One Alexandria North Project

Air Quality Technical Report

December 2021 | 00022.00008.001

Prepared for:

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ACRONYMS AND ABBREVIATIONS

ADT	average daily trips
APN	Accessor's Parcel Number
AQIA	Air Quality Impact Assessment
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CO	carbon monoxide
CY	cubic yard(s)
DPM	diesel particulate matter
H_2S	hydrogen sulfide
HRA	health risk assessment
I-	Interstate
LOS	level of service
MEI	maximally exposed individual
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NDP	Neighborhood Development Permit
NO	nitrogen monoxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
Pb	lead
PCE	perchloroethylene
PM	particulate matter
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns

ACRONYMS AND ABBREVIATIONS (cont.)

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 Air Pollution Control District
SDP	Site Development Permit
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
TAC	toxic air contaminant
TPM	Tentative Parcel Map
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

This report presents an assessment of potential air quality impacts during construction and operation of the proposed One Alexandria North Project (Project), which proposes to develop a research and development campus in the city of San Diego (City).

The Project would result in emissions of air pollutants during both construction and operations. Construction best management practices (BMPs) would be implemented as part of the Project, including measures to minimize fugitive dust control emissions, such as watering twice per day during grading and stabilizing storage piles. The Project would comply with San Diego Air Pollution Control District (SDAPCD) Rule 55, which requires that no visible dust is emitted beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period and would incorporate measures to minimize the track-out/carry-out of visible roadway dust. Emissions of all criteria pollutants would be below the daily thresholds during construction, and short-term construction air quality impacts would be less than significant.

Operationally, the Project would replace existing uses and would not result in a net increase in emissions that would exceed thresholds from area, energy, transportation, and stationary sources. Operational air quality impacts would be less than significant.

Development of the Project would be consistent with SDAPCD's 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County and also would not result in cumulatively considerable emissions of nonattainment air pollutants that would exceed the screening level thresholds.

The Project would not result in an increase in traffic that could result in a carbon monoxide (CO) hot spot. Construction and operation of the Project also would not result in exposure of sensitive receptors to significant quantities of toxic air contaminants (TACs). In addition, evaluation of potential odors from the Project indicated that associated impacts would be less than significant.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report analyzes potential air quality impacts associated with the proposed One Alexandria North Project (Project) and includes an evaluation of existing conditions in the Project vicinity and assessment of potential impacts associated with Project construction and operations.

1.2 PROJECT LOCATION

The approximately 11.4-acre Project site is located in the University community planning area in the city of San Diego (City), California (see Figure 1, *Regional Location*). The site is generally located east of the Pacific Ocean and west of Interstate (I-) 5, south of the city of Del Mar, and north of the community of La Jolla (see Figure 1). The site is specifically located at 11255 and 11355 North Torrey Pines Road, La Jolla, CA 92037 (Accessor's Parcel Numbers [APNs] 310-110-13-00 and 310-110-14-00), west of Torrey Pines State Reserve (see Figure 2, *Aerial Photograph*).

1.3 PROJECT DESCRIPTION

The Project consists of the redevelopment of the current National University - La Jolla, California Academic Headquarters into a two-building research and development campus with supporting amenity uses and a parking structure (see Figure 3, *Site Plan*). Current property improvements include two commercial buildings with two stories each, a stand-alone amenity building, tennis courts, and a pool. The two existing buildings at 11255 North Torrey Pines Road and 11355 North Torrey Pines Road and surrounding improvements would be demolished prior to development. The total gross Project floor area (not including the parking structure) would be 340,814 square feet. The Project permits would include a Coastal Development Permit (CDP), a site Development Permit (SDP), a Neighborhood Development Permit (NDP), and a Tentative Parcel Map (TPM).

1.3.1 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:

   a) be minimized by the use of any of the following or equally effective trackout/carry-out and erosion control measures that apply to the Project or operation:

      i) track-out grates or gravel beds at each egress point;

      ii) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks;

      iii) using secured tarps or cargo covering, watering, or treating of transported material; and

   b) 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 PM_{10}-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 Project would implement the BMP control measures listed below:

- A minimum of two applications of water during grading between dozer/scraper passes;
- Paving, chip sealing, or chemical stabilization of internal roadways after completion of grading;
- Termination of grading if winds exceed 25 miles per hour (mph);
- Maintenance of a minimum soil moisture of 12 percent in all exposed surfaces;
- Stabilization of dirt storage piles by chemical binders, tarps, fencing, or other erosion control; and
- Vehicle speeds would be limited on unpaved roads to 15 mph.

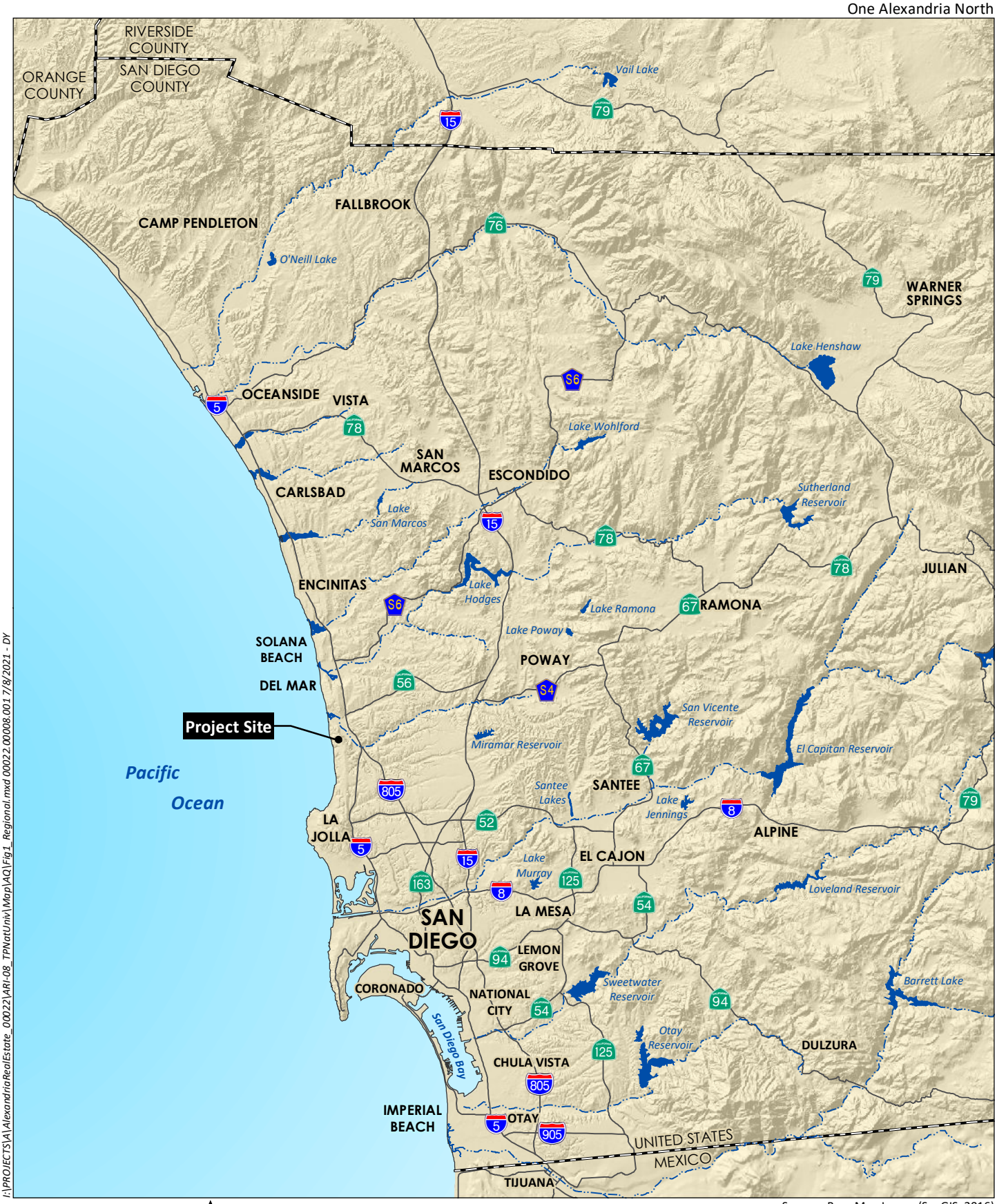
2.0 REGULATORY SETTING

2.1 CRITERIA POLLUTANTS

2.1.1 Pollutants of Concern

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

- Ozone (O_3)
- Reactive Organic Gases (ROGs) or Volatile Organic Compounds (VOCs)
- Carbon Monoxide (CO)
- Nitrogen Dioxide (NO_2)
- Respirable Particulate Matter (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$)



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Source: Base Map Layers (SanGIS, 2016)

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Regional Location

Figure 1

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0 200 Feet

Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Aerial Photograph

Figure 2

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0 200 Feet

Source: Aerial (SanGIS, 2019)

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Site Plan

Figure 3

- Sulfur Dioxide (SO_2)
- Lead (Pb)

The following specific descriptions of health effects for each air pollutant associated with Project construction and operation are based on information available through U.S. Environmental Protection Agency (USEPA; 2021) and California Air Resources Board (CARB; 2021a).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed when VOCs and nitrogen oxides (NO_X), both by-products of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Reactive Organic Gases. ROGs (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a product of fuel combustion. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen monoxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. PM_{10} refers to particulate matter (PM) with an aerodynamic diameter of 10 microns or less. $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified a carcinogen by CARB.

