HELIX Environmental Planning

Kearny Mesa Logistics Center Project

Air Quality Technical Report

September 2020 | LTD-18

Prepared for:

Latitude 33 Planning & Engineering
9968 Hibert Street
San Diego, CA 92131

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ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
AAM	annual arithmetic mean
AAQS	ambient air quality standards
ACM	asbestos containing material
ADT	average daily trips
AQIA	Air Quality Impact Assessment
BMPs	best management practices
CAA	Clean Air Act (federal)
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emission Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
City	City of San Diego
CO	carbon monoxide
DPM	diesel particulate matter
°F	Fahrenheit (degrees)
FAA	Federal Aviation Administration
g/L	grams per liter
H_2S	hydrogen sulfide
HHD	heavy-heavy duty truck
HVAC	heating, ventilation, and air-conditioning
IEM	Iowa Environmental Mesonet
ITE	Intitule of Transportation Engineers
km	kilometer
LBP	lead-based paint
LOS	level of service

ACRONYMS AND ABBREVIATIONS (cont.)

mg/m^3	milligrams per cubic meter
MHD	medium-heavy duty truck
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO	nitrogen oxide
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NO_X	nitrogen oxides
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational and Safety Health Administration
Pb	lead
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
ppm	parts per million
RAQS	Regional Air Quality Strategy
ROG	reactive organic gas
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SF	square feet/foot
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	sulfur oxides
SR	State Route
T-BACT	Toxics Best Available Control Technology
TAC	toxic air contaminant
TIA	Traffic Impact Analysis
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
VOC	volatile organic compound
WRCC	Western Regional Climate Center

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EXECUTIVE SUMMARY

This report presents an assessment of potential air quality impacts resulting from construction and operation of the Kearny Mesa Logistics Center Project (project) located in the City of San Diego (City) community of Kearny Mesa. The project would remove existing structures and develop the approximately 20.7-acre project site with a 330,000-square-foot (SF) industrial/logistics building (including 31,580 SF of accessory mezzanine space), paved areas accommodating 330 surface parking spaces surface, and approximately 79,300 SF of landscaped areas. The existing vernal pools on approximately five acres in the northeast portion of the project site would be reserved.

The project would be consistent with the land use designation in the City General Plan and the Kearny Mesa Community Plan and with the project site zoning. Therefore, the project would be consistent with the employment growth assumptions used in developing regional transportation and air quality plans. The project would not conflict with or obstruct implementation of the San Diego County Regional Air Quality Strategy or the State Implementation Plan (SIP), and the impact would be less than significant.

Criteria pollutant and precursor pollutant emissions generated during construction and operation of the project would not exceed the San Diego Air Pollution Control District's (SDAPCD's) screening thresholds. Therefore, emissions of criteria and precursor pollutants related to implementation of project would not result in a violation of air quality standards, and the impact would be less than significant.

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of the San Diego Air Basin (SDAB) for regional pollutants is a result of past and present development within the region. The project's mass emissions of criteria and precursor pollutants would contribute cumulatively to the SDAB's air quality. Because the project's construction-period and operational emissions would not exceed the SDAPCD screening thresholds, emissions of criteria pollutants and precursors related to implementation of the project would not be cumulatively considerable, and the cumulative impact would be less than significant.

Project construction activities would result in the use of diesel-powered construction equipment which are a source of the toxic contaminant diesel particulate matter (DPM). Due to the intermittent nature and short duration of construction equipment use, and due to the long distance to the closest sensitive receptors (approximately 3,000 feet), construction of the project would not expose sensitive receptors to substantial concentrations of DPM. Demolition activities could disturb asbestos-containing materials (ACMs) and lead-based paint (LBP) in older structures. Compliance with SDAPCD, state, and federal regulations for agency notification and safe handling of ACM and LBP would ensure that project construction activities would not result in the exposure of sensitive receptors to substantial concentrations of airborne asbestos or lead and the impact would be less than significant. Project vehicle trips combined with existing traffic would not result in substantial localized concentrations of carbon monoxide (CO hotpots). The project would not expose sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant.

Construction activities and long-term operation of the project would not be a source of objectionable odors that would adversely affect a substantial number of people, and odor 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 Kearny Mesa Logistics Center Project (project). The analysis includes a description of existing conditions in the project vicinity and an assessment of potential impacts associated with the construction and operation of the project. As appropriate, the analysis identifies measures which can be taken to avoid adverse air quality impacts. The analysis within this report addresses the relevant issues listed in Appendix G of the California Environmental Quality Act (CEQA) Guidelines and the City of San Diego's (City) *California Environmental Quality Act Significance Determination Thresholds* (City 2016).

1.2 PROJECT LOCATION

The approximately 20.7-acre project site is located at 5670 Kearny Mesa Road in the Kearny Mesa community of the city of San Diego, approximately 8 miles north of downtown San Diego and 7.5 miles east of the Pacific Ocean, southwest of the interchange of State Route (SR) 52 and SR 163 (see Figure 1, *Regional Location*, and Figure 2, *Project Vicinity [Aerial Photo]*).

1.3 PROJECT DESCRIPTION

The project consists of the redevelopment of the approximately 15.7 acres of the project site. The project would demolish the existing structures on the project site and construct an approximately 330,000-square foot (SF) industrial/logistics building in the southern and western portions of the site. The proposed building would be approximately 39.5 feet in height and would be constructed as a cold shell speculative warehouse/distribution building. The proposed building would be type III B construction and would consist primarily of painted concrete tilt-up construction with smooth wall panels with steel sub frame, open steel web joint and panelized wood roof structure. The building would include approximately 31,580 SF of accessory mezzanines that could be used as office space. In addition to the building, the project would also include approximately 330 surface parking spaces and approximately 79,300 SF of landscaped areas. The proposed landscaping would consist of trees that would provide shade for the parking areas, low-maintenance, drought-tolerant shrubs, succulents and ornamental grasses. The existing vernal pools on approximately five acres in the northeast portion of the project site would be reserved (see Figure 3, *Existing Site*, and Figure 4, *Site Plan*).

1.4 AIR POLLUTANT DESCRIPTORS AND TERMINOLOGY

1.4.1 Criteria Air Pollutants

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

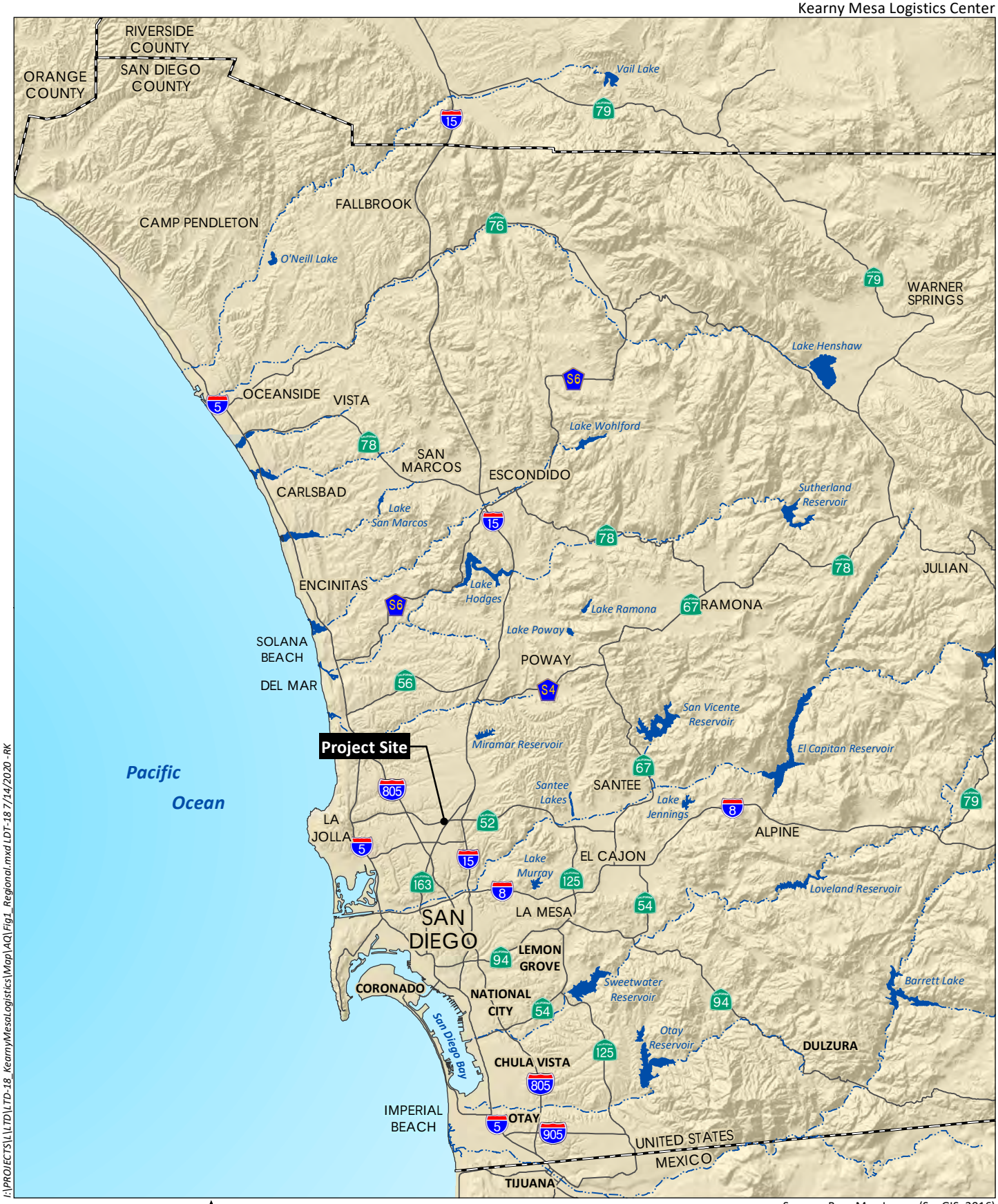
- Ozone (O_3)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)

- Particulate matter (PM), which is further subdivided:
  - Coarse PM, 10 micrometers or less in diameter (PM_{10})
  - Fine PM, 2.5 micrometers or less in diameter ($PM_{2.5}$)
- Sulfur dioxide (SO_2)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO_2, PM_{10}, $PM_{2.5}$, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO_2, PM_{10}, and $PM_{2.5}$). PM_{10} and $PM_{2.5}$ can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases ([ROGs] also known as volatile organic compounds [VOCs])[1] and nitrogen oxides (NO_X).

The descriptions of sources and general health effects for each of the criteria air pollutants are shown in Table 1, *Summary of Common Sources and Human Health Effects of Criteria Air Pollutants*, based on information provided by the California Air Pollution Control Officers Association ([CAPCOA] 2018). Specific adverse health effects on individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_X) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO_2 are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from the project site (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel. As such, specific health effects from these criteria pollutant emissions cannot be meaningfully correlated to the incremental contribution from the project.

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



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Source: Base Map Layers (SanGIS, 2016)

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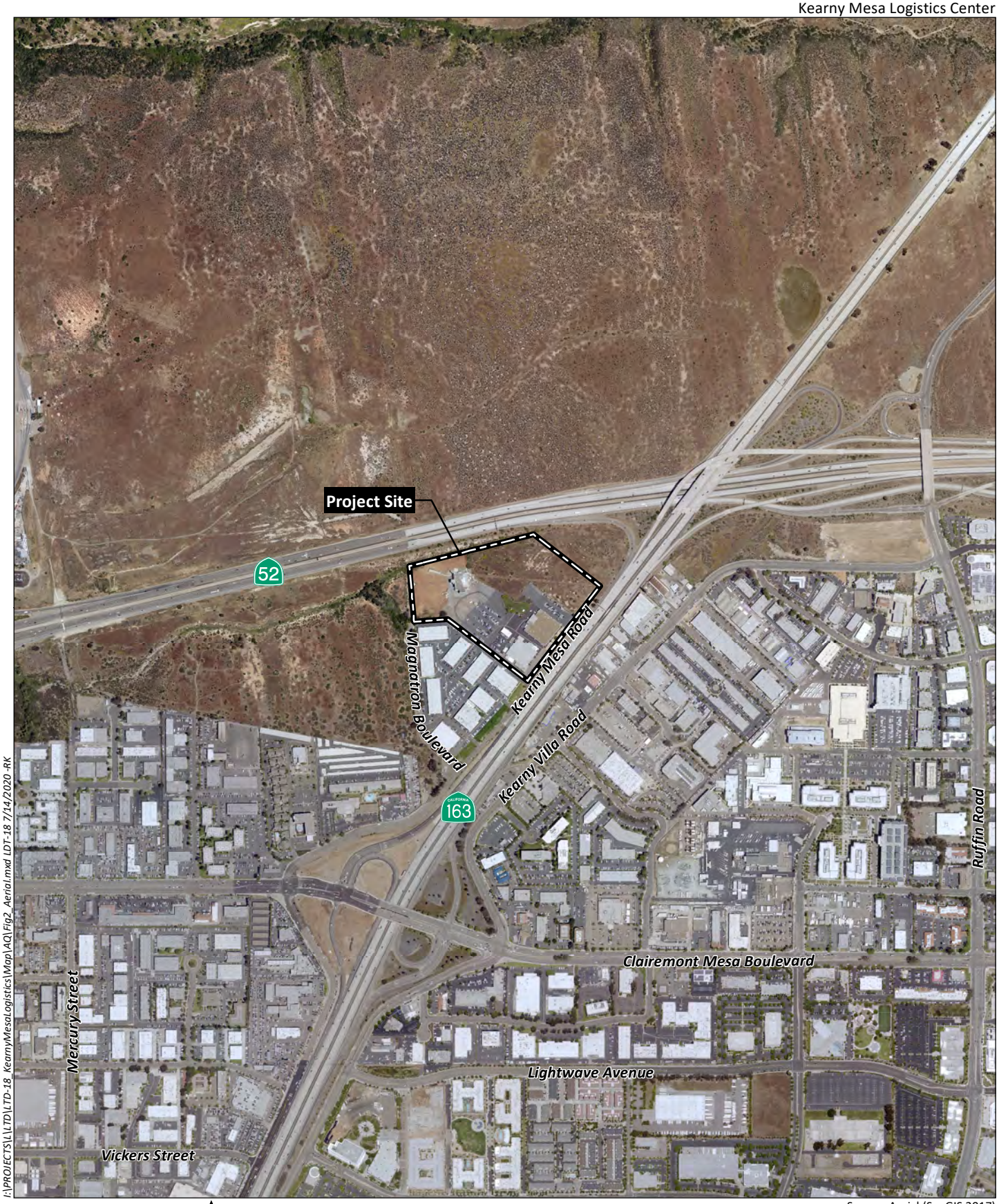
Regional Location

