Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Kate Gordon
Director

Memorandum

Date: July 16, 2020

To: All Reviewing Agencies

From: Scott Morgan, Director

Re: SCH # 2017071020

RB Inyokern Solar Project by R&L Capital, Inc.

The Lead Agency has corrected some information regarding the above-mentioned project. Please see the attached 'Appendix C' for more specific information. All other project information remains the same.

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PLANNING AND NATURAL RESOURCES DEPARTMENT

Planning
Community Development
Administrative Operations

July 14, 2020

File: CUP 23, Map #47; CUP 27, Map # 47; and SPA 4, Map #47 (Circulation); S.D. #1

ADDRESSEE LIST (See Distribution List)

Re: Air Quality Impact Assessment with Attachments for the Draft Environmental Impact Report for the RB Inyokern Solar Project by R&L Capital, Inc. (SCH #2017071020)

Dear Interested Party:

On July 2, 2020 the Kern County Planning and Natural Resources Department circulated a Draft Environmental Impact Report (Draft EIR) for the proposed RB Inyokern Solar Project by R&L Capital, Inc. to allow for the construction and operation of a solar photovoltaic power generating facility and associated facilities that would generate a combined total of approximately 26.6 megawatts (MW) of renewable electrical energy located on approximately 166.5 acres of privately-owned land in unincorporated Kern County.

Subsequent to the circulation of the Draft EIR, it was noted that the attachments to the Air Quality Impact Assessment (AQIA), including modeling data, were inadvertently excluded from the document. Therefore, the AQIA, with attachments, is included on the enclosed disk for your review.

Per the 45-day public review period mandated by the California Environmental Quality Act Guidelines Section 15105, if we have not received a reply from you by **August 17, 2020, at 5:00 P.M.**, we will assume that you have no comments regarding this Draft EIR.

Should you have any questions regarding this project, please do not hesitate to contact me at (661) 862-8997 or via email at CandiaR@kerncounty.com.

Sincerely,

Ronelle Candia, Supervising Planner
Advanced Planning Division

Governor's Office of Planning & Research
JUL 15 2020
STATE CLEARINGHOUSE
STATE CLEARINGHOUSE

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Sincerely,

Ronelle Candia, Supervising Planner
Advanced Planning Division

SPA #4; CUP #23 & #27, Map #47
WO #PP16109
(EIR 02-17 - RB Inyokern Solar)
I:\Planning\WORKGRPS\WP\LABELS\eir02-17rrc.ec.doc
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Appendix C

Air Quality Impact Analysis Including Attachments

Air Quality Impact Analysis

Inyokern, Kern County, California
RB Inyokern Solar Project
Project # 160505.0174

Prepared for:

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5080 California Avenue, Suite 220
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Prepared by:

Insight Environmental Consultants
A Trinity Consultants Company

5500 Ming Avenue, Suite 140
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661-282-2200

March 2017

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EXECUTIVE SUMMARY

Insight Environmental Consultants, Inc., a Trinity Consultants Company, has completed an Air Quality Impact Analysis (AQIA) for the RB Inyokern Solar Project (Project). The Project would be located in the town of Inyokern, California in eastern Kern County, at the intersection of Brown Road and Hwy 178.

The proposed 235 acre 32 megawatt (MW) RB Inyokern Solar Project includes construction and operations of up to 112,140 solar panels. The Project would be built in two phases starting in April 2019 and operational in early 2020. Phase 1 is a 20 MW project with 70,308 modules on 140.44 acres. Phase 2 is a 12 MW project with 41,832 modules on 94.49 acres.

The proposed Project's construction and operations would include the following criteria pollutant emissions: reactive organic gases (ROG), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and suspended particulate matter (PM_{10} and $PM_{2.5}$). Project operations would generate air pollutant emissions from mobile sources (automobile activity from quarterly facility maintenance). Project construction and operational activities would also generate greenhouse gas (GHG) emissions. Criteria and GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.1 (California Air Pollution Control Officers Association (CAPCOA) 2016), the California EPA's EMFAC 2014 Web database (California Air Resources Board (CARB) 2016) and the California Climate Action Registry General Reporting Protocol (Climate Action Registry 2009).

Tables 7-1, 7-2 and 9-1 present the Project's construction, operational and GHG emissions and provide substantial evidence to support a less than significant air quality impact in Eastern Kern Air Pollution Control District's (EKAPCD) portion of the Mojave Desert Air Basin (MDAB).

Records search of the Kern County GIS Geocortex IMP Map Viewer and information from Kern County identified fourteen (14) other projects within a six-mile radius of the proposed Project. A six-mile radius is established in practice as the geographical requirement for cumulative analyses in Kern County. To date, there are no established, or even suggested, thresholds of significance for cumulative projects. Therefore, evaluation of the cumulative emissions supports a finding that the Project's contribution would not be cumulatively considerable because the proposed Project's incremental emissions would be less than significant.

1.0 INTRODUCTION

This AQIA was prepared pursuant to the EKAPCD's Rule 210.1 New and Modified Stationary Source Review (NSR) (EKACPD 2000), EKAPCD's Guidelines for Implementation of the California Environmental Quality Act of 1970, EKAPCD Policy, "Addendum to CEQA Guidelines Addressing GHG Emission Impacts for Stationary Source Projects When Serving As Lead CEQA Agency" (EKAPCD 2012), the Kern County Planning Department's Air Quality Preparation Guidelines (2006), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21177) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

2.0 GENERAL PROJECT DESCRIPTION

The proposed 235 acre 32 MW RB Inyokern Solar Project includes construction and operations of up to 112,140 solar panels. The Project would be built in two phases starting in April 2019 and operational in early 2020. Phase 1 is a 20 MW project with 70,308 modules on 140.44 acres. Phase 2 is a 12 MW project with 41,832 modules on 94.49 acres. The Project would be located in the town of Inyokern, California in eastern Kern County, at the intersection of Brown Road and Hwy 178. **Figure 2-1** depicts the regional and Project location.

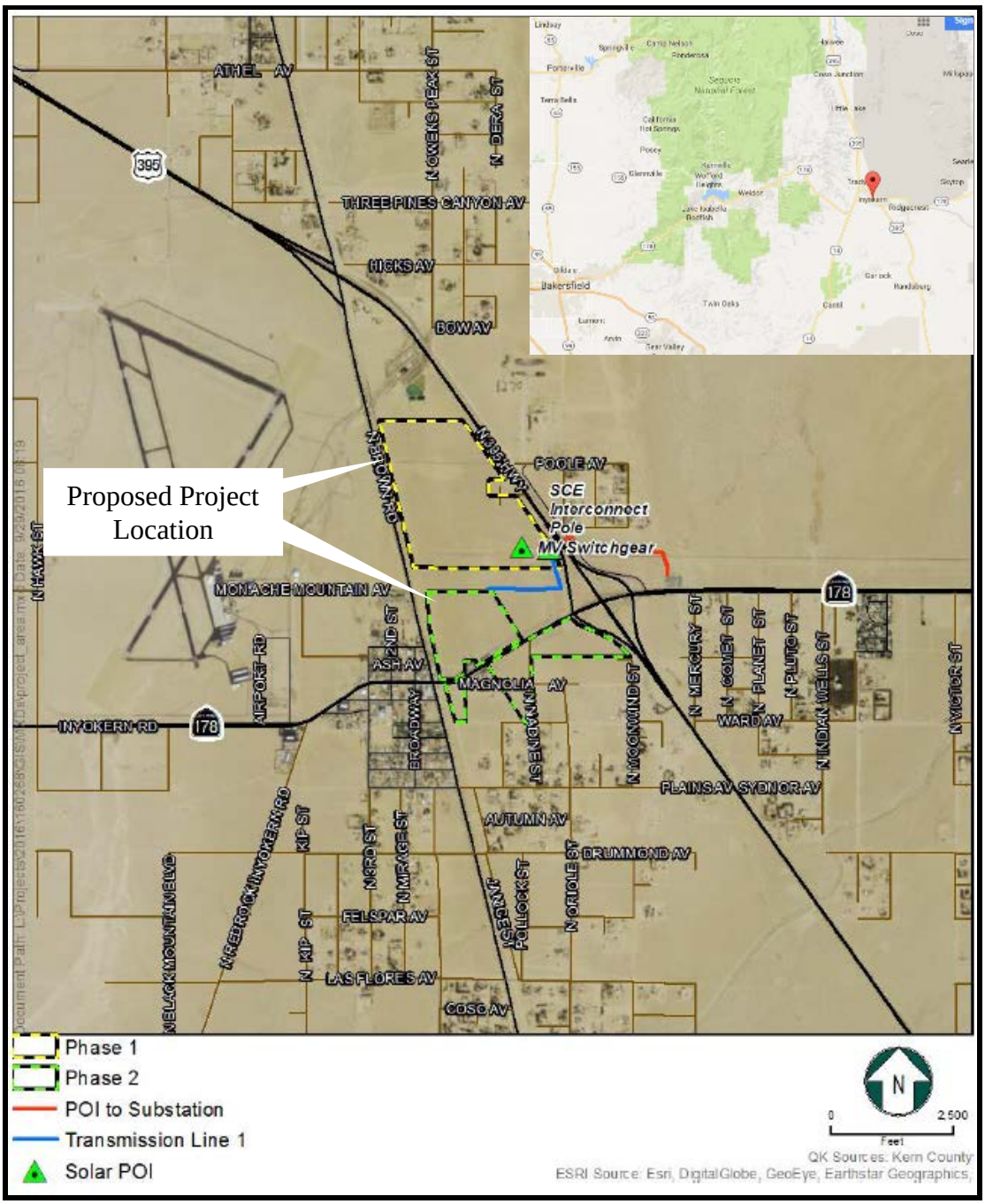

Figure 2-1 - Regional and Project Location

Figure 2-2 depicts the Project site's topography based on United States Geological Survey's (USGS) National Map (USGS 2012). The Project site is located at an elevation of approximately 2,410 feet above mean sea level and is surrounded by open fields to the north, south and east, and the town of Inyokern to the west and south. Currently the Project site is an open field.

Figure 2-2 – Project Site Topography (USGS 2012)

3.0 BACKGROUND OF AIR QUALITY STANDARD

Protection of the public health is maintained through the attainment and maintenance of ambient air quality standards for various atmospheric compounds and the enforcement of emissions limits for individual stationary sources. The Federal Clean Air Act requires that the U.S. Environmental Protection Agency (EPA) establish National Ambient Air Quality Standards (NAAQS) to protect the health, safety, and welfare of the public. NAAQS have been established for ozone (O_3), CO, NO_2, SO_2, PM_{10} and $PM_{2.5}$, and lead (Pb). California has also adopted ambient air quality standards (CAAQS) for these "criteria" air pollutants. CAAQS are more stringent than the corresponding NAAQS and include standards for hydrogen sulfide (H_2S), vinyl chloride (chloroethene) and visibility reducing particles. The U.S. Clean Air Act Amendments of 1977 required each state to identify areas that were in non-attainment of the NAAQS and to develop State Implementation Plans (SIP's) containing strategies to bring these non-attainment areas into compliance. NAAQS and CAAQS designation/classification for Kern County are presented in **Section 4.0** below and further details are included in **Attachments A, B, C** and **D**.

Responsibility for regulation of air quality in California lies with the California Air Resources Board (CARB), the 35 local air districts with oversight responsibility held by the EPA. CARB is responsible for regulating mobile source emissions, establishing CAAQS, conducting research, managing regulation development, and providing oversight and coordination of the activities of the 35 air districts. The air districts are primarily responsible for regulating stationary source emissions and monitoring ambient pollutant concentrations. CARB also determines whether air basins, or portions thereof, are

"unclassified," in "attainment" or in "non-attainment" for the NAAQS and CAAQS relying on statewide air quality monitoring data.

4.0 EXISTING SETTING

The Project area is located in the northwestern portion of MDABfor which the EKAPCD has jurisdiction to regulate air pollutant emissions.

Under the provisions of the U.S. Clean Air Act, the Kern County portion of the MDAB has been classified as non-attainment, attainment, unclassified/attainment or unclassified under the established NAAQS and CAAQS for various criteria pollutants. **Table 4-1** provides the EKAPCD's designation and classification based on the various criteria pollutants under both NAAQS and CAAQS. **Table 4-2** provides the NAAQS and CAAQS.

