AIR QUALITY AND GREENHOUSE GAS IMPACT ANALYSIS

LANCASTER 3 PROJECT

LANCASTER, CALIFORNIA

LSA

March 2020

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EXECUTIVE SUMMARY

LSA was retained by USA Multifamily Development to prepare an air quality and greenhouse gas (GHG) impact study for the Lancaster 3 Residential Project (project) to be located in Lancaster, California. The City of Lancaster (City) requires this study as part of the environmental review process to comply with the California Environmental Quality Act (CEQA).

The proposed project involves the development of 264 mixed-income residences at 1752 East Avenue J-4 in Lancaster, California. Construction of the proposed project is planned to start in August 2020 and complete in early 2023.

This air quality and GHG impact analysis provides a discussion of the proposed project, the physical setting of the project area, and the regulatory framework for air quality and GHGs. The report provides data on existing air quality and evaluates potential air quality and GHG impacts associated with the proposed project. Modeled vehicle emissions are based on the trip generation data from the proposed project's Traffic Impact Analysis (LSA 2020).

Emissions with regional effects during project construction, calculated with the California Emissions Estimator Model (CalEEMod; Version 2016.3.2), would not exceed criteria pollutant thresholds established by the Antelope Valley Air Quality Management District (AVAQMD). Compliance with AVAQMD Rules and Regulations during construction would reduce construction-related air quality impacts from fugitive dust emissions and construction equipment emissions. Standard dust suppression measures recommended by AVAQMD have been identified for short-term construction to meet the AVAQMD emissions thresholds.

Pollutant emissions from project operation, also calculated with CalEEMod, would not exceed the AVAQMD criteria pollutant thresholds. Historical air quality data show that existing carbon monoxide (CO) levels for the project area and the general vicinity do not exceed either State or federal ambient air quality standards. The proposed project would not result in substantial increases in CO concentrations at intersections in the project vicinity that would result in the exceedance of federal or State CO concentration standards.

The proposed project is in Los Angeles County, which has been found to have serpentine and ultramafic rock in its soil (DOC 2019). However, according to the California Geological Survey, no such rock has been identified in the project vicinity. Therefore, the potential risk for naturally occurring asbestos during project construction is small and would be less than significant.

Although odor impacts are unlikely, the proposed project would be required to comply with AVAQMD Rule 402 in the event a nuisance complaint occurs. Impacts associated with objectionable odors would be less than significant.

This study addresses the potential of the proposed project to affect global climate change. Short-term construction and long-term operational emissions of the principal GHGs, including carbon dioxide and methane, are quantified, and their significance relative to the City's Climate Action Plan (CAP) is discussed. The proposed project's consistency with the policies and goals of the City's CAP is

demonstrated; thus, the proposed project would have a less-than-significant individual and cumulative impact for GHG emissions.

The City's General Plan (City of Lancaster 2009) lists the project site land use designation as High Density Residential (HDR). Thus, the proposed project would result in air emissions that are consistent with the existing General Plan. The City's General Plan is consistent with the Southern California Association of Governments (SCAG) Regional Comprehensive Plan Guidelines and the AVAQMD Air Quality Attainment Plan (AQAP). Thus, the proposed project would be consistent with the regional AQAP.

Cumulative construction and operational emissions were found to be less than significant. The proposed project's design would result in project consistency with the California Climate Change Scoping Plan and the City's CAP. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the GHG emissions. Given this consistency, it is concluded that the proposed project's impact on the climate from GHG emissions would not be cumulatively considerable.

This evaluation was prepared in conformance with appropriate standards, using procedures and methodologies in the AVAQMD *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines* (AVAQMD 2016). Air quality data posted on the California Air Resources Board and the United States Environmental Protection Agency websites are included to document the local air quality environment.

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LIST OF ABBREVIATIONS AND ACRONYMS

°C	degrees Celsius
°F	degrees Fahrenheit
$\mu g/m^3$	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
ac	acre/acres
AQAP	Air Quality Attainment Plan
AR4	2007 IPCC Fourth Assessment Report
AR5	IPCC 2013 Fifth Assessment Report
AVAQMD	Antelope Valley Air Quality Management District
Basin	Mojave Desert Air Basin
Bio-CO_2	biologically generated carbon dioxide
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Lancaster
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
du	dwelling unit
EO	Executive Order
EPA	United States Environmental Protection Agency
F-gases	fluorinated gases
ft	foot/feet
GCC	global climate change
GHG	greenhouse gas
GWP	global warming potential
H_2S	hydrogen sulfide
HDR	High Density Residential
HFCs	hydrofluorocarbons
ICAT	Intergovernmental Climate Action Team
IPCC	Intergovernmental Panel on Climate Change

lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
LOS	level(s) of service
mg/m^3	milligrams per cubic meter
mi	mile/miles
MMT	million metric tons
MMT CO_2e	million metric tons of carbon dioxide equivalent
mph	miles per hour
MPO	Metropolitan Planning Organization
MT	metric tons
MT CO_2e	metric tons of carbon dioxide equivalent
MT CO_2e/yr	metric tons of carbon dioxide equivalent per year
MT/yr	metric tons per year
MWELO	Model Water Efficient Landscape Ordinance
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NBio-CO_2	non-biologically generated carbon dioxide
NDIR	Non-Dispersive Infrared Photometry
NO	nitric oxide
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO_X	nitrogen oxides
O_3	ozone
OPR	Governor's Office of Planning and Research
PFCs	perfluorocarbons
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 microns in size
PM_{10}	particulate matter less than 10 microns in size
ppb	parts per billion
ppm	parts per million
project	Lancaster 3 Project
PV	photovoltaic
ROC	reactive organic compound
ROG	reactive organic gas
SB	Senate Bill
SCAG	Southern California Association of Governments
sf	square foot/feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLCP	short-lived climate pollutant
SO_2	sulfur dioxide
SO_X	sulfur oxides
State	State of California

TAC	toxic air contaminant
VMT	vehicle miles traveled
VOC	volatile organic compound
WRCC	Western Regional Climate Center

INTRODUCTION

This air quality and greenhouse gas (GHG) impact analysis has been prepared to evaluate the potential air quality and climate change impacts associated with the proposed Lancaster 3 Project (project) in Lancaster, Los Angeles County, California. This report provides a project-specific air quality and climate change impact analysis by examining the potential impacts of the proposed uses on the regional air quality and to adjacent sensitive uses. This air quality and GHG impact analysis will follow guidelines identified by the Antelope Valley Air Quality Management District (AVAQMD) in its *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines* (AVAQMD 2016).

PROJECT LOCATION

The project site is located at 1752 East Avenue J-4 in Lancaster, California, as shown on Figure 1. The site is currently undeveloped.

PROJECT DESCRIPTION

USA Multifamily Development proposes to construct 264 mixed-income residences on an 11.34 gross acre (ac) site at the northeast corner of 17th Street E and East Avenue J-4, as shown on Figure 2. The residential community would include 264 new apartment homes (an average of 20.2 dwelling units [du] per gross acre) with a mix of one-, two-, three-, and four-bedroom units ranging from 680 square feet (sf) to 1,287 sf. None of the apartment homes would have a fireplace. The community will include 11 three-story wood frame walk-up buildings with a maximum height of 45 feet (ft). Construction of the proposed project is planned to start in August 2020 and would be completed in early 2023. Minor demolition of existing foundations and underground utilities would be required.

The project site has a General Plan and Zoning designation of High Density Residential (HDR), which allows for 15.1 to 30 du/ac. There are no changes to the existing General Plan or Zoning designations required for the proposed project.

Existing Sensitive Land Uses in the Project Area

Sensitive receptors include residences, schools, hospitals, and similar uses sensitive to air quality. Land uses in the vicinity of the project area include residences and commercial use. Single-family residences are located west of the project site across 17th Street, and multifamily residences are located south across East Avenue J4 and immediately east of the project site. The closest residences are located approximately 10 ft from the east project construction boundary. A church and shopping center are located north of the project site.

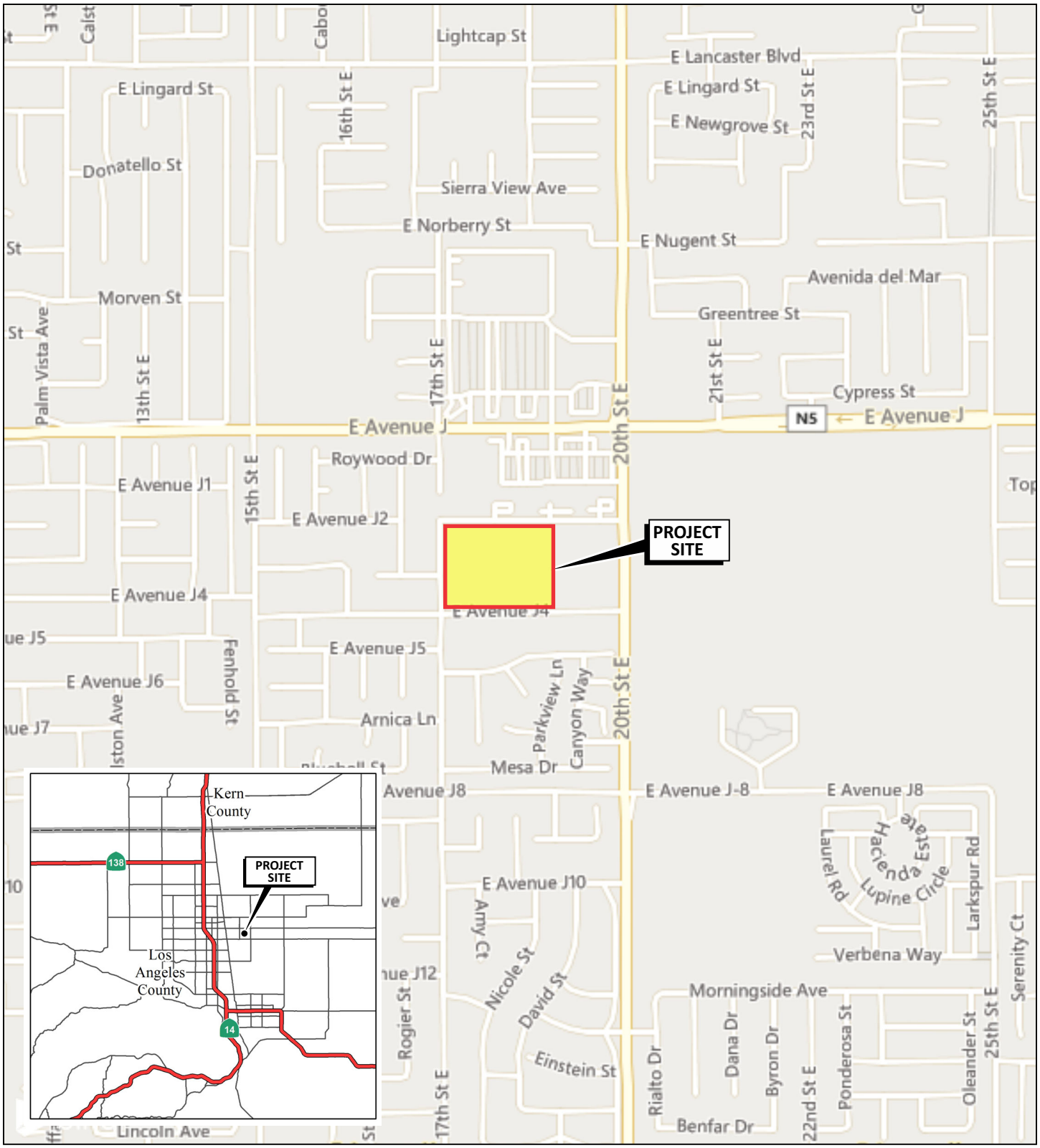

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FIGURE 1

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FEET

SOURCE: Bing Maps

Lancaster 3
Project Location

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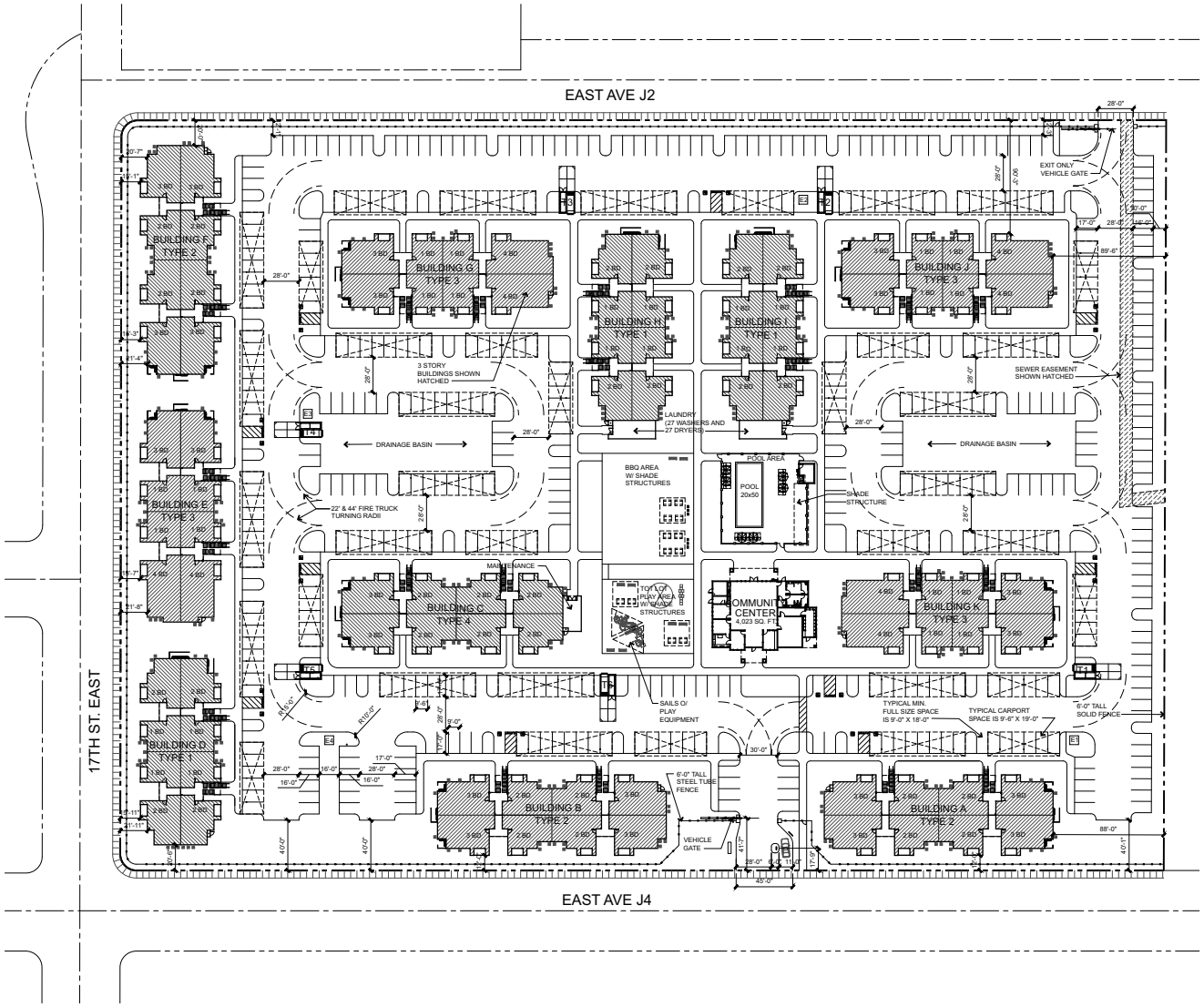

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FIGURE 2

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SOURCE: Kuchman Architects PC

Lancaster 3

Site Plan

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PROJECT SETTING

REGIONAL CLIMATE AND AIR QUALITY

The project site is in the high-desert portion of Los Angeles County, California, which is part of the Mojave Desert Air Basin (Basin) and is under the jurisdiction of AVAQMD. The Antelope Valley is a 3,000-square-mile high-desert closed basin that straddles northern Los Angeles County and southern Kern County. One of nine California valleys with the same name, this one lies in the western Mojave high desert and includes the communities of Lancaster, Palmdale, Rosamond, and Mojave. The air quality assessment for the proposed project includes estimating emissions associated with short-term construction and long-term operation of the proposed project.

