



Roquet Ranch Specific Plan

AIR QUALITY IMPACT ANALYSIS

CITY OF COLTON

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SEPTEMBER 7, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg/m ³	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACM	Best Available Control Measures
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
Pb	Lead
PM ₁₀	Particulate Matter 10 microns in diameter or less
PM _{2.5}	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Roquet Ranch Specific Plan
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
TIA	Traffic Impact Analysis

TOG	Total Organic Gases
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VPH	Vehicles Per Hour

EXECUTIVE SUMMARY

ES-1 CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project has the potential to exceed the numerical thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for emissions of Oxides of Nitrogen (NO_x). Mitigation measure (MM) AQ-1 is recommended to reduce the impacts to less than significant levels. After implementation of the applicable MM, construction activity emissions will not exceed the numerical thresholds established by the SCAQMD for any criteria pollutants. Thus, a less than significant impact will occur.

LOCALIZED IMPACTS

Prior to implementation of MMs, emissions during construction activity have the potential to exceed the SCAQMD's localized significance threshold for particulate matter ≤ 10 microns (PM₁₀). After implementation of applicable MMs, emissions during construction activity will not exceed any of the SCAQMD's localized significance thresholds. Therefore, a less than significant impact would occur.

Project construction-source emissions would not conflict with the applicable Air Quality Management District (AQMP).

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

ES-2 OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOCs and NO_x. Implementation of Project design features would reduce VOCs emissions to less than significant levels, but would not substantially reduce NO_x emissions to less than significant levels. No feasible mitigation measures exist that would reduce NO_x emissions to levels that are less-than-significant. Project operational-source NO_x emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO “hotspot” as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8, thus a less than significant impact to sensitive receptors during operational activity is expected.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous residential refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1) . Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the Roquet Ranch Specific Plan (referred to as “Project”).

The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project, and recommend measures to mitigate impacts considered potentially significant in comparison to established regulatory thresholds.

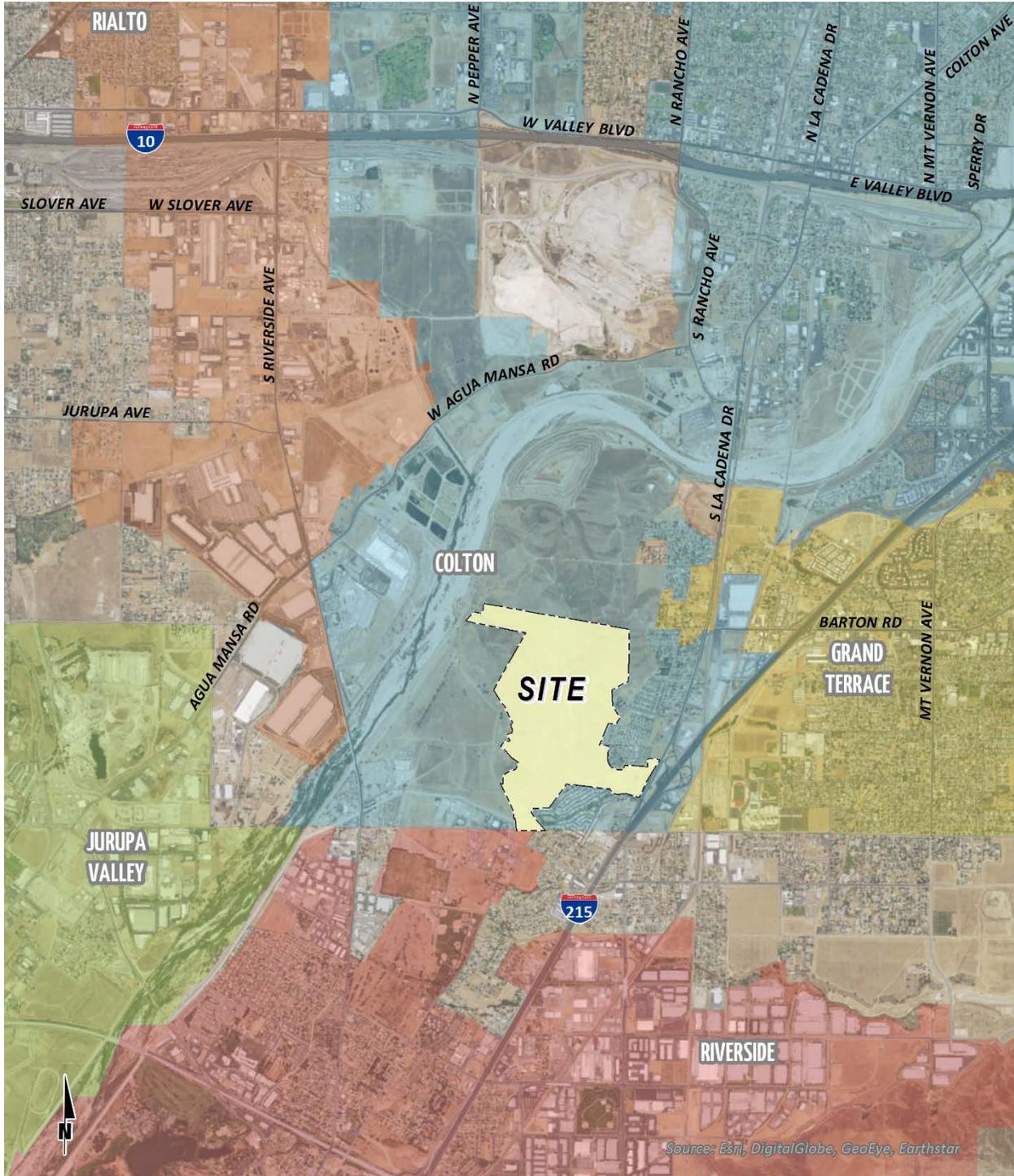
1.1 SITE LOCATION

The proposed Roquet Ranch Specific Plan Project is located west of La Cadena Drive and north of the future Pellissier Road in the City of Colton, as shown on Exhibit 1-A. Interstate 215 (I-215) is located roughly 300 feet east of the Project site. The existing surrounding land uses include open space to the north; residential and commercial to the east; residential, commercial, and industrial to the south; and vacant land to the west. The nearest airport to the proposed Project site is Flabob Airport, located approximately four miles southwest of the site.

1.2 PROJECT DESCRIPTION

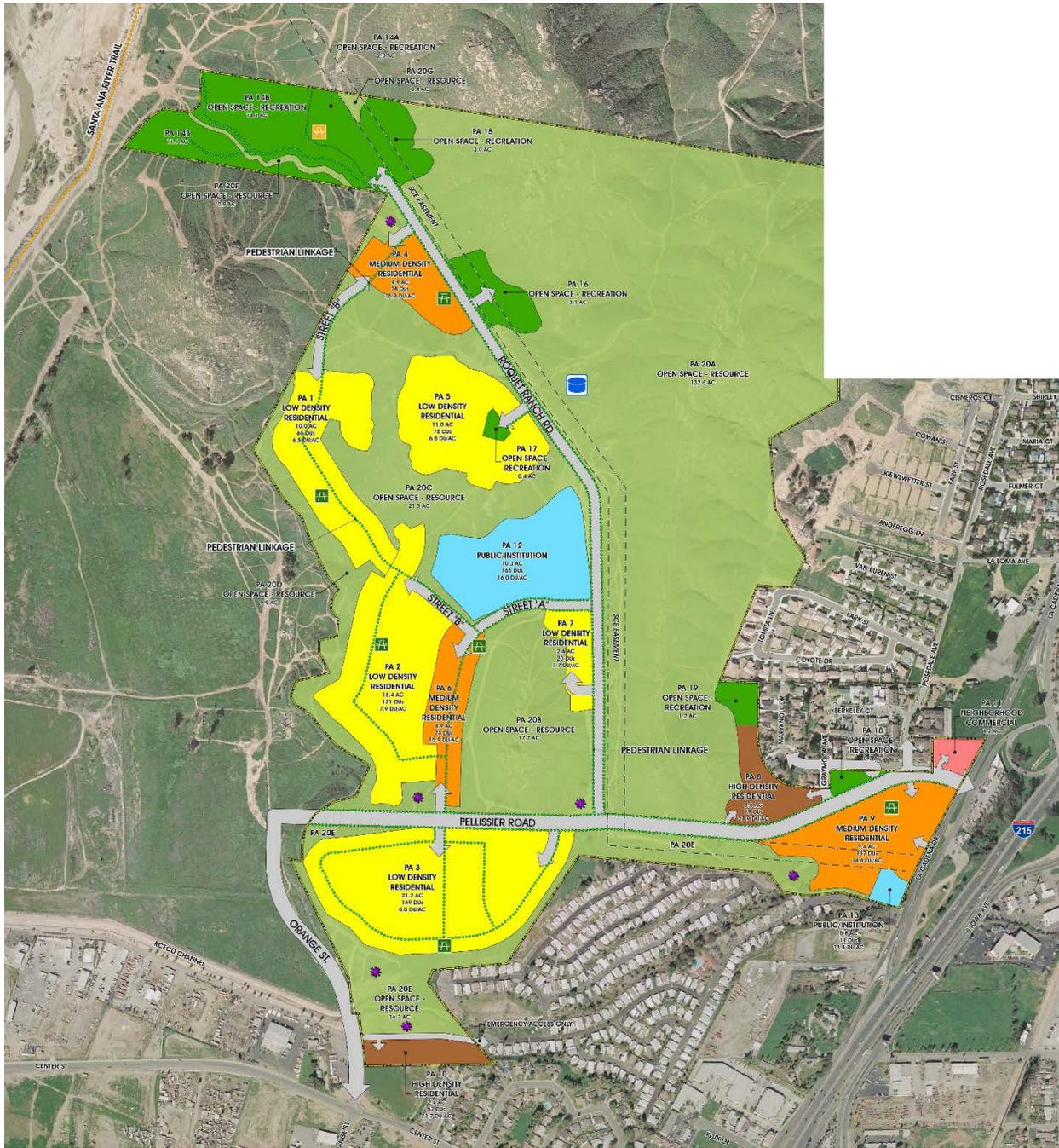
The Project is proposed to consist of 754 single-family residential units, 244 condo/townhomes, 52 active adult attached units, 6,500 square feet of commercial retail use, a 1,500 square foot coffee shop with drive-thru window, a 4,000 square foot fast-food restaurant with drive-thru window, an 11.1-acre community park, and 8.4 acres of passive parks, as shown on Exhibit 1-B. Planning Area 12 and Planning Area 13 both include public/institution uses, however, alternatives for both planning areas include medium density residential land use. The anticipated Opening Year for the proposed Project is 2020.

EXHIBIT 1-A: LOCATION MAP



LEGEND:

EXHIBIT 1-B: SITE PLAN



1.3 PROJECT DESIGN FEATURES

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project would comply with the California Green Building Standards Code (CALGreen; CCR, Title 24, Part 11) as implemented by the City of Colton. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability. Because these features/attributes are integral to the Project, and/or are regulatory requirements, they are not considered to be mitigation measures.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:
 - Pedestrian connections would be constructed along the Project’s Pellissier Road, Roquet Ranch Road, and selected roads within the Project, providing pedestrian access to the various uses and activity centers within the Project. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.
 - Concentration of mixed uses within the Specific Plan as proposed by the Project acts to reduce travel distances and regional vehicle miles traveled (VMT) by consolidating trips and reducing requirements for multiple trips.
- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in outdoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy). Development proposals within the Project site would also be required to implement the following:
 - Landscaping palette emphasizing drought-tolerant plants consistent with provisions of the City of Colton requirements;
 - Use of water-efficient irrigation techniques consistent with City of Colton requirements;
 - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.
- The Project in total would surpass by a minimum of 15%, 2013 Title 24 performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).
- The Project shall install high efficiency lighting that results in a minimum of 15% lighting energy reduction compared to the 2013 Title 24 Energy Efficiency Standards.
- Consistent to Section 15.58 of the City’s Municipal Code, the Project shall incorporate recycling services to meet the City’s minimum 50% waste diversion goal.

1.4 CONSTRUCTION-SOURCE MITIGATION MEASURES

MM AQ-1

The contractor shall ensure that all equipment greater than 150 horsepower shall be California Air Resources Board (CARB) Tier 3 Certified or better.

1.5 OPERATIONAL-SOURCE MITIGATION MEASURES

No feasible mitigation measures exist that would substantively reduce operational-source air quality impacts to less than significant levels. Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 92 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). The Project includes applicable project design features (shown previously in Section 1.3) that would reduce NOx emissions as a result of pedestrian connectivity and a mixed-use design. Besides the applicable project design features, neither the Project Applicant nor the City has any regulatory control over these mobile-source emissions. Rather, mobile-source source emissions are regulated by CARB and USEPA. Therefore, no operational-source mitigation measures are identified.

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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (2). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As discussed above, the Project site is located within the South Coast Air Basin, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The larger South Coast district boundary includes 10,743 square miles.

The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bound by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bound by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NOX and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 2-1 (3).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O₃, CO, SO₂, NO₂, PM₁₀, and PM_{2.5} are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O₃, PM₁₀, PM_{2.5}, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O₃ standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

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
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		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/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration 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 which can be shown to the satisfaction of the ARB 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 U.S. 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 U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu\text{g}/\text{m}^3$ to 12.0 $\mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu\text{g}/\text{m}^3$, as was the annual secondary standard of 15 $\mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu\text{g}/\text{m}^3$ 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 national 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 parts per billion (ppb). California standards are in units of parts per million (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 SO₂ 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 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated 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 parts per billion (ppb). California standards are in units of parts per million (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. The ARB 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 $\mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile 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.

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2013, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM10, and PM2.5 at most monitoring locations (4). No areas of the SCAB exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. See Table 2-2, for attainment designations for the SCAB (5). Appendix 3.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN (SCAB)

Criteria Pollutant	State Designation	Federal Designation
Ozone – 1 hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead ¹	Attainment	Attainment

Source: State/Federal designations were taken from <http://www.arb.ca.gov/degis/adm/adm.htm>

Note: See Appendix 3.1 for a detailed map of State/National Area Designations within the South Coast Air Basin

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O₃), Carbon Monoxide (CO), and Nitrogen Dioxide (NO₂), Inhalable Particulates (PM₁₀), and Ultra-Fine Particulates (PM_{2.5}) is the South Coast Air Quality Management District Central San Bernardino Valley 2 monitoring station, located approximately 6.0 miles northeast of the Project site in San Bernardino (SRA 34).

The most recent three (3) years of data available is shown on Table 2-3, and identifies the number of days ambient air quality standards were exceeded for the study area, which is was considered to be representative of the local air quality at the Project site (6). Additionally, data for SO₂ has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO₂ concentrations.

¹ The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2013-2015

POLLUTANT	STANDARD	YEAR		
		2013	2014	2015
Ozone (O ₃)				
Maximum 1-Hour Concentration (ppm)		0.139	0.121	0.134
Maximum 8-Hour Concentration (ppm)		0.112	0.099	0.117
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	22	38	52
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	53	76	79
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	2	0	6
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	36	51	57
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	4.0	--
Maximum 8-Hour Concentration (ppm)		1.7	2.4	--
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	--
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	--
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	--
Nitrogen Dioxide (NO ₂)				
Maximum 1-Hour Concentration (ppm)		0.072	.073	.071
Annual Arithmetic Mean Concentration (ppm)		0.018	0.018	0.015
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM ₁₀)				
Maximum 24-Hour Concentration (µg/m ³)		177.3	157.2	187.0
Number of Samples		60	60	--
Number of Samples Exceeding State Standard	> 50 µg/m ³	2	2	3
Number of Samples Exceeding Federal Standard	> 150 µg/m ³	1	1	1
Particulate Matter ≤ 2.5 Microns (PM _{2.5})				
Maximum 24-Hour Concentration (µg/m ³)		55.3	32.2	53.5
Annual Arithmetic Mean (µg/m ³)		11.4	--	10.7
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m ³	1	0	2

-- = data not available from SCAQMD or ARB

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and effects are identified below:

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Sulfur Dioxide (SO₂): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms sulfates (SO₄). Collectively, these pollutants are referred to as sulfur oxides (SO_x).
- Nitrogen Oxides (Oxides of Nitrogen, or NO_x): Nitrogen oxides (NO_x) consist of nitric oxide (NO), nitrogen dioxide (NO₂) and nitrous oxide (N₂O) and are formed when nitrogen (N₂) combines with oxygen (O₂). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO₂ is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO₂ is the most abundant in the atmosphere. As ambient concentrations of NO₂ are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO₂ than those indicated by regional monitors.
- Ozone (O₃): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM₁₀ (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM₁₀ also causes visibility reduction and is a criteria air pollutant.
- PM_{2.5} (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO₂ release from power plants and industrial facilities and nitrates that are formed from NO_x release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM_{2.5} is a criteria air pollutant.
- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have

different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

- **Reactive Organic Gases (ROG):** Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROG's are a criteria pollutant since they are a precursor to O₃, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.
- **Lead (Pb):** Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to

form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM2.5 concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM10 and PM2.5.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO₂ at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO₂ in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO₂ considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO₂.

Sulfur Dioxide

A few minutes of exposure to low levels of SO₂ can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air

flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO₂. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO₂.

Animal studies suggest that despite SO₂ being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO₂ levels. In these studies, efforts to separate the effects of SO₂ from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The U.S. EPA is responsible for setting and enforcing the NAAQS for O₃, CO, NO_x, SO₂, PM₁₀, PM_{2.5}, and lead (3). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources

outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (7). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O₃, NO₂, SO₂, PM₁₀, CO, PM_{2.5}, and lead. The NAAQS were amended in July 1997 to include an additional standard for O₃ and to adopt a NAAQS for PM_{2.5}. Table 2-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NO_x). NO_x is a collective term that includes all forms of nitrogen oxides (NO, NO₂, NO₃) which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (8) (3).

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROG, NO_x, CO and PM₁₀. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2.7.3 AIR QUALITY MANAGEMENT PLANNING

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (9). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.9.

2.8 EXISTING PROJECT SITE AIR QUALITY CONDITIONS

Existing air quality conditions at the Project site would generally reflect ambient monitored conditions as presented previously at Table 2-3.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the SCAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (10):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized at Table 3-1 (29). The SCAQMD’s CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY EMISSIONS THRESHOLDS (1 OF 2)

Pollutant	Construction	Operations
Regional Thresholds		
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

TABLE 3-1: MAXIMUM DAILY EMISSIONS THRESHOLDS (2 OF 2)

Pollutant	Construction	Operations
Localized Thresholds		
CO (1-Hour)	20.0 ppm	20.0 ppm
CO (8-Hour)	9.0 ppm	9.0 ppm
NO2	0.18 ppm	0.18 ppm
PM10	10.4 µg/m3	2.5 µg/m3
PM2.5	10.4 µg/m3	2.5 µg/m3

3.3 PROJECT-RELATED SOURCES OF POTENTIAL IMPACT

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM₁₀, PM_{2.5}, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (17). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.2.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of CO, VOCs, NO_x, SO_x, PM10, and PM2.5.

Construction related emissions are expected from the following construction activities:

- Rough & Fine Grading
- Underground Infrastructure (Trenching)
- Building Construction
- Architectural Coating
- Paving
- Construction Workers Commuting

Construction is expected to commence in October 2017 and will last through December 2020. Construction duration by phase is shown on Table 3-2. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the

analysis year increases due to emission regulations becoming more stringent.² The duration of construction activity and associated equipment were based on CalEEMod model defaults and prior Project assumptions. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific project needs at the time of construction. The construction equipment assumptions by phase is provided at Table 3-3.

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. It is our understanding the Project will not require demolition. Based on consultation with the client, the Project site is expected to balance (will not require import/export of soil).

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information CalEEMod model defaults.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Rough Grading	10/01/2017	02/16/2018	100
Underground Infrastructure	02/17/2018	04/06/2018	35
Building Construction	04/07/2018	12/07/2018	175
Architectural Coating	05/26/2018	12/07/2018	140
Paving	12/08/2018	12/28/2018	15
Fine Grading	12/29/2018	03/08/2019	50
Underground Infrastructure	03/09/2019	05/10/2019	45
Building Construction	05/11/2019	11/20/2020	400
Architectural Coating	02/15/2020	11/20/2020	200
Paving	11/21/2020	12/11/2020	15

² As shown in the California Emissions Estimator Model (CalEEMod) User’s Guide Version 2013.2, Table 3.4 “OFFROAD Equipment Emission Factors” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity	Equipment	Number	Hours Per Day
Rough Grading	Excavators	1	8
	Graders	1	8
	Water Trucks	2	8
	Rubber Tired Dozers	3	8
	Scrapers	6	1
	Tractors/Loaders/Backhoes	1	8
Underground Infrastructure	Excavators	2	8
	Other Construction Equipment	1	8
	Tractors/Loaders/Backhoes	1	8
Building Construction	Cranes	2	8
	Forklifts	6	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	6	8
	Welders	2	8
Architectural Coating	Air Compressors	1	8
Paving	Paving Equipment	2	8
	Pavers	2	8
	Rollers	2	8
Fine Grading	Excavators	1	8
	Graders	1	8
	Water Trucks	2	8
	Rubber Tired Dozers	3	8
	Scrapers	6	1
	Tractors/Loaders/Backhoes	1	8
Underground Infrastructure	Excavators	2	8
	Other Construction Equipment	1	8
	Tractors/Loaders/Backhoes	1	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8

Activity	Equipment	Number	Hours Per Day
Architectural Coating	Air Compressors	1	8
Paving	Paving Equipment	2	8
	Pavers	2	8
	Rollers	2	8

3.4.1 CONSTRUCTION EMISSIONS SUMMARY

Impacts without Mitigation

SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1403 (Asbestos); Rule 1113 (Architectural Coatings) (12); Rule 431.2 (Low Sulfur Fuel) (13); Rule 403 (Fugitive Dust) (14); and Rule 1186 / 1186.1 (Street Sweepers) (15). It should be noted that Best Available Control Measures (BACMs) are not mitigation as they are standard regulatory requirements. As such, credit for Rule 403 and Rule 1113 have been taken.

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-4. Detailed construction model outputs are presented in Appendix 3.2. Under the assumed scenarios, emissions resulting from Project construction activity will exceed criteria pollutant thresholds established by the SCAQMD for emissions of NOx.

TABLE 3-4: EMISSIONS SUMMARY OF OVERALL CONSTRUCTION (WITHOUT MITIGATION)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2017	14.52	168.92	109.67	0.15	17.49	11.05
2018	72.54	144.62	155.13	0.35	22.53	9.97
2019	11.77	132.12	112.78	0.28	17.78	9.44
2020	50.36	51.54	115.97	0.30	20.41	6.72
Maximum Daily Emissions	72.54	168.92	155.13	0.35	22.53	11.05
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

Impacts with Mitigation

The estimated maximum daily construction emissions with mitigation are summarized on Table 3-5. Detailed construction model outputs are presented in Appendix 3.2. Mitigation measure MM AQ-1 is recommended to reduce the severity of the impact. After implementation of the recommended mitigation measures, construction activity emissions will not exceed the numerical thresholds established by the SCAQMD for any criteria pollutants. Thus a less than significant impact would occur with implementation of MM AQ-1.

TABLE 3-5: EMISSIONS SUMMARY OF OVERALL CONSTRUCTION (WITH MITIGATION)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2017	4.78	78.17	83.79	0.15	13.40	7.48
2018	71.70	83.26	156.20	0.35	22.15	8.38
2019	8.56	75.36	113.55	0.28	17.63	7.31
2020	50.06	49.83	121.56	0.32	20.29	6.62
Maximum Daily Emissions	71.70	83.26	156.20	0.35	22.15	8.38
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of ROG, NOx, CO, SOx, PM10, and PM2.5. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants.

It should be noted that consumer product emissions were calculated separately from the CalEEMod model runs. When calculating consumer products emissions, the CalEEMod model takes credit for all of the land uses reflected in the model, such as parking lots and paved surfaces, rather than more appropriately taking credit for just the Project’s total building square footage. Using the model defaults would greatly overstate the total amount of consumer product-related emissions.