Sulfur Dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney, and blood diseases upon prolonged exposure.

Lead is also classified as a probable human carcinogen. Because emissions of lead are found only in projects that are permitted by the local air district, lead is not an air pollutant of concern for the proposed Project.

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (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 the criteria pollutants, which are discussed above. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Table 1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA), and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. On August 3, 2018, the San Diego Air Basin (SDAB) was classified as a moderate nonattainment area for the 8-hour NAAQS for ozone (USEPA 2020). The SDAB is currently classified as a nonattainment area under the CAAQS for ozone, PM_{10}, and $PM_{2.5}$. The SDAB is an attainment area for the NAAQS and CAAQS for all other criteria pollutants (SDAPCD 2019).

Table 1
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)	–	–

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	
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.

Note: More detailed information of the data presented in this table can be found at the CARB website (www.arb.ca.gov).
O_3: ozone; ppm: parts per million; µg/m^3: micrograms per cubic meter; PM_{10}: large particulate matter;
AAM: Annual Arithmetic Mean; $PM_{2.5}$: fine particulate matter; CO: carbon monoxide; mg/m^3: milligrams per cubic meter;
NO_2: nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer; –: No Standard.

CARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The local air district has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for the County.

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 current regional air quality plan for San Diego 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 state implementation plan (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.

The Attainment Plan relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as

part of the development of their respective general plans. Projects which are consistent with the growth assumptions used in the Attainment Plan and do not conflict with the control measures in the Attainment Plan, and which do not result in criteria pollutant and precursor emissions in excess of the thresholds adopted by the City (as described in Section 4.2, below), would not hinder the goal of the Attainment Plan to bring the SDAB into compliance with the NAAQS and CAAQS for the protection of public health.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin.

The current federal and state attainment status for San Diego County is presented in Table 2, *San Diego Air Basin Attainment Status*.

Table 2
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	(No federal standard)	Nonattainment
O_3 (8-hour)	Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassifiable
Visibility	(No federal standard)	Unclassifiable

Source: SDAPCD 2019

2.2 TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are a category of air pollutants that have been shown to have an impact on human health but are not classified as criteria pollutants. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. Air toxics are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as farms, landfills, construction sites, and residential areas. Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Public exposure to TACs is a significant environmental health issue in California.

2.3 ODORS

The State of California Health and Safety Code Sections 41700 and 41705 and SDAPCD Rule 51 (commonly referred to as public nuisance law) 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. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. 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 will be considered to be a significant, adverse odor impact.

The San Diego Municipal Code also addresses odor impacts at Chapter 14, Article 2, Division 7 paragraph 142.0710, "Air Contaminant Regulations," which states:

> Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling, shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity.

The predominant wind direction in the vicinity of Project site is from the northwest and the average wind speed is 4.6 mph (Iowa Environmental Mesonet 2021). The annual average maximum temperature in the Project area is approximately 67°F, and the annual average minimum temperature is approximately 56°F. Total precipitation in the Project area averages approximately 10 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center 2016).

Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases, which is the opposite of general patterns). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems 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 NO_2 react under strong sunlight, 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 NO_2 emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions.

3.2 EXISTING AIR QUALITY

3.2.1 Criteria Pollutants

3.2.1.1 Attainment Designations

Attainment designations are discussed in Section 2.1.1 and shown in Table 2. The SDAB is classified as a nonattainment area under the NAAQS for 8-hour ozone and as a nonattainment area under the CAAQS

for 1-hour ozone, 8-hour ozone, PM_{10}, and $PM_{2.5}$. The SDAB is an attainment area for all other criteria pollutants.

3.2.1.2 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the county. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring station to the Project site for which recent data is available is the San Diego-Kearny Villa Road monitoring station located near Marine Corps Air Station Miramar, approximately 8.2 miles southwest of the Project site. Air quality data for this monitoring station are shown in Table 3, *Air Quality Monitoring Data.*

Table 3
AIR QUALITY MONITORING DATA

Pollutant	2017	2018	2019
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.097	0.102	0.083
Days above 1-hour state standard (>0.09 ppm)	2	1	0
Maximum 8-hour concentration (ppm)	0.083	0.07	0.075
Days above 8-hour state standard (>0.070 ppm)	6	5	1
Days above 8-hour federal standard (>0.075 ppm)	4	1	0
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	*	*	*
Days above state or federal standard (>9.0 ppm)	*	*	*
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour concentration (µg/m^3)	47.0	38.0	*
Days above state standard (>50 µg/m^3)	0	0	*
Days above federal standard (>150 µg/m^3)	0	0	*
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m^3)	27.5	32.2	16.2
Days above federal standard (>35 µg/m^3)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.054	0.045	0.046
Days above state 1-hour standard (0.18 ppm)	0	0	0

Source: CARB 2021b
ppm = parts per million, µg/m^3 = micrograms per cubic meter
* Insufficient data available

From 2017 to 2019, monitoring data at the San Diego-Kearny Villa Road station show acceptable levels of PM_{10}, $PM_{2.5}$, NO_2. The state 1-hour ozone standard was violated twice in 2017 and once in 2018. The state 8-hour ozone standard was violated six times in 2017, five times in 2018, and one time in 2019, and the federal 8-hour ozone standard was violated four times in 2017 and one time in 2018.

3.2.1.3 Existing Project Site Emissions

The Project site is currently developed with the National University - La Jolla, California Academic Headquarters offices. Existing emissions at the Project site occur in association with the on-site uses, specifically mobile sources emissions from vehicle trips to and from the site; area source emissions

generated by maintenance equipment, landscape equipment, and use of products that contain solvents; and energy source emissions from natural gas usage. According to the Local Mobility Analysis prepared for the Project (Rick Engineering Company 2021), the existing on-site use generates 1,337 average daily trips (ADT). Model calculated defaults for area and energy sources were used to estimate existing emissions. Table 4, *Estimated Existing Daily Operational Emissions,* shows the model-calculated emissions associated with the existing uses at the Project site.

Table 4
ESTIMATED EXISTING DAILY OPERATIONAL EMISSIONS

Category	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	3	<0.5	<0.5	<0.5	<0.5	<0.5
Energy	<0.5	1	1	<0.5	<0.5	<0.5
Mobile	4	4	32	<0.5	7	2
Maximum Daily Emissions	**7**	5	**33**	<0.5	7	2

Source: CalEEMod (output data is provided in Appendix A)
VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

3.3 SENSITIVE RECEPTORS

The City's California Environmental Quality Act (CEQA) Significance Determination Thresholds (City 2016) indicate that a sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant compared to the population at large. Sensitive receptors in proximity to localized CO sources, TACs, or odors are of particular concern. Examples of sensitive receptors include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. The nearest sensitive receptors to the Project site are multi-family residences to the east and northeast of the site across I-5, as close as 0.7 mile from the Project site. As such, there are no sensitive receptors in the vicinity of the Project site that would be affected by the Project.

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Criteria pollutant emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0 (California Air Pollution Control Officers Association [CAPCOA] 2021). CalEEMod is a computer model used to estimate criteria air pollutant emissions resulting from construction and operation of land development projects throughout the state of California. CalEEMod was developed by the SCAQMD with the input of several air quality management and pollution control districts. The input data and subsequent construction and operation emission estimates for the proposed Project are discussed below. CalEEMod output files are included in Appendix A.

