

Allison Avenue Transit Oriented Development (TOD) Project

Air Quality Technical Report

July 2021 | 03164.00001.001

Prepared for:

USA Properties Fund, Inc.
3200 Douglas Boulevard, Suite 200
Roseville, CA 95661

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AAM	annual arithmetic mean
AAQS	Ambient Air Quality Standard
ADMRT	Air Dispersion Modeling and Risk Tool
AERMAP	air quality dispersion model terrain preprocessor
AERMOD	air quality dispersion model
AQIA	Air Quality Impact Assessment
Attainment Plan	Ozone Attainment Plan for San Diego County
BMPs	best management practices
CAA	Clean Air Act (Federal)
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emission Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards code
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of La Mesa
CMU	concrete masonry unit
CO	carbon monoxide
County	County of San Diego
CY	cubic yards
DPM	diesel particulate matter
°F	Fahrenheit (degrees)
g/L	grams per liter
GHG	greenhouse gases
H ₂ S	hydrogen sulfide
IEM	Iowa Environmental Mesonet
km	kilometer
mg/m ³	milligrams per cubic meter
mph	miles per hour
MTS	Metropolitan Transit System

ACRONYMS AND ABBREVIATIONS (cont.)

NAAQS	National Ambient Air Quality Standard
NO	nitrogen oxide
NO ₂	nitrogen dioxide
NOA	naturally occurring asbestos
NO _x	oxides of nitrogen
O ₃	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
Pb	lead
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns
PM _{2.5}	particulate matter less than 2.5 microns
ppm	parts per million
ROG	reactive organic gas
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SF	square feet/foot
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	oxides of sulfur
T-BACT	Toxics Best Available Control Technology
TAC	Toxic Air Contaminant
TIA	Transportation Impact Analysis
Title 24	CCR Title 24 Part 6, California Energy Efficiency Standards for Residential and Nonresidential Buildings
TOD	transit-oriented development
USEPA	U.S. Environmental Protection Agency
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
WRCC	Western Regional Climate Center

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EXECUTIVE SUMMARY

This report presents an assessment of potential air quality impacts during construction and operation of the proposed Allison Avenue Transit Oriented Development (TOD) Project (project), located in the City of La Mesa (City). The project would develop a four-story residential structure consisting of 147 apartment homes and on-site amenities on a podium deck with a parking garage underneath.

The project would be consistent the City's General Plan land use designation. As such, the project's growth is accounted for in the San Diego Air Pollution Control District's (SDAPCD's) Ozone Attainment Plan for San Diego County. Due to the proximity to the La Mesa Trolley Station and Metropolitan Transit Service (MTS) bus routes, the project would be considered TOD development and would have reduced vehicle miles traveled (VMT) and associated transportation-related air quality emissions. Therefore, the proposed project would not conflict with or obstruct implementation of the SDACPD's Ozone Attainment Plan for San Diego County.

The project would result in emissions of criteria air pollutants during construction and operation. In accordance with SDAPCD Rule 55, fugitive dust control measures including the use of an on-site water truck to wet down active grading areas at least twice daily are incorporated into the project design. Project emissions of criteria pollutants during construction and operation would not exceed the SDAPCD emissions screening thresholds for criteria pollutants and precursors. Impacts related to cumulatively considerable net increases of criteria pollutants in the region would be less than significant.

Project-generated traffic would not result in a carbon monoxide hot spot. Construction and operation of the project would not result in exposure of sensitive receptors to significant quantities of toxic air contaminants or substantial localized criteria pollutant and precursor concentrations. Impacts related to exposure of sensitive receptors to substantial pollutant concentrations, or other emissions such as odors, would be less than significant.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report presents an assessment of potential air quality impacts associated with construction and operation of the proposed Allison Avenue Transit Oriented Development (TOD) Project (project). The analysis within this report addresses the relevant issues listed in Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

1.2 PROJECT LOCATION

The project site is located within the city of La Mesa (City) at 8181 Allison Avenue, at the southeast corner of the intersection of Allison Avenue and Date Avenue. The project site consists of one parcel—Assessor's Parcel Number (APN) 470-672-22-00 (see Figure 1, *Regional Location*, and Figure 2, *Aerial Photograph*).

1.3 PROJECT DESCRIPTION

The project would develop a four-story residential structure consisting of 147 apartment homes (103 one-bedroom and 44 two-bedroom units) and on-site amenities on a podium deck with a parking garage underneath. The proposed building would encompass a total floor area of 145,735 square feet (SF). In addition to the residential units, 4,113-SF of lobby space would be provided. A partially subterranean parking garage would encompass 46,700 SF and provide a total of 117 parking spaces for residents. Access to the parking lot would be via one driveway on Date Avenue.

The ground floor would include the residential lobby, mechanical/electric rooms, and the parking garage, which includes 97 standard parking spaces, 15 tandem parking spaces, 5 compact spaces, and bicycle lockers. The podium level (first floor) includes the leasing/management offices, a clubhouse area with game and exercise facilities, and a laundry room. Floors two through four would include residential units and laundry facilities. Other improvements would include landscaping within the building courtyards and along the Allison Avenue and Date Avenue project frontage (see Figure 3, *Site Plan*).

1.4 PROJECT CONSTRUCTION

Project construction is anticipated to occur over an approximately two-year period starting in August 2022 and completing in July 2024. Construction activities would include site preparation (including removal of asphalt, fencing, concrete masonry unit [CMU] walls, and vegetation), grading and excavation for the parking garage/foundations, podium construction, building construction, and architectural coating (e.g., painting). During site preparation, approximately 600 cubic yards (CY) of debris would be exported. During grading/excavation, approximately 14,200 CY of soil would be exported.

1.4.1 Construction Best Management Practices

The project would incorporate best management practices (BMPs) during construction to reduce emissions of fugitive dust. San Diego Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust

Control states that no dust and/or dirt shall leave the property line. SDAPCD Rule 55 requires the following:

- (1) Airborne Dust Beyond the Property Line: No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.
- (2) Track-Out/Carry-Out: Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:
 - (i) be minimized by the use of any of the following or equally effective track-out/carry-out and erosion control measures that apply to the project or operation:
 - (a) track-out grates or gravel beds at each egress point;
 - (b) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks;
 - (c) using secured tarps or cargo covering, watering, or treating of transported material; and
 - (ii) be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM10-efficient (particulate matter less than 10 microns) street sweepers certified to meet the most current South Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

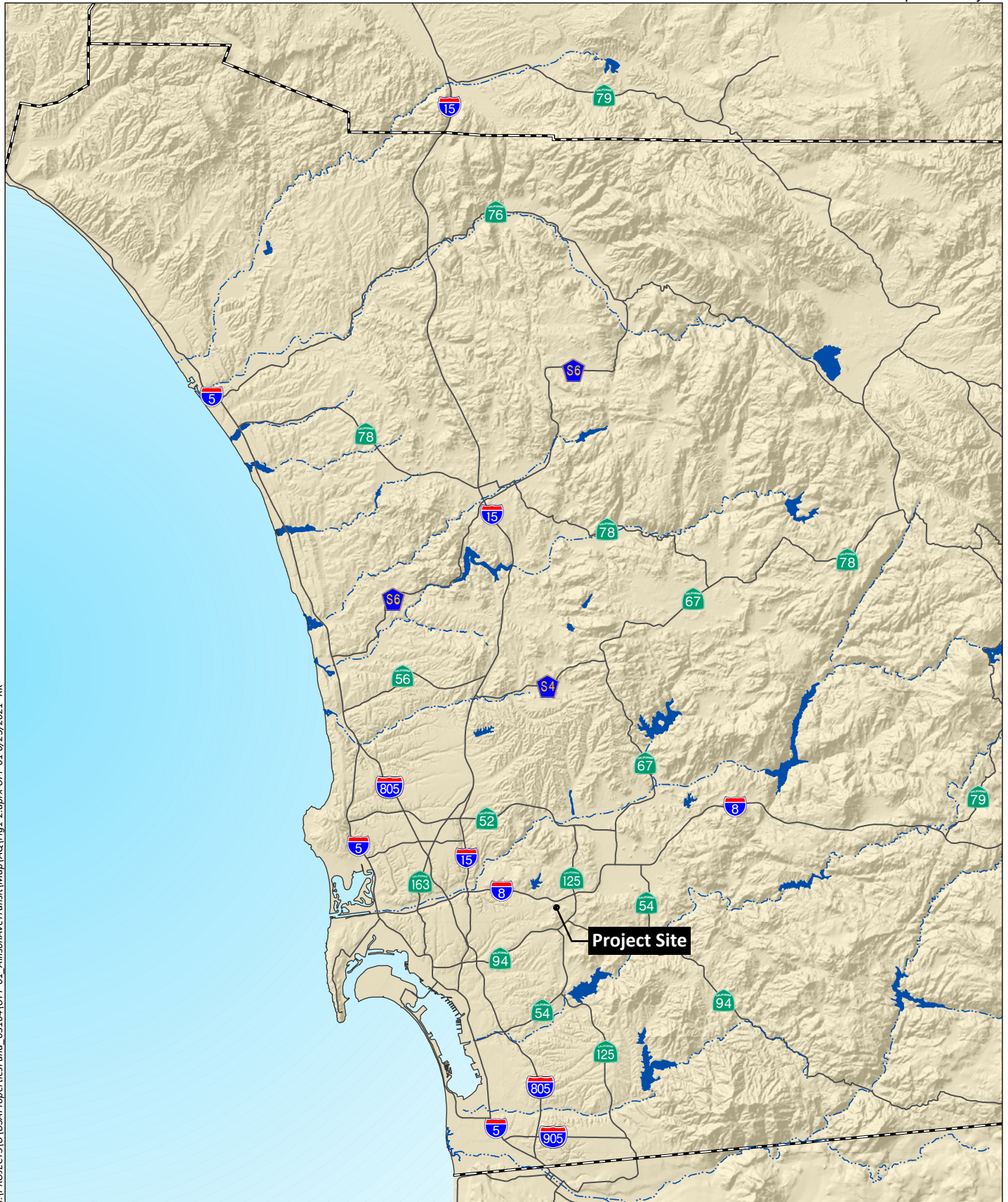
The control measures listed below are the BMPs that the project would incorporate for dust control:

- A minimum of two applications of water shall be applied during grading between dozer/grader passes;
- Grading shall be terminated if winds exceed 25 miles per hour (mph);
- All exposed surfaces shall maintain a minimum soil moisture of 12 percent;
- Dirt storage piles shall be stabilized by chemical binders, tarps, fencing, or other erosion control; and
- Vehicle speeds shall be limited to 15 mph on unpaved roads.

2.0 REGULATORY SETTING

The project site is located within the San Diego Air Basin (SDAB). Air Quality in the SDAB is regulated by the US Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the state level, and by the SDAPCD at the regional level.

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Source: Base Map Layers (SanGIS, 2016)





2.1 AIR POLLUTANT DESCRIPTORS AND TERMINOLOGY

2.1.1 Criteria Air Pollutants

Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the general public. In general, criteria air pollutants include the following compounds:

- Ozone (O₃)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO₂)
- Particulate matter (PM), which is further subdivided:
 - Coarse PM, 10 micrometers or less in diameter (PM₁₀)
 - Fine PM, 2.5 micrometers or less in diameter (PM_{2.5})
- Sulfur dioxide (SO₂)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO₂, PM₁₀, PM_{2.5}, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO₂, PM₁₀, and PM_{2.5}). Note that PM₁₀ and PM_{2.5} can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases ([ROGs] also known as volatile organic compounds [VOCs])¹ and nitrogen oxides (NO_x).

The descriptions of sources and general health effects for each of the criteria air pollutants are shown in Table 1, *Summary of Common Sources and Human Health Effects of Criteria Air Pollutants*, based on information provided by the California Air Pollution Control Officers Association (CAPCOA; 2021a). Specific adverse health effects to individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_x) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO₂ are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from the project site (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel. As such, specific health effects from these criteria pollutant emissions cannot be directly correlated to the incremental contribution from the project.

¹ CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.

Table 1
SUMMARY OF COMMON SOURCES AND HUMAN HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O ₃)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO _x) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Particulate Matter (PM ₁₀ and PM _{2.5})	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and other sources.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO ₂)	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from oil, or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid, which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CAPCOA 2021a

2.1.2 Toxic Air Contaminants

The California Health and Safety Code (§39655, subd. (a).) defines a toxic air contaminant (TAC) as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.” A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the Federal Clean Air Act (CAA) (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the

substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (CARB 2021a). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2021a).

2.2 FEDERAL REGULATIONS

2.2.1 Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. The USEPA is responsible for enforcing the Federal CAA of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants, which are introduced above. Table 2, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards (AAQS) for these pollutants.

Table 2
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards Primary ¹	Federal Standards Secondary ²
O ₃	1 Hour	0.09 ppm (180 µg/m ³)	–	–
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	20 µg/m ³	–	Same as Primary
PM _{2.5}	24 Hour	–	35 µg/m ³	Same as Primary
	AAM	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	–
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	–	–
NO ₂	1 Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)	–
	AAM	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
SO ₂	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)	–	–

Table 2 (cont.)
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards Primary ¹	Federal Standards Secondary ²
Lead	30-day Avg.	1.5 µg/m ³	–	–
	Calendar Quarter	–	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m ³	Same as Primary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	No Federal Standards
Sulfates	24 Hour	25 µg/m ³	No Federal Standards	No Federal Standards
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	No Federal Standards	No Federal Standards
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)	No Federal Standards	No Federal Standards

Source: CARB 2016

¹ National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

² National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

O₃ = ozone; ppm: parts per million; µg/m³ = micrograms per cubic meter; PM₁₀ = particulate matter with an aerodynamic diameter of 10 microns or less; AAM = Annual Arithmetic Mean; PM_{2.5} = fine particulate matter;

CO = carbon monoxide; mg/m³ = milligrams per cubic meter; NO₂ = nitrogen dioxide; SO₂ = sulfur dioxide;

km = kilometer; – = No Standard

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. Areas that do not meet the NAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant. On August 3, 2018, the SDAB was classified as a moderate nonattainment area for the 8-hour NAAQS for ozone (SDAPCD 2020). The SDAB is an attainment area or unclassified for the NAAQS for all other criteria pollutants including PM₁₀ and PM_{2.5}. The current federal attainment status for the SDAB is provided in Table 3, *San Diego Air Basin Attainment Status*.