Both the State of California (State) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As detailed in Table A below, these pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in size (PM_{10}), particulate matter less than 2.5 microns in size ($PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table B summarizes the primary health effects and sources of common air pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (by the United States Environmental Protection Agency [EPA]), these health effects would not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are typically more stringent than federal AAQS. Among the pollutants, O_3 and particulate matter ($PM_{2.5}$ and PM_{10}) are considered pollutants with regional effects, while the others have more localized effects.

The California Clean Air Act (CCAA) provides AVAQMD and other air districts with the authority to manage transportation activities at indirect sources. Indirect sources of pollution include any facility, building, structure, or installation, or combination thereof that attracts or generates mobile source emissions of any pollutant. In addition, area source emissions that are generated when minor sources collectively emit a substantial amount of pollution are also managed by the local air districts. Examples of this would be the motor vehicles at an intersection, at a mall, and on highways. AVAQMD also regulates stationary sources of pollution throughout its jurisdictional area. The California Air Resources Board (CARB) regulates direct emissions from motor vehicles.

Climate/Meteorology

Air quality in the planning area is affected not only by various emission sources (e.g., mobile and industry) but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall).

Table A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
O_3[8]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
CO	1-Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
NO_2[10]	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
SO_2[11]	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	—		—	0.5 ppm (1,300 µg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30-Day Average	1.5 µg/m³	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[13]	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m³		
Visibility-Reducing Particles[14]	8-Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: Ambient Air Quality Standards (CARB 2016a).

Footnotes are provided on the following page.

[1] California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1- and 24-hour), NO_2, and PM (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the CCR.

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

[3] Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method that can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.

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

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

[7] Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

[8] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

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

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

[11] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated as Nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated as Nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.

[14] In 1989, CARB converted both the general statewide 10 mi visibility standard and the Lake Tahoe 30 mi visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
µg/m^3 = micrograms per cubic meter
CAAQS = California ambient air quality standards
CARB = California Air Resources Board
CCR = California Code of Regulations
CO = carbon monoxide
EPA = United States Environmental Protection Agency
mg/m^3 = milligrams per cubic meter
mi = mile/miles
NDIR = Non-Dispersive Infrared Photometry
NO_2 = nitrogen dioxide
O_3 = ozone
PM = particulate matter
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ppb = parts per billion
ppm = parts per million
SO_2 = sulfur dioxide

Table B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutant	Health Effects	Examples of Sources
$PM_{2.5}$ and PM_{10}	• Hospitalizations for worsened heart diseases • Emergency room visits for asthma • Premature death	• Cars and trucks (especially diesels) • Fireplaces and wood stoves • Windblown dust from roadways, agriculture, and construction
O_3	• Cough, chest tightness • Difficulty taking a deep breath • Worsened asthma symptoms • Lung inflammation	• Precursor sources:[1] motor vehicles, industrial emissions, and consumer products
CO	• Chest pain in heart patients[2] • Headaches, nausea[2] • Reduced mental alertness[2] • Death at very high levels[2]	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves
NO_2	• Increased response to allergens	• See CO sources
TACs	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders	• Cars and trucks (especially diesels) • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Source: ARB Fact Sheet: Air Pollution and Health (CARB 2009).

[1] O_3 is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form O_3 in the atmosphere.

[2] Health effects from CO exposures occur at levels considerably higher than ambient.

CARB = California Air Resources Board
CO = carbon monoxide
NO_2 = nitrogen dioxide
O_3 = ozone
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
TAC = toxic air contaminant

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site is the Palmdale Airport Station (WRCC 2020). The monthly average maximum temperature recorded at this station ranged from 56.8°F in January to 98.9°F in July, with an annual average maximum of 76.7°F. The monthly average minimum temperature recorded at this station ranged from 28.8°F in December to 64.1°F in July, with an annual average minimum of 44.5°F.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The Palmdale Airport Station's monitored precipitation shows that average monthly rainfall varied from 1.13 inches in January to 0.20 inch or less from May to October, with an annual total of 5.05 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

Description of Global Climate Change and Its Sources

Global climate change (GCC) is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (e.g., precipitation or

wind) that last for an extended period of time. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures.

Climate change refers to any change in measures of weather (e.g., temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from natural factors (e.g., changes in the sun's intensity), natural processes within the climate system (e.g., changes in ocean circulation), or human activities (e.g., the burning of fossil fuels, land clearing, or agriculture). The primary observed effect of GCC has been a rise in the average global tropospheric[1] temperature of 0.36°F per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming may occur, which may induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of the State could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns, or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones. Specific effects in the State might include a decline in the Sierra Nevada snowpack, erosion of the State's coastline, and seawater intrusion in the Sacramento–San Joaquin River Delta.

Global surface temperatures have risen by 1.33°F ±0.32°F over the last 100 years. The rate of warming over the last 50 years is almost double that over the last 100 years (IPCC 2013). The latest projections, based on state-of-the-art climate models, indicate that temperatures in the State are expected to rise 3°F to 10.5°F by the end of the century (CARB 2017a). The prevailing scientific opinion on climate change is that "most of the warming observed over the last 60 years is attributable to human activities" (IPCC 2013). Increased amounts of CO_2 and other GHGs are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as the greenhouse effect.[2]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC are the following:[3]

---

1 The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

2 The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases (GHGs) like carbon dioxide, methane, and nitrogen dioxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

3 The GHGs listed are consistent with the definition in Assembly Bill 32 (Government Code 38505), as discussed later in this section.

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

A subset of GHGs are categorized as short-lived climate pollutants (SLCPs), which include black carbon (soot), CH_4, and fluorinated gases (F-gases, including HFCs). These are powerful climate forcers and harmful air pollutants that have an outsized impact on climate change in the near term, compared to longer-lived GHGs, such as CO_2. SLCPs are estimated to be responsible for about 40 percent of current net climate forcing (CARB 2017b).

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which can cause global warming. Although GHGs produced by human activities include naturally occurring GHGs (e.g., CO_2, CH_4, and N_2O), some gases (e.g., HFCs, PFCs, and SF_6) are completely new to the atmosphere. Certain other gases (e.g., water vapor) are short-lived in the atmosphere compared to these GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes (e.g., oceanic evaporation). For the purposes of this air quality study, the term “GHGs” will refer collectively to the six gases identified in the bulleted list provided above.

These GHGs vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas in absorbing infrared radiation and the length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. For example, N_2O is from 265 to 310 times more potent at contributing to global warming than CO_2. GHG emissions are typically measured in terms of metric tons of CO_2 equivalents (MT CO_2e). Table C identifies the GWP for the three GHGs analyzed in this report. The EPA and CARB use GWP values from the 2007 IPCC Fourth Assessment Report. The IPCC has published the 2013 IPCC Fifth Assessment Report with updated GWP values.

Table C: Global Warming Potential for Selected Greenhouse Gases

Pollutant	Atmospheric Lifetime (Years)	Global Warming Potential (100-year)[1]
CO_2	~100[2]	1 (by definition)
CH_4	12.4	25–34
N_2O	114–121	265–310

Sources: *California's 2017 Climate Change Scoping Plan* (CARB 2017a), AR5 (IPCC 2013), and Climate Change 2007: The Physical Science Basis (IPCC 2007).

[1] The EPA and CARB use GWP values from AR4.

[2] CO_2 has a variable atmospheric lifetime and cannot be readily approximated as a single number.

AR4 = IPCC Fourth Assessment Report
AR5 = IPCC Fifth Assessment Report
CARB = California Air Resources Board
CH_4 = methane
CO_2 = carbon dioxide
EPA = United States Environmental Protection Agency
GWP = global warming potential
IPCC = Intergovernmental Panel on Climate Change
N_2O = Nitrous oxide

The following discussion summarizes the characteristics of the six primary GHGs.

Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO_2 are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO_2 to the atmosphere. Natural removal processes (e.g., photosynthesis by land- and ocean-dwelling plant species) cannot keep pace with this extra input of human-made CO_2; consequently, the gas is building up in the atmosphere. The concentration of CO_2 in the atmosphere has risen from about 280 parts per million (ppm) prior to the Industrial Revolution to more than 400 ppm currently (NOAA 2020).

The transportation sector remained the largest source of GHG emissions in 2016, representing 41 percent of the State's GHG emission inventory (CARB 2020a). The largest emissions category within the transportation sector is on-road, which consists of passenger vehicles (cars, motorcycles, and light-duty trucks) and heavy-duty trucks and buses. Emissions from on-road sources constitute more than 92 percent of the transportation sector total. Industry and electricity generation were the State's second- and third-largest categories of GHG emissions, respectively.

Methane

CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources of CH_4 include fires, geologic processes, and bacteria that produce CH_4 in a variety of settings (most notably, wetlands) (EPA 2010). Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (e.g., the burning of coal, oil, and natural gas). As with CO_2, the major removal process of atmospheric CH_4—a

chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Nitrous Oxide

N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N_2O is also a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion sources emit N_2O. The quantity of N_2O emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in the State.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for O_3-depleting substances regulated under the Montreal Protocol.[1] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric-power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in the State; however, the rapid growth in the semiconductor industry, which is active in the State, has led to greater use of PFCs. However, there are no known project-related emissions of these three GHGs; therefore, these substances are not discussed further in this analysis.

Emissions Sources and Inventories

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on national, State, and local GHG emission inventories. However, because GHGs persist for a long time in the atmosphere (Table C), accumulate over time, and are generally well mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

United States Emissions

In 2017, the United States emitted approximately 6.5 billion MT CO_2e. Total United States emissions increased by 1.6 percent from 1990 to 2017, and emissions decreased from 2016 to 2017 by 0.3 percent. The decrease in total GHG emissions between 2016 and 2017 was driven in part by a decrease in CO_2 emissions from fossil fuel combustion. The decrease in CO_2 emissions from fossil fuel combustion was a result of multiple factors, including a continued shift from coal to natural gas, increased use of renewables in the electric-power sector, and milder weather that contributed to less overall electricity use. Relative to 1990, the baseline for this inventory, gross emissions in 2017 are higher by 1.6 percent, down from a high of 15.7 percent above 1990 levels in 2007. Overall, net emissions in 2017 were 12.7 percent below 2005 levels (EPA 2020a).

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[1] The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for O_3 depletion and that are also potent greenhouse gases.

State of California Emissions

According to CARB emission inventory estimates, the State emitted approximately 424.1 million metric tons of CO_2e (MMT CO_2e) emissions in 2017. This is a decrease of 5 MMT CO_2e from 2016 and 7 MMT CO_2e below the State's 2020 GHG target (CARB 2020a).

CARB estimates that transportation was the source of approximately 41 percent of the State's GHG emissions in 2017, followed by electricity generation (both in-State and out-of-State) at 15 percent and industrial sources at 24 percent. The remaining sources of GHG emissions were residential and commercial activities at 12 percent and agriculture at 8 percent (CARB 2020a).

City of Lancaster Emissions

According to the 2016 Draft City of Lancaster (City) Climate Action Plan (CAP) emission inventory estimates, Lancaster emitted approximately 777,350 MT CO_2e in 2015. The largest portion of the 2015 emissions were from transportation (45 percent), followed by emissions from residential energy (29 percent) (City of Lancaster 2016).

Air Pollution Constituents and Attainment Status

CARB coordinates and oversees both State and federal air pollution control programs in the State. CARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air districts. CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. Data collected at these stations are used by CARB and the EPA to classify air basins as Attainment, Nonattainment, Nonattainment-Transitional, or Unclassified, based on air quality data for the most recent 3 calendar years compared with the AAQS.

Attainment areas may be the following:

- **Attainment/Unclassified** ("Unclassifiable" in some lists). These basins have never violated the air quality standard of interest or do not have enough monitoring data to establish Attainment or Nonattainment status.

- **Attainment-Maintenance** (national ambient air quality standards [NAAQS] only). These basins violated a NAAQS that is currently in use (were Nonattainment) in or after 1990, but now attain the standard and are officially redesignated as Attainment by the EPA with a Maintenance State Implementation Plan (SIP).

- **Attainment** (usually only for California ambient air quality standards [CAAQS], but sometimes for NAAQS). These basins have adequate monitoring data to show Attainment, have never been Nonattainment, or, for NAAQS, have completed the official Maintenance period.

Nonattainment areas are imposed with additional restrictions as required by the EPA. The air quality data are also used to monitor progress in attaining air quality standards. Table D lists the attainment status for the criteria pollutants in the AVAQMD Region.

Table D: Attainment Status of Criteria Pollutants in the AVAQMD Region

Pollutant	State	Federal
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Unclassified/Attainment
$PM_{2.5}$	Unclassified	Unclassified/Attainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
All Others	Attainment or Unclassified	N/A

Source: Antelope Valley AQMD Attainment Status (AVAQMD). Website: avaqmd.ca.gov/files/e0986ab83/AVAQMD+2017+Attainment+Status+Table.pdf (accessed January 2020).

AVAQMD = Antelope Valley Air Quality Management District
CO = carbon monoxide
N/A = not applicable
NO_2 = nitrogen dioxide
O_3 = ozone
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_2 = sulfur dioxide

Ozone

O_3 (smog) is formed by photochemical reactions between nitrogen oxides and reactive organic gases (ROGs) rather than being directly emitted. O_3 is a pungent, colorless gas typical of Southern California smog. Elevated O_3 concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors (e.g., the sick, the elderly, and young children). O_3 levels peak during summer and early fall.

Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. CO is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions.

Nitrogen Oxides

NO_2, a reddish brown gas, and nitric oxide (NO), a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_X. NO_X is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Lead

Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the bloodstream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead.

Particulate Matter

Particulate matter (PM) is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (PM_{10}) derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and the resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle ($PM_{2.5}$) levels. Fine particles can also form in the atmosphere through chemical reactions. PM_{10} can accumulate in the respiratory system and aggravate health problems (e.g., asthma). The EPA's scientific review concluded that $PM_{2.5}$ particles, which penetrate deeply into the lungs, are more likely than coarse particles to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily for the elderly and individuals with cardiopulmonary disease), increased respiratory symptoms and disease (particularly in children and individuals with cardiopulmonary disease [e.g., asthma]), decreased lung functions (particularly in children and individuals with asthma), and alterations in lung tissue and structure and in respiratory tract defense mechanisms.

Volatile Organic Compounds

Volatile organic compounds (VOCs; also known as ROGs and reactive organic compounds [ROCs]) are formed from the combustion of fuels and the evaporation of organic solvents. VOCs are not defined as criteria pollutants; however, because VOCs accumulate in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower, they are a prime component of the photochemical smog reaction.

Sulfates

Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently is converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of the State due to regional meteorological features.

Hydrogen Sulfide

H_2S is a colorless gas with the odor of rotten eggs. H_2S is formed during bacterial decomposition of sulfur-containing organic substances. In addition, H_2S can be present in sewer gas and some natural gas and can be emitted as the result of geothermal-energy exploitation. In 1984, a CARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance.