4.1.1 Construction Emissions

As described above, construction emissions are assessed using the CalEEMod, Version 2020.4.0. CalEEMod contains OFFROAD2011 and EMFAC2017 emission factors from CARB's models for off-road equipment and on-road vehicles, respectively. The construction analysis included modeling of the projected construction equipment that would be used during each construction activity and quantities of earth and debris to be moved. The model calculates emissions of CO, PM_{10}, $PM_{2.5}$, SO_2, and the ozone precursors VOC and NO_X.

Construction input data for CalEEMod include, but are not limited to, (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the Project area. The analysis assessed maximum daily emissions from individual construction activities associated with Project implementation, which are expected to include demolition, site preparation, grading, building construction, paving, and architectural coating.

Construction would require heavy equipment during these various construction activities. Construction equipment estimates are based on assumptions provided by the Project Applicant and model defaults. Table 5, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

Table 5
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment	Number
Demolition	Concrete/Industrial Saw	1
	Excavator	3
	Rubber Tired Dozer	2
Site Preparation	Rubber Tired Dozer	3
	Tractor/Loader/Backhoe	4
Grading	Excavator	1
	Grader	1
	Off-Highway Truck	1
	Rubber Tired Dozer	1
	Scraper	1
	Tractor/Loader/Backhoe	3
Building Construction	Crane	1
	Forklift	3
	Generator Set	4
	Off-Highway Truck	1
	Tractor/Loader/Backhoe	3
	Welder	1
Paving	Paver	2
	Paving Equipment	2
	Roller	2
Architectural Coating	Air Compressor	1

The construction schedule was determined by input provided by the Project Applicant and model defaults. Table 6, *Anticipated Construction Schedule*, shows the anticipated construction schedule that was assumed for modeling purposes.

Table 6
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period Start	Construction Period End	Number of Working Days
Demolition	8/1/2022	10/31/2022	66
Site Preparation	11/1/2022	12/30/2022	44
Grading	1/2/2023	4/28/2023	85
Building Construction	5/1/2023	5/31/2024	285
Paving	6/3/2024	7/12/2024	30
Architectural Coating	7/15/2024	8/23/2024	30

Project construction would involve the demolition of 269,667 square feet of existing structures and 75,000 cubic yards (CY) of cut and 10,000 CY of fill for a net export of 65,000 CY of soil material during grading. The export of demolition materials and cut soil would require the use of on-road haul trucks that would generate air pollutant emissions.

The quantity, duration, and the intensity of construction activity influence the amount of construction emissions and their 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 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 incorporated in the CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

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. Construction emission calculations presented herein assume the implementation of standard dust control measures listed in Section 1.4, including watering two times daily during grading, ensuring that all exposed surfaces maintain a minimum soil moisture of 12 percent, and limiting vehicle speeds on unpaved roads to 15 mph.

The Project would also comply with the requirements of SDAPCD Rule 67 by using low-VOC coatings with a content of 50 grams per liter. The quantities of coatings that would be applied to the interior and exterior of the new buildings were estimated according to CalEEMod default assumptions.

4.1.2 Operational Emissions

Operational emissions associated with the Project's development of two research and development buildings and supporting amenities were estimated using CalEEMod. Operational sources of emissions include area, energy, transportation, and stationary. Operational emissions from area sources include engine emissions from landscape maintenance equipment and VOC emissions from repainting of buildings and consumer products. As discussed above, the Project would use low-VOC coatings in accordance with SDAPCD Rule 67. Energy source emissions include the combustion of natural gas for heating and hot water. The model-calculated default for natural gas usage was used for the emissions estimates.

Operational emissions from mobile sources are associated with Project-generated vehicle trips. According to the Local Mobility Analysis prepared for the Project by Rick Engineering Company (2021), the Project would generate 2,052 ADT. CalEEMod default vehicle speeds, trip purpose, and trip distances were applied to the trips. Model output data sheets are included in Appendix A.

The Project would include a backup generator that is conservatively assumed for analysis purposes to be a relatively large (500 horsepower) generator. It is further assumed that that the generator would be tested once per month for 15 minutes, for a total of 3 hours of operating time per year for routine testing.

4.2 SIGNIFICANCE CRITERIA

The City (2016) has approved guidelines for determining significance based on Appendix G of the CEQA Guidelines, which provide guidance that a project would have a significant air quality environmental impact if it would:

(1) Conflict with or obstruct implementation of the Attainment Plan or applicable portions of the SIP;

(2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

(3) Result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

(4) Expose sensitive receptors (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) to substantial pollutant concentrations; or

(5) Create objectionable odors affecting a substantial number of people.

To determine whether a project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, (b) result in a cumulatively considerable net increase of PM_{10}, PM_{10}, or exceed quantitative thresholds for ozone precursors (NO_X and VOCs), or (c) have an adverse effect on human health, project emissions may be evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rules 20.2 and 20.3 for the preparation of Air Quality Impact Assessments (AQIAs). In the absence of a SDAPCD adopted thresholds for $PM_{2.5}$, the SCAQMD's screening threshold of 55 pounds per day or 10 tons per year is used.

The screening criteria were developed by SDAPCD and SCAQMD with the purpose of attaining the NAAQS and CAAQS. The NAAQS and CAAQS, as discussed in Section 2.1.1, identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Therefore, for CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality or have an adverse effect on human health. The screening thresholds are included 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 per Day)			
Respirable Particulate Matter (PM_{10})	100		
Fine Particulate Matter ($PM_{2.5}$)	55		
Oxides of Nitrogen (NO_X)	250		
Oxides of Sulfur (SO_X)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	137		
Operational Emissions			
	Pounds per Hour	**Pounds per Day**	**Tons per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)	---	55	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	13.7
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: City of San Diego 2016
T-BACT = Toxics-Best Available Control Technology

Per the City's Significance Determination Thresholds, determining the significance of potential odor impacts should be based on what is known about the quantity of the odor compound(s) that would result from the Project's proposed use(s), the type of neighboring uses potentially affected, the distance(s) between the Project's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentrations at receptors.

5.0 IMPACT ANALYSIS

This section evaluates potential direct impacts of the proposed Project related to the air pollutant emissions.

5.1 CONSISTENCY WITH AIR QUALITY PLANS

The SDAPCD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the Attainment Plan and SIP, prepared by the SDAPCD for the region. Both the Attainment Plan and SIP are based on SANDAG population projections, as well as land use designations and population projections included in general plans for cities located within the County. Population growth is typically associated with the construction of residential units or large employment centers.

Projects that propose development that is consistent with the growth anticipated by the local jurisdictions' general plans would be consistent with the Attainment Plan. In the event that a project proposes development that is less intensive 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 General Plan and SANDAG's growth projections upon which the Attainment Plan is based, the project would be in conflict with the Attainment Plan and might have a potentially significant impact on air quality. This situation would warrant further analysis to determine whether the project and the surrounding projects exceed the growth projections used in the Attainment Plan for the specific subregional area.

The Project site has a City General Plan land use designation of Industrial Employment and a University Community Plan generalized land use designation of Industrial with a specific designation of Scientific Research within the Torrey Pines Subarea #1 of the University Community Plan. The Project would replace existing office uses with research and development uses and would not involve an amendment to the General Plan or University Community. It would be consistent with the General Plan and University Community Plan and would therefore not result in development that is greater than that anticipated in the General Plan or SANDAG's growth projections upon which the Attainment Plan is based. Furthermore, as detailed in Section 5.2, below, the Project would not result in a significant air quality impact with regards to construction- and operational-related emissions of ozone precursors or criteria air pollutants. The Project would also comply with existing and new rules and regulations as they are implemented by the SDAPCD, CARB, and/or USEPA related to emissions generated during construction. Impacts associated with conformance to regional air quality plans would be less than significant.

5.2 CONFORMANCE TO FEDERAL AND STATE AIR QUALITY STANDARDS

The Project would generate criteria pollutants in the short-term during construction and the long-term during operation. To determine whether a project would result in emissions that would violate an air quality standard, contribute substantially to an existing or projected air quality violation, or have an adverse effect on human health, the Project's emissions are evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 7).

5.2.1 Construction

The Project's construction emissions were estimated using CalEEMod as described in Section 4.1.1. Project-specific input was based on information provided by the Project Applicant and default model settings to estimate reasonably conservative conditions. Additional details of phasing, selection of construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

The results of the calculations for Project construction are shown in Table 8, *Estimated Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SDAPCD thresholds. Refer to Appendix A for detailed emissions calculations.