Table 3
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Pollutant	Federal Attainment Status	State of California Attainment Status
Ozone (1-hour)	No federal standard	Nonattainment
Ozone (8-hour)	Nonattainment	Nonattainment
Coarse Particulate Matter (PM ₁₀)	Unclassifiable ¹	Nonattainment
Fine Particulate Matter (PM _{2.5})	Attainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Lead	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified

Sources: SDAPCD 2021a

¹ At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

2.3 STATE REGULATIONS

2.3.1 California Clean Air Act

CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the seven criteria air pollutants listed above through the California Clean Air Act of 1988 (CCAA), and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H₂S), vinyl chloride and visibility-reducing particles (see Table 1). Areas that do not meet the CAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour), PM₁₀, and PM_{2.5} (SDAPCD 2021a). The current state attainment status for the SDAB is provided in Table 3.

CARB is the state regulatory agency with the authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The SDAPCD is responsible for developing and implementing the rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, developing of air quality management plans, and adopting and enforcing air pollution regulations for San Diego County (County).

2.3.2 State Implementation Plan

The CAA requires areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain the NAAQS. The 1990 amendments to the CAA set deadlines for attainment based on the severity of an area's air pollution problem.

SIPs are not single documents—they are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations and federal controls. Many of California's SIPs rely on a core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes CARB the lead

agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards the SIP revisions to the USEPA for approval and publication in the Federal Register. The Code of Federal Regulations (CFR) Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items that are included in the California SIP (CARB 2009). At any one time, several California submittals are pending USEPA approval.

2.3.3 California Energy Code

California Code of Regulations (CCR) Title 24 Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24), were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in greenhouse gas (GHG) emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Title 24 standards went into effect on January 1, 2020. The 2019 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvement to the residential standards is a requirement for onsite photovoltaic electricity generation (e.g., solar panels) for most new or modified residential building up to three stories high. The project proposes a four-story residential building, and the solar panel requirement would not apply.

The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards – the energy budgets – that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach. Future development per the proposed project would be required to be designed to meet the current Title 24 energy efficiency standards.

2.4 LOCAL REGULATIONS

2.4.1 Attainment Plan

The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The regional air quality plan for the County is SDAPCD's 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County (Attainment Plan; SDAPCD 2020). The Attainment Plan, which would be a revision to the SIP, outlines SDAPCD's plans and control measures designed to attain the NAAQS for ozone. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and SIP.

2.4.2 San Diego Air Pollution Control District Rules and Regulations

Future development pursuant to the project would be required to comply with SDAPCD Rules and Regulations which require the incorporation of BMPs during construction to reduce emissions of fugitive dust.

2.4.2.1 Rule 50 (Visible Emissions)

Particulate matter pollution impacts the environment by decreasing visibility (haze). These particles vary greatly in shape, size and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of PM_{2.5}. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment.

Visibility reduction is probably the most apparent symptom of air pollution. Visibility degradation is caused by the absorption and scattering of light by particles and gases in the atmosphere before it reaches the observer. As the number of fine particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Light absorption by gases and particles is sometimes the cause of discolorations in the atmosphere but usually does not contribute very significantly to visibility degradation. Scattering by particulates impairs visibility much more readily. SDAPCD Rule 50 (Visible Emissions) sets emission limits based on the apparent density or opacity of the emissions using the Ringelmann scale (SDAPCD 1997).

2.4.2.2 Rule 51 (Nuisance)

SDAPCD Rule 51 (Nuisance) 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 the public or which cause or have a natural tendency to cause injury or damage to business or property. The provisions of the rule do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowls or animals (SDAPCD 1976)

2.4.2.3 Rule 55 (Fugitive Dust Control)

SDAPCD Rule 55 (Fugitive Dust Control) requires action be taken to limit dust from construction and demolition activities from leaving the property line. Similar to Rule 50 (Visible Emissions), Rule 55 (Fugitive Dust Control) places limits on the amount of visible dust emissions in the atmosphere beyond the property line. It further stipulates that visible dust on roadways as a result of track-out/carry-out shall be minimized through implementation of control measures and removed at the conclusion of each workday using street sweepers (SDAPCD 2009).

2.4.2.4 Rule 67.0.1 (Architectural Coatings)

Construction of development within the Specific Plan would be required to comply with the SDAPCD Rule 67.0.1 (Architectural Coatings). Effective January 1, 2022, Rule 67.0.1 requires general flat and non-flat coatings (e.g., paint) to have 50 grams per liter or less VOC content and traffic marking coatings to have 100 grams per liter or less VOC content (SDAPCD 2021b).

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB, is controlled largely by the large-scale meteorological condition that dominates the west coast of the United States: a seasonally semi-permanent high-pressure cell centered over the northeastern Pacific Ocean, called the Pacific high, which keeps most storms from affecting the California coast. Areas within 30 miles of the coast in the San Diego region, including the project site, experience moderate temperatures and comfortable humidity.

Temperature inversion layers (inversions; layers of warmer air over colder air) affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). The highest air pollutant concentrations in the SDAB generally occur during inversions. During the summer, air quality problems in the SDAB are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO₂ react under the strong, abundant sunlight in the San Diego region, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to CO and NO₂ emissions. High NO₂ levels usually occur during autumn or winter, on days with summer-like conditions.

The predominant wind direction in the vicinity of the project site is from the southwest and the average wind speed is approximately six mph (Iowa Environmental Mesonet [IEM] 2021). The annual average maximum temperature in the project area is approximately 75 degrees Fahrenheit (°F), and the annual average minimum temperature is approximately 52°F. Total precipitation in the project area averages approximately 13 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center [WRCC] 2006).

3.2 EXISTING SITE CONDITIONS

The project site is vacant and previously contained the City of La Mesa Police Station that was vacated in 2010 and demolished in 2012. The project site is currently minimally improved with an asphalt-paved parking area in the western portion, CMU walls on the southern and eastern boundaries, and temporary perimeter fencing on the northern and western boundaries. Most of the site is covered in rock, gravel, and asphalt with some landscaping in the northwest and northeast corners of the fenced-in area and the western parking lot. The main access to the site is a driveway on Date Avenue (see Figure 2).

3.3 EXISTING AIR QUALITY

3.3.1 Attainment Designations

Attainment designations are discussed in Section 2.1 and Table 3. The SDAB is a federal and state nonattainment area for ozone and a state nonattainment area for PM₁₀ and PM_{2.5}.

3.3.2 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the San Diego region. The purpose of the monitoring stations is to measure ambient concentrations of criteria air pollutants and determine whether the ambient air quality meets state and federal standards, pursuant to the CAAQS and the NAAQS. The nearest ambient monitoring station to the project site is the El Cajon-Lexington Elementary School monitoring station located approximately five miles east of the project site at 533 First Street in El Cajon. Air quality data collected at the El Cajon-Lexington Elementary School monitoring station for the years 2017 through 2019 are shown in Table 4, *Air Quality Monitoring Data*.

Monitoring data at the El Cajon-Lexington Elementary School station reported one exceedance of the 1-hour state ozone standard in 2017 and several days above the 8-hour state/federal ozone standard throughout 2017 to 2019. There were no exceedances of the state or federal 24-hour PM₁₀ standards from 2017 through 2019; the annual average for PM₁₀ exceeded the state and federal standard in 2017 and 2018, however, insufficient data was available for 2019. The Federal standard for PM_{2.5} was exceeded once in 2018; the annual average for PM_{2.5} did not exceed the state and federal standard in 2017 through 2019. No exceedances of the state or federal standards for NO₂ occurred during 2017 to 2019. (CARB 2021b).

Table 4
AIR QUALITY MONITORING DATA

Pollutant Standard	2017	2018	2019
<i>Ozone (O₃) – Perris Station</i>			
Maximum concentration 1-hour period (ppm)	0.096	0.087	0.094
Maximum concentration 8-hour period (ppm)	0.081	0.079	0.074
Days above 1-hour state standard (>0.09 ppm)	1	0	0
Days above 8-hour state/federal standard (>0.070 ppm)	9	2	2
<i>Coarse Particulate Matter (PM₁₀)</i>			
Maximum 24-hour concentration (µg/m ³)	50.0	43.0	38.7
Measured Days above 24-hr state standard (>50 µg/m ³)	0	0	0
Measured Days above 24-hr federal standard (>150 µg/m ³)	0	0	0
Annual average (µg/m ³)	23.0	23.0	*
Exceed state annual standard (20 µg/m ³)	Yes	Yes	No
<i>Fine Particulate Matter (PM_{2.5})</i>			
Maximum 24-hour concentration (µg/m ³)	31.8	36.2	23.8
Measured Days above 24-hour federal standard (>35 µg/m ³)	0	1	0
Annual average (µg/m ³)	9.5	9.6	8.5
Exceed state and federal annual standard (12 µg/m ³)	No	No	No
<i>Nitrogen Dioxide (NO₂)</i>			
Maximum 1-hour concentration (ppm)	0.045	0.045	0.039
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Annual average (ppm)	0.010	0.008	0.008
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No

Source: CARB 2021b

ppb = parts per billion; ppm = parts per million; µg/m³ = micrograms per cubic meter, * = insufficient data available.

3.4 SENSITIVE RECEPTORS

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005, OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers.

The closest existing sensitive receptors to the project site are single-family residences approximately 355 feet northeast of the project site, across Allison Avenue and Spring Street; and multi-family residences approximately 370 feet southwest of the project site, across Date Avenue. The closest school is the Christ Lutheran School, approximately 1,580 feet (0.3 mile) to the west. The closest daycare center is the Grey Rabbit Pre-School, approximately 1,900 feet (0.4 mile) to the south. There are no hospitals located within 0.5 mile of the project site.

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Criteria pollutant and precursor emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0 CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by CAPCOA in collaboration with the California air quality management and pollution control districts, primarily the SCAQMD. The calculation methodology, source of emission factors used, and default data is described in the CalEEMod User's Guide, and Appendices A, D, and E (CAPCOA 2021b).

In brief, CalEEMod is a computer model that estimates criteria air pollutant and greenhouse gas emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating, ventilation, and cooling; lighting; and plug-in appliances), water use and wastewater generation, and solid waste disposal. Emissions are estimated based on land use information input to the model by the user.

In the first module, the user defines the specific land uses that will occur at the project site. The user also selects the appropriate land use setting (urban or rural), operational year, location, climate zone, and utility provider. The input land uses, size features, and population are used throughout CalEEMod in determining default parameters and calculations in each of the subsequent modules. The input land use information consists of land use subtypes (such as the residential subtypes of single-family residential and multi-family medium-rise residential) and their unit or square footage quantities.

Subsequent modules include construction (including off-road vehicle emissions), mobile (on-road vehicle emissions), area sources (architectural coatings [painting], consumer products [cleansers, aerosols, solvents]), water and wastewater, and solid waste. Each module comprises multiple components including an associated mitigation module to account for further reductions in the reported baseline

calculations. Other inputs include trip generation rates, trip lengths, vehicle fleet mix (percentage autos, trucks, etc.), trip distribution (percent work to home, etc.), duration of construction activities, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters.

In various places the user can input additional information and/or override the default assumptions to account for project- or location-specific parameters. For this assessment, the default parameters were not changed unless otherwise noted. The CalEEMod output files are included in Appendix A to this report.

4.1.1 Construction Emissions

CalEEMod has the capability to calculate reductions in construction emissions from the effects of dust control, diesel-engine classifications, and other selected emissions reduction measures. In compliance with SDPACD Rule 55, fugitive dust emissions calculations assume application of water on exposed surface a minimum of two times per day. Based on CalEEMod, Version 2020.4.0 defaults, the control efficiency for watering two times per day is 55 percent. The modeling also assumes building interior and exterior paint would not exceed 50 g/L VOC content and parking lot marking would not exceed 100 g/L VOC content, in conformance with SDAPCD Rule 67.01., as described in Section 2.4.

4.1.1.1 Construction Activities

Construction emissions were estimated based on the timeline provided by the project applicant, which assumes construction would commence with site preparation in August 2022 and be complete in July 2024 for a total construction period of 24 months. The quantity, duration, and intensity of construction activity influence the amount of construction emissions and related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of: (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod; and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Construction activities would include site preparation, grading and excavation, construction of the garage and podium, building construction, and architectural coatings. Construction is assumed to occur five days per week with equipment operating up to eight hours per day. Based on estimates from the aerial image of the project site, approximately 600 CY of debris (e.g., old asphalt, fencing, CMU walls, vegetation) would be exported during site preparation. Based on the estimates from the project plan set, approximately 14,200 CY of soil would be exported during grading/excavation. Architectural coating would overlap the last four months of building construction. The construction schedule assumed in the modeling is shown in Table 5, *Anticipated Construction Schedule*.

Table 5
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period Start	Construction Period End	Number of Working Days
Site Preparation	8/12/2022	8/12/2022	10
Grading/Excavation	8/13/2022	9/23/2022	30
Podium Construction	9/24/2022	2/3/2023	95
Building Construction	2/4/2023	5/3/2024	325
Architectural Coatings	2/1/2024	7/31/2024	130

Source: USA Properties Fund; CalEEMod

4.1.1.2 Construction Off-Road Equipment

Construction would require the use of heavy off-road equipment. Construction equipment estimates for other activities estimates are based on site conditions and default values in CalEEMod, with additional equipment added for excavation for the semi-subterranean garage and foundations (based on assumptions used for similar projects). Table 6, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

Table 6
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Equipment	Horsepower	Number	Hours/Day
Site Preparation			
Rubber-Tired Dozers	247	1	8
Tractors/Loaders/Backhoes	97	2	7
Water Truck	402	1	4
Grading/Excavation			
Excavators	158	2	8
Rubber-Tired Dozers	247	1	8
Rubber-Tired Loaders	203	1	8
Tractors/Loaders/Backhoes	97	2	7
Water Truck	402	1	4
Podium Construction			
Concrete Pump Truck	402	1	4
Cranes	231	1	6
Forklifts	89	1	6
Generator Sets	84	1	8
Tractors/Loaders/Backhoes	97	1	6
Welders	46	3	8
Building Construction			
Cranes	231	1	6
Forklifts	89	1	6
Generator Sets	84	1	8
Tractors/Loaders/Backhoes	97	1	6
Welders	46	3	8
Architectural Coating			
Air Compressors	78	1	6

Source: CalEEMod

4.1.1.3 Construction On-Road Trips

Worker commute trips and vendor delivery trips were modeled based on CalEEMod defaults. Worker trips are anticipated to vary between 10 and 127 trips per day, depending on construction activity. Approximately 24 vendor trips are anticipated per day during podium and building construction. Debris hauling during site prep would result in 75 one-way trips and soil hauling during grading/excavation would result in 1,775 one-way trips. The CalEEMod default worker, vendor and haul trip distances were used in the model.

4.1.2 Operation Emissions

Operational impacts were estimated using CalEEMod. Operational sources of emissions include area, energy, transportation, water use, and solid waste.