Table 4-1 - EKAPCD Attainment Status

Pollutant	Designation/Classification			
	National Ambient Air Quality Standards (NAAQS)			State Ambient Air Quality Standards
	EKAPCD	Kern River / Cummings Valley[1,2]	Indian Wells Valley[3,4,5]	
Ozone – 1 Hour	Attainment[6,7]	Part of EKAPCD Area	Part of EKAPCD Area	Nonattainment
Ozone – 8 Hour[8]	Nonattainment / Marginal	Part of EKAPCD Area	Unclassifiable/ Attainment	Nonattainment
PM10	Unclassifiable/ Attainment	Serious Nonattainment	Attainment Maintenance	Nonattainment
PM2.5	Unclassifiable/ Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Unclassified
Carbon Monoxide	Unclassifiable/ Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Unclassified
Nitrogen Dioxide	Unclassified	Part of EKAPCD Area	Part of EKAPCD Area	Attainment
Sulfur Dioxide	Unclassified	Part of EKAPCD Area	Part of EKAPCD Area	Attainment
Lead Particulates	Unclassifiable/ Attainment	Part of EKAPCD Area	Part of EKAPCD Area	Attainment

Source: EKAPCD 2016
Notes:
[1] Kern River Valley, Bear Valley, and Cummings Valley were previously included in the federally designated San Joaquin Valley PM10 Serious Nonattainment Area but were made a separate Nonattainment area in 2008.
[2] Kern River Valley, Bear Valley, and Cummings Valley are included in EKAPCD for all NAAQS other than PM10.
[3] Indian Wells Valley is a separate planning area from the rest of EKAPCD for PM10 NAAQS.
[4] Indian Wells Valley is a separate area for the 1997 and 2008 8-hour ozone NAAQS (0.08 & 0.075 ppm).
[5] Indian Wells Valley is included in EKAPCD for all NAAQS other than PM10 and 8-hour ozone.
[6] 1-hour ozone NAAQS was revoked effective June 15, 2004.
[7] EKAPCD was in attainment for 1-hour ozone NAAQS at time of revocation; the proposed Attainment Maintenance designation's effective date.
[8] Attainment for 1997 8-hour Ozone NAAQS (0.08 ppm), Nonattainment/Marginal for 2008 NAAQS (0.075 ppm), and Nonattainment State 8-hour standard (0.070 ppm)

Table 4-2 - Federal & California Standards

		NAAQS	CAAQS
Pollutant	**Averaging Time**	**Concentration**	
O_3	8-Hour	0.070 ppm (137 μg/m³) [a]	0.070 ppm (137 μg/m³)
	1-Hour		0.09 ppm (180 μg/m³)
CO	8-Hour	9 ppm (10 mg/m³)	9 ppm (10 mg/m³)
	1-Hour	35 ppm (40 mg/m³)	20 ppm (23 mg/m³)
NO_2	Annual Average	53 ppb (100 μg/m³)	0.030 ppm (57 μg/m³)
	1-Hour	100 ppb (188.68 μg/m³)	0.18 ppm (339 μg/m³)
SO_2	3-Hour	0.5 ppm (1,300 μg/m³)	
	24 Hour	0.14 ppm (365 μg/m³)	0.04 ppm (105 μg/m³)
	1-Hour	75 ppb (196 μg/m³)	0.25 ppm (655 μg/m³)
Particulate Matter (PM10)	Annual Arithmetic Mean		20 μg/m³
	24-Hour	150 μg/m³	50 μg/m³
Fine Particulate Matter (PM2.5)	Annual Arithmetic Mean	12 μg/m³	12 μg/m³
	24-Hour	35 μg/m³	
Sulfates	24-Hour		25 μg/m³
Pb [d]	Rolling Three-Month Average	0.15 μg/m³	
	30 Day Average		1.5 μg/m³
H_2S	1-Hour		0.03 ppm (42 μg/m³)
Vinyl Chloride (chloroethene)	24-Hour		0.010 ppm (26 μg/m³)
Visibility Reducing particles	8 Hour (1000 to 1800 PST)		b
ppm = parts per million ppb = parts per billion	mg/m3 = milligrams per cubic meter	μg/m ³= micrograms per cubic meter	

Source: CARB 2016b

a On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm

b In 1989, the CARB converted both the general statewide 10-mile visibility standards 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.

As noted above in **Table 4-1**, the EKAPCD has been designated as unclassifiable/attainment for the NAAQS for CO, PM_{10}, $PM_{2.5}$, and Lead, nonattainment/marginal for the O_3 eight-hour average standard, attainment for the O_3 one-hour average standard and unclassified for NO_X and SO_X. A federal designation for hydrogen sulfide (H_2S) has not been made.

The EKAPCD has been designated as nonattainment for the state one-hour and eight-hour standards for O_3, and PM_{10}, unclassified $PM_{2.5}$ and CO, and attainment for NO_X, SO_X and Lead. A state designation for hydrogen sulfide (H_2S) has not been made.

The EKACPD along with CARB operates an air quality monitoring network that provides average concentrations of those pollutants for which state or federal agencies have established ambient air quality standards. Information from the various monitoring stations is available from the corresponding agency's websites. A map of the monitoring stations in the Mojave Desert Air Basin is provided in **Figure 4-1** below.

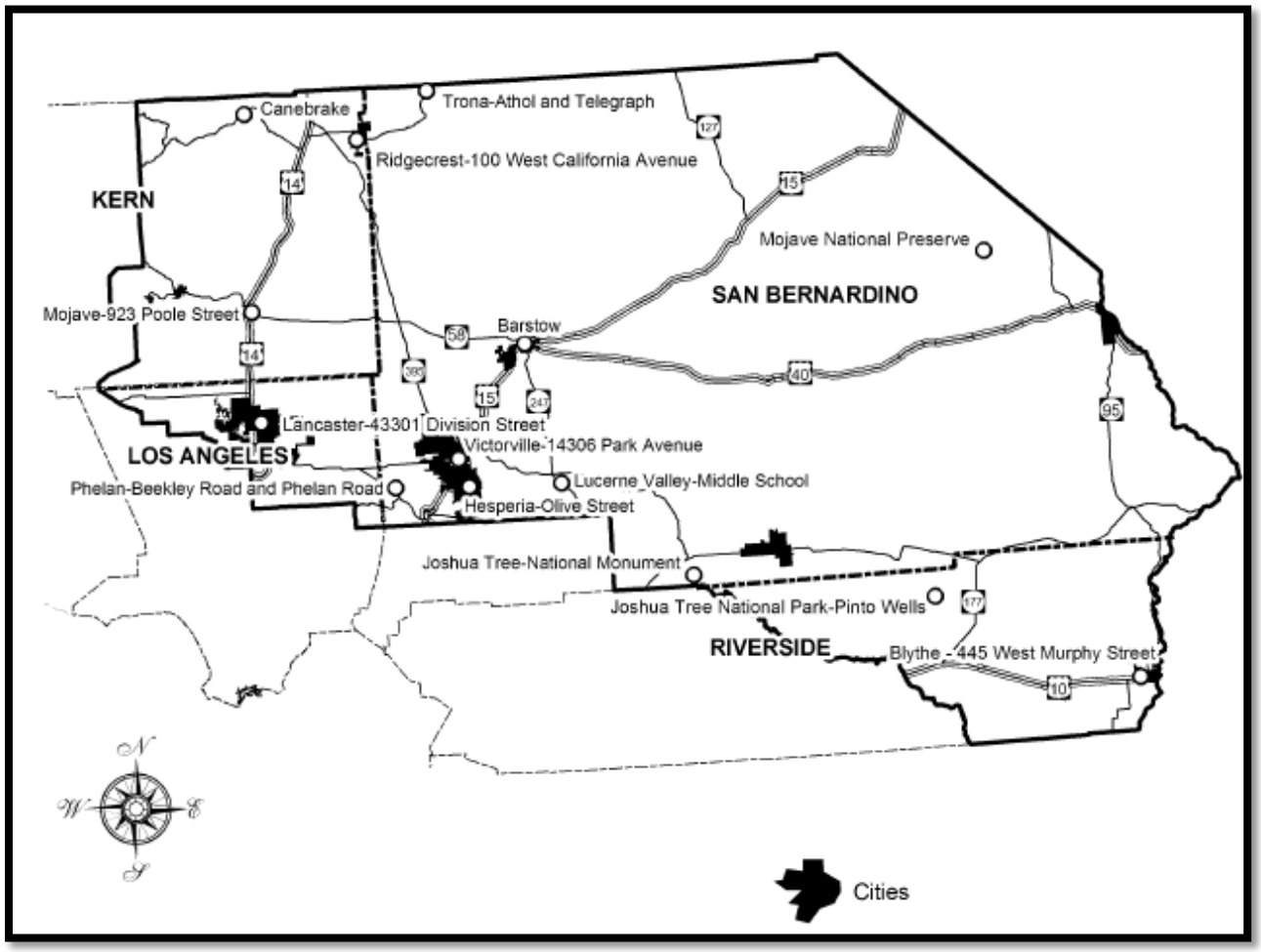

Figure 4-1 – CARB Monitoring Network

Existing Air Quality

For the purposes of background data and this air quality assessment, this analysis relied on data collected between 2013 and 2015 at the CARB monitoring stations that are located in the closest proximity to the Project site. **Table 4-3** provides the background concentrations for O_3, PM_{10}, $PM_{2.5}$, CO, NO_2, SO_2, and Pb as of November 2016. Information is provided for the Mojave – 923 Poole Street, Mojave National Preserve, Barstow, Trona – Athol and Telegraph, Canebrake, Ridgecrest – 100 West California Avenue, Lancaster – 43301 Division Street, and Bakersfield – 5558 California Avenue Monitoring Stations. No data is available

for CO, SO_2, H_2S, Vinyl Chloride or other toxic air contaminants in eastern Kern County.

Table 4-3 - Existing Air Quality Monitoring Data in Project Area

	Maximum Concentration			Days Exceeding Standard		
Pollutant and CARB Monitoring Station Location	**2013**	**2014**	**2015**	**2013**	**2014**	**2015**
O_3 – 1-hour CAAQS (0.09 ppm)						
Mojave – 923 Poole Street	0.094	0.104	0.104	0	9	1
Mojave National Preserve	0.101	0.085	*	1	0	*
Barstow	0.099	0.094	0.090	1	0	0
Trona - Athol and Telegraph	0.078	0.076	0.076	0	0	0
O_3 – 8-hour CAAQS (0.07 ppm)						
Mojave – 923 Poole St.	0.086	0.096	0.085	29	95	33
Mojave National Preserve	0.094	0.082	*	16	13	*
Barstow	0.093	0.087	0.083	31	37	20
Trona - Athol and Telegraph	0.069	0.072	0.072	0	1	2
O_3 – 8-hour NAAQS (0.075 ppm)						
Mojave – 923 Poole St.	0.086	0.095	0.084	9	57	15
Mojave National Preserve	0.093	0.081	*	7	5	*
Barstow	0.092	0.087	0.082	10	17	5
Trona - Athol and Telegraph	0.069	0.071	0.071	0	0	0
PM10 – 24-hour CAAQS (50 µg/m3)						
Canebrake	39.8	78.9	59.4	0	2	1
Ridgecrest – 100 West California Avenue	51.4	47.6	43.2	1	0	0
Trona - Athol and Telegraph	49.8	*	*	0	*	*
PM10 – 24-hour NAAQS (150 µg/m^3)						
Canebrake	43.3	86.6	67.1	0	0	0
Ridgecrest – 100 West California Avenue	56.4	51.8	44.5	0	0	0
Trona - Athol and Telegraph	53.5	184.9	109.7	0	2	0
PM2.5 - 24-hour NAAQS (35 µg/m3)						
Mojave – 923 Poole St.	76.2	36.5	42.2	6	1	2
Lancaster – 43301 Division Street	11.9	42.0	10.4	0	1	0
Ridgecrest – 100 West California Avenue	15.3	10.5	12.5	0	0	0
CO - 8-Hour CAAQS & NAAQS (9.0 ppm)						
Lancaster – 43301 Division Street	*	*		0	0	
Victorville – 14306 Park Avenue	*	*		0	0	
NO2 - 1-Hour CAAQS (0.18 ppm)						
Barstow	0.084	0.069	0.061	0	0	0
Trona - Athol and Telegraph	0.058	0.045	0.068	0	0	0
NO2 - 1-Hour NAAQS (0.10 ppm)						
Barstow	0.085	0.069	0.061	0	0	0
Trona - Athol and Telegraph	0.059	0.046	0.068	0	0	0
SO2 – 24-hour Concentration - CAAQS (0.04 ppm) & NAAQS (0.14 ppm)						
Trona - Athol and Telegraph	0.001	*		*	*	
Victorville – 14306 Park Avenue	0.002	*		*	*	
Pb - Maximum 30-Day Concentration CAAQS (1500 ng/m3)						
Bakersfield – 5558 California Avenue	6.7	14		*	*	

Source: CARB 2016a.
Notes: ppm= parts per million, * There was insufficient (or no) data available to determine the value.

The following is a description of criteria air pollutants, typical sources and health effects and the recently documented pollutant levels in the Project vicinity.

Ozone (O_3)

The MDAB has high concentrations of O_3 and these high levels are known to cause eye irritation and impair respiratory functions. High levels of O_3 can also affect plants and materials. Grapes, lettuce, spinach and many types of garden flowers and shrubs are particularly vulnerable to O_3 damage. O_3 is not directly emitted into the atmosphere; it is a secondary pollutant produced from a photochemical interaction between hydrocarbons and nitrogen oxides (NOx). One to three hours of strong sunlight in a stable atmosphere creates O_3. The "O_3 season" therefore typically spans from April through October. O_3 is a regional pollutant; wind transports and diffuses the precursors while activating the photochemical reaction process. The data presented in **Table 4-3** shows that the Mojave, Barstow and Trona area monitoring stations exceeded the 1-hour average ambient O_3 CAAQS and the 8-hour average ambient O_3 NAAQS and CAAQS between 2013 through 2015.

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$)

Both NAAQS and CAAQS now apply to particulates under 10 microns (PM_{10}). Since the smaller diameter fraction of total suspended particulates are documented to represent the greatest health hazard, EPA has established NAAQS for particulates under 2.5 microns ($PM_{2.5}$). The Project area is classified as unclassifiable/attainment for PM_{10} and $PM_{2.5}$ for NAAQS.

