office building and parking structure.

Construction Phase - Existing only.

Vehicle Trips - Based on project TIS.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	1129	0
tblConstructionPhase	NumDays	20.00	0.00
tblFleetMix	HHD	8.0220e-003	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.06	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7300e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.13	0.00
tblFleetMix	MH	3.4250e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	9.5600e-004	0.00
tblFleetMix	SBUS	6.8600e-004	0.00
tblFleetMix	UBUS	6.2400e-004	0.00
tblLandUse	LandUseSquareFeet	5,290.00	5,288.00
tblLandUse	LandUseSquareFeet	18,820.00	18,819.00
tblLandUse	LotAcreage	0.12	0.38
tblLandUse	LotAcreage	0.43	0.85
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblVehicleTrips	ST_TR	2.21	2.10
tblVehicleTrips	SU_TR	0.70	0.67
tblVehicleTrips	WD_TR	9.74	9.27

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

															
ROG	NOX	CO	SO2	Fugitive	Exhaust	PM10 Total	Fuaitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
				DM10	PM10		DM2 5	DM2 5							
				1 10110	1 10110		1 1012.0	1 1/12.5							

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Year					ton	is/yr							M	⊺/yr		
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Maximum	0.0000	0.0000 0.0000<											0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	со	SO2	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					ton	s/yr				MT	⊺/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quarter	Sta	art Date	End	Date	Maxim	um Unmitiga	ated ROG + N	IOX (tons/qu	arter)	Maxii	num Mitigat	ed ROG + NO	DX (tons/qua	rter)		
			Hig	hest												

2.2 Overall Operational

Unmitigated Operational

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not 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					ton	s/yr							MT	ī/yr		
Area	0.0228	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004
Energy	2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	75.4296	75.4296	2.5800e- 003	3.6000e- 004	75.6010
Mobile	0.0217	0.0297	0.2292	4.7000e- 004	0.0449	4.7000e- 004	0.0454	0.0120	4.4000e- 004	0.0124	0.0000	43.0044	43.0044	3.0600e- 003	1.9800e- 003	43.6704
Waste						0.0000	0.0000		0.0000	0.0000	0.9987	0.0000	0.9987	0.0590	0.0000	2.4743
Water						0.0000	0.0000		0.0000	0.0000	0.2983	8.0256	8.3239	0.0309	7.6000e- 004	9.3225
Total	0.0447	0.0324	0.2318	4.9000e- 004	0.0449	6.7000e- 004	0.0456	0.0120	6.4000e- 004	0.0126	1.2970	126.4602	127.7572	0.0956	3.1000e- 003	131.0688

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					ton	s/yr				MT	7/yr					
Area	0.0228	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004
Energy	2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	75.4296	75.4296	2.5800e- 003	3.6000e- 004	75.6010
Mobile	0.0217	0.0297	0.2292	4.7000e- 004	0.0449	4.7000e- 004	0.0454	0.0120	4.4000e- 004	0.0124	0.0000	43.0044	43.0044	3.0600e- 003	1.9800e- 003	43.6704
Waste						0.0000	0.0000		0.0000	0.0000	0.9987	0.0000	0.9987	0.0590	0.0000	2.4743

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water						0.0000	0.0000		0.0000	0.0000	0.2983	8.0256	8.3239	0.0309	7.6000e- 004	9.3225
Total	0.0447	0.0324	0.2318	4.9000e- 004	0.0449	6.7000e- 004	0.0456	0.0120	6.4000e- 004	0.0126	1.2970	126.4602	127.7572	0.0956	3.1000e- 003	131.0688

	ROG	NOx	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	8/19/2021	8/18/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating -

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle
	Count	Number	Number	Number	Length	Length	Length	Class	Class	Class
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MI	⊺/yr		
Off-Road	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	⊺/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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Worker	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	ſ/yr		
Off-Road	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Not Applied

Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	0.0217	0.0297	0.2292	4.7000e- 004	0.0449	4.7000e- 004	0.0454	0.0120	4.4000e- 004	0.0124	0.0000	43.0044	43.0044	3.0600e- 003	1.9800e- 003	43.6704
Unmitigated	0.0217	0.0297	0.2292	4.7000e- 004	0.0449	4.7000e- 004	0.0454	0.0120	4.4000e- 004	0.0124	0.0000	43.0044	43.0044	3.0600e- 003	1.9800e- 003	43.6704

4.2 Trip Summary Information

	Ave	rage Daily Trip Rat	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	49.04	11.11	3.54	119,583	119,583
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	49.04	11.11	3.54	119,583	119,583

4.3 Trip Type Information

Miles Trip % Trip Purpose %			
	Miles	Trip %	Trip Purpose %

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by	
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4	
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0	

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.548812	0.060892	0.186048	0.127862	0.022726	0.005730	0.010818	0.008022	0.000956	0.000624	0.023397	0.000686	0.003425
Enclosed Parking with Elevator	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	со	SO2	Fugitive 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	72.5202	72.5202	2.5200e- 003	3.1000e- 004	72.6744	
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	72.5202	72.5202	2.5200e- 003	3.1000e- 004	72.6744	
NaturalGas Mitigated	2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	2.9094	2.9094	6.0000e- 005	5.0000e- 005	2.9267	
NaturalGas Unmitigated	2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	2.9094	2.9094	6.0000e- 005	5.0000e- 005	2.9267	
EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated

	NaturalGas Use	ROG	NOx	СО	SO2	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					ton	s/yr							MT	Г/yr		
Enclosed Parking with Elevator	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
General Office Building	54519.3	2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	2.9094	2.9094	6.0000e- 005	5.0000e- 005	2.9267
Total		2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	2.9094	2.9094	6.0000e- 005	5.0000e- 005	2.9267