Figure 1



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Source: Aerial (SanGIS 2017)

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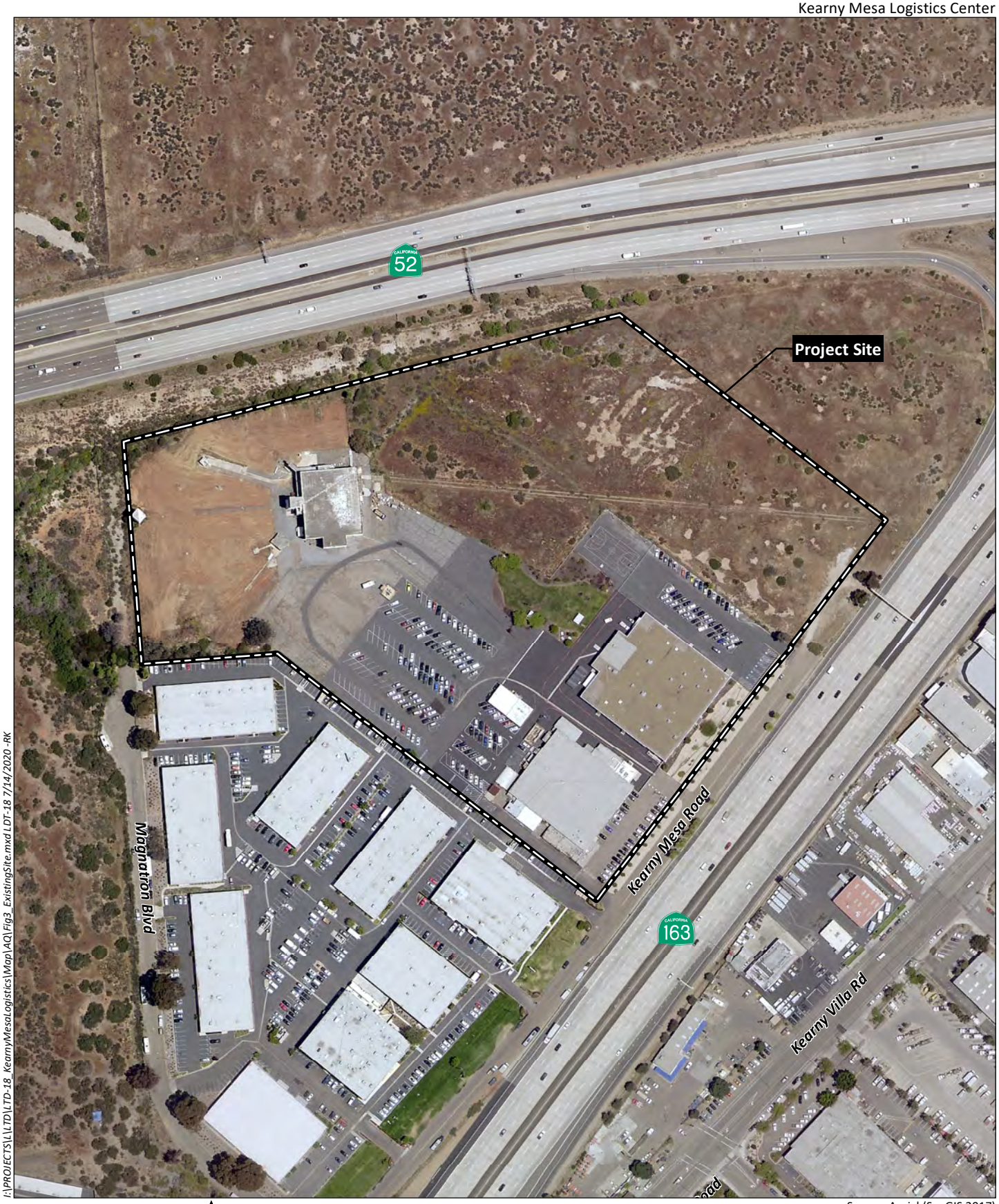
Project Vicinity (Aerial Photo)

Figure 2



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Source: Aerial (SanGIS 2017)

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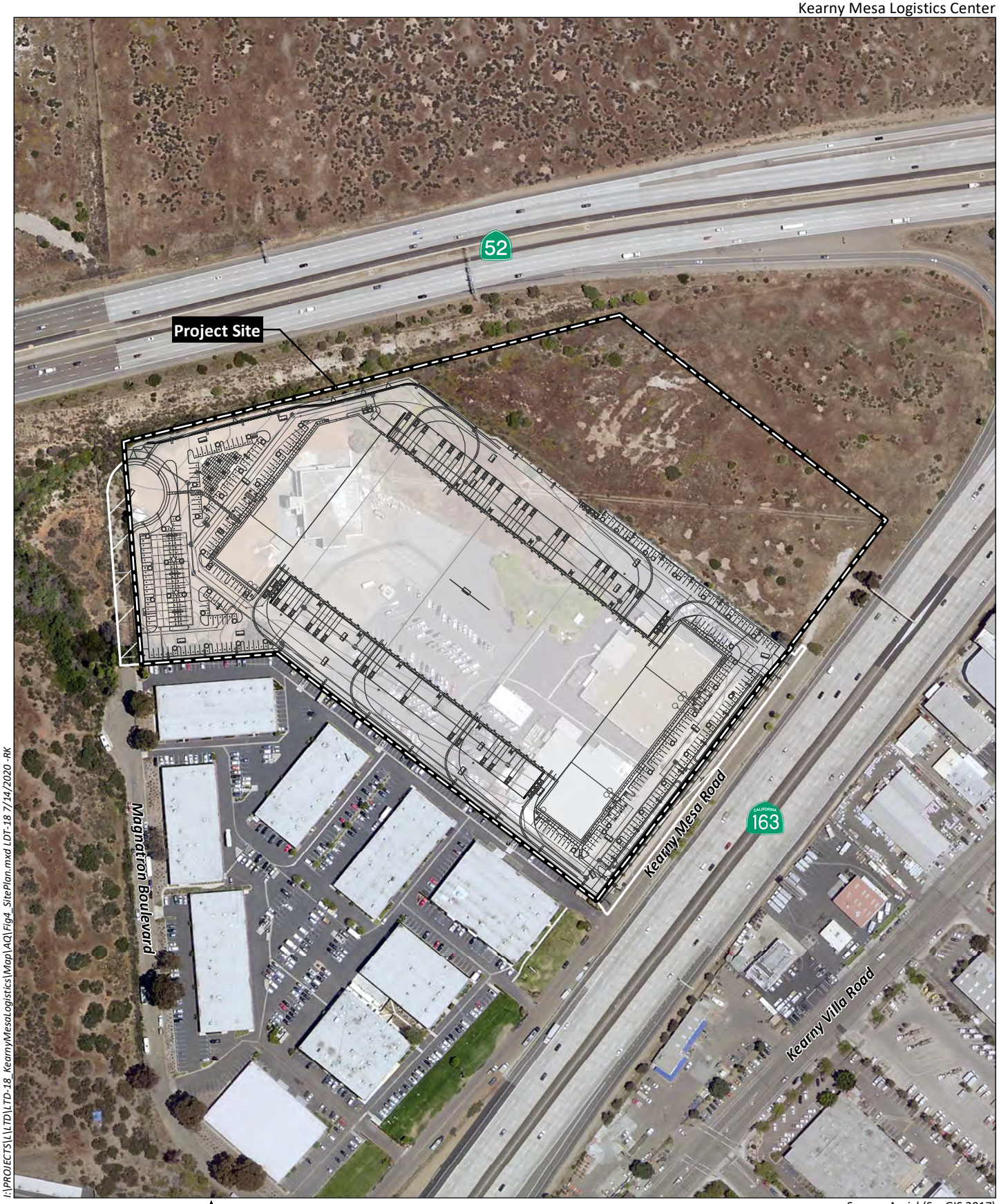
Existing Site

Figure 3



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Source: Aerial (SanGIS 2017)

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Site Plan

Figure 4

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

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO_X) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and other sources.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from oil, or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid, which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CAPCOA 2018

1.4.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify

levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

2.0 REGULATORY FRAMEWORK

2.1 FEDERAL REGULATIONS

2.1.1 Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to the 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 several criteria pollutants, which are introduced above. Table 2, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards (AAQS) for these pollutants.

Table 2
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	Federal Standards
			Primary[1]	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)	100 ppb (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)	75 ppb (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
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	

Table 2 (cont.)
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	Federal Standards
			Primary[1]	Secondary[2]
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	None	None
Sulfates	24 Hour	25 µg/m^3	None	None
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	None	None
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)	None	None

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.

O_3 = ozone; ppm: parts per million; µg/m^3 = micrograms per cubic meter; PM_1 = 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.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. Areas that do not meet the NAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. On June 3, 2016, the San Diego Air Basin (SDAB) was classified as a moderate nonattainment area for the 8-hour NAAQS for ozone. Effective June 3, 2016, the USEPA determined that 11 areas, including the SDAB, failed to attain the 2008 Ozone NAAQS by the applicable attainment date of July 20, 2015 and, thus, were reclassified as "Moderate" for the 2008 Ozone NAAQS (CARB 2018a). The SDAB is an attainment area or unclassified for the NAAQS for all other criteria pollutants including PM_{10} and $PM_{2.5}$. The current federal attainment status for the SDAB is provided in Table 3, *San Diego Air Basin Air Quality Designations.*

Table 3
SAN DIEGO AIR BASIN AIR QUALITY DESIGNATIONS

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[1]	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)	Unclassified
Visibility	(No federal standard)	Unclassified

Source: SDAPCD 2018

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

2.2 STATE REGULATIONS

2.2.1 California Clean Air Act

The CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the seven criteria air pollutants listed above through the California Clean Air Act of 1988 (CCAA), and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride and visibility-reducing particles (see Table 2). Areas that do not meet the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour), PM_{10}, and $PM_{2.5}$ (SDAPCD 2018). The current state attainment status for the SDAB is provided in Table 3.

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

2.2.2 State Implementation Plan

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

SIPs are not single documents—they are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations and federal controls. Many of California's SIPs rely on a core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes the CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to the CARB for review and approval. The CARB forwards the SIP revisions to the USEPA for approval and publication in the Federal Register. The Code of Federal Regulations (CFR) Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP (CARB 2009). At any one time, several California submittals are pending USEPA approval.

2.2.3 California Energy Code

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

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2016 Title 24 standards went into effect on January 1, 2017. The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential

standards include improvements for attics, walls, water heating, and lighting. The 2019 standards will continue to improve upon the 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 standards are effective as of January 1, 2020.

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

2.2.4 Toxic Air Contaminants

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

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter and 90 percent of DPM is less than 2.5 microns in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, the CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a significant impact on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2018b).

Lead is a naturally occurring metallic element that is found in small amounts in the earth's crust. In addition to its status as a criteria pollutant, lead is listed as a TAC because, depending on the level and duration of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. There is also a probable link between lead exposure and kidney cancer, brain cancer (gliomas), and lung cancer (USEPA 2019a). Lead particulate matter can be emitted during demolition and renovation activities that disturb material that contains lead-based paint (LBP), most typically found in structures built before 1978.

Asbestos is a mineral fiber that naturally occurs in some rock and soil. Long-term exposure to airborne asbestos fibers has been linked to major health effects including: lung cancer; mesothelioma, a rare form of cancer that is found in the thin lining of the lung, chest and the abdomen and heart; and asbestosis, a serious progressive, long-term, non-cancer disease of the lungs (USEPA 2019b). Because of its fiber strength and heat resistance, asbestos has been used in a variety of building construction materials for insulation and as a fire retardant, primarily in buildings constructed before 1979. Asbestos fibers may be released into the air by the disturbance of asbestos containing material (ACM) during renovation and demolition activities; or during earth disturbing activities in areas where naturally

occurring asbestos (NOA) is present in the rock or soil. NOA is not likely to be present in the soil and rock of San Diego County (California Geological Survey [CGS] 2000).