Therefore, emissions associated with use of consumer products were calculated based on the Project's total building square footage and the consumer products-related source data located in the *CalEEMod Appendix E: Technical Source Documentation*; The Project's total building square footage was multiplied with the appropriate percentage of 2003 Land Use Total over the Grand Total: 20.304% for residential, 19.162% for commercial, and 2.834% for industrial and the SCAQMD emissions factor of the *Tech Source Documentation*: 1.98E-05 lbs./building sq. ft..

Hearths/Fireplaces

The emissions associated with use of hearths/fireplaces were calculated based on assumptions provided in the CalEEMod model. The Project is required to comply with SCAQMD Rule 445, which prohibits the use of wood burning stoves and fireplaces in new development. In order to account for the requirements of this Rule, the unmitigated CalEEMod model estimates were adjusted to remove wood burning stoves and fireplaces. As the project is required to comply with SCAQMD Rule 445, the removal of wood burning stoves and fireplaces is not considered "mitigation" although it must be identified as such in CalEEMod in order to treat the case appropriately.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project operational (vehicular) impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Roquet Ranch Specific Plan Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis. (16)

3.5.4 OPERATIONAL EMISSIONS SUMMARY

Impacts without Product Design Features and Mitigation

The estimated operational-source emissions without project design features and mitigation are summarized on Tables 3-6. Detailed operation model outputs are presented in Appendix 3.2. Project operational-source emissions would exceed the SCAQMD regional thresholds of significance for emissions of VOCs and NOx.

TABLE 3-6: SUMMARY OF PEAK OPERATIONAL EMISSIONS (WITHOUT PROJECT DESIGN FEATURES AND MITIGATION)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	17.81	1.01	87.04	0.00	1.89	1.87
Energy Source	0.92	7.86	3.51	0.05	0.63	0.63
Mobile	36.60	98.41	395.03	1.14	75.66	21.24
Total Maximum Daily Emissions	55.33	107.28	485.58	1.19	78.18	23.74
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	YES	YES	NO	NO	NO	NO

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	17.81	1.01	87.04	0.00	1.89	1.87
Energy Source	0.92	7.86	3.51	0.05	0.63	0.63
Mobile	35.41	102.57	374.41	1.06	75.66	21.25
Total Maximum Daily Emissions	54.14	111.44	464.96	1.11	78.18	23.75
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

Impacts with Project Design Features and Mitigation

The estimated operational-source emissions with Project design features are summarized on Tables 3-7. Detailed operation model outputs are presented in Appendix 3.2. Project operational-source emissions would exceed the SCAQMD regional thresholds of significance for emissions of VOCs and NOx. Implementation of Project design features would reduce VOCs emissions to less than significant levels, but would not substantially reduce NOx emissions to less than significant levels. No feasible mitigation measures exist that would reduce NOx emissions to levels that are less-than-significant. Project operational-source NOx emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

TABLE 3-7: SUMMARY OF PEAK OPERATIONAL EMISSIONS (WITH PROJECT DESIGN FEATURES AND MITIGATION)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
Area Source	17.81	1.01	87.04	0.00	1.89	1.87
Energy Source	0.80	6.92	3.10	0.04	0.56	0.56
Mobile	35.87	92.84	375.06	1.06	70.44	19.78
Total Maximum Daily Emissions	54.48	100.77	465.20	1.10	72.89	22.21
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
Area Source	17.81	1.01	87.04	0.00	1.89	1.87
Energy Source	0.81	6.92	3.10	0.04	0.56	0.56
Mobile	34.72	96.71	357.64	0.99	70.45	19.79
Total Maximum Daily Emissions	53.34	104.64	447.78	1.03	72.90	22.22
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

3.5.5 POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY

Based on the assumed buildout and phasing of the proposed Project, there is potential for overlap between construction and operational activity. For informational purposes only, the total unmitigated and mitigated emissions of the overlapping construction and operational activity are shown in Tables 3-8 and 3-9, respectively.

TABLE 3-8: POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY (WITHOUT PROJECT DESIGN FEATURES AND MITIGATION) (1 OF 2)

Summer Scenario- Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
Construction Peak Emissions	72.54	168.92	155.13	0.35	22.53	11.05
Operational Total Emissions	55.33	107.28	485.58	1.19	78.18	23.74
Total Maximum Daily Emissions	127.87	276.20	640.71	1.54	100.71	34.79

TABLE 3-8: POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY (WITHOUT PROJECT DESIGN FEATURES AND MITIGATION) (2 OF 2)

Winter Scenario- Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction Peak Emissions	72.54	168.92	155.13	0.35	22.53	11.05
Operational Total Emissions	54.14	111.44	464.96	1.11	78.18	23.75
Total Maximum Daily Emissions	126.68	280.36	620.09	1.46	100.71	34.80

TABLE 3-9: POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY (WITH PROJECT DESIGN FEATURES AND MITIGATION) (1 OF 2)

Summer Scenario- Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction Peak Emissions	71.70	83.26	156.20	0.35	22.15	8.38
Operational Total Emissions	54.48	100.77	465.20	1.10	72.89	22.21
Total Maximum Daily Emissions	126.18	184.03	621.40	1.45	95.04	30.59

TABLE 3-9: POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY (WITH PROJECT DESIGN FEATURES AND MITIGATION) (2 OF 2)

Winter Scenario- Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction Peak Emissions	71.70	79.15	147.96	0.32	21.07	7.54
Operational Total Emissions	53.34	104.64	447.78	1.03	72.90	22.22
Total Maximum Daily Emissions	125.04	183.79	595.74	1.35	93.97	29.76

3.6 LOCALIZED SIGNIFICANCE - CONSTRUCTION ACTIVITY

BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLD (LST) DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (19). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO₂, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM₁₀ and PM_{2.5}; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (17).

APPLICABILITY OF LSTs FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST is the San Bernardino Valley 2 monitoring station (SRA 34). LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter ≤ 10 microns (PM₁₀), and particulate matter ≤ 2.5 microns (PM_{2.5}). The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- The CalEEMod model is utilized to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (21) is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact (the SCAQMD recommends that Projects exceeding the screening look-up tables undergo dispersion modeling to determine actual impacts). The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than five acres per day, then the SCAQMD recommends dispersion modeling to be conducted to determine the actual pollutant concentrations for applicable LSTs in the air. In other words, the maximum daily on-site emissions as calculated in CalEEMod are modeled via air dispersion modeling to calculate the actual concentration in the air (e.g., parts per million or micrograms per cubic meter) in order to determine if any applicable thresholds are exceeded.

EMISSIONS CONSIDERED

SCAQMD's Methodology clearly states that "off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs (18)." Therefore, for purposes of the

construction LST analysis only emissions included in the CalEEMod “on-site” emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

Table 3-10 is used to determine the maximum daily disturbed-acreage for use in determining the applicability of the SCAQMD’s LST look-up tables. Based on Table 3-10, the proposed Project could actively disturb approximately 9 acres per day during the Rough grading and Fine grading phases of construction. As such, the dispersion modeling is used to determine emissions for LSTs.

TABLE 3-10 : MAXIMUM DAILY DISTURBED-ACREAGE

Construction Phase	Equipment Type	Equipment Quantity	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Rough Grading	Rubber Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	2	0.5	8	1
	Graders	1	0.5	8	0.5
	Scrapers	6	1	8	6
Total acres graded per day during Rough Grading					9

Construction Phase	Equipment Type	Equipment Quantity	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Fine Grading	Rubber Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	2	0.5	8	1
	Graders	1	0.5	8	0.5
	Scrapers	6	1	8	6
Total acres graded per day during Fine Grading					9

Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as “sensitive receptors”; they are also known to be locations where an individual can remain for 24 hours.

The nearest sensitive receptor is the residential community located approximately 31 feet/9.45 meters east of the Project site (location R3), as shown on Exhibit 3-A. Notwithstanding, the *Methodology* explicitly states that “It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters (19).” Based on SCAQMD’s Final LST Methodology, a 25-meter receptor distance is

utilized in order to determine the LSTs for emissions of CO, NO₂, PM₁₀, and PM_{2.5}.

EXHIBIT 3-A: SENSITIVE RECEPTOR



LEGEND:

- Project Site Boundaries
- Receptor Locations
- Distance from receptor to Project site boundary (in feet)

DISPERSION MODELING

SCREEN3 (20), is a U.S. EPA approved air quality model that contains algorithms associated with the USEPA's *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources* (21). SCREEN3 was used to calculate localized pollutant concentrations for construction and operational activity. SCREEN3 uses dispersion screening techniques to estimate impacts of point, area, and volume stationary sources. It should be noted that the SCREEN3 model was utilized in lieu of the more robust AERMOD (22) and Industrial Source Complex (ISC) (23) model in order to account for worst-case conditions, and since precise construction phasing information is not available at this time.

For purposes of this analysis, receptors are conservatively assumed to be located at 28 meters/91.9 feet for emissions of CO, PM₁₀, and PM_{2.5}. For emissions of NO₂, discrete receptors were placed at 20, 50, 70, 100, 200, 500, 1000, 2000, 3000, 4000, and 5000 meters from the fence-line of the Project site to account for the change in NO_x to NO₂ conversion as a function of distance.

It should be noted that for PM₁₀ / PM_{2.5}, a discrete receptor was placed at the facility fence-line and the SCAQMD—approved downwind distance equation ($C_x = 0.9403 C_0 e^{-0.0462 X}$) was utilized.

- C_x is the predicted PM₁₀ concentration at X meters from the fence line.
- C₀ is the PM₁₀ concentration at the fence line as estimated by SCREEN3.
- e is the natural logarithm.
- X is the distance in meters from the fence line to the nearest sensitive receptor. (For purposes of this analysis, it is estimated that the nearest sensitive receptor is conservatively located ~82 feet/25 meters from the Project boundary).

For rough grading, an area source encompassing 6.5 acres was modeled, for fine grading, an area source encompassing 6.5 acres was modeled. The urban option of the model was selected, and receptor height was conservatively set at 2.0 meters (consistent with the document [Final Localized Significance Threshold Methodology](#), SCAQMD, June 2003). For PM₁₀ and PM_{2.5} a source release height of 1.0 meters was utilized consistent with SCAQMD methodology. Additionally, for emissions of NO_x and CO released during construction activity, a source release height of 5.0 meters was utilized.

An emissions rate of 1 gram per second was utilized for emissions of CO, PM₁₀, and PM_{2.5} and the output in micrograms per cubic meter (µg/m³) was then multiplied by the emissions rate determined from the CalEEMod model outputs (and averaged over the appropriate time period and disturbance area). For emissions of NO_x, the actual emissions rate (in grams/second/m²) was programmed into the model. A summary of calculations from both the SCREEN3 model output and calculations for the actual concentration for each pollutant are available for review in Appendix 3.3.

LOCALIZED THRESHOLDS

The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the Federal and/or State Ambient Air Quality Standards (24).

Applicable localized thresholds are as follows:

- California State 1-hour CO standard of 20.0 ppm;
- California State 8-hour CO standard of 9.0 ppm;
- California State 1-hour NO₂ standard of 0.18 ppm;
- SCAQMD 24-hour construction PM₁₀ LST of 10.4 µg/m³;
- SCAQMD 24-hour construction PM_{2.5} LST of 10.4 µg/m³.

Impacts without Mitigation

Without mitigation measures, emissions during roughing grading and fine grading activity will slightly exceed the SCAQMD’s localized significance thresholds for emissions of PM₁₀ only. Table 3-11 and 3-12 identifies the unmitigated localized impacts at the nearest receptor location in the vicinity of the Project.

TABLE 3-11: LST SUMMARY (ROUGH GRADING WITHOUT MITIGATION)

Grading-Mass Excavation	CO		NO ₂	PM ₁₀	PM _{2.5}
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	0.43	0.31	0.0232	11.9	6.25
Background Concentration ^A	2.0	1.9	0.06		
Total Concentration	2.43	2.21	0.08	11.9	6.25
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	NO	NO	NO	YES	NO

^A Highest concentration from the last three years of available data
 Note: PM₁₀ and PM_{2.5} concentrations are expressed in µg/m³. All others are expressed in ppm

TABLE 3-12: LST SUMMARY (FINE GRADING WITHOUT MITIGATION)

Grading-Rough-Fine	CO		NO ₂	PM ₁₀	PM _{2.5}
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	0.37	0.27	0.02	11.6	6.33
Background Concentration ^A	2.0	1.9	0.06		
Total Concentration	2.37	2.17	0.08	11.6	6.33
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	NO	NO	NO	YES	NO

^A Highest concentration from the last three years of available data
 Note: PM₁₀ and PM_{2.5} concentrations are expressed in µg/m³. All others are expressed in ppm

Impacts with Mitigation

After the implementation of MM AQ-1, emissions during construction activity will not exceed the SCAQMD’s localized significance threshold for any of the applicable emissions. Table 3-13 and 3-14 identifies the mitigated localized impacts at the nearest receptor location in the vicinity of the Project after implementation of MM AQ-1.

TABLE 3-13: LST SUMMARY (ROUGH GRADING WITH MITIGATION)

Grading-Mass Excavation	CO		NO ₂	PM ₁₀	PM _{2.5}
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	0.34	0.25	0.01	4.56	2.44
Background Concentration ^A	2.0	1.9	0.06		
Total Concentration	2.34	2.15	0.07	4.56	2.44
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	NO	NO	NO	NO	NO

^AHighest concentration from the last three years of available data
 Note: PM₁₀ and PM_{2.5} concentrations are expressed in µg/m³. All others are expressed in ppm

TABLE 3-14: LST SUMMARY (FINE GRADING WITH MITIGATION)

Grading-Rough/Fine	CO		NO ₂	PM ₁₀	PM _{2.5}
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	0.31	0.23	0.01	1.72	0.96
Background Concentration ^A	2.0	1.9	0.06		
Total Concentration	2.31	2.13	0.07	1.72	0.96
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	NO	NO	NO	NO	NO

^AHighest concentration from the last three years of available data
 Note: PM₁₀ and PM_{2.5} concentrations are expressed in µg/m³. All others are expressed in ppm

3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

The Project is proposed to consist of 754 single-family residential units, 244 condo/townhomes, 52 active adult attached units, 6,500 square feet of commercial retail use, a 1,500 square foot coffee shop with drive-through window, a 4,000 square foot fast-food restaurant with drive-through window, an 11.1-acre community park, and 8.4 acres of passive parks. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed.

3.8 CO “HOT SPOT” ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or “hot spots.” Further, detailed modeling of Project-specific carbon monoxide (CO) “hot spots” is not needed to reach this conclusion.

An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO (25).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, as previously noted in Table 2-2. Also, CO concentrations in the Project vicinity have steadily declined, as indicated by historical emissions data presented previously at Table 2-3.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards, as shown on Table 3-15.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 9.3 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the “hot spot” analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (25). In contrast, the ambient 8-hr CO concentration within the Project study area is estimated at 1.4 ppm—1.6 ppm (please refer to previous Table 2-3). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO “hot spot” at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (26).

Traffic volumes generating the CO concentrations for the “hot spot” analysis, shown on Table 3-16. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).³ At buildout of the Project, the highest average daily trips on a segment of road would be 24,900 daily trips on Barton Rd., west of Michigan Av., which is lower than the highest daily traffic volumes generated at the busiest intersection in the CO “hot spot” analysis (27).

The proposed Project considered herein would not produce the volume of traffic required to generate a CO “hot spot” either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations, as shown on Table 3-17. Therefore, CO “hot spots” are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-15: CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	9.3

Source: 2003 AQMP

Notes: ppm: parts per million. Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

TABLE 3-16: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	560/933	721/1,400	4,954/2,069	1,830/3,317	8,062/7,719
Sunset-Highland	1,551/2,238	2,304/1,832	1,417/1,764	1,342/1,540	6,614/5,374
La Cienega-Century	821/1,674	1,384/2,029	2,540/2,243	1,890/2,728	6,634/8,674
Long Beach-Imperial	756/1,150	479/944	1,217/2,020	1,760/1,400	4,212/5,514

Source: 2003 AQMP

Notes: vph-vehicles per hour

³ Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

TABLE 3-17: PROJECT TRAFFIC PEAK HOURS

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Street "B"/ Pellissier Rd.	0/0	155/109	151/131	125/344	431/584
S. Rosedale Ave./ W. Maryknoll Dr.	56/39	2/2	307/222	132/405	497/668
S. La Cadena Dr./ W. Litton Ave	77/173	91/260	313/213	0/0	481/646
S. La Cadena Dr./ W. Maryknoll Dr.	9/7	168/433	456/289	0/0	633/729

Source: Roquet Ranch Specific Plan Traffic Impact Analysis (2016)

Notes: vph- vehicles per hour

3.9 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012 (28) (9). The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories.

Similar to the 2007 AQMP, the 2012 AQMP was based on assumptions provided by both CARB and SCAG in the latest available EMFAC model for the most recent motor vehicle and demographics information, respectively. The air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the 2012 AQMP has assumed that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its 2012 RTP. The 2012 AQMP also has assumed that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development.

In June 2016, the AQMD released the draft 2016 AQMP for public review. The 2016 draft AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (57). As the draft 2016 AQMP has not been formally adopted by the AQMD, the Project's consistency with the AQMP will be determined using the 2012 AQMP, discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (29). These indicators are discussed below:

- Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Construction Impacts

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized significance thresholds (LSTs) were exceeded. The Project LST analysis demonstrates that after mitigation, Project construction-source emissions would not exceed applicable LSTs. Therefore, the Project would not have the potential to conflict with the AQMP according to this criterion.

Operational Impacts

The Project LST analysis demonstrates that Project operational-source emissions would not exceed applicable LSTs. Therefore, the Project would not have the potential to conflict with the AQMP according to this criterion.

On the basis of the preceding discussion, the Project is consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

Overview

The 2012 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City's General Plan is considered to be consistent with the AQMP.

Construction Impacts

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its

maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

Operational Impacts

The City of Colton designated the Project site as “Low Density Residential (LDR)”, “Medium Density Residential (MDR)”, “High Density Residential (HDR)”, Public/Institution (P-I)”, “Neighborhood Commercial (C-1)”, “Open Space- Resources (OS-RS)”, and “Open Space-Recreation (OS-R)”. According to the City’s General Plan, LDR land uses allow for detached single-family residences within a density range of 2.1 to 8.0 dwelling units per acre. MDR land uses allow for detached single-family residences within a density range of 8.1 to 16.0 dwelling units per acre. HDR land uses accommodate multi-family housing and specialized housing with a density between 16.1 to 22.0 dwelling units per acre. P-I land uses generally allows all major public, quasi-public, and institutional land uses, such as fire stations and public schools. C-1 land uses allow for a variety of retail, office, and service-oriented business activities that serve the local community and has a maximum intensity of 0.5 floor area ratio (FAR). OS-RS land uses applies to open space necessary for the protection and preservation of unique areas such as flood control and wildlife habit conservation. OS-R land uses applies a variety of recreational uses on public lands such as parks and activity fields.

The Project is proposed to consist of 754 single-family residential units, 244 condo/townhomes, 52 active adult attached units, 6,500 square feet of commercial retail use, a 1,500 square foot coffee shop with drive-through window, a 4,000 square foot fast-food restaurant with drive-through window, an 11.1-acre community park, and 8.4 acres of passive parks. The Project is proposing to be approved as a specific plan. The Project’s proposed land use designations do not materially increase the development intensities as reflected in the General Plan. Thus, development proposed by the Project is consistent with the growth projections in the General Plan and is therefore considered to be consistent with the AQMP.

On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project’s proposed land use designation for the subject site would not materially affect the development intensities as reflected in the adopted General Plan. The Project is therefore considered to be consistent with the AQMP.

3.10 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during construction (after mitigation). Therefore, sensitive receptors would not be subject to a significant air quality impact during Project construction.

Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during operational activity. The proposed Project would not result in a CO “hotspot” as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8. Thus a less than significant impact to sensitive receptors during operational activity is expected.

3.11 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project’s (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City’s solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

3.12 CUMULATIVE IMPACTS

The Project area is designated as an extreme non-attainment area for ozone, and a non-attainment area for PM₁₀, PM_{2.5}, and lead.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (30). In this report the AQMD clearly states (Page D-3):

“...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is $HI > 1.0$ while the cumulative (facility-wide) is $HI > 3.0$. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD’s recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. For this Project, a significant, project-specific, and cumulatively considerable impact would occur since the Project’s emissions would exceed the SCAQMD thresholds for on-going operational activity.

CRITERION 1; REGIONAL EMISSIONS ANALYSIS

Construction Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that Project construction-source air pollutant emissions will not result in exceedances of regional thresholds (after mitigation). Therefore, Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operational Impacts

Project operational-source emissions would exceed applicable SCAQMD regional thresholds for emissions of NOx. Therefore, Project operational-source emissions would be considered significant on a project-specific and cumulative basis.

CRITERION 2; LOCAL EMISSIONS ANALYSIS UTILIZING LIST APPROACH

A list approach is used, in accordance with Section 15130(b) of the CEQA Guidelines, which states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby projects. Nevertheless, the potential cumulative impacts from the Project and other projects are discussed below. A cumulative project list was developed for this analysis and is shown in Table 3-16.

Related projects could contribute to an existing or projected air quality exceedance because the Basin is currently nonattainment for ozone, PM10, and PM2.5. With regard to determining the significance of the contribution from the Project, the SCAQMD recommends that any given project’s potential contribution to cumulative impacts should be assessed using the same significance criteria as for project-specific impacts. Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD’s recommended daily thresholds for project-specific impacts would also not cause a commutatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, the Project would exceed the applicable SCAQMD regional threshold for on-going operational activity. As such, the Project will result in a cumulatively significant impact.