Mitigated

	NaturalGas Use	ROG	NOx	со	SO2	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					ton	s/yr							МТ	/yr		
Enclosed Parking with Elevator	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
General Office Building	54519.3	2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	2.9094	2.9094	6.0000e- 005	5.0000e- 005	2.9267
Total		2.9000e- 004	2.6700e- 003	2.2400e- 003	2.0000e- 005		2.0000e- 004	2.0000e- 004		2.0000e- 004	2.0000e-004	0.0000	2.9094	2.9094	6.0000e- 005	5.0000e- 005	2.9267

5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
Enclosed Parking with Elevator	102375	44.0675	1.5300e- 003	1.9000e- 004	44.1612
General Office Building	66100	28.4528	9.9000e- 004	1.2000e- 004	28.5132
Total		72.5202	2.5200e- 003	3.1000e- 004	72.6744

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
Enclosed Parking with Elevator	102375	44.0675	1.5300e- 003	1.9000e- 004	44.1612
General Office Building	66100	28.4528	9.9000e- 004	1.2000e- 004	28.5132
Total		72.5202	2.5200e- 003	3.1000e- 004	72.6744

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MI	Г/yr		
Mitigated	0.0228	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004
Unmitigated	0.0228	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004

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					ton	s/yr							MT	ſ/yr		
Architectural Coating	2.4500e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e- 005	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004
Total	0.0228	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	СО	SO2	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	s/yr							MI	7/yr		
Architectural Coating	2.4500e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e- 005	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004
Total	0.0228	0.0000	3.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e- 004	6.0000e- 004	0.0000	0.0000	6.4000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		МТ	/yr	
Mitigated	8.3239	0.0309	7.6000e- 004	9.3225
Unmitigated	8.3239	0.0309	7.6000e- 004	9.3225

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Outd oor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Enclosed Parking with Elevator	0/0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.940212 / 0.576259	8.3239	0.0309	7.6000e- 004	9.3225
Total		8.3239	0.0309	7.6000e- 004	9.3225

Mitigated

	Indoor/Outd oor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Enclosed Parking with Elevator	0/0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.940212 / 0.576259	8.3239	0.0309	7.6000e- 004	9.3225
Total		8.3239	0.0309	7.6000e- 004	9.3225

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
		МТ	ſ/yr	
Mitigated	0.9987	0.0590	0.0000	2.4743
Unmitigated	0.9987	0.0590	0.0000	2.4743

8.2 Waste by Land Use

<u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.92	0.9987	0.0590	0.0000	2.4743
Total		0.9987	0.0590	0.0000	2.4743

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	/yr	
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.92	0.9987	0.0590	0.0000	2.4743
Total		0.9987	0.0590	0.0000	2.4743

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied



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

Lucia Park - Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	502.00	Space	0.00	200,800.00	0
Apartments High Rise	294.00	Dwelling Unit	1.23	417,135.00	841

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	12			Operational Year	2025
Utility Company	Glendale Water and Power				
CO2 Intensity (Ib/MWhr)	948.98	CH4 Intensity (Ib/MWhr)	0.033	N2O Intensity 0 (Ib/MWhr)	.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Build area is approximately 1.23 acres.

Construction Phase - Construction schedule per applicant.

Trips and VMT - Haul trucks would travel to Scholl Canyon Landfill (6.8 miles).

Demolition -

Grading -

Architectural Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Vehicle Trips - Based on project TIS.

Woodstoves - No woodstoves.

Area Coating - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

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

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403 Fugitive Dust requirements.

Area Mitigation - Consistent with SCAQMD Rule 1113 assumed VOC content of 50 grams per liter for architectural coatings.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	281,566.00	241,463.00
tblArchitecturalCoating	ConstArea_Residential_Interior	844,698.00	724,389.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_Residential_Exterior	281566	241463
tblAreaCoating	Area_Residential_Interior	844698	724389
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

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

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	380.00
tblConstructionPhase	NumDays	200.00	662.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	4.00	76.00
tblConstructionPhase	NumDays	10.00	66.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	14.70	0.00
tblGrading	AcresOfGrading	76.00	43.00
tblGrading	MaterialExported	0.00	76,000.00
tblLandUse	LandUseSquareFeet	294,000.00	417,135.00
tblLandUse	LotAcreage	4.52	0.00
tblLandUse	LotAcreage	4.74	1.23
tblTripsAndVMT	HaulingTripLength	20.00	6.80
tblVehicleTrips	ST_TR	4.53	4.32
tblVehicleTrips	SU_TR	3.59	3.42

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

tblVehicleTrips	WD_TR	4.45	4.24
tblWoodstoves	NumberCatalytic	14.70	0.00
tblWoodstoves	NumberNoncatalytic	14.70	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							MI	/yr		
2022	0.1215	1.3809	0.9142	2.9500e- 003	0.3472	0.0471	0.3943	0.1517	0.0438	0.1955	0.0000	273.5367	273.5367	0.0391	0.0208	280.6994
2023	0.3296	1.9547	3.0795	8.0800e- 003	0.4741	0.0711	0.5452	0.1271	0.0685	0.1956	0.0000	727.2013	727.2013	0.0541	0.0305	737.6443
2024	1.1692	2.2466	3.7854	9.6000e- 003	0.5671	0.0810	0.6481	0.1519	0.0779	0.2297	0.0000	866.3587	866.3587	0.0688	0.0315	877.4760
2025	0.5066	0.8760	1.5169	4.0300e- 003	0.2533	0.0282	0.2815	0.0678	0.0273	0.0951	0.0000	365.3991	365.3991	0.0246	0.0137	370.0968
Maximum	1.1692	2.2466	3.7854	9.6000e- 003	0.5671	0.0810	0.6481	0.1519	0.0779	0.2297	0.0000	866.3587	866.3587	0.0688	0.0315	877.4760