Table 8
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition – 2022	3	32	26	<0.5	4	2
Site Preparation – 2022	4	41	25	<0.5	7	4
Grading – 2023	4	50	34	<0.5	8	4
Building Construction – 2023	4	34	42	<0.5	4	2
Building Construction – 2024	4	32	42	<0.5	4	2
Paving – 2024	1	12	19	<0.5	1	1
Architectural Coatings – 2024	54	2	4	<0.5	<0.5	<0.5
Maximum Daily Emissions	**54**	**50**	**42**	**<0.5**	**8**	**4**
SDAPCD Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides;
PM_{10} = 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, emissions of all criteria pollutants and ozone precursors from Project construction would be below the SDAPCD's significance thresholds. Therefore, direct impacts from criteria pollutants generated during Project construction would be less than significant.

5.2.2 Operation

The Project's net increase in operational emissions over existing conditions was estimated using CalEEMod as described in Section 4.1.2. Operational emissions calculations and model outputs are provided in Appendix A. Table 9, *Estimated Net Daily Operational Emissions*, presents the summary of the net increase in operational emissions for the Project.

Table 9
ESTIMATED NET DAILY OPERATIONAL EMISSIONS

Category	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	8	<0.5	<0.5	0	<0.5	<0.5
Energy	<0.5	1	1	<0.5	<0.5	<0.5
Mobile	6	6	52	<0.5	11	3
Stationary	12	34	31	<0.5	2	2
Total Daily Emissions	**26**	**42**	**84**	**<0.5**	**13**	**5**
Existing Site Emissions	7	5	33	<0.5	7	2
NET DAILY EMISSIONS	**19**	**37**	**51**	**<0.5**	**6**	**3**
SDAPCD Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide;
PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 9, the net increase in emissions of all criteria pollutants and ozone precursors associated with operation of the Project would be below the daily thresholds. Therefore, operation of the Project would not result in a significant impact on air quality.

5.3 CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

The region is a federal and/or state nonattainment area for PM_{10}, $PM_{2.5}$, and ozone. The Project would contribute particulates and the ozone precursors VOC and NO_X to the area during Project construction and operation. As described in Section 5.2, emissions during both construction and operations would not exceed regional thresholds and would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, emissions would not be cumulatively considerable, and impacts would be less than significant.

5.4 IMPACTS TO SENSITIVE RECEPTORS

Impacts to sensitive receptors are typically analyzed for operational period CO hotspots and exposure to TACs. An analysis of the Project's potential to expose sensitive receptors to these pollutants is provided below.

5.4.1 Carbon Monoxide Hotspots

Localized air quality effects occur when emissions from vehicular traffic increase in local areas. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. If a project generates vehicular traffic that increases average delay at signalized intersections operating at Level of Service (LOS) E or F or causes an intersection that would operate at LOS D or better without the project to operate at LOS E of F with the project, the project could result in significant CO hotspot-related effects to sensitive receptors.

According to the Local Mobility Analysis prepared for the Project (Rick Engineering Company 2021), two intersections, Genesee Avenue at the I-5 Southbound Ramps and Genesee Avenue at the I-5 Northbound ramps, under the Opening Year (2023) With Project scenario would operate at LOS E or F and experience an increase in delay from the Project. As discussed in the Local Mobility Analysis, the Project could implement mitigation in the form of updating signal timing at these intersections which would result in a decrease in delay. However, to provide a conservative analysis related to CO hotspots, it is assumed that the mitigation would not be implemented, and these two intersections would operate at LOS E or F and experience delay with the Project. Therefore, consistent with the CO Protocol, these findings indicate that further screening is required. Although the SDAPCD has not, various air quality agencies in California have developed conservative screening methods. The screening methods of the Sacramento Metropolitan Air Quality Management District (SMAQMD) are used for this project because ambient CO concentrations within the SMAQMD jurisdiction are higher than for the project area, as

measured by CARB, resulting in a more conservative analysis. The SMAQMD states that a project will not result in a significant impact to local CO concentrations if it meets all of the below criteria:

- The affected intersection carries less than 31,600 vehicles per hour;
- The project does not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, below-grade roadway, or other location where horizontal or vertical mixing of air would be substantially limited; and
- The affected intersection, which includes a mix of vehicle types, is not anticipated to be substantially different from the county average, as identified by EMFAC or CalEEMod models.

The traffic volumes at the affected intersections under the Opening Year (2023) With Project scenario are estimated to be the following during the highest peak hour:

1. 5,951 vehicles (AM peak hour) at Genesee Avenue and I-5 Southbound Ramps
2. 5,785 vehicles (AM peak hour) at Genesee Avenue and I-5 Northbound Ramps

These intersections are not located in a tunnel, urban canyon, or similar area that would limit the mixing of air, nor is the vehicle mix anticipated to be substantially different than the San Diego County average. There would be no potential for a CO hot spot or exceedance of State or Federal CO ambient air quality standard because the maximum traffic volumes would be substantially less than the 31,600 vehicles per hour screening level; because the congested intersections are located where mixing of air would not be limited; and because the vehicle mix would not be uncommon. Therefore, air quality impacts related to the exposure of sensitive receptors to substantial pollutant concentrations related to intersection operations would be less than significant.

5.4.2 Exposure to Toxic Air Contaminants

5.4.2.1 Construction

Diesel engines emit a complex mixture of air pollutants, including gaseous material and DPM. DPM emissions would be released from the on-site construction equipment associated with the Project. CARB has declared that DPM from diesel engine exhaust is a TAC. Additionally, the Office of Environmental Health Hazard Assessment has determined that chronic exposure to DPM can cause carcinogenic and non-carcinogenic health effects. For this reason, although other pollutants would be generated, DPM would be the primary pollutant of concern.

The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments (HRAs), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with a project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment operating at a given time during Project construction, and the construction period would be relatively short, especially when

compared to 30 years. Further, the Project includes multiple components at different areas throughout the Project site, and construction equipment would not be operating in a single location with the potential to affect a given receptor for the entire duration of Project construction. As shown above in Table 8, the highest daily emission of PM_{10} (which includes equipment emissions of DPM) during construction would be approximately 8 pounds per day during the grading phase, which would be well below the 100 pounds per day significance level threshold. As discussed above in Section 2.1.1, these significance level thresholds were developed with the purpose of attaining the NAAQS and CAAQS, which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Combined with the highly dispersive properties of diesel PM, construction-related emissions would not expose sensitive receptors to substantial emissions of TACs. Impacts from construction emissions would be less than significant.

5.4.2.2 Operation

CARB siting recommendations within the *Air Quality and Land Use Handbook* suggest a detailed health risk assessment should be conducted for sensitive receptors within 1,000 feet of a warehouse distribution center, within 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, or within 300 feet of a dry cleaning facility that uses perchloroethylene (PCE), among other siting recommendations (CARB 2005). The Project does not include these types of sources and would not represent a substantial source of TACs.

The Project, as a research and development facility, may include laboratory uses that could involve operations with the potential to lead to TAC vapor emissions; however, such operations would be performed under fume hoods that would function to capture emissions at the source, dilute the emissions in the hood, and then expel the emissions where they can disperse in the atmosphere. Use of the fume hoods would minimize TAC-related risk to both on-site and off-site receptors. As such, impacts are considered less than significant.

5.5 ODORS

As discussed above in Section 2.3, 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.

The Project could produce odors during proposed construction activities from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

During Project operation, the temporary storage of refuse could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's Municipal Code solid waste regulations, thereby precluding significant odor

impacts. Furthermore, the proposed Project would be required to comply with the aforementioned SDAPCD Rule 51 which prohibits the discharge of odorous emissions that would create a public nuisance. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial number of people. Impacts would be less than significant.

6.0 CONCLUSION

The proposed Project would not result in significant impacts related to air quality from construction or operations, and no mitigation would be required.

7.0 LIST OF PREPARERS

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Appendix A

CalEEMod Outputs

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

One Alexandria North Project - Existing Uses

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	133.66	1000sqft	3.07	133,660.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
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 - Operational year of 2024 included here for comparison with the proposed Project's emissions when it becomes operational in 2024.

Land Use -

Construction Phase - Model run for operational emissions only.