4.1.2.1 Area Source Emissions

Area sources include emissions from landscaping equipment, the use of consumer products, the reapplication of architectural coatings for maintenance, and hearths. Emissions associated with area sources were estimated using the CalEEMod default values with the exception of architectural coatings and hearths. In accordance with revisions to the SDACPCD Rule 67.0.1 which take effect on January 1, 2022, building interior and exterior paint would not exceed 50 g/L VOC content and parking lot marking would not exceed 100 g/L VOC content. The project would not include wood burning stoves or fireplaces.

4.1.2.2 Energy Emissions

Development within the project would use electricity for lighting, heating, and cooling. Direct emissions from the burning of natural gas may result from furnaces and hot water heaters. Electricity generation typically entails the combustion of fossil fuels, including natural gas and coal, which is then transmitted to end users. Energy source emissions were estimated using CalEEMod defaults which assume implementation of energy-reducing compliance with the 2019 Title 24 standards.

4.1.2.3 Vehicular (Mobile) Sources

Operational emissions from mobile source emissions are associated with project-related vehicle trip generation and trip length. Based on the trip generation rate from the Transportation Impact Analysis (TIA) prepared for the project, the project would generate 882 average daily trips. Due to the proximity of the project to the La Mesa Boulevard Trolley Station and adjacent to the Metropolitan Transit System (MTS) bus stops, impacts related to Vehicle Miles Traveled (VMT) would not be significant (Linscott Law & Green [LLG] 2021). To account for the project's location in a low VMT area, the project trip distances were adjusted based on SANDAG household and VMT data for La Mesa. Based on the SANDAG 2019 estimated rate of 2.40 persons per household in La Mesa, the project population would be 353 persons (SANDAG 2021a). According to SANDAG VMT data for the downtown La Mesa census tract, the average VMT in 2016 was 14.4 miles per person (SANDAG 2021b). Using the SANDAG data for La Mesa, an average miles per trip of 5.76 was calculated and used in the modeling.² The CalEEMod Version 2020.4.0

² 14.4 miles per person ÷ 882 trips x 353 persons = 5.76 miles per trip.

option to apply CARB's Emission Factor (EMFAC) off-model adjustments for the SAFE Vehicles Rule was selected.

4.2 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's CEQA Guidelines Appendix G. A significant air quality and/or odor impact could occur if the implementation of the proposed project would:

1. Conflict with or obstruct implementation of the applicable air quality plan; or
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is non-attainment under an applicable NAAQS or CAAQS; or
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

To determine whether the project would result in a cumulatively considerable net increase of PM₁₀, PM_{2.5}, or the ozone precursors NO_x and VOCs, emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established screening-level thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs; SDAPCD 2019).

For CEQA purposes, these screening criteria were used as numeric methods to determine if the project would result in a significant impact to air quality or an adverse effect on human health. The screening thresholds are shown in Table 7, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 7
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions		
Construction Emissions (Pounds/Day)			
Respirable Particulate Matter (PM ₁₀)	100		
Fine Particulate Matter (PM _{2.5})	67		
Oxides of Nitrogen (NO _x)	250		
Oxides of Sulfur (SO _x)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	137		
Operational Emissions			
	lbs per Hour	lbs per Day	Tons per Year
Respirable Particulate Matter (PM ₁₀)	---	100	15
Fine Particulate Matter (PM _{2.5})	---	67	10
Oxides of Nitrogen (NO _x)	25	250	40
Oxides of Sulfur (SO _x)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	137	15

Table 7 (cont.)
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions
Toxic Air Contaminant Emissions	
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT
Non-Cancer Hazard	1.0

Source: SDAPCD 2019

T-BACT = Toxics-Best Available Control Technology

SDAPCD Rule 51 (Nuisance) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a “considerable” number of persons or businesses in the area would be considered to be a significant, adverse odor impact.

5.0 IMPACT ANALYSIS

5.1 ISSUE 1: CONSISTENCY WITH THE ATTAINMENT PLAN

5.1.1 Impacts

The Attainment Plan outlines SDAPCD’s plans and control measures designed to attain the CAAQS for ozone. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD’s plans and control measures for attaining the ozone NAAQS. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and SIP.

The Attainment Plan relies on information from CARB and SANDAG, including projected growth in San Diego County, mobile, area and all other source emissions in order to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by the general plans would be consistent with the Attainment Plan. In the event that a project proposes development which is less dense than anticipated within the General Plan, the project would likewise be consistent with the Attainment Plan. If a project proposes development that is greater than that anticipated in the City General Plan and SANDAG’s growth projections upon which the Attainment Plan is based, the project may be in conflict with the Attainment Plan and SIP and may have a potentially significant impact on air quality. This situation would warrant further analysis to determine if the project and the surrounding projects exceed the growth projections used in the Attainment Plan for the specific subregional area.

A project would be inconsistent with the Attainment Plan and/or SIP if it results in population and/or employment growth that exceed growth estimates for the area. While the project would increase the number of residential dwelling units in the City and would contribute to transportation-generated air pollutants, this would generally be in response to population growth forecasts and the resulting County-wide demand for housing. The Attainment Plan and SIP rely on the same information from the SANDAG growth forecast to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The project has a land use designation of Downtown Commercial and the project's proposed apartments are a permitted use consistent with the General Plan land use designation. Therefore, the project would not result in population growth beyond the levels assumed for the region and the project would not conflict with any population projections for the region and would, therefore, be consistent with the Attainment Plan and SIP. In addition, as detailed in Section 5.1.2, below, the project would not result in a significant air quality impact with regards to emissions of ozone precursors or criteria air pollutants. Due to the housing density and proximity of the project to the La Mesa Boulevard Trolley Station and MTS bus stops, the project is considered TOD. Project impacts related to VMT would be less than significant (LLG 2021). Because mobile emissions (which result from VMT) are the primary source of criteria pollutants for residential development projects, from an air quality perspective, the project would result in lower mobile source emissions per resident compared to equivalent new development not located in a TOD area. Therefore, the proposed project would not conflict with or obstruct implementation of the Attainment Plan.

5.1.2 Significance of Impacts

Implementation of the project would not conflict with or obstruct implementation of the SDAPCD's Attainment Plan, and the impact would be less than significant.

5.1.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.1.4 Significance After Mitigation

Impacts related to conflicts with the applicable air quality plan would be less than significant. No mitigation measures are required.

5.2 ISSUE 2: CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

5.2.1 Impacts

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SDAB. The region is a federal and/or state nonattainment area for ozone, PM₁₀ and PM_{2.5}. The project would generate criteria pollutants and precursors in the short-term during construction and the long-term during operation. To determine whether a project would result in a cumulatively considerable net increase in criteria pollutants that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, a project's emissions are evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 7).

5.2.1.1 Construction (Short-term) Emissions

The project's temporary construction emissions were estimated using CalEEMod as described in Section 4.1.1. The results of the modeling of the project's construction emissions of criteria pollutants and precursors are shown in Table 8, *Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SDAPCD thresholds. The data assumes implementation of the construction BMPs and conformance with SDAPCD Rule 67.0.1, as described in Sections 2.4.2 and 4.1.1, specifically watering all exposed areas twice per day, and limiting the VOC content of architectural coatings to 50 g/L for building coatings and 100 g/L for parking lot coatings. The complete CalEEMod output is provided in Appendix A to this report.

Table 8
DAILY CONSTRUCTION EMISSIONS

Construction Activity	ROG (lb/day)	NO _x (lb/day)	CO (lb/day)	SO _x (lb/day)	PM ₁₀ (lb/day)	PM _{2.5} (lb/day)
2022 Site Preparation	1.5	14.2	9.8	<0.1	3.7	2.2
2022 Grading/Excavation	2.4	30.3	20.0	<0.1	5.2	2.8
2022 Podium Construction	2.4	16.1	18.0	<0.1	1.9	1.0
2023 Building Construction	1.9	13.0	15.9	<0.1	1.7	0.8
2024 Architectural Coating	7.3	1.3	2.3	<0.1	0.3	0.1
Maximum Daily Emissions¹	9.1	30.3	20.0	<0.1	5.2	2.8
<i>SDAPCD Screening Thresholds</i>	<i>137</i>	<i>250</i>	<i>550</i>	<i>250</i>	<i>100</i>	<i>67</i>
<i>Significant Impact?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: CalEEMod (output data is provided in Appendix A)

¹ Maximum daily emissions of ROG would occur during concurrent 2024 building construction and architectural coating. lb/day = pounds per day; ROG = reactive organic gas; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter 10 microns or less in diameter; PM_{2.5} = particulate matter 2.5 microns or less in diameter

As shown in Table 8, the project's short-term construction-related criteria pollutant and precursor emissions would be below the SDAPCD's screening-level significance thresholds.

5.2.1.2 Operation (Long-term) Emissions

The project's operational emissions were estimated using CalEEMod as described in Section 4.1.2. Model outputs are provided in Appendix A to this report. Table 9, *Operational Emissions*, presents the summary of operational emissions for the project. The data are presented as the maximum anticipated emissions for comparison with the SDAPCD thresholds.

Table 9
OPERATIONAL EMISSIONS

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Daily Emissions (pounds per day)						
Area	4.0	2.3	13.1	<0.1	0.2	0.2
Energy	<0.1	0.3	0.1	<0.1	<0.1	<0.1
Mobile	2.1	2.1	17.8	<0.1	3.9	1.1
Total Project Emissions¹	6.1	4.7	31.0	<0.1	4.2	1.3
<i>SDAPCD Daily Thresholds</i>	<i>137</i>	<i>250</i>	<i>550</i>	<i>250</i>	<i>100</i>	<i>67</i>
Exceed Daily Threshold?	No	No	No	No	No	No
Annual Emissions (tons per year)						
Area	0.7	0.1	1.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	0.4	0.4	3.2	<0.1	0.7	0.2
Total Project Emissions¹	1.0	0.5	4.3	<0.1	0.7	0.2
<i>SDAPCD Annual Screening Thresholds</i>	<i>15</i>	<i>40</i>	<i>100</i>	<i>40</i>	<i>15</i>	<i>10</i>
Exceed Annual Threshold?	No	No	No	No	No	No

Source: CalEEMod (output data is provided in Appendix A)

¹ Totals may not sum due to rounding.

VOC = volatile organic compound; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides;

PM₁₀ = particulate matter 10 microns or less in diameter; PM_{2.5} = particulate matter 2.5 microns or less in diameter;

SDAPCD = San Diego County Air Pollution Control District

As shown in Table 9 the project's long-term emissions of criteria pollutants and precursors would not exceed the applicable SDAPCD daily or annual screening thresholds.

5.2.2 Significance of Impacts

Short-term construction and long-term operation of the project would not result in criteria pollutant and precursor pollutant emissions that would exceed the SCAQMD significance thresholds, and the impacts would be less than significant.

5.2.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.2.4 Significance After Mitigation

The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is non-attainment, and the impact would be less than significant. No mitigation measures are required.

5.3 ISSUE 3: IMPACTS TO SENSITIVE RECEPTORS

5.3.1 Impacts

5.3.1.1 Construction Activities

Diesel Particulate Matter

Implementation of the project would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment could generate the TAC DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the construction activity (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive activities such as grading and excavation, construction-related emissions would be higher than other less equipment-intensive activities such as building construction.

The dose (of TAC) to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a fixed quantity of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (OEHHA] 2015). In addition, concentrations of mobile-source DPM emissions disperse rapidly and are typically reduced by 70 percent at approximately 500 feet (CARB 2005). Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur at various locations throughout the project site, it is not anticipated that construction of the project would expose sensitive receptors to substantial DPM concentrations.

5.3.1.2 Operational Activities

CO Hotspots

Vehicle exhaust is the primary source of CO. In an urban setting, the highest CO concentrations are generally found within close proximity to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as distance from the emissions source (i.e., congested intersection) increase. Project-generated traffic has the potential of contributing to localized “hot spots” of CO off-site. Because CO is a byproduct of incomplete combustion, exhaust emissions are worse when fossil-fueled vehicles are operated inefficiently, such as in stop-and-go traffic or through heavily congested intersections, where the level of service (LOS) is severely degraded.

CARB recommends evaluation of the potential for the formation of locally high concentrations of CO, known as CO hot spots. A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. To verify that the project would not cause or contribute to a violation of the 1-hour and 8-hour CO standards, an evaluation of the potential for CO hot spots at nearby intersections was conducted.

The TIA (LLG 2021) evaluated whether there would be a change in the LOS at the intersections affected by the proposed project. In accordance with the Transportation Project-Level Carbon Monoxide Protocol, CO hot spots are typically evaluated when: (a) the LOS of an intersection decreases to a LOS E or worse because of the project; (b) signalization and/or channelization is added to an intersection; and (c) sensitive receptors such as residences, schools, hospitals, etc., are located in the vicinity of the affected intersection or roadway segment (California Department of Transportation [Caltrans] 1998).

According to the TIA, all of the analyzed intersections are forecast to operate at LOS C or better in the project opening year condition, without implementation of the project. Implementation of the project would not result in the LOS of any of the analyzed intersections degrading (LLG 2021). Therefore, consistent with the CO Protocol, operation of the project would not result in exposure of sensitive receptors to substantial localized CO concentrations.

New Sensitive Receptors

As a residential development, the project would site new sensitive receptors. The CARB siting recommendations within the Air Quality and Land Use Handbook suggests avoiding new siting sensitive receptors within: 1,000 feet of a warehouse distribution center, 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater), 50 feet of a typical gas dispensing facilities, 300 feet of a dry cleaning facility that uses perchloroethylene (PCE), or 500 feet of a freeway or urban road with 100,000 or more vehicles per day (CARB 2005). The closest gas station to the project is located approximately 590 feet to the north and the closest dry-cleaning facility to the project sit is approximately 550 feet to the south. The closest road with 100,000 vehicles per day is Interstate 8, approximately 1,700 feet to the north. Therefore, future project residents would not be exposed to substantial concentrations of TACs.

5.3.2 Significance of Impacts

Implementation of the project would not expose sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant.

5.3.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.3.4 Significance After Mitigation

Implementation of the project would not expose sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant. No mitigation measures are required.

5.4 ISSUE 4: OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS)

5.4.1 Impacts

The State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Any unreasonable odor discernible at the property line of the project site will be considered a significant odor impact.

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations (SCAQMD 1993). The project, involving a residential development, would not include any of these uses nor are there any of these land uses in the project vicinity.

Emissions from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities may generate odors; however, these odors would be temporary, intermittent, and not expected to affect a substantial number of people. Additionally, noxious odors would be confined to the immediate vicinity of construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor producing materials. Long-term operation of the project would not be a substantial source of objectionable odors.

5.4.2 Significance of Impacts

Implementation of the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be less than significant.

5.4.3 Mitigation Framework

Impacts would be less than significant; therefore, no mitigation measures are required.

5.4.4 Significance After Mitigation

Implementation of the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be less than significant. No mitigation measures are required.