2.3 LOCAL REGULATIONS

2.3.1 Regional Air Quality Strategy

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for the attainment and maintenance of the AAQS in the SDAB. The SDAPCD prepared the San Diego County Regional Air Quality Strategy (RAQS), which was initially adopted in 1991, and is updated on a triennial basis. The most recent version of the RAQS was adopted by the SDAPCD in December 2016 (SDAPCD 2016). As part of, and attached to, the RAQS are the Transportation Control Measures for the air quality plan prepared by SANDAG. Together, the RAQS and Transportation Control Measures provide the framework for achieving attainment of the CAAQS. The local RAQS, in combination with the plans from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to the CARB, which develops the SIP.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County, to estimate future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The 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 of San Diego (County) as part of the development of the County's General Plan. While SANDAG collaborates with the SDAPCD on the development of the portion of the SIP applicable to the SDAB, the SDAPCD is the lead agency and is responsible for projecting all future mobile source emissions.

2.3.2 San Diego Air Pollution Control District Rules and Regulations

Development projects are required to comply with SDAPCD Rules and Regulations which require the incorporation of best management practices (BMPs) during construction to reduce emissions of fugitive dust.

2.3.2.1 Rule 50 (Visible Emissions)

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

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

Emissions) sets emission limits based on the apparent density or opacity of the emissions using the Ringelmann scale (SDAPCD 1997).

2.3.2.2 Rule 51 (Nuisance)

SDAPCD Rule 51 (Nuisance) states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. The provisions of the rule do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowls or animals (SDAPCD 1976).

2.3.2.3 Rule 55 (Fugitive Dust Control)

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

2.3.2.4 Rule 67.0.1 (Architectural Coatings)

Construction and operation of the project would be required to comply with SDAPCD Rule 67.0.1 (Architectural Coatings) which requires non-residential interior/exterior coatings are to be less than or equal to 100 grams VOC content per liter (SDAPCD 2016).

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB in which the project site is located, 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. Precipitation is limited to a few storms during the winter season. The climate of the County is characterized by hot, dry summers, and mild, wet winters.

The predominant wind direction in the vicinity of the project site is from the west and the average wind speed is approximately 6 miles per hour (mph; Iowa Environmental Mesonet [IEM] 2019). The annual average maximum temperature in the Kearny Mesa area is approximately 67 degrees Fahrenheit (°F), and the average annual minimum temperature is approximately 56°F. Total precipitation in the vicinity of the project site averages approximately 10 inches annually. Precipitation occurs mostly during the winter and is relatively infrequent during the summer (Western Regional Climate Center [WRCC] 2018).

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 Attainment Designations

Attainment designations are discussed in Sections 2.1.1 and 2.2.1, and in Table 3. The SDAB is a federal and state nonattainment area for ozone. The SDAB is also a state nonattainment area for PM_{10} and $PM_{2.5}$.

3.2.2 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 is the San Diego–Kearny Villa Road monitoring station located approximately 3,600 feet (0.7 mile northeast of the project site) at 6125 Kearny Villa Road. The most recently available air quality data are shown on in Table 4, *Air Quality Monitoring Data*.

Table 4
AIR QUALITY MONITORING DATA

Pollutant Standards	2016	2017	2018
Ozone (O_3)			
Maximum concentration 1-hour period (ppm)	0.087	0.097	0.107
Maximum concentration 8-hour period (ppm)	0.075	0.083	0.077
Days above 1-hour state standard (>0.09 ppm)	0	2	1
Days above 8-hour state/federal standard (>0.070 ppm)	3	6	5
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.053	0.054	0.045
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Annual average (ppm)	0.009	0.009	0.008
Exceed annual federal standard (0.053 ppm)	No	No	No
Exceed annual state standard (0.030 ppm)	No	No	No
Suspended Particulates (PM_{10})			
Maximum 24-hour concentration (µg/m^3)	20.3	27.5	32.2
Measured Days above 24-hr state standard (>50 µg/m^3)	0	0	0
Measured Days above 24-hr federal standard (>150 µg/m^3)	0	0	0
Annual average (µg/m^3)	17.1	17.6	18.4
Exceed state annual standard (20 µg/m^3)	No	No	No

Table 4 (cont.)
AIR QUALITY MONITORING DATA

Pollutant Standards	2016	2017	2018
Suspended Particulates ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m^3)	20.3	27.5	32.2
Days above 24-hour federal standard (>35 µg/m^3)	0	0	0
Annual average (µg/m^3)	12.8	*	*
Exceed state and federal annual standard (12 µg/m^3)	Yes	*	*

Source: CARB 2018c. Data collected at the Kearny Villa Road air quality monitoring station.
ppm = parts per million; µg/m^3 = micrograms per cubic meter; * = insufficient data

Monitoring data at the San Diego–Kearny Villa Road station showed acceptable levels of the criteria air pollutants NO_2, PM_{10}, and $PM_{2.5}$ for from 2016 to 2018. Violations of the state and federal 8-hour standards for ozone occurred on multiple days in 2016, 2017, and 2018. The state 1-hour ozone standard was exceeded twice in 2017 and once in 2018 (CARB 2018c).

3.3 EXISTING SITE CONDITIONS

The project site is currently developed with three buildings used for automotive and industrial purposes. The project site also includes paved parking spaces in the center of the site, and undeveloped open space in the north and northeastern portions of the site (see Figure 3). Surrounding land uses include commercial business to the southwest and across SR 163 to the southeast, and undeveloped land to the west and across SR 52 to the north.

The criteria pollutant and precursor emissions associated with operation of the existing land use were calculated using the California Emissions Estimator Model (CalEEMod), described in Section 4.1, below. Emissions from vehicular trips (mobile sources) associated with operation of the existing land use were estimated using trip generation analysis from the project Traffic Impact Analysis (TIA; Linscott Law and Greenspan Engineers [LLG] 2019). The estimated emissions from operation of the existing land use in the project's buildout year are shown in Table 5, *Existing Land Use Emissions*.

Table 5
EXISTING LAND USE EMISSIONS

Source Category	Pollutant Emissions					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Daily Emissions (pounds per day)						
Area	1.9	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	0.3	0.3	<0.1	<0.1	<0.1
Mobile	1.1	4.7	12.5	<0.1	3.8	1.0
Total[1]	**3.1**	**5.0**	**12.8**	**<0.1**	**3.9**	**1.0**
Annual Emissions (tons per year)						
Area	0.4	<0l.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	0.2	0.9	2.3	<0.1	0.7	0.2
Total[1]	**0.6**	**0.9**	**2.3**	**<0.1**	**0.7**	**0.2**

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

[1] Totals may not sum due to rounding.

VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

3.4 SENSITIVE RECEPTORS

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

The closest existing sensitive receptors the project are multi-family residences approximately 3,000 feet south of the project site. The closest hospital to the project is the Kaiser Permanente Hospital approximately 4,300 feet southeast of the project site. There are no schools (kindergarten through 12th grade) or daycare centers within one mile of the project site.

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Air emissions were calculated using the CalEEMod, Version 2016.3.2. CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by the South Coast Air Quality Management District (SCAQMD) with the input of several air quality management and pollution control districts.

In brief, CalEEMod is a computer model that estimates criteria air pollutant and greenhouse gas emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating, ventilation, and

cooling; lighting; and plug-in appliances), water use and wastewater generation, and solid waste disposal. Emissions are estimated based on land use information input to the model by the user.

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

Subsequent modules include construction (including off-road vehicle emissions), mobile (on-road vehicle emissions), area sources (consumer products [cleansers, aerosols, solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste. Each module comprises multiple components including an associated mitigation module to account for further reductions in the reported baseline calculations. Other inputs include trip generation rates, trip lengths, vehicle fleet mix (percentage autos, trucks, etc.), trip distribution (i.e., percent work to home, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters. The calculation methodology and default data used in CalEEMod can be found in the CalEEMod User's Guide Appendices A, D, and E (CAPCOA 2017).

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

4.1.1 Construction Emissions

4.1.1.1 Construction Phasing

Based on a conservative estimate (earliest and highest intensity of construction activities) of the project construction timeline provided by the project applicant, construction would begin in January 2021 and be completed in one continuous construction phase in September 2021 for a total construction period of nine months. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

4.1.1.2 Construction Activities

Construction activities would include demolition, site preparation, grading and installation of underground utilities, building construction, architectural coating (e.g., painting), and paving. According to the project Waste Management Plan, during demolition approximately 36,854 cubic yards of debris would be exported from the site and, during site preparation, an export of approximately 3,000 cubic yards of old concrete/asphalt and vegetation is anticipated (HELIX 2020). According to the grading plan, an export of approximately 7,000 cubic yards of soil is anticipated. The project activity phasing and duration was based on CalEEMod defaults, adjusted for the anticipated export of debris and soil and to

conform to the anticipated overall nine-month construction timeline. Architectural coatings are assumed to occur concurrently with the last two months of building construction. The construction schedule assumed in the modeling is shown in Table 6, *Anticipated Construction Schedule.*

Table 6
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period		
	Start	End	Number of Working Days
Demolition	1/1/2021	2/11/2021	30
Site Preparation	2/12/2021	2/25/2021	10
Grading/Underground Utilities	5/26/2021	3/31/2021	24
Building Construction	4/1/2021	9/2/2021	111
Architectural Coating	7/5/2021	9/2/2021	44
Paving	9/3/2021	9/30/2021	20

4.1.1.3 Construction Equipment

Construction of the project would require the use of heavy equipment. Construction equipment estimates are based on default values in CalEEMod, with additional equipment added for excavation for underground utilities, based on assumptions used for similar projects. To be conservative in accounting for the highest potential emissions of NO_X and DPM, all equipment was assumed to be diesel-engine powered. Table 7, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

Table 7
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Phase	Equipment	Number
Demolition	Concrete/Industrial Saws	1
	Excavators	2
	Rubber Tired Dozers	3
Site Preparation	Rubber Tired Dozers	3
	Tractors/Loaders/Backhoes	4
Grading/Underground Utilities	Excavators	3
	Graders	1
	Rubber Tired Dozers	1
	Rubber Tired Loaders	1
	Scrapers	2
	Tractors/Loaders/Backhoes	2
Building Construction	Cranes	1
	Forklifts	3
	Generator Sets	1
	Tractors/Loaders/Backhoes	3
	Welders	1

Table 7 (cont.)
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Phase	Equipment	Number
Architectural Coating	Air Compressors	1
Paving	Pavers	2
	Paving Equipment	2
	Rollers	2

Source: CalEEMod (output data, including equipment hp, is provided in Appendix A)

4.1.2 Operational Emissions

4.1.2.1 Area Sources

Area sources include emissions from landscaping equipment, the use of consumer products, and the reapplication of architectural coatings for maintenance.

4.1.2.2 Energy Sources

The project would use electricity and natural gas for lighting, heating, and cooling. Direct air pollutant emissions from the use of natural gas for the project heating, ventilation, and air-conditioning (HVAC) systems and water heaters was estimated using CalEEMod defaults. Indirect pollutant emissions from the generation of electricity used by the project could occur outside the SDAB and are not included in the modeling of the project's criteria pollutant and ozone precursor emissions.

4.1.2.3 Vehicular (Mobile) Sources

Operational emissions from mobile source emissions are associated with vehicle trip generation and trip length. Based on the trip generation rate from the project trip generation analysis in the TIA, the project would generate 10 average daily trips (ADT) per 1,000 SF of commercial office space (the assumed use for the building mezzanine areas) and 5 ADT per 1,000 SF of warehouse space (LLG 2019). The total project trip generation would be approximately 1,838 ADT (364 for the office space and 1,492 for the warehouse space).

The project's primary use as a warehouse/logistics facility would result in a higher proportion of trucks in the fleet mix of vehicles traveling to and from the project site, compared to a typical commercial or industrial facility. The modeled fleet mix was adjusted based on a study from the Intitule of Transportation Engineers (ITE), *High-cube Warehouse Vehicle Trip Generation Analysis*. For a warehouse used primarily for short-term storage, transload, or cold storage, the fleet mix would compromise 67.8 percent cars and light trucks (e.g., pickups), and 32.2 percent heavy trucks (ITE 2016). The modeled portion of cars and light trucks was further divided based on the CalEEMod default ratio of light-duty auto (LDA), light-duty truck 1 (LDT1), and light-duty trucks 2 (LDT2); and the CalEEMod default ratio of light-heavy duty truck 1 (LHD1), light-heavy duty truck 2 (LHD2), medium-heavy duty truck (MHD), and heavy-heavy duty truck (HHD).

The modeled trip purposes were set to 100 percent primary trips (no diverted or pass-by trips). Modeled trip purposes were set to 100 percent commercial-work (C-W) for cars and light truck trips, and 100 percent commercial-nonwork (C-NW) for heavy trucks. The CalEEMod default trip distances were used.

4.1.2.4 Solid Waste Sources

The estimated future solid waste generation resulting from operation of the project was modeled according to the analysis in the project Waste Management Plan (HELIX 2020).

4.2 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's CEQA Guidelines Appendix G, the City's CEQA Significance Determination Thresholds (2016), and applicable air district screening-level thresholds described below. A significant air quality and/or odor impact could occur if the project would:

1. Conflict with or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP;

2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;

3. Result in a cumulatively considerable net increase for which the SDAB is in non-attainment under the NAAQS or CAAQS;

4. Expose sensitive receptors (including, but not limited to, residences, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations; or

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

To determine whether the project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, or (b) result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or the ozone precursors NO_X and VOCs, emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs). In the absence of a significance threshold for $PM_{2.5}$ from the SDAPCD or the City, the SCAQMD's screening threshold of 55 pounds per day or 10 tons per year was applied to this analysis (SCAQMD 2015).