Mitigated Construction

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

	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	/yr		
2022	0.0581	1.0670	1.0504	2.9500e- 003	0.1653	0.0375	0.2028	0.0639	0.0374	0.1012	0.0000	273.5365	273.5365	0.0391	0.0208	280.6992
2023	0.2149	2.0023	3.1923	8.0800e- 003	0.4741	0.0993	0.5734	0.1271	0.0990	0.2262	0.0000	727.2010	727.2010	0.0541	0.0305	737.6440
2024	1.0414	2.4231	3.9481	9.6000e- 003	0.5671	0.1257	0.6928	0.1519	0.1254	0.2772	0.0000	866.3583	866.3583	0.0688	0.0315	877.4756
2025	0.4596	0.9867	1.5796	4.0300e- 003	0.2533	0.0508	0.3041	0.0678	0.0507	0.1185	0.0000	365.3989	365.3989	0.0246	0.0137	370.0966
Maximum	1.0414	2.4231	3.9481	9.6000e- 003	0.5671	0.1257	0.6928	0.1519	0.1254	0.2772	0.0000	866.3583	866.3583	0.0688	0.0315	877.4756

	ROG	NOx	со	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	16.59	-0.32	-5.10	0.00	11.08	-37.80	5.14	17.62	-43.66	-1.00	0.00	0.00	0.00	0.00	0.00	0.00
Quarter	Sta	art Date	End	Date	Maxim	um Unmitig	ated ROG + N	IOX (tons/qu	iarter)	Maxi	mum Mitigat	ted ROG + NO	DX (tons/quai	rter)		
1	7-	1-2022	9-30-	-2022		0.5115						0.3653				
2	10	-1-2022	12-31	-2022		0.9738						0.7461				
3	1-	1-2023	3-31·	-2023		0.5665										
4	4-	1-2023	6-30-	-2023		0.5646										
5	7-	1-2023	9-30-	-2023		0.5708										
6	10	-1-2023	12-31	-2023		0.5791										
7	1-	1-2024	3-31-	-2024		0.7959										
8	4-	1-2024	6-30-	-2024		0.7872					0.7953					
9	7-	1-2024	9-30-	-2024			0.8659									
10	10	-1-2024	12-31	-2024			0.9520									
11	1-	1-2025	3-31-	-2025			0.7553									
12	4-	1-2025	6-30-	-2025			0.6307									

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

	Highest	0.9738	0.9711

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Area	1.7326	0.0868	3.0575	4.9000e- 004		0.0210	0.0210		0.0210	0.0210	0.0000	64.9753	64.9753	5.9300e- 003	1.1000e- 003	65.4513
Energy	0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118		0.0118	0.0118	0.0000	1,126.2666	1,126.2666	0.0365	7.1300e- 003	1,129.3046
Mobile	0.6262	0.7055	6.4840	0.0143	1.5606	0.0105	1.5711	0.4164	9.7100e- 003	0.4261	0.0000	1,353.9560	1,353.9560	0.0906	0.0571	1,373.2388
Waste						0.0000	0.0000		0.0000	0.0000	27.4525	0.0000	27.4525	1.6224	0.0000	68.0124
Water						0.0000	0.0000		0.0000	0.0000	6.0771	165.1151	171.1922	0.6299	0.0154	191.5395
Total	2.3758	0.9380	9.6035	0.0157	1.5606	0.0433	1.6039	0.4164	0.0425	0.4589	33.5296	2,710.3129	2,743.8425	2.3854	0.0808	2,827.5466

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Area	1.7326	0.0868	3.0575	4.9000e- 004		0.0210	0.0210		0.0210	0.0210	0.0000	64.9753	64.9753	5.9300e- 003	1.1000e- 003	65.4513

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

Energy	0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118		0.0118	0.0118	0.0000	1,112.8320	1,112.8320	0.0361	7.0700e- 003	1,115.8415
Mobile	0.6262	0.7055	6.4840	0.0143	1.5606	0.0105	1.5711	0.4164	9.7100e- 003	0.4261	0.0000	1,353.9560	1,353.9560	0.0906	0.0571	1,373.2388
Waste						0.0000	0.0000		0.0000	0.0000	27.4525	0.0000	27.4525	1.6224	0.0000	68.0124
Water						0.0000	0.0000		0.0000	0.0000	4.8617	140.1196	144.9812	0.5042	0.0124	161.2761
Total	2.3758	0.9380	9.6035	0.0157	1.5606	0.0433	1.6039	0.4164	0.0425	0.4589	32.3142	2,671.8829	2,704.1971	2.2592	0.0777	2,783.8202

	ROG	NOx	со	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	3.62	1.42	1.44	5.29	3.85	1.55

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/31/2022	5	23	
2	Grading	Grading	9/1/2022	12/15/2022	5	76	
3	Building Construction	Building Construction	12/1/2022	6/15/2025	5	662	
4	Architectural Coating	Architectural Coating	1/1/2024	6/15/2025	5	380	
5	Paving	Paving	9/1/2024	12/2/2024	5	66	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43

Acres of Paving: 0

Residential Indoor: 724,389; Residential Outdoor: 241,463; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 12,048

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	150.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	9,500.00	14.70	6.90	6.80	LD_Mix	HDT_Mix	HHDT
Building Construction	7	296.00	64.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	59.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MI	Г/yr		
Fugitive Dust					0.0162	0.0000	0.0162	2.4500e- 003	0.0000	2.4500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.1912	0.1606	2.8000e- 004		9.6400e- 003	9.6400e- 003		9.0000e- 003	9.0000e-003	0.0000	24.2393	24.2393	6.1800e- 003	0.0000	24.3938
Total	0.0194	0.1912	0.1606	2.8000e- 004	0.0162	9.6400e- 003	0.0258	2.4500e- 003	9.0000e- 003	0.0115	0.0000	24.2393	24.2393	6.1800e- 003	0.0000	24.3938

ROG	NOX	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
					D1 1 1		D 110 F	B1 1 2							
				PM10	PM10		PM2.5	PM2.5							