Vehicle Trips - Daily trip rate provided in the Local Mobility Analysis prepared for the Project by Rick Engineering Company (2021).

Area Coating - Low-VOC coatings assumed in accordance with SDAPCD Rule 67.

Area Mitigation - Low-VOC coatings assumed in accordance with SDAPCD Rule 67.

Water Mitigation - Reduction in water use in accordance with CalGreen standards.

Waste Mitigation - Waste reduction in accordance with AB 341.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50

One Alexandria North Project - Existing Uses - San Diego County, Winter

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

tblConstructionPhase	NumDays	18.00	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	9.74	10.30

2.0 Emissions Summary

One Alexandria North Project - Existing Uses - 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					
2025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0519	0.0000	0.0000	0.0518	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0519**	**0.0000**	**0.0000**	**0.0518**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0519	0.0000	0.0000	0.0518	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0519**	**0.0000**	**0.0000**	**0.0518**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

One Alexandria North Project - Existing Uses - 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	3.0313	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Energy	0.0791	0.7191	0.6040	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9202	862.9202	0.0165	0.0158	868.0481
Mobile	3.5547	3.7981	31.8903	0.0633	6.9257	0.0505	6.9762	1.8449	0.0471	1.8920		6,556.1428	6,556.1428	0.4990	0.3102	6,661.0685
Total	**6.6651**	**4.5173**	**32.5079**	**0.0676**	**6.9257**	**0.1052**	**7.0309**	**1.8449**	**0.1018**	**1.9467**		**7,419.0922**	**7,419.0922**	**0.5157**	**0.3261**	**7,529.1478**

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	3.0313	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Energy	0.0791	0.7191	0.6040	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9202	862.9202	0.0165	0.0158	868.0481
Mobile	3.5547	3.7981	31.8903	0.0633	6.9257	0.0505	6.9762	1.8449	0.0471	1.8920		6,556.1428	6,556.1428	0.4990	0.3102	6,661.0685
Total	**6.6651**	**4.5173**	**32.5079**	**0.0676**	**6.9257**	**0.1052**	**7.0309**	**1.8449**	**0.1018**	**1.9467**		**7,419.0922**	**7,419.0922**	**0.5157**	**0.3261**	**7,529.1478**

One Alexandria North Project - Existing Uses - 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	2/4/2025	2/3/2025	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 200,490; Non-Residential Outdoor: 66,830; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

One Alexandria North Project - Existing Uses - San Diego County, Winter

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

3.2 Architectural Coating - 2025

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

One Alexandria North Project - Existing Uses - San Diego County, Winter

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

3.2 Architectural Coating - 2025

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.5547	3.7981	31.8903	0.0633	6.9257	0.0505	6.9762	1.8449	0.0471	1.8920		6,556.1428	6,556.1428	0.4990	0.3102	6,661.0685
Unmitigated	3.5547	3.7981	31.8903	0.0633	6.9257	0.0505	6.9762	1.8449	0.0471	1.8920		6,556.1428	6,556.1428	0.4990	0.3102	6,661.0685

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,376.70	0.00	0.00	2,349,977	2,349,977
Total	1,376.70	0.00	0.00	2,349,977	2,349,977

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0791	0.7191	0.6040	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9202	862.9202	0.0165	0.0158	868.0481
NaturalGas Unmitigated	0.0791	0.7191	0.6040	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9202	862.9202	0.0165	0.0158	868.0481

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	7334.82	0.0791	0.7191	0.6040	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9202	862.9202	0.0165	0.0158	868.0481
Total		**0.0791**	**0.7191**	**0.6040**	**4.3100e-003**		**0.0547**	**0.0547**		**0.0547**	**0.0547**		**862.9202**	**862.9202**	**0.0165**	**0.0158**	**868.0481**

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					
General Office Building	7.33482	0.0791	0.7191	0.6040	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9202	862.9202	0.0165	0.0158	868.0481
Total		**0.0791**	**0.7191**	**0.6040**	**4.3100e-003**		**0.0547**	**0.0547**		**0.0547**	**0.0547**		**862.9202**	**862.9202**	**0.0165**	**0.0158**	**868.0481**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0313	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Unmitigated	3.0313	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312

One Alexandria North Project - Existing Uses - 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

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	0.1697					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.8603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2600e-003	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Total	**3.0313**	**1.2000e-004**	**0.0136**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0293**	**0.0293**	**8.0000e-005**		**0.0312**

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	0.1697					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.8603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2600e-003	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Total	**3.0313**	**1.2000e-004**	**0.0136**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0293**	**0.0293**	**8.0000e-005**		**0.0312**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

One Alexandria North - Proposed Uses

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	8.81	1000sqft	0.14	8,810.00	0
Research & Development	326.99	1000sqft	5.34	326,990.00	0
Other Asphalt Surfaces	105.00	1000sqft	2.41	105,000.00	0
Unenclosed Parking Structure	163.10	1000sqft	2.66	163,100.00	0
Fast Food Restaurant w/o Drive Thru	5.01	1000sqft	0.09	5,014.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
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 - Indicated by Project Applicant that construction is to commence August 2022 and be complete by September 2024.

Land Use - B1/B2 = R&D; B3 = Fast Food Restaurant w/o Drive Thru; B4 = General Office Building. Lot acreages proportionally adjusted from defaults to equal total work area acreage (9.9 acres).

Construction Phase - Schedule based on input provided by project applicant.

Off-road Equipment - Equipment info based on input from project applicant.

Off-road Equipment - Equipment info based on input from project applicant.

Off-road Equipment - Equipment info based on input from project applicant.

Off-road Equipment - Equipment info based on input from project applicant.

One Alexandria North - Proposed Uses - San Diego County, Winter

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

Off-road Equipment - Equipment info based on input from project applicant.

Off-road Equipment - Equipment info based on input from project applicant.

Grading -

Demolition -

Trips and VMT - Per project applicant, 50 truckloads of demolition material to be exported. 65,000 CY of graded material export/16 CY truck = 4,062.5 loads x 2 trips per load = 8,125 trips.

Architectural Coating - Low-VOC coatings per SDAPCD Rule 67.

Vehicle Trips - Total Project ADT of 2,052 provided by Project's Local Mobility Analysis (Rick Engineering Company 2021).

Area Coating - Low-VOC coatings per SDAPCD Rule 67.

Stationary Sources - Emergency Generators and Fire Pumps - Emergency Generators and Fire Pumps - Backup generator included per input from Project Applicant.

Construction Off-road Equipment Mitigation -

Water Mitigation - Water reduction per CalGreen requirements.

Waste Mitigation - Waste reduction per AB 341 requirements.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	50
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	230.00	285.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	20.00	85.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	10.00	44.00

One Alexandria North - Proposed Uses - San Diego County, Winter

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

tblConstructionPhase	PhaseEndDate	10/20/2023	8/23/2024
tblConstructionPhase	PhaseEndDate	8/25/2023	5/31/2024
tblConstructionPhase	PhaseEndDate	8/26/2022	10/31/2022
tblConstructionPhase	PhaseEndDate	10/7/2022	4/28/2023
tblConstructionPhase	PhaseEndDate	9/22/2023	7/12/2024
tblConstructionPhase	PhaseEndDate	9/9/2022	12/30/2022
tblConstructionPhase	PhaseStartDate	9/23/2023	7/15/2024
tblConstructionPhase	PhaseStartDate	10/8/2022	5/1/2023
tblConstructionPhase	PhaseStartDate	9/10/2022	1/2/2023
tblConstructionPhase	PhaseStartDate	8/26/2023	6/3/2024
tblConstructionPhase	PhaseStartDate	8/27/2022	11/1/2022
tblGrading	MaterialExported	0.00	65,000.00
tblLandUse	LandUseSquareFeet	5,010.00	5,014.00
tblLandUse	LotAcreage	0.20	0.14
tblLandUse	LotAcreage	7.51	5.34
tblLandUse	LotAcreage	3.74	2.66
tblLandUse	LotAcreage	0.12	0.09
tblOffRoadEquipment	HorsePower	402.00	63.00
tblOffRoadEquipment	LoadFactor	0.38	0.31
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00

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

tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	3.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	575.00	100.00
tblTripsAndVMT	HaulingTripNumber	1,625.00	8,125.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	346.23	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	11.26	6.28