Visibility-Reducing Particles

Visibility-reducing particles consist of suspended PM, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition and can be made up of many different materials (e.g., metals, soot, soil, dust, and salt). The Statewide standard is intended to limit the frequency and the severity of visibility impairment due to regional haze.

LOCAL AIR QUALITY

AVAQMD, together with CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station that monitors air pollutant data except for SO_2 closest to the site is the Lancaster Station at 43301 Division Street, approximately 2 miles (mi) southwest of the project site. The closest air quality monitoring station that monitors SO_2 is the Victorville Station at 14306 Park Avenue, approximately 45 mi southeast of the project site. The air quality trends from these stations are used to represent the ambient air quality in the project area. The ambient air quality data in Table E show that SO_2, NO_2, and CO levels are below the applicable State and federal standards. The 1-hour O_3 and $PM_{2.5}$ levels exceeded their respective standards occasionally; the 8-hour O_3 level exceeded its standard more often. No data on daily exceedance counts is available for $PM_{10.}$

REGULATORY SETTINGS

Federal Regulations/Standards

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

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

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

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

Table E: Air Quality Concentrations Measured at the Lancaster and Victorville Stations

Pollutant	Standard	2016	2017	2018
CO (from the Lancaster-Division Street Station)				
Maximum 1-hour concentration (ppm)		2.6	1.3	1.2
No. of days exceeded	State: 20 ppm	0	0	0
	Federal: 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.5	0.9	1.0
No. of days exceeded	State: 9 ppm	0	0	0
	Federal: 9 ppm	0	0	0
O_3 (from the Lancaster-Division Street Station)				
Maximum 1-hour concentration (ppm)		0.108	0.109	0.125
No. of days exceeded	State: 0.09 ppm	3	10	5
Maximum 8-hour concentration (ppm)		0.090	0.087	0.104
No. of days exceeded	State: 0.07 ppm	60	43	48
	Federal: 0.07 ppm	60	43	48
PM_{10} (from the Lancaster-Division Street Station)				
Maximum 24-hour concentration ($\mu g/m^3$)		144	81	89
No. of days exceeded	State: 50 $\mu g/m^3$	N/A	N/A	N/A
	Federal: 150 $\mu g/m^3$	0	0	0
Annual avg. concentration ($\mu g/m^3$)		24.7	25.0	24.9
Exceeds Standard?	State: 20 $\mu g/m^3$	Yes	Yes	Yes
$PM_{2.5}$ (from the Lancaster-Division Street Station)				
Maximum 24-hour concentration ($\mu g/m^3$)		64.8	26.6	40.4
No. of days exceeded	Federal: 35 $\mu g/m^3$	2	0	1
Annual avg. concentration ($\mu g/m^3$)		7.7	7.3	7.3
Exceeds Standard?	State: 12 $\mu g/m^3$	No	No	No
	Federal: 12 $\mu g/m^3$	No	No	No
NO_2 (from the Lancaster-Division Street Station)				
Maximum 1-hour concentration (ppb):		48.8	46.5	47.6
No. of days exceeded	State: 180 ppb	0	0	0
	Federal: 100 ppb	0	0	0
Annual avg. concentration (ppb)		8.0	7.8	8.7
Exceeds standard?	State: 30 ppb	No	No	No
	Federal: 53 ppb	No	No	No
SO_2 (from the Victorville-Park Avenue Station)				
Maximum 1-hour concentration (ppb)		5.7	28.3	9.9
No. of days exceeded	State: 250 ppb	0	0	0
	Federal: 75 ppb	0	0	0

Source: Outdoor Air Quality Data: Monitor Values Report (EPA 2020).

$\mu g/m^3$ = micrograms per cubic meter
CO = carbon monoxide
EPA = United States Environmental Protection Agency
N/A = not available
NO_2 = nitrogen dioxide
O_3 = ozone
$PM_{2.5}$ = particulate matter smaller than or equal to 2.5 microns in size
PM_{10} = particulate matter smaller than or equal to 10 microns in size
ppb = parts per billion
ppm = parts per million
SO_2 = sulfur dioxide

State Agencies, Regulations, and Standards

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish CARB. Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to the State's air pollution problems.

California adopted the CCAA in 1988. CARB administers the CAAQS for the 10 air pollutants designated in the CCAA. These 10 State air pollutants are the six criteria pollutants designated by the federal CAA as well as four others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

California Climate Action Milestones

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

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

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

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

Executive Order (EO) S-3-05 (June 2005) established GHG emissions reduction targets for the State, including returning to year-2000 emission levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. EO S-3-05 directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate efforts to meet the targets with the heads of other State agencies and to compile and organize this information in the form of a "Report Card" and post it on the CalEPA website (CalEPA 2020).

In 2006, the State Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multiyear program to reduce GHG emissions in California. AB 32 charges CARB with reducing statewide GHG emissions to 1990 emission levels by 2020 and maintaining a statewide GHG emission limit, while seeking continuing GHG emission reductions. In September 2016, Governor Brown signed SB 32 (Pavley, Chapter 249, Statutes of 2016), codifying a reductions target for statewide GHG emissions of 40 percent below 1990 emission levels by 2030. SLCP emission reductions will support achieving these targets. Indeed, specific to SLCP emission reductions, SB 605 (Lara, Chapter 523, Statutes of 2014) requires CARB to develop a plan to reduce emissions of SLCPs, and SB 1383 (Lara, Chapter 395, Statutes of 2016) requires CARB to approve and begin implementing the plan by January 1, 2018. SB 1383 also sets targets for statewide reductions in SLCP emissions of 40 percent below 2013 levels by 2030 for CH_4 and HFCs and 50 percent below 2013 levels by 2030 for anthropogenic black carbon, as well as provides specific direction for reductions from dairy and livestock operations and from landfills by diverting organic materials. The SLCP Reduction Strategy is California's plan for reducing emissions of high-global-warming potential gases with short atmospheric lifetimes.

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

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

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

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

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

The initiatives, EOs, and statutes outlined above constitute the major milestones in California's efforts to address climate change through coordinated action on climate research, GHG mitigation, and climate change adaptation. Numerous other related efforts have been undertaken by State agencies and departments to address specific questions and programmatic needs. A number of state agencies engage in intergovernmental climate cooperation coordinating activities through the Intergovernmental Climate Action Team (ICAT).

Regional Air Quality Planning Framework

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

CARB is responsible for incorporating air quality attainment plans (AQAPs) (also called air quality management plans) for local air basins into an SIP for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan

AVAQMD and SCAG are responsible for formulating and implementing the AQAP for the Basin. The main purpose of an AQAP is to bring the area into compliance with federal and State air quality standards. AVAQMD has adopted a single attainment plan for O_3.

The latest plan is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-attainment Area) (AVAQMD 2008), which includes planning assumptions regarding population, vehicle activity, and industrial activity. The document addresses all existing and forecast O_3 precursor producing activities within the Antelope Valley through the year 2020.

The following AVAQMD rules and regulations would be applicable to the proposed project:

- AVAQMD Rule 403 requires projects to incorporate fugitive dust control measures (AVAQMD 2010).
- AVAQMD Rule 1113 limits the VOC content of architectural coatings (AVAQMD 2013).

Local Regulations

City of Lancaster General Plan 2030

The City's General Plan was adopted on July 14, 2009, and the horizon year for the adopted General Plan is currently 2030. The General Plan contains air quality policies in the Plan for the Natural Environment and Plan for Public Health and Safety sections. The Housing Element includes:

Policy 6.1.1: Ensure that a mix of housing types are provided, including single- and multi-family housing within a variety of price ranges which will provide a range of housing options for those wishing to reside within the City of Lancaster, and which will enable theCity to achieve Objective 6.1.

Policy 6.1.2: Promote infill housing development within areas presently approved for urban density residential development, as well as areas which have been committed to urban development.

Policy 6.1.3: Promote efforts to slow the rising costs of new and existing housing to the extent that government actions can reasonably do so while protecting the public health, safety, and welfare.

Policy 6.1.5: Facilitate housing for extremely low, very low, low, and moderate income-households to be distributed at locations throughout the urban portions of the City.

City of Lancaster Climate Action Plan 2016

In November 2015, the City staff was tasked with the development of a CAP that would document Lancaster's GHG emissions baseline inventory (2010) and current emissions (2015), document the progress the City has made through its alternative-energy and sustainability programs, and identify projects that would enhance Lancaster and further reduce its GHG emissions. This plan contains GHG emission reduction measures for the categories of transportation, energy, municipal operations, water, waste, the built environment, the community, and land use. This CAP is considered a qualified CAP under CEQA Guidelines Section 15183.5.

THRESHOLDS OF SIGNIFICANCE

Certain air districts (e.g., AVAQMD) have created guidelines and requirements to conduct air quality analysis. AVAQMD's current guidelines, the *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines* (AVAQMD 2016), were followed in this assessment of air quality and GHG emissions impacts for the proposed project.

Based on the *State CEQA Guidelines,* Appendix G, Public Resources Code Sections 15000–15387, a project would normally be considered to have a significant effect on air quality if the proposed project would violate any CAAQS, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

POLLUTANTS WITH REGIONAL EFFECTS

AVAQMD has established annual and daily emissions thresholds for construction and operation of a proposed project. Table F lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table F: Regional Thresholds for Construction and Operational Emissions

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (lbs)
GHGs (CO_2e)	100,000	548,000
CO	100	548
NO_X	25	137
VOCs	25	137
SO_X	25	137
PM_{10}	15	82
$PM_{2.5}$	12	65
H_2S	10	54
Lead	0.6	3

Source: *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines* (AVAQMD 2016)

AVAQMD = Antelope Valley Air Quality Management District
CO = carbon monoxide
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
H_2S = hydrogen sulfide
lbs = pounds
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_x = sulfur oxides
VOC = volatile organic compounds

Note that the emission thresholds are given as a daily value and an annual value, so that a multiphased project (such as a project with a construction phase and a separate operational phase) with phases shorter than 1 year can be compared to the daily value.

GLOBAL CLIMATE CHANGE

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

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

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

Currently, there is no Statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. As shown in Table F, the AVAQMD provides daily and annual GHG emissions thresholds. Additionally, consistency of a project with the goals of the City's CAP would fulfill the CEQA goal of fully informing local agency decision-makers of the environmental costs of the proposed project under consideration at a stage early enough to ensure that GHG emissions concerns are addressed.

This analysis will determine whether the proposed project is consistent with the City's CAP and the State's Scoping Plan. These set forth emissions reduction measures and action steps to demonstrate consistency with AB 32.

IMPACTS AND MITIGATION

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

CONSTRUCTION IMPACTS

Equipment Exhaust and Related Construction Activities

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

The construction analysis includes estimating the construction equipment that would be used during each construction activity, the hours of use for that construction equipment, the quantities of earth and debris to be moved, and the on-road vehicle trips (worker, soil hauling, and vendor trips). Minor demolition of existing foundations and underground utilities would be required. The proposed earthwork for the proposed project assumes the site would be balanced (no import or export needed). California Emissions Estimator Model (CalEEMod) results and defaults are assumed for the construction activities, off-road equipment, and on-road construction fleet mix and trip lengths. Table G lists the tentative project construction schedule for the proposed project. It is expected that construction would start in August 2020 and conclude in early 2023.

Table G: Tentative Project Construction Schedule

Phase Name	Phase Start Date	Phase End Date	Number of Days
Demolition	8/3/2020	8/28/2020	20
Site Preparation	8/29/2020	9/11/2020	10
Grading	9/12/2020	10/23/2020	30
Building Construction	10/24/2020	10/11/2022	512
Paving	10/12/2022	11/8/2022	20
Architectural Coating	11/9/2022	2/1/2023	61

Source: Estimated by LSA from the site plan (assuming a 2023 opening year) (March 2020).

The most recent version of CalEEMod (Version 2016.3.2) was used to develop the construction equipment inventory and calculate the construction emissions. Table H lists the estimated construction equipment that would be used during project construction as estimated by CalEEMod default values.

Table H: Diesel Construction Equipment Used by Construction Phase

Construction Phase	Off-Road Equipment Type	Off-Road Equipment Unit Amount	Hours Used per Day	Horsepower	Load Factor
Demolition	Excavators	3	8	158	0.38
	Concrete/Industrial Saws	1	8	81	0.73
	Rubber-Tired Dozers	2	8	247	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
	Rubber-Tired Dozers	3	8	247	0.4
Grading	Excavators	2	8	158	0.38
	Rubber-Tired Dozers	1	8	247	0.4
	Graders	1	8	187	0.41
	Tractors/Loaders/Backhoes	2	8	97	0.37
	Scrapers	2	8	367	0.48
Building Construction	Cranes	1	7	231	0.29
	Forklifts	3	8	89	0.2
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	7	97	0.37
	Welders	1	8	46	0.45
Paving	Pavers	2	8	130	0.42
	Rollers	2	8	80	0.38
	Paving Equipment	2	8	132	0.36
Architectural Coating	Air Compressors	1	6	78	0.48

Source: Compiled by LSA using CalEEMod defaults (March 2020).
CalEEMod = California Emission Estimator Model

The emissions rates shown in Tables I and J are from the CalEEMod output tables listed as Mitigated Construction, even though the only measures that have been applied to the analysis are the required construction emissions control measures, or standard conditions. They are also the combination of the on- and off-site emissions. No exceedances of any criteria pollutants are expected on either a daily or annual basis. The construction emissions of H_2S and lead are so low that the CalEEMod analysis does not include them, they would be much lower than the thresholds shown in Table F. Standard measures are documented in the CalEEMod output included in Appendix A.

Table I: Daily Regional Construction Emissions

Construction Year	Total Regional Pollutant Emissions (lbs/day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2020	5	50	33	<1	20	12
2021	3	25	29	<1	4	2
2022	57	22	28	<1	4	2
2023	57	1	4	<1	<1	<1
Maximum	**57**	**50**	**33**	**<1**	**20**	**12**
AVAQMD Thresholds	**137**	**137**	**548**	**137**	**82**	**65**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (March 2020).
AVAQMD = Antelope Valley Air Quality Management District
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_X = sulfur oxides
VOC = volatile organic compound

Table J: Annual Regional Construction Emissions

Construction Year	Total Regional Pollutant Emissions (tons/year)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2020	0.2	2.0	1.5	<0.1	0.4	0.2
2021	0.4	3.2	3.6	<0.1	0.5	0.2
2022	1.4	2.4	2.9	<0.1	0.4	0.2
2023	0.7	0.1	0.1	<0.1	<0.1	>0.1
Maximum	**1.4**	**3.2**	**3.6**	**<0.1**	**0.5**	**0.2**
AVAQMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (March 2020).
AVAQMD = Antelope Valley Air Quality Management District
CO = carbon monoxide
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_X = sulfur oxides
VOC = volatile organic compound

Fugitive Dust

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction.

The construction calculations prepared for this project assumed that dust control measures (watering a minimum of three times daily) would be employed to reduce emissions of fugitive dust during site grading. Furthermore, all construction would need to comply with AVAQMD Rule 403 regarding the emission of fugitive dust. Table I lists total construction emissions (i.e., fugitive dust emissions and construction equipment exhausts) that have incorporated the following Rule 403 measures that would be implemented to significantly reduce PM_{10} emissions from construction:

- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 ft (0.6 meter [m]) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

Architectural Coatings

Architectural coatings contain VOCs that are part of the O_3 precursors. Based on the proposed project, it is estimated that application of the architectural coatings for the proposed peak construction day would result in a peak of 57 lbs/day and 1.4 tons/year of VOCs. Therefore, VOC emissions from architectural-coating application would not exceed the AVAQMD VOC threshold of 137 lbs/day or 25 tons/year.