Page 1 of 1

Lucia Park - Project - 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					ton	s/yr							MT	ſ/yr		
Hauling	3.5000e- 004	0.0133	2.9600e- 003	5.0000e- 005	1.2900e- 003	9.0000e- 005	4.4000e-004	0.0000	4.6325	4.6325	2.5000e- 004	7.4000e- 004	4.8577			
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	5.5500e- 003	1.0000e- 005	1.6400e- 003	1.0000e- 005	1.6500e- 003	4.4000e- 004	1.0000e- 005	4.4000e-004	0.0000	1.3561	1.3561	4.0000e- 005	4.0000e- 005	1.3680
Total	8.6000e- 004	0.0137	8.5100e- 003	6.0000e- 005	2.9300e- 003	1.0000e- 004	8.8000e-004	0.0000	5.9886	5.9886	2.9000e- 004	7.8000e- 004	6.2257			

Mitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	⊺/yr		
Fugitive Dust					5.3700e- 003	0.0000	5.3700e- 003	8.1000e- 004	0.0000	8.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4600e- 003	0.1392	0.1773	2.8000e- 004		8.2600e- 003	8.2600e- 003		8.2600e- 003	8.2600e-003	0.0000	24.2393	24.2393	6.1800e- 003	0.0000	24.3937
Total	6.4600e- 003	0.1392	0.1773	2.8000e- 004	5.3700e- 003	8.2600e- 003	0.0136	8.1000e- 004	8.2600e- 003	9.0700e-003	0.0000	24.2393	24.2393	6.1800e- 003	0.0000	24.3937

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
				TIMITO	1 10110		1 1012.5	1 1012.5							

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

Category					ton	s/yr							M	Г/yr		
Hauling	3.5000e-	0.0133	2.9600e-	5.0000e-	1.2900e-	9.0000e-	1.3800e-	3.5000e-	9.0000e-	4.4000e-004	0.0000	4.6325	4.6325	2.5000e-	7.4000e-	4.8577
	004		003	005	003	005	003	004	005					004	004	
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	5.5500e- 003	1.0000e- 005	1.6400e- 003	1.0000e- 005	1.6500e- 003	4.4000e- 004	1.0000e- 005	4.4000e-004	0.0000	1.3561	1.3561	4.0000e- 005	4.0000e- 005	1.3680
Total	8.6000e- 004	0.0137	8.5100e- 003	6.0000e- 005	2.9300e- 003	1.0000e- 004	3.0300e- 003	7.9000e- 004	1.0000e- 004	8.8000e-004	0.0000	5.9886	5.9886	2.9000e- 004	7.8000e- 004	6.2257

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MI	ſ/yr		
Fugitive Dust					0.2559	0.0000	0.2559	0.1289	0.0000	0.1289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0585	0.6454	0.3504	7.8000e- 004		0.0282	0.0282		0.0260	0.0260	0.0000	68.7903	68.7903	0.0223	0.0000	69.3465
Total	0.0585	0.6454	0.3504	7.8000e- 004	0.2559	0.0282	0.2842	0.1289	0.0260	0.1549	0.0000	68.7903	68.7903	0.0223	0.0000	69.3465

POG	NOv	00	SO2	Eugitivo	Expouet	DM10 Total	Eugitivo	Expouet	DM2.5 Total	Ria CO2	NRia CO2	Total CO2	CHA	N2O	CO20
ROG	NOX	00	302			FIVITO TOTAL			FIVIZ.J TOTAL	BI0- CO2	NDI0- CO2	10tal 002	0114	1120	0026
				PINITU	PMITU		PMZ.5	PIVIZ.5							

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

Category					ton	s/yr							M	ſ/yr		
Hauling	0.0107	0.3465	0.1078	1.0900e-	0.0279	2.0600e-	0.0299	7.6600e-	1.9700e-	9.6300e-003	0.0000	108.1205	108.1205	5.5100e-	0.0172	113.3690
				003		003		003	003					003		
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	1.3000e- 003	1.0800e- 003	0.0141	4.0000e- 005	4.1600e- 003	3.0000e- 005	4.1900e- 003	1.1100e- 003	3.0000e- 005	1.1300e-003	0.0000	3.4469	3.4469	1.0000e- 004	9.0000e- 005	3.4772
Total	0.0120	0.3476	0.1220	1.1300e- 003	0.0320	2.0900e- 003	0.0341	8.7700e- 003	2.0000e- 003	0.0108	0.0000	111.5674	111.5674	5.6100e- 003	0.0172	116.8462

Mitigated Construction On-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0848	0.0000	0.0848	0.0427	0.0000	0.0427	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0192	0.3882	0.4615	7.8000e- 004		0.0184	0.0184		0.0184	0.0184	0.0000	68.7902	68.7902	0.0223	0.0000	69.3464
Total	0.0192	0.3882	0.4615	7.8000e- 004	0.0848	0.0184	0.1033	0.0427	0.0184	0.0612	0.0000	68.7902	68.7902	0.0223	0.0000	69.3464

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
				TIMITO	1 10110		1 1012.5	1 1012.5							

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

Category					ton	s/yr							MI	/yr		
Hauling	0.0107	0.3465	0.1078	1.0900e-	0.0279	2.0600e-	0.0299	7.6600e-	1.9700e-	9.6300e-003	0.0000	108.1205	108.1205	5.5100e-	0.0172	113.3690
				003		003		003	003					003		
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	1.3000e- 003	1.0800e- 003	0.0141	4.0000e- 005	4.1600e- 003	3.0000e- 005	4.1900e- 003	1.1100e- 003	3.0000e- 005	1.1300e-003	0.0000	3.4469	3.4469	1.0000e- 004	9.0000e- 005	3.4772
Total	0.0120	0.3476	0.1220	1.1300e- 003	0.0320	2.0900e- 003	0.0341	8.7700e- 003	2.0000e- 003	0.0108	0.0000	111.5674	111.5674	5.6100e- 003	0.0172	116.8462