For CEQA purposes, these screening criteria were used as numeric methods to determine if the project would result in a significant impact to air quality. The screening thresholds are shown in Table 8, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 8
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Construction Emissions			
Pollutant	**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			
Pollutant	**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	15
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

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

5.0 PROJECT IMPACTS

This section evaluates potential temporary construction period and long-term operational air quality and odor impacts of the project.

5.1 ISSUE 1: CONSISTENCY WITH THE REGIONAL AIR QUALITY PLAN

5.1.1 Impacts

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

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, and mobile, area and all other source emissions in order to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. The CARB mobile source emission projections and SANDAG's growth projections are based on population and vehicle trends, and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by these land use plans would be consistent with the RAQS. The applicable land use plans in relation to the project are the City's General Plan and the Kearny Mesa Community Plan.

The project does not have a residential component. The project site is designated Industrial and Business Parks in the Kearny Mesa Community Plan and is zoned Industrial Light (IL-2-1). The project would be consistent with the project site land use designation and zoning. Therefore, the growth of employment in the city as a result of the project would be consistent with the growth anticipated in the City General Plan and the Kearny Mesa Community Plan and would be consistent with the assumptions used to develop the RAQS.

5.1.2 Significance of Impacts

Because the project would be consistent with the growth assumptions used in local and regional planning, the project would not conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP, the impact would be less than significant.

5.1.3 Mitigation Framework

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

5.1.4 Significance After Mitigation

Impacts related to consistency with applicable air quality plans would be less than significant.

5.2 ISSUE 2: CONFORMANCE TO FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

5.2.1 Impacts

Implementation of the project would generate criteria pollutants and ozone precursors in the short-term during construction and the long-term during operation. To determine whether a project would result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, emissions associated with the improvement projects included in the proposed airport plan were evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 8).

5.2.1.1 Construction

Project construction activities would result in emissions of fugitive dust from demolition and site grading activities, heavy construction equipment exhaust, and vehicle trips associated with workers commuting to and from the site and trucks hauling materials. The estimated maximum daily construction emissions of criteria pollutants and ozone precursors are shown in Table 9, *Construction Emissions*. The emissions

estimates assume compliance with the SDAPCD Rule 55 via watering exposed areas a minimum of twice per day. The CalEEMod output files are included as appendix A to this report.

Table 9
CONSTRUCTION EMISSIONS

Phase	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition	4.4	71.2	32.2	0.2	6.1	2.6
Site Preparation	4.2	50.2	24.1	0.1	11.0	6.6
Grading/Underground Utilities	5.1	61.9	38.8	0.1	7.0	3.9
Building Construction	3.3	29.1	26.5	0.1	4.0	1.7
Architectural Coating	72.7	1.7	3.2	0.0	0.5	0.2
Paving	2.3	13.0	15.0	0.0	0.8	0.7
Maximum Daily Emissions[1,2]	**76.0**	**71.2**	**38.8**	**0.2**	**11.0**	**6.6**
Screening Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Exceed SDAPCD Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

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

[1] Totals may not sum due to rounding.

[2] The maximum daily VOC emissions are the sum of emissions during Building Construction and Architectural Coatings, which would occur concurrently.

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; SDAPCD = San Diego County Air Pollution Control District

As shown in Table 9, emissions of all criteria pollutants and precursors related to project construction would be below the SDAPCD's screening thresholds.

5.2.1.2 Operation

Long-term operation of the project would result in emissions of criteria pollutants and ozone precursors from: consumer projects; landscape equipment; painting for maintenance; vehicle trips to and from the project site; and the use of natural gas for building heating and hot water. The project's estimated long-term operational emissions and net long-term emissions (project emissions minus existing land use emissions) for the anticipated first full year of operations, 2022, are compared to the SDAPCD screening thresholds in Table 10, *Net Operational Emissions*. The complete CalEEMod output is provided in Appendix A to this report.

Table 10
NET OPERATIONAL EMISSIONS

Source	Pollutant Emissions					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Daily Emissions (pounds per day)						
Area	8.1	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	0.3	0.3	<0.1	<0.1	<0.1
Mobile	3.4	51.4	37.0	0.2	13.2	3.7
Total Project Emissions[1]	11.5	51.7	37.4	0.2	13.2	3.8
Less Existing Use Emissions (Table 5)	(-3.1)	(-5.0)	(-12.8)	(-<0.1)	(-3.9)	(-1.0)
Net Project Emissions[1]	**8.4**	**46.7**	**24.6**	**0.2**	**9.3**	**2.8**
SDAPCD Daily Thresholds	*137*	*250*	*550*	*250*	*100*	*55*
Exceed Daily Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Annual Emissions (tons per year)						
Area	1.4	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	0.6	9.4	6.6	<0.1	2.3	0.7
Total Project Emissions[1]	2.1	9.5	6.7	<0.1	2.3	0.7
Less Existing Use Emissions (Table 5)	(-0.6)	(-0.9)	(-2.3)	(-<0.1)	(-0.7)	(-0.2)
Net Project Emissions[1]	**1.5**	**8.6**	**4.4**	**<0.1**	**1.6**	**0.5**
SDAPCD Annual Thresholds	*15*	*40*	*100*	*40*	*15*	*10*
Exceed Annual Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A).
[1] Totals may not sum due to rounding.
VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; SDAPCD = San Diego County Air Pollution Control District

As shown in Table 10, the project's net long-term emissions of criteria pollutants and precursors would not exceed the SDAPCD daily or annual screening thresholds.

5.2.2 Significance of Impacts

Criteria pollutant and precursor pollutant emissions generated during project construction or operational activities would not exceed the SDAPCD screening thresholds. Therefore, the project would not result in any new violation of an air quality standard or contribute substantially to an existing or projected air quality violation and the impact would be less than significant.

5.2.3 Mitigation Framework

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

5.2.4 Significance After Mitigation

Impacts related to consistency with applicable air quality plans would be less than significant.

5.3 ISSUE 3: CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SDAB. The region is a federal and/or state nonattainment area for PM_{10}, $PM_{2.5}$, and ozone. Construction and operation of the project would contribute particulate matter and the ozone precursors VOCs and NO_X to the area. As described in Section 5.2.1, emissions during construction and operation would not result in the violation any air quality standard or contribute substantially to an existing or projected air quality violation.

5.3.1 Significance of Impacts

Because the project's construction-period and operational emissions would not exceed the SDAPCD screening thresholds, emissions of criteria pollutants and precursors related to implementation of the project would not be cumulatively considerable, and the cumulative impact would be less than significant.

5.3.2 Mitigation Framework

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

5.3.3 Significance After Mitigation

Cumulative impacts related to cumulative net increases of criteria pollutants would be less than significant.

5.4 ISSUE 4: IMPACTS TO SENSITIVE RECEPTORS

5.4.1 Impacts

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.

5.4.1.1 Carbon Monoxide Hotspots

A CO hotspot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. A quantitative screening is required in two instances: (1) if a project increases the average delay at signalized intersections operating at Level of Service (LOS) E or F; or (2) if a project causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project. According to the TIA (LLG 2019), the project would not generate a substantial number of trips as to substantially degrade the LOS at any local intersection. Therefore, impacts to sensitive receptors by CO hotspots would be less than significant.

5.4.1.2 Exposure to Toxic Air Contaminants

Construction Diesel Particulate Matter Emissions

Construction of the project would result in the use of heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles. These vehicles and equipment could generate the TAC DPM. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive phases such as demolition, site preparation and grading, construction-related emissions would be higher than other less equipment-intensive phases such as building construction. Demolition, site preparation and grading are anticipated to last a total of three months (64 workdays).

The dose of TACs to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a fixed amount of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (Office of Environmental Health Hazard Assessment [OEHHA] 2015).

Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005). The closest sensitive receptors to the project site are multi-family residences approximately 3,000 feet south. Considering this information, the highly dispersive nature of DPM, and the fact that equipment intensive construction activities are anticipated to last for a short duration of three months, it is not anticipated that project construction activities would expose sensitive receptors to substantial construction related DPM concentrations.

Construction Asbestos and Lead Based Paint Emissions

Asbestos dust and lead are known carcinogens classified as TACs by CARB. Both may be found in buildings constructed prior to 1979 when lead was used in LBP and asbestos was used as a component of building materials such as walls, ceilings, insulation, or fireproofing. Demolition of existing structures erected prior to 1979 could result in the disturbance of ACMs and LBP.

Airborne asbestos is regulated in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulations. Federal and state regulations prohibit emissions of asbestos from demolition or construction activities. Following identification of friable ACMs, federal and state Occupational and Safety Health Administration (OSHA) regulations require that asbestos trained, and certified abatement personnel perform asbestos abatement and that all asbestos-containing materials removed from on-site structures must be hauled to a licensed receiving facility and disposed of under

proper manifest by a transportation company certified to handle asbestos. In accordance with the SDAPCD Rule 1206, *Asbestos Removal, Renovation, and Demolition*, prior to commencement of renovation or demolition operations and prior to submitting the notifications required by Section (e) of Rule 1206, a facility survey shall be performed to determine the presence or absence of ACM, regardless of the age of the facility (SDAPCD 2017). USEPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb LBP in structures built before 1978 have their firm certified by USEPA (or an authorized state), use certified renovators who are trained by USEPA-approved training providers, and follow lead-safe work practices. These regulations specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers or lead dust and require notice to federal and/or local government agencies prior to beginning demolition or renovation that could disturb ACM. Therefore, compliance with established regulations would ensure that sensitive receptors are not exposed to substantial construction ACM and LBP.

Operation-related TAC Emissions

The CARB *Air Quality and Land Use Handbook* (CARB 2005) provides recommendations on siting new sensitive land uses near sources of air pollution. The list of air pollution sources includes distribution centers. As described previously, the nearest sensitive receptor is approximately 3,000 feet from the project site. As such, the project's location would exceed the siting distance recommendation of 1,000 feet provided by CARB for distribution centers. Furthermore, as detailed in the TIA, the majority of truck traffic would access State Route 163 via the Clairemont Mesa Boulevard interchange. There are no sensitive receptors along this route.

Long-term operation of the project could include the use of toxic substances such as cleaning agents. Use of these substances are not expected to increase beyond what is currently in use by the businesses at the project site. Compliance with State and federal handling regulations would ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents is regulated by the 1990 Federal Clean Air Act Amendments as well as State-adopted regulations for the chemical composition of consumer products. Therefore, long-term operation of the project would not result in the exposure of sensitive receptors to substantial concentrations of other TACs.

5.4.2 Significance of Impacts

Construction and operation of the project would not expose sensitive receptors to substantial concentrations of CO, DPM, ACM, LBP or other TACs. Therefore, implementation of the project would not expose sensitive receptors to substantial pollutant concentrations and the impact would be less than significant.

5.4.3 Mitigation Framework

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

5.4.4 Significance After Mitigation

Impacts to sensitive receptors would be less than significant.

5.5 ISSUE 5: ODORS

5.5.1 Impacts

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

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

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

Long-term operation of the project could be an occasional minor source of some odors including from vehicle exhaust and solid waste collection. Implementation of the project would not substantially change emissions of odors compared to operation of the existing businesses on the project site. Therefore, operation of the project would not create objectionable odors affecting a substantial number of people.

5.5.2 Significance of Impacts

Potential construction-generated odors would be localized, temporary, intermittent, and not expected to affect a substantial number of people. Long-term operation of the project would not be a significant source of odors and would not substantially change existing sources of odors from businesses on the project site. Therefore, impacts associated with odors would be less than significant.

5.5.3 Mitigation Framework

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

5.5.4 Significance After Mitigation

Impacts related to odors would be less than significant.

6.0 LIST OF PREPARERS

Martin Rolph	Air Quality Specialist
Victor Ortiz	Senior Air Quality Specialist

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Appendix A

CalEEMod Output

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LTD-18 Kearney Mesa Logisitcs Center

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	34.58	1000sqft	0.79	34,580.00	0
Unrefrigerated Warehouse-No Rail	298.42	1000sqft	7.25	298,420.00	0
Parking Lot	328.40	1000sqft	7.54	328,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land uses/size per site plan.

Construction Phase - Schedule adjusted to fit overall 9-month duration and anticipated building demolition and ashphalt removal requirements.
Architectural coating assumed to occur concurrently with the last 2 months of building construction.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - 1 Excavator and 1 Loader added for underground utlities excavation.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Demolition hauling trips calcuated from project Waste Managment Plan (36,854 CY debris/16 CY per round trip).

Demolition - 3 buildings (108,900 SF total floor area) to be demolsihed.

Grading - 2,730 CY of asphalt/concrete and 270 CY of vegetation exported during site preparation.
7,000 CY of soil exported during grading.

Architectural Coating - Non-residential architectural coatings 100 g/L or less VOC content per SDAPCD Rule 67.0.1.

Vehicle Trips - Trip generation rates per project TIA (LL&G 2019).
Project trips 67.8% cars and 32.2% trucks (ITE 2016).
All trucks trips assigned to warehouse, cars trips split between land uses.
All trips assumed to be 100 primary; car trips C-W; truck trips C-NW.

Fleet Mix - Fleet mix calculated per trip generation assumptions, default car/light truck mix, and default truck mix.

Area Coating - Non-residential architectural coatings 100 g/L or less VOC content per SDAPCD Rule 67.0.1.

Solid Waste - Solid waste generation 1,947 tons per year per project WMP.