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

2.0 Emissions Summary

One Alexandria North - Proposed Uses - 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	4.0195	41.3929	26.1721	0.0505	11.3166	2.0166	13.3332	5.7793	1.8552	7.6345	0.0000	4,896.2762	4,896.2762	1.4944	0.0198	4,935.2855
2023	4.0147	50.2808	42.0267	0.1312	12.4817	1.6431	14.1248	5.0983	1.5156	6.6139	0.0000	13,495.9652	13,495.9652	2.5952	1.0102	13,861.8778
2024	54.3096	32.3456	41.5446	0.0953	2.4860	1.2712	3.7572	0.6746	1.2195	1.8941	0.0000	9,425.7400	9,425.7400	1.0342	0.3529	9,556.7532
Maximum	**54.3096**	**50.2808**	**42.0267**	**0.1312**	**12.4817**	**2.0166**	**14.1248**	**5.7793**	**1.8552**	**7.6345**	**0.0000**	**13,495.9652**	**13,495.9652**	**2.5952**	**1.0102**	**13,861.8778**

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	4.0195	41.3929	26.1721	0.0505	5.1738	2.0166	7.1904	2.6222	1.8552	4.4775	0.0000	4,896.2762	4,896.2762	1.4944	0.0198	4,935.2855
2023	4.0147	50.2808	42.0267	0.1312	6.6267	1.6431	8.2698	2.5703	1.5156	4.0858	0.0000	13,495.9652	13,495.9652	2.5952	1.0102	13,861.8778
2024	54.3096	32.3456	41.5446	0.0953	2.4860	1.2712	3.7572	0.6746	1.2195	1.8941	0.0000	9,425.7400	9,425.7400	1.0342	0.3529	9,556.7532
Maximum	**54.3096**	**50.2808**	**42.0267**	**0.1312**	**6.6267**	**2.0166**	**8.2698**	**2.6222**	**1.8552**	**4.4775**	**0.0000**	**13,495.9652**	**13,495.9652**	**2.5952**	**1.0102**	**13,861.8778**

One Alexandria North - Proposed Uses - 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**45.65**	**0.00**	**38.44**	**49.21**	**0.00**	**35.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.8370	5.6000e-004	0.0621	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1333	0.1333	3.5000e-004		0.1420
Energy	0.1423	1.2936	1.0866	7.7600e-003		0.0983	0.0983		0.0983	0.0983		1,552.2725	1,552.2725	0.0298	0.0285	1,561.4969
Mobile	5.6690	6.2547	51.5466	0.1021	10.8342	0.0819	10.9161	2.8861	0.0763	2.9624		10,511.8929	10,511.8929	0.7990	0.4986	10,680.4466
Stationary	12.3064	34.4004	31.3828	0.0591		1.8106	1.8106		1.8106	1.8106		6,296.3559	6,296.3559	0.8828		6,318.4248
Total	**25.9547**	**41.9492**	**84.0781**	**0.1690**	**10.8342**	**1.9909**	**12.8251**	**2.8861**	**1.9854**	**4.8715**		**18,360.6546**	**18,360.6546**	**1.7119**	**0.5270**	**18,560.5102**

One Alexandria North - Proposed Uses - 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

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	7.8370	5.6000e-004	0.0621	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1333	0.1333	3.5000e-004		0.1420
Energy	0.1423	1.2936	1.0866	7.7600e-003		0.0983	0.0983		0.0983	0.0983		1,552.2725	1,552.2725	0.0298	0.0285	1,561.4969
Mobile	5.6690	6.2547	51.5466	0.1021	10.8342	0.0819	10.9161	2.8861	0.0763	2.9624		10,511.8929	10,511.8929	0.7990	0.4986	10,680.4466
Stationary	12.3064	34.4004	31.3828	0.0591		1.8106	1.8106		1.8106	1.8106		6,296.3559	6,296.3559	0.8828		6,318.4248
Total	**25.9547**	**41.9492**	**84.0781**	**0.1690**	**10.8342**	**1.9909**	**12.8251**	**2.8861**	**1.9854**	**4.8715**		**18,360.6546**	**18,360.6546**	**1.7119**	**0.5270**	**18,560.5102**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	10/31/2022	5	66	
2	Site Preparation	Site Preparation	11/1/2022	12/30/2022	5	44	
3	Grading	Grading	1/2/2023	4/28/2023	5	85	
4	Building Construction	Building Construction	5/1/2023	5/31/2024	5	285	

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

5	Paving	Paving	6/3/2024	7/12/2024	5	30	
6	Architectural Coating	Architectural Coating	7/15/2024	8/23/2024	5	30	

Acres of Grading (Site Preparation Phase): 37.5

Acres of Grading (Grading Phase): 220

Acres of Paving: 5.07

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 511,221; Non-Residential Outdoor: 170,407; Striped Parking Area: 15,918 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	10.00	81	0.73
Demolition	Excavators	3	10.00	158	0.38
Demolition	Rubber Tired Dozers	2	10.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	10.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Grading	Excavators	1	10.00	158	0.38
Grading	Graders	1	10.00	187	0.41
Grading	Off-Highway Trucks	1	10.00	402	0.38
Grading	Rubber Tired Dozers	1	10.00	247	0.40
Grading	Scrapers	1	10.00	367	0.48
Grading	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Building Construction	Cranes	1	10.00	231	0.29
Building Construction	Forklifts	3	10.00	89	0.20
Building Construction	Generator Sets	4	10.00	84	0.74
Building Construction	Off-Highway Trucks	1	10.00	63	0.31
Building Construction	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Building Construction	Welders	1	10.00	46	0.45
Paving	Pavers	2	10.00	130	0.42

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

Paving	Paving Equipment	2	10.00	132	0.36
Paving	Rollers	2	10.00	80	0.38
Architectural Coating	Air Compressors	1	10.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	100.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	8,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	221.00	99.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

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

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0721	0.0000	4.0721	0.6167	0.0000	0.6167			0.0000			0.0000
Off-Road	3.2990	32.1493	25.7426	0.0485		1.5533	1.5533		1.4441	1.4441		4,683.4765	4,683.4765	1.3155		4,716.3650
Total	**3.2990**	**32.1493**	**25.7426**	**0.0485**	**4.0721**	**1.5533**	**5.6254**	**0.6167**	**1.4441**	**2.0607**		**4,683.4765**	**4,683.4765**	**1.3155**		**4,716.3650**

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	6.6200e-003	0.2553	0.0607	9.5000e-004	0.0265	2.3700e-003	0.0289	7.2600e-003	2.2700e-003	9.5400e-003		104.7140	104.7140	5.0200e-003	0.0166	109.7968
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	0.0474	0.0321	0.3688	1.0600e-003	0.1232	7.0000e-004	0.1239	0.0327	6.4000e-004	0.0333		108.0858	108.0858	3.4900e-003	3.1900e-003	109.1237
Total	**0.0540**	**0.2874**	**0.4295**	**2.0100e-003**	**0.1497**	**3.0700e-003**	**0.1528**	**0.0399**	**2.9100e-003**	**0.0429**		**212.7997**	**212.7997**	**8.5100e-003**	**0.0198**	**218.9204**

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

3.2 Demolition - 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					1.8325	0.0000	1.8325	0.2775	0.0000	0.2775			0.0000			0.0000
Off-Road	3.2990	32.1493	25.7426	0.0485		1.5533	1.5533		1.4441	1.4441	0.0000	4,683.4765	4,683.4765	1.3155		4,716.3650
Total	**3.2990**	**32.1493**	**25.7426**	**0.0485**	**1.8325**	**1.5533**	**3.3858**	**0.2775**	**1.4441**	**1.7216**	**0.0000**	**4,683.4765**	**4,683.4765**	**1.3155**		**4,716.3650**

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	6.6200e-003	0.2553	0.0607	9.5000e-004	0.0265	2.3700e-003	0.0289	7.2600e-003	2.2700e-003	9.5400e-003		104.7140	104.7140	5.0200e-003	0.0166	109.7968
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	0.0474	0.0321	0.3688	1.0600e-003	0.1232	7.0000e-004	0.1239	0.0327	6.4000e-004	0.0333		108.0858	108.0858	3.4900e-003	3.1900e-003	109.1237
Total	**0.0540**	**0.2874**	**0.4295**	**2.0100e-003**	**0.1497**	**3.0700e-003**	**0.1528**	**0.0399**	**2.9100e-003**	**0.0429**		**212.7997**	**212.7997**	**8.5100e-003**	**0.0198**	**218.9204**