Odors from Construction Activities

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

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

Naturally Occurring Asbestos

The proposed project site is in Los Angeles County, which is among the counties found to have serpentine and ultramafic rock in their soils (DOC 2019). However, according to the California Geological Survey, no such rock has been identified in the project vicinity. Therefore, the potential risk for naturally occurring asbestos during project construction is small and less than significant.

Construction Emissions Conclusions

Tables I and J show that regional construction emissions would not exceed the daily or annual thresholds of any criteria pollutant emission thresholds established by AVAQMD; thus, during construction, there would be no significant air quality impacts.

Long-Term Regional Air Quality Impacts

Operational Emissions

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

Based on the proposed project's Traffic Impact Analysis (LSA 2020), the project operations would result in 1,436 total trips on a peak day. As the number of project-related daily trips would vary from weekday to weekend, and the traffic impact peak day is a weekday (when there is more non-project-related traffic), the default CalEEMod rates for Saturday and Sunday were proportioned from this peak daily rate. Tables K and L show long-term operational emissions associated with the proposed project. Area sources include architectural coatings and landscaping. Energy sources include natural gas consumption for heating. As with construction emissions, the operational emissions of H_2S and lead are so low that the CalEEMod analysis does not include them, they would be much lower than the thresholds shown in Table F.

Table K: Opening Year Regional Operational Emissions - Daily

Source	Pollutant Emissions (lbs/day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	7	<1	22	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	3	11	34	<1	9	2
Total Project Emissions	**10**	**13**	**56**	**<1**	**9**	**3**
AVAQMD Thresholds	**137**	**137**	**548**	**137**	**85**	**65**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (March 2020).
AVAQMD = Antelope Valley Air Quality Management District
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_X = sulfur oxides
VOC = volatile organic compound

Table L: Opening Year Regional Operational Emissions - Annual

Source	Pollutant Emissions (tons/year)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	1	<1	2	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	2	5	<1	2	<1
Total Project Emissions	**2**	**2**	**7**	**<1**	**2**	**<1**
AVAQMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (March 2020).
AVAQMD = Antelope Valley Air Quality Management District
CO = carbon monoxide
tons/year = tons per year
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SO_X = sulfur oxides
VOC = volatile organic compound

Odors from Operational Activities

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. No sources of objectionable odors have been identified for the proposed project; therefore, the impacts associated with odors would be less than significant, and no mitigation measures are required.

CO Hot Spot Analysis

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful

levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the Lancaster Station showed a highest recorded 1-hour concentration of 2.6 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.5 ppm (the State standard is 9 ppm) during the past 3 years (Table E). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

As shown in Table E, the existing CO concentrations in the project area are extremely low. The project traffic study shows that with the implementation of the improvements described therein all intersections and roadway segments are forecast to operate at a satisfactory LOS under existing and project build-out conditions. Therefore, the proposed project can be implemented in an existing setting with no significant peak-hour intersection impacts. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

GREENHOUSE GAS EMISSIONS

This section evaluates potential significant impacts to GCC that could result from implementation of the proposed project. Because it is not possible to tie specific GHG emissions to actual changes in climate, this evaluation focuses on the proposed project's emission of GHGs.

Emissions Background

Emissions estimates for the proposed project are discussed below. Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis below is based on methodologies and information available to the City and the applicant at the time this analysis was prepared. Estimation of GHG emissions in the future does not account for all changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is worse than that which is likely to be encountered (after energy-efficient technologies have been implemented). While information is presented below to assist the public and decision-makers in understanding the proposed project's potential contribution to GCC impacts, the information available to the cities is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts or between any particular proposed mitigation measure and any reduction in climate change impacts.

Construction and operation of the proposed project would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the proposed project's operation (as opposed to during its construction). Typically, more than 80 percent of the total energy consumption takes place during the use of buildings, and less than 20 percent of energy is consumed during construction (UNEP 2007).

Overall, the following activities associated with the proposed project could directly or indirectly contribute to the generation of GHG emissions.

- **Construction Activities:** During construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs (e.g., CO_2, CH_4, and N_2O). Furthermore, CH_4 is emitted during the fueling of heavy equipment.

- **Gas, Electricity, and Water Use:** Natural gas use results in the emission of two GHGs: CH_4 (the major component of natural gas) and CO_2 (from the combustion of natural gas). Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive. Water-related electricity use is 48 terawatt hours per year and accounts for nearly 20 percent of California's total electricity consumption. (CEC 2006b).

- **Solid-Waste Disposal:** Solid waste generated by the proposed project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is 25 times more potent a GHG than CO_2. However, landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.

- **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.

Preliminary guidance from OPR and letters from the State Attorney General critical of CEQA documents that have taken different approaches indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, and construction activities. The construction emissions, calculated using CalEEMod (Version 2016.3.2) using the same methodology as described above for the criteria pollutant emissions, are shown in Table M (details are provided in the CalEEMod output in Appendix A).

Table M: Short-Term Regional Construction Emissions

Construction Phase	Total Emissions per Phase (MT/yr)			Total Emissions per Phase (MT CO_2e/yr)
	CO_2	CH_4	N_2O	
2020				
Demolition	35	<1	0	36
Site Preparation	17	<1	0	18
Grading	84	<1	0	85
Building Construction	148	<1	0	149
Total Annual GHG Emissions				**287**
2021				
Building Construction	783	<1	0	786
2022				
Building Construction	598	<1	0	600
Paving	21	<1	0	21
Architectural Coatings	12	<1	0	12
Total Annual GHG Emissions				**633**
2023				
Architectural Coatings	7	<1	0	7
AVAQMD Threshold (100,000 tons = 101,605 metric tons)				101,605
Exceeds Threshold?				No

Source: Compiled by LSA (March 2020).
CH_4 = methane
CO_2 = carbon dioxide
MT CO_2e = metric tons of carbon dioxide equivalent
MT CO_2e/yr = metric tons of carbon dioxide equivalent per year
MT/yr = metric tons per year
N_2O = nitrous oxide

GHG emissions from vehicular traffic, energy consumption, water conveyance and treatment, and waste generation were also calculated using CalEEMod using the same methodology as described above for the criteria pollutant emissions. The GHG emission estimates presented in Table N show the emissions associated with the level of development envisioned by the proposed project at opening.

Table N: Long-Term Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/yr)					
	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Area	0	3	3	<1	0	3
Energy	0	539	539	<1	<1	541
Mobile	0	1,702	1,702	<1	0	1,703
Waste	25	0	25	1	0	61
Water	5	110	115	<1	<1	134
Total Project Emissions	**30**	**2,411**	**2,441**	**1**	**0**	**2,500**
AVAQMD Threshold (100,000 tons/year = 101,605 MT/yr)						**101,605**
Exceeds Threshold?						**No**

Source: Compiled by LSA (March 2020).
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide
NBio-CO_2 = non-biologically generated CO_2

Mobile source emissions of GHGs would include project-generated vehicle trips associated with on-site facilities and customers/visitors to the project site. Area source emissions would be associated with activities including landscaping and maintenance of proposed land uses, natural gas for heating, and other sources. Increases in stationary source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed project. AVAQMD also has a daily emissions threshold for GHG emissions of 548,000 lbs. The project would produce 12,521 lbs/day of CO_2e, less that the daily threshold.

CLIMATE ACTION PLAN CONSISTENCY

As described above, the City adopted its CAP in January 2016. Consistency of the proposed project with the goals of this CAP demonstrates that the proposed project would comply with the City's GHG emissions goals. The proposed project would meet all the latest Title 24 energy efficiency standards.

Table O lists the consistency analysis of the proposed project with the applicable CAP policies. Therefore, the proposed project would be consistent with all City GHG policies and goals. Thus, the proposed project would have less-than-significant individual and cumulative impacts for GHG emissions.

Table O: Lancaster Draft Climate Action Plan Consistency Analysis

Measures by Sector	Lancaster CAP Consistency Analysis
State and Regional Measures	
Energy	
Measure 4.2.3a: LED Street Lighting. Use LED-systems for street lighting.	**Consistent.** The proposed project would use LED lighting for all street lights on the project site.
Water	
Measure 4.4.2a: Sensor Technology. Use efficient irrigation technologies for new and existing residential homes and new commercial construction and major renovations.	**Consistent.** The proposed project would install water-efficient irrigation systems and devices and drought-tolerant landscaping.
Waste	
Measure 4.5.1b: Recycling Incentives. Provide incentives to the residential and business community that will lead to an increase of recycling, thus diverting waste sent to landfill.	**Consistent.** The proposed project would ensure that future residents are aware of the City's recycling incentives and will provide recycling receptacles.
Measure 4.5.1c: Zero Waste Education and Outreach. Develop education and outreach programs to inform residents and business about the City's zero-waste program goals and engage residents and businesses to implement actions or programs to achieve zero waste.	**Consistent.** The proposed project would provide zero waste education materials to future residents to insure they are aware of the City's zero-waste program.
Transportation	
Measure SR-6: Pavley and LCFS. CARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.	**Consistent.** The proposed project does not involve the manufacture, sale, or purchase of vehicles. However, vehicles that operate within and access the project site will comply with Pavley and the LCFS. Passenger cars and medium- and heavy-duty trucks and trailers making deliveries will be subject to aerodynamic and hybridization requirements as established by CARB; no feature of the proposed project will interfere with implementation of these requirements and programs.

Table O: Lancaster Draft Climate Action Plan Consistency Analysis

Measures by Sector	Lancaster CAP Consistency Analysis
Measure SR-10: Telecommuting. Telecommuting would reduce GHG emissions associated with vehicles no longer on the road.	**Consistent.** The proposed project would provide telecommuting materials to encourage future residents to telecommute. The project would be served by an internet provider to allow for telecommuting by future residents.
Built Environment	
Measure 4.6.1a: Zero Net Energy Housing Develop a community DER valuation framework for grid-integrated community DER (focusing on solar PV, grid integrated electric vehicles, and battery storage).	**Consistent.** The proposed project would include solar PV.

Source: Draft Climate Action Plan (City of Lancaster 2016).
CAP = Climate Action Plan
CARB = California Air Resources Board
DER = Distributed Energy Resources
LCFS = Low Carbon Fuel Standard
LED = light-emitting diode
PV = photovoltaic

SCOPING PLAN CONSISTENCY

The CARB's Scoping Plan (CARB 2017a) outlines the main State strategies for meeting the emission reduction targets and to reduce GHGs that contribute to GCC. Pursuant to AB 32, the Scoping Plan must "identify and make recommendations on direct emission reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives" in order to achieve the 2020 goal; achieve "the maximum technologically feasible and cost-effective greenhouse gas emission reductions" by 2020; and maintain and continue reductions beyond 2020.

The companion bill to SB 32, AB 197, provides additional direction to CARB on the following areas related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficiency measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The proposed project would be constructed to the California Green Building Standards Code (CALGreen). Therefore, the proposed project would not conflict with energy efficiency measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The proposed project would comply with CALGreen and would include low-flow plumbing fixtures, drought-tolerant landscaping, and other features that would reduce water demand. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. The proposed project would promote initiatives to reduce vehicle trips and VMT and would increase the use of alternate means of transportation. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

A summary of the proposed project's consistency with the 2035 Scoping Plan's mitigation measures identified in Appendix B of the 2017 Scoping Plan is shown in Table P below.

The proposed project would not conflict with applicable Statewide action measures. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Table P: Project Consistency with Applicable 2017 Scoping Plan Appendix B Measures

2017 Scoping Plan Appendix B Measures	Project Consistency
Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing.	***Consistent***. The proposed project would incorporate cool-roof materials.
Require solar-ready roofs.	***Consistent***. The proposed project would include provisions for PV solar panels on roofs, as specified in Title 24 Part 6 and the CALGreen standards.
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the MWELO, which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.	***Consistent***. The proposed project would include new low-water landscaping and trees throughout the project site. Additionally, weather-based smart irrigation controllers would be used.
Encourage new construction, including municipal building construction, to achieve third-party green building certifications, such as the GreenPoint Rated program, LEED rating system, or Living Building Challenge.	***Consistent***. The proposed project would be constructed to Title 24 Part 6 and CALGreen standards.
Expand urban forestry and green infrastructure in new land development.	***Consistent***. The proposed project would include new low-water landscaping and trees throughout the project site. Additionally, weather-based smart irrigation controllers would be used.
Provide electrical outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasipublic lands.	***Consistent***. The proposed project would provide outdoor electric outlets to discourage gas-powered landscape equipment.
Require the landscaping design for parking lots to utilize tree cover and compost/mulch.	***Consistent***. The proposed project would include new low-water landscaping and trees throughout the project site. Additionally, weather-based smart irrigation controllers would be used.

Source: LSA (March 2020).
CALGreen = California Green Building Standards Code
LEED = Leadership in Energy and Environmental Design
MWELO = Model Water Efficient Landscape Ordinance
PV = photovoltaic

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The proposed project is a residential development that would not house more than 1,000 persons, occupy more than 40 ac of land, or encompass more than 650,000 sf of floor area. Thus, the proposed project would not be defined as a regionally significant project under CEQA; therefore, it does not meet SCAG's Intergovernmental Review criteria.

The project site has a General Plan and Zoning designation of High Density Residential (HDR), which allows for 15.1 to 30 du/ac. There are no changes to the existing General Plan or Zoning designations required for the proposed project. Thus, the proposed project would result in air emissions that are consistent with the existing General Plan. The General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the AVAQMD AQAP. Consistency with the AQAP is affirmed when a project would not increase the frequency or severity of an air quality standards violation or cause a new violation, and is consistent with the growth assumptions in the AQAP. Consistency review is presented as follows:

1. The proposed project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by AVAQMD, as demonstrated above. Therefore, the proposed project would not result in an increase in the frequency or severity of an air quality standards violation or cause a new air quality standard violation.

2. The *CEQA Air Quality Handbook* indicates that consistency with AQAP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical-generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid-waste disposal sites, and offshore-drilling facilities; therefore, the proposed project is not defined as significant.

Based on the consistency review presented above, the proposed project would be consistent with the regional AQAP.

STANDARD CONDITIONS

Construction

The proposed project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. AVAQMD Rule 403 requires that fugitive dust be controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere

beyond the property line of the emission source (AVAQMD 2010). In addition, AVAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus, the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors (AVAQMD Rule 403). As shown in Tables I and J, implementation of Rule 403 measures results in dust emissions below AVAQMD thresholds.

The applicable Rule 403 measures are as follows:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least twice daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 ft (0.6 m) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Pave construction access roads at least 100 ft (30 m) onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.

The following California Department of Resources Recycling and Recovery (CalRecycle) Sustainable (Green) Building Program Measures are applicable:

- Recycle/reuse construction material (including, but not limited to, soil, mulch, vegetation, concrete, lumber, metal, and cardboard) (CalRecycle 2020a) in accordance with City policy.
- Use "green building materials" such as those materials that are rapidly renewable or resource-efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the proposed project, as specified on the CalRecycle website (CalRecycle 2020b).

Operations

The proposed project is required to comply with Title 24 of the California Code of Regulations established by CEC regarding energy conservation and green building standards.

CUMULATIVE IMPACTS

The proposed project would contribute criteria pollutants to the area during temporary project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. However, each project would be required to comply with AVAQMD's standard construction measures. The proposed project's short-term

construction emissions would not exceed the significance thresholds. Therefore, it would not have a significant short-term cumulative impact.