6.0 LIST OF PREPARERS

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Joanne M. Dramko, AICP	Principal Air Quality Specialist, QA/QC
Tim Belzman	Principal Planner/Project Manager

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Appendix A

CalEEMod Output

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Allison Avenue TOD Project - San Diego County, Winter

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

Allison Avenue TOD Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.74	1000sqft	0.00	3,740.00	0
Enclosed Parking with Elevator	46.70	1000sqft	0.00	46,700.00	0
Apartments Mid Rise	147.00	Dwelling Unit	3.87	141,995.00	420

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - R2 - Trip distance calculated from SANDAG household and SB 743 VMT data.
 R3 - Adjustment to building SF and construction start.

Land Use - Land use sizes per project plan set.

General Office Building = lobbies, leasing offices, clubroom and fitness room.

Construction Phase - Construction schedule per applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Grading/Excavation includes excavation for semi-subterranean garage and foundations.

Off-Highway Truck = water truck.

Off-road Equipment - Off-Highway Truck = concrete pump truck

Off-road Equipment - Site prep includes demo of existing asphalt and fencing.

Off-Highway Truck = water truck.

Allison Avenue TOD Project - San Diego County, Winter

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

Trips and VMT -

Grading - 600 CY old asphalt, fencing, CMU wall exported during site prep.
14,200 CY soil exported during grading/excavation.

Architectural Coating - VOC limits per SDAPCD Rule 67.0.1 (effective 1/1/2022).

Vehicle Trips - Project trip rates per project TIA (LLG March 2021).

All project trips applied to residential land use.

5.76 miles per trip per SANDAG household and VMT/capita data for La Mesa.

Area Coating - VOC limits per SDAPCD Rule 67.0.1 (effective 1/1/2022).

Construction Off-road Equipment Mitigation - Dust mitigation to comply with SDAPCD Rule 55.

Area Mitigation - No wood hearths.

Water Mitigation - 20% water reduction per CALGreen not accounted for in defaults.

Waste Mitigation - 25% solid waste diversion per AB 341/local and state regs, not accounted for in defaults.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	95,847.00	95,783.00
tblArchitecturalCoating	ConstArea_Residential_Interior	287,540.00	287,348.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Residential_Exterior	95847	95783
tblAreaCoating	Area_Residential_Interior	287540	287348
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	230.00	95.00

Allison Avenue TOD Project - San Diego County, Winter

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

tblConstructionPhase	NumDays	230.00	325.00
tblConstructionPhase	NumDays	18.00	130.00
tblConstructionPhase	PhaseEndDate	8/2/2022	8/12/2022
tblConstructionPhase	PhaseEndDate	8/8/2022	9/23/2022
tblConstructionPhase	PhaseEndDate	5/15/2023	2/3/2023
tblConstructionPhase	PhaseEndDate	2/19/2024	5/3/2024
tblConstructionPhase	PhaseEndDate	3/4/2024	7/31/2024
tblConstructionPhase	PhaseStartDate	8/3/2022	8/13/2022
tblConstructionPhase	PhaseStartDate	8/9/2022	9/24/2022
tblConstructionPhase	PhaseStartDate	5/16/2023	2/4/2023
tblConstructionPhase	PhaseStartDate	2/20/2024	2/1/2024
tblGrading	MaterialExported	0.00	14,200.00
tblGrading	MaterialExported	0.00	600.00
tblLandUse	LandUseSquareFeet	147,000.00	141,995.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	1.07	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00

Allison Avenue TOD Project - San Diego County, Winter

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

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	5.76
tblVehicleTrips	HW_TTP	41.60	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	6.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	6.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	6.00
tblVehicleTrips	WD_TR	9.74	0.00

2.0 Emissions Summary

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.4010	30.3204	20.0332	0.0756	7.8015	1.0149	8.8164	3.7004	0.9371	4.6375	0.0000	7,818.173 7	7,818.173 7	1.3645	0.6534	8,047.005 6
2023	2.1796	14.8090	17.5413	0.0423	1.2058	0.5909	1.7967	0.3235	0.5674	0.8909	0.0000	4,064.564 7	4,064.564 7	0.5898	0.1021	4,109.739 6
2024	9.1152	13.6087	17.9549	0.0400	1.4112	0.5242	1.9354	0.3780	0.5077	0.8856	0.0000	3,845.745 2	3,845.745 2	0.3950	0.1037	3,886.532 9
Maximum	9.1152	30.3204	20.0332	0.0756	7.8015	1.0149	8.8164	3.7004	0.9371	4.6375	0.0000	7,818.173 7	7,818.173 7	1.3645	0.6534	8,047.005 6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.4010	30.3204	20.0332	0.0756	4.1612	1.0149	5.1761	1.8428	0.9371	2.7799	0.0000	7,818.173 7	7,818.173 7	1.3645	0.6534	8,047.005 6
2023	2.1796	14.8090	17.5413	0.0423	1.2058	0.5909	1.7967	0.3235	0.5674	0.8909	0.0000	4,064.564 7	4,064.564 7	0.5898	0.1021	4,109.739 6
2024	9.1152	13.6087	17.9549	0.0400	1.4112	0.5242	1.9354	0.3780	0.5077	0.8856	0.0000	3,845.745 1	3,845.745 1	0.3950	0.1037	3,886.532 9
Maximum	9.1152	30.3204	20.0332	0.0756	4.1612	1.0149	5.1761	1.8428	0.9371	2.7799	0.0000	7,818.173 7	7,818.173 7	1.3645	0.6534	8,047.005 6

Allison Avenue TOD Project - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	34.94	0.00	29.01	42.20	0.00	28.96	0.00	0.00	0.00	0.00	0.00	0.00

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	228.7192	4.5330	289.8200	0.5038		39.0032	39.0032		39.0032	39.0032	4,082.444 4	1,733.965 9	5,816.410 3	3.7884	0.3211	6,006.811 6
Energy	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855
Mobile	2.0573	2.0773	17.8032	0.0345	3.8927	0.0277	3.9205	1.0369	0.0259	1.0628		3,606.745 9	3,606.745 9	0.2830	0.1740	3,665.667 5
Total	230.8103	6.9005	307.7550	0.5401	3.8927	39.0543	42.9471	1.0369	39.0525	40.0894	4,082.444 4	5,709.605 1	9,792.049 5	4.0784	0.5019	10,043.56 45

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0079	2.3342	13.0552	0.0147		0.2447	0.2447		0.2447	0.2447	0.0000	2,823.495 3	2,823.495 3	0.0746	0.0514	2,840.667 6
Energy	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855
Mobile	2.0573	2.0773	17.8032	0.0345	3.8927	0.0277	3.9205	1.0369	0.0259	1.0628		3,606.745 9	3,606.745 9	0.2830	0.1740	3,665.667 5
Total	6.0990	4.7017	30.9902	0.0510	3.8927	0.2958	4.1885	1.0369	0.2939	1.3308	0.0000	6,799.134 5	6,799.134 5	0.3647	0.2321	6,877.420 6

Allison Avenue TOD Project - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	97.36	31.86	89.93	90.55	0.00	99.24	90.25	0.00	99.25	96.68	100.00	-19.08	30.56	91.06	53.75	31.52

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/12/2022	5	10	
2	Grading/Excavation	Grading	8/13/2022	9/23/2022	5	30	
3	Podium Construction	Building Construction	9/24/2022	2/3/2023	5	95	
4	Building Construction	Building Construction	2/4/2023	5/3/2024	5	325	
5	Architectural Coating	Architectural Coating	2/1/2024	7/31/2024	5	130	

Acres of Grading (Site Preparation Phase): 5**Acres of Grading (Grading Phase): 15****Acres of Paving: 0****Residential Indoor: 287,348; Residential Outdoor: 95,783; Non-Residential Indoor: 5,610; Non-Residential Outdoor: 1,870; Striped Parking Area: 2,802 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Excavation	Excavators	2	8.00	158	0.38
Grading/Excavation	Graders	0	8.00	187	0.41

Allison Avenue TOD Project - San Diego County, Winter

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

Grading/Excavation	Off-Highway Trucks	1	4.00	402	0.38
Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Excavation	Rubber Tired Loaders	1	8.00	203	0.36
Grading/Excavation	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Podium Construction	Cranes	1	6.00	231	0.29
Podium Construction	Forklifts	1	6.00	89	0.20
Podium Construction	Generator Sets	1	8.00	84	0.74
Podium Construction	Off-Highway Trucks	1	4.00	402	0.38
Podium Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Podium Construction	Welders	3	8.00	46	0.45
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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	0.00	75.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	7	18.00	0.00	1,775.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Podium Construction	8	127.00	24.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	127.00	24.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Allison Avenue TOD Project - San Diego County, Winter

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5608	0.0000	6.5608	3.3688	0.0000	3.3688			0.0000			0.0000
Off-Road	1.4307	14.1518	9.7373	0.0214		0.6706	0.6706		0.6169	0.6169		2,069.005 9	2,069.005 9	0.6692		2,085.734 9
Total	1.4307	14.1518	9.7373	0.0214	6.5608	0.6706	7.2314	3.3688	0.6169	3.9857		2,069.005 9	2,069.005 9	0.6692		2,085.734 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0328	1.2638	0.3006	4.7100e-003	0.1312	0.0118	0.1429	0.0360	0.0112	0.0472		518.3341	518.3341	0.0249	0.0823	543.4939
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	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491
Total	0.0643	1.2852	0.5464	5.4200e-003	0.2133	0.0122	0.2255	0.0577	0.0117	0.0694		590.3912	590.3912	0.0272	0.0845	616.2431

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9524	0.0000	2.9524	1.5159	0.0000	1.5159			0.0000			0.0000
Off-Road	1.4307	14.1518	9.7373	0.0214		0.6706	0.6706		0.6169	0.6169	0.0000	2,069.005 9	2,069.005 9	0.6692		2,085.734 9
Total	1.4307	14.1518	9.7373	0.0214	2.9524	0.6706	3.6229	1.5159	0.6169	2.1329	0.0000	2,069.005 9	2,069.005 9	0.6692		2,085.734 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0328	1.2638	0.3006	4.7100e-003	0.1312	0.0118	0.1429	0.0360	0.0112	0.0472		518.3341	518.3341	0.0249	0.0823	543.4939
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	0.0316	0.0214	0.2458	7.1000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		72.0572	72.0572	2.3300e-003	2.1300e-003	72.7491
Total	0.0643	1.2852	0.5464	5.4200e-003	0.2133	0.0122	0.2255	0.0577	0.0117	0.0694		590.3912	590.3912	0.0272	0.0845	616.2431

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading/Excavation - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6189	0.0000	6.6189	3.3776	0.0000	3.3776			0.0000			0.0000
Off-Road	2.0858	20.3118	17.2193	0.0372		0.9214	0.9214		0.8476	0.8476		3,599.3910	3,599.3910	1.1641		3,628.4939
Total	2.0858	20.3118	17.2193	0.0372	6.6189	0.9214	7.5402	3.3776	0.8476	4.2252		3,599.3910	3,599.3910	1.1641		3,628.4939

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2584	9.9701	2.3714	0.0372	1.0348	0.0927	1.1275	0.2836	0.0887	0.3724		4,089.0798	4,089.0798	0.1962	0.6496	4,287.5633
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	0.0568	0.0385	0.4425	1.2700e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		129.7029	129.7029	4.1900e-003	3.8300e-003	130.9484
Total	0.3152	10.0086	2.8139	0.0384	1.1827	0.0936	1.2762	0.3229	0.0895	0.4123		4,218.7827	4,218.7827	0.2004	0.6534	4,418.5117

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading/Excavation - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9785	0.0000	2.9785	1.5199	0.0000	1.5199			0.0000			0.0000
Off-Road	2.0858	20.3118	17.2193	0.0372		0.9214	0.9214		0.8476	0.8476	0.0000	3,599.3910	3,599.3910	1.1641		3,628.4939
Total	2.0858	20.3118	17.2193	0.0372	2.9785	0.9214	3.8998	1.5199	0.8476	2.3675	0.0000	3,599.3910	3,599.3910	1.1641		3,628.4939

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2584	9.9701	2.3714	0.0372	1.0348	0.0927	1.1275	0.2836	0.0887	0.3724		4,089.0798	4,089.0798	0.1962	0.6496	4,287.5633
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	0.0568	0.0385	0.4425	1.2700e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		129.7029	129.7029	4.1900e-003	3.8300e-003	130.9484
Total	0.3152	10.0086	2.8139	0.0384	1.1827	0.0936	1.2762	0.3229	0.0895	0.4123		4,218.7827	4,218.7827	0.2004	0.6534	4,418.5117

Allison Avenue TOD Project - San Diego County, Winter

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

3.4 Podium Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360		2,641.0355	2,641.0355	0.5554		2,654.9213
Total	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360		2,641.0355	2,641.0355	0.5554		2,654.9213

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0530	1.3245	0.4401	5.1200e-003	0.1625	0.0139	0.1765	0.0468	0.0133	0.0601		551.8647	551.8647	0.0167	0.0802	576.1745
Worker	0.4010	0.2715	3.1221	9.0000e-003	1.0433	5.9100e-003	1.0492	0.2767	5.4400e-003	0.2822		915.1260	915.1260	0.0296	0.0270	923.9138
Total	0.4540	1.5960	3.5623	0.0141	1.2058	0.0198	1.2256	0.3235	0.0188	0.3423		1,466.9906	1,466.9906	0.0463	0.1072	1,500.0884

Allison Avenue TOD Project - San Diego County, Winter

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

3.4 Podium Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360	0.0000	2,641.0355	2,641.0355	0.5554		2,654.9213
Total	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360	0.0000	2,641.0355	2,641.0355	0.5554		2,654.9213

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0530	1.3245	0.4401	5.1200e-003	0.1625	0.0139	0.1765	0.0468	0.0133	0.0601		551.8647	551.8647	0.0167	0.0802	576.1745
Worker	0.4010	0.2715	3.1221	9.0000e-003	1.0433	5.9100e-003	1.0492	0.2767	5.4400e-003	0.2822		915.1260	915.1260	0.0296	0.0270	923.9138
Total	0.4540	1.5960	3.5623	0.0141	1.2058	0.0198	1.2256	0.3235	0.0188	0.3423		1,466.9906	1,466.9906	0.0463	0.1072	1,500.0884

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Podium Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562		2,641.7319	2,641.7319	0.5469		2,655.4043
Total	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562		2,641.7319	2,641.7319	0.5469		2,655.4043

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0279	1.0721	0.3820	4.9200e-003	0.1625	6.3000e-003	0.1688	0.0468	6.0200e-003	0.0528		531.2669	531.2669	0.0160	0.0770	554.6111
Worker	0.3766	0.2425	2.9040	8.7100e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		891.5658	891.5658	0.0269	0.0251	899.7242
Total	0.4045	1.3147	3.2860	0.0136	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,422.8327	1,422.8327	0.0429	0.1021	1,454.3353