Dust and fumes from industrial and agricultural operations generate particulate matter. Natural activities, such as wind-raised dust, fires and ocean spray, also increase the level of particulates in the atmosphere. The largest source of PM_{10} and $PM_{2.5}$ in Kern County is vehicle movement over paved and unpaved roads from demolition and construction activities and farming operations. PM_{10} and $PM_{2.5}$ are considered regional pollutants with elevated levels typically occurring over a wide geographic area. Concentrations tend to be highest in the winter, during periods of high atmospheric stability and low wind speed. Very small particulates may contain absorbed gases that produce injury to the respiratory tract. Particulates of aerosol size suspended in the air can both scatter and absorb sunlight, producing haze and reducing visibility. They can also damage a wide range of materials. **Table 4-3** shows that PM_{10} levels exceeded the CAAQS during 2013 through 2015, exceeded the NAAQS in 2014, and exceeded the $PM_{2.5}$ NAAQS between 2013 and 2015. Similar levels can be expected to occur in the vicinity of the Project site.

Carbon Monoxide (CO)

Ambient CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. Wind speed and atmospheric mixing also influence CO concentrations; however, under inversion conditions prevalent in the San Joaquin valley, CO concentrations may be more uniformly distributed over a broad area.

Internal combustion engines, principally in vehicles, produce CO due to incomplete fuel combustion. Various industrial processes also produce CO emissions through incomplete combustion. Gasoline-powered motor vehicles are typically the major source of this contaminant. CO does not irritate the respiratory tract, but passes through the lungs directly into the blood stream, and by interfering with the transfer of fresh oxygen to the blood, deprives sensitive tissues of oxygen, thereby aggravate cardiovascular disease, causing fatigue, headaches, and dizziness. CO is not known to have adverse effects on vegetation, visibility or materials. **Table 4-3** reports insufficient data for the CO monitoring at the Lancaster or Victorville monitoring stations during the three-year period from 2013 through 2015.

Nitrogen Dioxide (NO_2) and Hydrocarbons

Eastern Kern County has been designated as an unclassified area for the NAAQS for NO_2. NO_2 is the "whiskey brown" colored gas readily visible during periods of heavy air pollution. Mobile sources account

for nearly all of the county's NOx emissions, most of which is emitted as NO_2. Combustion in motor vehicle engines, power plants, refineries and other industrial operations are the primary sources in the air basin. Railroads and aircraft are other potentially significant sources of combustion air contaminants. Oxides of nitrogen are direct participants in photochemical smog reactions. The emitted compound, nitric oxide, combines with oxygen in the atmosphere in the presence of hydrocarbons and sunlight to form NO_2 and O_3. NO_2, the most significant of these pollutants, can color the atmosphere at concentrations as low as 0.5 ppm on days of 10-mile visibility. NO_x is an important air pollutant in the region because it is a primary receptor of ultraviolet light, which initiates the reactions producing photochemical smog. It also reacts in the air to form nitrate particulates.

Motor vehicles are the major source of reactive hydrocarbons in the basin. Other sources include evaporation of organic solvents and petroleum production and refining operations. Certain hydrocarbons can damage plants by inhibiting growth and by causing flowers and leaves to fall. Levels of hydrocarbons currently measured in urban areas are not known to cause adverse effects in humans. However, certain members of this contaminant group are important components in the reactions, which produce photochemical oxidants. **Table 4-3** shows that neither the Federal or State NO_2 standards were exceeded at the Lancaster or Trona area-monitoring stations over the three-year period of 2013 through 2015. Hydrocarbons are not currently monitored.

Sulfur Dioxide (SO_2)

Eastern Kern County has been designated as an unclassified area for the NAAQS for SO_2. SO_2 is the primary combustion product of sulfur, or sulfur containing fuels. Fuel combustion is the major source of this pollutant, while chemical plants, sulfur recovery plants, and metal processing facilities are minor contributors. Gaseous fuels (natural gas, propane, etc.) typically have lower percentages of sulfur containing compounds than liquid fuels such as diesel or crude oil. SO_2 levels are generally higher in the winter months. Decreasing levels of SO_2 in the atmosphere reflect the use of natural gas in power plants and boilers.

At high concentrations, SO_2 irritates the upper respiratory tract. At lower concentrations, when respirated in combination with particulates, SO_2 can result in greater harm by injuring lung tissues. Sulfur oxides (SOx), in combination with moisture and oxygen, results in the formation of sulfuric acid, which can yellow the leaves of plants, dissolve marble, and oxidize iron and steel. SOx can also react to produce sulfates that reduce visibility and sunlight. **Table 4-3** shows no exceedances were recorded over the three-year period at the Trona and Victorville monitoring stations.

Lead (Pb) and Suspended Sulfate

Ambient Pb levels have dropped dramatically due to the increase in the percentage of motor vehicles that run exclusively on unleaded fuel. Ambient Pb levels in Bakersfield (the closest monitoring station to the Project) are well below the ambient standard and are expected to continue to decline; the data reported in **Table 4-3** only shows the highest concentration as the number of days exceeding standards are not reported. Suspended sulfate levels have stabilized to the point where no excesses of the State standard are expected in any given year.

5.0 CLIMATE

Climate of the project area is a high desert type, characterized by moderate, dry winters and hot, dry summers. Because of the elevation, the evening temperatures drop to below 60 degrees, even during the summers. Mean monthly temperature for the year is reported to be 80.5°F with extremes of 102.7°F and 30.8°F. The mean annual precipitation in Inyokern is 4.17 inches, 85 percent of which falls during the period November through April. Snowfall rarely occurs from December through March.

Meteorological data for various monitoring stations is maintained by the Western Regional Climate Center. Meteorological data for the Project site is expected to be similar to the data recorded at the Inyokern monitoring station. **Table 5-1** presents average precipitation data recorded at the Inyokern monitoring station from November 1940 through December 2012 (the most recent data available).

Table 5-1 – Inyokern Weather Data

Period of Record Monthly Climate Summary for the Period 11/17/1940 to 12/27/2012													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Maximum Temp (F)	59.6	64.8	70.3	77.7	87.0	96.7	102.7	101.2	94.2	83.2	69.0	59.7	80.5
Average Minimum Temp (F)	30.8	34.6	38.7	44.3	52.9	60.5	66.2	64.6	58.1	48.2	37.3	30.2	47.2
Average Total Precip.(in.)	0.74	0.95	0.55	0.17	0.07	0.02	0.16	0.22	0.20	0.10	0.38	0.59	4.17
Average Snowfall (in.)	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent of possible observations for period of record: Max. Temp.: 96% Min. Temp.: 95% Precipitation: 96.8% Snowfall: 96.6% Snow Depth: 96.3%													

Source: Western Regional Climate Center, 2016.

6.0 SIGNIFICANCE CRITERIA

To determine whether a proposed Project could create a potential CEQA impact, local, state and federal agencies have developed various means by which a project's impacts may be measured and evaluated. Such means can generally be categorized as follows:

- Thresholds of significance adopted by air quality agencies to guide lead agencies in their evaluation of air quality impacts under the CEQA.
- Regulations established by air districts, CARB and EPA for the evaluation of stationary sources when applying for Authorities to Construct, Permits to Operate and other permit program requirements (e.g., New Source Review).
- Thresholds used to determine if a project would cause or contribute significantly to violations of the ambient air quality standards or other concentration-based limits.
- Regulations applied in areas where severe air quality problems exist.

Summary tables of these emission-based and concentration-based thresholds of significance for each pollutant are provided below along with a discussion of their applicability.

Thresholds Adopted for the Evaluation of Air Quality Impacts under CEQA

In order to maintain consistency with CEQA, the EKACPD adopted guidelines to assist applicants in complying with the various requirements. According to the EKAPCD's Guidelines (EKAPCD 1999), a proposed project does not have significant air quality impacts on the environment, if operation of the project will:

- Emit (from all projects sources subject to EKAPCD Rule 201) less than offsets trigger levels set forth in Subsection III.B.3 of EKAPCD's Rule 210.1 (New and Modified Source Review Rule);
- Emit less than 137 pounds per day (25 tons per year) of NO_X or Reactive Organic Compounds from motor vehicle trips (indirect sources only);
- Not cause or contribute to exceeding any California or National Ambient Air Quality Standard;
- Not exceed the District health risk public notification thresholds adopted by the EKAPCD Board; or
- Be consistent with adopted Federal and State Air Quality Attainment Plans.

The guideline thresholds are designed to implement the general criteria for air quality emissions as required in the State CEQA Guidelines, Appendix G, Paragraph III and CEQA (State of California CEQA Guidelines, §15064.7). As such, EKAPCD thresholds provide a means by which the general standards set forth by Appendix G may be used to quantitatively measure the air quality impacts of a specific project. According to the EKAPCD Guidelines and Thresholds of Significance, which apply to a project located within the town of Inyokern, a proposed project would result in a significant impact if it exceeds any of the thresholds are presented in Table 6-1.

Table 6-1 EKAPCD CEQA Thresholds of Significance

Criteria Pollutant	Significance Level	
	Daily (Indirect Mobile Only)	Annual
NOx	137 lbs/day	25 tons/yr
ROG	137 lbs/day	25 tons/yr
SOx	-	27 tons/yr
PM10	-	15 tons/yr
PM2.5	-	15 tons/yr

Sources: EKAPCD 1999 and 2000.

Thresholds for Ambient Air Quality Impacts

CEQA Guidelines – Appendix G (Environmental Checklist) states that a project that would "*violate any air quality standard or contribute substantially to an existing or projected air quality violation*" would be considered to create significant impacts on air quality. Therefore, an AQIA should determine whether the emissions from a project would cause or contribute significantly to violations of the NAAQS or CAAQS (presented above in Table 4-2) when added to existing ambient concentrations.

The EPA has established the federal Prevention of Significant Deterioration (PSD) program to determine what comprises "significant impact levels" (SIL) to NAAQS attainment areas. A project's impacts are considered less than significant if emissions are below PSD SIL for a particular pollutant. When a SIL is exceeded, an additional "increment analysis" is required. As the Project would not include modification to the stationary source under New Source Review (NSR), it would not be subject to either PSD or NSR review. The PSD SIL thresholds are used with ambient air quality modeling for a CEQA project to address whether the project would "*violate any air quality standard or contribute substantially to an existing or projected air quality violation.*" Ambient air quality emissions estimates below the PSD SIL thresholds would result in less than significant ambient air quality impacts on both a project and cumulative CEQA impact analysis. The MDAB is classified as non-attainment/marginal for the 8-hour O_3 NAAQS and, as such, is subject to non-attainment NSR. PSD SILs and increments are more stringent than the CAAQS or NAAQS and represent the most stringent thresholds of significance.

Thresholds for Hazardous Air Pollutants

The EKAPCD's Guidelines state, that a project result in a significant impact if it exceeds that District's health risk notification thresholds presented in Table 6-2.

Table 6-2 Measures of Significance – TOXIC AIR CONTAMINANTS

Agency	Level	Description
Significance Thresholds Adopted for the Evaluation of Impacts Under CEQA		
EKAPCD	Carcinogens	Maximally Exposed Individual risk **equals or exceeds** 1 in one million.
	Non-Carcinogens	**Acute**: Hazard Index **equals or exceeds** 0.2 for the Maximally Exposed Individual.
		Chronic: Hazard Index **equals or exceeds** 0.2 for the Maximally Exposed Individual.
Source: EKAPCD 1996		

Global Climate Change Thresholds of Significance

On March 8, 2012, the EKAPCD adopted *Addendum to CEQA Guidelines Addressing GHG Emission Impacts For Stationary Source Projects When Serving As Lead CEQA Agency*; which outlined the EKAPCD's Project-Specific CEQA significance thresholds for GHG emissions (EKAPCD 2012):

- If project is exempt from CEQA due to either a statutory or categorical exemption, no further analysis under CEQA is required.
- Project-Specific GHG Emissions must be quantified if the project is not exempt from CEQA.
- Project is considered to have a less than significant impact or not have a cumulatively considerable impact on GHG emissions if it meets one of the following conditions:
    1. Project-Specific GHG emissions are less than 25,000 tons per year (tpy);
    2. Project demonstrates to EKAPCD that it is in compliance with state GHG reduction plan such as AB 32or future federal GHG reduction plan if it is more stringent than state plan;
    3. Project GHG emissions will be mitigated to a less than significant impact if GHGs can be reduced by at least 20% below Business-As-Usual (BAU) through implementation of one or more of the following strategies:
        a. Compliance with a Best Performance Standard (BPS) as set forth in Section VI of this Policy;
        b. Compliance with GHG Offset as detailed in Section VI of this Policy;
        c. Compliance with an Alternative GHG Reduction Strategy as discussed in Section VII of this Policy.
- If none of the above is met the project will be deemed significant and an Environmental Impact Report (EIR) will be required.

7.0 PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the EKAPCD's *Guidelines for Implementation of the California Environmental Quality Act, July 1, 1999 Revision.* The guidelines do not necessarily require a quantification of construction emissions for all projects. Construction emissions quantification is typically required only at the request of the lead agency. The EKAPCD generally assumes that implementation of any construction-related mitigation measures will result in construction emissions impacts that are *less than significant*.

Project emissions were estimated separately for each emission source. EMFAC model version 2014 and CalEEMod were used to estimate emissions for both short-term, construction-related, sources as well as long-term, operations-related, sources.