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	Г/yr		
Off-Road	0.0181	0.1375	0.1400	2.4000e- 004		6.4800e- 003	6.4800e- 003		6.2600e- 003	6.2600e-003	0.0000	19.9735	19.9735	3.4800e- 003	0.0000	20.0604
Total	0.0181	0.1375	0.1400	2.4000e- 004		6.4800e- 003	6.4800e- 003		6.2600e- 003	6.2600e-003	0.0000	19.9735	19.9735	3.4800e- 003	0.0000	20.0604

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							M	ſ/yr		

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

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	1.3700e- 003	0.0362	0.0120	1.4000e- 004	4.4400e- 003	3.3000e- 004	4.7700e- 003	1.2800e- 003	3.1000e- 004	1.6000e-003	0.0000	13.4434	13.4434	4.5000e- 004	1.9400e- 003	14.0325
Worker	0.0112	9.3000e- 003	0.1209	3.2000e- 004	0.0357	2.3000e- 004	0.0359	9.4800e- 003	2.1000e- 004	9.6900e-003	0.0000	29.5342	29.5342	8.4000e- 004	8.0000e- 004	29.7943
Total	0.0125	0.0455	0.1329	4.6000e- 004	0.0401	5.6000e- 004	0.0407	0.0108	5.2000e- 004	0.0113	0.0000	42.9776	42.9776	1.2900e- 003	2.7400e- 003	43.8268

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	⊺/yr		
Off-Road	7.0500e- 003	0.1328	0.1483	2.4000e- 004		8.0500e- 003	8.0500e- 003		8.0500e- 003	8.0500e-003	0.0000	19.9734	19.9734	3.4800e- 003	0.0000	20.0604
Total	7.0500e- 003	0.1328	0.1483	2.4000e- 004		8.0500e- 003	8.0500e- 003		8.0500e- 003	8.0500e-003	0.0000	19.9734	19.9734	3.4800e- 003	0.0000	20.0604

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	ſ/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

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

Vendor	1.3700e-	0.0362	0.0120	1.4000e-	4.4400e-	3.3000e-	4.7700e-	1.2800e-	3.1000e-	1.6000e-003	0.0000	13.4434	13.4434	4.5000e-	1.9400e-	14.0325
	003			004	003	004	003	003	004					004	003	
Worker	0.0112	9.3000e-	0.1209	3.2000e-	0.0357	2.3000e-	0.0359	9.4800e-	2.1000e-	9.6900e-003	0.0000	29.5342	29.5342	8.4000e-	8.0000e-	29.7943
		003		004		004		003	004					004	004	
Total	0.0125	0.0455	0.1329	4.6000e-	0.0401	5.6000e-	0.0407	0.0108	5.2000e-	0.0113	0.0000	42.9776	42.9776	1.2900e-	2.7400e-	43.8268
				004		004			004					003	003	

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							МТ	/yr		
Off-Road	0.1980	1.5224	1.6394	2.8700e- 003		0.0669	0.0669		0.0646	0.0646	0.0000	236.0789	236.0789	0.0401	0.0000	237.0811
Total	0.1980	1.5224	1.6394	2.8700e- 003		0.0669	0.0669		0.0646	0.0646	0.0000	236.0789	236.0789	0.0401	0.0000	237.0811

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	Г/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	9.4000e- 003	0.3353	0.1255	1.5500e- 003	0.0524	1.6100e- 003	0.0540	0.0151	1.5400e- 003	0.0167	0.0000	151.2761	151.2761	5.0600e- 003	0.0218	157.8902

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

Worker	0.1222	0.0970	1.3146	3.6600e- 003	0.4217	2.6000e- 003	0.4243	0.1120	2.3900e- 003	0.1144	0.0000	339.8463	339.8463	8.9300e- 003	8.7400e- 003	342.6731
Total	0.1316	0.4323	1.4401	5.2100e- 003	0.4741	4.2100e- 003	0.4783	0.1271	3.9300e- 003	0.1311	0.0000	491.1224	491.1224	0.0140	0.0305	500.5633

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	ſ/yr		
Off-Road	0.0833	1.5700	1.7522	2.8700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	236.0786	236.0786	0.0401	0.0000	237.0808
Total	0.0833	1.5700	1.7522	2.8700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	236.0786	236.0786	0.0401	0.0000	237.0808

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	9.4000e- 003	0.3353	0.1255	1.5500e- 003	0.0524	1.6100e- 003	0.0540	0.0151	1.5400e- 003	0.0167	0.0000	151.2761	151.2761	5.0600e- 003	0.0218	157.8902
Worker	0.1222	0.0970	1.3146	3.6600e- 003	0.4217	2.6000e- 003	0.4243	0.1120	2.3900e- 003	0.1144	0.0000	339.8463	339.8463	8.9300e- 003	8.7400e- 003	342.6731

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

Total	0.1316	0.4323	1.4401	5.2100e-	0.4741	4.2100e-	0.4783	0.1271	3.9300e-	0.1311	0.0000	491.1224	491.1224	0.0140	0.0305	500.5633
				003		003			003							

3.4 Building Construction - 2024

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	s/yr							MT	ſ/yr		
Off-Road	0.1860	1.4494	1.6398	2.8900e- 003		0.0590	0.0590		0.0570	0.0570	0.0000	237.9108	237.9108	0.0396	0.0000	238.9013
Total	0.1860	1.4494	1.6398	2.8900e- 003		0.0590	0.0590		0.0570	0.0570	0.0000	237.9108	237.9108	0.0396	0.0000	238.9013