Allison Avenue TOD Project - San Diego County, Winter

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

3.4 Podium Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562	0.0000	2,641.7319	2,641.7319	0.5469		2,655.4043
Total	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562	0.0000	2,641.7319	2,641.7319	0.5469		2,655.4043

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0279	1.0721	0.3820	4.9200e-003	0.1625	6.3000e-003	0.1688	0.0468	6.0200e-003	0.0528		531.2669	531.2669	0.0160	0.0770	554.6111
Worker	0.3766	0.2425	2.9040	8.7100e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		891.5658	891.5658	0.0269	0.0251	899.7242
Total	0.4045	1.3147	3.2860	0.0136	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,422.8327	1,422.8327	0.0429	0.1021	1,454.3353

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction On-Site**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0279	1.0721	0.3820	4.9200e-003	0.1625	6.3000e-003	0.1688	0.0468	6.0200e-003	0.0528		531.2669	531.2669	0.0160	0.0770	554.6111
Worker	0.3766	0.2425	2.9040	8.7100e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		891.5658	891.5658	0.0269	0.0251	899.7242
Total	0.4045	1.3147	3.2860	0.0136	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,422.8327	1,422.8327	0.0429	0.1021	1,454.3353

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	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	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0279	1.0721	0.3820	4.9200e-003	0.1625	6.3000e-003	0.1688	0.0468	6.0200e-003	0.0528		531.2669	531.2669	0.0160	0.0770	554.6111
Worker	0.3766	0.2425	2.9040	8.7100e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		891.5658	891.5658	0.0269	0.0251	899.7242
Total	0.4045	1.3147	3.2860	0.0136	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,422.8327	1,422.8327	0.0429	0.1021	1,454.3353

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 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	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0268	1.0649	0.3732	4.8300e-003	0.1626	6.3300e-003	0.1689	0.0468	6.0500e-003	0.0529		522.0257	522.0257	0.0164	0.0757	544.9772
Worker	0.3546	0.2182	2.7191	8.4300e-003	1.0433	5.3500e-003	1.0486	0.2767	4.9200e-003	0.2817		869.2398	869.2398	0.0245	0.0235	876.8474
Total	0.3814	1.2831	3.0923	0.0133	1.2058	0.0117	1.2175	0.3235	0.0110	0.3345		1,391.265 5	1,391.265 5	0.0409	0.0991	1,421.824 6

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0268	1.0649	0.3732	4.8300e-003	0.1626	6.3300e-003	0.1689	0.0468	6.0500e-003	0.0529		522.0257	522.0257	0.0164	0.0757	544.9772
Worker	0.3546	0.2182	2.7191	8.4300e-003	1.0433	5.3500e-003	1.0486	0.2767	4.9200e-003	0.2817		869.2398	869.2398	0.0245	0.0235	876.8474
Total	0.3814	1.2831	3.0923	0.0133	1.2058	0.0117	1.2175	0.3235	0.0110	0.3345		1,391.265 5	1,391.265 5	0.0409	0.0991	1,421.824 6

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	7.0633					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	7.2441	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0698	0.0430	0.5353	1.6600e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		171.1102	171.1102	4.8300e-003	4.6200e-003	172.6078
Total	0.0698	0.0430	0.5353	1.6600e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		171.1102	171.1102	4.8300e-003	4.6200e-003	172.6078

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0633					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	0.0000	281.4481	281.4481	0.0159		281.8443
Total	7.2441	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0698	0.0430	0.5353	1.6600e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		171.1102	171.1102	4.8300e-003	4.6200e-003	172.6078
Total	0.0698	0.0430	0.5353	1.6600e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		171.1102	171.1102	4.8300e-003	4.6200e-003	172.6078

Allison Avenue TOD Project - San Diego County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0573	2.0773	17.8032	0.0345	3.8927	0.0277	3.9205	1.0369	0.0259	1.0628		3,606.7459	3,606.7459	0.2830	0.1740	3,665.6675
Unmitigated	2.0573	2.0773	17.8032	0.0345	3.8927	0.0277	3.9205	1.0369	0.0259	1.0628		3,606.7459	3,606.7459	0.2830	0.1740	3,665.6675

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	882.00	882.00	882.00	1,849,236	1,849,236
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Total	882.00	882.00	882.00	1,849,236	1,849,236

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 Mid Rise	5.76	7.30	7.50	100.00	0.00	0.00	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Enclosed Parking with Elevator	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855
NaturalGas Unmitigated	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2930.35	0.0316	0.2701	0.1149	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.7476	344.7476	6.6100e-003	6.3200e-003	346.7962
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	205.239	2.2100e-003	0.0201	0.0169	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003		24.1458	24.1458	4.6000e-004	4.4000e-004	24.2892
Total		0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855

Allison Avenue TOD Project - San Diego County, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.93035	0.0316	0.2701	0.1149	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.7476	344.7476	6.6100e-003	6.3200e-003	346.7962
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	0.205239	2.2100e-003	0.0201	0.0169	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003		24.1458	24.1458	4.6000e-004	4.4000e-004	24.2892
Total		0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Allison Avenue TOD Project - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0079	2.3342	13.0552	0.0147		0.2447	0.2447		0.2447	0.2447	0.0000	2,823.495 3	2,823.495 3	0.0746	0.0514	2,840.667 6
Unmitigated	228.7192	4.5330	289.8200	0.5038		39.0032	39.0032		39.0032	39.0032	4,082.444 4	1,733.965 9	5,816.410 3	3.7884	0.3211	6,006.811 6

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2516					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	224.9681	4.3934	277.6986	0.5031		38.9360	38.9360		38.9360	38.9360	4,082.444 4	1,712.117 7	5,794.562 1	3.7674	0.3211	5,984.439 8
Landscaping	0.3643	0.1396	12.1213	6.4000e-004		0.0673	0.0673		0.0673	0.0673		21.8482	21.8482	0.0209		22.3717
Total	228.7192	4.5330	289.8200	0.5038		39.0033	39.0033		39.0033	39.0033	4,082.444 4	1,733.965 9	5,816.410 3	3.7884	0.3211	6,006.811 6

Allison Avenue TOD Project - San Diego County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2516					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2568	2.1946	0.9339	0.0140		0.1774	0.1774		0.1774	0.1774	0.0000	2,801.647 1	2,801.647 1	0.0537	0.0514	2,818.295 9
Landscaping	0.3643	0.1396	12.1213	6.4000e-004		0.0673	0.0673		0.0673	0.0673		21.8482	21.8482	0.0209		22.3717
Total	4.0079	2.3342	13.0552	0.0147		0.2447	0.2447		0.2447	0.2447	0.0000	2,823.495 3	2,823.495 3	0.0746	0.0514	2,840.667 6

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Allison Avenue TOD Project - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Allison Avenue TOD Project - San Diego County, Summer

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

Allison Avenue TOD Project

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.74	1000sqft	0.00	3,740.00	0
Enclosed Parking with Elevator	46.70	1000sqft	0.00	46,700.00	0
Apartments Mid Rise	147.00	Dwelling Unit	3.87	141,995.00	420

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - R2 - Trip distance calculated from SANDAG household and SB 743 VMT data.
R3 - Adjustment to building SF and construction start.

Land Use - Land use sizes per project plan set.

General Office Building = lobbies, leasing offices, clubroom and fitness room.

Construction Phase - Construction schedule per applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Grading/Excavation includes excavation for semi-subterranean garage and foundations.

Off-Highway Truck = water truck.

Off-road Equipment - Off-Highway Truck = concrete pump truck

Off-road Equipment - Site prep includes demo of existing asphalt and fencing.

Off-Highway Truck = water truck.

Allison Avenue TOD Project - San Diego County, Summer

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

Trips and VMT -

Grading - 600 CY old asphalt, fencing, CMU wall exported during site prep.
14,200 CY soil exported during grading/excavation.

Architectural Coating - VOC limits per SDAPCD Rule 67.0.1 (effective 1/1/2022).

Vehicle Trips - Project trip rates per project TIA (LLG March 2021).

All project trips applied to residential land use.

5.76 miles per trip per SANDAG household and VMT/capita data for La Mesa.

Area Coating - VOC limits per SDAPCD Rule 67.0.1 (effective 1/1/2022).

Construction Off-road Equipment Mitigation - Dust mitigation to comply with SDAPCD Rule 55.

Area Mitigation - No wood hearths.

Water Mitigation - 20% water reduction per CALGreen not accounted for in defaults.

Waste Mitigation - 25% solid waste diversion per AB 341/local and state regs, not accounted for in defaults.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	95,847.00	95,783.00
tblArchitecturalCoating	ConstArea_Residential_Interior	287,540.00	287,348.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Residential_Exterior	95847	95783
tblAreaCoating	Area_Residential_Interior	287540	287348
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	230.00	95.00

Allison Avenue TOD Project - San Diego County, Summer

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

tblConstructionPhase	NumDays	230.00	325.00
tblConstructionPhase	NumDays	18.00	130.00
tblConstructionPhase	PhaseEndDate	8/2/2022	8/12/2022
tblConstructionPhase	PhaseEndDate	8/8/2022	9/23/2022
tblConstructionPhase	PhaseEndDate	5/15/2023	2/3/2023
tblConstructionPhase	PhaseEndDate	2/19/2024	5/3/2024
tblConstructionPhase	PhaseEndDate	3/4/2024	7/31/2024
tblConstructionPhase	PhaseStartDate	8/3/2022	8/13/2022
tblConstructionPhase	PhaseStartDate	8/9/2022	9/24/2022
tblConstructionPhase	PhaseStartDate	5/16/2023	2/4/2023
tblConstructionPhase	PhaseStartDate	2/20/2024	2/1/2024
tblGrading	MaterialExported	0.00	14,200.00
tblGrading	MaterialExported	0.00	600.00
tblLandUse	LandUseSquareFeet	147,000.00	141,995.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	1.07	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00

Allison Avenue TOD Project - San Diego County, Summer

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

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	5.76
tblVehicleTrips	HW_TTP	41.60	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	6.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	6.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	6.00
tblVehicleTrips	WD_TR	9.74	0.00

2.0 Emissions Summary

Allison Avenue TOD Projet - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.4035	29.9553	20.0218	0.0757	7.8015	1.0148	8.8163	3.7004	0.9370	4.6374	0.0000	7,824.008 9	7,824.008 9	1.3646	0.6528	8,052.667 2
2023	2.1511	14.7388	17.6822	0.0428	1.2058	0.5909	1.7967	0.3235	0.5673	0.8909	0.0000	4,115.668 6	4,115.668 6	0.5882	0.1000	4,160.186 5
2024	9.0821	13.5367	18.1075	0.0405	1.4112	0.5242	1.9354	0.3780	0.5076	0.8856	0.0000	3,905.352 7	3,905.352 7	0.3932	0.1015	3,945.414 5
Maximum	9.0821	29.9553	20.0218	0.0757	7.8015	1.0148	8.8163	3.7004	0.9370	4.6374	0.0000	7,824.008 9	7,824.008 9	1.3646	0.6528	8,052.667 2

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.4035	29.9553	20.0218	0.0757	4.1612	1.0148	5.1759	1.8428	0.9370	2.7797	0.0000	7,824.008 9	7,824.008 9	1.3646	0.6528	8,052.667 2
2023	2.1511	14.7388	17.6822	0.0428	1.2058	0.5909	1.7967	0.3235	0.5673	0.8909	0.0000	4,115.668 6	4,115.668 6	0.5882	0.1000	4,160.186 5
2024	9.0821	13.5367	18.1075	0.0405	1.4112	0.5242	1.9354	0.3780	0.5076	0.8856	0.0000	3,905.352 7	3,905.352 7	0.3932	0.1015	3,945.414 5
Maximum	9.0821	29.9553	20.0218	0.0757	4.1612	1.0148	5.1759	1.8428	0.9370	2.7797	0.0000	7,824.008 9	7,824.008 9	1.3646	0.6528	8,052.667 2

Allison Avenue TOD Project - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	34.94	0.00	29.01	42.20	0.00	28.96	0.00	0.00	0.00	0.00	0.00	0.00

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	228.7192	4.5330	289.8200	0.5038		39.0032	39.0032		39.0032	39.0032	4,082.444 4	1,733.965 9	5,816.410 3	3.7884	0.3211	6,006.811 6
Energy	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855
Mobile	2.1246	1.9149	17.1072	0.0361	3.8927	0.0277	3.9204	1.0369	0.0258	1.0628		3,768.502 3	3,768.502 3	0.2651	0.1649	3,824.252 7
Total	230.8775	6.7380	307.0590	0.5417	3.8927	39.0543	42.9470	1.0369	39.0524	40.0894	4,082.444 4	5,871.361 5	9,953.805 9	4.0605	0.4927	10,202.14 97

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0079	2.3342	13.0552	0.0147		0.2447	0.2447		0.2447	0.2447	0.0000	2,823.495 3	2,823.495 3	0.0746	0.0514	2,840.667 6
Energy	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855
Mobile	2.1246	1.9149	17.1072	0.0361	3.8927	0.0277	3.9204	1.0369	0.0258	1.0628		3,768.502 3	3,768.502 3	0.2651	0.1649	3,824.252 7
Total	6.1663	4.5393	30.2942	0.0526	3.8927	0.2958	4.1885	1.0369	0.2939	1.3308	0.0000	6,960.890 9	6,960.890 9	0.3468	0.2230	7,036.005 7

Allison Avenue TOD Project - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	97.33	32.63	90.13	90.29	0.00	99.24	90.25	0.00	99.25	96.68	100.00	-18.56	30.07	91.46	54.75	31.03

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/12/2022	5	10	
2	Grading/Excavation	Grading	8/13/2022	9/23/2022	5	30	
3	Podium Construction	Building Construction	9/24/2022	2/3/2023	5	95	
4	Building Construction	Building Construction	2/4/2023	5/3/2024	5	325	
5	Architectural Coating	Architectural Coating	2/1/2024	7/31/2024	5	130	

Acres of Grading (Site Preparation Phase): 5**Acres of Grading (Grading Phase): 15****Acres of Paving: 0****Residential Indoor: 287,348; Residential Outdoor: 95,783; Non-Residential Indoor: 5,610; Non-Residential Outdoor: 1,870; Striped Parking Area: 2,802 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Excavation	Excavators	2	8.00	158	0.38
Grading/Excavation	Graders	0	8.00	187	0.41

Allison Avenue TOD Project - San Diego County, Summer

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

Grading/Excavation	Off-Highway Trucks	1	4.00	402	0.38
Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Excavation	Rubber Tired Loaders	1	8.00	203	0.36
Grading/Excavation	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Podium Construction	Cranes	1	6.00	231	0.29
Podium Construction	Forklifts	1	6.00	89	0.20
Podium Construction	Generator Sets	1	8.00	84	0.74
Podium Construction	Off-Highway Trucks	1	4.00	402	0.38
Podium Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Podium Construction	Welders	3	8.00	46	0.45
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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	0.00	75.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	7	18.00	0.00	1,775.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Podium Construction	8	127.00	24.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	127.00	24.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**Water Exposed Area**