Short-Term Emissions

Short-term emissions are primarily from the construction phase of a project and are recognized to be short in duration and without lasting impacts on air quality. CalEEMod was used to estimate emissions from construction worker vehicles and on-site construction equipment. Construction equipment was estimated using a default construction fleet mix provided by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for a 20 MW solar project (Yang 2016); this fleet mix was adjusted by factoring the 20 MW solar project equipment to reflect equipment for a 32 MW project. EMFAC2014 emissions factors were used to estimate emissions from solar panel delivery off-site travel on paved surfaces and AP-42 emission factors were used to calculate fugitive dust emissions from travel on on-site unpaved surfaces. Solar panels would be delivered from the Port of Long Beach; assuming 540 panels per truck trip, there would be 208 heavy duty truck trips delivering the 112,140 solar panels.

Many variables are factored into the calculation of construction emissions including length of the construction period, number of each type of equipment, site characteristics, area climate, and construction personnel activities. All equipment was assumed to be in use for the Project in accordance with the adjusted default SJVAPCD provided hours per day for a 32 MW solar project. CalEEMod default load factors were used for all construction equipment. Adjustment to the CalEEMod default values were as follows:

- Land use lot acreage was adjusted to match the Project description;
- Demolition construction phase was removed as the Project Location is open land;
- The construction schedule was adjusted to match the anticipated schedule for the Project;
- The Project specific construction equipment list described above was used;
- Water exposed area 3 times per day; and
- Reduce vehicle speed to less than 15 miles per hour.

Table 7-1 presents the Project's short-term emissions based on the various emission sources and a 9-month construction period during 2019. The emission calculations based on CalEEMod and emission factors from EMFAC2014 and AP-42 are available in **Attachment E.**

Table 7-1 – Short-Term Project Emissions

Emissions Source	Pollutant (tons/year)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2019 Mitigated Emissions						
Panel Delivery from Port of Long Beach	0.012	0.455	0.046	0.001	0.012	0.007
Panel Delivery – on-site fugitive dust					0.059	0.006
Construction Equipment & Worker Travel	0.190	2.121	1.275	0.003	0.395	0.141
Total Construction Emissions	0.202	2.576	1.322	0.004	0.466	0.153
EKAPCD Threshold	25	25	NA	27	15	15
Is Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Source: Insight Environmental Consultants 2016						

As calculated with CalEEMod, EMFAC 2014, and AP-42 emission factors using the specified equipment listing (see **Attachment E**), the estimated short-term construction-related emissions would *not exceed* EKAPCD significance threshold levels during the construction year of 2019 and would therefore be *less than significant*.

Long-Term Operations Emissions

Long-term emissions are caused by operational mobile sources from periodic maintenance and cleaning of the solar panels. There were three categories of mobile sources generating long-term emissions: water trucks, maintenance trucks and employee vehicles.

Water Truck Emissions

Water trucks would clean the solar panels quarterly and would be a source of ROG, NOx, SOx, CO, PM_{10} and $PM_{2.5}$ exhaust emissions. The client estimated that water trucks would travel four miles from the Project site for 56 round trips each quarter. EMFAC2014 was used to estimate off-site and on-site water truck emissions; the year 2019 was conservatively applied (Project operations are anticipated to start in the Year 2020). Additionally, on-site water truck travel is a source of PM_{10} fugitive emissions; fugitive dust from water truck travel over on-site unpaved surfaces was estimated with AP-42 emissions factors (United Stated Environmental Protection Agency (USEPA 2006).

Maintenance Truck Emissions

Quarterly maintenance would include three round trip truck trips per quarter and would be a source of ROG, NOx, SOx, CO, PM_{10} and $PM_{2.5}$ exhaust emissions. EMFAC2014 was used to estimate maintenance truck emissions; the year 2019 was conservatively applied (Project operations is anticipated to start in the Year 2020). Additionally, on-site maintenance truck travel is a source of PM_{10} emissions; fugitive dust from maintenance truck travel over on-site unpaved surfaces was estimated with AP-42 emissions factors (USEPA 2006).

Employee Trip Emissions

The Project applicant estimates five round trips per quarter of employee travel to the Project site and would be a source of ROG, NOx, SOx, CO, PM_{10} and $PM_{2.5}$ exhaust emissions. EMFAC2014 was used to estimate employee vehicle emissions; the year 2019 was conservatively applied (Project operations is anticipated to start in the Year 2020). As the make of employee vehicles is not known, a 50:50 split of emissions for light duty autos and light duty trucks was applied when estimating emissions. Additionally, on-site employee vehicle travel is a source of PM_{10} emissions; fugitive dust from employee vehicle travel over on-site unpaved surfaces was estimated with AP-42 emissions factors (USEPA 2006).

Projected Emissions

The proposed Project's long-term air quality emissions are shown in **Tables 7-2**. The emission calculation based on the emission factors from EMFAC2014 and AP-42 are available in **Attachment E.**

Table 7-2 summarizes the Project emissions at full buildout which will occur in year 2020.

Table 7-2 – Post-Project (Full Buildout Operational) Emissions

Emissions Source	Pollutant (tons/year)[1]					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Mitigated Emission Estimates						
Water Truck Off-Site Emissions	0.0001	0.0016	0.0003	0.0000	0.0003	0.0001
Water Truck On-Site Emissions	0.0001	0.0029	0.0006	0.0000	0.0000	0.0000
Water Truck On-Site Fugitive Dust Emissions					0.0361	0.0036
Maintenance Truck Off-Site Emissions	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000
Maintenance Truck On-Site Fugitive Dust Emissions					0.0017	0.0002
Employee Vehicle Off-Site Emissions	0.0000	0.0001	0.0005	0.0000	0.0000	0.0000
Employee Vehicle On-Site Fugitive Dust Emissions					0.0026	0.0003
Mitigated Operational Emissions	0.0002	0.0047	0.0018	0.0000	0.0407	0.0042
EKAPCD Threshold	25	25	---[2]	27	15	15
Is Threshold Exceeded After Mitigation?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: Insight Environmental Consultants 2016
Notes: 1) Emissions equaling 0.0000 could represent emissions <0.00005.
2) The EKAPCD has no established threshold.

As shown in **Table 7-2**, operational-related emissions, as estimated with EMFAC2014 and AP-42 emissions factors (see **Attachment E**), would be below the EKAPCD significance threshold levels. Therefore, the proposed Project would have *a less than significant long term air quality impact*.

PM_{10} generated as a part of fugitive dust emissions pose a potentially serious health hazard, alone or in combination with other pollutants. EKAPCD under Rule 402 implements required control measures to assist in further minimizing these emissions.

The Project would comply with applicable EKAPCD Rules and Regulations, the local zoning codes, and additional mitigation measures required in this analysis to reduce PM_{10} fugitive dust emissions even further to ensure that the project's emissions remain at a "*less than significant*" level.

Potential Impacts on Sensitive Receptors

Sensitive receptors are defined as locations where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside, such as schools, hospitals, nursing homes and daycare centers. The nearest proposed residential sensitive receptors are immediately west of the proposed Project site. There is one (1) known non-residential sensitive receptor within 2 miles of the Project site and are listed below in **Table 7-3**.

Table 7-3 – Sensitive Receptors Located ≤ 2 Miles from Project

Receptor	Type of Facility	Distance from Project in Miles	Direction from Project
Inyokern Elementary School	K-5 Public	0.22	W

Based on the criteria pollutant analysis above and the potential visibility, health, and odor impacts analyzed below, the proposed Project is expected to have a *less than significant* impact on sensitive receptors.

Potential Impacts to Visibility to Nearby Class 1 Areas

Visibility impact analyses are intended for stationary sources of emissions which are subject to the PSD requirements in 40 CFR Part 60; they are not usually conducted for area sources. Because the Project's PM10 emissions increase are predicted to be less than the PSD threshold levels, an impact at any Class 1 area within 100 kilometers of the Project (including Edwards Air Force Base, China Lake Naval Weapons Station and the entire R-2508 Airspace Complex, and Death Valley National Monument) is extremely unlikely. Therefore, based on the Project's predicted less-than significant PM_{10} emissions, the Project would be expected to have a less than significant impact to visibility at any Class 1 Area.

Potential Impacts from Carbon Monoxide (CO) – Mobile Sources

Ambient CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. CO concentrations are also influenced by wind speed and atmospheric mixing. CO concentrations may be more uniformly distributed when inversion conditions are prevalent in the valley. Under certain meteorological conditions CO concentrations along a congested roadway or intersection may reach unhealthful levels for sensitive receptors, e.g. children, the elderly, hospital patients, etc. This localized impact can result in elevated levels of CO, or "hotspots" even though concentrations at the closest air quality monitoring station may be below NAAQS and CAAQS.

The localized project impacts depend on whether ambient CO levels in the Project vicinity would be above or below NAAQS. If ambient levels are below the standards, a project is considered to have significant impacts if a project's emissions would exceed of one or more of these standards. If ambient levels already exceed a state standard, a project's emissions are considered significant if they would increase one-hour CO concentrations by 10 ppm or more or eight-hour CO concentrations by 0.45 ppm or more.

There was no traffic study available for this Project at the time this analysis was completed. However, no vehicular traffic other than sporadic maintenance, panel washing trucks, and employees are expected and due to the location of the site, potentially impacted intersections and roadway segments are anticipated to operate at a LOS of C or better during Project operations. Therefore, CO "Hotspot" Modeling was not conducted for this Project and no concentrated excessive CO emissions are expected to be caused once the proposed Project is completed.

Predicted Health Risk Impacts

Projects are considered for potential health risks wherein a new or modified source of HAPs is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to HAPs.

The proposed Project is a photovoltaic solar generation facility and is not anticipated to generate any additional sources of toxic air contaminates with the exception of increased diesel particulate matter (DPM) from construction, facility maintenance and solar panel cleaning activities. However, despite being estimated conservatively, the quantity of increased on-site DPM from the Project is well below any typical screening levels for air toxics. Therefore, the project would not be expected to generate a health risk impact due to its activity and size. Its potential health risk impacts would therefore be considered *less than significant* and no further health risk assessment is required.

Odor Impacts and Mitigation

An evaluation is typically conducted for both of the following situations: 1) a potential source of objectionable odors is proposed for a location near existing sensitive receptors, and 2) sensitive receptors are proposed to be located near an existing source of objectionable odors. The criteria for this evaluation are based on the Lead Agency's determination of the proximity to one another of the proposed project and the sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors. **Table 7-3** lists the known sensitive receptors that are in relative close proximity (within a two mile radius) to the project area; the Inyokern Elementary School is approximately one quarter mile to the west and is the only known sensitive receptor in a two mile radius.

The proposed Project is not considered a source of objectionable odors or odorous compounds. Furthermore, there does not appear to be any significant source of objectionable odors in close proximity that may adversely impact the project site when it is in operation. As such, the proposed project will not be a source of any odorous compounds nor will it likely be impacted by any odorous source.

Impacts to the Ambient Air Quality

Since the project's long term emissions are considered minimal an ambient air quality analysis was not performed to determine if the proposed project has the potential to impact ambient air quality through a violation of the ambient air quality standards or a substantial contribution to an existing or projected air quality standard. The project is considered *less than significant* for impacts to ambient air quality standards.

8.0 CUMULATIVE IMPACTS

CEQA defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The EKAPCD Guidelines for Implementation of CEQA also states that "*Unless otherwise specified in published/adopted thresholds of significance and guidelines, a project's potential contribution to cumulative impacts shall be assessed utilizing the same significance criteria as those for project specific impacts.*"[1] Based on the analysis conducted for this project, it is individually *less than significant*. This AQIA, however, also considered impacts of the proposed project in conjunction with the impacts of other projects previously proposed in the area. The following cumulative impacts were considered:

- Cumulative O_3 Impacts (ROG and NOx) from numerous sources within the region including transport from outside the region. O_3 is formed through chemical reactions of ROG and NOx in the presence of sunlight.
- Cumulative CO Impacts produced primarily by vehicular emissions.
- Cumulative PM_{10} Impacts from within the region and locally from the various projects. Such projects may cumulatively produce a significant amount of PM_{10} if several projects conduct grading or earthmoving activities at the same time; and
- Hazardous Air Pollutant (HAP) Impacts on sensitive receptors from within the recommended screening radius of one mile.

The cumulative analysis is based on a quantitative cumulative analysis of projects located within a six-mile radius of the proposed Project. A six-mile radius is for cumulative project analysis is required within Kern County.

[1] EKAPCD Guidelines for Implementation of CEQA , Page 22

The cumulative analysis quantifies operational and area impacts proposed by the project as well as all identified projects within close proximity (six-miles) of the project site. The analysis quantifies operational emissions from these other projects to determine the impacts to the air basin posed by these sources with the increases proposed by the subject project. These emissions are then compared to the proposed growth and anticipated emissions increases included in the various regional growth forecasts to determine 1) if they were included in the forecast; 2) if their inclusion can be considered consistent with the attainment plan for air emissions within the air basin; and 3) if these emissions are in conformance with the State Implementation Plan emission budget or baseline emissions for ROG, NOx, CO and PM_{10}.

Cumulative Regional Air Quality Impacts

The most recent, certified MDAB Emission Inventory data available from the EKAPCD is based on data gathered for the 2012 annual inventory (see **Attachment F**).[2] This data will be used to assist the EKAPCD in demonstrating attainment of Federal 1-hour O_3 Standards. **Table 8-1** provides a comparative look at the impacts proposed by the proposed Project to the MDAB Emissions Inventory.