One Alexandria North - Proposed Uses - San Diego County, Winter

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

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.1688	0.0000	11.1688	5.7400	0.0000	5.7400			0.0000			0.0000
Off-Road	3.9627	41.3544	24.6222	0.0476		2.0157	2.0157		1.8545	1.8545		4,607.5773	4,607.5773	1.4902		4,644.8319
Total	**3.9627**	**41.3544**	**24.6222**	**0.0476**	**11.1688**	**2.0157**	**13.1845**	**5.7400**	**1.8545**	**7.5945**		**4,607.5773**	**4,607.5773**	**1.4902**		**4,644.8319**

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	0.0568	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	**0.0568**	**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**

One Alexandria North - Proposed Uses - San Diego County, Winter

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

3.3 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					5.0259	0.0000	5.0259	2.5830	0.0000	2.5830			0.0000			0.0000
Off-Road	3.9627	41.3544	24.6222	0.0476		2.0157	2.0157		1.8545	1.8545	0.0000	4,607.5773	4,607.5773	1.4902		4,644.8319
Total	**3.9627**	**41.3544**	**24.6222**	**0.0476**	**5.0259**	**2.0157**	**7.0417**	**2.5830**	**1.8545**	**4.4375**	**0.0000**	**4,607.5773**	**4,607.5773**	**1.4902**		**4,644.8319**

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	0.0568	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	**0.0568**	**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**

One Alexandria North - Proposed Uses - San Diego County, Winter

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

3.4 Grading - 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					
Fugitive Dust					10.6456	0.0000	10.6456	4.5965	0.0000	4.5965			0.0000			0.0000
Off-Road	3.7519	37.2339	30.2203	0.0726		1.5359	1.5359		1.4130	1.4130		7,028.3854	7,028.3854	2.2731		7,085.2134
Total	**3.7519**	**37.2339**	**30.2203**	**0.0726**	**10.6456**	**1.5359**	**12.1815**	**4.5965**	**1.4130**	**6.0095**		**7,028.3854**	**7,028.3854**	**2.2731**		**7,085.2134**

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	0.2035	13.0086	3.4778	0.0573	1.6719	0.1063	1.7782	0.4583	0.1017	0.5600		6,327.1758	6,327.1758	0.3178	1.0062	6,634.9755
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	0.0593	0.0382	0.4573	1.3700e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		140.4041	140.4041	4.2400e-003	3.9600e-003	141.6889
Total	**0.2628**	**13.0468**	**3.9351**	**0.0586**	**1.8362**	**0.1072**	**1.9434**	**0.5018**	**0.1025**	**0.6044**		**6,467.5798**	**6,467.5798**	**0.3220**	**1.0102**	**6,776.6644**

One Alexandria North - Proposed Uses - San Diego County, Winter

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

3.4 Grading - 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					
Fugitive Dust					4.7905	0.0000	4.7905	2.0684	0.0000	2.0684			0.0000			0.0000
Off-Road	3.7519	37.2339	30.2203	0.0726		1.5359	1.5359		1.4130	1.4130	0.0000	7,028.3854	7,028.3854	2.2731		7,085.2134
Total	**3.7519**	**37.2339**	**30.2203**	**0.0726**	**4.7905**	**1.5359**	**6.3264**	**2.0684**	**1.4130**	**3.4814**	**0.0000**	**7,028.3854**	**7,028.3854**	**2.2731**		**7,085.2134**

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	0.2035	13.0086	3.4778	0.0573	1.6719	0.1063	1.7782	0.4583	0.1017	0.5600		6,327.1758	6,327.1758	0.3178	1.0062	6,634.9755
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	0.0593	0.0382	0.4573	1.3700e-003	0.1643	8.8000e-004	0.1652	0.0436	8.1000e-004	0.0444		140.4041	140.4041	4.2400e-003	3.9600e-003	141.6889
Total	**0.2628**	**13.0468**	**3.9351**	**0.0586**	**1.8362**	**0.1072**	**1.9434**	**0.5018**	**0.1025**	**0.6044**		**6,467.5798**	**6,467.5798**	**0.3220**	**1.0102**	**6,776.6644**

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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	lb/day										lb/day					
Off-Road	3.2388	29.4805	35.3977	0.0607		1.4161	1.4161		1.3596	1.3596		5,759.0715	5,759.0715	0.9366		5,782.4852
Total	**3.2388**	**29.4805**	**35.3977**	**0.0607**		**1.4161**	**1.4161**		**1.3596**	**1.3596**		**5,759.0715**	**5,759.0715**	**0.9366**		**5,782.4852**

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	0.1150	4.4225	1.5756	0.0203	0.6705	0.0260	0.6965	0.1930	0.0249	0.2179		2,191.4760	2,191.4760	0.0660	0.3176	2,287.7708
Worker	0.6553	0.4221	5.0534	0.0152	1.8155	9.7600e-003	1.8252	0.4816	8.9900e-003	0.4905		1,551.4649	1,551.4649	0.0468	0.0437	1,565.6618
Total	**0.7703**	**4.8446**	**6.6290**	**0.0355**	**2.4860**	**0.0357**	**2.5217**	**0.6746**	**0.0338**	**0.7084**		**3,742.9409**	**3,742.9409**	**0.1128**	**0.3613**	**3,853.4326**

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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	lb/day										lb/day					
Off-Road	3.2388	29.4805	35.3977	0.0607		1.4161	1.4161		1.3596	1.3596	0.0000	5,759.0715	5,759.0715	0.9366		5,782.4852
Total	**3.2388**	**29.4805**	**35.3977**	**0.0607**		**1.4161**	**1.4161**		**1.3596**	**1.3596**	**0.0000**	**5,759.0715**	**5,759.0715**	**0.9366**		**5,782.4852**

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	0.1150	4.4225	1.5756	0.0203	0.6705	0.0260	0.6965	0.1930	0.0249	0.2179		2,191.4760	2,191.4760	0.0660	0.3176	2,287.7708
Worker	0.6553	0.4221	5.0534	0.0152	1.8155	9.7600e-003	1.8252	0.4816	8.9900e-003	0.4905		1,551.4649	1,551.4649	0.0468	0.0437	1,565.6618
Total	**0.7703**	**4.8446**	**6.6290**	**0.0355**	**2.4860**	**0.0357**	**2.5217**	**0.6746**	**0.0338**	**0.7084**		**3,742.9409**	**3,742.9409**	**0.1128**	**0.3613**	**3,853.4326**

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

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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	3.0277	27.5732	35.2733	0.0607		1.2358	1.2358		1.1860	1.1860		5,759.7701	5,759.7701	0.9240		5,782.8696
Total	**3.0277**	**27.5732**	**35.2733**	**0.0607**		**1.2358**	**1.2358**		**1.1860**	**1.1860**		**5,759.7701**	**5,759.7701**	**0.9240**		**5,782.8696**

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	0.1104	4.3927	1.5396	0.0199	0.6705	0.0261	0.6966	0.1930	0.0250	0.2180		2,153.3558	2,153.3558	0.0675	0.3120	2,248.0310
Worker	0.6171	0.3797	4.7317	0.0147	1.8155	9.3100e-003	1.8248	0.4816	8.5700e-003	0.4901		1,512.6142	1,512.6142	0.0427	0.0408	1,525.8526
Total	**0.7275**	**4.7724**	**6.2713**	**0.0346**	**2.4860**	**0.0354**	**2.5214**	**0.6746**	**0.0335**	**0.7081**		**3,665.9700**	**3,665.9700**	**0.1102**	**0.3529**	**3,773.8835**

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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	lb/day										lb/day					
Off-Road	3.0277	27.5732	35.2733	0.0607		1.2358	1.2358		1.1860	1.1860	0.0000	5,759.7701	5,759.7701	0.9240		5,782.8696
Total	**3.0277**	**27.5732**	**35.2733**	**0.0607**		**1.2358**	**1.2358**		**1.1860**	**1.1860**	**0.0000**	**5,759.7701**	**5,759.7701**	**0.9240**		**5,782.8696**