TABLE 3-16: CUMULATIVE IMPACTS

#	Project/Location	Land Use	Quantity	Units ¹
CITY OF COLTON				
COL1	CUSM (300 N. Pepper Av.)	Medical College	150	STU
COL2	1601 W. Valley Blvd.	Hotel	NA	RM
		Gas Station	NA	VFP
COL3	1600 Agua Mansa Road	Warehouse	805.500	TSF
COL4	Cal-Med Surgery Center (1281 W. C St.)	Medical Office	NA	TSF
COL5	Valley Orange Ent. (1600 W. Valley Blvd.)	Service Station	8	VFP
COL6	Diesel Injection (1610 Fairway Dr.)	Auto Shop	1.350	TSF
COL7	New Juan Colorado Family Restaurant (195 W. Valley Bl.)	Restaurant	NA	TSF
COL8	1175 S. Mt. Vernon Av.	Commercial	104.000	TSF

#	Project/Location	Land Use	Quantity	Units ¹
COL9	495 W. Valley Bl.	Church	NA	Seats
COL10	Smart & Final Extra (1023 N. Mt. Vernon)	Discount Super Store	27.870	TSF
		Fast Food w/ Drive-Thru	4.400	TSF
COL11	839 Fairway Dr.	Assisted Living and Memory Care Facility	103	Beds
COL12	1601 Fairway Dr.	Industrial	178.980	TSF
COL13	1550 E. Washington St.	Church	120	Seats
COL14	1559 Steel Rd.	Industrial	60.000	TSF
COL15	1603 Steel Rd.	Industrial	159.271	TSF
COL16	785 E. M Street	Metal Building	20.600	TSF
COL17	Colton Iron Metal (790 E. M St.)	Recycling Center	3.630	AC
COL18	644-660 Laurel Lane	SFDR	7	DU
COL19	1200 Jefferson Ln.	Office	NA	TSF
COL20	602 Agua Mansa Rd.	Trucking Facility	19.919	TSF
COL21	1395 Washington St.	Tire Store	NA	TSF
COUNTY OF RIVERSIDE				
RIVCO1	TR28957	Single-Family Residential	36	DU
RIVCO2	TR32989	Single-Family Residential	29	DU
RIVCO3	TR32291	SFDR	69	DU
RIVCO4	CUP03718	Light Industrial	19.988	TSF
RIVCO5	PP24798	Retail	2.400	TSF
		Offices	3.405	TSF
		Laundromat	2.961	TSF
RIVCO6	PP25482	General Office	2.632	TSF
RIVCO7	Truck Sales Facility (PP25505)	Office	1.952	TSF
		Storage	6.000	TSF
RIVCO8	TR36668 (Bixby Highgrove)	Single-Family Residential	201	DU
RIVCO9	Spring Mountain Ranch (SP 323) (PM36448; TR29597; TR29598; TR29600; TR29741; TR30908; TR30909)	Single-Family Residential	1,518	DU
		Elementary School	750	STU
		Day Care Center	4.000	TSF
		Commercial Retail	104.000	TSF
CITY OF GRAND TERRACE				
GT1	SA-14-03	Single-Family Residential	1	DU
GT2	TT18071 (Karger Pico Tract)	Single-Family Residential	18	DU
GT3	SA 13-05	SFDR	1	DU
GT4	Site and Architectural Review 12-04	Townhomes	12	DU
GT5	Grand Terrace Town Square Master Plan	Commercial Retail	209.611	TSF
	SA-07-07	Retail	65.730	TSF

#	Project/Location	Land Use	Quantity	Units ¹
GT6	SA 14-05; SA 14-07	SFDR	1	DU
	SA 14-06	SFDR	1	DU
GT7	Barton Plaza Commercial Center (Phase 2)	Commercial Center	16.251	TSF
GT8	SA 15-01	Commercial	1.800	TSF
GT9	SA 15-06 ACUP15-07 E15-08	Medical Office	2.870	TSF
GT10	SA 15-07 E15-09	Commercial Hair Salon	1.800	TSF
GT11	SA 15-04 E15-07	Office/Shop	8.800	TSF
GT12	SA 15-05; ACUP15-06; V15-02	Office	1.400	TSF
GT13	TTM 15-01; SA 15-03; E15-05	SFDR	12	DU
GT14	SA05-19-A1; E15-06	Condo/Townhomes	35	DU
CITY OF RIALTO				
RIA1	Panattoni I-10 (Cactus Av. & El Rivino Rd.)	Warehouse	2,475.745	TSF
RIA2	CapRock III	Warehouse	582.000	TSF
RIA3	Newmark Merrill Companies	Discount Super Store	198.000	TSF
		Tire Store	9.861	TSF
		Retail	25.436	TSF
		Fast Food w/ Drive-Thru	5.484	TSF
RIA4	Kore Infrastructure	Biosolids Facility	288	TPD
CITY OF RIVERSIDE				
R1	P09-0749	Industrial	54.22	AC
R2	TR34908 (P06-0782)	Single-Family Residential	15	DU
R3	TR33550 (P05-0269; P08-0416)	Single-Family Residential	9	DU
R4	P09-0612	Adult Day Care	39	STU
R5	P11-0329; P11-0330; P11-0332	Metrolink train station and parking lot	600.00	Spaces
R6	P10-0685; P10-0794	Gas Station & Car Wash	16	VFP
R7	P10-0733	Church	598	Seats
R8	P09-0419; P10-0476	Gas Station & Car Wash	16	VFP
R9	P14-0183	Apartments	146	DU
R10	P06-0028; P06-0029; P06-0031	Condos	205	DU
		Hotel	125	DU
		Commercial	31.600	TSF
R11	P09-0835; P10-0002	Office with Parking Structure	132.136	TSF
R12	P10-0454	Public Park	43.64	AC
R13	TR36516 (P12-0799; P12-0800)	Single-Family Residential	7	DU
R14	Jacobs Medical Office (P06-1237)	Medical Office	65.281	TSF
R15	P14-0315; P14-0437	Security Operations Building	3.150	TSF
R16	P10-0212; P10-0213	School Bus Storage Yard	4.38	AC

#	Project/Location	Land Use	Quantity	Units ¹
R17	P13-0650; P13-0651	Bed and Breakfast	3.650	TSF
R18	P14-0132	Metal Processing Facility	30.324	TSF
R19	P09-0530; P09-0531	RTA Bus Storage	2.60	AC
R20	P11-0545	Church	80	Seats
R21	P12-0336	Mixed Use Urban	17.80	AC
R22	P09-0808; P08-0809	Senior Housing	134	Beds
R23	P09-0717; P09-0718	Apartments	55	DU
R24	P07-1161	Health/Fitness Club	5.580	TSF
R25	P13-0087; P13-0262	Senior Adult Housing - Attached	67	DU
R26	P08-0980; P09-0095	Apartments	57	DU
R27	P08-0960; P09-0025	Apartments	53.5	DU
R28	P09-0125	Apartments	11.5	DU
R29	P15-0535	Hotel	239	RM
R30	P15-0653	Townhomes	NA	DU
R31	P15-0812	Residential Condo/Townhouse	61	DU
R32	P16-0011	Health/Fitness Club	18.000	TSF
R33	P15-0877; P16-0067	Hotel	144	RM
R34	P16-0016	Single Family Detached	5	DU
R35	P13-0956; P13;0959; P13-0960; P13-0963; P13-0964 P13-0965; P13-0966	Industrial Park	1,461.449	TSF
R36	P12-0334	Single Family Detached	2.8	AC
R37	P14-0045; P14-0046; P14-0047; P14-0048; P14-0049	Apartments	208	DU
R38	P14-1033; P14-1034	Warehousing	308.000	TSF

¹ DU = Dwelling Units; TSF = Thousand Square Feet; STU = Students; AC = Acres; TPD = Tons Per Day

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4 FINDINGS & CONCLUSIONS

4.1 CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project has the potential to exceed the numerical thresholds of significance established by the SCAQMD for emissions of NO_x. MM AQ-1 is recommended to reduce the impacts to less than significant levels. After implementation of the applicable MM, construction activity emissions will not exceed the numerical thresholds established by the SCAQMD for any criteria pollutants. Thus, a less than significant impact will occur.

LOCALIZED IMPACTS

Prior to implementation of MMs, emissions during construction activity have the potential to exceed the SCAQMD's localized significance threshold for PM₁₀. After implementation of applicable MMs, emissions during construction activity will not exceed any of the SCAQMD's localized significance thresholds. Therefore, a less than significant impact would occur.

Project construction-source emissions would not conflict with the applicable AQMP.

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

4.2 OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOCs and NO_x. Implementation of Project design features would reduce VOCs emissions to less than significant levels, but would not substantially reduce NO_x emissions to less than significant levels. No feasible mitigation measures exist that would reduce NO_x emissions to levels that are less-than-significant. Project operational-source NO_x emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during

ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8, thus a less than significant impact to sensitive receptors during operational activity is expected.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous residential refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

5 REFERENCES

1. **South Coast Air Quality Management District.** RULE 402. Nuisance. [Online] May 7, 1976. [Cited: September 17, 2013.] <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf?sfvrsn=4>.
2. —. Southern California Air Basins. [Online] [Cited: November 13, 2013.] <http://www.aqmd.gov/map/mapaqmd1.pdf>.
3. **Environmental Protection Agency.** National Ambient Air Quality Standards (NAAQS). [Online] 1990. [Cited: September 17, 2014.] <http://www.epa.gov/air/criteria.html>.
4. —. Monitor Values Report. [Online] [Cited: September 17, 2014.] http://www.epa.gov/airdata/ad_rep_mon.html.
5. **Air Resources Board.** Air Quality Standards and Area Designations. [Online] 2013. [Cited: September 17, 2014.] <http://www.arb.ca.gov/desig/desig.htm>.
6. **South Coast Air Quality Management District.** RULE 403. Fugitive Dust. [Online] <http://www.aqmd.gov/rules/reg/reg04/r403.pdf>.
7. **Environmental Protection Agency.** Air Pollution and the Clean Air Act. [Online] [Cited: September 17, 2014.] <http://www.epa.gov/air/caa/>.
8. **Air Resources Board.** California Ambient Air Quality Standards (CAAQS). [Online] 2009. [Cited: September 17, 2014.] <http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>.
9. **South Coast Air Quality Management District.** 2012 Air Quality Management Plan (AQMP). [Online] 2012. [Cited: September 17, 2014.] <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>.
10. **California Environmental Quality Act.** Checklist. [Online] [Cited: September 17, 2014.] http://ceres.ca.gov/ceqa/guidelines/Appendix_G.html.
11. **South Coast Air Quality Management District (SCAQMD).** SCAQMD Air Quality Significance Thresholds. [Online] <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>.
12. **South Coast Air Quality Management District.** RULE 1113. Architectural Coatings. [Online] <http://www.aqmd.gov/rules/reg/reg11/r1113.pdf>.
13. —. RULE 431.2. Sulfur Content of Liquid Fuels. [Online] <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-431-2.pdf?sfvrsn=4>.
14. —. RULE 403. Fugitive Dust. [Online] <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4>.
15. —. RULE 1186. PM10 Emissions From Paved and Unpaved Roads, and Livestock Operations. [Online] <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1186-1-less-polluting-sweepers.pdf?sfvrsn=4>.
16. **Urban Crossroads, LLC.** *Roquet Ranch Traffic Impact Analysis*. Irvine : s.n., 2016.
17. **Lake Environmental.** US EPA Models. *Lake Environmental*. [Online] http://www.weblakes.com/download/us_epa.html.
18. **South Coast Air Quality Management District.** *Localized Significance Thresholds Methodology*. s.l. : South Coast Air Quality Management District, 2003.

19. —. *Localized Significance Thresholds Methodology*. s.l. : South Coast Air Quality Management District, 2008.
20. **Environmental Protection Agency**. *SCREEN3 Model User's Guide*. 1995.
21. —. *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised*. 1992.
22. **United States Environmental Protection Agency**. *AERMOD: Description of Model Formulation*. 2004.
23. —. *User's Guide for the Industrial Source Complex (ISC3) Dispersion Models*. 1995.
24. **South Coast Air Quality Management District**. SCAQMD Air Quality Significance Thresholds. [Online] March 2011. [Cited: December 6, 2013.] <http://aqmd.gov/ceqa/handbook/signthres.pdf>.
25. —. 2003 Air Quality Management Plan. [Online] 2003. <http://www.aqmd.gov/aqmp/aqmd03aqmp.htm>.
26. **Bay Area Air Quality Management District**. [Online] <http://www.baaqmd.gov/>.
27. **Urban Crossroads**. *Roquet Ranch Traffic Impact Analysis*. Irvine : s.n., 2016.
28. **South Coast Air Quality Management District**. 2012 Air Quality Management Plan (AQMP). [Online] 2012. [Cited: November 13, 2013.] <http://www.aqmd.gov/aqmp/2012aqmp/draft/index.html>.
29. **South coast Air Quality Management District**. CEQA Air Quality Handbook (1993). [Online] 1993. [Cited: September 17, 2014.] <http://www.aqmd.gov/ceqa/oldhdbk.html>.
30. **Goss, Tracy A and Kroeger, Amy**. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. [Online] South Coast Air Quality Management District, 2003. http://www.aqmd.gov/rules/ciwg/final_white_paper.pdf.
31. **South Coast Air Quality Management District**. Greenhouse Gases (GHG) CEQA Significance Thresholds. [Online] [Cited: September 17, 2014.] <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds>.

6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Roquet Ranch Specific Plan Project. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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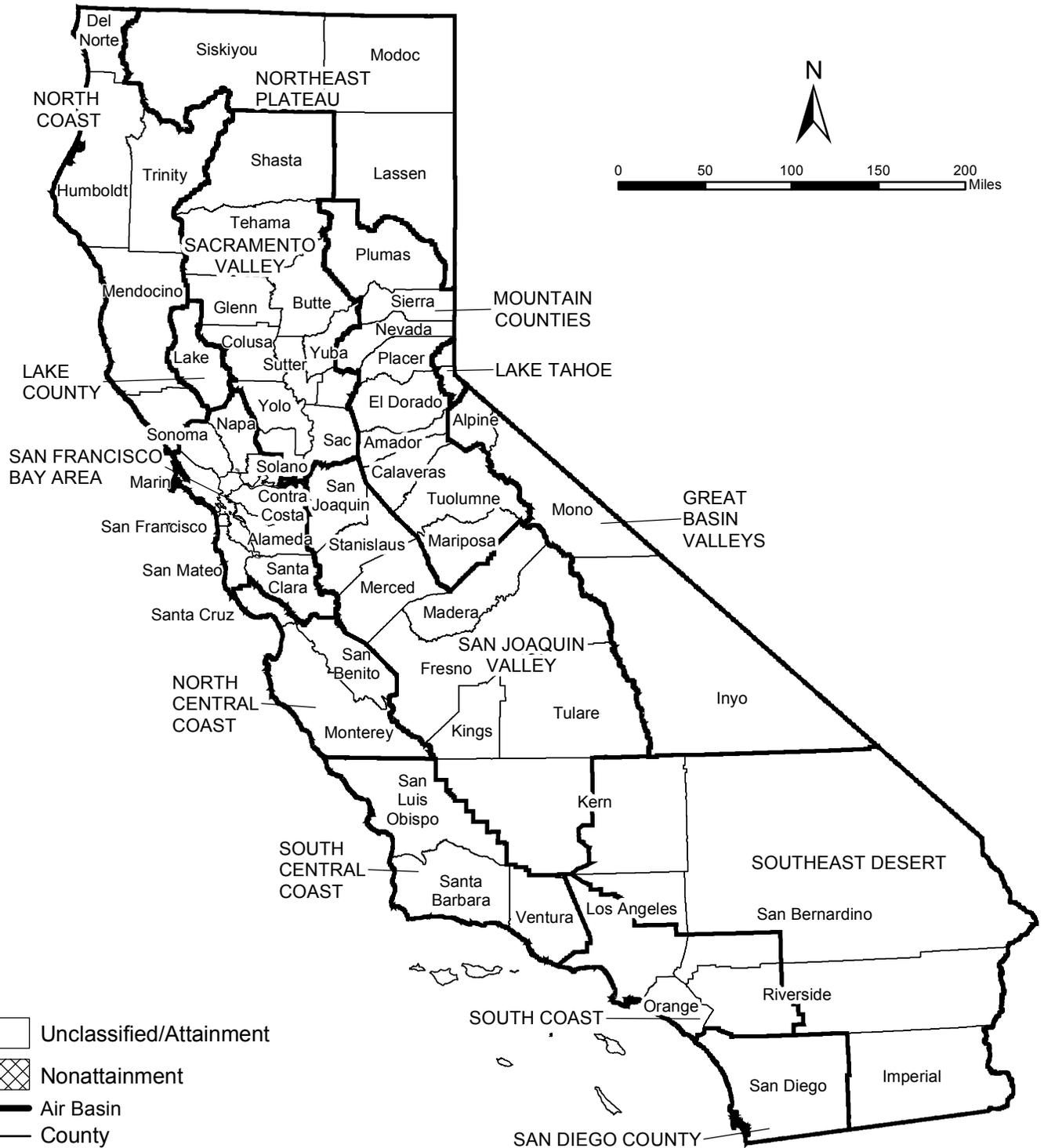
APPENDIX 3.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

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Area Designations for National Ambient Air Quality Standards

CARBON MONOXIDE



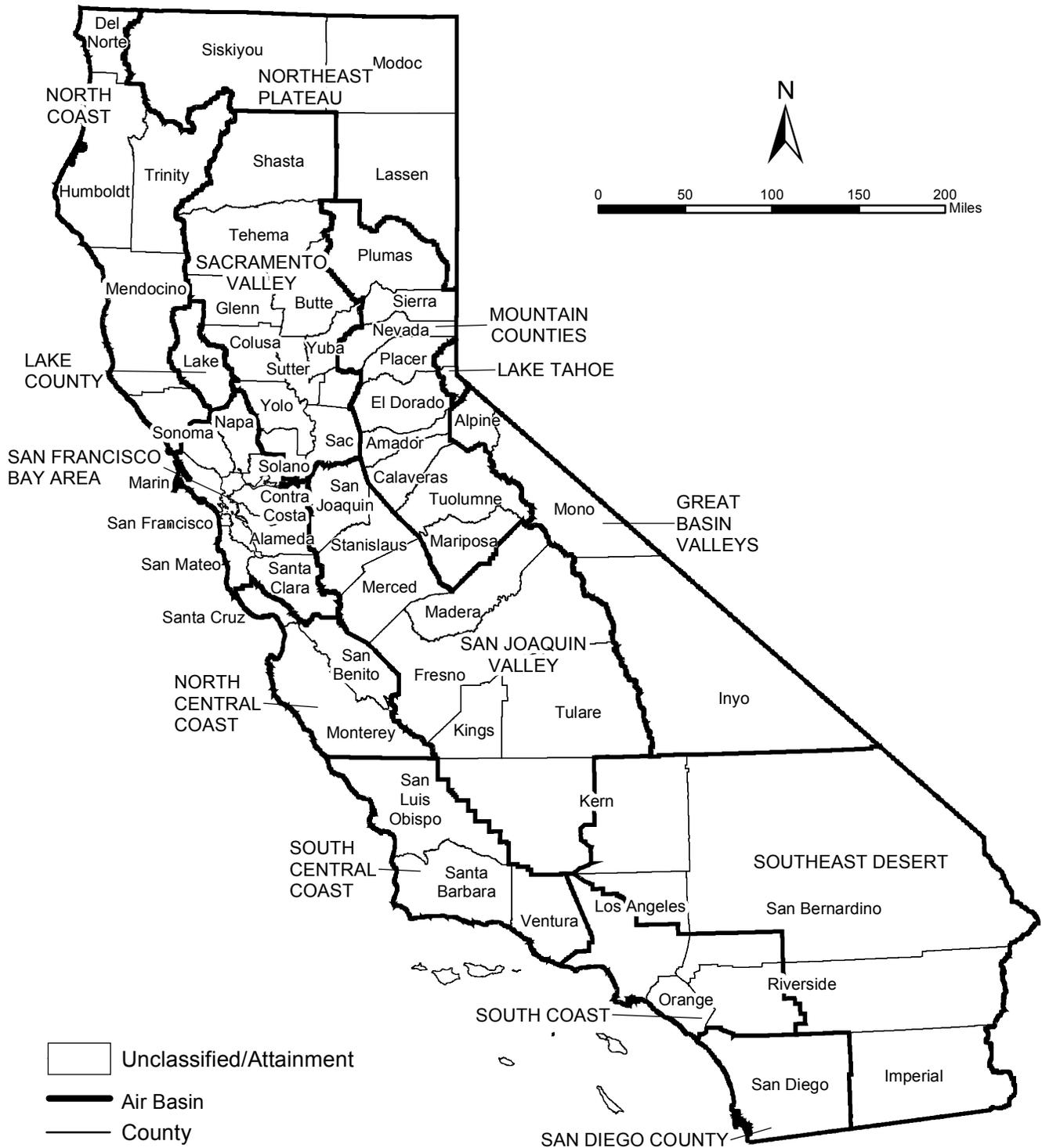
Area Designations for National Ambient Air Quality Standards

LEAD



Area Designations for National Ambient Air Quality Standards

NITROGEN DIOXIDE



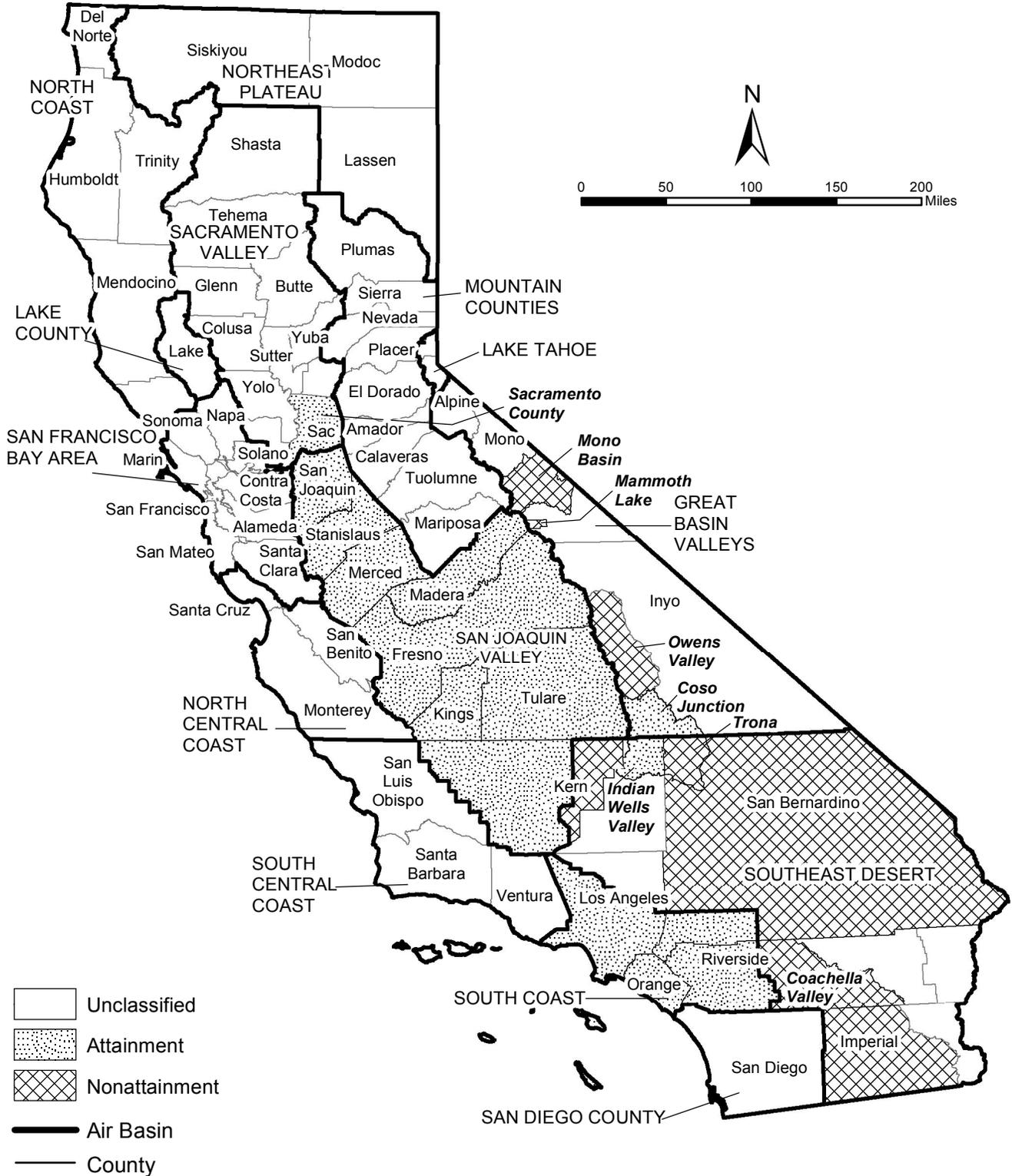
Area Designations for National Ambient Air Quality Standards