Construction Off-road Equipment Mitigation - Dust mitigation to meet requirment of SDAPCD Rule 55.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100

tblAreaCoating	Area_EF_Parking	250	100
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	30.00	24.00
tblConstructionPhase	NumDays	300.00	111.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	PhaseEndDate	1/28/2021	2/11/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	2/25/2021
tblConstructionPhase	PhaseEndDate	3/25/2021	3/31/2021
tblConstructionPhase	PhaseEndDate	5/19/2022	9/2/2021
tblConstructionPhase	PhaseEndDate	7/14/2022	9/2/2021
tblConstructionPhase	PhaseEndDate	6/16/2022	9/30/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	2/26/2021
tblConstructionPhase	PhaseStartDate	3/26/2021	4/1/2021
tblConstructionPhase	PhaseStartDate	6/17/2022	7/5/2021
tblConstructionPhase	PhaseStartDate	5/20/2022	9/3/2021
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.16
tblFleetMix	LDA	0.60	0.73
tblFleetMix	LDA	0.60	0.44
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.18	0.22
tblFleetMix	LDT2	0.18	0.13
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.10
tblFleetMix	LHD2	5.4790e-003	0.00

tblFleetMix	LHD2	5.4790e-003	0.04
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.11
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblGrading	MaterialExported	0.00	7,000.00
tblGrading	MaterialExported	0.00	3,000.00
tblLandUse	LotAcreage	6.85	7.25
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblSolidWaste	SolidWasteGenerationRate	32.16	1,947.00
tblSolidWaste	SolidWasteGenerationRate	280.51	0.00
tblTripsAndVMT	HaulingTripNumber	495.00	4,607.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	40.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	CW_TTP	59.00	60.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.46	10.00
tblVehicleTrips	ST_TR	1.68	5.00
tblVehicleTrips	SU_TR	1.05	10.00
tblVehicleTrips	SU_TR	1.68	5.00
tblVehicleTrips	WD_TR	11.03	10.00
tblVehicleTrips	WD_TR	1.68	5.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	75.9872	71.1823	38.8025	0.1563	18.9115	2.2492	20.9870	10.1559	2.0703	12.0664	0.0000	16,625.0801	16,625.0801	2.5871	0.0000	16,681.1570
Maximum	**75.9872**	**71.1823**	**38.8025**	**0.1563**	**18.9115**	**2.2492**	**20.9870**	**10.1559**	**2.0703**	**12.0664**	**0.0000**	**16,625.0801**	**16,625.0801**	**2.5871**	**0.0000**	**16,681.1570**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	75.9872	71.1823	38.8025	0.1563	8.9519	2.2492	11.0274	4.6905	2.0703	6.6010	0.0000	16,625.0801	16,625.0801	2.5871	0.0000	16,681.1570
Maximum	**75.9872**	**71.1823**	**38.8025**	**0.1563**	**8.9519**	**2.2492**	**11.0274**	**4.6905**	**2.0703**	**6.6010**	**0.0000**	**16,625.0801**	**16,625.0801**	**2.5871**	**0.0000**	**16,681.1570**

	ROG	NOx	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**	**52.66**	**0.00**	**47.46**	**53.82**	**0.00**	**45.29**	**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	8.1196	6.2000e-004	0.0676	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1448	0.1448	3.8000e-004		0.1543
Energy	0.0354	0.3214	0.2700	1.9300e-003		0.0244	0.0244		0.0244	0.0244		385.6669	385.6669	7.3900e-003	7.0700e-003	387.9587
Mobile	3.3532	51.3522	37.0414	0.2179	12.9625	0.2143	13.1767	3.5247	0.2029	3.7276		22,819.5427	22,819.5427	1.3048		22,852.1624
Total	**11.5081**	**51.6742**	**37.3790**	**0.2199**	**12.9625**	**0.2389**	**13.2014**	**3.5247**	**0.2276**	**3.7523**		**23,205.3544**	**23,205.3544**	**1.3126**	**7.0700e-003**	**23,240.2754**

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	8.1196	6.2000e-004	0.0676	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1448	0.1448	3.8000e-004		0.1543
Energy	0.0354	0.3214	0.2700	1.9300e-003		0.0244	0.0244		0.0244	0.0244		385.6669	385.6669	7.3900e-003	7.0700e-003	387.9587
Mobile	3.3532	51.3522	37.0414	0.2179	12.9625	0.2143	13.1767	3.5247	0.2029	3.7276		22,819.5427	22,819.5427	1.3048		22,852.1624
Total	**11.5081**	**51.6742**	**37.3790**	**0.2199**	**12.9625**	**0.2389**	**13.2014**	**3.5247**	**0.2276**	**3.7523**		**23,205.3544**	**23,205.3544**	**1.3126**	**7.0700e-003**	**23,240.2754**

	ROG	NOx	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	1/1/2021	2/11/2021	5	30	
2	Site Preparation	Site Preparation	2/12/2021	2/25/2021	5	10	
3	Grading/Undergound Utilities	Grading	2/26/2021	3/31/2021	5	24	
4	Building Construction	Building Construction	4/1/2021	9/2/2021	5	111	
5	Architectural Coating	Architectural Coating	7/5/2021	9/2/2021	5	44	
6	Paving	Paving	9/3/2021	9/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 7.54

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 499,500; Non-Residential Outdoor: 166,500; Striped Parking Area: 19,704 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Undergound Utilities	Excavators	3	8.00	158	0.38
Grading/Undergound Utilities	Graders	1	8.00	187	0.41
Grading/Undergound Utilities	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Undergound Utilities	Rubber Tired Loaders	1	8.00	203	0.36
Grading/Undergound Utilities	Scrapers	2	8.00	367	0.48
Grading/Undergound Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	4,607.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Undergound Utilities	10	25.00	0.00	875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	274.00	108.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	0.00	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

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6178	0.0000	3.6178	0.5479	0.0000	0.5479			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.6178**	**1.5513**	**5.1691**	**0.5479**	**1.4411**	**1.9890**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1714	39.7038	10.2364	0.1164	2.6834	0.1227	2.8060	0.7354	0.1174	0.8528		12,762.4531	12,762.4531	1.1849		12,792.0752
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**1.2303**	**39.7416**	**10.6104**	**0.1175**	**2.8066**	**0.1235**	**2.9301**	**0.7681**	**0.1181**	**0.8862**		**12,877.1352**	**12,877.1352**	**1.1882**		**12,906.8397**

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					1.6280	0.0000	1.6280	0.2465	0.0000	0.2465			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**1.6280**	**1.5513**	**3.1793**	**0.2465**	**1.4411**	**1.6876**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1714	39.7038	10.2364	0.1164	2.6834	0.1227	2.8060	0.7354	0.1174	0.8528		12,762.4531	12,762.4531	1.1849		12,792.0752
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**1.2303**	**39.7416**	**10.6104**	**0.1175**	**2.8066**	**0.1235**	**2.9301**	**0.7681**	**0.1181**	**0.8862**		**12,877.1352**	**12,877.1352**	**1.1882**		**12,906.8397**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.1084	0.0000	18.1084	9.9371	0.0000	9.9371			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.1084**	**2.0445**	**20.1529**	**9.9371**	**1.8809**	**11.8180**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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	0.2861	9.6954	2.4997	0.0284	0.6553	0.0300	0.6852	0.1796	0.0287	0.2082		3,116.5096	3,116.5096	0.2893		3,123.7431
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
Total	**0.3567**	**9.7408**	**2.9485**	**0.0298**	**0.8031**	**0.0310**	**0.8341**	**0.2188**	**0.0296**	**0.2484**		**3,254.1282**	**3,254.1282**	**0.2933**		**3,261.4605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1488	0.0000	8.1488	4.4717	0.0000	4.4717			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**8.1488**	**2.0445**	**10.1933**	**4.4717**	**1.8809**	**6.3526**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

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	0.2861	9.6954	2.4997	0.0284	0.6553	0.0300	0.6852	0.1796	0.0287	0.2082		3,116.5096	3,116.5096	0.2893		3,123.7431
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
Total	**0.3567**	**9.7408**	**2.9485**	**0.0298**	**0.8031**	**0.0310**	**0.8341**	**0.2188**	**0.0296**	**0.2484**		**3,254.1282**	**3,254.1282**	**0.2933**		**3,261.4605**

3.4 Grading/Undergound Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7143	0.0000	8.7143	3.6027	0.0000	3.6027			0.0000			0.0000
Off-Road	4.7634	52.4170	35.7489	0.0734		2.2186	2.2186		2.0411	2.0411		7,112.4616	7,112.4616	2.3003		7,169.9695
Total	**4.7634**	**52.4170**	**35.7489**	**0.0734**	**8.7143**	**2.2186**	**10.9329**	**3.6027**	**2.0411**	**5.6438**		**7,112.4616**	**7,112.4616**	**2.3003**		**7,169.9695**

3.4 Grading/Undergound Utilities - 2021

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	0.2781	9.4261	2.4302	0.0276	0.6371	0.0291	0.6662	0.1746	0.0279	0.2025		3,029.9399	3,029.9399	0.2813		3,036.9725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0981	0.0631	0.6233	1.9200e-003	0.2054	1.4200e-003	0.2068	0.0545	1.3100e-003	0.0558		191.1369	191.1369	5.4900e-003		191.2742
Total	**0.3762**	**9.4892**	**3.0535**	**0.0296**	**0.8424**	**0.0305**	**0.8730**	**0.2291**	**0.0292**	**0.2582**		**3,221.0768**	**3,221.0768**	**0.2868**		**3,228.2467**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9214	0.0000	3.9214	1.6212	0.0000	1.6212			0.0000			0.0000
Off-Road	4.7634	52.4170	35.7489	0.0734		2.2186	2.2186		2.0411	2.0411	0.0000	7,112.4616	7,112.4616	2.3003		7,169.9695
Total	**4.7634**	**52.4170**	**35.7489**	**0.0734**	**3.9214**	**2.2186**	**6.1401**	**1.6212**	**2.0411**	**3.6624**	**0.0000**	**7,112.4616**	**7,112.4616**	**2.3003**		**7,169.9695**

3.4 Grading/Undergound Utilities - 2021

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	0.2781	9.4261	2.4302	0.0276	0.6371	0.0291	0.6662	0.1746	0.0279	0.2025		3,029.9399	3,029.9399	0.2813		3,036.9725
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0981	0.0631	0.6233	1.9200e-003	0.2054	1.4200e-003	0.2068	0.0545	1.3100e-003	0.0558		191.1369	191.1369	5.4900e-003		191.2742
Total	**0.3762**	**9.4892**	**3.0535**	**0.0296**	**0.8424**	**0.0305**	**0.8730**	**0.2291**	**0.0292**	**0.2582**		**3,221.0768**	**3,221.0768**	**0.2868**		**3,228.2467**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3443	10.9683	3.1206	0.0285	0.7311	0.0240	0.7552	0.2105	0.0230	0.2335		3,065.2484	3,065.2484	0.2388		3,071.2182
Worker	1.0747	0.6912	6.8315	0.0210	2.2509	0.0156	2.2664	0.5970	0.0143	0.6114		2,094.8604	2,094.8604	0.0602		2,096.3650
Total	**1.4190**	**11.6595**	**9.9521**	**0.0495**	**2.9820**	**0.0396**	**3.0215**	**0.8075**	**0.0373**	**0.8448**		**5,160.1088**	**5,160.1088**	**0.2990**		**5,167.5832**

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3443	10.9683	3.1206	0.0285	0.7311	0.0240	0.7552	0.2105	0.0230	0.2335		3,065.2484	3,065.2484	0.2388		3,071.2182
Worker	1.0747	0.6912	6.8315	0.0210	2.2509	0.0156	2.2664	0.5970	0.0143	0.6114		2,094.8604	2,094.8604	0.0602		2,096.3650
Total	**1.4190**	**11.6595**	**9.9521**	**0.0495**	**2.9820**	**0.0396**	**3.0215**	**0.8075**	**0.0373**	**0.8448**		**5,160.1088**	**5,160.1088**	**0.2990**		**5,167.5832**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	72.2327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**72.4516**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2157	0.1387	1.3713	4.2200e-003	0.4518	3.1200e-003	0.4549	0.1198	2.8700e-003	0.1227		420.5012	420.5012	0.0121		420.8032
Total	**0.2157**	**0.1387**	**1.3713**	**4.2200e-003**	**0.4518**	**3.1200e-003**	**0.4549**	**0.1198**	**2.8700e-003**	**0.1227**		**420.5012**	**420.5012**	**0.0121**		**420.8032**

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	72.2327					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**72.4516**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2157	0.1387	1.3713	4.2200e-003	0.4518	3.1200e-003	0.4549	0.1198	2.8700e-003	0.1227		420.5012	420.5012	0.0121		420.8032
Total	**0.2157**	**0.1387**	**1.3713**	**4.2200e-003**	**0.4518**	**3.1200e-003**	**0.4549**	**0.1198**	**2.8700e-003**	**0.1227**		**420.5012**	**420.5012**	**0.0121**		**420.8032**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2433**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0588**	**0.0378**	**0.3740**	**1.1500e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**114.6821**	**114.6821**	**3.2900e-003**		**114.7645**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.9877					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2433**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0588**	**0.0378**	**0.3740**	**1.1500e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**114.6821**	**114.6821**	**3.2900e-003**		**114.7645**