Table 8-1 – Comparative Analysis Based on MDAB 2012 Inventory

Emissions Inventory Source	Pollutant (tons/year)					
	ROG	**NOx**	**CO**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
Kern County – 2012	15,148	13,140	64,532	1,205	9,746	5,804
MDAB – 2012	41,282	63,839	175,346	3,139	53,728	18,141
Proposed Project	0.0002	0.0047	0.0018	0.000	0.0407	0.0042
Proposed Project's % of Kern	0.0000	0.0000	0.0000	0.0000	0.0004	0.0001
Proposed Project's % of MDAB	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000

Source: CARB 2016
Notes: 1) Percentages equaling 0.0000 could represent a percent <0.00005.
2) This is the latest inventory available as of November 2016

As shown in **Table 8-1** the proposed Project does not pose a significant increase to basin emissions, as such basin emissions would be essentially the same if the Project is approved.

Tables 8-2 through **8-4** provide CARB Emissions Inventory projections for the year 2020 for both the MDAB and the Kern County portion of the air basin (see **Attachment G**). Looking at the MDAB Emissions predicted by the CARB year 2020 emissions inventory, the Kern County portion of the air basin is a moderate source of the emissions. The proposed Project produces a small portion of the total emissions in both Kern County and the entire MDAB.

Table 8-2 – Emission Inventory MDAB 2020 Projection – Tons per Year

	ROG	**NO_X**	**PM_{10}**
Total Emissions	41,501	57,415	59,459
Percent Stationary Sources	21.37	52.89	26.21
Percent Area-Wide Sources	13.46	1.14	58.81
Percent Mobile Sources	23.31	45.33	5.16
Percent Natural Sources	41.86	0.70	9.82
Total Stationary Source Emissions	8,870	30,368	15,586
Total Area-Wide Source Emissions	5,585	657	34,967
Total Mobile Source Emissions	9,673	26,025	3,066
Total Natural Source Emissions	17,374	402	5,840

Source: CARB 2016
Note: Total may not add due to rounding.

[2] EKAPCD Emissions for Aggregated Stationary, Area-Wide, Mobile and Natural Sources

Table 8-3 – Emission Inventory MDAB – Kern County Portion 2020 Estimate Projection – Tons per Year

	ROG	NO_X	PM_{10}
Total Emissions	14,746	12,629	9,819
Percent Stationary Sources	3.22	60.69	17.84
Percent Area-Wide Sources	3.96	0.87	29.37
Percent Mobile Sources	16.34	37.57	12.64
Percent Natural Sources	76.49	0.87	40.15
Total Stationary Source Emissions	475	7,665	1,752
Total Area-Wide Source Emissions	584	110	2,884
Total Mobile Source Emissions	2,409	4,745	1,241
Total Natural Source Emissions	11,279	110	3,942

Source: CARB 2016
Note: Total may not add due to rounding.

Table 8-4 – 2020 Emissions Projections – Proposed Project, Kern County and MDAB

	ROG	NO_X	PM_{10}
Proposed Project	0.0002	0.0047	0.0407
Kern County	14,746	12,629	9,819
MDAB	41,501	57,415	59,459
Proposed Project Percent of Kern County	0.0000	0.0000	0.0004
Proposed Project Percent of MDAB	0.0000	0.0000	0.0001
Kern County Percent of MDAB	35.5317	21.9960	16.5139

Source: CARB 2016

Note:
1) The emission estimates for Kern County and the MDAB are based on 2020 projections. The Proposed Project emission estimates are for the proposed emissions that are not already included in the MDAB Emissions Inventory. Project emissions are conservatively based year 2019 (Project operations are anticipated to start in the Year 2020). The Project's emissions are expected to decline as cleaner, less polluting vehicles replace vehicles with higher emissions.
2) Percentages equaling 0.0000 could represent a percent <0.00005.

As shown above, the proposed Project would pose no impact on regional O_3 and PM_{10} formation. Because the regional contribution to these cumulative impacts would be negligible, the Project would not be considered cumulatively considerable in its contribution to regional O_3 and PM_{10} impacts.

The most recent, certified MDAB Emission Inventory data available from the CARB is based on data gathered for the 2012 annual inventory (CARB 2016). This data will be used to assist the EKAPCD in demonstrating attainment of Federal 8-hour O_3 Standards and contained 41,282 tons per year ROG and 63,839 tons per year NOx from all sources. On a regional basis, the proposed Project represents 0.0000% of the ROG and NOx emissions of the 2012 inventory of the MDAB. The projected emissions posed by the Project upon the air basin would be less than significant because basin emissions would be essentially the same whether or not the Project is built.

Cumulative Localized Air Quality Impacts

There are fourteen (14) other planned developments found within a six-mile radius of the Project based on a review of the Kern County GIS database as well as a list provided by the Kern County including any known solar projects in the area. **Tables 8-5 and 8-6** provides a summary of the construction and operational emissions of the cumulative projects list (see **Attachment H**). The cumulative projects listed in **Tables 8-5 and 8-6** is only a geographical reference to demonstrate the construction activity in a six-

mile radius from the proposed Project. The number or size of these projects is of no particular significance since no "cumulative" emissions thresholds have been established by the EKAPCD.

Table 8-5 – Cumulative Construction Emissions

Six-Mile Radius Projects List	Pollutant (tons/year)1					
	ROG	NO_X	CO	SO_X	PM10	PM2.5
Kern County						
TPM 10976 – 7.83 acres, 3 lots – E(2.5) RS MH	0.520	3.820	2.570	0.004	0.410	0.320
TPM 11120 – 9.98 acres, 4 lots – E(2.5) RS MH	0.550	2.570	0.004	0.410	0.320	3.850
TPM 11121 – 9.97 acres, 4 lots – E(2.5) RS MH	0.550	2.570	0.004	0.410	0.320	3.850
TPM 11122 – 9.73 acres, 4 lots – E(2.5) RS MH	0.550	2.570	0.004	0.410	0.320	3.850
TPM 11154 – 9.98 acres, 4 lots – E(2.5) RS MH	0.550	2.570	0.004	0.410	0.320	3.850
TPM 11390 – 4.06 acres, 2 lots – E(2.5) RS	3.490	2.370	0.004	0.310	0.260	3.490
TPM 11452 – 1.04 acres, 2 lots – E(1/4) MH	0.350	2.060	1.520	0.002	0.150	0.130
TPM 11673 – 5.01 acres, 2 lots – A-1 MH	0.350	1.970	0.003	0.230	0.200	1.970
TPM 11781 – 20.35 acres, 15 lots – E(2.5) RS	0.890	4.190	2.820	0.004	0.450	0.330
TPM 11922, 1 acre, 4 lots – E(1/4) MH	0.230	1.030	0.770	0.001	0.080	0.070
TPM 12012 – 5.1 acres, 2 parcels – C-2	0.510	1.590	1.120	0.002	0.140	0.110
APN 064-440-209, Tract 111009 – 37 acres – A1	0.032	0.406	0.208	0.001	0.073	0.024
APN 325-131-22, Tract 111017 – 0.94 acres – C-2 Storage & Office	0.510	1.590	1.120	0.002	0.140	0.110
APN 352-131-11, Tract 111009 - 8.84 acres – M-1	2.510	4.110	3.030	0.006	0.450	0.300
Cumulative Emissions	**8.562**	**40.576**	**27.778**	**0.045**	**4.073**	**3.134**
Project Emissions	*0.202*	*2.576*	*1.322*	*0.004*	*0.466*	*0.153*
Total Cumulative Plus Project	**8.764**	**43.152**	**29.100**	**0.049**	**4.539**	**3.287**

Source: Insight Environmental Consultants 2016

1. These emissions are overestimated and include all years of construction not just a single year, as they are discretionary projects that are subject to various mitigation measures that have not yet been determined nor their impacts reduced herein.

TABLE 8-6 – Cumulative Operational Emissions

Six-Mile Radius Projects List	Pollutant (tons/year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Kern County						
TPM 10976 – 7.83 acres, 3 lots – E(2.5) RS MH	0.520	3.820	2.570	0.004	0.410	0.320
TPM 11120 – 9.98 acres, 4 lots – E(2.5) RS MH	0.550	3.850	2.570	0.004	0.410	0.320
TPM 11121 – 9.97 acres, 4 lots – E(2.5) RS MH	0.550	3.850	2.570	0.004	0.410	0.320
TPM 11122 – 9.73 acres, 4 lots – E(2.5) RS MH	0.550	3.850	2.570	0.004	0.410	0.320
TPM 11154 – 9.98 acres, 4 lots – E(2.5) RS MH	0.550	3.850	2.570	0.004	0.410	0.320
TPM 11390 – 4.06 acres, 2 lots – E(2.5) RS	0.460	3.490	2.370	0.004	0.310	0.260
TPM 11452 – 1.04 acres, 2 lots – E(1/4) MH	0.350	2.060	1.520	0.002	0.150	0.130
TPM 11673 – 5.01 acres, 2 lots – A-1 MH	0.350	2.890	1.970	0.003	0.230	0.200
TPM 11781 – 20.35 acres, 15 lots – E(2.5) RS	0.890	4.190	2.820	0.004	0.450	0.330
TPM 11922, 1 acre, 4 lots – E(1/4) MH	0.230	1.030	0.770	0.001	0.080	0.070
TPM 12012 – 5.1 acres, 2 parcels – C-2	0.510	1.590	1.120	0.002	0.140	0.110
APN 064-440-209, Tract 111009 – 37 acres – A1	0.000	0.001	0.000	0.000	0.475	0.048
APN 325-131-22, Tract 111017 – 0.94 acres – C-2 Storage & Office	0.510	1.590	1.120	0.002	0.140	0.110
APN 352-131-11, Tract 111009 - 8.84 acres – M-1	2.510	4.110	3.030	0.006	0.450	0.300
Cumulative Emissions	**8.530**	**40.171**	**27.570**	**0.044**	**4.006**	**3.158**
Project Emissions	*0.0002*	*0.0047*	*0.0018*	*0.0000*	*0.0407*	*0.0042*
Total Cumulative Plus Project	**8.530**	**40.175**	**27.572**	**0.044**	**4.047**	**3.162**
Source: Insight Environmental Consultants 2016						

As details regarding the various projects listed above were not readily available, the emissions estimates presented were modeled using the CalEEMod computer model to predict cumulative impacts using default model settings (see **Attachment H** for output results). Emissions for the construction and operational phases of each project were based on total number of lots or square footage for maximum project build-out as noted on the Kern County GIS Geocortex Online Mapping information. No mitigation measures were applied to any of the projects as it is not known which, if any, would be required by Kern County (within the town of Inyokern) or which may be voluntarily proposed by each developer or required by code or regulation. Additionally, no cumulative significance thresholds are shown since no cumulative thresholds have been established by the EKAPCD, CARB or other regulatory authority. These projects represent all known and reasonably foreseeable projects in the area. As these projects are either currently under construction or, at a minimum, approved by the planning department for consistency with applicable regulation, for the purposes of this analysis, it is assumed that they are in conformance with the regional AQAP.

There are no cumulative significance thresholds established by the EKAPCD, CARB or other regulatory authority. Because: 1) the cumulative projects are already approved; 2) it is assumed that these projects are in conformance with the regional AQAP and/or the Kern County General Plan; and 3) the Project's incremental contribution is less-than significant; therefore, the Project's incremental contribution to a cumulative effect is considered less than significant. (CEQA Guidelines Section 15064(h)(3) (EKAPCD 2015).

Cumulative Hazardous Air Pollutants (HAPs)

Combined HAPs emission impacts from the project and other existing and planned projects are considered cumulatively significant when air quality standards are exceeded. Because the Project would not be a significant source of HAPS, the proposed Project would also not be expected to pose a significant cumulative HAPs impact.

Cumulative Carbon Monoxide (CO) – Mobile Sources

Traffic increases and added congestion caused by a project can combine to cause a CO "Hotspot". There was no traffic study available for this Project at the time this analysis was completed. However, no vehicular traffic other than sporadic maintenance, panel washing trucks, and employees are expected and due to the location of the site, potentially impacted intersections and roadway segments are anticipated to operate at a LOS of C or better during Project operations. Therefore, cumulative CO "Hotspot" Modeling was not conducted for this Project and no concentrated excessive CO emissions are expected to be caused once the proposed Project is completed.

9.0 IMPACTS TO GLOBAL CLIMATE CHANGE

Global Climate Change Regulatory Issues

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United Nations Framework Convention on Climate Change established an agreement with the goal of controlling GHG emissions, including methane. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs. Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete O_3 in the stratosphere (chlorofluorocarbons [CFCs], halons, carbon tetrachloride, and methyl chloroform) were phased out by 2000 (methyl chloroform was phased out by 2005).

On September 27, 2006, Assembly Bill 32 (AB32), the California Global Warming Solutions Act of 2006 (the Act) was enacted by the State of California. The legislature stated, "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." The Act caps California's GHG emissions at 1990 levels by 2020. The Act defines GHG emissions as all of the following gases: carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. This agreement represents the first enforceable statewide program in the U.S. to cap all GHG emissions from major industries that includes penalties for non-compliance. While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB32 lays out a program to inventory and reduce GHG emissions in California and from power generation facilities located outside the state that serve California residents and businesses.

AB32 charges CARB with responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. CARB has adopted a list of discrete early action measures that can be implemented to reduce GHG emissions. CARB has defined the 1990 baseline emissions for California, and has adopted that baseline as the 2020 statewide emissions cap. CARB is conducting rulemaking for reducing GHG emissions to achieve the emissions cap by 2020. In designing emission reduction measures, CARB must aim to minimize costs, maximize benefits, improve and modernize California's energy infrastructure,

maintain electric system reliability, maximize additional environmental and economic co-benefits for California, and complement the state's efforts to improve air quality.