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

As climate change impacts are cumulative in nature, no typical single project can result in emissions of such a magnitude that it, in and by itself, would be significant on a project basis. As described above, the proposed project would be consistent with the City's CAP and the State's Scoping Plan. Therefore, through consistency with a qualified CAP, the proposed project would generate GHG emissions that would have a less-than-significant impact.

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APPENDIX A

CALEEMOD PRINTOUTS

Lancaster 3 Project

Antelope Valley APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.40	Acre	2.40	104,544.00	0
Parking Lot	2.00	Acre	2.00	87,120.00	0
Apartments Mid Rise	264.00	Dwelling Unit	6.95	264,000.00	755

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Schedule per project plans (8/1/20 to 2/1/23).

Demolition - Estimated tonnage based on 9 foundations and existing utilities underground to demolish.

Architectural Coating - Assume coatings comply with AVAQMD Rule 1113.

Vehicle Trips - Used Traffic Study Peak Daily rate for Weekday, proportioned the default Sat. and Sun. rates.

Woodstoves - No fireplaces or woodstoves would be included.

Area Coating - Assume coatings comply with AVAQMD Rule 1113.

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	61.00
tblConstructionPhase	NumDays	300.00	512.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	145.20	0.00
tblFireplaces	NumberNoFireplace	26.40	264.00
tblFireplaces	NumberWood	92.40	0.00
tblVehicleTrips	ST_TR	6.39	5.23
tblVehicleTrips	SU_TR	5.86	4.79
tblVehicleTrips	WD_TR	6.65	5.44
tblWoodstoves	NumberCatalytic	13.20	0.00
tblWoodstoves	NumberNoncatalytic	13.20	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

Year	tons/yr										MT/yr					
2020	0.2068	1.9657	1.5219	3.2100e-003	0.2886	0.0888	0.3774	0.1219	0.0824	0.2043	0.0000	285.1615	285.1615	0.0591	0.0000	286.6399
2021	0.4069	3.2202	3.5595	8.7200e-003	0.3370	0.1288	0.4658	0.0907	0.1211	0.2118	0.0000	783.2835	783.2835	0.0913	0.0000	785.5668
2022	1.3798	2.4078	2.8689	7.0300e-003	0.2703	0.0917	0.3619	0.0727	0.0862	0.1589	0.0000	631.3053	631.3053	0.0765	0.0000	633.2169
2023	0.6523	0.0166	0.0390	8.0000e-005	5.0000e-003	8.5000e-004	5.8600e-003	1.3300e-003	8.5000e-004	2.1800e-003	0.0000	7.1523	7.1523	3.0000e-004	0.0000	7.1599
Maximum	**1.3798**	**3.2202**	**3.5595**	**8.7200e-003**	**0.3370**	**0.1288**	**0.4658**	**0.1219**	**0.1211**	**0.2118**	**0.0000**	**783.2835**	**783.2835**	**0.0913**	**0.0000**	**785.5668**

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					
2020	0.2068	1.9657	1.5219	3.2100e-003	0.1671	0.0888	0.2559	0.0649	0.0824	0.1473	0.0000	285.1612	285.1612	0.0591	0.0000	286.6397
2021	0.4069	3.2202	3.5595	8.7200e-003	0.3370	0.1288	0.4658	0.0907	0.1211	0.2118	0.0000	783.2831	783.2831	0.0913	0.0000	785.5665
2022	1.3798	2.4078	2.8689	7.0300e-003	0.2703	0.0917	0.3619	0.0727	0.0862	0.1589	0.0000	631.3050	631.3050	0.0765	0.0000	633.2166
2023	0.6523	0.0166	0.0390	8.0000e-005	5.0000e-003	8.5000e-004	5.8600e-003	1.3300e-003	8.5000e-004	2.1800e-003	0.0000	7.1523	7.1523	3.0000e-004	0.0000	7.1599
Maximum	**1.3798**	**3.2202**	**3.5595**	**8.7200e-003**	**0.3370**	**0.1288**	**0.4658**	**0.0907**	**0.1211**	**0.2118**	**0.0000**	**783.2831**	**783.2831**	**0.0913**	**0.0000**	**785.5665**

	ROG	**NOx**	**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**	**13.49**	**0.00**	**10.04**	**19.90**	**0.00**	**9.88**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
1	**8-3-2020**	**11-2-2020**	1.5051	1.5051
2	**11-3-2020**	**2-2-2021**	0.9704	0.9704
3	**2-3-2021**	**5-2-2021**	0.8823	0.8823

4	**5-3-2021**	**8-2-2021**	0.9140	0.9140
5	**8-3-2021**	**11-2-2021**	0.9129	0.9129
6	**11-3-2021**	**2-2-2022**	0.8815	0.8815
7	**2-3-2022**	**5-2-2022**	0.8029	0.8029
8	**5-3-2022**	**8-2-2022**	0.8320	0.8320
9	**8-3-2022**	**11-2-2022**	0.7316	0.7316
10	**11-3-2022**	**2-2-2023**	1.7956	1.7956
		Highest	1.7956	1.7956

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	1.2744	0.0226	1.9607	1.0000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	3.2021	3.2021	3.0800e-003	0.0000	3.2791
Energy	0.0191	0.1630	0.0693	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	538.9574	538.9574	0.0181	6.4500e-003	541.3318
Mobile	0.4331	2.0901	5.3564	0.0185	1.5147	0.0133	1.5279	0.4061	0.0123	0.4185	0.0000	1,701.7638	1,701.7638	0.0668	0.0000	1,703.4335
Waste						0.0000	0.0000		0.0000	0.0000	24.6512	0.0000	24.6512	1.4569	0.0000	61.0724
Water						0.0000	0.0000		0.0000	0.0000	5.4570	109.7477	115.2047	0.5650	0.0142	133.5532
Total	**1.7265**	**2.2756**	**7.3865**	**0.0197**	**1.5147**	**0.0373**	**1.5520**	**0.4061**	**0.0364**	**0.4425**	**30.1082**	**2,353.6710**	**2,383.7792**	**2.1098**	**0.0206**	**2,442.6699**

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	1.2744	0.0226	1.9607	1.0000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	3.2021	3.2021	3.0800e-003	0.0000	3.2791
Energy	0.0191	0.1630	0.0693	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	538.9574	538.9574	0.0181	6.4500e-003	541.3318
Mobile	0.4331	2.0901	5.3564	0.0185	1.5147	0.0133	1.5279	0.4061	0.0123	0.4185	0.0000	1,701.7638	1,701.7638	0.0668	0.0000	1,703.4335
Waste						0.0000	0.0000		0.0000	0.0000	24.6512	0.0000	24.6512	1.4569	0.0000	61.0724
Water						0.0000	0.0000		0.0000	0.0000	5.4570	109.7477	115.2047	0.5650	0.0142	133.5532
Total	**1.7265**	**2.2756**	**7.3865**	**0.0197**	**1.5147**	**0.0373**	**1.5520**	**0.4061**	**0.0364**	**0.4425**	**30.1082**	**2,353.6710**	**2,383.7792**	**2.1098**	**0.0206**	**2,442.6699**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/3/2020	8/28/2020	5	20	
2	Site Preparation	Site Preparation	8/29/2020	9/11/2020	5	10	
3	Grading	Grading	9/12/2020	10/23/2020	5	30	
4	Building Construction	Building Construction	10/24/2020	10/11/2022	5	512	
5	Paving	Paving	10/12/2022	11/8/2022	5	20	
6	Architectural Coating	Architectural Coating	11/9/2022	2/1/2023	5	61	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 4.4

Residential Indoor: 534,600; Residential Outdoor: 178,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	5.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	271.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Architectural Coating	1	54.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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					5.3000e-004	0.0000	5.3000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**5.3000e-004**	**0.0166**	**0.0171**	**8.0000e-005**	**0.0154**	**0.0155**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

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	2.0000e-005	6.7000e-004	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1995	0.1995	1.0000e-005	0.0000	0.1997
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	6.1000e-004	5.1000e-004	5.5500e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1225	1.1225	4.0000e-005	0.0000	1.1235
Total	**6.3000e-004**	**1.1800e-003**	**5.6900e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.3220**	**1.3220**	**5.0000e-005**	**0.0000**	**1.3232**

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					2.4000e-004	0.0000	2.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**2.4000e-004**	**0.0166**	**0.0168**	**4.0000e-005**	**0.0154**	**0.0155**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

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	2.0000e-005	6.7000e-004	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1995	0.1995	1.0000e-005	0.0000	0.1997
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	6.1000e-004	5.1000e-004	5.5500e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1225	1.1225	4.0000e-005	0.0000	1.1235
Total	**6.3000e-004**	**1.1800e-003**	**5.6900e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.3220**	**1.3220**	**5.0000e-005**	**0.0000**	**1.3232**

3.3 Site Preparation - 2020

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

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	3.7000e-004	3.1000e-004	3.3300e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6735	0.6735	2.0000e-005	0.0000	0.6741
Total	**3.7000e-004**	**3.1000e-004**	**3.3300e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6735**	**0.6735**	**2.0000e-005**	**0.0000**	**0.6741**

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	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0407**	**0.0110**	**0.0516**	**0.0223**	**0.0101**	**0.0325**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

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	3.7000e-004	3.1000e-004	3.3300e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6735	0.6735	2.0000e-005	0.0000	0.6741
Total	**3.7000e-004**	**3.1000e-004**	**3.3300e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6735**	**0.6735**	**2.0000e-005**	**0.0000**	**0.6741**

3.4 Grading - 2020

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7530	0.4794	9.3000e-004		0.0326	0.0326		0.0300	0.0300	0.0000	81.7264	81.7264	0.0264	0.0000	82.3872
Total	**0.0668**	**0.7530**	**0.4794**	**9.3000e-004**	**0.1301**	**0.0326**	**0.1627**	**0.0540**	**0.0300**	**0.0840**	**0.0000**	**81.7264**	**81.7264**	**0.0264**	**0.0000**	**82.3872**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2300e-003	1.0300e-003	0.0111	2.0000e-005	2.4200e-003	2.0000e-005	2.4400e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.2450	2.2450	8.0000e-005	0.0000	2.2470
Total	**1.2300e-003**	**1.0300e-003**	**0.0111**	**2.0000e-005**	**2.4200e-003**	**2.0000e-005**	**2.4400e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.2450**	**2.2450**	**8.0000e-005**	**0.0000**	**2.2470**

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7530	0.4794	9.3000e-004		0.0326	0.0326		0.0300	0.0300	0.0000	81.7263	81.7263	0.0264	0.0000	82.3871
Total	**0.0668**	**0.7530**	**0.4794**	**9.3000e-004**	**0.0586**	**0.0326**	**0.0912**	**0.0243**	**0.0300**	**0.0543**	**0.0000**	**81.7263**	**81.7263**	**0.0264**	**0.0000**	**82.3871**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2300e-003	1.0300e-003	0.0111	2.0000e-005	2.4200e-003	2.0000e-005	2.4400e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.2450	2.2450	8.0000e-005	0.0000	2.2470
Total	**1.2300e-003**	**1.0300e-003**	**0.0111**	**2.0000e-005**	**2.4200e-003**	**2.0000e-005**	**2.4400e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.2450**	**2.2450**	**8.0000e-005**	**0.0000**	**2.2470**

3.5 Building Construction - 2020

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	0.0519	0.4701	0.4128	6.6000e-004		0.0274	0.0274		0.0257	0.0257	0.0000	56.7445	56.7445	0.0138	0.0000	57.0905
Total	**0.0519**	**0.4701**	**0.4128**	**6.6000e-004**		**0.0274**	**0.0274**		**0.0257**	**0.0257**	**0.0000**	**56.7445**	**56.7445**	**0.0138**	**0.0000**	**57.0905**

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	5.2500e-003	0.1733	0.0387	4.4000e-004	9.7900e-003	7.6000e-004	0.0106	2.8300e-003	7.2000e-004	3.5500e-003	0.0000	42.0506	42.0506	1.9000e-003	0.0000	42.0980
Worker	0.0271	0.0228	0.2458	5.5000e-004	0.0535	4.6000e-004	0.0539	0.0142	4.2000e-004	0.0146	0.0000	49.6855	49.6855	1.8100e-003	0.0000	49.7307
Total	**0.0324**	**0.1961**	**0.2845**	**9.9000e-004**	**0.0633**	**1.2200e-003**	**0.0645**	**0.0170**	**1.1400e-003**	**0.0182**	**0.0000**	**91.7362**	**91.7362**	**3.7100e-003**	**0.0000**	**91.8288**

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	0.0519	0.4701	0.4128	6.6000e-004		0.0274	0.0274		0.0257	0.0257	0.0000	56.7444	56.7444	0.0138	0.0000	57.0905
Total	**0.0519**	**0.4701**	**0.4128**	**6.6000e-004**		**0.0274**	**0.0274**		**0.0257**	**0.0257**	**0.0000**	**56.7444**	**56.7444**	**0.0138**	**0.0000**	**57.0905**

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	5.2500e-003	0.1733	0.0387	4.4000e-004	9.7900e-003	7.6000e-004	0.0106	2.8300e-003	7.2000e-004	3.5500e-003	0.0000	42.0506	42.0506	1.9000e-003	0.0000	42.0980
Worker	0.0271	0.0228	0.2458	5.5000e-004	0.0535	4.6000e-004	0.0539	0.0142	4.2000e-004	0.0146	0.0000	49.6855	49.6855	1.8100e-003	0.0000	49.7307
Total	**0.0324**	**0.1961**	**0.2845**	**9.9000e-004**	**0.0633**	**1.2200e-003**	**0.0645**	**0.0170**	**1.1400e-003**	**0.0182**	**0.0000**	**91.7362**	**91.7362**	**3.7100e-003**	**0.0000**	**91.8288**

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

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	0.0235	0.8352	0.1825	2.3500e-003	0.0522	1.3200e-003	0.0535	0.0151	1.2600e-003	0.0163	0.0000	222.9209	222.9209	9.5400e-003	0.0000	223.1593
Worker	0.1353	0.1101	1.2140	2.8600e-003	0.2848	2.4000e-003	0.2872	0.0757	2.2100e-003	0.0779	0.0000	258.0760	258.0760	8.8700e-003	0.0000	258.2977
Total	**0.1588**	**0.9453**	**1.3965**	**5.2100e-003**	**0.3370**	**3.7200e-003**	**0.3407**	**0.0907**	**3.4700e-003**	**0.0942**	**0.0000**	**480.9968**	**480.9968**	**0.0184**	**0.0000**	**481.4570**

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095

Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

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	0.0235	0.8352	0.1825	2.3500e-003	0.0522	1.3200e-003	0.0535	0.0151	1.2600e-003	0.0163	0.0000	222.9209	222.9209	9.5400e-003	0.0000	223.1593
Worker	0.1353	0.1101	1.2140	2.8600e-003	0.2848	2.4000e-003	0.2872	0.0757	2.2100e-003	0.0779	0.0000	258.0760	258.0760	8.8700e-003	0.0000	258.2977
Total	**0.1588**	**0.9453**	**1.3965**	**5.2100e-003**	**0.3370**	**3.7200e-003**	**0.3407**	**0.0907**	**3.4700e-003**	**0.0942**	**0.0000**	**480.9968**	**480.9968**	**0.0184**	**0.0000**	**481.4570**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5772	1.6527	2.7200e-003		0.0817	0.0817		0.0769	0.0769	0.0000	234.0425	234.0425	0.0561	0.0000	235.4442
Total	**0.1723**	**1.5772**	**1.6527**	**2.7200e-003**		**0.0817**	**0.0817**		**0.0769**	**0.0769**	**0.0000**	**234.0425**	**234.0425**	**0.0561**	**0.0000**	**235.4442**