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5608	0.0000	6.5608	3.3688	0.0000	3.3688			0.0000			0.0000
Off-Road	1.4307	14.1518	9.7373	0.0214		0.6706	0.6706		0.6169	0.6169		2,069.005 9	2,069.005 9	0.6692		2,085.734 9
Total	1.4307	14.1518	9.7373	0.0214	6.5608	0.6706	7.2314	3.3688	0.6169	3.9857		2,069.005 9	2,069.005 9	0.6692		2,085.734 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0336	1.2181	0.2961	4.7100e-003	0.1312	0.0117	0.1429	0.0360	0.0112	0.0472		518.1147	518.1147	0.0249	0.0823	543.2643
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	0.0292	0.0190	0.2593	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		76.2605	76.2605	2.1900e-003	1.9700e-003	76.9011
Total	0.0628	1.2371	0.5554	5.4600e-003	0.2133	0.0122	0.2255	0.0577	0.0117	0.0694		594.3751	594.3751	0.0271	0.0843	620.1653

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9524	0.0000	2.9524	1.5159	0.0000	1.5159			0.0000			0.0000
Off-Road	1.4307	14.1518	9.7373	0.0214		0.6706	0.6706		0.6169	0.6169	0.0000	2,069.005 9	2,069.005 9	0.6692		2,085.734 9
Total	1.4307	14.1518	9.7373	0.0214	2.9524	0.6706	3.6229	1.5159	0.6169	2.1329	0.0000	2,069.005 9	2,069.005 9	0.6692		2,085.734 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0336	1.2181	0.2961	4.7100e-003	0.1312	0.0117	0.1429	0.0360	0.0112	0.0472		518.1147	518.1147	0.0249	0.0823	543.2643
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	0.0292	0.0190	0.2593	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		76.2605	76.2605	2.1900e-003	1.9700e-003	76.9011
Total	0.0628	1.2371	0.5554	5.4600e-003	0.2133	0.0122	0.2255	0.0577	0.0117	0.0694		594.3751	594.3751	0.0271	0.0843	620.1653

Allison Avenue TOD Project - San Diego County, Summer

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

3.3 Grading/Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6189	0.0000	6.6189	3.3776	0.0000	3.3776			0.0000			0.0000
Off-Road	2.0858	20.3118	17.2193	0.0372		0.9214	0.9214		0.8476	0.8476		3,599.3910	3,599.3910	1.1641		3,628.4939
Total	2.0858	20.3118	17.2193	0.0372	6.6189	0.9214	7.5402	3.3776	0.8476	4.2252		3,599.3910	3,599.3910	1.1641		3,628.4939

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2652	9.6093	2.3358	0.0371	1.0348	0.0926	1.1274	0.2836	0.0886	0.3722		4,087.3490	4,087.3490	0.1966	0.6493	4,285.7514
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	0.0526	0.0342	0.4667	1.3500e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		137.2688	137.2688	3.9400e-003	3.5400e-003	138.4219
Total	0.3177	9.6435	2.8025	0.0385	1.1827	0.0934	1.2761	0.3229	0.0893	0.4122		4,224.6179	4,224.6179	0.2005	0.6528	4,424.1733

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading/Excavation - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9785	0.0000	2.9785	1.5199	0.0000	1.5199			0.0000			0.0000
Off-Road	2.0858	20.3118	17.2193	0.0372		0.9214	0.9214		0.8476	0.8476	0.0000	3,599.3910	3,599.3910	1.1641		3,628.4939
Total	2.0858	20.3118	17.2193	0.0372	2.9785	0.9214	3.8998	1.5199	0.8476	2.3675	0.0000	3,599.3910	3,599.3910	1.1641		3,628.4939

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2652	9.6093	2.3358	0.0371	1.0348	0.0926	1.1274	0.2836	0.0886	0.3722		4,087.3490	4,087.3490	0.1966	0.6493	4,285.7514
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	0.0526	0.0342	0.4667	1.3500e-003	0.1479	8.4000e-004	0.1487	0.0392	7.7000e-004	0.0400		137.2688	137.2688	3.9400e-003	3.5400e-003	138.4219
Total	0.3177	9.6435	2.8025	0.0385	1.1827	0.0934	1.2761	0.3229	0.0893	0.4122		4,224.6179	4,224.6179	0.2005	0.6528	4,424.1733

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Podium Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360		2,641.0355	2,641.0355	0.5554		2,654.9213
Total	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360		2,641.0355	2,641.0355	0.5554		2,654.9213

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0535	1.2763	0.4270	5.1200e-003	0.1625	0.0139	0.1764	0.0468	0.0133	0.0601		551.5815	551.5815	0.0168	0.0801	575.8594
Worker	0.3708	0.2414	3.2930	9.5200e-003	1.0433	5.9100e-003	1.0492	0.2767	5.4400e-003	0.2822		968.5078	968.5078	0.0278	0.0250	976.6436
Total	0.4243	1.5177	3.7200	0.0146	1.2058	0.0198	1.2256	0.3235	0.0187	0.3422		1,520.0893	1,520.0893	0.0446	0.1050	1,552.5030

Allison Avenue TOD Project - San Diego County, Summer

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

3.4 Podium Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360	0.0000	2,641.0355	2,641.0355	0.5554		2,654.9213
Total	1.9129	14.5099	14.4058	0.0287		0.6619	0.6619		0.6360	0.6360	0.0000	2,641.0355	2,641.0355	0.5554		2,654.9213

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0535	1.2763	0.4270	5.1200e-003	0.1625	0.0139	0.1764	0.0468	0.0133	0.0601		551.5815	551.5815	0.0168	0.0801	575.8594
Worker	0.3708	0.2414	3.2930	9.5200e-003	1.0433	5.9100e-003	1.0492	0.2767	5.4400e-003	0.2822		968.5078	968.5078	0.0278	0.0250	976.6436
Total	0.4243	1.5177	3.7200	0.0146	1.2058	0.0198	1.2256	0.3235	0.0187	0.3422		1,520.0893	1,520.0893	0.0446	0.1050	1,552.5030

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Podium Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562		2,641.7319	2,641.7319	0.5469		2,655.4043
Total	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562		2,641.7319	2,641.7319	0.5469		2,655.4043

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0287	1.0288	0.3708	4.9100e-003	0.1625	6.2700e-003	0.1688	0.0468	6.0000e-003	0.0528		530.5127	530.5127	0.0161	0.0768	553.8053
Worker	0.3473	0.2157	3.0561	9.2200e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		943.4240	943.4240	0.0253	0.0232	950.9770
Total	0.3760	1.2445	3.4269	0.0141	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,473.9367	1,473.9367	0.0413	0.1000	1,504.7822

Allison Avenue TOD Project - San Diego County, Summer

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

3.4 Podium Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562	0.0000	2,641.7319	2,641.7319	0.5469		2,655.4043
Total	1.7752	13.4943	14.2553	0.0287		0.5790	0.5790		0.5562	0.5562	0.0000	2,641.7319	2,641.7319	0.5469		2,655.4043

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0287	1.0288	0.3708	4.9100e-003	0.1625	6.2700e-003	0.1688	0.0468	6.0000e-003	0.0528		530.5127	530.5127	0.0161	0.0768	553.8053
Worker	0.3473	0.2157	3.0561	9.2200e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		943.4240	943.4240	0.0253	0.0232	950.9770
Total	0.3760	1.2445	3.4269	0.0141	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,473.9367	1,473.9367	0.0413	0.1000	1,504.7822

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2023****Unmitigated Construction On-Site**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0287	1.0288	0.3708	4.9100e-003	0.1625	6.2700e-003	0.1688	0.0468	6.0000e-003	0.0528		530.5127	530.5127	0.0161	0.0768	553.8053
Worker	0.3473	0.2157	3.0561	9.2200e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		943.4240	943.4240	0.0253	0.0232	950.9770
Total	0.3760	1.2445	3.4269	0.0141	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,473.9367	1,473.9367	0.0413	0.1000	1,504.7822

Allison Avenue TOD Project - San Diego County, Summer

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

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	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	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0287	1.0288	0.3708	4.9100e-003	0.1625	6.2700e-003	0.1688	0.0468	6.0000e-003	0.0528		530.5127	530.5127	0.0161	0.0768	553.8053
Worker	0.3473	0.2157	3.0561	9.2200e-003	1.0433	5.6100e-003	1.0489	0.2767	5.1700e-003	0.2819		943.4240	943.4240	0.0253	0.0232	950.9770
Total	0.3760	1.2445	3.4269	0.0141	1.2058	0.0119	1.2177	0.3235	0.0112	0.3347		1,473.9367	1,473.9367	0.0413	0.1000	1,504.7822

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 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	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0276	1.0218	0.3621	4.8200e-003	0.1626	6.3000e-003	0.1688	0.0468	6.0300e-003	0.0528		521.2634	521.2634	0.0164	0.0755	544.1647
Worker	0.3262	0.1940	2.8559	8.9200e-003	1.0433	5.3500e-003	1.0486	0.2767	4.9200e-003	0.2817		919.6804	919.6804	0.0230	0.0217	926.7234
Total	0.3538	1.2158	3.2180	0.0137	1.2058	0.0117	1.2175	0.3235	0.0110	0.3345		1,440.943 7	1,440.943 7	0.0394	0.0972	1,470.888 2

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0276	1.0218	0.3621	4.8200e-003	0.1626	6.3000e-003	0.1688	0.0468	6.0300e-003	0.0528		521.2634	521.2634	0.0164	0.0755	544.1647
Worker	0.3262	0.1940	2.8559	8.9200e-003	1.0433	5.3500e-003	1.0486	0.2767	4.9200e-003	0.2817		919.6804	919.6804	0.0230	0.0217	926.7234
Total	0.3538	1.2158	3.2180	0.0137	1.2058	0.0117	1.2175	0.3235	0.0110	0.3345		1,440.943 7	1,440.943 7	0.0394	0.0972	1,470.888 2

Allison Avenue TOD Projet - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	7.0633					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	7.2441	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0642	0.0382	0.5622	1.7500e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		181.0395	181.0395	4.5200e-003	4.2700e-003	182.4259
Total	0.0642	0.0382	0.5622	1.7500e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		181.0395	181.0395	4.5200e-003	4.2700e-003	182.4259

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.0633					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	0.0000	281.4481	281.4481	0.0159		281.8443
Total	7.2441	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0642	0.0382	0.5622	1.7500e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		181.0395	181.0395	4.5200e-003	4.2700e-003	182.4259
Total	0.0642	0.0382	0.5622	1.7500e-003	0.2054	1.0500e-003	0.2064	0.0545	9.7000e-004	0.0554		181.0395	181.0395	4.5200e-003	4.2700e-003	182.4259

Allison Avenue TOD Project - San Diego County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1246	1.9149	17.1072	0.0361	3.8927	0.0277	3.9204	1.0369	0.0258	1.0628		3,768,502 3	3,768,502 3	0.2651	0.1649	3,824,252 7
Unmitigated	2.1246	1.9149	17.1072	0.0361	3.8927	0.0277	3.9204	1.0369	0.0258	1.0628		3,768,502 3	3,768,502 3	0.2651	0.1649	3,824,252 7

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	882.00	882.00	882.00	1,849,236	1,849,236
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Total	882.00	882.00	882.00	1,849,236	1,849,236

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 Mid Rise	5.76	7.30	7.50	100.00	0.00	0.00	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Enclosed Parking with Elevator	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855
NaturalGas Unmitigated	0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2930.35	0.0316	0.2701	0.1149	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.7476	344.7476	6.6100e-003	6.3200e-003	346.7962
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	205.239	2.2100e-003	0.0201	0.0169	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003		24.1458	24.1458	4.6000e-004	4.4000e-004	24.2892
Total		0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.93035	0.0316	0.2701	0.1149	1.7200e-003		0.0218	0.0218		0.0218	0.0218		344.7476	344.7476	6.6100e-003	6.3200e-003	346.7962
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	0.205239	2.2100e-003	0.0201	0.0169	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003		24.1458	24.1458	4.6000e-004	4.4000e-004	24.2892
Total		0.0338	0.2902	0.1318	1.8400e-003		0.0234	0.0234		0.0234	0.0234		368.8933	368.8933	7.0700e-003	6.7600e-003	371.0855

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

Allison Avenue TOD Project - San Diego County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0079	2.3342	13.0552	0.0147		0.2447	0.2447		0.2447	0.2447	0.0000	2,823.495 3	2,823.495 3	0.0746	0.0514	2,840.667 6
Unmitigated	228.7192	4.5330	289.8200	0.5038		39.0032	39.0032		39.0032	39.0032	4,082.444 4	1,733.965 9	5,816.410 3	3.7884	0.3211	6,006.811 6

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2516					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	224.9681	4.3934	277.6986	0.5031		38.9360	38.9360		38.9360	38.9360	4,082.444 4	1,712.117 7	5,794.562 1	3.7674	0.3211	5,984.439 8
Landscaping	0.3643	0.1396	12.1213	6.4000e-004		0.0673	0.0673		0.0673	0.0673		21.8482	21.8482	0.0209		22.3717
Total	228.7192	4.5330	289.8200	0.5038		39.0033	39.0033		39.0033	39.0033	4,082.444 4	1,733.965 9	5,816.410 3	3.7884	0.3211	6,006.811 6

Allison Avenue TOD Project - San Diego County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2516					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2568	2.1946	0.9339	0.0140		0.1774	0.1774		0.1774	0.1774	0.0000	2,801.647 1	2,801.647 1	0.0537	0.0514	2,818.295 9
Landscaping	0.3643	0.1396	12.1213	6.4000e-004		0.0673	0.0673		0.0673	0.0673		21.8482	21.8482	0.0209		22.3717
Total	4.0079	2.3342	13.0552	0.0147		0.2447	0.2447		0.2447	0.2447	0.0000	2,823.495 3	2,823.495 3	0.0746	0.0514	2,840.667 6

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Allison Avenue TOD Project - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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

Allison Avenue TOD Project

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.74	1000sqft	0.00	3,740.00	0
Enclosed Parking with Elevator	46.70	1000sqft	0.00	46,700.00	0
Apartments Mid Rise	147.00	Dwelling Unit	3.87	141,995.00	420

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - R2 - Trip distance calculated from SANDAG household and SB 743 VMT data.
R3 - Adjustment to building SF and construction start.

Land Use - Land use sizes per project plan set.

General Office Building = lobbies, leasing offices, clubroom and fitness room.

Construction Phase - Construction schedule per applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Grading/Excavation includes excavation for semi-subterranean garage and foundations.