8-HOUR OZONE

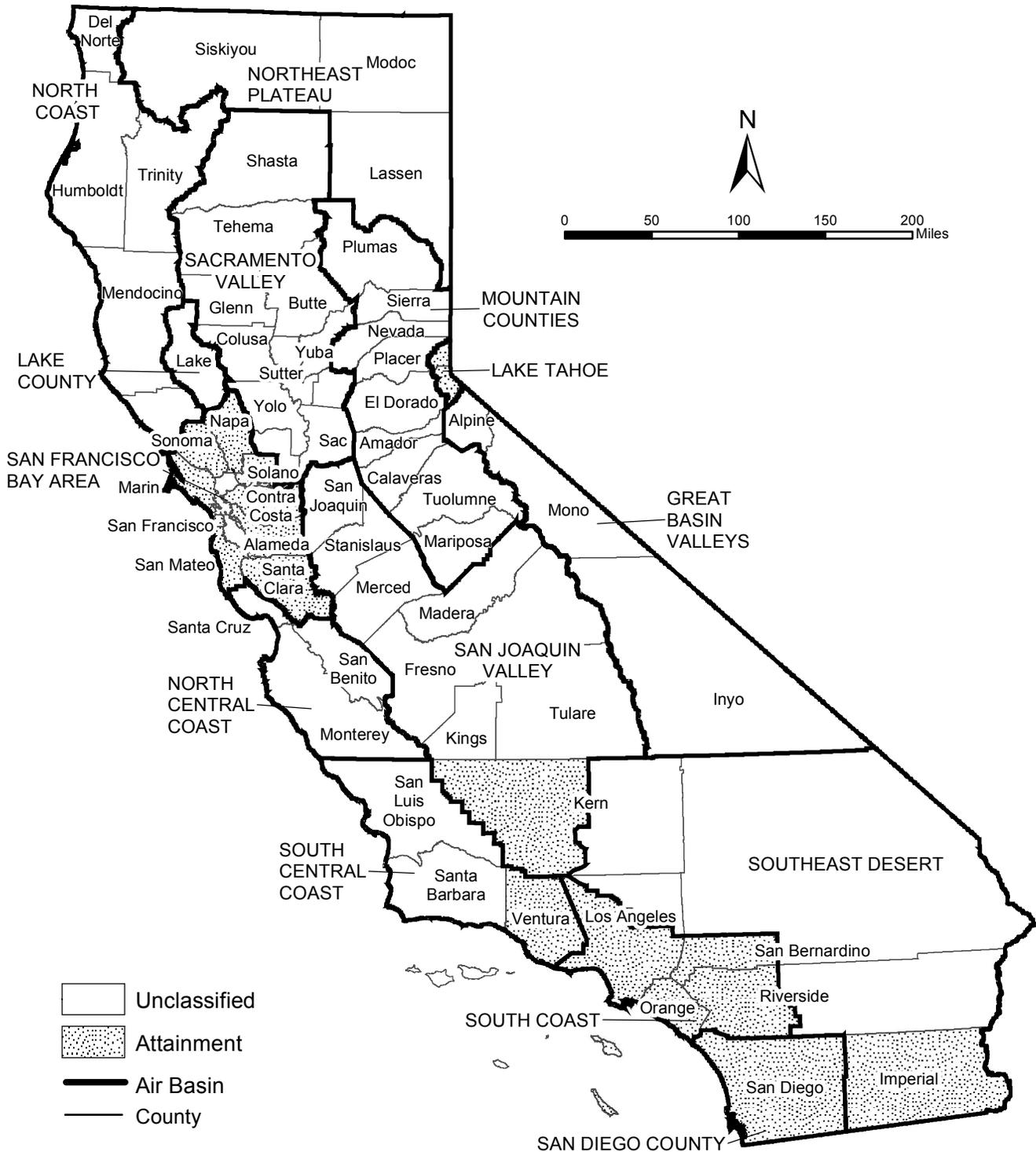


Area Designations for National Ambient Air Quality Standards

PM10

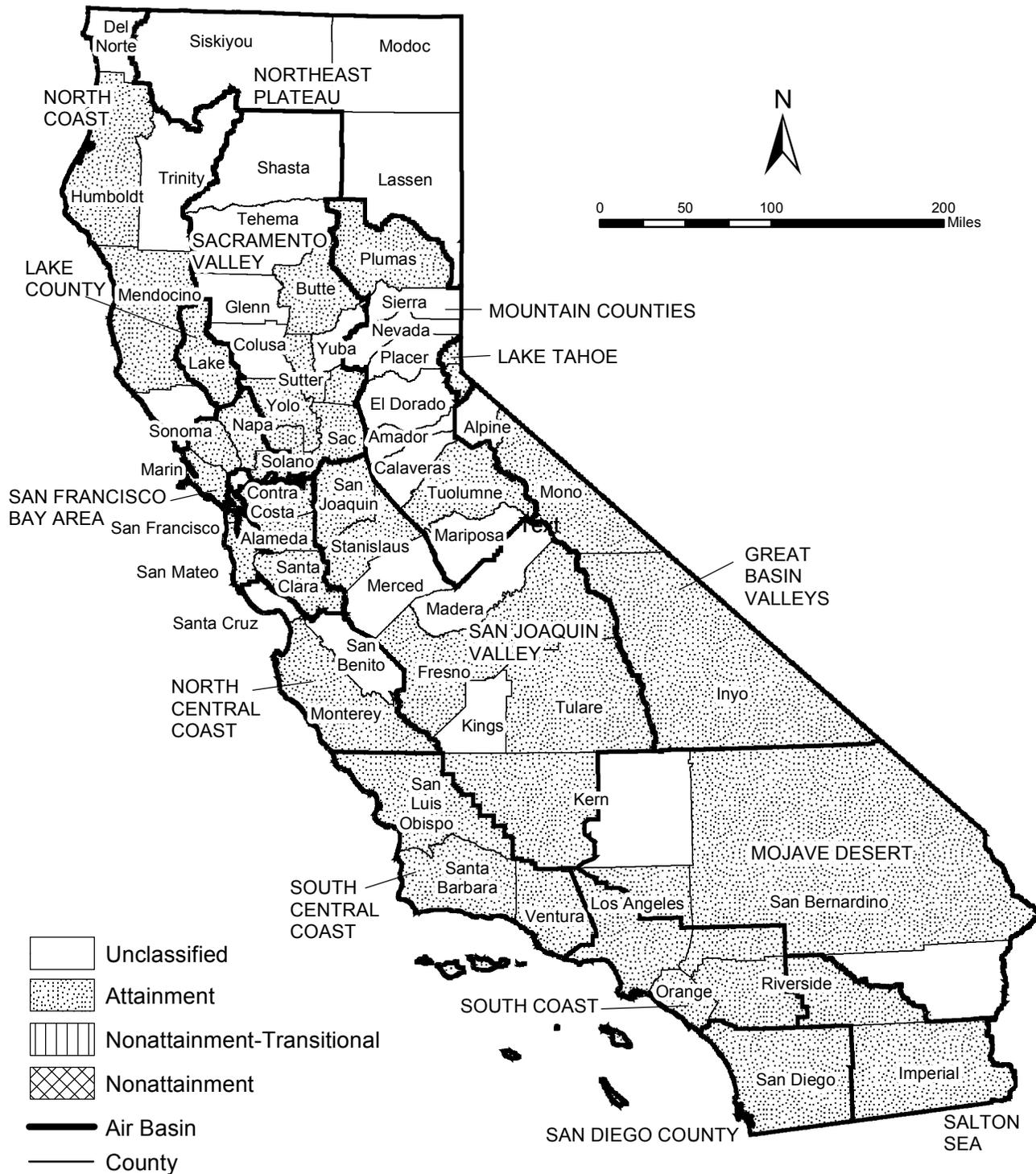


Area Designations for National Ambient Air Quality Standards SULFUR DIOXIDE



Area Designations for State Ambient Air Quality Standards

CARBON MONOXIDE



Area Designations for State Ambient Air Quality Standards

LEAD



Area Designations for State Ambient Air Quality Standards

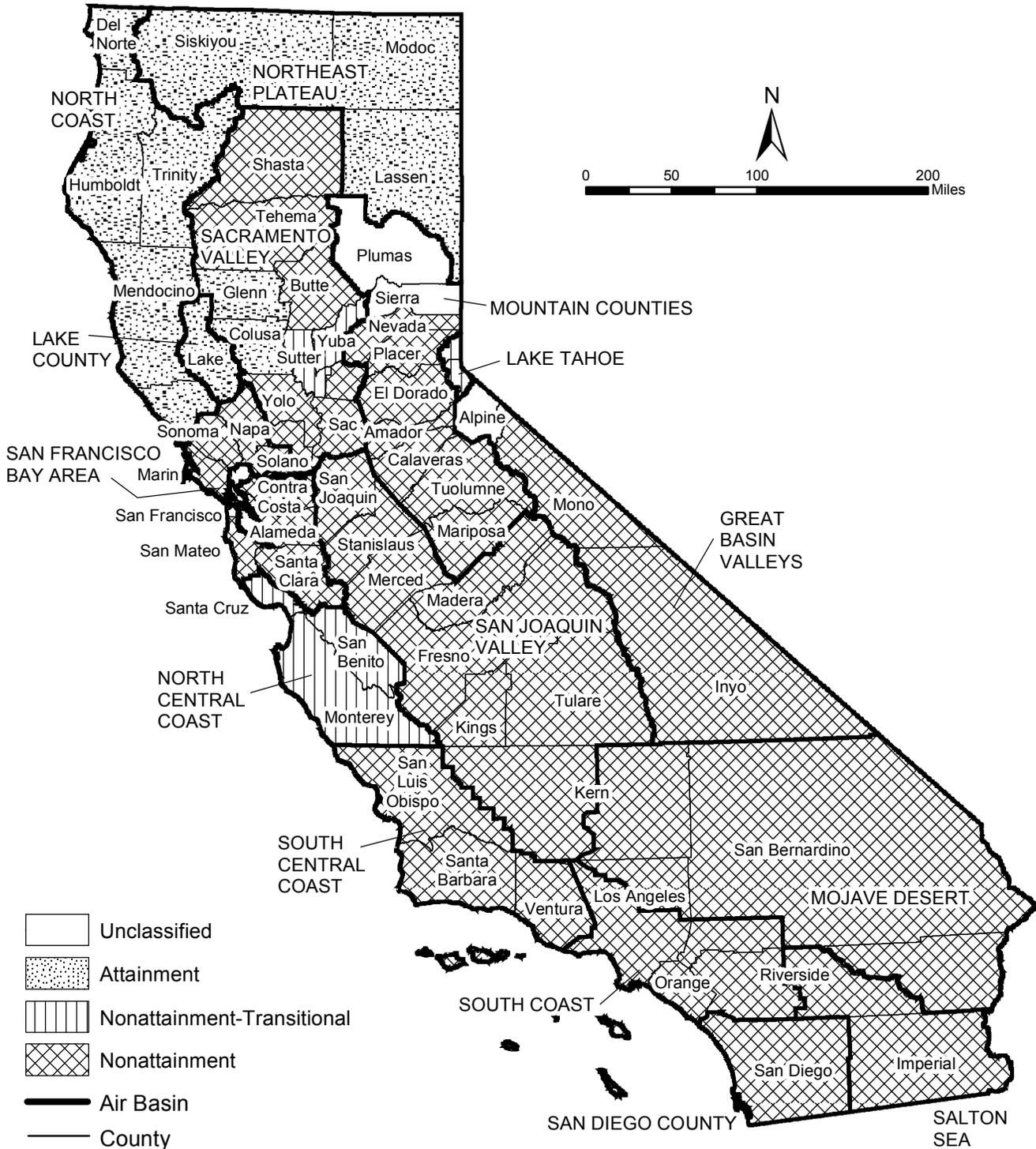
NITROGEN DIOXIDE



Source Date:
December 2015
Air Quality Planning Branch, AQPSD

Area Designations for State Ambient Air Quality Standards

OZONE



Area Designations for State Ambient Air Quality Standards

PM10



Area Designations for State Ambient Air Quality Standards

PM_{2.5}



Source Date:
December 2015
Air Quality Planning Branch, AQPSD

Area Designations for State Ambient Air Quality Standards SULFUR DIOXIDE



APPENDIX 3.2:
CALEEMOD EMISSIONS MODEL OUTPUTS

Construction (Phase 1 & Phase 2) Unmitigated San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Based on past project experience and consultation with the applicant

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday; Building Construction Equipment doubled to account for decreased construction duration

Off-road Equipment - 8 hour workday

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment - Based on previously modeled assumptions

Off-road Equipment - Based on previously modeled assumptions

Trips and VMT -

Grading -

Architectural Coating - CalEEMod is unable to distinguish between construction phasing and will doublecount the amount of surface area to be painted. As such, default surface areas have been halved; Based on Rule 1113-50 g/L low VOC paint

Vehicle Trips - Construction only

Road Dust - Construction only

Woodstoves - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - \

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	502,475.00	251,238.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	502,475.00	251,238.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,507,425.00	753,713.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,507,425.00	753,713.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,271,071.00	635,536.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,271,071.00	635,536.00
tblArchitecturalCoating	ConstArea_Residential_Interior	3,813,213.00	1,906,607.00
tblArchitecturalCoating	ConstArea_Residential_Interior	3,813,213.00	1,906,607.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
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tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	3,100.00	175.00
tblConstructionPhase	NumDays	3,100.00	400.00
tblConstructionPhase	NumDays	310.00	100.00
tblConstructionPhase	NumDays	310.00	50.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	PhaseEndDate	6/21/2019	12/7/2018
tblConstructionPhase	PhaseEndDate	8/27/2021	11/20/2020
tblConstructionPhase	PhaseStartDate	12/8/2018	5/26/2018
tblConstructionPhase	PhaseStartDate	11/21/2020	2/15/2020

tblEnergyUse	LightingElect	1,001.10	0.00
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tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	0.88	0.00
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tblEnergyUse	LightingElect	7.62	0.00
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tblEnergyUse	NT24NG	2,951.00	0.00
tblEnergyUse	NT24NG	1,779.14	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24E	749.55	0.00
tblEnergyUse	T24E	559.54	0.00
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tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24NG	17,654.53	0.00
tblEnergyUse	T24NG	10,214.61	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblEnergyUse	T24NG	2.02	0.00
tblFireplaces	NumberGas	207.40	0.00
tblFireplaces	NumberGas	44.20	0.00

tblFireplaces	NumberGas	640.90	0.00
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tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
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tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00
tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
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tblLandUse	LotAcreage	244.81	80.20
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tblLandUse	LotAcreage	0.00	0.20
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tblOffRoadEquipment	HorsePower	400.00	189.00
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tblOffRoadEquipment	LoadFactor	0.38	0.50
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
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tblProjectCharacteristics	OperationalYear	2014	2020
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	1.68	0.00
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tblSolidWaste	SolidWasteGenerationRate	6.83	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	20.87	0.00

tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	542.72	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	1.59	0.00
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tblVehicleTrips	WD_TR	2.74	0.00
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tblWater	IndoorWaterUseRate	15,897,582.25	0.00
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tblWater	OutdoorWaterUseRate	10,022,388.81	0.00
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tblWater	OutdoorWaterUseRate	4,421,293.43	0.00
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tblWater	OutdoorWaterUseRate	295,095.37	0.00
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tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	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					
2017	14.5216	168.9135	109.6729	0.1517	25.3507	7.3676	32.7183	10.7787	6.7782	17.5569	0.0000	15,409.30 21	15,409.30 21	4.6197	0.0000	15,506.31 53
2018	72.5381	144.6119	155.1275	0.3482	25.3507	6.2021	31.5528	10.7787	5.7060	16.4847	0.0000	29,748.62 97	29,748.62 97	4.6199	0.0000	29,845.64 69
2019	11.7730	132.1095	112.7830	0.2804	25.3507	5.6239	30.9747	10.7787	5.1740	15.9528	0.0000	23,218.86 34	23,218.86 34	4.6180	0.0000	23,315.84 15
2020	50.3625	50.6599	120.6235	0.3177	18.5404	1.8629	20.4032	4.9667	1.7491	6.7158	0.0000	25,241.79 44	25,241.79 44	1.3771	0.0000	25,270.71 29
Total	149.1952	496.2947	498.2068	1.0980	94.5925	21.0565	115.6491	37.3029	19.4073	56.7102	0.0000	93,618.58 95	93,618.58 95	15.2346	0.0000	93,938.51 66

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Rough Grading (Phase 1 & Phase 2)	Grading	10/1/2017	2/16/2018	5	100	
2	Underground Infrastructure (Phase 1)	Trenching	2/17/2018	4/6/2018	5	35	
3	Building Construction (Phase 1)	Building Construction	4/7/2018	12/7/2018	5	175	
4	Architectural Coating (Phase 1)	Architectural Coating	5/26/2018	12/7/2018	5	140	
5	Paving (Phase 1)	Paving	12/8/2018	12/28/2018	5	15	
6	Fine Grading (Phase 2)	Grading	12/29/2018	3/8/2019	5	50	
7	Underground Infrastructure (Phase 2)	Trenching	3/9/2019	5/10/2019	5	45	
8	Building Construction (Phase 2)	Building Construction	5/11/2019	11/20/2020	5	400	
9	Architectural Coating (Phase 2)	Architectural Coating	2/15/2020	11/20/2020	5	200	
10	Paving (Phase 2)	Paving	11/21/2020	12/11/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,906,607; Residential Outdoor: 635,536; Non-Residential Indoor: 753,713; Non-Residential Outdoor: 251,238
(Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rough Grading (Phase 1 & Phase 2)	Excavators	1	8.00	162	0.38
Rough Grading (Phase 1 & Phase 2)	Graders	1	8.00	174	0.41
Rough Grading (Phase 1 & Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Rough Grading (Phase 1 & Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Rough Grading (Phase 1 & Phase 2)	Scrapers	6	8.00	361	0.48
Rough Grading (Phase 1 & Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 1)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 1)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 1)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction (Phase 1)	Cranes	2	8.00	226	0.29
Building Construction (Phase 1)	Forklifts	6	8.00	89	0.20
Building Construction (Phase 1)	Generator Sets	2	8.00	84	0.74
Building Construction (Phase 1)	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction (Phase 1)	Welders	2	8.00	46	0.45
Architectural Coating (Phase 1)	Air Compressors	1	8.00	78	0.48
Paving (Phase 1)	Pavers	2	8.00	125	0.42
Paving (Phase 1)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 1)	Rollers	2	8.00	80	0.38
Fine Grading (Phase 2)	Excavators	1	8.00	162	0.38
Fine Grading (Phase 2)	Graders	1	8.00	174	0.41
Fine Grading (Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Fine Grading (Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Fine Grading (Phase 2)	Scrapers	6	8.00	361	0.48
Fine Grading (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 2)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Building Construction (Phase 2)	Cranes	1	8.00	226	0.29
Building Construction (Phase 2)	Forklifts	3	8.00	89	0.20
Building Construction (Phase 2)	Generator Sets	1	8.00	84	0.74
Building Construction (Phase 2)	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction (Phase 2)	Welders	1	8.00	46	0.45
Architectural Coating (Phase 2)	Air Compressors	1	8.00	78	0.48
Paving (Phase 2)	Pavers	2	8.00	125	0.42
Paving (Phase 2)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 2)	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rough Grading (Phase 1 & Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 1)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 1)	18	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 1)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 1)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading (Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 2)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 2)	9	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 2)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 2)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	14.3879	168.7495	107.5072	0.1468		7.3648	7.3648		6.7756	6.7756		15,016.6103	15,016.6103	4.6011		15,113.2326
Total	14.3879	168.7495	107.5072	0.1468	24.9595	7.3648	32.3243	10.6750	6.7756	17.4506		15,016.6103	15,016.6103	4.6011		15,113.2326

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	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827
Total	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	14.3879	168.7495	107.5072	0.1468		7.3648	7.3648		6.7756	6.7756	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325
Total	14.3879	168.7495	107.5072	0.1468	9.7342	7.3648	17.0990	4.1633	6.7756	10.9389	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325

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	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827
Total	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	9.7342	6.1994	15.9336	4.1633	5.7034	9.8667	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164

3.3 Underground Infrastructure (Phase 1) - 2018

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	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215		2,009.4315
Total	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215		2,009.4315

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	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003		108.0618
Total	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003		108.0618

3.3 Underground Infrastructure (Phase 1) - 2018

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	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462	0.0000	1,996.3800	1,996.3800	0.6215		2,009.4315
Total	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462	0.0000	1,996.3800	1,996.3800	0.6215		2,009.4315

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	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003		108.0618
Total	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003		108.0618

3.4 Building Construction (Phase 1) - 2018

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	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551
Total	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551

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	2.8332	28.4699	34.7384	0.0847	2.4563	0.4743	2.9306	0.7012	0.4363	1.1376		8,241.6451	8,241.6451	0.0589		8,242.8822
Worker	4.0937	5.0730	67.0592	0.1685	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		12,944.2442	12,944.2442	0.5889		12,956.6114
Total	6.9269	33.5429	101.7976	0.2532	15.8583	0.5678	16.4261	4.2555	0.5228	4.7783		21,185.8894	21,185.8894	0.6478		21,199.4936

3.4 Building Construction (Phase 1) - 2018

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	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045	0.0000	5,596.4676	5,596.4676	1.3946		5,625.7551
Total	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045	0.0000	5,596.4676	5,596.4676	1.3946		5,625.7551

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	2.8332	28.4699	34.7384	0.0847	2.4563	0.4743	2.9306	0.7012	0.4363	1.1376		8,241.6451	8,241.6451	0.0589		8,242.8822
Worker	4.0937	5.0730	67.0592	0.1685	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		12,944.2442	12,944.2442	0.5889		12,956.6114
Total	6.9269	33.5429	101.7976	0.2532	15.8583	0.5678	16.4261	4.2555	0.5228	4.7783		21,185.8894	21,185.8894	0.6478		21,199.4936

3.5 Architectural Coating (Phase 1) - 2018

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	58.7171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total	59.1153	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135

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	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179		2,593.4835
Total	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179		2,593.4835

3.5 Architectural Coating (Phase 1) - 2018

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	58.7171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
Total	59.1153	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135

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	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179		2,593.4835
Total	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179		2,593.4835

3.6 Paving (Phase 1) - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481

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	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927
Total	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927

3.6 Paving (Phase 1) - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481

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	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927
Total	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927

3.7 Fine Grading (Phase 2) - 2018

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164

3.7 Fine Grading (Phase 2) - 2018

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	9.7342	6.1994	15.9336	4.1633	5.7034	9.8667	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164

3.7 Fine Grading (Phase 2) - 2019

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	11.6642	131.9745	88.2936	0.1469		5.6213	5.6213		5.1716	5.1716		14,545.8473	14,545.8473	4.6022		14,642.4925
Total	11.6642	131.9745	88.2936	0.1469	24.9595	5.6213	30.5808	10.6750	5.1716	15.8466		14,545.8473	14,545.8473	4.6022		14,642.4925

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	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159		362.2934
Total	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159		362.2934

3.7 Fine Grading (Phase 2) - 2019

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	11.6642	131.9745	88.2936	0.1469		5.6213	5.6213		5.1716	5.1716	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925
Total	11.6642	131.9745	88.2936	0.1469	9.7342	5.6213	15.3555	4.1633	5.1716	9.3348	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925

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	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159		362.2934
Total	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159		362.2934

3.8 Underground Infrastructure (Phase 2) - 2019

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	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215		1,977.3061
Total	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215		1,977.3061

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	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003		103.5124
Total	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003		103.5124

3.8 Underground Infrastructure (Phase 2) - 2019

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	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596	0.0000	1,964.2553	1,964.2553	0.6215		1,977.3061
Total	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596	0.0000	1,964.2553	1,964.2553	0.6215		1,977.3061

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	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003		103.5124
Total	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003		103.5124

3.9 Building Construction (Phase 2) - 2019

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	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623
Total	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623

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	2.6857	26.1459	33.6956	0.0841	2.4560	0.4549	2.9109	0.7011	0.4185	1.1196		8,053.1821	8,053.1821	0.0569		8,054.3776
Worker	3.7252	4.6233	60.8231	0.1676	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		12,399.7355	12,399.7355	0.5430		12,411.1379
Total	6.4109	30.7692	94.5187	0.2517	15.8580	0.5462	16.4042	4.2554	0.5031	4.7585		20,452.9176	20,452.9176	0.5999		20,465.5154

3.9 Building Construction (Phase 2) - 2019

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	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623
Total	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623

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	2.6857	26.1459	33.6956	0.0841	2.4560	0.4549	2.9109	0.7011	0.4185	1.1196		8,053.1821	8,053.1821	0.0569		8,054.3776
Worker	3.7252	4.6233	60.8231	0.1676	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		12,399.7355	12,399.7355	0.5430		12,411.1379
Total	6.4109	30.7692	94.5187	0.2517	15.8580	0.5462	16.4042	4.2554	0.5031	4.7585		20,452.9176	20,452.9176	0.5999		20,465.5154

3.9 Building Construction (Phase 2) - 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	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780		2,737.8432
Total	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780		2,737.8432

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	2.5375	22.7593	32.5007	0.0840	2.4557	0.4158	2.8716	0.7010	0.3826	1.0835		7,868.8323	7,868.8323	0.0557		7,870.0013
Worker	3.4619	4.2684	56.4579	0.1676	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		11,893.4243	11,893.4243	0.5119		11,904.1737
Total	5.9994	27.0277	88.9585	0.2516	15.8577	0.5068	16.3645	4.2553	0.4669	4.7222		19,762.2566	19,762.2566	0.5676		19,774.1751