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	0.0171	0.6121	0.1321	1.8000e-003	0.0404	8.6000e-004	0.0412	0.0117	8.2000e-004	0.0125	0.0000	171.2697	171.2697	7.1000e-003	0.0000	171.4471
Worker	0.0981	0.0773	0.8667	2.1400e-003	0.2204	1.8000e-003	0.2222	0.0586	1.6600e-003	0.0602	0.0000	192.8295	192.8295	6.2300e-003	0.0000	192.9853
Total	**0.1152**	**0.6893**	**0.9987**	**3.9400e-003**	**0.2608**	**2.6600e-003**	**0.2635**	**0.0702**	**2.4800e-003**	**0.0727**	**0.0000**	**364.0991**	**364.0991**	**0.0133**	**0.0000**	**364.4324**

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	0.1723	1.5772	1.6527	2.7200e-003		0.0817	0.0817		0.0769	0.0769	0.0000	234.0422	234.0422	0.0561	0.0000	235.4440
Total	**0.1723**	**1.5772**	**1.6527**	**2.7200e-003**		**0.0817**	**0.0817**		**0.0769**	**0.0769**	**0.0000**	**234.0422**	**234.0422**	**0.0561**	**0.0000**	**235.4440**

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	0.0171	0.6121	0.1321	1.8000e-003	0.0404	8.6000e-004	0.0412	0.0117	8.2000e-004	0.0125	0.0000	171.2697	171.2697	7.1000e-003	0.0000	171.4471
Worker	0.0981	0.0773	0.8667	2.1400e-003	0.2204	1.8000e-003	0.2222	0.0586	1.6600e-003	0.0602	0.0000	192.8295	192.8295	6.2300e-003	0.0000	192.9853
Total	**0.1152**	**0.6893**	**0.9987**	**3.9400e-003**	**0.2608**	**2.6600e-003**	**0.2635**	**0.0702**	**2.4800e-003**	**0.0727**	**0.0000**	**364.0991**	**364.0991**	**0.0133**	**0.0000**	**364.4324**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0137**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

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	5.4000e-004	4.2000e-004	4.7500e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0568	1.0568	3.0000e-005	0.0000	1.0576
Total	**5.4000e-004**	**4.2000e-004**	**4.7500e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0568**	**1.0568**	**3.0000e-005**	**0.0000**	**1.0576**

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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	2.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0137**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

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	5.4000e-004	4.2000e-004	4.7500e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0568	1.0568	3.0000e-005	0.0000	1.0576
Total	**5.4000e-004**	**4.2000e-004**	**4.7500e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0568**	**1.0568**	**3.0000e-005**	**0.0000**	**1.0576**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8900e-003	0.0268	0.0345	6.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	4.8512	4.8512	3.2000e-004	0.0000	4.8591
Total	**1.0745**	**0.0268**	**0.0345**	**6.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**4.8512**	**4.8512**	**3.2000e-004**	**0.0000**	**4.8591**

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	3.6800e-003	2.9000e-003	0.0325	8.0000e-005	8.2600e-003	7.0000e-005	8.3300e-003	2.1900e-003	6.0000e-005	2.2600e-003	0.0000	7.2282	7.2282	2.3000e-004	0.0000	7.2340
Total	**3.6800e-003**	**2.9000e-003**	**0.0325**	**8.0000e-005**	**8.2600e-003**	**7.0000e-005**	**8.3300e-003**	**2.1900e-003**	**6.0000e-005**	**2.2600e-003**	**0.0000**	**7.2282**	**7.2282**	**2.3000e-004**	**0.0000**	**7.2340**

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	1.0706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	3.8900e-003	0.0268	0.0345	6.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	4.8512	4.8512	3.2000e-004	0.0000	4.8591
Total	**1.0745**	**0.0268**	**0.0345**	**6.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**4.8512**	**4.8512**	**3.2000e-004**	**0.0000**	**4.8591**

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	3.6800e-003	2.9000e-003	0.0325	8.0000e-005	8.2600e-003	7.0000e-005	8.3300e-003	2.1900e-003	6.0000e-005	2.2600e-003	0.0000	7.2282	7.2282	2.3000e-004	0.0000	7.2340
Total	**3.6800e-003**	**2.9000e-003**	**0.0325**	**8.0000e-005**	**8.2600e-003**	**7.0000e-005**	**8.3300e-003**	**2.1900e-003**	**6.0000e-005**	**2.2600e-003**	**0.0000**	**7.2282**	**7.2282**	**2.3000e-004**	**0.0000**	**7.2340**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-003	0.0150	0.0208	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.9362	2.9362	1.8000e-004	0.0000	2.9406
Total	**0.6502**	**0.0150**	**0.0208**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.9362**	**2.9362**	**1.8000e-004**	**0.0000**	**2.9406**

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	2.0900e-003	1.5900e-003	0.0181	5.0000e-005	5.0000e-003	4.0000e-005	5.0400e-003	1.3300e-003	4.0000e-005	1.3700e-003	0.0000	4.2160	4.2160	1.3000e-004	0.0000	4.2193
Total	**2.0900e-003**	**1.5900e-003**	**0.0181**	**5.0000e-005**	**5.0000e-003**	**4.0000e-005**	**5.0400e-003**	**1.3300e-003**	**4.0000e-005**	**1.3700e-003**	**0.0000**	**4.2160**	**4.2160**	**1.3000e-004**	**0.0000**	**4.2193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-003	0.0150	0.0208	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.9362	2.9362	1.8000e-004	0.0000	2.9406
Total	**0.6502**	**0.0150**	**0.0208**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.9362**	**2.9362**	**1.8000e-004**	**0.0000**	**2.9406**

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	2.0900e-003	1.5900e-003	0.0181	5.0000e-005	5.0000e-003	4.0000e-005	5.0400e-003	1.3300e-003	4.0000e-005	1.3700e-003	0.0000	4.2160	4.2160	1.3000e-004	0.0000	4.2193
Total	**2.0900e-003**	**1.5900e-003**	**0.0181**	**5.0000e-005**	**5.0000e-003**	**4.0000e-005**	**5.0400e-003**	**1.3300e-003**	**4.0000e-005**	**1.3700e-003**	**0.0000**	**4.2160**	**4.2160**	**1.3000e-004**	**0.0000**	**4.2193**

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	0.4331	2.0901	5.3564	0.0185	1.5147	0.0133	1.5279	0.4061	0.0123	0.4185	0.0000	1,701.7638	1,701.7638	0.0668	0.0000	1,703.4335
Unmitigated	0.4331	2.0901	5.3564	0.0185	1.5147	0.0133	1.5279	0.4061	0.0123	0.4185	0.0000	1,701.7638	1,701.7638	0.0668	0.0000	1,703.4335

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,436.16	1,380.72	1264.56	3,986,749	3,986,749
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,436.16	1,380.72	1,264.56	3,986,749	3,986,749

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-[illegible]	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129
Other Non-Asphalt Surfaces	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129
Parking Lot	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129

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	350.2315	350.2315	0.0145	2.9900e-003	351.4845
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	350.2315	350.2315	0.0145	2.9900e-003	351.4845
NaturalGas Mitigated	0.0191	0.1630	0.0693	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	188.7259	188.7259	3.6200e-003	3.4600e-003	189.8474
NaturalGas Unmitigated	0.0191	0.1630	0.0693	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	188.7259	188.7259	3.6200e-003	3.4600e-003	189.8474

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.53659e+006	0.0191	0.1630	0.0693	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	188.7259	188.7259	3.6200e-003	3.4600e-003	189.8474
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0191**	**0.1630**	**0.0693**	**1.0400e-003**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**188.7259**	**188.7259**	**3.6200e-003**	**3.4600e-003**	**189.8474**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.53659e+006	0.0191	0.1630	0.0693	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	188.7259	188.7259	3.6200e-003	3.4600e-003	189.8474
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0191**	**0.1630**	**0.0693**	**1.0400e-003**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**188.7259**	**188.7259**	**3.6200e-003**	**3.4600e-003**	**189.8474**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.06872e+006	340.5161	0.0141	2.9100e-003	341.7343
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	9.7154	4.0000e-004	8.0000e-005	9.7502
Total		**350.2315**	**0.0145**	**2.9900e-003**	**351.4845**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.06872e+006	340.5161	0.0141	2.9100e-003	341.7343
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	30492	9.7154	4.0000e-004	8.0000e-005	9.7502
Total		**350.2315**	**0.0145**	**2.9900e-003**	**351.4845**

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	1.2744	0.0226	1.9607	1.0000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	3.2021	3.2021	3.0800e-003	0.0000	3.2791
Unmitigated	1.2744	0.0226	1.9607	1.0000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	3.2021	3.2021	3.0800e-003	0.0000	3.2791

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	0.1719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0434					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0591	0.0226	1.9607	1.0000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	3.2021	3.2021	3.0800e-003	0.0000	3.2791
Total	**1.2744**	**0.0226**	**1.9607**	**1.0000e-004**		**0.0109**	**0.0109**		**0.0109**	**0.0109**	**0.0000**	**3.2021**	**3.2021**	**3.0800e-003**	**0.0000**	**3.2791**

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	0.1719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0434					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0591	0.0226	1.9607	1.0000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	3.2021	3.2021	3.0800e-003	0.0000	3.2791
Total	**1.2744**	**0.0226**	**1.9607**	**1.0000e-004**		**0.0109**	**0.0109**		**0.0109**	**0.0109**	**0.0000**	**3.2021**	**3.2021**	**3.0800e-003**	**0.0000**	**3.2791**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	115.2047	0.5650	0.0142	133.5532
Unmitigated	115.2047	0.5650	0.0142	133.5532

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	17.2007 / 10.8439	115.2047	0.5650	0.0142	133.5532
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Total		**115.2047**	**0.5650**	**0.0142**	**133.5532**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	17.2007 / 10.8439	115.2047	0.5650	0.0142	133.5532
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**115.2047**	**0.5650**	**0.0142**	**133.5532**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	24.6512	1.4569	0.0000	61.0724
Unmitigated	24.6512	1.4569	0.0000	61.0724

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	121.44	24.6512	1.4569	0.0000	61.0724
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**24.6512**	**1.4569**	**0.0000**	**61.0724**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	121.44	24.6512	1.4569	0.0000	61.0724
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**24.6512**	**1.4569**	**0.0000**	**61.0724**

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

Lancaster 3 Project

Antelope Valley APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.40	Acre	2.40	104,544.00	0
Parking Lot	2.00	Acre	2.00	87,120.00	0
Apartments Mid Rise	264.00	Dwelling Unit	6.95	264,000.00	755

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Schedule per project plans (8/1/20 to 2/1/23).

Demolition - Estimated tonnage based on 9 foundations and existing utilities underground to demolish.

Architectural Coating - Assume coatings comply with AVAQMD Rule 1113.

Vehicle Trips - Used Traffic Study Peak Daily rate for Weekday, proportioned the default Sat. and Sun. rates.

Woodstoves - No fireplaces or woodstoves would be included.

Area Coating - Assume coatings comply with AVAQMD Rule 1113.

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	61.00
tblConstructionPhase	NumDays	300.00	512.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	145.20	0.00
tblFireplaces	NumberNoFireplace	26.40	264.00
tblFireplaces	NumberWood	92.40	0.00
tblVehicleTrips	ST_TR	6.39	5.23
tblVehicleTrips	SU_TR	5.86	4.79
tblVehicleTrips	WD_TR	6.65	5.44
tblWoodstoves	NumberCatalytic	13.20	0.00
tblWoodstoves	NumberNoncatalytic	13.20	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

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					
2020	4.5461	50.2587	32.8190	0.0700	18.2141	2.1987	20.4128	9.9699	2.0228	11.9927	0.0000	6,936.0276	6,936.0276	1.9491	0.0000	6,955.9049
2021	3.2961	24.5219	28.7023	0.0693	2.6324	0.9870	3.6194	0.7074	0.9278	1.6352	0.0000	6,866.4396	6,866.4396	0.7765	0.0000	6,885.8517
2022	56.7779	22.3073	27.5816	0.0684	2.6324	0.8352	3.4676	0.7074	0.7856	1.4930	0.0000	6,770.8680	6,770.8680	0.7617	0.0000	6,789.9109
2023	56.7512	1.4267	3.6549	7.4400e-003	0.4436	0.0743	0.5179	0.1177	0.0740	0.1917	0.0000	725.9083	725.9083	0.0306	0.0000	726.6730
Maximum	**56.7779**	**50.2587**	**32.8190**	**0.0700**	**18.2141**	**2.1987**	**20.4128**	**9.9699**	**2.0228**	**11.9927**	**0.0000**	**6,936.0276**	**6,936.0276**	**1.9491**	**0.0000**	**6,955.9049**

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					
2020	4.5461	50.2587	32.8190	0.0700	8.2777	2.1987	10.4763	4.5080	2.0228	6.5308	0.0000	6,936.0276	6,936.0276	1.9491	0.0000	6,955.9049
2021	3.2961	24.5219	28.7023	0.0693	2.6324	0.9870	3.6194	0.7074	0.9278	1.6352	0.0000	6,866.4396	6,866.4396	0.7765	0.0000	6,885.8516
2022	56.7779	22.3073	27.5816	0.0684	2.6324	0.8352	3.4676	0.7074	0.7856	1.4930	0.0000	6,770.8680	6,770.8680	0.7617	0.0000	6,789.9109
2023	56.7512	1.4267	3.6549	7.4400e-003	0.4436	0.0743	0.5179	0.1177	0.0740	0.1917	0.0000	725.9083	725.9083	0.0306	0.0000	726.6730
Maximum	**56.7779**	**50.2587**	**32.8190**	**0.0700**	**8.2777**	**2.1987**	**10.4763**	**4.5080**	**2.0228**	**6.5308**	**0.0000**	**6,936.0276**	**6,936.0276**	**1.9491**	**0.0000**	**6,955.9049**

	ROG	**NOx**	**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**	**41.54**	**0.00**	**35.46**	**47.48**	**0.00**	**35.67**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617
Energy	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Mobile	3.0236	11.3881	33.5684	0.1118	8.6821	0.0745	8.7566	2.3240	0.0693	2.3934		11,323.1865	11,323.1865	0.4255		11,333.8236
Total	**10.4436**	**12.5322**	**55.7340**	**0.1187**	**8.6821**	**0.2673**	**8.9493**	**2.3240**	**0.2621**	**2.5861**	**0.0000**	**12,502.3211**	**12,502.3211**	**0.4851**	**0.0209**	**12,520.6750**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617
Energy	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Mobile	3.0236	11.3881	33.5684	0.1118	8.6821	0.0745	8.7566	2.3240	0.0693	2.3934		11,323.1865	11,323.1865	0.4255		11,333.8236
Total	**10.4436**	**12.5322**	**55.7340**	**0.1187**	**8.6821**	**0.2673**	**8.9493**	**2.3240**	**0.2621**	**2.5861**	**0.0000**	**12,502.3211**	**12,502.3211**	**0.4851**	**0.0209**	**12,520.6750**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/3/2020	8/28/2020	5	20	
2	Site Preparation	Site Preparation	8/29/2020	9/11/2020	5	10	
3	Grading	Grading	9/12/2020	10/23/2020	5	30	
4	Building Construction	Building Construction	10/24/2020	10/11/2022	5	512	
5	Paving	Paving	10/12/2022	11/8/2022	5	20	
6	Architectural Coating	Architectural Coating	11/9/2022	2/1/2023	5	61	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 4.4