Off-Highway Truck = water truck.

Off-road Equipment - Off-Highway Truck = concrete pump truck

Off-road Equipment - Site prep includes demo of existing asphalt and fencing.

Off-Highway Truck = water truck.

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

Trips and VMT -

Grading - 600 CY old asphalt, fencing, CMU wall exported during site prep.

14,200 CY soil exported during grading/excavation.

Architectural Coating - VOC limits per SDAPCD Rule 67.0.1 (effective 1/1/2022).

Vehicle Trips - Project trip rates per project TIA (LLG March 2021).

All project trips applied to residential land use.

5.76 miles per trip per SANDAG household and VMT/capita data for La Mesa.

Area Coating - VOC limits per SDAPCD Rule 67.0.1 (effective 1/1/2022).

Construction Off-road Equipment Mitigation - Dust mitigation to comply with SDAPCD Rule 55.

Area Mitigation - No wood hearths.

Water Mitigation - 20% water reduction per CALGreen not accounted for in defaults.

Waste Mitigation - 25% solid waste diversion per AB 341/local and state regs, not accounted for in defaults.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	95,847.00	95,783.00
tblArchitecturalCoating	ConstArea_Residential_Interior	287,540.00	287,348.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	50
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Residential_Exterior	95847	95783
tblAreaCoating	Area_Residential_Interior	287540	287348
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	230.00	95.00

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

tblConstructionPhase	NumDays	230.00	325.00
tblConstructionPhase	NumDays	18.00	130.00
tblConstructionPhase	PhaseEndDate	8/2/2022	8/12/2022
tblConstructionPhase	PhaseEndDate	8/8/2022	9/23/2022
tblConstructionPhase	PhaseEndDate	5/15/2023	2/3/2023
tblConstructionPhase	PhaseEndDate	2/19/2024	5/3/2024
tblConstructionPhase	PhaseEndDate	3/4/2024	7/31/2024
tblConstructionPhase	PhaseStartDate	8/3/2022	8/13/2022
tblConstructionPhase	PhaseStartDate	8/9/2022	9/24/2022
tblConstructionPhase	PhaseStartDate	5/16/2023	2/4/2023
tblConstructionPhase	PhaseStartDate	2/20/2024	2/1/2024
tblGrading	MaterialExported	0.00	14,200.00
tblGrading	MaterialExported	0.00	600.00
tblLandUse	LandUseSquareFeet	147,000.00	141,995.00
tblLandUse	LotAcreage	0.09	0.00
tblLandUse	LotAcreage	1.07	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00

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

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	5.76
tblVehicleTrips	HW_TTP	41.60	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	6.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	4.09	6.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	5.44	6.00
tblVehicleTrips	WD_TR	9.74	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1251	1.0953	0.9802	2.7700e-003	0.1917	0.0425	0.2342	0.0836	0.0401	0.1237	0.0000	249.1439	249.1439	0.0408	0.0127	253.9376
2023	0.2495	1.7141	2.0861	4.7300e-003	0.1531	0.0692	0.2224	0.0412	0.0668	0.1080	0.0000	412.0162	412.0162	0.0474	0.0120	416.7762
2024	0.5547	0.6371	0.8544	1.8900e-003	0.0660	0.0248	0.0909	0.0177	0.0241	0.0418	0.0000	165.5920	165.5920	0.0165	4.3000e-003	167.2850
Maximum	0.5547	1.7141	2.0861	4.7300e-003	0.1917	0.0692	0.2342	0.0836	0.0668	0.1237	0.0000	412.0162	412.0162	0.0474	0.0127	416.7762

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1251	1.0953	0.9802	2.7700e-003	0.1191	0.0425	0.1616	0.0465	0.0401	0.0866	0.0000	249.1437	249.1437	0.0408	0.0127	253.9375
2023	0.2495	1.7141	2.0861	4.7300e-003	0.1531	0.0692	0.2224	0.0412	0.0668	0.1080	0.0000	412.0159	412.0159	0.0474	0.0120	416.7760
2024	0.5547	0.6371	0.8544	1.8900e-003	0.0660	0.0248	0.0909	0.0177	0.0241	0.0418	0.0000	165.5919	165.5919	0.0165	4.3000e-003	167.2848
Maximum	0.5547	1.7141	2.0861	4.7300e-003	0.1531	0.0692	0.2224	0.0465	0.0668	0.1080	0.0000	412.0159	412.0159	0.0474	0.0127	416.7760

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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
Percent Reduction	0.00	0.00	0.00	0.00	17.68	0.00	13.27	26.06	0.00	13.58	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2022	10-31-2022	0.8082	0.8082
2	11-1-2022	1-31-2023	0.5905	0.5905
3	2-1-2023	4-30-2023	0.4764	0.4764
4	5-1-2023	7-31-2023	0.4881	0.4881
5	8-1-2023	10-31-2023	0.4892	0.4892
6	11-1-2023	1-31-2024	0.4824	0.4824
7	2-1-2024	4-30-2024	0.7293	0.7293
8	5-1-2024	7-31-2024	0.2965	0.2965
		Highest	0.8082	0.8082

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.8746	0.1927	12.4766	0.0207		1.6024	1.6024		1.6024	1.6024	151.8448	65.4653	217.3101	0.1418	0.0119	224.4153
Energy	6.1700e-003	0.0530	0.0241	3.4000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	273.4158	273.4158	0.0142	2.6900e-003	274.5719
Mobile	0.3672	0.3733	3.1648	6.3200e-003	0.6917	5.0400e-003	0.6968	0.1846	4.7000e-003	0.1893	0.0000	598.7720	598.7720	0.0457	0.0284	608.3795
Waste						0.0000	0.0000		0.0000	0.0000	14.4327	0.0000	14.4327	0.8530	0.0000	35.7563
Water						0.0000	0.0000		0.0000	0.0000	3.2494	50.2048	53.4542	0.3368	8.2500e-003	64.3338
Total	10.2479	0.6190	15.6654	0.0274	0.6917	1.6117	2.3035	0.1846	1.6114	1.7960	169.5269	987.8578	1,157.3847	1.3915	0.0513	1,207.4567

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6614	0.1025	1.1292	6.3000e-004		0.0133	0.0133		0.0133	0.0133	0.0000	105.9899	105.9899	3.7100e-003	1.9100e-003	106.6519
Energy	6.1700e-003	0.0530	0.0241	3.4000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	273.4158	273.4158	0.0142	2.6900e-003	274.5719
Mobile	0.3672	0.3733	3.1648	6.3200e-003	0.6917	5.0400e-003	0.6968	0.1846	4.7000e-003	0.1893	0.0000	598.7720	598.7720	0.0457	0.0284	608.3795
Waste						0.0000	0.0000		0.0000	0.0000	10.8245	0.0000	10.8245	0.6397	0.0000	26.8172
Water						0.0000	0.0000		0.0000	0.0000	2.5995	40.1638	42.7634	0.2695	6.6000e-003	51.4670
Total	1.0348	0.5288	4.3180	7.2900e-003	0.6917	0.0226	0.7144	0.1846	0.0223	0.2069	13.4240	1,018.3415	1,031.7655	0.9728	0.0396	1,067.8875

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	89.90	14.56	72.44	73.35	0.00	98.60	68.99	0.00	98.62	88.48	92.08	-3.09	10.85	30.09	22.78	11.56

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2022	8/12/2022	5	10	
2	Grading/Excavation	Grading	8/13/2022	9/23/2022	5	30	
3	Podium Construction	Building Construction	9/24/2022	2/3/2023	5	95	

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4	Building Construction	Building Construction	2/4/2023	5/3/2024	5	325
5	Architectural Coating	Architectural Coating	2/1/2024	7/31/2024	5	130

Acres of Grading (Site Preparation Phase): 5**Acres of Grading (Grading Phase): 15****Acres of Paving: 0**

Residential Indoor: 287,348; Residential Outdoor: 95,783; Non-Residential Indoor: 5,610; Non-Residential Outdoor: 1,870; Striped Parking Area: 2,802 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading/Excavation	Excavators	2	8.00	158	0.38
Grading/Excavation	Graders	0	8.00	187	0.41
Grading/Excavation	Off-Highway Trucks	1	4.00	402	0.38
Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Excavation	Rubber Tired Loaders	1	8.00	203	0.36
Grading/Excavation	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Podium Construction	Cranes	1	6.00	231	0.29
Podium Construction	Forklifts	1	6.00	89	0.20
Podium Construction	Generator Sets	1	8.00	84	0.74
Podium Construction	Off-Highway Trucks	1	4.00	402	0.38
Podium Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Podium Construction	Welders	3	8.00	46	0.45
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20

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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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	0.00	75.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	7	18.00	0.00	1,775.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Podium Construction	8	127.00	24.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	127.00	24.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0328	0.0000	0.0328	0.0168	0.0000	0.0168	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1500e-003	0.0708	0.0487	1.1000e-004		3.3500e-003	3.3500e-003		3.0800e-003	3.0800e-003	0.0000	9.3849	9.3849	3.0400e-003	0.0000	9.4607
Total	7.1500e-003	0.0708	0.0487	1.1000e-004	0.0328	3.3500e-003	0.0362	0.0168	3.0800e-003	0.0199	0.0000	9.3849	9.3849	3.0400e-003	0.0000	9.4607

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	6.3100e-003	1.4900e-003	2.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.3000e-004	0.0000	2.3506	2.3506	1.1000e-004	3.7000e-004	2.4646
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.2300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3298	0.3298	1.0000e-005	1.0000e-005	0.3328
Total	3.1000e-004	6.4100e-003	2.7200e-003	2.0000e-005	1.0400e-003	6.0000e-005	1.1000e-003	2.9000e-004	6.0000e-005	3.4000e-004	0.0000	2.6803	2.6803	1.2000e-004	3.8000e-004	2.7975

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0148	0.0000	0.0148	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1500e-003	0.0708	0.0487	1.1000e-004		3.3500e-003	3.3500e-003		3.0800e-003	3.0800e-003	0.0000	9.3848	9.3848	3.0400e-003	0.0000	9.4607
Total	7.1500e-003	0.0708	0.0487	1.1000e-004	0.0148	3.3500e-003	0.0181	7.5800e-003	3.0800e-003	0.0107	0.0000	9.3848	9.3848	3.0400e-003	0.0000	9.4607

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	6.3100e-003	1.4900e-003	2.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.3000e-004	0.0000	2.3506	2.3506	1.1000e-004	3.7000e-004	2.4646
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.2300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3298	0.3298	1.0000e-005	1.0000e-005	0.3328
Total	3.1000e-004	6.4100e-003	2.7200e-003	2.0000e-005	1.0400e-003	6.0000e-005	1.1000e-003	2.9000e-004	6.0000e-005	3.4000e-004	0.0000	2.6803	2.6803	1.2000e-004	3.8000e-004	2.7975

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading/Excavation - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0993	0.0000	0.0993	0.0507	0.0000	0.0507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0313	0.3047	0.2583	5.6000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	48.9797	48.9797	0.0158	0.0000	49.3757
Total	0.0313	0.3047	0.2583	5.6000e-004	0.0993	0.0138	0.1131	0.0507	0.0127	0.0634	0.0000	48.9797	48.9797	0.0158	0.0000	49.3757

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9300e-003	0.1494	0.0352	5.6000e-004	0.0152	1.3900e-003	0.0166	4.1800e-003	1.3300e-003	5.5100e-003	0.0000	55.6296	55.6296	2.6700e-003	8.8400e-003	58.3299
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	7.8000e-004	5.7000e-004	6.6400e-003	2.0000e-005	2.1700e-003	1.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.7807	1.7807	6.0000e-005	5.0000e-005	1.7974
Total	4.7100e-003	0.1500	0.0419	5.8000e-004	0.0174	1.4000e-003	0.0188	4.7600e-003	1.3400e-003	6.1000e-003	0.0000	57.4102	57.4102	2.7300e-003	8.8900e-003	60.1273

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading/Excavation - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0447	0.0000	0.0447	0.0228	0.0000	0.0228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0313	0.3047	0.2583	5.6000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	48.9796	48.9796	0.0158	0.0000	49.3757
Total	0.0313	0.3047	0.2583	5.6000e-004	0.0447	0.0138	0.0585	0.0228	0.0127	0.0355	0.0000	48.9796	48.9796	0.0158	0.0000	49.3757

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9300e-003	0.1494	0.0352	5.6000e-004	0.0152	1.3900e-003	0.0166	4.1800e-003	1.3300e-003	5.5100e-003	0.0000	55.6296	55.6296	2.6700e-003	8.8400e-003	58.3299
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	7.8000e-004	5.7000e-004	6.6400e-003	2.0000e-005	2.1700e-003	1.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.7807	1.7807	6.0000e-005	5.0000e-005	1.7974
Total	4.7100e-003	0.1500	0.0419	5.8000e-004	0.0174	1.4000e-003	0.0188	4.7600e-003	1.3400e-003	6.1000e-003	0.0000	57.4102	57.4102	2.7300e-003	8.8900e-003	60.1273

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

3.4 Podium Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0670	0.5079	0.5042	1.0000e-003		0.0232	0.0232		0.0223	0.0223	0.0000	83.8568	83.8568	0.0176	0.0000	84.2976
Total	0.0670	0.5079	0.5042	1.0000e-003		0.0232	0.0232		0.0223	0.0223	0.0000	83.8568	83.8568	0.0176	0.0000	84.2976

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0462	0.0151	1.8000e-004	5.5800e-003	4.9000e-004	6.0600e-003	1.6100e-003	4.7000e-004	2.0800e-003	0.0000	17.5173	17.5173	5.3000e-004	2.5400e-003	18.2889
Worker	0.0128	9.3200e-003	0.1093	3.2000e-004	0.0357	2.1000e-004	0.0359	9.4700e-003	1.9000e-004	9.6600e-003	0.0000	29.3148	29.3148	9.2000e-004	8.5000e-004	29.5899
Total	0.0147	0.0556	0.1244	5.0000e-004	0.0412	7.0000e-004	0.0419	0.0111	6.6000e-004	0.0117	0.0000	46.8321	46.8321	1.4500e-003	3.3900e-003	47.8788

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

3.4 Podium Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0670	0.5079	0.5042	1.0000e-003		0.0232	0.0232		0.0223	0.0223	0.0000	83.8567	83.8567	0.0176	0.0000	84.2975
Total	0.0670	0.5079	0.5042	1.0000e-003		0.0232	0.0232		0.0223	0.0223	0.0000	83.8567	83.8567	0.0176	0.0000	84.2975