3.9 Building Construction (Phase 2) - 2020

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	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174	0.0000	2,723.6049	2,723.6049	0.6780		2,737.8432
Total	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174	0.0000	2,723.6049	2,723.6049	0.6780		2,737.8432

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	2.5375	22.7593	32.5007	0.0840	2.4557	0.4158	2.8716	0.7010	0.3826	1.0835		7,868.8323	7,868.8323	0.0557		7,870.0013
Worker	3.4619	4.2684	56.4579	0.1676	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		11,893.4243	11,893.4243	0.5119		11,904.1737
Total	5.9994	27.0277	88.9585	0.2516	15.8577	0.5068	16.3645	4.2553	0.4669	4.7222		19,762.2566	19,762.2566	0.5676		19,774.1751

3.10 Architectural Coating (Phase 2) - 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					
Archit. Coating	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.8742

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	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.6688	2,380.6688	0.1025		2,382.8204
Total	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.6688	2,380.6688	0.1025		2,382.8204

3.10 Architectural Coating (Phase 2) - 2020

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	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742

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	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.6688	2,380.6688	0.1025		2,382.8204
Total	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.6688	2,380.6688	0.1025		2,382.8204

3.11 Paving (Phase 2) - 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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326

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	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263
Total	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263

3.11 Paving (Phase 2) - 2020

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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326

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	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263
Total	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
Congregate Care (Assisted Living)	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
Fast Food Restaurant with Drive Thru 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
Recreational Swimming Pool	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
Single Family Housing	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
Strip Mall	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
User Defined Retail	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
City Park	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
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	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
Fast Food Restaurant with Drive Thru 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
Recreational Swimming Pool	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
Single Family Housing	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
Strip Mall	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
User Defined Retail	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
City Park	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
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Unmitigated	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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
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10.0 Vegetation

Construction (Phase 1 & Phase 2)Unmitigated San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Based on past project experience and consultation with the applicant

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday; Building Construction Equipment doubled to account for decreased construction duration

Off-road Equipment - 8 hour workday

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment - Based on previously modeled assumptions

Off-road Equipment - Based on previously modeled assumptions

Trips and VMT -

Grading -

Architectural Coating - CalEEMod is unable to distinguish between construction phasing and will doublecount the amount of surface area to be painted. As such, default surface areas have been halved; Based on Rule 1113-50 g/L low VOC paint

Vehicle Trips - Construction only

Road Dust - Construction only

Woodstoves - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - \

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	502,475.00	251,238.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	502,475.00	251,238.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,507,425.00	753,713.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,507,425.00	753,713.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,271,071.00	635,536.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	1,271,071.00	635,536.00
tblArchitecturalCoating	ConstArea_Residential_Interior	3,813,213.00	1,906,607.00
tblArchitecturalCoating	ConstArea_Residential_Interior	3,813,213.00	1,906,607.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	220.00	140.00
tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	3,100.00	175.00
tblConstructionPhase	NumDays	3,100.00	400.00
tblConstructionPhase	NumDays	310.00	100.00
tblConstructionPhase	NumDays	310.00	50.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	PhaseEndDate	6/21/2019	12/7/2018
tblConstructionPhase	PhaseEndDate	8/27/2021	11/20/2020
tblConstructionPhase	PhaseStartDate	12/8/2018	5/26/2018
tblConstructionPhase	PhaseStartDate	11/21/2020	2/15/2020

tblEnergyUse	LightingElect	1,001.10	0.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	NT24E	3,125.85	0.00
tblEnergyUse	NT24E	2,553.86	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24NG	2,951.00	0.00
tblEnergyUse	NT24NG	1,779.14	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24E	749.55	0.00
tblEnergyUse	T24E	559.54	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24NG	17,654.53	0.00
tblEnergyUse	T24NG	10,214.61	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblEnergyUse	T24NG	2.02	0.00
tblFireplaces	NumberGas	207.40	0.00
tblFireplaces	NumberGas	44.20	0.00

tblFireplaces	NumberGas	640.90	0.00
tblFireplaces	NumberNoFireplace	24.40	0.00
tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
tblFireplaces	NumberWood	12.20	0.00
tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00
tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
tblLandUse	LotAcreage	3.25	2.40
tblLandUse	LotAcreage	244.81	80.20
tblLandUse	LotAcreage	0.15	0.60
tblLandUse	LotAcreage	0.00	0.20
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	1.68	0.00
tblSolidWaste	SolidWasteGenerationRate	112.24	0.00
tblSolidWaste	SolidWasteGenerationRate	47.45	0.00
tblSolidWaste	SolidWasteGenerationRate	46.08	0.00
tblSolidWaste	SolidWasteGenerationRate	695.23	0.00
tblSolidWaste	SolidWasteGenerationRate	883.96	0.00
tblSolidWaste	SolidWasteGenerationRate	6.83	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	20.87	0.00

tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	542.72	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	496.12	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	IndoorWaterUseRate	15,897,582.25	0.00
tblWater	IndoorWaterUseRate	3,388,009.33	0.00
tblWater	IndoorWaterUseRate	1,214,134.85	0.00
tblWater	IndoorWaterUseRate	7,213,689.28	0.00
tblWater	IndoorWaterUseRate	49,126,135.32	0.00
tblWater	IndoorWaterUseRate	481,471.39	0.00
tblWater	OutdoorWaterUseRate	23,233,886.32	0.00
tblWater	OutdoorWaterUseRate	10,022,388.81	0.00
tblWater	OutdoorWaterUseRate	2,135,918.93	0.00
tblWater	OutdoorWaterUseRate	77,497.97	0.00
tblWater	OutdoorWaterUseRate	4,421,293.43	0.00
tblWater	OutdoorWaterUseRate	30,970,824.44	0.00

tblWater	OutdoorWaterUseRate	295,095.37	0.00
tblWoodstoves	NumberCatalytic	12.20	0.00
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	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					
2017	14.5131	168.9246	109.3537	0.1512	25.3507	7.3676	32.7183	10.7787	6.7782	17.5569	0.0000	15,374.26 30	15,374.26 30	4.6197	0.0000	15,471.27 63
2018	72.3817	144.6217	148.8464	0.3293	25.3507	6.2021	31.5528	10.7787	5.7060	16.4847	0.0000	28,291.44 29	28,291.44 29	4.6199	0.0000	28,388.46 01
2019	11.7655	132.1183	109.2942	0.2646	25.3507	5.6239	30.9747	10.7787	5.1740	15.9528	0.0000	22,042.70 60	22,042.70 60	4.6180	0.0000	22,139.68 40
2020	50.2384	51.5395	115.9724	0.2989	18.5404	1.8662	20.4066	4.9667	1.7522	6.7189	0.0000	23,898.00 60	23,898.00 60	1.3791	0.0000	23,926.96 62
Total	148.8987	497.2042	483.4667	1.0440	94.5925	21.0599	115.6524	37.3029	19.4104	56.7133	0.0000	89,606.41 79	89,606.41 79	15.2366	0.0000	89,926.38 66

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Rough Grading (Phase 1 & Phase 2)	Grading	10/1/2017	2/16/2018	5	100	
2	Underground Infrastructure (Phase 1)	Trenching	2/17/2018	4/6/2018	5	35	
3	Building Construction (Phase 1)	Building Construction	4/7/2018	12/7/2018	5	175	
4	Architectural Coating (Phase 1)	Architectural Coating	5/26/2018	12/7/2018	5	140	
5	Paving (Phase 1)	Paving	12/8/2018	12/28/2018	5	15	
6	Fine Grading (Phase 2)	Grading	12/29/2018	3/8/2019	5	50	
7	Underground Infrastructure (Phase 2)	Trenching	3/9/2019	5/10/2019	5	45	
8	Building Construction (Phase 2)	Building Construction	5/11/2019	11/20/2020	5	400	
9	Architectural Coating (Phase 2)	Architectural Coating	2/15/2020	11/20/2020	5	200	
10	Paving (Phase 2)	Paving	11/21/2020	12/11/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,906,607; Residential Outdoor: 635,536; Non-Residential Indoor: 753,713; Non-Residential Outdoor: 251,238
(Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rough Grading (Phase 1 & Phase 2)	Excavators	1	8.00	162	0.38
Rough Grading (Phase 1 & Phase 2)	Graders	1	8.00	174	0.41
Rough Grading (Phase 1 & Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Rough Grading (Phase 1 & Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Rough Grading (Phase 1 & Phase 2)	Scrapers	6	8.00	361	0.48
Rough Grading (Phase 1 & Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 1)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 1)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 1)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction (Phase 1)	Cranes	2	8.00	226	0.29
Building Construction (Phase 1)	Forklifts	6	8.00	89	0.20
Building Construction (Phase 1)	Generator Sets	2	8.00	84	0.74
Building Construction (Phase 1)	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction (Phase 1)	Welders	2	8.00	46	0.45
Architectural Coating (Phase 1)	Air Compressors	1	8.00	78	0.48
Paving (Phase 1)	Pavers	2	8.00	125	0.42
Paving (Phase 1)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 1)	Rollers	2	8.00	80	0.38
Fine Grading (Phase 2)	Excavators	1	8.00	162	0.38
Fine Grading (Phase 2)	Graders	1	8.00	174	0.41
Fine Grading (Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Fine Grading (Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Fine Grading (Phase 2)	Scrapers	6	8.00	361	0.48
Fine Grading (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 2)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Building Construction (Phase 2)	Cranes	1	8.00	226	0.29
Building Construction (Phase 2)	Forklifts	3	8.00	89	0.20
Building Construction (Phase 2)	Generator Sets	1	8.00	84	0.74
Building Construction (Phase 2)	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction (Phase 2)	Welders	1	8.00	46	0.45
Architectural Coating (Phase 2)	Air Compressors	1	8.00	78	0.48
Paving (Phase 2)	Pavers	2	8.00	125	0.42
Paving (Phase 2)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 2)	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rough Grading (Phase 1 & Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 1)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 1)	18	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 1)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 1)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading (Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 2)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 2)	9	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 2)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 2)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	14.3879	168.7495	107.5072	0.1468		7.3648	7.3648		6.7756	6.7756		15,016.6103	15,016.6103	4.6011		15,113.2326
Total	14.3879	168.7495	107.5072	0.1468	24.9595	7.3648	32.3243	10.6750	6.7756	17.4506		15,016.6103	15,016.6103	4.6011		15,113.2326

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	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437
Total	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	14.3879	168.7495	107.5072	0.1468		7.3648	7.3648		6.7756	6.7756	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325
Total	14.3879	168.7495	107.5072	0.1468	9.7342	7.3648	17.0990	4.1633	6.7756	10.9389	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325

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	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437
Total	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	9.7342	6.1994	15.9336	4.1633	5.7034	9.8667	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.3 Underground Infrastructure (Phase 1) - 2018

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	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215		2,009.4315
Total	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215		2,009.4315

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	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182
Total	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182

3.3 Underground Infrastructure (Phase 1) - 2018

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	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462	0.0000	1,996.3800	1,996.3800	0.6215		2,009.4315
Total	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462	0.0000	1,996.3800	1,996.3800	0.6215		2,009.4315

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	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182
Total	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182

3.4 Building Construction (Phase 1) - 2018

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	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551
Total	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551

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	3.0074	29.2013	40.5332	0.0841	2.4563	0.4787	2.9350	0.7012	0.4404	1.1416		8,172.1719	8,172.1719	0.0608		8,173.4487
Worker	3.8182	5.4105	56.9973	0.1532	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		11,787.9770	11,787.9770	0.5889		11,800.3442
Total	6.8256	34.6118	97.5305	0.2373	15.8583	0.5722	16.4305	4.2555	0.5269	4.7824		19,960.1489	19,960.1489	0.6497		19,973.7929

3.4 Building Construction (Phase 1) - 2018

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	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045	0.0000	5,596.4676	5,596.4676	1.3946		5,625.7551
Total	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045	0.0000	5,596.4676	5,596.4676	1.3946		5,625.7551

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	3.0074	29.2013	40.5332	0.0841	2.4563	0.4787	2.9350	0.7012	0.4404	1.1416		8,172.1719	8,172.1719	0.0608		8,173.4487
Worker	3.8182	5.4105	56.9973	0.1532	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		11,787.9770	11,787.9770	0.5889		11,800.3442
Total	6.8256	34.6118	97.5305	0.2373	15.8583	0.5722	16.4305	4.2555	0.5269	4.7824		19,960.1489	19,960.1489	0.6497		19,973.7929

3.5 Architectural Coating (Phase 1) - 2018

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	58.7171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total	59.1153	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135

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	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372
Total	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372

3.5 Architectural Coating (Phase 1) - 2018

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	58.7171					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
Total	59.1153	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135

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	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372
Total	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372

3.6 Paving (Phase 1) - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481

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	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273

3.6 Paving (Phase 1) - 2018**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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481

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	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273

3.7 Fine Grading (Phase 2) - 2018

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.7 Fine Grading (Phase 2) - 2018

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	9.7342	6.1994	15.9336	4.1633	5.7034	9.8667	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.7 Fine Grading (Phase 2) - 2019

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	11.6642	131.9745	88.2936	0.1469		5.6213	5.6213		5.1716	5.1716		14,545.8473	14,545.8473	4.6022		14,642.4925
Total	11.6642	131.9745	88.2936	0.1469	24.9595	5.6213	30.5808	10.6750	5.1716	15.8466		14,545.8473	14,545.8473	4.6022		14,642.4925

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	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579
Total	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579

3.7 Fine Grading (Phase 2) - 2019

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	11.6642	131.9745	88.2936	0.1469		5.6213	5.6213		5.1716	5.1716	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925
Total	11.6642	131.9745	88.2936	0.1469	9.7342	5.6213	15.3555	4.1633	5.1716	9.3348	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925

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	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579
Total	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579

3.8 Underground Infrastructure (Phase 2) - 2019

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	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215		1,977.3061
Total	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215		1,977.3061

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	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737
Total	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737

3.8 Underground Infrastructure (Phase 2) - 2019

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	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596	0.0000	1,964.2553	1,964.2553	0.6215		1,977.3061
Total	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596	0.0000	1,964.2553	1,964.2553	0.6215		1,977.3061

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	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737
Total	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737

3.9 Building Construction (Phase 2) - 2019

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	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623
Total	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623

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	2.8516	26.7990	39.4197	0.0835	2.4560	0.4589	2.9149	0.7011	0.4222	1.1233		7,984.7486	7,984.7486	0.0589		7,985.9845
Worker	3.4715	4.9279	51.6103	0.1524	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		11,292.0116	11,292.0116	0.5430		11,303.4139
Total	6.3231	31.7269	91.0299	0.2359	15.8580	0.5502	16.4082	4.2554	0.5068	4.7621		19,276.7602	19,276.7602	0.6018		19,289.3985

3.9 Building Construction (Phase 2) - 2019

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	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623
Total	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623

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	2.8516	26.7990	39.4197	0.0835	2.4560	0.4589	2.9149	0.7011	0.4222	1.1233		7,984.7486	7,984.7486	0.0589		7,985.9845
Worker	3.4715	4.9279	51.6103	0.1524	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		11,292.0116	11,292.0116	0.5430		11,303.4139
Total	6.3231	31.7269	91.0299	0.2359	15.8580	0.5502	16.4082	4.2554	0.5068	4.7621		19,276.7602	19,276.7602	0.6018		19,289.3985

3.9 Building Construction (Phase 2) - 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	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780		2,737.8432
Total	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780		2,737.8432

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	2.6943	23.3058	38.2298	0.0834	2.4557	0.4192	2.8749	0.7010	0.3856	1.0866		7,801.7530	7,801.7530	0.0577		7,802.9637
Worker	3.2279	4.5460	47.8089	0.1524	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		10,829.6479	10,829.6479	0.5119		10,840.3973
Total	5.9221	27.8517	86.0387	0.2358	15.8577	0.5102	16.3679	4.2553	0.4700	4.7253		18,631.4010	18,631.4010	0.5695		18,643.3611

3.9 Building Construction (Phase 2) - 2020

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	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174	0.0000	2,723.6049	2,723.6049	0.6780		2,737.8432
Total	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174	0.0000	2,723.6049	2,723.6049	0.6780		2,737.8432

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	2.6943	23.3058	38.2298	0.0834	2.4557	0.4192	2.8749	0.7010	0.3856	1.0866		7,801.7530	7,801.7530	0.0577		7,802.9637
Worker	3.2279	4.5460	47.8089	0.1524	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		10,829.6479	10,829.6479	0.5119		10,840.3973
Total	5.9221	27.8517	86.0387	0.2358	15.8577	0.5102	16.3679	4.2553	0.4700	4.7253		18,631.4010	18,631.4010	0.5695		18,643.3611

3.10 Architectural Coating (Phase 2) - 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					
Archit. Coating	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.8742

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	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877
Total	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877

3.10 Architectural Coating (Phase 2) - 2020

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	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742

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	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877
Total	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877

3.11 Paving (Phase 2) - 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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326

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	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180
Total	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180

3.11 Paving (Phase 2) - 2020

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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.757 1	2,160.757 1	0.6988		2,175.432 6
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.757 1	2,160.757 1	0.6988		2,175.432 6

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	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180
Total	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
Congregate Care (Assisted Living)	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
Fast Food Restaurant with Drive Thru 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
Recreational Swimming Pool	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
Single Family Housing	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
Strip Mall	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
User Defined Retail	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
City Park	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
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	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
Fast Food Restaurant with Drive Thru 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
Recreational Swimming Pool	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
Single Family Housing	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
Strip Mall	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
User Defined Retail	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
City Park	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
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Unmitigated	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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
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10.0 Vegetation

Construction (Phase 1 & Phase 2) Mitigated San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Based on past project experience and consultation with the applicant

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday; Building Construction Equipment doubled to account for decreased construction duration

Off-road Equipment - 8 hour workday

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment - Based on previously modeled assumptions

Off-road Equipment - Based on previously modeled assumptions

Trips and VMT -

Grading -

Architectural Coating - CalEEMod is unable to distinguish between construction phasing and will doublecount the amount of surface area to be painted. As such, default surface areas have been halved; Based on Rule 1113-50 g/L low VOC paint

Vehicle Trips - Construction only

Road Dust - Construction only

Woodstoves - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - Tier 3 for all construction equipment greater or equal to 150 HP

Mobile Land Use Mitigation -

Area Mitigation - \

tblConstructionPhase	NumDays	220.00	140.00
tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	3,100.00	175.00
tblConstructionPhase	NumDays	3,100.00	400.00
tblConstructionPhase	NumDays	310.00	100.00
tblConstructionPhase	NumDays	310.00	50.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	PhaseEndDate	6/21/2019	12/7/2018
tblConstructionPhase	PhaseEndDate	8/27/2021	11/20/2020
tblConstructionPhase	PhaseStartDate	12/8/2018	5/26/2018
tblConstructionPhase	PhaseStartDate	11/21/2020	2/15/2020
tblEnergyUse	LightingElect	1,001.10	0.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	NT24E	3,125.85	0.00
tblEnergyUse	NT24E	2,553.86	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24NG	2,951.00	0.00
tblEnergyUse	NT24NG	1,779.14	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	NT24NG	0.30	0.00

tblEnergyUse	T24E	749.55	0.00
tblEnergyUse	T24E	559.54	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24NG	17,654.53	0.00
tblEnergyUse	T24NG	10,214.61	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblEnergyUse	T24NG	2.02	0.00
tblFireplaces	NumberGas	207.40	0.00
tblFireplaces	NumberGas	44.20	0.00
tblFireplaces	NumberGas	640.90	0.00
tblFireplaces	NumberNoFireplace	24.40	0.00
tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
tblFireplaces	NumberWood	12.20	0.00
tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00
tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
tblLandUse	LotAcreage	3.25	2.40
tblLandUse	LotAcreage	244.81	80.20

tblLandUse	LotAcreage	0.15	0.60
tblLandUse	LotAcreage	0.00	0.20
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblRoadDust	RoadPercentPave	100	0

tblSolidWaste	SolidWasteGenerationRate	1.68	0.00
tblSolidWaste	SolidWasteGenerationRate	112.24	0.00
tblSolidWaste	SolidWasteGenerationRate	47.45	0.00
tblSolidWaste	SolidWasteGenerationRate	46.08	0.00
tblSolidWaste	SolidWasteGenerationRate	695.23	0.00
tblSolidWaste	SolidWasteGenerationRate	883.96	0.00
tblSolidWaste	SolidWasteGenerationRate	6.83	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	542.72	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	496.12	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblVehicleTrips	WD_TR	44.32	0.00

tblWater	IndoorWaterUseRate	15,897,582.25	0.00
tblWater	IndoorWaterUseRate	3,388,009.33	0.00
tblWater	IndoorWaterUseRate	1,214,134.85	0.00
tblWater	IndoorWaterUseRate	7,213,689.28	0.00
tblWater	IndoorWaterUseRate	49,126,135.32	0.00
tblWater	IndoorWaterUseRate	481,471.39	0.00
tblWater	OutdoorWaterUseRate	23,233,886.32	0.00
tblWater	OutdoorWaterUseRate	10,022,388.81	0.00
tblWater	OutdoorWaterUseRate	2,135,918.93	0.00
tblWater	OutdoorWaterUseRate	77,497.97	0.00
tblWater	OutdoorWaterUseRate	4,421,293.43	0.00
tblWater	OutdoorWaterUseRate	30,970,824.44	0.00
tblWater	OutdoorWaterUseRate	295,095.37	0.00
tblWoodstoves	NumberCatalytic	12.20	0.00
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	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					
2017	14.5216	168.9135	109.6729	0.1517	25.3507	7.3676	32.7183	10.7787	6.7782	17.5569	0.0000	15,409.30 21	15,409.30 21	4.6197	0.0000	15,506.31 53
2018	72.5381	144.6119	155.1275	0.3482	25.3507	6.2021	31.5528	10.7787	5.7060	16.4847	0.0000	29,748.62 97	29,748.62 97	4.6199	0.0000	29,845.64 69
2019	11.7730	132.1095	112.7830	0.2804	25.3507	5.6239	30.9747	10.7787	5.1740	15.9528	0.0000	23,218.86 34	23,218.86 34	4.6180	0.0000	23,315.84 15
2020	50.3625	50.6599	120.6235	0.3177	18.5404	1.8629	20.4032	4.9667	1.7491	6.7158	0.0000	25,241.79 44	25,241.79 44	1.3771	0.0000	25,270.71 29
Total	149.1952	496.2947	498.2068	1.0980	94.5925	21.0565	115.6491	37.3029	19.4073	56.7102	0.0000	93,618.58 95	93,618.58 95	15.2346	0.0000	93,938.51 66