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							M	ſ/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	9.1700e- 003	0.3386	0.1238	1.5400e- 003	0.0528	1.6300e- 003	0.0545	0.0153	1.5600e- 003	0.0168	0.0000	150.1526	150.1526	5.1100e- 003	0.0216	156.7263
Worker	0.1149	0.0873	1.2339	3.5800e- 003	0.4249	2.5100e- 003	0.4274	0.1129	2.3100e- 003	0.1152	0.0000	335.4241	335.4241	8.1500e- 003	8.1800e- 003	338.0663
Total	0.1241	0.4258	1.3577	5.1200e- 003	0.4778	4.1400e- 003	0.4819	0.1281	3.8700e- 003	0.1320	0.0000	485.5767	485.5767	0.0133	0.0298	494.7926

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

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0839	1.5820	1.7657	2.8900e- 003		0.0958	0.0958		0.0958	0.0958	0.0000	237.9105	237.9105	0.0396	0.0000	238.9010
Total	0.0839	1.5820	1.7657	2.8900e- 003		0.0958	0.0958		0.0958	0.0958	0.0000	237.9105	237.9105	0.0396	0.0000	238.9010

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	9.1700e- 003	0.3386	0.1238	1.5400e- 003	0.0528	1.6300e- 003	0.0545	0.0153	1.5600e- 003	0.0168	0.0000	150.1526	150.1526	5.1100e- 003	0.0216	156.7263
Worker	0.1149	0.0873	1.2339	3.5800e- 003	0.4249	2.5100e- 003	0.4274	0.1129	2.3100e- 003	0.1152	0.0000	335.4241	335.4241	8.1500e- 003	8.1800e- 003	338.0663
Total	0.1241	0.4258	1.3577	5.1200e- 003	0.4778	4.1400e- 003	0.4819	0.1281	3.8700e- 003	0.1320	0.0000	485.5767	485.5767	0.0133	0.0298	494.7926

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

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							M	ſ/yr		
Off-Road	0.0782	0.6144	0.7339	1.3000e- 003		0.0232	0.0232		0.0223	0.0223	0.0000	107.1630	107.1630	0.0175	0.0000	107.6004
Total	0.0782	0.6144	0.7339	1.3000e- 003		0.0232	0.0232		0.0223	0.0223	0.0000	107.1630	107.1630	0.0175	0.0000	107.6004

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MI	/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	4.0100e- 003	0.1518	0.0547	6.8000e- 004	0.0238	7.4000e- 004	0.0245	6.8700e- 003	7.1000e- 004	7.5700e-003	0.0000	66.4093	66.4093	2.3200e- 003	9.5700e- 003	69.3200
Worker	0.0485	0.0353	0.5182	1.5600e- 003	0.1914	1.0800e- 003	0.1925	0.0508	9.9000e- 004	0.0518	0.0000	147.3851	147.3851	3.3100e- 003	3.4400e- 003	148.4933
Total	0.0525	0.1870	0.5730	2.2400e- 003	0.2152	1.8200e- 003	0.2170	0.0577	1.7000e- 003	0.0594	0.0000	213.7944	213.7944	5.6300e- 003	0.0130	217.8133

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

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MI	ſ/yr		
Off-Road	0.0378	0.7125	0.7952	1.3000e- 003		0.0432	0.0432		0.0432	0.0432	0.0000	107.1629	107.1629	0.0175	0.0000	107.6003
Total	0.0378	0.7125	0.7952	1.3000e- 003		0.0432	0.0432		0.0432	0.0432	0.0000	107.1629	107.1629	0.0175	0.0000	107.6003

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	4.0100e- 003	0.1518	0.0547	6.8000e- 004	0.0238	7.4000e- 004	0.0245	6.8700e- 003	7.1000e- 004	7.5700e-003	0.0000	66.4093	66.4093	2.3200e- 003	9.5700e- 003	69.3200
Worker	0.0485	0.0353	0.5182	1.5600e- 003	0.1914	1.0800e- 003	0.1925	0.0508	9.9000e- 004	0.0518	0.0000	147.3851	147.3851	3.3100e- 003	3.4400e- 003	148.4933
Total	0.0525	0.1870	0.5730	2.2400e- 003	0.2152	1.8200e- 003	0.2170	0.0577	1.7000e- 003	0.0594	0.0000	213.7944	213.7944	5.6300e- 003	0.0130	217.8133

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

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	ſ/yr		
Archit. Coating	0.7909					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e- 004		7.9800e- 003	7.9800e- 003		7.9800e- 003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e- 003	0.0000	33.4947
Total	0.8146	0.1597	0.2371	3.9000e- 004		7.9800e- 003	7.9800e- 003		7.9800e- 003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e- 003	0.0000	33.4947

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	0.0229	0.0174	0.2459	7.1000e- 004	0.0847	5.0000e- 004	0.0852	0.0225	4.6000e- 004	0.0230	0.0000	66.8582	66.8582	1.6200e- 003	1.6300e- 003	67.3848
Total	0.0229	0.0174	0.2459	7.1000e- 004	0.0847	5.0000e- 004	0.0852	0.0225	4.6000e- 004	0.0230	0.0000	66.8582	66.8582	1.6200e- 003	1.6300e- 003	67.3848

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	Г/yr		
Archit. Coating	0.7909					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e- 003	0.1778	0.2401	3.9000e- 004		0.0125	0.0125		0.0125	0.0125	0.0000	33.4476	33.4476	1.8800e- 003	0.0000	33.4947
Total	0.7987	0.1778	0.2401	3.9000e- 004		0.0125	0.0125		0.0125	0.0125	0.0000	33.4476	33.4476	1.8800e- 003	0.0000	33.4947

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0229	0.0174	0.2459	7.1000e- 004	0.0847	5.0000e- 004	0.0852	0.0225	4.6000e- 004	0.0230	0.0000	66.8582	66.8582	1.6200e- 003	1.6300e- 003	67.3848
Total	0.0229	0.0174	0.2459	7.1000e- 004	0.0847	5.0000e- 004	0.0852	0.0225	4.6000e- 004	0.0230	0.0000	66.8582	66.8582	1.6200e- 003	1.6300e- 003	67.3848