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8600e-003	0.0462	0.0151	1.8000e-004	5.5800e-003	4.9000e-004	6.0600e-003	1.6100e-003	4.7000e-004	2.0800e-003	0.0000	17.5173	17.5173	5.3000e-004	2.5400e-003	18.2889
Worker	0.0128	9.3200e-003	0.1093	3.2000e-004	0.0357	2.1000e-004	0.0359	9.4700e-003	1.9000e-004	9.6600e-003	0.0000	29.3148	29.3148	9.2000e-004	8.5000e-004	29.5899
Total	0.0147	0.0556	0.1244	5.0000e-004	0.0412	7.0000e-004	0.0419	0.0111	6.6000e-004	0.0117	0.0000	46.8321	46.8321	1.4500e-003	3.3900e-003	47.8788

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3.4 Podium Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0222	0.1687	0.1782	3.6000e-004		7.2400e-003	7.2400e-003		6.9500e-003	6.9500e-003	0.0000	29.9567	29.9567	6.2000e-003	0.0000	30.1118
Total	0.0222	0.1687	0.1782	3.6000e-004		7.2400e-003	7.2400e-003		6.9500e-003	6.9500e-003	0.0000	29.9567	29.9567	6.2000e-003	0.0000	30.1118

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5000e-004	0.0133	4.7000e-003	6.0000e-005	1.9900e-003	8.0000e-005	2.0700e-003	5.8000e-004	8.0000e-005	6.5000e-004	0.0000	6.0195	6.0195	1.8000e-004	8.7000e-004	6.2840
Worker	4.3000e-003	2.9700e-003	0.0363	1.1000e-004	0.0127	7.0000e-005	0.0128	3.3800e-003	6.0000e-005	3.4500e-003	0.0000	10.1998	10.1998	3.0000e-004	2.8000e-004	10.2910
Total	4.6500e-003	0.0163	0.0410	1.7000e-004	0.0147	1.5000e-004	0.0149	3.9600e-003	1.4000e-004	4.1000e-003	0.0000	16.2193	16.2193	4.8000e-004	1.1500e-003	16.5750

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3.4 Podium Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0222	0.1687	0.1782	3.6000e-004		7.2400e-003	7.2400e-003		6.9500e-003	6.9500e-003	0.0000	29.9567	29.9567	6.2000e-003	0.0000	30.1117
Total	0.0222	0.1687	0.1782	3.6000e-004		7.2400e-003	7.2400e-003		6.9500e-003	6.9500e-003	0.0000	29.9567	29.9567	6.2000e-003	0.0000	30.1117

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5000e-004	0.0133	4.7000e-003	6.0000e-005	1.9900e-003	8.0000e-005	2.0700e-003	5.8000e-004	8.0000e-005	6.5000e-004	0.0000	6.0195	6.0195	1.8000e-004	8.7000e-004	6.2840
Worker	4.3000e-003	2.9700e-003	0.0363	1.1000e-004	0.0127	7.0000e-005	0.0128	3.3800e-003	6.0000e-005	3.4500e-003	0.0000	10.1998	10.1998	3.0000e-004	2.8000e-004	10.2910
Total	4.6500e-003	0.0163	0.0410	1.7000e-004	0.0147	1.5000e-004	0.0149	3.9600e-003	1.4000e-004	4.1000e-003	0.0000	16.2193	16.2193	4.8000e-004	1.1500e-003	16.5750

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1790	1.3760	1.4818	2.5900e-003		0.0605	0.0605		0.0584	0.0584	0.0000	213.3790	213.3790	0.0362	0.0000	214.2848
Total	0.1790	1.3760	1.4818	2.5900e-003		0.0605	0.0605		0.0584	0.0584	0.0000	213.3790	213.3790	0.0362	0.0000	214.2848

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.1252	0.0442	5.8000e-004	0.0187	7.4000e-004	0.0195	5.4100e-003	7.1000e-004	6.1100e-003	0.0000	56.5834	56.5834	1.7100e-003	8.2000e-003	59.0694
Worker	0.0404	0.0280	0.3410	1.0300e-003	0.1197	6.6000e-004	0.1203	0.0318	6.1000e-004	0.0324	0.0000	95.8778	95.8778	2.8100e-003	2.6400e-003	96.7353
Total	0.0437	0.1532	0.3851	1.6100e-003	0.1384	1.4000e-003	0.1398	0.0372	1.3200e-003	0.0385	0.0000	152.4612	152.4612	4.5200e-003	0.0108	155.8047

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

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1790	1.3760	1.4818	2.5900e-003		0.0605	0.0605		0.0584	0.0584	0.0000	213.3787	213.3787	0.0362	0.0000	214.2846
Total	0.1790	1.3760	1.4818	2.5900e-003		0.0605	0.0605		0.0584	0.0584	0.0000	213.3787	213.3787	0.0362	0.0000	214.2846

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3100e-003	0.1252	0.0442	5.8000e-004	0.0187	7.4000e-004	0.0195	5.4100e-003	7.1000e-004	6.1100e-003	0.0000	56.5834	56.5834	1.7100e-003	8.2000e-003	59.0694
Worker	0.0404	0.0280	0.3410	1.0300e-003	0.1197	6.6000e-004	0.1203	0.0318	6.1000e-004	0.0324	0.0000	95.8778	95.8778	2.8100e-003	2.6400e-003	96.7353
Total	0.0437	0.1532	0.3851	1.6100e-003	0.1384	1.4000e-003	0.1398	0.0372	1.3200e-003	0.0385	0.0000	152.4612	152.4612	4.5200e-003	0.0108	155.8047

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 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/yr										MT/yr					
Off-Road	0.0639	0.4979	0.5633	9.9000e-004		0.0203	0.0203		0.0196	0.0196	0.0000	81.7251	81.7251	0.0136	0.0000	82.0653
Total	0.0639	0.4979	0.5633	9.9000e-004		0.0203	0.0203		0.0196	0.0196	0.0000	81.7251	81.7251	0.0136	0.0000	82.0653

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2200e-003	0.0476	0.0165	2.2000e-004	7.1700e-003	2.8000e-004	7.4600e-003	2.0700e-003	2.7000e-004	2.3400e-003	0.0000	21.2928	21.2928	6.7000e-004	3.0800e-003	22.2289
Worker	0.0145	9.6300e-003	0.1222	3.8000e-004	0.0458	2.4000e-004	0.0461	0.0122	2.2000e-004	0.0124	0.0000	35.7989	35.7989	9.8000e-004	9.5000e-004	36.1052
Total	0.0158	0.0573	0.1387	6.0000e-004	0.0530	5.2000e-004	0.0535	0.0143	4.9000e-004	0.0147	0.0000	57.0917	57.0917	1.6500e-003	4.0300e-003	58.3340

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

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0639	0.4979	0.5633	9.9000e-004		0.0203	0.0203		0.0196	0.0196	0.0000	81.7250	81.7250	0.0136	0.0000	82.0652
Total	0.0639	0.4979	0.5633	9.9000e-004		0.0203	0.0203		0.0196	0.0196	0.0000	81.7250	81.7250	0.0136	0.0000	82.0652

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2200e-003	0.0476	0.0165	2.2000e-004	7.1700e-003	2.8000e-004	7.4600e-003	2.0700e-003	2.7000e-004	2.3400e-003	0.0000	21.2928	21.2928	6.7000e-004	3.0800e-003	22.2289
Worker	0.0145	9.6300e-003	0.1222	3.8000e-004	0.0458	2.4000e-004	0.0461	0.0122	2.2000e-004	0.0124	0.0000	35.7989	35.7989	9.8000e-004	9.5000e-004	36.1052
Total	0.0158	0.0573	0.1387	6.0000e-004	0.0530	5.2000e-004	0.0535	0.0143	4.9000e-004	0.0147	0.0000	57.0917	57.0917	1.6500e-003	4.0300e-003	58.3340

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 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/yr										MT/yr					
Archit. Coating	0.4591					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.0792	0.1177	1.9000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	16.5962	16.5962	9.3000e-004	0.0000	16.6195
Total	0.4709	0.0792	0.1177	1.9000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	16.5962	16.5962	9.3000e-004	0.0000	16.6195

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1300e-003	2.7400e-003	0.0348	1.1000e-004	0.0130	7.0000e-005	0.0131	3.4600e-003	6.0000e-005	3.5300e-003	0.0000	10.1791	10.1791	2.8000e-004	2.7000e-004	10.2661
Total	4.1300e-003	2.7400e-003	0.0348	1.1000e-004	0.0130	7.0000e-005	0.0131	3.4600e-003	6.0000e-005	3.5300e-003	0.0000	10.1791	10.1791	2.8000e-004	2.7000e-004	10.2661

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4591					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.0792	0.1177	1.9000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	16.5961	16.5961	9.3000e-004	0.0000	16.6195
Total	0.4709	0.0792	0.1177	1.9000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	16.5961	16.5961	9.3000e-004	0.0000	16.6195

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1300e-003	2.7400e-003	0.0348	1.1000e-004	0.0130	7.0000e-005	0.0131	3.4600e-003	6.0000e-005	3.5300e-003	0.0000	10.1791	10.1791	2.8000e-004	2.7000e-004	10.2661
Total	4.1300e-003	2.7400e-003	0.0348	1.1000e-004	0.0130	7.0000e-005	0.0131	3.4600e-003	6.0000e-005	3.5300e-003	0.0000	10.1791	10.1791	2.8000e-004	2.7000e-004	10.2661

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3672	0.3733	3.1648	6.3200e-003	0.6917	5.0400e-003	0.6968	0.1846	4.7000e-003	0.1893	0.0000	598.7720	598.7720	0.0457	0.0284	608.3795
Unmitigated	0.3672	0.3733	3.1648	6.3200e-003	0.6917	5.0400e-003	0.6968	0.1846	4.7000e-003	0.1893	0.0000	598.7720	598.7720	0.0457	0.0284	608.3795

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	882.00	882.00	882.00	1,849,236	1,849,236
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Total	882.00	882.00	882.00	1,849,236	1,849,236

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 Mid Rise	5.76	7.30	7.50	100.00	0.00	0.00	100	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
Enclosed Parking with Elevator	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751
General Office Building	0.561854	0.062428	0.177046	0.117565	0.023832	0.006317	0.008949	0.006298	0.000705	0.000577	0.028723	0.000955	0.004751

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	212.3413	212.3413	0.0130	1.5700e-003	213.1345
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	212.3413	212.3413	0.0130	1.5700e-003	213.1345
NaturalGas Mitigated	6.1700e-003	0.0530	0.0241	3.4000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	61.0744	61.0744	1.1700e-003	1.1200e-003	61.4374
NaturalGas Unmitigated	6.1700e-003	0.0530	0.0241	3.4000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	61.0744	61.0744	1.1700e-003	1.1200e-003	61.4374

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.06958e+006	5.7700e-003	0.0493	0.0210	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	57.0768	57.0768	1.0900e-003	1.0500e-003	57.4160
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	74912.2	4.0000e-004	3.6700e-003	3.0800e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9976	3.9976	8.0000e-005	7.0000e-005	4.0214
Total		6.1700e-003	0.0530	0.0241	3.3000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	61.0744	61.0744	1.1700e-003	1.1200e-003	61.4374

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.06958e+006	5.7700e-003	0.0493	0.0210	3.1000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	57.0768	57.0768	1.0900e-003	1.0500e-003	57.4160
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	74912.2	4.0000e-004	3.6700e-003	3.0800e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9976	3.9976	8.0000e-005	7.0000e-005	4.0214
Total		6.1700e-003	0.0530	0.0241	3.3000e-004		4.2600e-003	4.2600e-003		4.2600e-003	4.2600e-003	0.0000	61.0744	61.0744	1.1700e-003	1.1200e-003	61.4374

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	564501	138.2636	8.4500e-003	1.0200e-003	138.7800
Enclosed Parking with Elevator	254048	62.2242	3.8000e-003	4.6000e-004	62.4566
General Office Building	48395.6	11.8536	7.2000e-004	9.0000e-005	11.8979
Total		212.3413	0.0130	1.5700e-003	213.1345

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	564501	138.2636	8.4500e-003	1.0200e-003	138.7800
Enclosed Parking with Elevator	254048	62.2242	3.8000e-003	4.6000e-004	62.4566
General Office Building	48395.6	11.8536	7.2000e-004	9.0000e-005	11.8979
Total		212.3413	0.0130	1.5700e-003	213.1345

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6614	0.1025	1.1292	6.3000e-004		0.0133	0.0133		0.0133	0.0133	0.0000	105.9899	105.9899	3.7100e-003	1.9100e-003	106.6519
Unmitigated	9.8746	0.1927	12.4766	0.0207		1.6024	1.6024		1.6024	1.6024	151.8448	65.4653	217.3101	0.1418	0.0119	224.4153

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0459					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	9.2237	0.1801	11.3856	0.0206		1.5964	1.5964		1.5964	1.5964	151.8448	63.6815	215.5263	0.1401	0.0119	222.5887
Landscaping	0.0328	0.0126	1.0909	6.0000e-005		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003	0.0000	1.7838	1.7838	1.7100e-003	0.0000	1.8266
Total	9.8746	0.1927	12.4766	0.0207		1.6024	1.6024		1.6024	1.6024	151.8448	65.4653	217.3101	0.1418	0.0119	224.4153

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0459					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5722					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0105	0.0900	0.0383	5.7000e-004		7.2700e-003	7.2700e-003		7.2700e-003	7.2700e-003	0.0000	104.2061	104.2061	2.0000e-003	1.9100e-003	104.8253
Landscaping	0.0328	0.0126	1.0909	6.0000e-005		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003	0.0000	1.7838	1.7838	1.7100e-003	0.0000	1.8266
Total	0.6614	0.1025	1.1292	6.3000e-004		0.0133	0.0133		0.0133	0.0133	0.0000	105.9899	105.9899	3.7100e-003	1.9100e-003	106.6519

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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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	42.7634	0.2695	6.6000e-003	51.4670
Unmitigated	53.4542	0.3368	8.2500e-003	64.3338

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	9.57764 / 6.03808	50.0147	0.3150	7.7200e-003	60.1883
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.664724 / 0.407412	3.4395	0.0219	5.4000e-004	4.1455
Total		53.4542	0.3368	8.2600e-003	64.3338

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.66211 / 4.83046	40.0118	0.2520	6.1700e-003	48.1507
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.531779 / 0.325929	2.7516	0.0175	4.3000e-004	3.3164
Total		42.7634	0.2695	6.6000e-003	51.4670

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.8245	0.6397	0.0000	26.8172
Unmitigated	14.4327	0.8530	0.0000	35.7563

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	67.62	13.7263	0.8112	0.0000	34.0062
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	3.48	0.7064	0.0418	0.0000	1.7501
Total		14.4327	0.8530	0.0000	35.7563

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	50.715	10.2947	0.6084	0.0000	25.5047
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.61	0.5298	0.0313	0.0000	1.3126
Total		10.8245	0.6397	0.0000	26.8172

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

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

11.0 Vegetation