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Rough Grading (Phase 1 & Phase 2)	Grading	10/1/2017	2/16/2018	5	100	
2	Underground Infrastructure (Phase 1)	Trenching	2/17/2018	4/6/2018	5	35	
3	Building Construction (Phase 1)	Building Construction	4/7/2018	12/7/2018	5	175	
4	Architectural Coating (Phase 1)	Architectural Coating	5/26/2018	12/7/2018	5	140	
5	Paving (Phase 1)	Paving	12/8/2018	12/28/2018	5	15	
6	Fine Grading (Phase 2)	Grading	12/29/2018	3/8/2019	5	50	
7	Underground Infrastructure (Phase 2)	Trenching	3/9/2019	5/10/2019	5	45	
8	Building Construction (Phase 2)	Building Construction	5/11/2019	11/20/2020	5	400	
9	Architectural Coating (Phase 2)	Architectural Coating	2/15/2020	11/20/2020	5	200	
10	Paving (Phase 2)	Paving	11/21/2020	12/11/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,906,607; Residential Outdoor: 635,536; Non-Residential Indoor: 753,713; Non-Residential Outdoor: 251,238
(Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rough Grading (Phase 1 & Phase 2)	Excavators	1	8.00	162	0.38
Rough Grading (Phase 1 & Phase 2)	Graders	1	8.00	174	0.41
Rough Grading (Phase 1 & Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Rough Grading (Phase 1 & Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Rough Grading (Phase 1 & Phase 2)	Scrapers	6	8.00	361	0.48
Rough Grading (Phase 1 & Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 1)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 1)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 1)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction (Phase 1)	Cranes	2	8.00	226	0.29
Building Construction (Phase 1)	Forklifts	6	8.00	89	0.20
Building Construction (Phase 1)	Generator Sets	2	8.00	84	0.74
Building Construction (Phase 1)	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction (Phase 1)	Welders	2	8.00	46	0.45
Architectural Coating (Phase 1)	Air Compressors	1	8.00	78	0.48
Paving (Phase 1)	Pavers	2	8.00	125	0.42
Paving (Phase 1)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 1)	Rollers	2	8.00	80	0.38
Fine Grading (Phase 2)	Excavators	1	8.00	162	0.38
Fine Grading (Phase 2)	Graders	1	8.00	174	0.41
Fine Grading (Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Fine Grading (Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Fine Grading (Phase 2)	Scrapers	6	8.00	361	0.48
Fine Grading (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 2)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Building Construction (Phase 2)	Cranes	1	8.00	226	0.29
Building Construction (Phase 2)	Forklifts	3	8.00	89	0.20
Building Construction (Phase 2)	Generator Sets	1	8.00	84	0.74
Building Construction (Phase 2)	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction (Phase 2)	Welders	1	8.00	46	0.45
Architectural Coating (Phase 2)	Air Compressors	1	8.00	78	0.48
Paving (Phase 2)	Pavers	2	8.00	125	0.42
Paving (Phase 2)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 2)	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rough Grading (Phase 1 & Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 1)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 1)	18	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 1)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 1)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading (Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 2)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 2)	9	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 2)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 2)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	14.3879	168.7495	107.5072	0.1468		7.3648	7.3648		6.7756	6.7756		15,016.61 03	15,016.61 03	4.6011		15,113.23 26
Total	14.3879	168.7495	107.5072	0.1468	24.9595	7.3648	32.3243	10.6750	6.7756	17.4506		15,016.61 03	15,016.61 03	4.6011		15,113.23 26

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827
Total	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.6477	77.9998	81.6237	0.1468		3.2740	3.2740		3.2124	3.2124	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325
Total	4.6477	77.9998	81.6237	0.1468	9.7342	3.2740	13.0082	4.1633	3.2124	7.3756	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827
Total	0.1338	0.1641	2.1656	4.9200e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		392.6918	392.6918	0.0186		393.0827

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.4766	76.2545	81.3959	0.1469		3.1570	3.1570		3.1047	3.1047	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	4.4766	76.2545	81.3959	0.1469	9.7342	3.1570	12.8912	4.1633	3.1047	7.2680	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172			378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172			378.2164

3.3 Underground Infrastructure (Phase 1) - 2018

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	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215			2,009.4315
Total	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215			2,009.4315

3.3 Underground Infrastructure (Phase 1) - 2018

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	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003			108.0618
Total	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003			108.0618

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	0.6787	10.6062	15.0579	0.0198		0.5714	0.5714		0.5565	0.5565	0.0000	1,996.3800	1,996.3800	0.6215			2,009.4315
Total	0.6787	10.6062	15.0579	0.0198		0.5714	0.5714		0.5565	0.5565	0.0000	1,996.3800	1,996.3800	0.6215			2,009.4315

3.3 Underground Infrastructure (Phase 1) - 2018

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	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003			108.0618
Total	0.0341	0.0423	0.5593	1.4000e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		107.9587	107.9587	4.9100e-003			108.0618

3.4 Building Construction (Phase 1) - 2018

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	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551
Total	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551

3.4 Building Construction (Phase 1) - 2018

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	2.8332	28.4699	34.7384	0.0847	2.4563	0.4743	2.9306	0.7012	0.4363	1.1376		8,241.645 1	8,241.645 1	0.0589			8,242.882 2
Worker	4.0937	5.0730	67.0592	0.1685	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		12,944.24 42	12,944.24 42	0.5889			12,956.61 14
Total	6.9269	33.5429	101.7976	0.2532	15.8583	0.5678	16.4261	4.2555	0.5228	4.7783		21,185.88 94	21,185.88 94	0.6478			21,199.49 36

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	4.8372	42.1795	38.5110	0.0574		2.8263	2.8263		2.6765	2.6765	0.0000	5,596.467 6	5,596.467 6	1.3946			5,625.755 1
Total	4.8372	42.1795	38.5110	0.0574		2.8263	2.8263		2.6765	2.6765	0.0000	5,596.467 6	5,596.467 6	1.3946			5,625.755 1

3.4 Building Construction (Phase 1) - 2018

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	2.8332	28.4699	34.7384	0.0847	2.4563	0.4743	2.9306	0.7012	0.4363	1.1376		8,241.645 1	8,241.645 1	0.0589			8,242.882 2
Worker	4.0937	5.0730	67.0592	0.1685	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		12,944.24 42	12,944.24 42	0.5889			12,956.61 14
Total	6.9269	33.5429	101.7976	0.2532	15.8583	0.5678	16.4261	4.2555	0.5228	4.7783		21,185.88 94	21,185.88 94	0.6478			21,199.49 36

3.5 Architectural Coating (Phase 1) - 2018

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	58.7171					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357			376.0135
Total	59.1153	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357			376.0135

3.5 Architectural Coating (Phase 1) - 2018

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	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179			2,593.4835
Total	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179			2,593.4835

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	58.7171					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357			376.0135
Total	59.1153	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357			376.0135

3.5 Architectural Coating (Phase 1) - 2018

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	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179			2,593.4835
Total	0.8194	1.0154	13.4230	0.0337	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,591.0080	2,591.0080	0.1179			2,593.4835

3.6 Paving (Phase 1) - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990			2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990			2,259.9481

3.6 Paving (Phase 1) - 2018

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	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003			162.0927
Total	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003			162.0927

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990			2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990			2,259.9481

3.6 Paving (Phase 1) - 2018

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	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927
Total	0.0512	0.0635	0.8389	2.1100e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		161.9380	161.9380	7.3700e-003		162.0927

3.7 Fine Grading (Phase 2) - 2018

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

3.7 Fine Grading (Phase 2) - 2018

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.4766	76.2545	81.3959	0.1469		3.1570	3.1570		3.1047	3.1047	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	4.4766	76.2545	81.3959	0.1469	9.7342	3.1570	12.8912	4.1633	3.1047	7.2680	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

3.7 Fine Grading (Phase 2) - 2018

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	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164
Total	0.1195	0.1481	1.9575	4.9200e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		377.8553	377.8553	0.0172		378.2164

3.7 Fine Grading (Phase 2) - 2019

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	11.6642	131.9745	88.2936	0.1469		5.6213	5.6213		5.1716	5.1716		14,545.8473	14,545.8473	4.6022		14,642.4925
Total	11.6642	131.9745	88.2936	0.1469	24.9595	5.6213	30.5808	10.6750	5.1716	15.8466		14,545.8473	14,545.8473	4.6022		14,642.4925

3.7 Fine Grading (Phase 2) - 2019

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	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159		362.2934
Total	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159		362.2934

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.3772	75.2184	81.2943	0.1469		3.0830	3.0830		3.0366	3.0366	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925
Total	4.3772	75.2184	81.2943	0.1469	9.7342	3.0830	12.8172	4.1633	3.0366	7.1999	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925

3.7 Fine Grading (Phase 2) - 2019

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	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159			362.2934
Total	0.1087	0.1350	1.7755	4.8900e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		361.9606	361.9606	0.0159			362.2934

3.8 Underground Infrastructure (Phase 2) - 2019

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	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215			1,977.3061
Total	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215			1,977.3061

3.8 Underground Infrastructure (Phase 2) - 2019

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	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003			103.5124
Total	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003			103.5124

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	0.6454	10.3139	15.0238	0.0198		0.5411	0.5411		0.5286	0.5286	0.0000	1,964.2553	1,964.2553	0.6215			1,977.3061
Total	0.6454	10.3139	15.0238	0.0198		0.5411	0.5411		0.5286	0.5286	0.0000	1,964.2553	1,964.2553	0.6215			1,977.3061

3.8 Underground Infrastructure (Phase 2) - 2019

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	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003			103.5124
Total	0.0311	0.0386	0.5073	1.4000e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		103.4173	103.4173	4.5300e-003			103.5124

3.9 Building Construction (Phase 2) - 2019

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	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865			2,780.3623
Total	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865			2,780.3623

3.9 Building Construction (Phase 2) - 2019

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	2.6857	26.1459	33.6956	0.0841	2.4560	0.4549	2.9109	0.7011	0.4185	1.1196		8,053.1821	8,053.1821	0.0569			8,054.3776
Worker	3.7252	4.6233	60.8231	0.1676	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		12,399.7355	12,399.7355	0.5430			12,411.1379
Total	6.4109	30.7692	94.5187	0.2517	15.8580	0.5462	16.4042	4.2554	0.5031	4.7585		20,452.9176	20,452.9176	0.5999			20,465.5154

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	2.1462	19.3810	19.0263	0.0287		1.2273	1.2273		1.1633	1.1633	0.0000	2,765.9458	2,765.9458	0.6865			2,780.3623
Total	2.1462	19.3810	19.0263	0.0287		1.2273	1.2273		1.1633	1.1633	0.0000	2,765.9458	2,765.9458	0.6865			2,780.3623

3.9 Building Construction (Phase 2) - 2019

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	2.6857	26.1459	33.6956	0.0841	2.4560	0.4549	2.9109	0.7011	0.4185	1.1196		8,053.1821	8,053.1821	0.0569			8,054.3776
Worker	3.7252	4.6233	60.8231	0.1676	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		12,399.7355	12,399.7355	0.5430			12,411.1379
Total	6.4109	30.7692	94.5187	0.2517	15.8580	0.5462	16.4042	4.2554	0.5031	4.7585		20,452.9176	20,452.9176	0.5999			20,465.5154

3.9 Building Construction (Phase 2) - 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	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780			2,737.8432
Total	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780			2,737.8432

3.9 Building Construction (Phase 2) - 2020

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	2.5375	22.7593	32.5007	0.0840	2.4557	0.4158	2.8716	0.7010	0.3826	1.0835		7,868.8323	7,868.8323	0.0557			7,870.0013
Worker	3.4619	4.2684	56.4579	0.1676	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		11,893.4243	11,893.4243	0.5119			11,904.1737
Total	5.9994	27.0277	88.9585	0.2516	15.8577	0.5068	16.3645	4.2553	0.4669	4.7222		19,762.2566	19,762.2566	0.5676			19,774.1751

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	1.9404	17.9396	18.8579	0.0287		1.0742	1.0742		1.0191	1.0191	0.0000	2,723.6049	2,723.6049	0.6780			2,737.8432
Total	1.9404	17.9396	18.8579	0.0287		1.0742	1.0742		1.0191	1.0191	0.0000	2,723.6049	2,723.6049	0.6780			2,737.8432

3.9 Building Construction (Phase 2) - 2020

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	2.5375	22.7593	32.5007	0.0840	2.4557	0.4158	2.8716	0.7010	0.3826	1.0835		7,868.8323	7,868.8323	0.0557			7,870.0013
Worker	3.4619	4.2684	56.4579	0.1676	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		11,893.4243	11,893.4243	0.5119			11,904.1737
Total	5.9994	27.0277	88.9585	0.2516	15.8577	0.5068	16.3645	4.2553	0.4669	4.7222		19,762.2566	19,762.2566	0.5676			19,774.1751

3.10 Architectural Coating (Phase 2) - 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						
Archit. Coating	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291			375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291			375.8742

3.10 Architectural Coating (Phase 2) - 2020

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	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.668 8	2,380.668 8	0.1025		2,382.820 4
Total	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.668 8	2,380.668 8	0.1025		2,382.820 4

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	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742

3.10 Architectural Coating (Phase 2) - 2020

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	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.668 8	2,380.668 8	0.1025		2,382.820 4
Total	0.6930	0.8544	11.3010	0.0335	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,380.668 8	2,380.668 8	0.1025		2,382.820 4

3.11 Paving (Phase 2) - 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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.757 1	2,160.757 1	0.6988		2,175.432 6
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.757 1	2,160.757 1	0.6988		2,175.432 6

3.11 Paving (Phase 2) - 2020

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	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263
Total	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263

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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326

3.11 Paving (Phase 2) - 2020

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	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263
Total	0.0433	0.0534	0.7063	2.1000e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		148.7918	148.7918	6.4000e-003		148.9263

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted)	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

2.4 Fleet Mix

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	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
Fast Food Restaurant with Drive Thru 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
Recreational Swimming Pool	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
Single Family Housing	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
Strip Mall	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
User Defined Retail	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
City Park	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
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Unmitigated	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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
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10.0 Vegetation

Construction (Phase 1 & Phase 2) Mitigated San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Based on past project experience and consultation with the applicant

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday

Off-road Equipment - 8 hour workday; Building Construction Equipment doubled to account for decreased construction duration

Off-road Equipment - 8 hour workday

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on previously modeled assumptions; Off-highway trucks= Water trucks

Off-road Equipment - Based on previously modeled assumptions

Off-road Equipment - Based on previously modeled assumptions

Trips and VMT -

Grading -

Architectural Coating - CalEEMod is unable to distinguish between construction phasing and will doublecount the amount of surface area to be painted. As such, default surface areas have been halved; Based on Rule 1113-50 g/L low VOC paint

Vehicle Trips - Construction only

Road Dust - Construction only

Woodstoves - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - Tier 3 for all construction equipment greater or equal to 150 HP

Mobile Land Use Mitigation -

Area Mitigation - \

tblConstructionPhase	NumDays	220.00	87.00
tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	3,100.00	175.00
tblConstructionPhase	NumDays	3,100.00	400.00
tblConstructionPhase	NumDays	310.00	100.00
tblConstructionPhase	NumDays	310.00	50.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	PhaseEndDate	4/9/2019	12/7/2018
tblConstructionPhase	PhaseEndDate	8/27/2021	11/20/2020
tblConstructionPhase	PhaseStartDate	12/8/2018	8/9/2018
tblConstructionPhase	PhaseStartDate	11/21/2020	2/15/2020
tblEnergyUse	LightingElect	1,001.10	0.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	8.79	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	LightingElect	7.62	0.00
tblEnergyUse	NT24E	3,125.85	0.00
tblEnergyUse	NT24E	2,553.86	0.00
tblEnergyUse	NT24E	28.48	0.00
tblEnergyUse	NT24E	5,089.81	0.00
tblEnergyUse	NT24E	2.44	0.00
tblEnergyUse	NT24NG	2,951.00	0.00
tblEnergyUse	NT24NG	1,779.14	0.00
tblEnergyUse	NT24NG	195.77	0.00
tblEnergyUse	NT24NG	5,950.14	0.00
tblEnergyUse	NT24NG	0.30	0.00

tblEnergyUse	T24E	749.55	0.00
tblEnergyUse	T24E	559.54	0.00
tblEnergyUse	T24E	15.13	0.00
tblEnergyUse	T24E	980.99	0.00
tblEnergyUse	T24E	5.60	0.00
tblEnergyUse	T24NG	17,654.53	0.00
tblEnergyUse	T24NG	10,214.61	0.00
tblEnergyUse	T24NG	81.74	0.00
tblEnergyUse	T24NG	27,816.78	0.00
tblEnergyUse	T24NG	2.02	0.00
tblFireplaces	NumberGas	207.40	0.00
tblFireplaces	NumberGas	44.20	0.00
tblFireplaces	NumberGas	640.90	0.00
tblFireplaces	NumberNoFireplace	24.40	0.00
tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
tblFireplaces	NumberWood	12.20	0.00
tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00
tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
tblLandUse	LotAcreage	3.25	2.40
tblLandUse	LotAcreage	244.81	80.20

tblLandUse	LotAcreage	0.15	0.60
tblLandUse	LotAcreage	0.00	0.20
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
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tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblRoadDust	RoadPercentPave	100	0

tblSolidWaste	SolidWasteGenerationRate	1.68	0.00
tblSolidWaste	SolidWasteGenerationRate	112.24	0.00
tblSolidWaste	SolidWasteGenerationRate	47.45	0.00
tblSolidWaste	SolidWasteGenerationRate	46.08	0.00
tblSolidWaste	SolidWasteGenerationRate	695.23	0.00
tblSolidWaste	SolidWasteGenerationRate	883.96	0.00
tblSolidWaste	SolidWasteGenerationRate	6.83	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	10.08	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	542.72	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.77	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	496.12	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.57	0.00
tblVehicleTrips	WD_TR	44.32	0.00

tblWater	IndoorWaterUseRate	15,897,582.25	0.00
tblWater	IndoorWaterUseRate	3,388,009.33	0.00
tblWater	IndoorWaterUseRate	1,214,134.85	0.00
tblWater	IndoorWaterUseRate	7,213,689.28	0.00
tblWater	IndoorWaterUseRate	49,126,135.32	0.00
tblWater	IndoorWaterUseRate	481,471.39	0.00
tblWater	OutdoorWaterUseRate	23,233,886.32	0.00
tblWater	OutdoorWaterUseRate	10,022,388.81	0.00
tblWater	OutdoorWaterUseRate	2,135,918.93	0.00
tblWater	OutdoorWaterUseRate	77,497.97	0.00
tblWater	OutdoorWaterUseRate	4,421,293.43	0.00
tblWater	OutdoorWaterUseRate	30,970,824.44	0.00
tblWater	OutdoorWaterUseRate	295,095.37	0.00
tblWoodstoves	NumberCatalytic	12.20	0.00
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	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					
2017	14.5131	168.9246	109.3537	0.1512	25.3507	7.3676	32.7183	10.7787	6.7782	17.5569	0.0000	15,374.26 30	15,374.26 30	4.6197	0.0000	15,471.27 63
2018	108.1519	144.6217	148.8464	0.3293	25.3507	6.2021	31.5528	10.7787	5.7060	16.4847	0.0000	28,291.44 29	28,291.44 29	4.6199	0.0000	28,388.46 01
2019	11.7655	132.1183	109.2942	0.2646	25.3507	5.6239	30.9747	10.7787	5.1740	15.9528	0.0000	22,042.70 60	22,042.70 60	4.6180	0.0000	22,139.68 40
2020	50.2384	51.5395	115.9724	0.2989	18.5404	1.8662	20.4066	4.9667	1.7522	6.7189	0.0000	23,898.00 60	23,898.00 60	1.3791	0.0000	23,926.96 62
Total	184.6688	497.2042	483.4667	1.0440	94.5925	21.0599	115.6524	37.3029	19.4104	56.7133	0.0000	89,606.41 79	89,606.41 79	15.2366	0.0000	89,926.38 66

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	73.6351	1.0054	86.9318	4.5800e-003	0.0000	0.4780	0.4780	0.0000	0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Rough Grading (Phase 1 & Phase 2)	Grading	10/1/2017	2/16/2018	5	100	
2	Underground Infrastructure (Phase 1)	Trenching	2/17/2018	4/6/2018	5	35	
3	Building Construction (Phase 1)	Building Construction	4/7/2018	12/7/2018	5	175	
4	Architectural Coating (Phase 1)	Architectural Coating	8/9/2018	12/7/2018	5	87	
5	Paving (Phase 1)	Paving	12/8/2018	12/28/2018	5	15	
6	Fine Grading (Phase 2)	Grading	12/29/2018	3/8/2019	5	50	
7	Underground Infrastructure (Phase 2)	Trenching	3/9/2019	5/10/2019	5	45	
8	Building Construction (Phase 2)	Building Construction	5/11/2019	11/20/2020	5	400	
9	Architectural Coating (Phase 2)	Architectural Coating	2/15/2020	11/20/2020	5	200	
10	Paving (Phase 2)	Paving	11/21/2020	12/11/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,906,607; Residential Outdoor: 635,536; Non-Residential Indoor: 753,713; Non-Residential Outdoor: 251,238
(Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rough Grading (Phase 1 & Phase 2)	Excavators	1	8.00	162	0.38
Rough Grading (Phase 1 & Phase 2)	Graders	1	8.00	174	0.41
Rough Grading (Phase 1 & Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Rough Grading (Phase 1 & Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Rough Grading (Phase 1 & Phase 2)	Scrapers	6	8.00	361	0.48
Rough Grading (Phase 1 & Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 1)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 1)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 1)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction (Phase 1)	Cranes	2	8.00	226	0.29
Building Construction (Phase 1)	Forklifts	6	8.00	89	0.20
Building Construction (Phase 1)	Generator Sets	2	8.00	84	0.74
Building Construction (Phase 1)	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction (Phase 1)	Welders	2	8.00	46	0.45
Architectural Coating (Phase 1)	Air Compressors	1	8.00	78	0.48
Paving (Phase 1)	Pavers	2	8.00	125	0.42
Paving (Phase 1)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 1)	Rollers	2	8.00	80	0.38
Fine Grading (Phase 2)	Excavators	1	8.00	162	0.38
Fine Grading (Phase 2)	Graders	1	8.00	174	0.41
Fine Grading (Phase 2)	Off-Highway Trucks	2	8.00	189	0.50
Fine Grading (Phase 2)	Rubber Tired Dozers	3	8.00	255	0.40
Fine Grading (Phase 2)	Scrapers	6	8.00	361	0.48
Fine Grading (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Underground Infrastructure (Phase 2)	Excavators	2	8.00	162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	1	8.00	171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Building Construction (Phase 2)	Cranes	1	8.00	226	0.29
Building Construction (Phase 2)	Forklifts	3	8.00	89	0.20
Building Construction (Phase 2)	Generator Sets	1	8.00	84	0.74
Building Construction (Phase 2)	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction (Phase 2)	Welders	1	8.00	46	0.45
Architectural Coating (Phase 2)	Air Compressors	1	8.00	78	0.48
Paving (Phase 2)	Pavers	2	8.00	125	0.42
Paving (Phase 2)	Paving Equipment	2	8.00	130	0.36
Paving (Phase 2)	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rough Grading (Phase 1 & Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 1)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 1)	18	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 1)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 1)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading (Phase 2)	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Underground Infrastructure (Phase 2)	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction (Phase 2)	9	1,199.00	391.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (Phase 2)	1	240.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving (Phase 2)	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	14.3879	168.7495	107.5072	0.1468		7.3648	7.3648		6.7756	6.7756		15,016.6103	15,016.6103	4.6011		15,113.2326
Total	14.3879	168.7495	107.5072	0.1468	24.9595	7.3648	32.3243	10.6750	6.7756	17.4506		15,016.6103	15,016.6103	4.6011		15,113.2326

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	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437
Total	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437

3.2 Rough Grading (Phase 1 & Phase 2) - 2017

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.6477	77.9998	81.6237	0.1468		3.2740	3.2740		3.2124	3.2124	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325
Total	4.6477	77.9998	81.6237	0.1468	9.7342	3.2740	13.0082	4.1633	3.2124	7.3756	0.0000	15,016.6103	15,016.6103	4.6011		15,113.2325

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	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437
Total	0.1252	0.1751	1.8465	4.4700e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		357.6528	357.6528	0.0186		358.0437

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.2 Rough Grading (Phase 1 & Phase 2) - 2018

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.4766	76.2545	81.3959	0.1469		3.1570	3.1570		3.1047	3.1047	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	4.4766	76.2545	81.3959	0.1469	9.7342	3.1570	12.8912	4.1633	3.1047	7.2680	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.3 Underground Infrastructure (Phase 1) - 2018

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	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215		2,009.4315
Total	1.4119	15.0013	13.1877	0.0198		0.8111	0.8111		0.7462	0.7462		1,996.3800	1,996.3800	0.6215		2,009.4315

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	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182
Total	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182

3.3 Underground Infrastructure (Phase 1) - 2018

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	0.6787	10.6062	15.0579	0.0198		0.5714	0.5714		0.5565	0.5565	0.0000	1,996.3800	1,996.3800	0.6215		2,009.4315
Total	0.6787	10.6062	15.0579	0.0198		0.5714	0.5714		0.5565	0.5565	0.0000	1,996.3800	1,996.3800	0.6215		2,009.4315