Residential Indoor: 534,600; Residential Outdoor: 178,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	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

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	5.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	271.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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					0.0535	0.0000	0.0535	8.1000e-003	0.0000	8.1000e-003			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.0535**	**1.6587**	**1.7122**	**8.1000e-003**	**1.5419**	**1.5500**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	1.9500e-003	0.0654	0.0134	2.1000e-004	4.3700e-003	1.7000e-004	4.5400e-003	1.2000e-003	1.6000e-004	1.3600e-003		22.2537	22.2537	7.7000e-004		22.2730
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	0.0720	0.0459	0.6456	1.3700e-003	0.1232	1.0400e-003	0.1243	0.0327	9.6000e-004	0.0336		136.0834	136.0834	5.0300e-003		136.2090
Total	**0.0740**	**0.1113**	**0.6590**	**1.5800e-003**	**0.1276**	**1.2100e-003**	**0.1288**	**0.0339**	**1.1200e-003**	**0.0350**		**158.3370**	**158.3370**	**5.8000e-003**		**158.4820**

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					0.0241	0.0000	0.0241	3.6400e-003	0.0000	3.6400e-003			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.0241**	**1.6587**	**1.6828**	**3.6400e-003**	**1.5419**	**1.5455**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	1.9500e-003	0.0654	0.0134	2.1000e-004	4.3700e-003	1.7000e-004	4.5400e-003	1.2000e-003	1.6000e-004	1.3600e-003		22.2537	22.2537	7.7000e-004		22.2730
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	0.0720	0.0459	0.6456	1.3700e-003	0.1232	1.0400e-003	0.1243	0.0327	9.6000e-004	0.0336		136.0834	136.0834	5.0300e-003		136.2090
Total	**0.0740**	**0.1113**	**0.6590**	**1.5800e-003**	**0.1276**	**1.2100e-003**	**0.1288**	**0.0339**	**1.1200e-003**	**0.0350**		**158.3370**	**158.3370**	**5.8000e-003**		**158.4820**

3.3 Site Preparation - 2020

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0864	0.0551	0.7747	1.6400e-003	0.1479	1.2400e-003	0.1491	0.0392	1.1500e-003	0.0404		163.3000	163.3000	6.0300e-003		163.4508
Total	**0.0864**	**0.0551**	**0.7747**	**1.6400e-003**	**0.1479**	**1.2400e-003**	**0.1491**	**0.0392**	**1.1500e-003**	**0.0404**		**163.3000**	**163.3000**	**6.0300e-003**		**163.4508**

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**8.1298**	**2.1974**	**10.3272**	**4.4688**	**2.0216**	**6.4904**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0864	0.0551	0.7747	1.6400e-003	0.1479	1.2400e-003	0.1491	0.0392	1.1500e-003	0.0404		163.3000	163.3000	6.0300e-003		163.4508
Total	**0.0864**	**0.0551**	**0.7747**	**1.6400e-003**	**0.1479**	**1.2400e-003**	**0.1491**	**0.0392**	**1.1500e-003**	**0.0404**		**163.3000**	**163.3000**	**6.0300e-003**		**163.4508**

3.4 Grading - 2020

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.0960	0.0612	0.8607	1.8300e-003	0.1643	1.3800e-003	0.1657	0.0436	1.2700e-003	0.0449		181.4445	181.4445	6.7000e-003		181.6120
Total	**0.0960**	**0.0612**	**0.8607**	**1.8300e-003**	**0.1643**	**1.3800e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**181.4445**	**181.4445**	**6.7000e-003**		**181.6120**

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.9030**	**2.1739**	**6.0769**	**1.6184**	**2.0000**	**3.6184**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.0960	0.0612	0.8607	1.8300e-003	0.1643	1.3800e-003	0.1657	0.0436	1.2700e-003	0.0449		181.4445	181.4445	6.7000e-003		181.6120
Total	**0.0960**	**0.0612**	**0.8607**	**1.8300e-003**	**0.1643**	**1.3800e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**181.4445**	**181.4445**	**6.7000e-003**		**181.6120**

3.5 Building Construction - 2020

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.2100	6.9808	1.4637	0.0184	0.4062	0.0307	0.4369	0.1169	0.0294	0.1463		1,924.3920	1,924.3920	0.0814		1,926.4278
Worker	1.3011	0.8291	11.6629	0.0247	2.2262	0.0187	2.2449	0.5905	0.0173	0.6078		2,458.5726	2,458.5726	0.0908		2,460.8427
Total	**1.5111**	**7.8099**	**13.1266**	**0.0431**	**2.6324**	**0.0495**	**2.6819**	**0.7074**	**0.0467**	**0.7541**		**4,382.9646**	**4,382.9646**	**0.1722**		**4,387.2705**

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.2100	6.9808	1.4637	0.0184	0.4062	0.0307	0.4369	0.1169	0.0294	0.1463		1,924.3920	1,924.3920	0.0814		1,926.4278
Worker	1.3011	0.8291	11.6629	0.0247	2.2262	0.0187	2.2449	0.5905	0.0173	0.6078		2,458.5726	2,458.5726	0.0908		2,460.8427
Total	**1.5111**	**7.8099**	**13.1266**	**0.0431**	**2.6324**	**0.0495**	**2.6819**	**0.7074**	**0.0467**	**0.7541**		**4,382.9646**	**4,382.9646**	**0.1722**		**4,387.2705**

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**

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	0.1760	6.3370	1.2899	0.0183	0.4062	9.9700e-003	0.4162	0.1169	9.5400e-003	0.1265		1,915.4258	1,915.4258	0.0768		1,917.3452
Worker	1.2192	0.7528	10.8371	0.0241	2.2262	0.0184	2.2446	0.5905	0.0169	0.6074		2,397.6499	2,397.6499	0.0837		2,399.7422
Total	**1.3952**	**7.0898**	**12.1271**	**0.0424**	**2.6324**	**0.0284**	**2.6608**	**0.7074**	**0.0265**	**0.7339**		**4,313.0757**	**4,313.0757**	**0.1605**		**4,317.0874**

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**

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	0.1760	6.3370	1.2899	0.0183	0.4062	9.9700e-003	0.4162	0.1169	9.5400e-003	0.1265		1,915.4258	1,915.4258	0.0768		1,917.3452
Worker	1.2192	0.7528	10.8371	0.0241	2.2262	0.0184	2.2446	0.5905	0.0169	0.6074		2,397.6499	2,397.6499	0.0837		2,399.7422
Total	**1.3952**	**7.0898**	**12.1271**	**0.0424**	**2.6324**	**0.0284**	**2.6608**	**0.7074**	**0.0265**	**0.7339**		**4,313.0757**	**4,313.0757**	**0.1605**		**4,317.0874**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

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	0.1648	6.0088	1.2047	0.0182	0.4062	8.3800e-003	0.4146	0.1169	8.0100e-003	0.1250		1,901.8538	1,901.8538	0.0738		1,903.6974
Worker	1.1427	0.6829	10.0135	0.0233	2.2262	0.0178	2.2440	0.5905	0.0164	0.6069		2,314.6806	2,314.6806	0.0760		2,316.5812
Total	**1.3074**	**6.6917**	**11.2182**	**0.0414**	**2.6324**	**0.0262**	**2.6586**	**0.7074**	**0.0244**	**0.7319**		**4,216.5344**	**4,216.5344**	**0.1498**		**4,220.2787**

Mitigated Construction On-Site

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

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	0.1648	6.0088	1.2047	0.0182	0.4062	8.3800e-003	0.4146	0.1169	8.0100e-003	0.1250		1,901.8538	1,901.8538	0.0738		1,903.6974
Worker	1.1427	0.6829	10.0135	0.0233	2.2262	0.0178	2.2440	0.5905	0.0164	0.6069		2,314.6806	2,314.6806	0.0760		2,316.5812
Total	**1.3074**	**6.6917**	**11.2182**	**0.0414**	**2.6324**	**0.0262**	**2.6586**	**0.7074**	**0.0244**	**0.7319**		**4,216.5344**	**4,216.5344**	**0.1498**		**4,220.2787**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Paving	0.2620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3648**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0633	0.0378	0.5543	1.2900e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		128.1189	128.1189	4.2100e-003		128.2241
Total	**0.0633**	**0.0378**	**0.5543**	**1.2900e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**128.1189**	**128.1189**	**4.2100e-003**		**128.2241**

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3648**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0633	0.0378	0.5543	1.2900e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		128.1189	128.1189	4.2100e-003		128.2241
Total	**0.0633**	**0.0378**	**0.5543**	**1.2900e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**128.1189**	**128.1189**	**4.2100e-003**		**128.2241**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**56.5502**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.2277	0.1361	1.9953	4.6400e-003	0.4436	3.5500e-003	0.4472	0.1177	3.2700e-003	0.1209		461.2279	461.2279	0.0152		461.6066
Total	**0.2277**	**0.1361**	**1.9953**	**4.6400e-003**	**0.4436**	**3.5500e-003**	**0.4472**	**0.1177**	**3.2700e-003**	**0.1209**		**461.2279**	**461.2279**	**0.0152**		**461.6066**

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	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**56.5502**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.2277	0.1361	1.9953	4.6400e-003	0.4436	3.5500e-003	0.4472	0.1177	3.2700e-003	0.1209		461.2279	461.2279	0.0152		461.6066
Total	**0.2277**	**0.1361**	**1.9953**	**4.6400e-003**	**0.4436**	**3.5500e-003**	**0.4472**	**0.1177**	**3.2700e-003**	**0.1209**		**461.2279**	**461.2279**	**0.0152**		**461.6066**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**56.5373**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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	0.2139	0.1237	1.8438	4.4700e-003	0.4436	3.4500e-003	0.4471	0.1177	3.1800e-003	0.1208		444.4603	444.4603	0.0138		444.8040
Total	**0.2139**	**0.1237**	**1.8438**	**4.4700e-003**	**0.4436**	**3.4500e-003**	**0.4471**	**0.1177**	**3.1800e-003**	**0.1208**		**444.4603**	**444.4603**	**0.0138**		**444.8040**

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	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**56.5373**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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	0.2139	0.1237	1.8438	4.4700e-003	0.4436	3.4500e-003	0.4471	0.1177	3.1800e-003	0.1208		444.4603	444.4603	0.0138		444.8040
Total	**0.2139**	**0.1237**	**1.8438**	**4.4700e-003**	**0.4436**	**3.4500e-003**	**0.4471**	**0.1177**	**3.1800e-003**	**0.1208**		**444.4603**	**444.4603**	**0.0138**		**444.8040**

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	3.0236	11.3881	33.5684	0.1118	8.6821	0.0745	8.7566	2.3240	0.0693	2.3934		11,323.1865	11,323.1865	0.4255		11,333.8236
Unmitigated	3.0236	11.3881	33.5684	0.1118	8.6821	0.0745	8.7566	2.3240	0.0693	2.3934		11,323.1865	11,323.1865	0.4255		11,333.8236

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,436.16	1,380.72	1264.56	3,986,749	3,986,749
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,436.16	1,380.72	1,264.56	3,986,749	3,986,749

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129
Other Non-Asphalt Surfaces	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129
Parking Lot	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129

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	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
NaturalGas Unmitigated	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9689.28	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1045**	**0.8929**	**0.3800**	**5.7000e-003**		**0.0722**	**0.0722**		**0.0722**	**0.0722**		**1,139.9158**	**1,139.9158**	**0.0219**	**0.0209**	**1,146.6898**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.68928	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1045**	**0.8929**	**0.3800**	**5.7000e-003**		**0.0722**	**0.0722**		**0.0722**	**0.0722**		**1,139.9158**	**1,139.9158**	**0.0219**	**0.0209**	**1,146.6898**

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	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617
Unmitigated	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617

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	0.9417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6564	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206		39.2188	39.2188	0.0377		40.1617
Total	**7.3155**	**0.2511**	**21.7856**	**1.1500e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**39.2188**	**39.2188**	**0.0377**	**0.0000**	**40.1617**

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	0.9417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6564	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206		39.2188	39.2188	0.0377		40.1617
Total	**7.3155**	**0.2511**	**21.7856**	**1.1500e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**39.2188**	**39.2188**	**0.0377**	**0.0000**	**40.1617**

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

Lancaster 3 Project

Antelope Valley APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.40	Acre	2.40	104,544.00	0
Parking Lot	2.00	Acre	2.00	87,120.00	0
Apartments Mid Rise	264.00	Dwelling Unit	6.95	264,000.00	755

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Schedule per project plans (8/1/20 to 2/1/23).

Demolition - Estimated tonnage based on 9 foundations and existing utilities underground to demolish.

Architectural Coating - Assume coatings comply with AVAQMD Rule 1113.

Vehicle Trips - Used Traffic Study Peak Daily rate for Weekday, proportioned the default Sat. and Sun. rates.

Woodstoves - No fireplaces or woodstoves would be included.

Area Coating - Assume coatings comply with AVAQMD Rule 1113.

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	61.00
tblConstructionPhase	NumDays	300.00	512.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	145.20	0.00
tblFireplaces	NumberNoFireplace	26.40	264.00
tblFireplaces	NumberWood	92.40	0.00
tblVehicleTrips	ST_TR	6.39	5.23
tblVehicleTrips	SU_TR	5.86	4.79
tblVehicleTrips	WD_TR	6.65	5.44
tblWoodstoves	NumberCatalytic	13.20	0.00
tblWoodstoves	NumberNoncatalytic	13.20	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

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					
2020	4.5393	50.2622	32.6514	0.0663	18.2141	2.1987	20.4128	9.9699	2.0228	11.9927	0.0000	6,568.9436	6,568.9436	1.9482	0.0000	6,588.7221
2021	3.2193	24.5052	26.7719	0.0657	2.6324	0.9872	3.6196	0.7074	0.9280	1.6354	0.0000	6,506.2600	6,506.2600	0.7733	0.0000	6,525.5931
2022	56.7619	22.2814	25.7905	0.0649	2.6324	0.8354	3.4679	0.7074	0.7858	1.4932	0.0000	6,420.1347	6,420.1347	0.7595	0.0000	6,439.1224
2023	56.7365	1.4337	3.2873	6.9100e-003	0.4436	0.0743	0.5179	0.1177	0.0740	0.1917	0.0000	673.4908	673.4908	0.0287	0.0000	674.2090
Maximum	**56.7619**	**50.2622**	**32.6514**	**0.0663**	**18.2141**	**2.1987**	**20.4128**	**9.9699**	**2.0228**	**11.9927**	**0.0000**	**6,568.9436**	**6,568.9436**	**1.9482**	**0.0000**	**6,588.7221**

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					
2020	4.5393	50.2622	32.6514	0.0663	8.2777	2.1987	10.4763	4.5080	2.0228	6.5308	0.0000	6,568.9436	6,568.9436	1.9482	0.0000	6,588.7221
2021	3.2193	24.5052	26.7719	0.0657	2.6324	0.9872	3.6196	0.7074	0.9280	1.6354	0.0000	6,506.2600	6,506.2600	0.7733	0.0000	6,525.5931
2022	56.7619	22.2814	25.7905	0.0649	2.6324	0.8354	3.4679	0.7074	0.7858	1.4932	0.0000	6,420.1347	6,420.1347	0.7595	0.0000	6,439.1224
2023	56.7365	1.4337	3.2873	6.9100e-003	0.4436	0.0743	0.5179	0.1177	0.0740	0.1917	0.0000	673.4908	673.4908	0.0287	0.0000	674.2090
Maximum	**56.7619**	**50.2622**	**32.6514**	**0.0663**	**8.2777**	**2.1987**	**10.4763**	**4.5080**	**2.0228**	**6.5308**	**0.0000**	**6,568.9436**	**6,568.9436**	**1.9482**	**0.0000**	**6,588.7221**