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	3.3532	51.3522	37.0414	0.2179	12.9625	0.2143	13.1767	3.5247	0.2029	3.7276		22,819.5427	22,819.5427	1.3048		22,852.1624
Unmitigated	3.3532	51.3522	37.0414	0.2179	12.9625	0.2143	13.1767	3.5247	0.2029	3.7276		22,819.5427	22,819.5427	1.3048		22,852.1624

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	345.80	345.80	345.80	1,195,776	1,195,776
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,492.10	1,492.10	1492.10	4,681,732	4,681,732
Total	1,837.90	1,837.90	1,837.90	5,877,509	5,877,509

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	100.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	60.00	0.00	40.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.730000	0.050000	0.220000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Unrefrigerated Warehouse-No Rail	0.440000	0.030000	0.133000	0.000000	0.099000	0.036000	0.107000	0.155000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	0.0354	0.3214	0.2700	1.9300e-003		0.0244	0.0244		0.0244	0.0244		385.6669	385.6669	7.3900e-003	7.0700e-003	387.9587
NaturalGas Unmitigated	0.0354	0.3214	0.2700	1.9300e-003		0.0244	0.0244		0.0244	0.0244		385.6669	385.6669	7.3900e-003	7.0700e-003	387.9587

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	1912.8	0.0206	0.1875	0.1575	1.1300e-003		0.0143	0.0143		0.0143	0.0143		225.0347	225.0347	4.3100e-003	4.1300e-003	226.3720
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1365.37	0.0147	0.1339	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102		160.6322	160.6322	3.0800e-003	2.9400e-003	161.5868
Total		**0.0354**	**0.3214**	**0.2700**	**1.9300e-003**		**0.0244**	**0.0244**		**0.0244**	**0.0244**		**385.6669**	**385.6669**	**7.3900e-003**	**7.0700e-003**	**387.9587**

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	1.9128	0.0206	0.1875	0.1575	1.1300e-003		0.0143	0.0143		0.0143	0.0143		225.0347	225.0347	4.3100e-003	4.1300e-003	226.3720
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.36537	0.0147	0.1339	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102		160.6322	160.6322	3.0800e-003	2.9400e-003	161.5868
Total		**0.0354**	**0.3214**	**0.2700**	**1.9300e-003**		**0.0244**	**0.0244**		**0.0244**	**0.0244**		**385.6669**	**385.6669**	**7.3900e-003**	**7.0700e-003**	**387.9587**

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	8.1196	6.2000e-004	0.0676	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1448	0.1448	3.8000e-004		0.1543
Unmitigated	8.1196	6.2000e-004	0.0676	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1448	0.1448	3.8000e-004		0.1543

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	0.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.2900e-003	6.2000e-004	0.0676	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1448	0.1448	3.8000e-004		0.1543
Total	**8.1196**	**6.2000e-004**	**0.0676**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1448**	**0.1448**	**3.8000e-004**		**0.1543**

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	0.8708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2425					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.2900e-003	6.2000e-004	0.0676	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1448	0.1448	3.8000e-004		0.1543
Total	**8.1196**	**6.2000e-004**	**0.0676**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1448**	**0.1448**	**3.8000e-004**		**0.1543**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

LTD-18 Kearney Mesa Logisitcs Center

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	34.58	1000sqft	0.79	34,580.00	0
Unrefrigerated Warehouse-No Rail	298.42	1000sqft	7.25	298,420.00	0
Parking Lot	328.40	1000sqft	7.54	328,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Land uses/size per site plan.

Construction Phase - Schedule adjusted to fit overall 9-month duration and anticipated building demolition and ashphalt removal requirements.
Architectural coating assumed to occur concurrently with the last 2 months of building construction.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - 1 Excavator and 1 Loader added for underground utlities excavation.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Demolition hauling trips calcuated from project Waste Managment Plan (36,854 CY debris/16 CY per round trip).

Demolition - 3 buildings (108,900 SF total floor area) to be demolsihed.

Grading - 2,730 CY of asphalt/concrete and 270 CY of vegetation exported during site preparation.
7,000 CY of soil exported during grading.

Architectural Coating - Non-residential architectural coatings 100 g/L or less VOC content per SDAPCD Rule 67.0.1.

Vehicle Trips - Trip generation rates per project TIA (LL&G 2019).
Project trips 67.8% cars and 32.2% trucks (ITE 2016).
All trucks trips assigned to warehouse, cars trips split between land uses.
All trips assumed to be 100 primary; car trips C-W; truck trips C-NW.

Fleet Mix - Fleet mix calculated per trip generation assumptions, default car/light truck mix, and default truck mix.

Area Coating - Non-residential architectural coatings 100 g/L or less VOC content per SDAPCD Rule 67.0.1.

Solid Waste - Solid waste generation 1,947 tons per year per project WMP.

Construction Off-road Equipment Mitigation - Dust mitigation to meet requirment of SDAPCD Rule 55.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100

tblAreaCoating	Area_EF_Parking	250	100
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	30.00	24.00
tblConstructionPhase	NumDays	300.00	111.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	PhaseEndDate	1/28/2021	2/11/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	2/25/2021
tblConstructionPhase	PhaseEndDate	3/25/2021	3/31/2021
tblConstructionPhase	PhaseEndDate	5/19/2022	9/2/2021
tblConstructionPhase	PhaseEndDate	7/14/2022	9/2/2021
tblConstructionPhase	PhaseEndDate	6/16/2022	9/30/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	2/12/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	2/26/2021
tblConstructionPhase	PhaseStartDate	3/26/2021	4/1/2021
tblConstructionPhase	PhaseStartDate	6/17/2022	7/5/2021
tblConstructionPhase	PhaseStartDate	5/20/2022	9/3/2021
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.16
tblFleetMix	LDA	0.60	0.73
tblFleetMix	LDA	0.60	0.44
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.18	0.22
tblFleetMix	LDT2	0.18	0.13
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.10
tblFleetMix	LHD2	5.4790e-003	0.00

tblFleetMix	LHD2	5.4790e-003	0.04
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.11
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblGrading	MaterialExported	0.00	7,000.00
tblGrading	MaterialExported	0.00	3,000.00
tblLandUse	LotAcreage	6.85	7.25
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblSolidWaste	SolidWasteGenerationRate	32.16	1,947.00
tblSolidWaste	SolidWasteGenerationRate	280.51	0.00
tblTripsAndVMT	HaulingTripNumber	495.00	4,607.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	40.00
tblVehicleTrips	CW_TTP	33.00	100.00
tblVehicleTrips	CW_TTP	59.00	60.00

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.46	10.00
tblVehicleTrips	ST_TR	1.68	5.00
tblVehicleTrips	SU_TR	1.05	10.00
tblVehicleTrips	SU_TR	1.68	5.00
tblVehicleTrips	WD_TR	11.03	10.00
tblVehicleTrips	WD_TR	1.68	5.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.9462	3.8568	2.7469	8.6200e-003	0.4771	0.1268	0.6038	0.1630	0.1182	0.2812	0.0000	799.4579	799.4579	0.1179	0.0000	802.4051
Maximum	**1.9462**	**3.8568**	**2.7469**	**8.6200e-003**	**0.4771**	**0.1268**	**0.6038**	**0.1630**	**0.1182**	**0.2812**	**0.0000**	**799.4579**	**799.4579**	**0.1179**	**0.0000**	**802.4051**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.9462	3.8568	2.7469	8.6200e-003	0.3399	0.1268	0.4667	0.1074	0.1182	0.2256	0.0000	799.4575	799.4575	0.1179	0.0000	802.4048
Maximum	**1.9462**	**3.8568**	**2.7469**	**8.6200e-003**	**0.3399**	**0.1268**	**0.4667**	**0.1074**	**0.1182**	**0.2256**	**0.0000**	**799.4575**	**799.4575**	**0.1179**	**0.0000**	**802.4048**

	ROG	NOx	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**	**28.75**	**0.00**	**22.72**	**34.13**	**0.00**	**19.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	2.2202	2.2202
2	4-1-2021	6-30-2021	1.0472	1.0472
3	7-1-2021	9-30-2021	2.4809	2.4809
		Highest	2.4809	2.4809

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4812	6.0000e-005	6.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0118	0.0118	3.0000e-005	0.0000	0.0126
Energy	6.4500e-003	0.0587	0.0493	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	609.2719	609.2719	0.0232	5.7100e-003	611.5537
Mobile	0.5961	9.4264	6.6254	0.0401	2.3059	0.0386	2.3445	0.6284	0.0365	0.6650	0.0000	3,807.8324	3,807.8324	0.2103	0.0000	3,813.0903
Waste						0.0000	0.0000		0.0000	0.0000	395.2234	0.0000	395.2234	23.3570	0.0000	979.1493
Water						0.0000	0.0000		0.0000	0.0000	23.8434	333.4928	357.3362	2.4624	0.0606	436.9549
Total	**2.0838**	**9.4852**	**6.6808**	**0.0404**	**2.3059**	**0.0431**	**2.3490**	**0.6284**	**0.0410**	**0.6694**	**419.0668**	**4,750.6089**	**5,169.6757**	**26.0529**	**0.0663**	**5,840.7608**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4812	6.0000e-005	6.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0118	0.0118	3.0000e-005	0.0000	0.0126
Energy	6.4500e-003	0.0587	0.0493	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	609.2719	609.2719	0.0232	5.7100e-003	611.5537
Mobile	0.5961	9.4264	6.6254	0.0401	2.3059	0.0386	2.3445	0.6284	0.0365	0.6650	0.0000	3,807.8324	3,807.8324	0.2103	0.0000	3,813.0903
Waste						0.0000	0.0000		0.0000	0.0000	395.2234	0.0000	395.2234	23.3570	0.0000	979.1493
Water						0.0000	0.0000		0.0000	0.0000	23.8434	333.4928	357.3362	2.4624	0.0606	436.9549
Total	**2.0838**	**9.4852**	**6.6808**	**0.0404**	**2.3059**	**0.0431**	**2.3490**	**0.6284**	**0.0410**	**0.6694**	**419.0668**	**4,750.6089**	**5,169.6757**	**26.0529**	**0.0663**	**5,840.7608**

	ROG	NOx	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	1/1/2021	2/11/2021	5	30	
2	Site Preparation	Site Preparation	2/12/2021	2/25/2021	5	10	
3	Grading/Undergound Utilities	Grading	2/26/2021	3/31/2021	5	24	
4	Building Construction	Building Construction	4/1/2021	9/2/2021	5	111	
5	Architectural Coating	Architectural Coating	7/5/2021	9/2/2021	5	44	
6	Paving	Paving	9/3/2021	9/30/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 7.54

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 499,500; Non-Residential Outdoor: 166,500; Striped Parking Area: 19,704 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Undergound Utilities	Excavators	3	8.00	158	0.38
Grading/Undergound Utilities	Graders	1	8.00	187	0.41
Grading/Undergound Utilities	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Undergound Utilities	Rubber Tired Loaders	1	8.00	203	0.36
Grading/Undergound Utilities	Scrapers	2	8.00	367	0.48
Grading/Undergound Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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	4,607.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Undergound Utilities	10	25.00	0.00	875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	274.00	108.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	55.00	0.00	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

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0543	0.0000	0.0543	8.2200e-003	0.0000	8.2200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0543**	**0.0233**	**0.0775**	**8.2200e-003**	**0.0216**	**0.0298**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0173	0.6016	0.1484	1.7600e-003	0.0394	1.8200e-003	0.0412	0.0108	1.7400e-003	0.0126	0.0000	175.4394	175.4394	0.0158	0.0000	175.8353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.6000e-004	5.6200e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5762	1.5762	5.0000e-005	0.0000	1.5773
Total	**0.0181**	**0.6022**	**0.1540**	**1.7800e-003**	**0.0412**	**1.8300e-003**	**0.0431**	**0.0113**	**1.7500e-003**	**0.0131**	**0.0000**	**177.0156**	**177.0156**	**0.0159**	**0.0000**	**177.4126**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0244	0.0000	0.0244	3.7000e-003	0.0000	3.7000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0244**	**0.0233**	**0.0477**	**3.7000e-003**	**0.0216**	**0.0253**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0173	0.6016	0.1484	1.7600e-003	0.0394	1.8200e-003	0.0412	0.0108	1.7400e-003	0.0126	0.0000	175.4394	175.4394	0.0158	0.0000	175.8353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.6000e-004	5.6200e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5762	1.5762	5.0000e-005	0.0000	1.5773
Total	**0.0181**	**0.6022**	**0.1540**	**1.7800e-003**	**0.0412**	**1.8300e-003**	**0.0431**	**0.0113**	**1.7500e-003**	**0.0131**	**0.0000**	**177.0156**	**177.0156**	**0.0159**	**0.0000**	**177.4126**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0905	0.0000	0.0905	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0905**	**0.0102**	**0.1008**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4100e-003	0.0490	0.0121	1.4000e-004	3.2100e-003	1.5000e-004	3.3600e-003	8.8000e-004	1.4000e-004	1.0200e-003	0.0000	14.2804	14.2804	1.2900e-003	0.0000	14.3126
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	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
Total	**1.7200e-003**	**0.0492**	**0.0143**	**1.5000e-004**	**3.9300e-003**	**1.6000e-004**	**4.0900e-003**	**1.0700e-003**	**1.4000e-004**	**1.2200e-003**	**0.0000**	**14.9109**	**14.9109**	**1.3100e-003**	**0.0000**	**14.9435**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0224	0.0000	0.0224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0407**	**0.0102**	**0.0510**	**0.0224**	**9.4000e-003**	**0.0318**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4100e-003	0.0490	0.0121	1.4000e-004	3.2100e-003	1.5000e-004	3.3600e-003	8.8000e-004	1.4000e-004	1.0200e-003	0.0000	14.2804	14.2804	1.2900e-003	0.0000	14.3126
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	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
Total	**1.7200e-003**	**0.0492**	**0.0143**	**1.5000e-004**	**3.9300e-003**	**1.6000e-004**	**4.0900e-003**	**1.0700e-003**	**1.4000e-004**	**1.2200e-003**	**0.0000**	**14.9109**	**14.9109**	**1.3100e-003**	**0.0000**	**14.9435**