Global warming and climate change have received substantial public attention for more than 20 years. For example, the United States Global Change Research Program was established by the Global Change Research Act of 1990 to enhance the understanding of natural and human-induced changes in the Earth's global environmental system, to monitor, understand and predict global change, and to provide a sound scientific basis for national and international decision-making. Even so, the analytical tools have not been developed to determine the effect on worldwide global warming from a particular increase in GHG emissions, or the resulting effects on climate change in a particular locale. The scientific tools needed to evaluate the impacts that a specific project may have on the environment are even farther in the future.

The California Supreme Court's most recent CEQA decision on the Newhall Ranch development case, *Center for Biological v. California Department of Fish and Wildlife* (November 30, 2015, Case No. 217763), determined that the project's Environmental Impact Report (EIR) did not substantiate the conclusion that the GHG cumulative impacts would be less than significant. The EIR determined that the Newhall Ranch development project would reduce GHG emissions by 31 percent from BAU. This reduction was compared to the California's target of reducing GHG emissions statewide by 29 percent from BAU. The Court determined that "the EIR's deficiency stems from taking a quantitative comparison method developed by the Scoping Plan as a measure of the greenhouse gas reduction effort required by the state as a whole, and attempting to use that method, without adjustments, for a purpose very different from its original design." In the Court's final ruling it offered suggestions that were deemed appropriate use of the BAU methodology:

1. Lead agencies can use the comparison to BAU methodology if they determine what reduction a particular project must achieve in order to comply with statewide goals,
2. Project design features that comply with regulations to reduce emissions may demonstrate that those components of emissions are less that significant, and
3. Lead agencies could also demonstrate compliance with locally adopted climate plans, or could apply specific numerical thresholds developed by some local agencies.

As discussed in Section 6.0 Significance Criteria, the EKAPCD has developed a specific numerical threshold to determine significance of a proposed project. According to the Court's ruling this numerical threshold can be used to demonstrate compliance. This threshold is applied to the subject Project in order to determine significance.

<u>Global Climate Change Impacts from the Proposed Project</u>

The Earth's atmosphere naturally includes a number of gases, including CO_2, methane, and nitrous oxides (N_2O) that are referred to as GHGs. These gases trap some amount of solar radiation and the Earth's own radiation, preventing it from passing through Earth's atmosphere and into space. GHGs are vital to life on Earth; without them Earth would be an icy planet. CO_2 is also a trace element that is essential to the cycle of life. It is essential to plant growth and studies have shown that vegetation growth has increased in North America commensurate with the increase in CO_2 over the past decades. However, increasing GHG concentrations tend to warm the planet. A warming trend of about 0.7°F to 1.5°F reportedly occurred during the 20th century, and a number of scientific analyses indicate that rising levels of GHGs in the atmosphere may be contributing to climate change.

As the average temperature of the Earth increases, weather may be affected, including changes in precipitation patterns, accumulation of snow pack, and intensity and duration of spring snowmelt. There may be rises in sea level, resulting in coastal erosion and inundation of coastal areas. Emissions of air pollutants and ambient levels of pollutants also may be affected in areas. Climate zones may change, affecting the ecology and biological resources of a region. There may be changes in fire hazards due to the changes in precipitation and climate zones.

While scientists have established a connection between increasing CO_2 concentrations and increasing average temperatures, important scientific questions remain about how much warming will occur, how fast it will occur, and how the warming will affect the rest of the climate system. At this point, scientific efforts are unable to quantify the degree to which human activity impacts climate change. The phenomenon is worldwide, yet it is expected that there will be substantial regional and local variability in climate changes. It is not possible with today's science to determine the effect of global climate change in a specific locale, or whether the effect of one aspect of climate change may be counteracted by another aspect of climate change, or exacerbated by it.

Human activities generate GHGs. Since pre-industrial times, there has been a build-up of levels of gases like CO_2 in the atmosphere. The human contribution to the increase in atmospheric CO_2 concentrations largely has resulted from the burning of fossil fuels. Fossil fuel combustion accounts for approximately 98 percent of CO_2 emissions from human activity.

The United States has the second highest emissions of GHGs of any nation on Earth, though CO_2 emissions in California are less than the national average, both in per capita emissions and in emissions per gross state product. Transportation is the largest source of CO_2 emissions in California, accounting for approximately 41 percent of total emissions. Electricity generation accounts for approximately 22 percent of CO_2 emissions in California, and the industrial sector accounts for approximately 20.5 percent.

There are a number of factors available for estimating the GHG emissions. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified in carbon dioxide equivalents (CO_2e). The proposed Project's construction and operational GHG emissions were estimated using the CalEEMod and EMFAC2014 programs. Additionally, the GHG savings from a 32 MW solar project were estimated through applying the California Climate Action Registry Reporting Protocol (Version 3.1) GHG emissions savings for solar projects. These Project's annualized construction and operations emissions as well as GHG savings are summarized in **Table 9-1** (**Attachment E)**.

Table 9-1 – Estimated Annual GHG Emissions (Tons/Year)

Source	CO_2	CH_4	N_2O	CO_2e
Construction Emissions -2019	402.146	0.080	0.000	404.256
Annualized Construction Emissions[1]	13.405	0.003	0.000	13.475
Total Project Operational Emissions	4.435	0.000	0.000	2.680
Total Project Emissions	17.840	0.003	0.000	16.155
GHG Savings from 32 MW Solar Project[2]	(25,517.32)	(0.195)	(0.107)	(25,555.00)
Net Project Savings	**(25,499.48)**	**(0.192)**	**(0.107)**	**(25,538.55)**
EKACPD's Significance Threshold	**-**	**-**	**-**	**25,000**
Significance Threshold Exceeded?	**-**	**-**	**-**	**NO**

*Note: 0.00 could represent <0.00
[1] Per South Coast AQMD's Methodology: Construction emissions are annualized over a 30 year period.
[2] California Climate Action Registry Reporting Protocol (Version 3.1).

The Project will not result in the emissions of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), or sulfur hexafluoride (SF_6), the other gases identified as GHG in AB32. The proposed Project will be subject to any regulations developed under AB32 as determined by CARB. As demonstrated in **Table 9-1,** the Project would have a positive impact on global climate change by reducing the demand for conventional power generation and the rate of global climate change resulting from conventional power generation. Additionally, because the project is a net negative producer of GHGs which results in a savings of 25,539

MT CO_2e per year it will be less than the EKAPCD's GHG Policy threshold of 25,000 MT of CO_2e per year (EKAPCD 2012). The proposed Project would therefore to have a *less than significant* GHG impact.

Feasible and Reasonable Mitigation Relative to Global Warming

CEQA requires that all feasible and reasonable mitigation be applied to the project to reduce the impacts from construction and operations on air quality. The SJVAPCD's "Non-Residential On-Site Mitigation Checklist" was applied in preparing the mitigation measures and evaluating the Project's features as a proxy for EKAPCD. These measures include using controls that limit the exhaust from construction equipment and using alternatives to diesel when possible. Additional reductions would be achieved through the air districts and CARB implementing regulations to reduce diesel engine emissions.

While it is not possible to determine whether the Project individually would have a significant impact on global warming or climate change, the Project would potentially contribute to cumulative GHG emissions in California as well as related health effects. The Project emissions would only be a very small fraction of the statewide GHG emissions. However, without the necessary science and analytical tools, it is not possible to assess, with certainty, whether the Project's contribution would be cumulatively considerable, within the meaning of CEQA Guidelines Sections 15065(a)(3) and 15130. CEQA, however, does note that the more severe environmental problems the lower the thresholds for treating a project's contribution to cumulative impacts as significant. Given the position of the legislature in AB32 which states that global warming poses serious detrimental effects, and the requirements of CEQA for the lead agency to determine that a project not have a cumulatively considerable contribution, the effect of the Project's CO_2 contribution may be considered cumulatively considerable. This determination is based on the lack of clear scientific evidence or other criteria for determining the significance of the Project's contribution of GHG to the air quality in the MDAB. The strategies currently being implemented by CARB may help in reducing the Project's GHG emissions and are summarized in the table below.

Table 9-2 – Select CARB GHG Emission Reduction Strategies

Strategy	Description of Strategy
Vehicle Climate Change Standards	AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by CARB in Sept. 2004.
Diesel Anti-Idling	In July 2004, CARB adopted a measure to limit diesel-fueled retail motor vehicle idling.
Other Light-Duty Vehicle Technology	New standards would be adopted to phase in beginning in the 2017 model year.
Alternative Fuels: Biodiesel Blends	CARB would develop regulations to require the use of 1% to 4% Biodiesel displacement of California diesel fuel.
Alternative Fuels: Ethanol	Increased use of ethanol fuel.
Heavy-Duty Vehicle Emission Reduction Measures	Increased efficiency in the design of heavy-duty vehicles and an educational program for the heavy-duty vehicle sector.

Not all of these measures are currently appropriate or applicable to the proposed Project. While future legislation could further reduce the Project's GHG footprint, the analysis of this is speculative and in accordance with CEQA Guidelines Section 15145, will not be further evaluated in this AQIA.

CEQA Guidelines Section 15130 notes that sometimes the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis. Global climate change is this type of issue. The causes and effects may not be just regional or statewide, they may also be worldwide. Given the uncertainties in identifying, let alone quantifying the impact of any single project on global warming and climate change, and the efforts made to reduce emissions of GHGs from the Project through design, in accordance with CEQA Section 15130, any

further feasible emissions reductions would be accomplished through CARB regulations adopted pursuant to AB32. The cumulative impacts of the Project to global climate change as demonstrated in **Table 9-1** would be below the GHG thresholds of significance established by the EKAPCD. Therefore, the cumulative impacts to global climate change would be *less than significant.*

10.0 CONSISTENCY WITH THE AIR QUALITY ATTAINMENT PLAN

Air quality impacts from proposed projects within the eastern Kern County are controlled through policies and provisions of the EKAPCD and the Kern County General Plan (Kern County 2004). In order to demonstrate that a proposed project would not cause further air quality degradation in either of the EKAPCD's plan to improve air quality within the air basin or federal requirements to meet certain air quality compliance goals, each project should also demonstrate consistency with the EKAPCD's adopted AQAP. The EKAPCD is required to submit a "Rate of Progress" document to the CARB that demonstrates past and planned progress toward reaching attainment for all criteria pollutants. The California Clean Air Act (CCAA) requires the local air districts with severe or extreme air quality problems to provide for a 5 percent reduction in non-attainment emissions per year. The Attainment Plans prepared for the Eastern Kern County by the EKAPCD complies with this requirement. CARB reviews, approves or amends the document and forwards the plan to the U.S. Environmental Protection Agency (U.S. EPA) for final review and approval within the State Implementation Plan (SIP).

Air pollution sources associated with stationary sources are regulated through the EKAPCD permitting authority under the New and Modified Stationary Source Review Rule (EKAPCD Rule 210.1). Owners of any new or modified equipment that emits, reduces or controls air contaminants, except those specifically exempted by the EKAPCD, are required to apply for an Authority to Construct and Permit to Operate (EKAPCD Rule 201). Additionally, best available control technology (BACT) is required on specific types of stationary equipment and are required to offset both stationary source emission increases along with increases in cargo carrier emissions if the specified threshold levels are exceeded (EKAPCD Rule 210.1, III.B.). Through this mechanism, the EKAPCD would ensure that all stationary sources within a project area would be subject to the standards of the EKAPCD to ensure that new developments do not result in net increases in stationary sources of criteria air pollutants.

Required Evaluation Guidelines

CEQA Guidelines and the Federal Clean Air Act (Sections 176 and 316) contain specific references on the need to evaluate consistency between a proposed project and the applicable AQAP for the Project site. To accomplish this, CARB has developed a three-step approach to determine project conformity with the applicable AQAP:

1. *Determination that an AQAP is being implemented in the area where the Project is being proposed*. The EKAPCD has implemented the current, modified, AQAP as approved by the CARB. The current AQAP is under review by the U.S. EPA.
2. *The proposed Project must be consistent with the growth assumptions of the applicable AQAP*. The proposed Project is included within the population and employment increases projected in the Kern County General Plan (**Tables 10-1 and 10-2**).
3. *The Project must contain in its design all reasonably available and feasible air quality control measures*. The proposed Project incorporates various policy and rule-required implementation measures that will reduce related emissions.

The CCAA and AQAP identify transportation control measures as methods to further reduce emissions from mobile sources. Strategies identified to reduce vehicular emissions such as reductions in vehicle trips, vehicle use, vehicle miles traveled, vehicle idling and traffic congestion, in order to reduce vehicular emissions, can be implemented as control measures under the CCAA as well. Additional measures may also be implemented through the building process such as providing electrical outlets on exterior walls of

structures to encourage use of electrical landscape maintenance equipment.

As the growth represented by the proposed Project was anticipated by the Kern County General Plan and incorporated into the AQAP, conclusions may be drawn from the following criteria:

1. The findings of the analysis conducted using review of TAZ data show that sufficient population and household increases are planned for the project area (**Table 10-1** below);
2. That, by definition, the proposed emissions from the Project are below the EKAPCD's established emissions impact thresholds; and
3. That the primary source of emissions from the Project would be motor vehicles which would be licensed through the State of California and whose emissions are already incorporated into the CARB's Eastern Kern County's Emissions Inventory.