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	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182
Total	0.0318	0.0451	0.4754	1.2800e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		98.3151	98.3151	4.9100e-003		98.4182

3.4 Building Construction (Phase 1) - 2018

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	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551
Total	5.6765	50.1623	37.4347	0.0574		3.2005	3.2005		3.0045	3.0045		5,596.4676	5,596.4676	1.3946		5,625.7551

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	3.0074	29.2013	40.5332	0.0841	2.4563	0.4787	2.9350	0.7012	0.4404	1.1416		8,172.1719	8,172.1719	0.0608		8,173.4487
Worker	3.8182	5.4105	56.9973	0.1532	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		11,787.9770	11,787.9770	0.5889		11,800.3442
Total	6.8256	34.6118	97.5305	0.2373	15.8583	0.5722	16.4305	4.2555	0.5269	4.7824		19,960.1489	19,960.1489	0.6497		19,973.7929

3.4 Building Construction (Phase 1) - 2018

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	5.1226	44.8936	38.1450	0.0574		2.9535	2.9535		2.7881	2.7881	0.0000	5,596.4676	5,596.4676	1.3946		5,625.7551
Total	5.1226	44.8936	38.1450	0.0574		2.9535	2.9535		2.7881	2.7881	0.0000	5,596.4676	5,596.4676	1.3946		5,625.7551

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	3.0074	29.2013	40.5332	0.0841	2.4563	0.4787	2.9350	0.7012	0.4404	1.1416		8,172.1719	8,172.1719	0.0608		8,173.4487
Worker	3.8182	5.4105	56.9973	0.1532	13.4020	0.0935	13.4955	3.5543	0.0865	3.6408		11,787.9770	11,787.9770	0.5889		11,800.3442
Total	6.8256	34.6118	97.5305	0.2373	15.8583	0.5722	16.4305	4.2555	0.5269	4.7824		19,960.1489	19,960.1489	0.6497		19,973.7929

3.5 Architectural Coating (Phase 1) - 2018

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	94.4873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total	94.8854	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135

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	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372
Total	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372

3.5 Architectural Coating (Phase 1) - 2018

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	94.4873					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
Total	94.8854	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135

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	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372
Total	0.7643	1.0830	11.4090	0.0307	2.6826	0.0187	2.7013	0.7115	0.0173	0.7288		2,359.5617	2,359.5617	0.1179		2,362.0372

3.6 Paving (Phase 1) - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481

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	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273

3.6 Paving (Phase 1) - 2018

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	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.4934	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481

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	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273
Total	0.0478	0.0677	0.7131	1.9200e-003	0.1677	1.1700e-003	0.1688	0.0445	1.0800e-003	0.0456		147.4726	147.4726	7.3700e-003		147.6273

3.7 Fine Grading (Phase 2) - 2018**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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	12.5271	144.4638	94.2533	0.1469		6.1994	6.1994		5.7034	5.7034		14,784.6946	14,784.6946	4.6027		14,881.3508
Total	12.5271	144.4638	94.2533	0.1469	24.9595	6.1994	31.1589	10.6750	5.7034	16.3784		14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.7 Fine Grading (Phase 2) - 2018

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.4766	76.2545	81.3959	0.1469		3.1570	3.1570		3.1047	3.1047	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508
Total	4.4766	76.2545	81.3959	0.1469	9.7342	3.1570	12.8912	4.1633	3.1047	7.2680	0.0000	14,784.6946	14,784.6946	4.6027		14,881.3508

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	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638
Total	0.1115	0.1579	1.6638	4.4700e-003	0.3912	2.7300e-003	0.3940	0.1038	2.5200e-003	0.1063		344.1028	344.1028	0.0172		344.4638

3.7 Fine Grading (Phase 2) - 2019

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					24.9595	0.0000	24.9595	10.6750	0.0000	10.6750			0.0000			0.0000
Off-Road	11.6642	131.9745	88.2936	0.1469		5.6213	5.6213		5.1716	5.1716		14,545.8473	14,545.8473	4.6022		14,642.4925
Total	11.6642	131.9745	88.2936	0.1469	24.9595	5.6213	30.5808	10.6750	5.1716	15.8466		14,545.8473	14,545.8473	4.6022		14,642.4925

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	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579
Total	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579

3.7 Fine Grading (Phase 2) - 2019

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					9.7342	0.0000	9.7342	4.1633	0.0000	4.1633			0.0000			0.0000
Off-Road	4.3772	75.2184	81.2943	0.1469		3.0830	3.0830		3.0366	3.0366	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925
Total	4.3772	75.2184	81.2943	0.1469	9.7342	3.0830	12.8172	4.1633	3.0366	7.1999	0.0000	14,545.8473	14,545.8473	4.6022		14,642.4925

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	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579
Total	0.1013	0.1439	1.5066	4.4500e-003	0.3912	2.6600e-003	0.3939	0.1038	2.4700e-003	0.1062		329.6250	329.6250	0.0159		329.9579

3.8 Underground Infrastructure (Phase 2) - 2019

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	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215		1,977.3061
Total	1.2894	13.4523	13.1189	0.0198		0.7170	0.7170		0.6596	0.6596		1,964.2553	1,964.2553	0.6215		1,977.3061

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	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737
Total	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737

3.8 Underground Infrastructure (Phase 2) - 2019

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	0.6454	10.3139	15.0238	0.0198		0.5411	0.5411		0.5286	0.5286	0.0000	1,964.2553	1,964.2553	0.6215		1,977.3061
Total	0.6454	10.3139	15.0238	0.0198		0.5411	0.5411		0.5286	0.5286	0.0000	1,964.2553	1,964.2553	0.6215		1,977.3061

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	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737
Total	0.0290	0.0411	0.4304	1.2700e-003	0.1118	7.6000e-004	0.1125	0.0296	7.1000e-004	0.0304		94.1786	94.1786	4.5300e-003		94.2737

3.9 Building Construction (Phase 2) - 2019

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	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623
Total	2.5006	22.5762	18.2643	0.0287		1.3747	1.3747		1.2908	1.2908		2,765.9458	2,765.9458	0.6865		2,780.3623

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	2.8516	26.7990	39.4197	0.0835	2.4560	0.4589	2.9149	0.7011	0.4222	1.1233		7,984.7486	7,984.7486	0.0589		7,985.9845
Worker	3.4715	4.9279	51.6103	0.1524	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		11,292.0116	11,292.0116	0.5430		11,303.4139
Total	6.3231	31.7269	91.0299	0.2359	15.8580	0.5502	16.4082	4.2554	0.5068	4.7621		19,276.7602	19,276.7602	0.6018		19,289.3985

3.9 Building Construction (Phase 2) - 2019

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	2.2667	20.4673	18.7672	0.0287		1.2774	1.2774		1.2066	1.2066	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623
Total	2.2667	20.4673	18.7672	0.0287		1.2774	1.2774		1.2066	1.2066	0.0000	2,765.9458	2,765.9458	0.6865		2,780.3623

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	2.8516	26.7990	39.4197	0.0835	2.4560	0.4589	2.9149	0.7011	0.4222	1.1233		7,984.7486	7,984.7486	0.0589		7,985.9845
Worker	3.4715	4.9279	51.6103	0.1524	13.4020	0.0913	13.4933	3.5543	0.0846	3.6389		11,292.0116	11,292.0116	0.5430		11,303.4139
Total	6.3231	31.7269	91.0299	0.2359	15.8580	0.5502	16.4082	4.2554	0.5068	4.7621		19,276.7602	19,276.7602	0.6018		19,289.3985

3.9 Building Construction (Phase 2) - 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	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780		2,737.8432
Total	2.2453	20.5327	17.9220	0.0287		1.1899	1.1899		1.1174	1.1174		2,723.6049	2,723.6049	0.6780		2,737.8432

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	2.6943	23.3058	38.2298	0.0834	2.4557	0.4192	2.8749	0.7010	0.3856	1.0866		7,801.7530	7,801.7530	0.0577		7,802.9637
Worker	3.2279	4.5460	47.8089	0.1524	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		10,829.6479	10,829.6479	0.5119		10,840.3973
Total	5.9221	27.8517	86.0387	0.2358	15.8577	0.5102	16.3679	4.2553	0.4700	4.7253		18,631.4010	18,631.4010	0.5695		18,643.3611

3.9 Building Construction (Phase 2) - 2020

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	2.0441	18.8213	18.5397	0.0287		1.1136	1.1136		1.0525	1.0525	0.0000	2,723.6049	2,723.6049	0.6780		2,737.8432
Total	2.0441	18.8213	18.5397	0.0287		1.1136	1.1136		1.0525	1.0525	0.0000	2,723.6049	2,723.6049	0.6780		2,737.8432

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	2.6943	23.3058	38.2298	0.0834	2.4557	0.4192	2.8749	0.7010	0.3856	1.0866		7,801.7530	7,801.7530	0.0577		7,802.9637
Worker	3.2279	4.5460	47.8089	0.1524	13.4020	0.0910	13.4930	3.5543	0.0844	3.6387		10,829.6479	10,829.6479	0.5119		10,840.3973
Total	5.9221	27.8517	86.0387	0.2358	15.8577	0.5102	16.3679	4.2553	0.4700	4.7253		18,631.4010	18,631.4010	0.5695		18,643.3611

3.10 Architectural Coating (Phase 2) - 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					
Archit. Coating	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.8742

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	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877
Total	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877

3.10 Architectural Coating (Phase 2) - 2020

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	41.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742
Total	41.4249	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.8742

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	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877
Total	0.6461	0.9100	9.5698	0.0305	2.6826	0.0182	2.7009	0.7115	0.0169	0.7283		2,167.7360	2,167.7360	0.1025		2,169.8877

3.11 Paving (Phase 2) - 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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326

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	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180
Total	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180

3.11 Paving (Phase 2) - 2020

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	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	4.2121	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326

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	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180
Total	0.0404	0.0569	0.5981	1.9100e-003	0.1677	1.1400e-003	0.1688	0.0445	1.0600e-003	0.0455		135.4835	135.4835	6.4000e-003		135.6180

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
User Defined Retail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
User Defined Retail	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	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
Fast Food Restaurant with Drive Thru 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
Recreational Swimming Pool	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
Single Family Housing	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
Strip Mall	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
User Defined Retail	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
City Park	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
Condo/Townhouse	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		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133
Unmitigated	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	70.9869					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	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	73.6351	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780	0.0000	156.0172	156.0172	0.1522	0.0000	159.2133

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
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10.0 Vegetation

Operations (Phase 1 & 2)
San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Operations only

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment -

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - TR and Pass by reduction consistent with the Project TIA. User defined retail = coffee shop with drive thru

Woodstoves - Based on Rule 445

Consumer Products - Consumer products calculated separately

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - user defined retail = coffee shop with drive thru. Ratio water demand of Coffee Shop to Fast Food Restaurant based on the SF ratio

Solid Waste - user defined retail = coffee shop with drive thru. Ratio solid waste of Coffee Shop to Fast Food Restaurant based on the SF ratio

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Based on Rule 1113

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	0.00	8.79
tblEnergyUse	NT24E	0.00	28.48
tblEnergyUse	NT24NG	0.00	195.77

tblEnergyUse	T24E	749.55	574.90
tblEnergyUse	T24E	559.54	429.17
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	980.99	623.91
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24E	0.00	11.83
tblEnergyUse	T24NG	17,654.53	16,983.66
tblEnergyUse	T24NG	10,214.61	9,826.45
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	27,816.78	26,008.69
tblEnergyUse	T24NG	2.02	1.68
tblEnergyUse	T24NG	0.00	68.01
tblFireplaces	NumberGas	207.40	244.00
tblFireplaces	NumberGas	44.20	52.00
tblFireplaces	NumberGas	640.90	754.00
tblFireplaces	NumberNoFireplace	24.40	0.00
tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
tblFireplaces	NumberWood	12.20	0.00
tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00
tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
tblLandUse	LotAcreage	3.25	2.40

tblLandUse	LotAcreage	244.81	80.20
tblLandUse	LotAcreage	0.15	0.60
tblLandUse	LotAcreage	0.00	0.20
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblSolidWaste	SolidWasteGenerationRate	0.00	17.28
tblVehicleTrips	CC_TTP	0.00	78.80
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	2.20
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	0.00	21.00
tblVehicleTrips	PB_TP	15.00	34.00
tblVehicleTrips	PB_TP	0.00	50.00
tblVehicleTrips	PR_TP	45.00	66.00
tblVehicleTrips	PR_TP	0.00	29.00
tblVehicleTrips	ST_TR	1.59	29.13
tblVehicleTrips	ST_TR	7.16	5.38
tblVehicleTrips	ST_TR	2.20	2.48
tblVehicleTrips	ST_TR	722.03	542.25
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	10.08	9.40
tblVehicleTrips	ST_TR	42.04	21.01
tblVehicleTrips	ST_TR	0.00	404.00
tblVehicleTrips	SU_TR	1.59	29.13
tblVehicleTrips	SU_TR	6.07	4.59
tblVehicleTrips	SU_TR	2.44	2.70
tblVehicleTrips	SU_TR	542.72	407.59
tblVehicleTrips	SU_TR	26.73	0.00

tblVehicleTrips	SU_TR	8.77	8.18
tblVehicleTrips	SU_TR	20.43	10.61
tblVehicleTrips	SU_TR	0.00	404.00
tblVehicleTrips	WD_TR	1.59	29.13
tblVehicleTrips	WD_TR	6.59	5.51
tblVehicleTrips	WD_TR	2.74	3.27
tblVehicleTrips	WD_TR	496.12	372.50
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.57	9.03
tblVehicleTrips	WD_TR	44.32	65.08
tblVehicleTrips	WD_TR	0.00	404.00
tblWater	IndoorWaterUseRate	0.00	455,300.57
tblWater	OutdoorWaterUseRate	0.00	29,061.74
tblWoodstoves	NumberCatalytic	12.20	0.00
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	0.00

2.0 Emissions Summary

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	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
Mobile	36.6002	98.4102	395.0334	1.1367	74.0715	1.5847	75.6562	19.7822	1.4608	21.2430		88,034.5057	88,034.5057	2.8353		88,094.0475
Total	52.6198	107.2734	485.5829	1.1912	74.0715	4.1043	78.1758	19.7822	3.9656	23.7478	0.0000	120,426.8373	120,426.8373	3.6054	0.5910	120,685.7600

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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
Mobile	36.6002	98.4102	395.0334	1.1367	74.0715	1.5847	75.6562	19.7822	1.4608	21.2430		88,034.5057	88,034.5057	2.8353		88,094.0475
Total	46.7081	107.2734	485.5829	1.1912	74.0715	4.1043	78.1758	19.7822	3.9656	23.7478	0.0000	120,426.8373	120,426.8373	3.6054	0.5910	120,685.7600

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	11.23	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	Underground Infrastructure (Phase 2)	Trenching	1/11/2019	1/11/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Underground Infrastructure (Phase 2)	Excavators	0		162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	0		171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	0		97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Underground Infrastructure (Phase 2)	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Underground Infrastructure (Phase 2) - 2019

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

Unmitigated Construction Off-Site

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

3.2 Underground Infrastructure (Phase 2) - 2019

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

Mitigated Construction Off-Site

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

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	36.6002	98.4102	395.0334	1.1367	74.0715	1.5847	75.6562	19.7822	1.4608	21.2430		88,034.5057	88,034.5057	2.8353		88,094.0475
Unmitigated	36.6002	98.4102	395.0334	1.1367	74.0715	1.5847	75.6562	19.7822	1.4608	21.2430		88,034.5057	88,034.5057	2.8353		88,094.0475

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	568.04	568.04	568.04	1,634,544	1,634,544
Condo/Townhouse	1,344.44	1,312.72	1119.96	4,469,088	4,469,088
Congregate Care (Assisted Living)	170.04	128.96	140.40	546,530	546,530
Fast Food Restaurant with Drive Thru	1,490.00	2,169.00	1630.36	1,691,241	1,691,241
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	6,808.62	7,087.60	6167.72	23,089,412	23,089,412
Strip Mall	423.02	136.57	68.97	758,826	758,826
User Defined Retail	606.00	606.00	606.00	637,747	637,747
Total	11,410.16	12,008.88	10,301.44	32,827,387	32,827,387

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	66	0	34
User Defined Retail	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
NaturalGas Unmitigated	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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					
Congregate Care (Assisted Living)	1653.4	0.0178	0.1524	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.5175	194.5175	3.7300e-003	3.5700e-003	195.7014
Fast Food Restaurant with Drive Thru Parking Lot	2890.74	0.0312	0.2834	0.2381	1.7000e-003		0.0215	0.0215		0.0215	0.0215		340.0870	340.0870	6.5200e-003	6.2300e-003	342.1567
Recreational Swimming Pool	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
Single Family Housing	66019.1	0.7120	6.0841	2.5890	0.0388		0.4919	0.4919		0.4919	0.4919		7,766.9485	7,766.9485	0.1489	0.1424	7,814.2169
Strip Mall	35.2603	3.8000e-004	3.4600e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		4.1483	4.1483	8.0000e-005	8.0000e-005	4.1735
User Defined Retail	1084.03	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5326	127.5326	2.4400e-003	2.3400e-003	128.3088
City Park	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
Condo/Townhouse	13326.2	0.1437	1.2281	0.5226	7.8400e-003		0.0993	0.0993		0.0993	0.0993		1,567.7863	1,567.7863	0.0301	0.0287	1,577.3276
Total		0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.6534	0.0178	0.1524	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.5175	194.5175	3.7300e-003	3.5700e-003	195.7014
Fast Food Restaurant with Drive Thru Parking Lot	2.89074	0.0312	0.2834	0.2381	1.7000e-003		0.0215	0.0215		0.0215	0.0215		340.0870	340.0870	6.5200e-003	6.2300e-003	342.1567
Recreational Swimming Pool	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
Single Family Housing	66.0191	0.7120	6.0841	2.5890	0.0388		0.4919	0.4919		0.4919	0.4919		7,766.9485	7,766.9485	0.1489	0.1424	7,814.2169
Strip Mall	0.0352603	3.8000e-004	3.4600e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		4.1483	4.1483	8.0000e-005	8.0000e-005	4.1735
User Defined Retail	1.08403	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5326	127.5326	2.4400e-003	2.3400e-003	128.3088
City Park	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
Condo/Townhouse	13.3262	0.1437	1.2281	0.5226	7.8400e-003		0.0993	0.0993		0.0993	0.0993		1,567.7863	1,567.7863	0.0301	0.0287	1,577.3276
Total		0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Unmitigated	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

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	10.4160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

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
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10.0 Vegetation

Operations (Phase 1 & 2)

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Operations only

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment -

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - TR and Pass by reduction consistent with the Project TIA. User defined retail = coffee shop with drive thru

Woodstoves - Based on Rule 445

Consumer Products - Consumer products calculated separately

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - user defined retail = coffee shop with drive thru. Ratio water demand of Coffee Shop to Fast Food Restaurant based on the SF ratio

Solid Waste - user defined retail = coffee shop with drive thru. Ratio solid waste of Coffee Shop to Fast Food Restaurant based on the SF ratio

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Based on Rule 1113

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	0.00	8.79
tblEnergyUse	NT24E	0.00	28.48
tblEnergyUse	NT24NG	0.00	195.77

tblEnergyUse	T24E	749.55	574.90
tblEnergyUse	T24E	559.54	429.17
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	980.99	623.91
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24E	0.00	11.83
tblEnergyUse	T24NG	17,654.53	16,983.66
tblEnergyUse	T24NG	10,214.61	9,826.45
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	27,816.78	26,008.69
tblEnergyUse	T24NG	2.02	1.68
tblEnergyUse	T24NG	0.00	68.01
tblFireplaces	NumberGas	207.40	244.00
tblFireplaces	NumberGas	44.20	52.00
tblFireplaces	NumberGas	640.90	754.00
tblFireplaces	NumberNoFireplace	24.40	0.00
tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
tblFireplaces	NumberWood	12.20	0.00
tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00
tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
tblLandUse	LotAcreage	3.25	2.40

tblLandUse	LotAcreage	244.81	80.20
tblLandUse	LotAcreage	0.15	0.60
tblLandUse	LotAcreage	0.00	0.20
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblSolidWaste	SolidWasteGenerationRate	0.00	17.28
tblVehicleTrips	CC_TTP	0.00	78.80
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	2.20
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	0.00	21.00
tblVehicleTrips	PB_TP	15.00	34.00
tblVehicleTrips	PB_TP	0.00	50.00
tblVehicleTrips	PR_TP	45.00	66.00
tblVehicleTrips	PR_TP	0.00	29.00
tblVehicleTrips	ST_TR	1.59	29.13
tblVehicleTrips	ST_TR	7.16	5.38
tblVehicleTrips	ST_TR	2.20	2.48
tblVehicleTrips	ST_TR	722.03	542.25
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	10.08	9.40
tblVehicleTrips	ST_TR	42.04	21.01
tblVehicleTrips	ST_TR	0.00	404.00
tblVehicleTrips	SU_TR	1.59	29.13
tblVehicleTrips	SU_TR	6.07	4.59
tblVehicleTrips	SU_TR	2.44	2.70
tblVehicleTrips	SU_TR	542.72	407.59
tblVehicleTrips	SU_TR	26.73	0.00

tblVehicleTrips	SU_TR	8.77	8.18
tblVehicleTrips	SU_TR	20.43	10.61
tblVehicleTrips	SU_TR	0.00	404.00
tblVehicleTrips	WD_TR	1.59	29.13
tblVehicleTrips	WD_TR	6.59	5.51
tblVehicleTrips	WD_TR	2.74	3.27
tblVehicleTrips	WD_TR	496.12	372.50
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.57	9.03
tblVehicleTrips	WD_TR	44.32	65.08
tblVehicleTrips	WD_TR	0.00	404.00
tblWater	IndoorWaterUseRate	0.00	455,300.57
tblWater	OutdoorWaterUseRate	0.00	29,061.74
tblWoodstoves	NumberCatalytic	12.20	0.00
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	0.00

2.0 Emissions Summary

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	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
Mobile	35.4141	102.5675	374.4133	1.0590	74.0715	1.5909	75.6624	19.7822	1.4666	21.2487		82,426.8752	82,426.8752	2.8400		82,486.5149
Total	51.4337	111.4307	464.9629	1.1136	74.0715	4.1105	78.1820	19.7822	3.9714	23.7535	0.0000	114,819.2068	114,819.2068	3.6101	0.5910	115,078.2274

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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
Mobile	35.4141	102.5675	374.4133	1.0590	74.0715	1.5909	75.6624	19.7822	1.4666	21.2487		82,426.8752	82,426.8752	2.8400		82,486.5149
Total	45.5220	111.4307	464.9629	1.1136	74.0715	4.1105	78.1820	19.7822	3.9714	23.7535	0.0000	114,819.2068	114,819.2068	3.6101	0.5910	115,078.2274

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	11.49	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	Underground Infrastructure (Phase 2)	Trenching	1/11/2019	1/11/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Underground Infrastructure (Phase 2)	Excavators	0		162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	0		171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	0		97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Underground Infrastructure (Phase 2)	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Underground Infrastructure (Phase 2) - 2019

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

Unmitigated Construction Off-Site

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

3.2 Underground Infrastructure (Phase 2) - 2019

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

Mitigated Construction Off-Site

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

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	35.4141	102.5675	374.4133	1.0590	74.0715	1.5909	75.6624	19.7822	1.4666	21.2487		82,426.8752	82,426.8752	2.8400		82,486.5149
Unmitigated	35.4141	102.5675	374.4133	1.0590	74.0715	1.5909	75.6624	19.7822	1.4666	21.2487		82,426.8752	82,426.8752	2.8400		82,486.5149