3.4 Grading/Undergound Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1046	0.0000	0.1046	0.0432	0.0000	0.0432	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0572	0.6290	0.4290	8.8000e-004		0.0266	0.0266		0.0245	0.0245	0.0000	77.4278	77.4278	0.0250	0.0000	78.0538
Total	**0.0572**	**0.6290**	**0.4290**	**8.8000e-004**	**0.1046**	**0.0266**	**0.1312**	**0.0432**	**0.0245**	**0.0677**	**0.0000**	**77.4278**	**77.4278**	**0.0250**	**0.0000**	**78.0538**

3.4 Grading/Undergound Utilities - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2900e-003	0.1143	0.0282	3.3000e-004	7.4900e-003	3.5000e-004	7.8300e-003	2.0600e-003	3.3000e-004	2.3900e-003	0.0000	33.3209	33.3209	3.0100e-003	0.0000	33.3961
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0400e-003	7.4000e-004	7.4900e-003	2.0000e-005	2.4100e-003	2.0000e-005	2.4200e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1016	2.1016	6.0000e-005	0.0000	2.1031
Total	**4.3300e-003**	**0.1150**	**0.0357**	**3.5000e-004**	**9.9000e-003**	**3.7000e-004**	**0.0103**	**2.7000e-003**	**3.5000e-004**	**3.0400e-003**	**0.0000**	**35.4225**	**35.4225**	**3.0700e-003**	**0.0000**	**35.4992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0471	0.0000	0.0471	0.0195	0.0000	0.0195	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0572	0.6290	0.4290	8.8000e-004		0.0266	0.0266		0.0245	0.0245	0.0000	77.4277	77.4277	0.0250	0.0000	78.0538
Total	**0.0572**	**0.6290**	**0.4290**	**8.8000e-004**	**0.0471**	**0.0266**	**0.0737**	**0.0195**	**0.0245**	**0.0439**	**0.0000**	**77.4277**	**77.4277**	**0.0250**	**0.0000**	**78.0538**

3.4 Grading/Undergound Utilities - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.2900e-003	0.1143	0.0282	3.3000e-004	7.4900e-003	3.5000e-004	7.8300e-003	2.0600e-003	3.3000e-004	2.3900e-003	0.0000	33.3209	33.3209	3.0100e-003	0.0000	33.3961
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0400e-003	7.4000e-004	7.4900e-003	2.0000e-005	2.4100e-003	2.0000e-005	2.4200e-003	6.4000e-004	2.0000e-005	6.5000e-004	0.0000	2.1016	2.1016	6.0000e-005	0.0000	2.1031
Total	**4.3300e-003**	**0.1150**	**0.0357**	**3.5000e-004**	**9.9000e-003**	**3.7000e-004**	**0.0103**	**2.7000e-003**	**3.5000e-004**	**3.0400e-003**	**0.0000**	**35.4225**	**35.4225**	**3.0700e-003**	**0.0000**	**35.4992**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1055	0.9675	0.9199	1.4900e-003		0.0532	0.0532		0.0500	0.0500	0.0000	128.5587	128.5587	0.0310	0.0000	129.3341
Total	**0.1055**	**0.9675**	**0.9199**	**1.4900e-003**		**0.0532**	**0.0532**		**0.0500**	**0.0500**	**0.0000**	**128.5587**	**128.5587**	**0.0310**	**0.0000**	**129.3341**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.6160	0.1643	1.6100e-003	0.0398	1.3000e-003	0.0411	0.0115	1.2500e-003	0.0127	0.0000	156.7072	156.7072	0.0116	0.0000	156.9979
Worker	0.0529	0.0377	0.3799	1.1800e-003	0.1220	8.6000e-004	0.1228	0.0324	7.9000e-004	0.0332	0.0000	106.5285	106.5285	3.0500e-003	0.0000	106.6048
Total	**0.0714**	**0.6537**	**0.5442**	**2.7900e-003**	**0.1617**	**2.1600e-003**	**0.1639**	**0.0439**	**2.0400e-003**	**0.0459**	**0.0000**	**263.2356**	**263.2356**	**0.0147**	**0.0000**	**263.6027**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1055	0.9675	0.9199	1.4900e-003		0.0532	0.0532		0.0500	0.0500	0.0000	128.5585	128.5585	0.0310	0.0000	129.3339
Total	**0.1055**	**0.9675**	**0.9199**	**1.4900e-003**		**0.0532**	**0.0532**		**0.0500**	**0.0500**	**0.0000**	**128.5585**	**128.5585**	**0.0310**	**0.0000**	**129.3339**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.6160	0.1643	1.6100e-003	0.0398	1.3000e-003	0.0411	0.0115	1.2500e-003	0.0127	0.0000	156.7072	156.7072	0.0116	0.0000	156.9979
Worker	0.0529	0.0377	0.3799	1.1800e-003	0.1220	8.6000e-004	0.1228	0.0324	7.9000e-004	0.0332	0.0000	106.5285	106.5285	3.0500e-003	0.0000	106.6048
Total	**0.0714**	**0.6537**	**0.5442**	**2.7900e-003**	**0.1617**	**2.1600e-003**	**0.1639**	**0.0439**	**2.0400e-003**	**0.0459**	**0.0000**	**263.2356**	**263.2356**	**0.0147**	**0.0000**	**263.6027**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5891					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8200e-003	0.0336	0.0400	7.0000e-005		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	5.6172	5.6172	3.9000e-004	0.0000	5.6268
Total	**1.5939**	**0.0336**	**0.0400**	**7.0000e-005**		**2.0700e-003**	**2.0700e-003**		**2.0700e-003**	**2.0700e-003**	**0.0000**	**5.6172**	**5.6172**	**3.9000e-004**	**0.0000**	**5.6268**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	3.0000e-003	0.0302	9.0000e-005	9.7000e-003	7.0000e-005	9.7700e-003	2.5800e-003	6.0000e-005	2.6400e-003	0.0000	8.4763	8.4763	2.4000e-004	0.0000	8.4824
Total	**4.2100e-003**	**3.0000e-003**	**0.0302**	**9.0000e-005**	**9.7000e-003**	**7.0000e-005**	**9.7700e-003**	**2.5800e-003**	**6.0000e-005**	**2.6400e-003**	**0.0000**	**8.4763**	**8.4763**	**2.4000e-004**	**0.0000**	**8.4824**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5891					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8200e-003	0.0336	0.0400	7.0000e-005		2.0700e-003	2.0700e-003		2.0700e-003	2.0700e-003	0.0000	5.6172	5.6172	3.9000e-004	0.0000	5.6268
Total	**1.5939**	**0.0336**	**0.0400**	**7.0000e-005**		**2.0700e-003**	**2.0700e-003**		**2.0700e-003**	**2.0700e-003**	**0.0000**	**5.6172**	**5.6172**	**3.9000e-004**	**0.0000**	**5.6268**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	3.0000e-003	0.0302	9.0000e-005	9.7000e-003	7.0000e-005	9.7700e-003	2.5800e-003	6.0000e-005	2.6400e-003	0.0000	8.4763	8.4763	2.4000e-004	0.0000	8.4824
Total	**4.2100e-003**	**3.0000e-003**	**0.0302**	**9.0000e-005**	**9.7000e-003**	**7.0000e-005**	**9.7700e-003**	**2.5800e-003**	**6.0000e-005**	**2.6400e-003**	**0.0000**	**8.4763**	**8.4763**	**2.4000e-004**	**0.0000**	**8.4824**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	9.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0224**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.7000e-004	3.7500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0508	1.0508	3.0000e-005	0.0000	1.0515
Total	**5.2000e-004**	**3.7000e-004**	**3.7500e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0508**	**1.0508**	**3.0000e-005**	**0.0000**	**1.0515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	9.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0224**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.7000e-004	3.7500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0508	1.0508	3.0000e-005	0.0000	1.0515
Total	**5.2000e-004**	**3.7000e-004**	**3.7500e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0508**	**1.0508**	**3.0000e-005**	**0.0000**	**1.0515**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5961	9.4264	6.6254	0.0401	2.3059	0.0386	2.3445	0.6284	0.0365	0.6650	0.0000	3,807.8324	3,807.8324	0.2103	0.0000	3,813.0903
Unmitigated	0.5961	9.4264	6.6254	0.0401	2.3059	0.0386	2.3445	0.6284	0.0365	0.6650	0.0000	3,807.8324	3,807.8324	0.2103	0.0000	3,813.0903

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	345.80	345.80	345.80	1,195,776	1,195,776
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,492.10	1,492.10	1492.10	4,681,732	4,681,732
Total	1,837.90	1,837.90	1,837.90	5,877,509	5,877,509

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	100.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	60.00	0.00	40.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.730000	0.050000	0.220000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Unrefrigerated Warehouse-No Rail	0.440000	0.030000	0.133000	0.000000	0.099000	0.036000	0.107000	0.155000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	545.4204	545.4204	0.0220	4.5400e-003	547.3227
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	545.4204	545.4204	0.0220	4.5400e-003	547.3227
NaturalGas Mitigated	6.4500e-003	0.0587	0.0493	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	63.8515	63.8515	1.2200e-003	1.1700e-003	64.2309
NaturalGas Unmitigated	6.4500e-003	0.0587	0.0493	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	63.8515	63.8515	1.2200e-003	1.1700e-003	64.2309

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	698170	3.7600e-003	0.0342	0.0288	2.1000e-004		2.6000e-003	2.6000e-003		2.6000e-003	2.6000e-003	0.0000	37.2570	37.2570	7.1000e-004	6.8000e-004	37.4784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	498361	2.6900e-003	0.0244	0.0205	1.5000e-004		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	26.5945	26.5945	5.1000e-004	4.9000e-004	26.7525
Total		**6.4500e-003**	**0.0587**	**0.0493**	**3.6000e-004**		**4.4600e-003**	**4.4600e-003**		**4.4600e-003**	**4.4600e-003**	**0.0000**	**63.8515**	**63.8515**	**1.2200e-003**	**1.1700e-003**	**64.2309**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	698170	3.7600e-003	0.0342	0.0288	2.1000e-004		2.6000e-003	2.6000e-003		2.6000e-003	2.6000e-003	0.0000	37.2570	37.2570	7.1000e-004	6.8000e-004	37.4784
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	498361	2.6900e-003	0.0244	0.0205	1.5000e-004		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	26.5945	26.5945	5.1000e-004	4.9000e-004	26.7525
Total		**6.4500e-003**	**0.0587**	**0.0493**	**3.6000e-004**		**4.4600e-003**	**4.4600e-003**		**4.4600e-003**	**4.4600e-003**	**0.0000**	**63.8515**	**63.8515**	**1.2200e-003**	**1.1700e-003**	**64.2309**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	464755	151.8861	6.1100e-003	1.2600e-003	152.4158
Parking Lot	114940	37.5634	1.5100e-003	3.1000e-004	37.6944
Unrefrigerated Warehouse-No Rail	1.08923e+006	355.9709	0.0143	2.9600e-003	357.2125
Total		**545.4204**	**0.0220**	**4.5300e-003**	**547.3228**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	464755	151.8861	6.1100e-003	1.2600e-003	152.4158
Parking Lot	114940	37.5634	1.5100e-003	3.1000e-004	37.6944
Unrefrigerated Warehouse-No Rail	1.08923e+006	355.9709	0.0143	2.9600e-003	357.2125
Total		**545.4204**	**0.0220**	**4.5300e-003**	**547.3228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4812	6.0000e-005	6.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0118	0.0118	3.0000e-005	0.0000	0.0126
Unmitigated	1.4812	6.0000e-005	6.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0118	0.0118	3.0000e-005	0.0000	0.0126

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1589					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7000e-004	6.0000e-005	6.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0118	0.0118	3.0000e-005	0.0000	0.0126
Total	**1.4812**	**6.0000e-005**	**6.0900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0118**	**0.0118**	**3.0000e-005**	**0.0000**	**0.0126**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1589					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7000e-004	6.0000e-005	6.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0118	0.0118	3.0000e-005	0.0000	0.0126
Total	**1.4812**	**6.0000e-005**	**6.0900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0118**	**0.0118**	**3.0000e-005**	**0.0000**	**0.0126**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	357.3362	2.4624	0.0606	436.9549
Unmitigated	357.3362	2.4624	0.0606	436.9549

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.14603 / 3.76692	41.7807	0.2019	5.0600e-003	48.3355
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	69.0096 / 0	315.5555	2.2605	0.0555	388.6195
Total		**357.3362**	**2.4624**	**0.0606**	**436.9549**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.14603 / 3.76692	41.7807	0.2019	5.0600e-003	48.3355
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	69.0096 / 0	315.5555	2.2605	0.0555	388.6195
Total		**357.3362**	**2.4624**	**0.0606**	**436.9549**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	395.2234	23.3570	0.0000	979.1493
Unmitigated	395.2234	23.3570	0.0000	979.1493

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	1947	395.2234	23.3570	0.0000	979.1493
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**395.2234**	**23.3570**	**0.0000**	**979.1493**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	1947	395.2234	23.3570	0.0000	979.1493
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**395.2234**	**23.3570**	**0.0000**	**979.1493**

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

LTD-18 Existing Land Use

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	36.50	1000sqft	0.84	36,500.00	0
General Office Building	44.10	1000sqft	1.01	44,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational emissions only, no construction this model.