Based on these factors, the Project *appears to be consistent with the AQAP*.

Consistency with the Kern Council of Government's Regional Conformity Analysis

The Kern Council of Governments (Kern COG) Regional Conformity Analysis Determination demonstrates that the regional transportation expenditure plans (Destination 2030 Regional Transportation Plan and Federal Transportation Improvement Program) in the Kern County portion of the Kern County portion of the Mojave Desert air quality attainment areas would not hinder the efforts set out in the CARB's SIP for each area's non-attainment pollutants (CO, O_3 and PM_{10}). The analysis uses an adopted regional growth forecast, governed by both the adopted Kern COG Policy and Procedure Manual and a Memorandum of Understanding between the County of Kern and Kern COG (representing itself and outlying municipal member agencies).

The Kern COG Regional Conformity Analysis considers General Plan Amendments (GPA) and zone changes that were enacted at the time of the analysis as projected growth within the area based on land use designations incorporated within the Kern County General Plan. Land use designations that are altered based on subsequent GPAs that were not included in the Regional Conformity Analysis were not incorporated into the Kern COG analysis. Consequently, if a proposed project is not included in the regional growth forecast using the latest planning assumptions, it may not be said to conform to the regional growth forecast.

Item 2 under Section 3 – Model Maintenance Procedure, of the Kern COG Regional Transportation Modeling Policy and Procedure Manual states "*Land Use Data – General Plan land capacity data or "Build -out capacity" is used to distribute the forecasted County totals, and may be updated as new information becomes available, and is revised in regular consultation with local planning departments*."

Under the current Kern County Zoning, the Project site is designated as "M-2" for industrial and would be included in the regional growth forecast (see **Figure 10-1 and Table 10-1**).

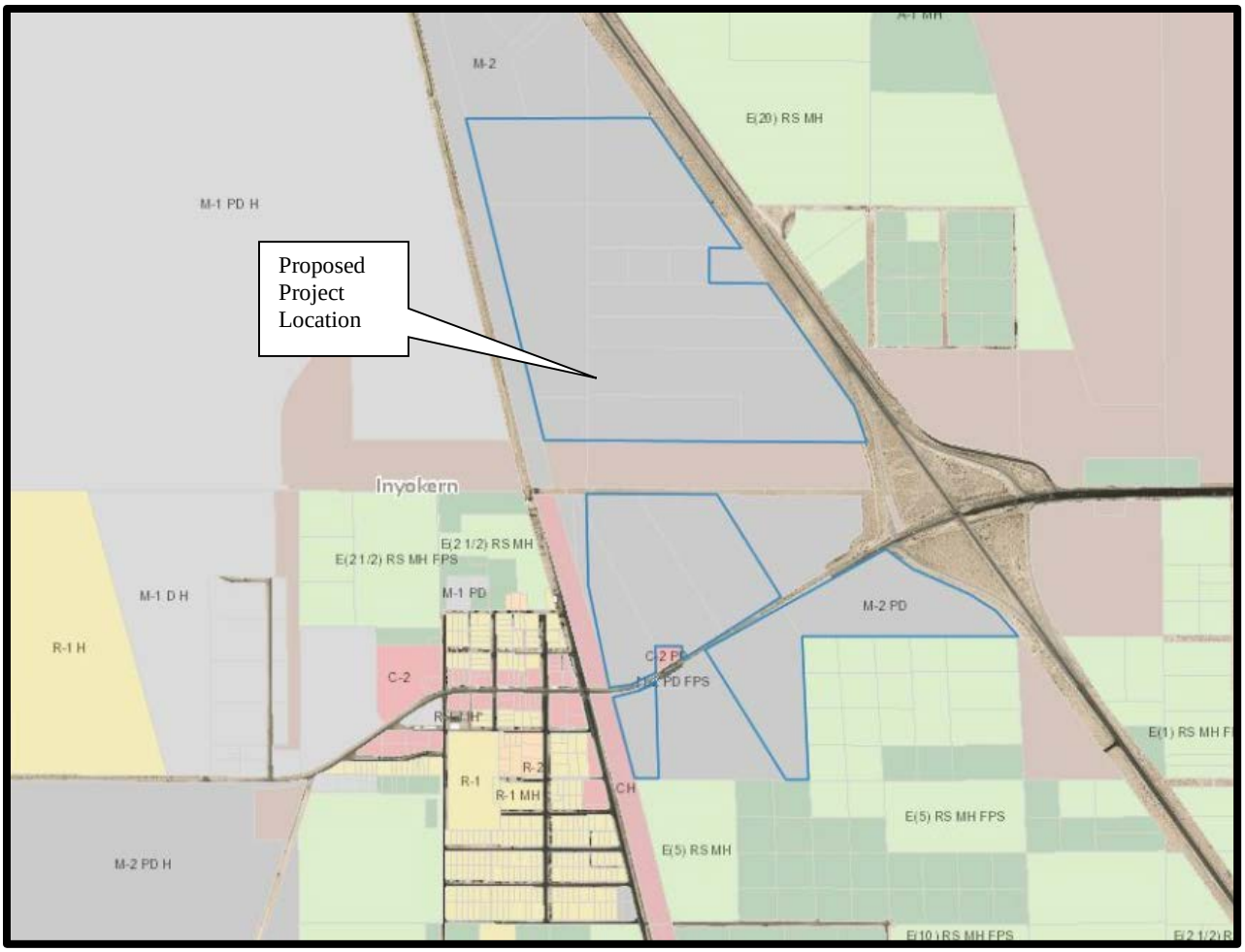

Figure 10-1 – Inyokern, Kern County Zoning

In addition, a review of Kern COG regional forecast was prepared to evaluate if the Project area growth forecast would be sufficient to account for the Project's projected employment increase. The adopted growth forecasts are assigned to Traffic Analysis Zones (TAZ) (see **Figure 10-2**); a review of the growth forecast one mile from a project presents a conservative assessment of the Project area. The TAZ's included in the one mile radius from the proposed Project site are: 586, 590, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 758, 774, 842, 856, 981, 982, 1576, 1578, and 1579.

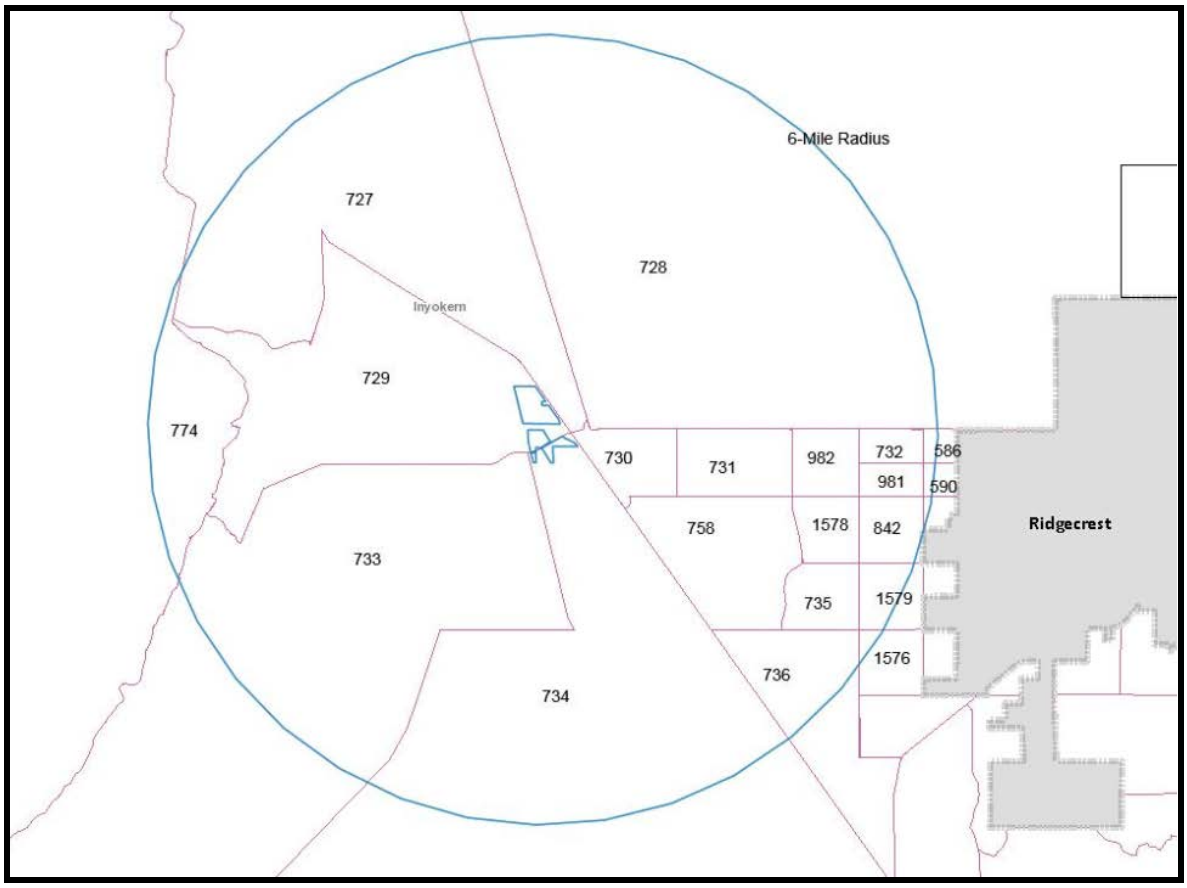

Figure 10-1 – 6-Mile TAZ Map

Table 10-1 – TAZ Analysis Area Projected Growth Analysis

Years:	2015	2020	2030
Population	8,040	8,493	9,012
Households	3,043	3,226	3,433
Employment	7,512	8,121	9,418

Table 10-2 provides the percent increase/decrease for the analysis area population, households and employment. This comparison contrasts both 2020 and 2030 to baseline year 2015.

Table 10-2 – Percent Increase/Decrease on TAZ Analysis Area

Years	Percent Increase / Decrease		
	Population	Households	Employment
2015*	0	0	0
2020	6	6	8
2030	6	6	16
*Baseline year of 2015 was valued at "0" to measure net percent increase/decrease.			

Given there is already enough population and employment to account for the proposed solar facility, the Project is consistent with the regional growth forecast (see **Figure 10-1 and Tables 10-1 and 10-2**).

11.0 MITIGATION AND OTHER RECOMMENDED MEASURES

As the estimated construction and operational emissions from the proposed Project would be *less than significant*, no specific mitigation measures would be required. However, to ensure that Project is in compliance with all applicable EKAPCD rules and regulations and emissions are further reduced, the applicant would be required to implement and comply with a number of measures by regulation and would result in further emission reductions through their inclusion in Project construction and long-term design. The following measures have been applied to the Project as EKAPCD rules and regulations and conditions of approval and through the CalEEMod model analysis:

Suggested PM_{10} Reduction Measures

As the Project would be completed in compliance with EKAPCD Rules and Regulation, dust control measures would be taken to ensure compliance specifically during grading and the construction phase.

Land Preparation, Excavation and/or Demolition - The following dust control measures should be implemented:

- All soil excavated or graded should be sufficiently watered to prevent excessive dust. Watering should occur as needed with complete coverage of disturbed soil areas. Watering should be a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations.

- All clearing, grading, earth moving and excavation activities should cease
    - during periods of winds greater than 20 mph (averaged over one hour), if disturbed material is easily windblown, or
    - when dust plumes of 20% or greater opacity impact public roads, occupied structures or neighboring property.

- All fine material transported offsite should be either sufficiently watered or securely covered to prevent excessive dust.
- If more than 5,000 cubic yards of fill material will be imported or exported from the site, then all haul trucks should be required to exit the site via an access point where a gravel pad or grizzly has been installed.
- Areas disturbed by clearing, earth moving or excavation activities should be minimized at all times.
- Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust.
- Where acceptable to the fire department, weed control should be accomplished by mowing instead of discing, thereby, leaving the ground undisturbed and with a mulch covering.

Building (structure) Construction - After clearing, grading, earth moving and/or excavating, the following dust control practices should be implemented:

- Once initial leveling has ceased all inactive soil areas within the construction site should either be seeded and watered until plant growth is evident, treated with a dust palliative, or watered twice daily until soil has sufficiently crusted to prevent fugitive dust emission.
- All active disturbed soil areas should be sufficiently watered to prevent excessive dust, but no less than twice per day.

Vehicular Activities - During all phases of construction, the following vehicular control measures should be implemented:

Dust

- Onsite vehicle speed should be limited to 15 mph.
- All areas with vehicle traffic should be paved, treated with dust palliatives, or watered a minimum of twice daily.
- Streets adjacent to the project site should be kept clean and accumulated silt removed.
- Access to the site should be by means of an apron into the project from adjoining surfaced roadways. The apron should be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of the vehicles, a grizzly or other such device should be used on the road exiting the project, immediately prior to the pavement, in order to remove most of the soil material from the vehicle's tires.

Tailpipe Emissions

- Properly maintain and tune all internal combustion engine powered equipment.
- Require employees and subcontractors to comply with California's idling restrictions for compression ignition engines.
- Use low sulfur (CARB) diesel fuel.