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	0.1104	4.3927	1.5396	0.0199	0.6705	0.0261	0.6966	0.1930	0.0250	0.2180		2,153.3558	2,153.3558	0.0675	0.3120	2,248.0310
Worker	0.6171	0.3797	4.7317	0.0147	1.8155	9.3100e-003	1.8248	0.4816	8.5700e-003	0.4901		1,512.6142	1,512.6142	0.0427	0.0408	1,525.8526
Total	**0.7275**	**4.7724**	**6.2713**	**0.0346**	**2.4860**	**0.0354**	**2.5214**	**0.6746**	**0.0335**	**0.7081**		**3,665.9700**	**3,665.9700**	**0.1102**	**0.3529**	**3,773.8835**

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

3.6 Paving - 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	1.2352	11.9057	18.2822	0.0285		0.5857	0.5857		0.5388	0.5388		2,759.4340	2,759.4340	0.8925		2,781.7454
Paving	0.2105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4457**	**11.9057**	**18.2822**	**0.0285**		**0.5857**	**0.5857**		**0.5388**	**0.5388**		**2,759.4340**	**2,759.4340**	**0.8925**		**2,781.7454**

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	0.0419	0.0258	0.3212	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		102.6661	102.6661	2.9000e-003	2.7700e-003	103.5647
Total	**0.0419**	**0.0258**	**0.3212**	**1.0000e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**102.6661**	**102.6661**	**2.9000e-003**	**2.7700e-003**	**103.5647**

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

3.6 Paving - 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	1.2352	11.9057	18.2822	0.0285		0.5857	0.5857		0.5388	0.5388	0.0000	2,759.4340	2,759.4340	0.8925		2,781.7454
Paving	0.2105					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4457**	**11.9057**	**18.2822**	**0.0285**		**0.5857**	**0.5857**		**0.5388**	**0.5388**	**0.0000**	**2,759.4340**	**2,759.4340**	**0.8925**		**2,781.7454**

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	0.0419	0.0258	0.3212	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		102.6661	102.6661	2.9000e-003	2.7700e-003	103.5647
Total	**0.0419**	**0.0258**	**0.3212**	**1.0000e-003**	**0.1232**	**6.3000e-004**	**0.1239**	**0.0327**	**5.8000e-004**	**0.0333**		**102.6661**	**102.6661**	**2.9000e-003**	**2.7700e-003**	**103.5647**

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

3.7 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	53.8854					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3013	2.0313	3.0169	4.9500e-003		0.1015	0.1015		0.1015	0.1015		469.0801	469.0801	0.0264		469.7404
Total	**54.1867**	**2.0313**	**3.0169**	**4.9500e-003**		**0.1015**	**0.1015**		**0.1015**	**0.1015**		**469.0801**	**469.0801**	**0.0264**		**469.7404**

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	0.1229	0.0756	0.9421	2.9200e-003	0.3615	1.8500e-003	0.3633	0.0959	1.7100e-003	0.0976		301.1540	301.1540	8.5000e-003	8.1300e-003	303.7897
Total	**0.1229**	**0.0756**	**0.9421**	**2.9200e-003**	**0.3615**	**1.8500e-003**	**0.3633**	**0.0959**	**1.7100e-003**	**0.0976**		**301.1540**	**301.1540**	**8.5000e-003**	**8.1300e-003**	**303.7897**

One Alexandria North - Proposed Uses - San Diego County, Winter

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

3.7 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	53.8854					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3013	2.0313	3.0169	4.9500e-003		0.1015	0.1015		0.1015	0.1015	0.0000	469.0801	469.0801	0.0264		469.7404
Total	**54.1867**	**2.0313**	**3.0169**	**4.9500e-003**		**0.1015**	**0.1015**		**0.1015**	**0.1015**	**0.0000**	**469.0801**	**469.0801**	**0.0264**		**469.7404**

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	0.1229	0.0756	0.9421	2.9200e-003	0.3615	1.8500e-003	0.3633	0.0959	1.7100e-003	0.0976		301.1540	301.1540	8.5000e-003	8.1300e-003	303.7897
Total	**0.1229**	**0.0756**	**0.9421**	**2.9200e-003**	**0.3615**	**1.8500e-003**	**0.3633**	**0.0959**	**1.7100e-003**	**0.0976**		**301.1540**	**301.1540**	**8.5000e-003**	**8.1300e-003**	**303.7897**

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	5.6690	6.2547	51.5466	0.1021	10.8342	0.0819	10.9161	2.8861	0.0763	2.9624		10,511.8929	10,511.8929	0.7990	0.4986	10,680.4466
Unmitigated	5.6690	6.2547	51.5466	0.1021	10.8342	0.0819	10.9161	2.8861	0.0763	2.9624		10,511.8929	10,511.8929	0.7990	0.4986	10,680.4466

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	2,053.50	0.00	0.00	3,676,123	3,676,123
Unenclosed Parking Structure	0.00	0.00	0.00		
Total	2,053.50	0.00	0.00	3,676,123	3,676,123

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant w/o Drive	9.50	7.30	7.30	1.50	79.50	19.00	51	37	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

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

	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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Unenclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
General Office Building	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Other Asphalt Surfaces	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Research & Development	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164
Unenclosed Parking Structure	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

One Alexandria North - Proposed Uses - 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					
NaturalGas Mitigated	0.1423	1.2936	1.0866	7.7600e-003		0.0983	0.0983		0.0983	0.0983		1,552.2725	1,552.2725	0.0298	0.0285	1,561.4969
NaturalGas Unmitigated	0.1423	1.2936	1.0866	7.7600e-003		0.0983	0.0983		0.0983	0.0983		1,552.2725	1,552.2725	0.0298	0.0285	1,561.4969

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					
Fast Food Restaurant w/o Drive Thru	2390.51	0.0258	0.2344	0.1969	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.2365	281.2365	5.3900e-003	5.1600e-003	282.9078
General Office Building	483.464	5.2100e-003	0.0474	0.0398	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8781	56.8781	1.0900e-003	1.0400e-003	57.2161
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	10320.3	0.1113	1.0118	0.8499	6.0700e-003		0.0769	0.0769		0.0769	0.0769		1,214.1579	1,214.1579	0.0233	0.0223	1,221.3730
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1423**	**1.2936**	**1.0866**	**7.7600e-003**		**0.0983**	**0.0983**		**0.0983**	**0.0983**		**1,552.2725**	**1,552.2725**	**0.0298**	**0.0285**	**1,561.4969**

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					
Fast Food Restaurant w/o Drive Thru	2.39051	0.0258	0.2344	0.1969	1.4100e-003		0.0178	0.0178		0.0178	0.0178		281.2365	281.2365	5.3900e-003	5.1600e-003	282.9078
General Office Building	0.483464	5.2100e-003	0.0474	0.0398	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8781	56.8781	1.0900e-003	1.0400e-003	57.2161
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	10.3203	0.1113	1.0118	0.8499	6.0700e-003		0.0769	0.0769		0.0769	0.0769		1,214.1579	1,214.1579	0.0233	0.0223	1,221.3730
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1423**	**1.2936**	**1.0866**	**7.7600e-003**		**0.0983**	**0.0983**		**0.0983**	**0.0983**		**1,552.2725**	**1,552.2725**	**0.0298**	**0.0285**	**1,561.4969**

6.0 Area Detail

6.1 Mitigation Measures Area

One Alexandria North - Proposed Uses - 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	7.8370	5.6000e-004	0.0621	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1333	0.1333	3.5000e-004		0.1420
Unmitigated	7.8370	5.6000e-004	0.0621	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1333	0.1333	3.5000e-004		0.1420

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	0.4429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.3884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.7300e-003	5.6000e-004	0.0621	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1333	0.1333	3.5000e-004		0.1420
Total	**7.8370**	**5.6000e-004**	**0.0621**	**0.0000**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**		**0.1333**	**0.1333**	**3.5000e-004**		**0.1420**

One Alexandria North - Proposed Uses - 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	0.4429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.3884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.7300e-003	5.6000e-004	0.0621	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1333	0.1333	3.5000e-004		0.1420
Total	**7.8370**	**5.6000e-004**	**0.0621**	**0.0000**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**		**0.1333**	**0.1333**	**3.5000e-004**		**0.1420**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	15	3	500	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (300 - 600 HP)	12.3064	34.4004	31.3828	0.0591		1.8106	1.8106		1.8106	1.8106		6,296.3559	6,296.3559	0.8828		6,318.4248
Total	**12.3064**	**34.4004**	**31.3828**	**0.0591**		**1.8106**	**1.8106**		**1.8106**	**1.8106**		**6,296.3559**	**6,296.3559**	**0.8828**		**6,318.4248**

11.0 Vegetation