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

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	ſ/yr		
Archit. Coating	0.3562					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.0676	0.1067	1.8000e- 004		3.0400e- 003	3.0400e- 003		3.0400e- 003	3.0400e-003	0.0000	15.0642	15.0642	8.2000e- 004	0.0000	15.0847
Total	0.3663	0.0676	0.1067	1.8000e- 004		3.0400e- 003	3.0400e- 003		3.0400e- 003	3.0400e-003	0.0000	15.0642	15.0642	8.2000e- 004	0.0000	15.0847

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	9.6600e- 003	7.0300e- 003	0.1033	3.1000e- 004	0.0381	2.1000e- 004	0.0384	0.0101	2.0000e- 004	0.0103	0.0000	29.3774	29.3774	6.6000e- 004	6.9000e- 004	29.5983
Total	9.6600e- 003	7.0300e- 003	0.1033	3.1000e- 004	0.0381	2.1000e- 004	0.0384	0.0101	2.0000e- 004	0.0103	0.0000	29.3774	29.3774	6.6000e- 004	6.9000e- 004	29.5983

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

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	ſ/yr		
Archit. Coating	0.3562					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5100e- 003	0.0801	0.1081	1.8000e- 004		5.6100e- 003	5.6100e- 003		5.6100e- 003	5.6100e-003	0.0000	15.0642	15.0642	8.2000e- 004	0.0000	15.0847
Total	0.3597	0.0801	0.1081	1.8000e- 004		5.6100e- 003	5.6100e- 003		5.6100e- 003	5.6100e-003	0.0000	15.0642	15.0642	8.2000e- 004	0.0000	15.0847

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	9.6600e- 003	7.0300e- 003	0.1033	3.1000e- 004	0.0381	2.1000e- 004	0.0384	0.0101	2.0000e- 004	0.0103	0.0000	29.3774	29.3774	6.6000e- 004	6.9000e- 004	29.5983
Total	9.6600e- 003	7.0300e- 003	0.1033	3.1000e- 004	0.0381	2.1000e- 004	0.0384	0.0101	2.0000e- 004	0.0103	0.0000	29.3774	29.3774	6.6000e- 004	6.9000e- 004	29.5983

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

	ROG	NOx	СО	SO2	Fugitive 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	ſ/yr		
Off-Road	0.0204	0.1934	0.2912	4.5000e- 004		9.2700e- 003	9.2700e- 003		8.5600e- 003	8.5600e-003	0.0000	38.8544	38.8544	0.0123	0.0000	39.1624
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0204	0.1934	0.2912	4.5000e- 004		9.2700e- 003	9.2700e- 003		8.5600e- 003	8.5600e-003	0.0000	38.8544	38.8544	0.0123	0.0000	39.1624

	ROG	NOx	со	SO2	Fugitive 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	1.2700e- 003	9.7000e- 004	0.0137	4.0000e- 005	4.7000e- 003	3.0000e- 005	4.7300e- 003	1.2500e- 003	3.0000e- 005	1.2700e-003	0.0000	3.7110	3.7110	9.0000e- 005	9.0000e- 005	3.7402		
Total	1.2700e- 003	9.7000e- 004	0.0137	4.0000e- 005	4.7000e- 003	3.0000e- 005	4.7300e- 003	1.2500e- 003	3.0000e- 005	1.2700e-003	0.0000	3.7110	3.7110	9.0000e- 005	9.0000e- 005	3.7402		

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

	ROG	NOx	со	SO2	Fugitive 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	0.0105	0.2191	0.3251	4.5000e- 004		0.0128	0.0128		0.0128	0.0128	0.0000	38.8544	38.8544	0.0123	0.0000	39.1623			
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Total	0.0105	0.2191	0.3251	4.5000e- 004		0.0128	0.0128		0.0128	0.0128	0.0000	38.8544	38.8544	0.0123	0.0000	39.1623			

	ROG	NOx	со	SO2	Fugitive 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	1.2700e- 003	9.7000e- 004	0.0137	4.0000e- 005	4.7000e- 003	3.0000e- 005	4.7300e- 003	1.2500e- 003	3.0000e- 005	1.2700e-003	0.0000	3.7110	3.7110	9.0000e- 005	9.0000e- 005	3.7402		
Total	1.2700e- 003	9.7000e- 004	0.0137	4.0000e- 005	4.7000e- 003	3.0000e- 005	4.7300e- 003	1.2500e- 003	3.0000e- 005	1.2700e-003	0.0000	3.7110	3.7110	9.0000e- 005	9.0000e- 005	3.7402		

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

4.1 Mitigation Measures Mobile

	ROG	NOx	co	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr												MT	/yr		
Mitigated	0.6262	0.7055	6.4840	0.0143	1.5606	0.0105	1.5711	0.4164	9.7100e- 003	0.4261	0.0000	1,353.9560	1,353.9560	0.0906	0.0571	1,373.2388
Unmitigated	0.6262	0.7055	6.4840	0.0143	1.5606	0.0105	1.5711	0.4164	9.7100e- 003	0.4261	0.0000	1,353.9560	1,353.9560	0.0906	0.0571	1,373.2388

4.2 Trip Summary Information

	Ave	rage Daily Trip Rat	te	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,246.56	1,270.08	1005.48	4,153,480	4,153,480
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	1,246.56	1,270.08	1,005.48	4,153,480	4,153,480