	ROG	**NOx**	**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**	**41.54**	**0.00**	**35.46**	**47.48**	**0.00**	**35.67**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617
Energy	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Mobile	2.4640	11.4714	28.5734	0.1013	8.6821	0.0748	8.7568	2.3240	0.0696	2.3936		10,266.9008	10,266.9008	0.4130		10,277.2259
Total	**9.8840**	**12.6154**	**50.7390**	**0.1081**	**8.6821**	**0.2675**	**8.9496**	**2.3240**	**0.2624**	**2.5864**	**0.0000**	**11,446.0354**	**11,446.0354**	**0.4726**	**0.0209**	**11,464.0774**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617
Energy	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Mobile	2.4640	11.4714	28.5734	0.1013	8.6821	0.0748	8.7568	2.3240	0.0696	2.3936		10,266.9008	10,266.9008	0.4130		10,277.2259
Total	**9.8840**	**12.6154**	**50.7390**	**0.1081**	**8.6821**	**0.2675**	**8.9496**	**2.3240**	**0.2624**	**2.5864**	**0.0000**	**11,446.0354**	**11,446.0354**	**0.4726**	**0.0209**	**11,464.0774**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/3/2020	8/28/2020	5	20	
2	Site Preparation	Site Preparation	8/29/2020	9/11/2020	5	10	
3	Grading	Grading	9/12/2020	10/23/2020	5	30	
4	Building Construction	Building Construction	10/24/2020	10/11/2022	5	512	
5	Paving	Paving	10/12/2022	11/8/2022	5	20	
6	Architectural Coating	Architectural Coating	11/9/2022	2/1/2023	5	61	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 4.4

Residential Indoor: 534,600; Residential Outdoor: 178,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	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

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	5.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	271.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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					0.0535	0.0000	0.0535	8.1000e-003	0.0000	8.1000e-003			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419		3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.0535**	**1.6587**	**1.7122**	**8.1000e-003**	**1.5419**	**1.5500**		**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	2.0300e-003	0.0658	0.0148	2.1000e-004	4.3700e-003	1.7000e-004	4.5400e-003	1.2000e-003	1.7000e-004	1.3600e-003		21.6244	21.6244	8.4000e-004		21.6454
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	0.0669	0.0486	0.5198	1.2100e-003	0.1232	1.0400e-003	0.1243	0.0327	9.6000e-004	0.0336		120.0400	120.0400	4.3500e-003		120.1487
Total	**0.0689**	**0.1143**	**0.5347**	**1.4200e-003**	**0.1276**	**1.2100e-003**	**0.1288**	**0.0339**	**1.1300e-003**	**0.0350**		**141.6644**	**141.6644**	**5.1900e-003**		**141.7941**

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					0.0241	0.0000	0.0241	3.6400e-003	0.0000	3.6400e-003			0.0000			0.0000
Off-Road	3.3121	33.2010	21.7532	0.0388		1.6587	1.6587		1.5419	1.5419	0.0000	3,747.7049	3,747.7049	1.0580		3,774.1536
Total	**3.3121**	**33.2010**	**21.7532**	**0.0388**	**0.0241**	**1.6587**	**1.6828**	**3.6400e-003**	**1.5419**	**1.5455**	**0.0000**	**3,747.7049**	**3,747.7049**	**1.0580**		**3,774.1536**

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	2.0300e-003	0.0658	0.0148	2.1000e-004	4.3700e-003	1.7000e-004	4.5400e-003	1.2000e-003	1.7000e-004	1.3600e-003		21.6244	21.6244	8.4000e-004		21.6454
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	0.0669	0.0486	0.5198	1.2100e-003	0.1232	1.0400e-003	0.1243	0.0327	9.6000e-004	0.0336		120.0400	120.0400	4.3500e-003		120.1487
Total	**0.0689**	**0.1143**	**0.5347**	**1.4200e-003**	**0.1276**	**1.2100e-003**	**0.1288**	**0.0339**	**1.1300e-003**	**0.0350**		**141.6644**	**141.6644**	**5.1900e-003**		**141.7941**

3.3 Site Preparation - 2020

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0803	0.0583	0.6238	1.4500e-003	0.1479	1.2400e-003	0.1491	0.0392	1.1500e-003	0.0404		144.0480	144.0480	5.2200e-003		144.1784
Total	**0.0803**	**0.0583**	**0.6238**	**1.4500e-003**	**0.1479**	**1.2400e-003**	**0.1491**	**0.0392**	**1.1500e-003**	**0.0404**		**144.0480**	**144.0480**	**5.2200e-003**		**144.1784**

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**8.1298**	**2.1974**	**10.3272**	**4.4688**	**2.0216**	**6.4904**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	0.0803	0.0583	0.6238	1.4500e-003	0.1479	1.2400e-003	0.1491	0.0392	1.1500e-003	0.0404		144.0480	144.0480	5.2200e-003		144.1784
Total	**0.0803**	**0.0583**	**0.6238**	**1.4500e-003**	**0.1479**	**1.2400e-003**	**0.1491**	**0.0392**	**1.1500e-003**	**0.0404**		**144.0480**	**144.0480**	**5.2200e-003**		**144.1784**

3.4 Grading - 2020

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**8.6733**	**2.1739**	**10.8472**	**3.5965**	**2.0000**	**5.5965**		**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.0892	0.0647	0.6931	1.6100e-003	0.1643	1.3800e-003	0.1657	0.0436	1.2700e-003	0.0449		160.0533	160.0533	5.8000e-003		160.1983
Total	**0.0892**	**0.0647**	**0.6931**	**1.6100e-003**	**0.1643**	**1.3800e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**160.0533**	**160.0533**	**5.8000e-003**		**160.1983**

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	**4.4501**	**50.1975**	**31.9583**	**0.0620**	**3.9030**	**2.1739**	**6.0769**	**1.6184**	**2.0000**	**3.6184**	**0.0000**	**6,005.8653**	**6,005.8653**	**1.9424**		**6,054.4257**

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	0.0892	0.0647	0.6931	1.6100e-003	0.1643	1.3800e-003	0.1657	0.0436	1.2700e-003	0.0449		160.0533	160.0533	5.8000e-003		160.1983
Total	**0.0892**	**0.0647**	**0.6931**	**1.6100e-003**	**0.1643**	**1.3800e-003**	**0.1657**	**0.0436**	**1.2700e-003**	**0.0449**		**160.0533**	**160.0533**	**5.8000e-003**		**160.1983**

3.5 Building Construction - 2020

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.2206	6.9361	1.6747	0.0176	0.4062	0.0311	0.4373	0.1169	0.0297	0.1467		1,847.1579	1,847.1579	0.0897		1,849.4012
Worker	1.2083	0.8771	9.3918	0.0218	2.2262	0.0187	2.2449	0.5905	0.0173	0.6078		2,168.7226	2,168.7226	0.0786		2,170.6864
Total	**1.4290**	**7.8132**	**11.0665**	**0.0394**	**2.6324**	**0.0498**	**2.6822**	**0.7074**	**0.0470**	**0.7544**		**4,015.8805**	**4,015.8805**	**0.1683**		**4,020.0876**

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.2206	6.9361	1.6747	0.0176	0.4062	0.0311	0.4373	0.1169	0.0297	0.1467		1,847.1579	1,847.1579	0.0897		1,849.4012
Worker	1.2083	0.8771	9.3918	0.0218	2.2262	0.0187	2.2449	0.5905	0.0173	0.6078		2,168.7226	2,168.7226	0.0786		2,170.6864
Total	**1.4290**	**7.8132**	**11.0665**	**0.0394**	**2.6324**	**0.0498**	**2.6822**	**0.7074**	**0.0470**	**0.7544**		**4,015.8805**	**4,015.8805**	**0.1683**		**4,020.0876**

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**

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	0.1861	6.2769	1.4903	0.0176	0.4062	0.0102	0.4164	0.1169	9.7800e-003	0.1267		1,838.1603	1,838.1603	0.0850		1,840.2846
Worker	1.1323	0.7962	8.7064	0.0213	2.2262	0.0184	2.2446	0.5905	0.0169	0.6074		2,114.7358	2,114.7358	0.0723		2,116.5443
Total	**1.3184**	**7.0731**	**10.1967**	**0.0388**	**2.6324**	**0.0286**	**2.6610**	**0.7074**	**0.0267**	**0.7342**		**3,952.8961**	**3,952.8961**	**0.1573**		**3,956.8289**

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**

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	0.1861	6.2769	1.4903	0.0176	0.4062	0.0102	0.4164	0.1169	9.7800e-003	0.1267		1,838.1603	1,838.1603	0.0850		1,840.2846
Worker	1.1323	0.7962	8.7064	0.0213	2.2262	0.0184	2.2446	0.5905	0.0169	0.6074		2,114.7358	2,114.7358	0.0723		2,116.5443
Total	**1.3184**	**7.0731**	**10.1967**	**0.0388**	**2.6324**	**0.0286**	**2.6610**	**0.7074**	**0.0267**	**0.7342**		**3,952.8961**	**3,952.8961**	**0.1573**		**3,956.8289**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

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	0.1745	5.9437	1.3966	0.0174	0.4062	8.6100e-003	0.4148	0.1169	8.2300e-003	0.1252		1,824.1832	1,824.1832	0.0819		1,826.2294
Worker	1.0625	0.7220	8.0305	0.0205	2.2262	0.0178	2.2440	0.5905	0.0164	0.6069		2,041.6179	2,041.6179	0.0657		2,043.2608
Total	**1.2369**	**6.6658**	**9.4271**	**0.0379**	**2.6324**	**0.0264**	**2.6588**	**0.7074**	**0.0246**	**0.7321**		**3,865.8011**	**3,865.8011**	**0.1476**		**3,869.4902**

Mitigated Construction On-Site

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

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	0.1745	5.9437	1.3966	0.0174	0.4062	8.6100e-003	0.4148	0.1169	8.2300e-003	0.1252		1,824.1832	1,824.1832	0.0819		1,826.2294
Worker	1.0625	0.7220	8.0305	0.0205	2.2262	0.0178	2.2440	0.5905	0.0164	0.6069		2,041.6179	2,041.6179	0.0657		2,043.2608
Total	**1.2369**	**6.6658**	**9.4271**	**0.0379**	**2.6324**	**0.0264**	**2.6588**	**0.7074**	**0.0246**	**0.7321**		**3,865.8011**	**3,865.8011**	**0.1476**		**3,869.4902**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Paving	0.2620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3648**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0400	0.4445	1.1400e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		113.0047	113.0047	3.6400e-003		113.0956
Total	**0.0588**	**0.0400**	**0.4445**	**1.1400e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**113.0047**	**113.0047**	**3.6400e-003**		**113.0956**

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3648**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

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	0.0400	0.4445	1.1400e-003	0.1232	9.9000e-004	0.1242	0.0327	9.1000e-004	0.0336		113.0047	113.0047	3.6400e-003		113.0956
Total	**0.0588**	**0.0400**	**0.4445**	**1.1400e-003**	**0.1232**	**9.9000e-004**	**0.1242**	**0.0327**	**9.1000e-004**	**0.0336**		**113.0047**	**113.0047**	**3.6400e-003**		**113.0956**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**56.5502**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.2117	0.1439	1.6002	4.0900e-003	0.4436	3.5500e-003	0.4472	0.1177	3.2700e-003	0.1209		406.8169	406.8169	0.0131		407.1442
Total	**0.2117**	**0.1439**	**1.6002**	**4.0900e-003**	**0.4436**	**3.5500e-003**	**0.4472**	**0.1177**	**3.2700e-003**	**0.1209**		**406.8169**	**406.8169**	**0.0131**		**407.1442**

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	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**56.5502**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.2117	0.1439	1.6002	4.0900e-003	0.4436	3.5500e-003	0.4472	0.1177	3.2700e-003	0.1209		406.8169	406.8169	0.0131		407.1442
Total	**0.2117**	**0.1439**	**1.6002**	**4.0900e-003**	**0.4436**	**3.5500e-003**	**0.4472**	**0.1177**	**3.2700e-003**	**0.1209**		**406.8169**	**406.8169**	**0.0131**		**407.1442**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**56.5373**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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	0.1992	0.1307	1.4762	3.9400e-003	0.4436	3.4500e-003	0.4471	0.1177	3.1800e-003	0.1208		392.0427	392.0427	0.0119		392.3400
Total	**0.1992**	**0.1307**	**1.4762**	**3.9400e-003**	**0.4436**	**3.4500e-003**	**0.4471**	**0.1177**	**3.1800e-003**	**0.1208**		**392.0427**	**392.0427**	**0.0119**		**392.3400**

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	56.3456					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**56.5373**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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	0.1992	0.1307	1.4762	3.9400e-003	0.4436	3.4500e-003	0.4471	0.1177	3.1800e-003	0.1208		392.0427	392.0427	0.0119		392.3400
Total	**0.1992**	**0.1307**	**1.4762**	**3.9400e-003**	**0.4436**	**3.4500e-003**	**0.4471**	**0.1177**	**3.1800e-003**	**0.1208**		**392.0427**	**392.0427**	**0.0119**		**392.3400**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Category	lb/day										lb/day					
Mitigated	2.4640	11.4714	28.5734	0.1013	8.6821	0.0748	8.7568	2.3240	0.0696	2.3936		10,266.9008	10,266.9008	0.4130		10,277.2259
Unmitigated	2.4640	11.4714	28.5734	0.1013	8.6821	0.0748	8.7568	2.3240	0.0696	2.3936		10,266.9008	10,266.9008	0.4130		10,277.2259

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,436.16	1,380.72	1264.56	3,986,749	3,986,749
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,436.16	1,380.72	1,264.56	3,986,749	3,986,749

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129
Other Non-Asphalt Surfaces	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129
Parking Lot	0.626141	0.036051	0.148950	0.098278	0.015049	0.004778	0.018730	0.038066	0.002273	0.001889	0.007133	0.001532	0.001129

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	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
NaturalGas Unmitigated	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9689.28	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1045**	**0.8929**	**0.3800**	**5.7000e-003**		**0.0722**	**0.0722**		**0.0722**	**0.0722**		**1,139.9158**	**1,139.9158**	**0.0219**	**0.0209**	**1,146.6898**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.68928	0.1045	0.8929	0.3800	5.7000e-003		0.0722	0.0722		0.0722	0.0722		1,139.9158	1,139.9158	0.0219	0.0209	1,146.6898
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1045**	**0.8929**	**0.3800**	**5.7000e-003**		**0.0722**	**0.0722**		**0.0722**	**0.0722**		**1,139.9158**	**1,139.9158**	**0.0219**	**0.0209**	**1,146.6898**

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	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617
Unmitigated	7.3155	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206	0.0000	39.2188	39.2188	0.0377	0.0000	40.1617

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	0.9417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6564	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206		39.2188	39.2188	0.0377		40.1617
Total	**7.3155**	**0.2511**	**21.7856**	**1.1500e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**39.2188**	**39.2188**	**0.0377**	**0.0000**	**40.1617**

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	0.9417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7175					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6564	0.2511	21.7856	1.1500e-003		0.1206	0.1206		0.1206	0.1206		39.2188	39.2188	0.0377		40.1617
Total	**7.3155**	**0.2511**	**21.7856**	**1.1500e-003**		**0.1206**	**0.1206**		**0.1206**	**0.1206**	**0.0000**	**39.2188**	**39.2188**	**0.0377**	**0.0000**	**40.1617**

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