Land Use -

Construction Phase - No construction this model.

Off-road Equipment - No construction this model.

Grading - No construction this model.

Trips and VMT - No construction this model.

Vehicle Trips - Existing land use trip rates per TIA (LL&G 2019).

Energy Use -

Area Coating - Non-residential architectural coatings 100 g/L or less VOC content per SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	2.46	10.00
tblVehicleTrips	ST_TR	1.90	8.00
tblVehicleTrips	SU_TR	1.05	10.00
tblVehicleTrips	SU_TR	1.11	8.00
tblVehicleTrips	WD_TR	11.03	10.00
tblVehicleTrips	WD_TR	8.11	8.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

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

Mitigated Construction

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

	ROG	NOx	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**

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	1.9303	8.0000e-005	8.2400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0188
Energy	0.0388	0.3525	0.2961	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.9876	422.9876	8.1100e-003	7.7500e-003	425.5012
Mobile	1.1036	4.6809	12.4544	0.0417	3.7864	0.0357	3.8221	1.0119	0.0334	1.0453		4,245.4914	4,245.4914	0.2305		4,251.2531
Total	**3.0726**	**5.0334**	**12.7587**	**0.0439**	**3.7864**	**0.0625**	**3.8489**	**1.0119**	**0.0602**	**1.0721**		**4,668.4966**	**4,668.4966**	**0.2386**	**7.7500e-003**	**4,676.7730**

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	1.9303	8.0000e-005	8.2400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0188
Energy	0.0388	0.3525	0.2961	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.9876	422.9876	8.1100e-003	7.7500e-003	425.5012
Mobile	1.1036	4.6809	12.4544	0.0417	3.7864	0.0357	3.8221	1.0119	0.0334	1.0453		4,245.4914	4,245.4914	0.2305		4,251.2531
Total	**3.0726**	**5.0334**	**12.7587**	**0.0439**	**3.7864**	**0.0625**	**3.8489**	**1.0119**	**0.0602**	**1.0721**		**4,668.4966**	**4,668.4966**	**0.2386**	**7.7500e-003**	**4,676.7730**

	ROG	NOx	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	Site Preparation	Site Preparation	1/1/2021	1/4/2021	5	2	

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: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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**

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	1.1036	4.6809	12.4544	0.0417	3.7864	0.0357	3.8221	1.0119	0.0334	1.0453		4,245.4914	4,245.4914	0.2305		4,251.2531
Unmitigated	1.1036	4.6809	12.4544	0.0417	3.7864	0.0357	3.8221	1.0119	0.0334	1.0453		4,245.4914	4,245.4914	0.2305		4,251.2531

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	441.00	441.00	441.00	1,053,881	1,053,881
Research & Development	292.00	292.00	292.00	731,824	731,824
Total	733.00	733.00	733.00	1,785,705	1,785,705

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
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Research & Development	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	0.0388	0.3525	0.2961	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.9876	422.9876	8.1100e-003	7.7500e-003	425.5012
NaturalGas Unmitigated	0.0388	0.3525	0.2961	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.9876	422.9876	8.1100e-003	7.7500e-003	425.5012

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	2439.39	0.0263	0.2392	0.2009	1.4300e-003		0.0182	0.0182		0.0182	0.0182		286.9876	286.9876	5.5000e-003	5.2600e-003	288.6930
Research & Development	1156	0.0125	0.1133	0.0952	6.8000e-004		8.6100e-003	8.6100e-003		8.6100e-003	8.6100e-003		136.0000	136.0000	2.6100e-003	2.4900e-003	136.8082
Total		**0.0388**	**0.3525**	**0.2961**	**2.1100e-003**		**0.0268**	**0.0268**		**0.0268**	**0.0268**		**422.9876**	**422.9876**	**8.1100e-003**	**7.7500e-003**	**425.5012**

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	2.43939	0.0263	0.2392	0.2009	1.4300e-003		0.0182	0.0182		0.0182	0.0182		286.9876	286.9876	5.5000e-003	5.2600e-003	288.6930
Research & Development	1.156	0.0125	0.1133	0.0952	6.8000e-004		8.6100e-003	8.6100e-003		8.6100e-003	8.6100e-003		136.0000	136.0000	2.6100e-003	2.4900e-003	136.8082
Total		**0.0388**	**0.3525**	**0.2961**	**2.1100e-003**		**0.0268**	**0.0268**		**0.0268**	**0.0268**		**422.9876**	**422.9876**	**8.1100e-003**	**7.7500e-003**	**425.5012**

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	1.9303	8.0000e-005	8.2400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0188
Unmitigated	1.9303	8.0000e-005	8.2400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0188

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	0.2047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7248					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.7000e-004	8.0000e-005	8.2400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0188
Total	**1.9303**	**8.0000e-005**	**8.2400e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0176**	**0.0176**	**5.0000e-005**		**0.0188**

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	0.2047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7248					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.7000e-004	8.0000e-005	8.2400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0188
Total	**1.9303**	**8.0000e-005**	**8.2400e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0176**	**0.0176**	**5.0000e-005**		**0.0188**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

LTD-18 Existing Land Use

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	36.50	1000sqft	0.84	36,500.00	0
General Office Building	44.10	1000sqft	1.01	44,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational emissions only, no construction this model.

Land Use -

Construction Phase - No construction this model.

Off-road Equipment - No construction this model.

Grading - No construction this model.

Trips and VMT - No construction this model.

Vehicle Trips - Existing land use trip rates per TIA (LL&G 2019).

Energy Use -

Area Coating - Non-residential architectural coatings 100 g/L or less VOC content per SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	2.46	10.00
tblVehicleTrips	ST_TR	1.90	8.00
tblVehicleTrips	SU_TR	1.05	10.00
tblVehicleTrips	SU_TR	1.11	8.00
tblVehicleTrips	WD_TR	11.03	10.00
tblVehicleTrips	WD_TR	8.11	8.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3522	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4400e-003	1.4400e-003	0.0000	0.0000	1.5400e-003
Energy	7.0800e-003	0.0643	0.0540	3.9000e-004		4.8900e-003	4.8900e-003		4.8900e-003	4.8900e-003	0.0000	330.6925	330.6925	0.0131	3.7200e-003	332.1301
Mobile	0.1958	0.8551	2.2381	7.6700e-003	0.6730	6.4600e-003	0.6794	0.1802	6.0400e-003	0.1862	0.0000	707.8314	707.8314	0.0376	0.0000	708.7713
Waste						0.0000	0.0000		0.0000	0.0000	8.8869	0.0000	8.8869	0.5252	0.0000	22.0170
Water						0.0000	0.0000		0.0000	0.0000	8.1804	113.1986	121.3790	0.8453	0.0209	148.7396
Total	**0.5551**	**0.9195**	**2.2929**	**8.0600e-003**	**0.6730**	**0.0114**	**0.6843**	**0.1802**	**0.0109**	**0.1911**	**17.0673**	**1,151.7240**	**1,168.7913**	**1.4213**	**0.0246**	**1,211.6595**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3522	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4400e-003	1.4400e-003	0.0000	0.0000	1.5400e-003
Energy	7.0800e-003	0.0643	0.0540	3.9000e-004		4.8900e-003	4.8900e-003		4.8900e-003	4.8900e-003	0.0000	330.6925	330.6925	0.0131	3.7200e-003	332.1301
Mobile	0.1958	0.8551	2.2381	7.6700e-003	0.6730	6.4600e-003	0.6794	0.1802	6.0400e-003	0.1862	0.0000	707.8314	707.8314	0.0376	0.0000	708.7713
Waste						0.0000	0.0000		0.0000	0.0000	8.8869	0.0000	8.8869	0.5252	0.0000	22.0170
Water						0.0000	0.0000		0.0000	0.0000	8.1804	113.1986	121.3790	0.8453	0.0209	148.7396
Total	**0.5551**	**0.9195**	**2.2929**	**8.0600e-003**	**0.6730**	**0.0114**	**0.6843**	**0.1802**	**0.0109**	**0.1911**	**17.0673**	**1,151.7240**	**1,168.7913**	**1.4213**	**0.0246**	**1,211.6595**

	ROG	NOx	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	Site Preparation	Site Preparation	1/1/2021	1/4/2021	5	2	

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: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					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
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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	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
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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1958	0.8551	2.2381	7.6700e-003	0.6730	6.4600e-003	0.6794	0.1802	6.0400e-003	0.1862	0.0000	707.8314	707.8314	0.0376	0.0000	708.7713
Unmitigated	0.1958	0.8551	2.2381	7.6700e-003	0.6730	6.4600e-003	0.6794	0.1802	6.0400e-003	0.1862	0.0000	707.8314	707.8314	0.0376	0.0000	708.7713

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	441.00	441.00	441.00	1,053,881	1,053,881
Research & Development	292.00	292.00	292.00	731,824	731,824
Total	733.00	733.00	733.00	1,785,705	1,785,705

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
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Research & Development	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	260.6622	260.6622	0.0118	2.4400e-003	261.6836
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	260.6622	260.6622	0.0118	2.4400e-003	261.6836
NaturalGas Mitigated	7.0800e-003	0.0643	0.0540	3.9000e-004		4.8900e-003	4.8900e-003		4.8900e-003	4.8900e-003	0.0000	70.0303	70.0303	1.3400e-003	1.2800e-003	70.4465
NaturalGas Unmitigated	7.0800e-003	0.0643	0.0540	3.9000e-004		4.8900e-003	4.8900e-003		4.8900e-003	4.8900e-003	0.0000	70.0303	70.0303	1.3400e-003	1.2800e-003	70.4465

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	890379	4.8000e-003	0.0437	0.0367	2.6000e-004		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	47.5140	47.5140	9.1000e-004	8.7000e-004	47.7964
Research & Development	421940	2.2800e-003	0.0207	0.0174	1.2000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	22.5163	22.5163	4.3000e-004	4.1000e-004	22.6501
Total		**7.0800e-003**	**0.0643**	**0.0540**	**3.8000e-004**		**4.8900e-003**	**4.8900e-003**		**4.8900e-003**	**4.8900e-003**	**0.0000**	**70.0303**	**70.0303**	**1.3400e-003**	**1.2800e-003**	**70.4465**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	890379	4.8000e-003	0.0437	0.0367	2.6000e-004		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	47.5140	47.5140	9.1000e-004	8.7000e-004	47.7964
Research & Development	421940	2.2800e-003	0.0207	0.0174	1.2000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	22.5163	22.5163	4.3000e-004	4.1000e-004	22.6501
Total		**7.0800e-003**	**0.0643**	**0.0540**	**3.8000e-004**		**4.8900e-003**	**4.8900e-003**		**4.8900e-003**	**4.8900e-003**	**0.0000**	**70.0303**	**70.0303**	**1.3400e-003**	**1.2800e-003**	**70.4465**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	592704	172.4244	7.8000e-003	1.6100e-003	173.1000
Research & Development	303315	88.2378	3.9900e-003	8.3000e-004	88.5836
Total		**260.6622**	**0.0118**	**2.4400e-003**	**261.6836**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	592704	172.4244	7.8000e-003	1.6100e-003	173.1000
Research & Development	303315	88.2378	3.9900e-003	8.3000e-004	88.5836
Total		**260.6622**	**0.0118**	**2.4400e-003**	**261.6836**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3522	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4400e-003	1.4400e-003	0.0000	0.0000	1.5400e-003
Unmitigated	0.3522	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4400e-003	1.4400e-003	0.0000	0.0000	1.5400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4400e-003	1.4400e-003	0.0000	0.0000	1.5400e-003
Total	**0.3522**	**1.0000e-005**	**7.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4400e-003**	**1.4400e-003**	**0.0000**	**0.0000**	**1.5400e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4400e-003	1.4400e-003	0.0000	0.0000	1.5400e-003
Total	**0.3522**	**1.0000e-005**	**7.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4400e-003**	**1.4400e-003**	**0.0000**	**0.0000**	**1.5400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	121.3790	0.8453	0.0209	148.7396
Unmitigated	121.3790	0.8453	0.0209	148.7396

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	7.83806 / 4.80397	47.7035	0.2575	6.4500e-003	56.0628
Research & Development	17.9468 / 0	73.6755	0.5879	0.0144	92.6767
Total		**121.3790**	**0.8453**	**0.0209**	**148.7396**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	7.83806 / 4.80397	47.7035	0.2575	6.4500e-003	56.0628
Research & Development	17.9468 / 0	73.6755	0.5879	0.0144	92.6767
Total		**121.3790**	**0.8453**	**0.0209**	**148.7396**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.8869	0.5252	0.0000	22.0170
Unmitigated	8.8869	0.5252	0.0000	22.0170

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	41.01	8.3247	0.4920	0.0000	20.6240
Research & Development	2.77	0.5623	0.0332	0.0000	1.3930
Total		**8.8869**	**0.5252**	**0.0000**	**22.0170**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	41.01	8.3247	0.4920	0.0000	20.6240
Research & Development	2.77	0.5623	0.0332	0.0000	1.3930
Total		**8.8869**	**0.5252**	**0.0000**	**22.0170**

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