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			
Apartments High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3			
Enclosed Parking with Elevator	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
Apartments High Rise	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Enclosed Parking with Elevator	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
--	--------------------------------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	СО	SO2	Fugitive 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	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	944.0595	944.0595	0.0328	3.9800e- 003	946.0660
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	957.4940	957.4940	0.0333	4.0400e- 003	959.5291
NaturalGas Mitigated	0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118		0.0118	0.0118	0.0000	168.7726	168.7726	3.2300e- 003	3.0900e- 003	169.7755
NaturalGas Unmitigated	0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118		0.0118	0.0118	0.0000	168.7726	168.7726	3.2300e- 003	3.0900e- 003	169.7755

5.2 Energy by Land Use - NaturalGas

				-	-	-	-	-							-	-	
	NaturalGas	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2 5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	. tatara o ao				001	. againe	Entradot		. againe	Entradot		2.0 002			0		0010
	LICO					DM10	DM10		DM2 5	DM2 5							
	USE					FIVITO	FIVITO		FIVIZ.J	FIVIZ.J							

Page 1 of 1

Lucia Park - Project - Los Angeles-South Coast County, Annual

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

Land Use	kBTU/yr					ton	s/yr						MT	Г/yr		
Apartments High Rise	3.16268e+0 06	0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118	0.0118	0.0118	0.0000	168.7726	168.7726	3.2300e- 003	3.0900e- 003	169.7755
Enclosed Parking with Elevator	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		0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118	0.0118	0.0118	0.0000	168.7726	168.7726	3.2300e- 003	3.0900e- 003	169.7755

Mitigated

	NaturalGas Use	ROG	NOx	СО	SO2	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					ton	is/yr							MI	/yr		
Apartments High Rise	3.16268e+0 06	0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118		0.0118	0.0118	0.0000	168.7726	168.7726	3.2300e- 003	3.0900e- 003	169.7755
Enclosed Parking with Elevator	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		0.0171	0.1457	0.0620	9.3000e- 004		0.0118	0.0118		0.0118	0.0118	0.0000	168.7726	168.7726	3.2300e- 003	3.0900e- 003	169.7755

5.3 Energy by Land Use - Electricity

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	

Page 1 of 1

Lucia Park - Project - Los Angeles-South Coast County, Annual

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

Apartments High Rise	1.13205e+0 06	487.2910	0.0170	2.0500e- 003	488.3267
Enclosed Parking with Elevator	1.09235e+0 06	470.2030	0.0164	1.9800e- 003	471.2024
Total		957.4940	0.0333	4.0300e- 003	959.5291

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
Apartments High Rise	1.10084e+0 06	473.8565	0.0165	2.0000e- 003	474.8636
Enclosed Parking with Elevator	1.09235e+0 06	470.2030	0.0164	1.9800e- 003	471.2024
Total		944.0595	0.0328	3.9800e- 003	946.0660

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use Low VOC Cleaning Supplies

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

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	Г/yr		
Mitigated	1.7326	0.0868	3.0575	4.9000e- 004		0.0210	0.0210		0.0210	0.0210	0.0000	64.9753	64.9753	5.9300e- 003	1.1000e- 003	65.4513
Unmitigated	1.7326	0.0868	3.0575	4.9000e- 004		0.0210	0.0210		0.0210	0.0210	0.0000	64.9753	64.9753	5.9300e- 003	1.1000e- 003	65.4513

6.2 Area by SubCategory

	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Architectural Coating	0.1147					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0600e- 003	0.0518	0.0221	3.3000e- 004		4.1900e- 003	4.1900e- 003		4.1900e- 003	4.1900e-003	0.0000	60.0103	60.0103	1.1500e- 003	1.1000e- 003	60.3669
Landscaping	0.0915	0.0350	3.0354	1.6000e- 004		0.0168	0.0168		0.0168	0.0168	0.0000	4.9651	4.9651	4.7800e- 003	0.0000	5.0844
Total	1.7326	0.0868	3.0575	4.9000e- 004		0.0210	0.0210		0.0210	0.0210	0.0000	64.9753	64.9753	5.9300e- 003	1.1000e- 003	65.4513

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

Mitigated

	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	/yr		
Architectural Coating	0.1147					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0600e- 003	0.0518	0.0221	3.3000e- 004		4.1900e- 003	4.1900e- 003		4.1900e- 003	4.1900e-003	0.0000	60.0103	60.0103	1.1500e- 003	1.1000e- 003	60.3669
Landscaping	0.0915	0.0350	3.0354	1.6000e- 004		0.0168	0.0168		0.0168	0.0168	0.0000	4.9651	4.9651	4.7800e- 003	0.0000	5.0844
Total	1.7326	0.0868	3.0575	4.9000e- 004		0.0210	0.0210		0.0210	0.0210	0.0000	64.9753	64.9753	5.9300e- 003	1.1000e- 003	65.4513

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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

	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated	144.9812	0.5042	0.0124	161.2761
Unmitigated	171.1922	0.6299	0.0154	191.5395

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Outd oor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Apartments High Rise	19.1553 / 12.0762	171.1922	0.6299	0.0154	191.5395
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		171.1922	0.6299	0.0154	191.5395

Mitigated

	Indoor/Outd oor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	

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

Apartments High Rise	15.3242 / 11.3395	144.9812	0.5042	0.0124	161.2761
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		144.9812	0.5042	0.0124	161.2761

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e			
	MT/yr						
Mitigated	27.4525	1.6224	0.0000	68.0124			
Unmitigated	27.4525	1.6224	0.0000	68.0124			

8.2 Waste by Land Use

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	/yr	

Page 1 of 1

Lucia Park - Project - Los Angeles-South Coast County, Annual

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

Apartments High Rise	135.24	27.4525	1.6224	0.0000	68.0124
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		27.4525	1.6224	0.0000	68.0124

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	/yr	
Apartments High Rise	135.24	27.4525	1.6224	0.0000	68.0124
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		27.4525	1.6224	0.0000	68.0124

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

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

<u>Boilers</u>

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
User Defined Equipment					
Equipment Type	Number				
14.0 Manufation					

11.0 Vegetation