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	568.04	568.04	568.04	1,634,544	1,634,544
Condo/Townhouse	1,344.44	1,312.72	1119.96	4,469,088	4,469,088
Congregate Care (Assisted Living)	170.04	128.96	140.40	546,530	546,530
Fast Food Restaurant with Drive Thru	1,490.00	2,169.00	1630.36	1,691,241	1,691,241
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	6,808.62	7,087.60	6167.72	23,089,412	23,089,412
Strip Mall	423.02	136.57	68.97	758,826	758,826
User Defined Retail	606.00	606.00	606.00	637,747	637,747
Total	11,410.16	12,008.88	10,301.44	32,827,387	32,827,387

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	66	0	34
User Defined Retail	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
NaturalGas Unmitigated	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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					
Condo/Townhouse	13326.2	0.1437	1.2281	0.5226	7.8400e-003		0.0993	0.0993		0.0993	0.0993		1,567.7863	1,567.7863	0.0301	0.0287	1,577.3276
Congregate Care (Assisted Living)	1653.4	0.0178	0.1524	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.5175	194.5175	3.7300e-003	3.5700e-003	195.7014
Fast Food Restaurant with Drive-Thru Parking Lot	2890.74	0.0312	0.2834	0.2381	1.7000e-003		0.0215	0.0215		0.0215	0.0215		340.0870	340.0870	6.5200e-003	6.2300e-003	342.1567
Recreational Swimming Pool	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
Single Family Housing	66019.1	0.7120	6.0841	2.5890	0.0388		0.4919	0.4919		0.4919	0.4919		7,766.9485	7,766.9485	0.1489	0.1424	7,814.2169
Strip Mall	35.2603	3.8000e-004	3.4600e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		4.1483	4.1483	8.0000e-005	8.0000e-005	4.1735
User Defined Retail	1084.03	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5326	127.5326	2.4400e-003	2.3400e-003	128.3088
City Park	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		0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.6534	0.0178	0.1524	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.5175	194.5175	3.7300e-003	3.5700e-003	195.7014
Fast Food Restaurant with Drive Thru Parking Lot	2.89074	0.0312	0.2834	0.2381	1.7000e-003		0.0215	0.0215		0.0215	0.0215		340.0870	340.0870	6.5200e-003	6.2300e-003	342.1567
Recreational Swimming Pool	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
Single Family Housing	66.0191	0.7120	6.0841	2.5890	0.0388		0.4919	0.4919		0.4919	0.4919		7,766.9485	7,766.9485	0.1489	0.1424	7,814.2169
Strip Mall	0.0352603	3.8000e-004	3.4600e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		4.1483	4.1483	8.0000e-005	8.0000e-005	4.1735
User Defined Retail	1.08403	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5326	127.5326	2.4400e-003	2.3400e-003	128.3088
City Park	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
Condo/Townhouse	13.3262	0.1437	1.2281	0.5226	7.8400e-003		0.0993	0.0993		0.0993	0.0993		1,567.7863	1,567.7863	0.0301	0.0287	1,577.3276
Total		0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Unmitigated	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

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	10.4160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

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
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10.0 Vegetation

Operations (Phase 1 & 2)

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Operations only

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment -

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - TR and Pass by reduction consistent with the Project TIA. User defined retail = coffee shop with drive thru

Woodstoves - Based on Rule 445

Consumer Products - Consumer products calculated separately

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - user defined retail = coffee shop with drive thru. Ratio water demand of Coffee Shop to Fast Food Restaurant based on the SF ratio

Solid Waste - user defined retail = coffee shop with drive thru. Ratio solid waste of Coffee Shop to Fast Food Restaurant based on the SF ratio

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Based on Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConsumerProducts	ROG_EF	1.98E-05	1E-10

tblEnergyUse	LightingElect	0.00	8.79
tblEnergyUse	NT24E	0.00	28.48
tblEnergyUse	NT24NG	0.00	195.77
tblEnergyUse	T24E	749.55	574.90
tblEnergyUse	T24E	559.54	429.17
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	980.99	623.91
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24E	0.00	11.83
tblEnergyUse	T24NG	17,654.53	16,983.66
tblEnergyUse	T24NG	10,214.61	9,826.45
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	27,816.78	26,008.69
tblEnergyUse	T24NG	2.02	1.68
tblEnergyUse	T24NG	0.00	68.01
tblFireplaces	NumberGas	207.40	244.00
tblFireplaces	NumberGas	44.20	52.00
tblFireplaces	NumberGas	640.90	754.00
tblFireplaces	NumberNoFireplace	24.40	0.00
tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
tblFireplaces	NumberWood	12.20	0.00
tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00

tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
tblLandUse	LotAcreage	3.25	2.40
tblLandUse	LotAcreage	244.81	80.20
tblLandUse	LotAcreage	0.15	0.60
tblLandUse	LotAcreage	0.00	0.20
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblSolidWaste	SolidWasteGenerationRate	0.00	17.28
tblVehicleTrips	CC_TTP	0.00	78.80
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	2.20
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	0.00	21.00
tblVehicleTrips	PB_TP	15.00	34.00
tblVehicleTrips	PB_TP	0.00	50.00
tblVehicleTrips	PR_TP	45.00	66.00
tblVehicleTrips	PR_TP	0.00	29.00
tblVehicleTrips	ST_TR	1.59	29.13
tblVehicleTrips	ST_TR	7.16	5.38
tblVehicleTrips	ST_TR	2.20	2.48
tblVehicleTrips	ST_TR	722.03	542.25
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	10.08	9.40
tblVehicleTrips	ST_TR	42.04	21.01
tblVehicleTrips	ST_TR	0.00	404.00
tblVehicleTrips	SU_TR	1.59	29.13
tblVehicleTrips	SU_TR	6.07	4.59

tblVehicleTrips	SU_TR	2.44	2.70
tblVehicleTrips	SU_TR	542.72	407.59
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.77	8.18
tblVehicleTrips	SU_TR	20.43	10.61
tblVehicleTrips	SU_TR	0.00	404.00
tblVehicleTrips	WD_TR	1.59	29.13
tblVehicleTrips	WD_TR	6.59	5.51
tblVehicleTrips	WD_TR	2.74	3.27
tblVehicleTrips	WD_TR	496.12	372.50
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.57	9.03
tblVehicleTrips	WD_TR	44.32	65.08
tblVehicleTrips	WD_TR	0.00	404.00
tblWater	IndoorWaterUseRate	0.00	455,300.57
tblWater	OutdoorWaterUseRate	0.00	29,061.74
tblWoodstoves	NumberCatalytic	12.20	0.00
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	0.00

2.0 Emissions Summary

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	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
Mobile	36.6002	98.4102	395.0334	1.1367	74.0715	1.5847	75.6562	19.7822	1.4608	21.2430		88,034.5057	88,034.5057	2.8353		88,094.0475
Total	52.6198	107.2734	485.5829	1.1912	74.0715	4.1043	78.1758	19.7822	3.9656	23.7478	0.0000	120,426.8373	120,426.8373	3.6054	0.5910	120,685.7600

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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.8075	6.9232	3.1026	0.0441		0.5579	0.5579		0.5579	0.5579		8,809.2146	8,809.2146	0.1688	0.1615	8,862.8260
Mobile	35.8712	92.8440	375.0585	1.0606	68.9606	1.4824	70.4430	18.4172	1.3666	19.7838		82,146.1005	82,146.1005	2.6586		82,201.9307
Total	45.8698	100.7727	465.2040	1.1093	68.9606	3.9266	72.8871	18.4172	3.7959	22.2131	0.0000	113,346.6264	113,346.6264	3.4058	0.5692	113,594.5843

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	12.83	6.06	4.20	6.88	6.90	4.33	6.77	6.90	4.28	6.46	0.00	5.88	5.88	5.54	3.70	5.88

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Underground Infrastructure (Phase 2)	Trenching	1/11/2019	1/11/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Underground Infrastructure (Phase 2)	Excavators	0		162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	0		171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	0		97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Underground Infrastructure (Phase 2)	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Underground Infrastructure (Phase 2) - 2019

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

Unmitigated Construction Off-Site

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

3.2 Underground Infrastructure (Phase 2) - 2019

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	35.8712	92.8440	375.0585	1.0606	68.9606	1.4824	70.4430	18.4172	1.3666	19.7838		82,146.1005	82,146.1005	2.6586		82,201.9307
Unmitigated	36.6002	98.4102	395.0334	1.1367	74.0715	1.5847	75.6562	19.7822	1.4608	21.2430		88,034.5057	88,034.5057	2.8353		88,094.0475

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	568.04	568.04	568.04	1,634,544	1,521,760
Condo/Townhouse	1,344.44	1,312.72	1119.96	4,469,088	4,160,721
Congregate Care (Assisted Living)	170.04	128.96	140.40	546,530	508,819
Fast Food Restaurant with Drive Thru	1,490.00	2,169.00	1630.36	1,691,241	1,574,545
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	6,808.62	7,087.60	6167.72	23,089,412	21,496,243
Strip Mall	423.02	136.57	68.97	758,826	706,467
User Defined Retail	606.00	606.00	606.00	637,747	593,742
Total	11,410.16	12,008.88	10,301.44	32,827,387	30,562,297

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	66	0	34
User Defined Retail	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	0.8075	6.9232	3.1026	0.0441		0.5579	0.5579		0.5579	0.5579		8,809.2146	8,809.2146	0.1688	0.1615	8,862.8260
NaturalGas Unmitigated	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

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					
Congregate Care (Assisted Living)	1653.4	0.0178	0.1524	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.5175	194.5175	3.7300e-003	3.5700e-003	195.7014
Fast Food Restaurant with Drive Thru Parking Lot	2890.74	0.0312	0.2834	0.2381	1.7000e-003		0.0215	0.0215		0.0215	0.0215		340.0870	340.0870	6.5200e-003	6.2300e-003	342.1567
Recreational Swimming Pool	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
Single Family Housing	66019.1	0.7120	6.0841	2.5890	0.0388		0.4919	0.4919		0.4919	0.4919		7,766.9485	7,766.9485	0.1489	0.1424	7,814.2169
Strip Mall	35.2603	3.8000e-004	3.4600e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		4.1483	4.1483	8.0000e-005	8.0000e-005	4.1735
User Defined Retail	1084.03	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5326	127.5326	2.4400e-003	2.3400e-003	128.3088
City Park	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
Condo/Townhouse	13326.2	0.1437	1.2281	0.5226	7.8400e-003		0.0993	0.0993		0.0993	0.0993		1,567.7863	1,567.7863	0.0301	0.0287	1,577.3276
Total		0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.44341	0.0156	0.1330	0.0566	8.5000e-004		0.0108	0.0108		0.0108	0.0108		169.8129	169.8129	3.2500e-003	3.1100e-003	170.8463
Fast Food Restaurant with Drive Thru Parking Lot	2.77894	0.0300	0.2725	0.2289	1.6300e-003		0.0207	0.0207		0.0207	0.0207		326.9344	326.9344	6.2700e-003	5.9900e-003	328.9241
Recreational Swimming Pool	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
Single Family Housing	57.9599	0.6251	5.3414	2.2729	0.0341		0.4319	0.4319		0.4319	0.4319		6,818.8155	6,818.8155	0.1307	0.1250	6,860.3136
Strip Mall	0.0307726	3.3000e-004	3.0200e-003	2.5300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.6203	3.6203	7.0000e-005	7.0000e-005	3.6423
User Defined Retail	1.0421	0.0112	0.1022	0.0858	6.1000e-004		7.7600e-003	7.7600e-003		7.7600e-003	7.7600e-003		122.6004	122.6004	2.3500e-003	2.2500e-003	123.3465
City Park	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
Condo/Townhouse	11.6232	0.1254	1.0712	0.4558	6.8400e-003		0.0866	0.0866		0.0866	0.0866		1,367.4311	1,367.4311	0.0262	0.0251	1,375.7531
Total		0.8075	6.9232	3.1026	0.0440		0.5579	0.5579		0.5579	0.5579		8,809.2146	8,809.2146	0.1688	0.1615	8,862.8260

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Unmitigated	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

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	10.4160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Operations (Phase 1 & 2)
San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	16.50	Acre	16.50	718,740.00	0
City Park	19.50	Acre	19.50	849,420.00	0
Fast Food Restaurant with Drive Thru	4.00	1000sqft	0.40	4,000.00	0
Recreational Swimming Pool	121.97	1000sqft	2.80	121,968.00	0
Condo/Townhouse	244.00	Dwelling Unit	13.90	372,832.00	698
Congregate Care (Assisted Living)	52.00	Dwelling Unit	2.40	52,000.00	149
Single Family Housing	754.00	Dwelling Unit	80.20	1,458,236.00	2156
Strip Mall	6.50	1000sqft	0.60	6,500.00	0
User Defined Retail	1.50	User Defined Unit	0.20	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	466.91	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Source: CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage: 336.2; includes 199.7 acres of open space; User defined Retail = Coffee Shop w/ Drive-Thru, City Park= community+passive parks; Swimming pool=PA 14A (private use)

Construction Phase - Operations only

Off-road Equipment - based on past project experience and consultation with the applicant

Off-road Equipment -

Trips and VMT -

Grading -

Architectural Coating -

Vehicle Trips - TR and Pass by reduction consistent with the Project TIA. User defined retail = coffee shop with drive thru

Woodstoves - Based on Rule 445

Consumer Products - Consumer products calculated separately

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - user defined retail = coffee shop with drive thru. Ratio water demand of Coffee Shop to Fast Food Restaurant based on the SF ratio

Solid Waste - user defined retail = coffee shop with drive thru. Ratio solid waste of Coffee Shop to Fast Food Restaurant based on the SF ratio

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Based on Rule 1113

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConsumerProducts	ROG_EF	1.98E-05	1E-10

tblEnergyUse	LightingElect	0.00	8.79
tblEnergyUse	NT24E	0.00	28.48
tblEnergyUse	NT24NG	0.00	195.77
tblEnergyUse	T24E	749.55	574.90
tblEnergyUse	T24E	559.54	429.17
tblEnergyUse	T24E	15.13	11.83
tblEnergyUse	T24E	980.99	623.91
tblEnergyUse	T24E	5.60	4.38
tblEnergyUse	T24E	0.00	11.83
tblEnergyUse	T24NG	17,654.53	16,983.66
tblEnergyUse	T24NG	10,214.61	9,826.45
tblEnergyUse	T24NG	81.74	68.01
tblEnergyUse	T24NG	27,816.78	26,008.69
tblEnergyUse	T24NG	2.02	1.68
tblEnergyUse	T24NG	0.00	68.01
tblFireplaces	NumberGas	207.40	244.00
tblFireplaces	NumberGas	44.20	52.00
tblFireplaces	NumberGas	640.90	754.00
tblFireplaces	NumberNoFireplace	24.40	0.00
tblFireplaces	NumberNoFireplace	5.20	0.00
tblFireplaces	NumberNoFireplace	75.40	0.00
tblFireplaces	NumberWood	12.20	0.00
tblFireplaces	NumberWood	2.60	0.00
tblFireplaces	NumberWood	37.70	0.00
tblLandUse	LandUseSquareFeet	121,970.00	121,968.00
tblLandUse	LandUseSquareFeet	244,000.00	372,832.00
tblLandUse	LandUseSquareFeet	1,357,200.00	1,458,236.00
tblLandUse	LandUseSquareFeet	0.00	1,500.00

tblLandUse	LotAcreage	0.09	0.40
tblLandUse	LotAcreage	15.25	13.90
tblLandUse	LotAcreage	3.25	2.40
tblLandUse	LotAcreage	244.81	80.20
tblLandUse	LotAcreage	0.15	0.60
tblLandUse	LotAcreage	0.00	0.20
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblSolidWaste	SolidWasteGenerationRate	0.00	17.28
tblVehicleTrips	CC_TTP	0.00	78.80
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	2.20
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	0.00	21.00
tblVehicleTrips	PB_TP	15.00	34.00
tblVehicleTrips	PB_TP	0.00	50.00
tblVehicleTrips	PR_TP	45.00	66.00
tblVehicleTrips	PR_TP	0.00	29.00
tblVehicleTrips	ST_TR	1.59	29.13
tblVehicleTrips	ST_TR	7.16	5.38
tblVehicleTrips	ST_TR	2.20	2.48
tblVehicleTrips	ST_TR	722.03	542.25
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	10.08	9.40
tblVehicleTrips	ST_TR	42.04	21.01
tblVehicleTrips	ST_TR	0.00	404.00
tblVehicleTrips	SU_TR	1.59	29.13
tblVehicleTrips	SU_TR	6.07	4.59

tblVehicleTrips	SU_TR	2.44	2.70
tblVehicleTrips	SU_TR	542.72	407.59
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	8.77	8.18
tblVehicleTrips	SU_TR	20.43	10.61
tblVehicleTrips	SU_TR	0.00	404.00
tblVehicleTrips	WD_TR	1.59	29.13
tblVehicleTrips	WD_TR	6.59	5.51
tblVehicleTrips	WD_TR	2.74	3.27
tblVehicleTrips	WD_TR	496.12	372.50
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	9.57	9.03
tblVehicleTrips	WD_TR	44.32	65.08
tblVehicleTrips	WD_TR	0.00	404.00
tblWater	IndoorWaterUseRate	0.00	455,300.57
tblWater	OutdoorWaterUseRate	0.00	29,061.74
tblWoodstoves	NumberCatalytic	12.20	0.00
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberCatalytic	37.70	0.00
tblWoodstoves	NumberNoncatalytic	12.20	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	37.70	0.00

2.0 Emissions Summary

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	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849
Mobile	35.4141	102.5675	374.4133	1.0590	74.0715	1.5909	75.6624	19.7822	1.4666	21.2487		82,426.8752	82,426.8752	2.8400		82,486.5149
Total	51.4337	111.4307	464.9629	1.1136	74.0715	4.1105	78.1820	19.7822	3.9714	23.7535	0.0000	114,819.2068	114,819.2068	3.6101	0.5910	115,078.2274

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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Energy	0.8075	6.9232	3.1026	0.0441		0.5579	0.5579		0.5579	0.5579		8,809.2146	8,809.2146	0.1688	0.1615	8,862.8260
Mobile	34.7247	96.7128	357.6432	0.9882	68.9606	1.4887	70.4492	18.4172	1.3723	19.7895		76,916.7149	76,916.7149	2.6633		76,972.6431
Total	44.7234	104.6415	447.7887	1.0369	68.9606	3.9328	72.8934	18.4172	3.8016	22.2188	0.0000	108,117.2408	108,117.2408	3.4105	0.5692	108,365.2968

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	13.05	6.09	3.69	6.89	6.90	4.32	6.76	6.90	4.27	6.46	0.00	5.84	5.84	5.53	3.70	5.83

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Underground Infrastructure (Phase 2)	Trenching	1/11/2019	1/11/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Underground Infrastructure (Phase 2)	Excavators	0		162	0.38
Underground Infrastructure (Phase 2)	Other Construction Equipment	0		171	0.42
Underground Infrastructure (Phase 2)	Tractors/Loaders/Backhoes	0		97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Underground Infrastructure (Phase 2)	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Underground Infrastructure (Phase 2) - 2019

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

Unmitigated Construction Off-Site

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

3.2 Underground Infrastructure (Phase 2) - 2019

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	34.7247	96.7128	357.6432	0.9882	68.9606	1.4887	70.4492	18.4172	1.3723	19.7895		76,916.71 49	76,916.71 49	2.6633		76,972.64 31
Unmitigated	35.4141	102.5675	374.4133	1.0590	74.0715	1.5909	75.6624	19.7822	1.4666	21.2487		82,426.87 52	82,426.87 52	2.8400		82,486.51 49

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	568.04	568.04	568.04	1,634,544	1,521,760
Condo/Townhouse	1,344.44	1,312.72	1119.96	4,469,088	4,160,721
Congregate Care (Assisted Living)	170.04	128.96	140.40	546,530	508,819
Fast Food Restaurant with Drive Thru	1,490.00	2,169.00	1630.36	1,691,241	1,574,545
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	6,808.62	7,087.60	6167.72	23,089,412	21,496,243
Strip Mall	423.02	136.57	68.97	758,826	706,467
User Defined Retail	606.00	606.00	606.00	637,747	593,742
Total	11,410.16	12,008.88	10,301.44	32,827,387	30,562,297

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	66	0	34
User Defined Retail	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.468914	0.065172	0.173428	0.156844	0.056897	0.009079	0.016419	0.042157	0.001108	0.001337	0.005012	0.000672	0.002962

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	0.8075	6.9232	3.1026	0.0441		0.5579	0.5579		0.5579	0.5579		8,809.2146	8,809.2146	0.1688	0.1615	8,862.8260
NaturalGas Unmitigated	0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

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					
Condo/Townhouse	13326.2	0.1437	1.2281	0.5226	7.8400e-003		0.0993	0.0993		0.0993	0.0993		1,567.7863	1,567.7863	0.0301	0.0287	1,577.3276
Congregate Care (Assisted Living)	1653.4	0.0178	0.1524	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.5175	194.5175	3.7300e-003	3.5700e-003	195.7014
Fast Food Restaurant with Drive Thru Parking Lot	2890.74	0.0312	0.2834	0.2381	1.7000e-003		0.0215	0.0215		0.0215	0.0215		340.0870	340.0870	6.5200e-003	6.2300e-003	342.1567
Recreational Swimming Pool	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
Single Family Housing	66019.1	0.7120	6.0841	2.5890	0.0388		0.4919	0.4919		0.4919	0.4919		7,766.9485	7,766.9485	0.1489	0.1424	7,814.2169
Strip Mall	35.2603	3.8000e-004	3.4600e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		4.1483	4.1483	8.0000e-005	8.0000e-005	4.1735
User Defined Retail	1084.03	0.0117	0.1063	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003		127.5326	127.5326	2.4400e-003	2.3400e-003	128.3088
City Park	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		0.9168	7.8577	3.5067	0.0500		0.6334	0.6334		0.6334	0.6334		10,001.0203	10,001.0203	0.1917	0.1834	10,061.8849

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.44341	0.0156	0.1330	0.0566	8.5000e-004		0.0108	0.0108		0.0108	0.0108		169.8129	169.8129	3.2500e-003	3.1100e-003	170.8463
Fast Food Restaurant with Drive Thru Parking Lot	2.77894	0.0300	0.2725	0.2289	1.6300e-003		0.0207	0.0207		0.0207	0.0207		326.9344	326.9344	6.2700e-003	5.9900e-003	328.9241
Recreational Swimming Pool	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
Single Family Housing	57.9599	0.6251	5.3414	2.2729	0.0341		0.4319	0.4319		0.4319	0.4319		6,818.8155	6,818.8155	0.1307	0.1250	6,860.3136
Strip Mall	0.0307726	3.3000e-004	3.0200e-003	2.5300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.6203	3.6203	7.0000e-005	7.0000e-005	3.6423
User Defined Retail	1.0421	0.0112	0.1022	0.0858	6.1000e-004		7.7600e-003	7.7600e-003		7.7600e-003	7.7600e-003		122.6004	122.6004	2.3500e-003	2.2500e-003	123.3465
City Park	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
Condo/Townhouse	11.6232	0.1254	1.0712	0.4558	6.8400e-003		0.0866	0.0866		0.0866	0.0866		1,367.4311	1,367.4311	0.0262	0.0251	1,375.7531
Total		0.8075	6.9232	3.1026	0.0440		0.5579	0.5579		0.5579	0.5579		8,809.2146	8,809.2146	0.1688	0.1615	8,862.8260

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	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	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277
Unmitigated	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

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	10.4160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	15.1028	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5043					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.6000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.0382	9.0000e-005	0.1112	0.0000		1.4082	1.4082		1.3934	1.3934	0.0000	22,235.2941	22,235.2941	0.4262	0.4077	22,370.6144
Landscaping	2.6483	1.0054	86.9318	4.5800e-003		0.4780	0.4780		0.4780	0.4780		156.0172	156.0172	0.1522		159.2133
Total	9.1912	1.0055	87.0429	4.5800e-003		1.8862	1.8862		1.8714	1.8714	0.0000	22,391.3113	22,391.3113	0.5784	0.4077	22,529.8277

7.0 Water Detail

7.1 Mitigation Measures Water

- Apply Water Conservation Strategy
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

- Institute Recycling and Composting Services

9.0 Operational Offroad

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

APPENDIX 3.3:

LST ANALYSIS

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