Measures to Reduce Equipment Exhaust

These measures are recommended to reduce exhaust emissions:

- Maintain all construction equipment as recommended by manufacturer manuals.
- Shut down equipment when not in use for extended periods.
- Construction equipment shall operate no longer than eight (8) cumulative hours per day.
- Use electric equipment for construction whenever possible in lieu of diesel or gasoline powered equipment.
- Curtail use of high-emitting construction equipment during periods of high or excessive ambient pollutant concentrations.
- All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NO_x emissions.
- On-Road and Off-Road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.
- On-Road and Off-Road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer's guidelines.
- All construction workers shall be encouraged to shuttle (car-pool) to retail establishments or to remain on-site during lunch breaks.
- All construction activities within the Project area shall be discontinued during the first stage smog alerts.
- Construction and grading activities shall not be allowed during first stage O_3 alerts. First stage O_3 alerts are declared when the O_3 level exceeds 0.20 ppm (1-hour average).

12.0 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed Project would have short-term air quality impacts due to facility construction activities as well as vehicular emissions. Construction-related short-term emissions would be reduced by implementation of measures required of all projects by EKACPD and *were found to be less than significant* with no mitigation required.

The proposed Project would result in long-term air quality impacts due to operational-related mobile source emissions. These operational-related long term emissions would be reduced by implementation of measures required of all projects by EKACPD and *were found to be less than significant*, with no mitigation measures required.

The proposed Project's incremental contribution to cumulative impacts would be mitigated to the extent feasible to be below thresholds of significance and would be not be considered cumulatively considerable because of presumed conformance with the AQAP and/or the Kern County's General Plan. Therefore, the Project's contribution to cumulative impacts *were found to be less than significant*.

The proposed Project in conjunction with other past, present and foreseeable future projects would result in cumulative long-term impacts to global climate change. The proposed Project will create a reduction in GHG emissions and would be considered *less than significant.*

13.0 ATTACHMENTS

A. Ozone Concentration Data
B. PM_{10} and $PM_{2.5}$ Concentration Data
C. NOx Concentration Data
D. Lead Concentration Data
E. Project Emissions Calculations
    - Proposed Project Construction Emissions Estimates - CalEEMod v.2016.3.1 Output & EMFAC2014 & AP-42 emissions estimates
    - Proposed Project Operations Emissions Estimates - EMFAC2014 & AP-42 emissions estimates
    - GHG EMFAC2014 Project-related emissions & Climate Action Registry savings
F. California Air Resources Board 2012 Estimated Annual Average Emissions
    - MDAB
    - Kern County
G. California Air Resources Board 2020 Forecasted Annual Average Emissions Estimated Annual Average Emissions
    - MDAB
    - Kern County
H. Cumulative Projects - CalEEMod v.2016.3.1 Output

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Attachment A - Ozone Concentration Data

Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

iADAM

at Trona-Athol and Telegraph

	2013		2014		2015	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	May 4	0.078	Apr 21	0.076	Jun 25	0.076
Second High:	May 24	0.074	Jun 6	0.075	Jun 17	0.075
Third High:	Sep 20	0.072	Jun 10	0.074	Jun 18	0.075
Fourth High:	Jun 3	0.071	Oct 17	0.074	Aug 22	0.074
California:						
# Days Above the Standard:		0		0		0
California Designation Value:		0.09		0.09		0.08
Expected Peak Day Concentration:		*		*		0.076
National:						
# Days Above the Standard:		0		0		0
Nat'l Standard Design Value:		0.078		0.078		0.075
Year Coverage:		89		91		96

◄ Shift Backward 1 year Shift Forward ►

Notes:
Hourly ozone measurements and related statistics are available at Trona-Athol and Telegraph between 1997 and 2015. Some years in this range may not be represented.

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in italics or italics.

yellow exceeds a California ambient air quality standard. orange exceeds the revoked 1-hour national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

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Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

iADAM

at Mojave-923 Poole Street

	2013		2014		2015	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Jun 7	0.094	Oct 7	0.104	Jun 24	0.104
Second High:	Jun 6	0.090	Jun 5	0.103	Jun 30	0.092
Third High:	Jul 19	0.090	Jun 1	0.097	Jun 18	0.088
Fourth High:	Jul 20	0.088	Jun 4	0.097	Jun 16	0.086

California:			
# Days Above the Standard:	0	9	1
California Designation Value:	0.10	0.10	0.10
Expected Peak Day Concentration:	0.096	0.100	0.099
National:			
# Days Above the Standard:	0	0	0
Nat'l Standard Design Value:	0.094	0.097	0.097
Year Coverage:	99	89	96

◄ Shift Backward 1 year Shift Forward ►

Notes:
Hourly ozone measurements and related statistics are available at Mojave-923 Poole Street between 1993 and 2015. Some years in this range may not be represented.

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in italics or italics.

yellow exceeds a California ambient air quality standard. orange exceeds the revoked 1-hour national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

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Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

iADAM

at Mojave National Preserve

	2013		2014		2015	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	May 4	0.101	Jun 4	0.085		*
Second High:	May 21	0.093	Jun 7	0.083		*
Third High:	Jun 23	0.092	Jun 6	0.082		*
Fourth High:	May 25	0.089	Jun 12	0.082		*
California:						
# Days Above the Standard:		1		0		*
California Designation Value:		0.10		0.10		*
Expected Peak Day Concentration:		*		*		*
National:						
# Days Above the Standard:		0		0		*
Nat'l Standard Design Value:		0.101		0.093		*
Year Coverage:		68		98		*

◄ Shift Backward 1 year Shift Forward ►

Notes:
Hourly ozone measurements and related statistics are available at Mojave National Preserve between 2012 and 2014. Some years in this range may not be represented.

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in italics or italics.

yellow exceeds a California ambient air quality standard. orange exceeds the revoked 1-hour national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

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Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

iADAM

at Barstow

	2013		2014		2015	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	May 4	0.099	Jun 9	0.094	Jun 17	0.090
Second High:	Jul 19	0.094	Jun 5	0.092	Jun 24	0.088
Third High:	Jul 4	0.092	May 3	0.091	Jun 23	0.086
Fourth High:	May 21	0.091	Jun 29	0.091	Jun 16	0.085
California:						
# Days Above the Standard:		1		0		0
California Designation Value:		0.09		0.10		0.09
Expected Peak Day Concentration:		0.094		0.095		0.093
National:						
# Days Above the Standard:		0		0		0
Nat'l Standard Design Value:		0.093		0.092		0.092
Year Coverage:		98		100		100

◄ Shift Backward 1 year Shift Forward ►

Notes:
Hourly ozone measurements and related statistics are available at Barstow between 1973 and 2015. Some years in this range may not be represented.

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in italics or italics.

yellow exceeds a California ambient air quality standard. orange exceeds the revoked 1-hour national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

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Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages

iADAM

at Trona-Athol and Telegraph

	2013		2014		2015	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	May 4	0.069	Jun 6	0.071	Jun 18	0.071
Second High:	May 24	0.066	Jun 5	0.069	Aug 22	0.071
Third High:	May 25	0.066	Apr 21	0.068	Jun 17	0.070
Fourth High:	Jun 3	0.065	Jun 9	0.068	Aug 20	0.068
California:						
First High:	May 4	0.069	Jun 6	0.072	Jun 18	0.072
Second High:	May 24	0.066	Jun 5	0.070	Aug 22	0.071
Third High:	May 25	0.066	Apr 21	0.069	Jun 17	0.070
Fourth High:	Jun 3	0.066	Jun 9	0.069	May 30	0.068

National:			
# Days Above the Standard:	0	0	0
Nat'l Standard Design Value:	*	*	*
National Year Coverage:	89	92	97
California:			
# Days Above the Standard:	0	1	2
California Designation Value:	0.078	0.078	0.072
Expected Peak Day Concentration:	*	*	0.073
California Year Coverage:	89	89	94

◄ Shift Backward 1 year Shift Forward ►

Notes:

Eight-hour ozone averages and related statistics are available at Trona-Athol and Telegraph between 1997 and 2015. Some years in this range may not be represented.

All averages expressed in parts per million.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages

iADAM

at Mojave-923 Poole Street

	2013		2014		2015	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	Jun 7	0.086	Jun 5	0.095	Jun 24	0.084
Second High:	Jun 6	0.084	Jun 4	0.090	Jun 17	0.081
Third High:	Jul 19	0.082	Apr 21	0.089	Jun 30	0.081
Fourth High:	May 4	0.081	Jun 8	0.089	May 30	0.080
California:						
First High:	Jun 7	0.086	Jun 5	0.096	Jun 24	0.085
Second High:	Jun 6	0.084	Jun 4	0.090	Jun 17	0.081
Third High:	Jul 19	0.083	Apr 21	0.089	Jun 30	0.081
Fourth High:	May 4	0.081	Jun 8	0.089	May 30	0.080

National:			
# Days Above the Standard:	9	57	15
Nat'l Standard Design Value:	0.081	0.084	0.083
National Year Coverage:	99	90	96
California:			
# Days Above the Standard:	29	95	33
California Designation Value:	0.087	0.090	0.090
Expected Peak Day Concentration:	0.089	0.093	0.095
California Year Coverage:	99	90	96

◄ Shift Backward 1 year Shift Forward ►

Notes:

Eight-hour ozone averages and related statistics are available at Mojave-923 Poole Street between 1993 and 2015. Some years in this range may not be represented.

All averages expressed in parts per million.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages

iADAM

at Mojave National Preserve

	2013		2014		2015	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	May 4	0.093	Jun 4	0.081		*
Second High:	May 21	0.086	Jun 7	0.081		*
Third High:	May 3	0.083	Jun 6	0.079		*
Fourth High:	Apr 29	0.079	Jun 11	0.077		*
California:						
First High:	May 4	0.094	Jun 7	0.082		*
Second High:	May 21	0.087	Jun 4	0.081		*
Third High:	May 3	0.083	Jun 6	0.080		*
Fourth High:	Apr 29	0.079	Jun 11	0.077		*
National:						
# Days Above the Standard:		7		5		*
Nat'l Standard Design Value:		*		0.078		*
National Year Coverage:		67		98		*
California:						
# Days Above the Standard:		16		13		*
California Designation Value:		0.094		0.094		*
Expected Peak Day Concentration:		*		*		*
California Year Coverage:		67		98		*

◄ Shift Backward 1 year Shift Forward ►

Notes:

Eight-hour ozone averages and related statistics are available at Mojave National Preserve between 2012 and 2014. Some years in this range may not be represented.

All averages expressed in parts per million.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages

iADAM

at Barstow

	2013		2014		2015	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	May 4	0.092	Jun 29	0.087	Jun 24	0.082
Second High:	Jul 19	0.086	Jun 7	0.085	Jun 17	0.079
Third High:	May 21	0.084	Jun 5	0.084	Jun 16	0.078
Fourth High:	May 25	0.078	Jun 11	0.084	Aug 21	0.077
California:						
First High:	May 4	0.093	Jun 29	0.087	Jun 24	0.083
Second High:	Jul 19	0.087	Jun 7	0.086	Jun 17	0.080
Third High:	May 21	0.084	Jun 5	0.084	Jun 16	0.078
Fourth High:	May 25	0.078	Jun 11	0.084	Aug 21	0.077

National:			
# Days Above the Standard:	10	17	5
Nat'l Standard Design Value:	0.078	0.080	0.079
National Year Coverage:	98	100	100
California:			
# Days Above the Standard:	31	37	20
California Designation Value:	0.085	0.087	0.087
Expected Peak Day Concentration:	0.086	0.090	0.089
California Year Coverage:	98	100	100

◄ Shift Backward 1 year Shift Forward ►

Notes:

Eight-hour ozone averages and related statistics are available at Barstow between 1973 and 2015. Some years in this range may not be represented.

All averages expressed in parts per million.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Attachment B - PM10 and PM2.5 Concentration Data

Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages

iADAM

at Trona-Athol and Telegraph

	2013		2014		2015	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	May 22	53.5	Mar 26	184.9	Nov 16	109.7
Second High:	Jun 3	42.1	Apr 22	178.1	Nov 24	90.2
Third High:	May 4	42.0	May 10	151.9	Aug 6	88.6
Fourth High:	Mar 23	39.9	Jun 16	125.4	May 7	86.6
California:						
First High:	May 22	49.8		*		*
Second High:	May 4	39.3		*		*
Third High:	Mar 23	38.9		*		*
Fourth High:	Jun 3	38.7		*		*
National:						
Estimated # Days > 24-Hour Std:		*		2.1		0.0
Measured # Days > 24-Hour Std:		0		2		0
3-Yr Avg Est # Days > 24-Hr Std:		*		*		1.0
Annual Average:		18.0		26.8		21.3
3-Year Average:		15		25		24
California:						
Estimated # Days > 24-Hour Std:		*		*		*
Measured # Days > 24-Hour Std:		0		*		*
Annual Average:		*		*		*
3-Year Maximum Annual Average:		*		*		*
Year Coverage:		83		0		0

◄ Shift Backward 1 Shift Forward ►

Notes:

Daily PM10 averages and related statistics are available at Trona-Athol and Telegraph between 1997 and 2015. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in italics or italics.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

All values listed above represent midnight-to-midnight 24-hour averages and may be related to an exceptional event.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

State statistics for 1998 and later are based on local conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on local conditions). National statistics are based on standard conditions.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high

Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages

iADAM

at Ridgecrest-100 West California Avenue

	2013		2014		2015	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	May 22	56.4	Jun 16	51.8	Dec 8	44.5
Second High:	Nov 12	54.0	May 11	42.6	Aug 22	36.3
Third High:	May 4	50.3	Dec 31	40.6	Dec 2	32.6
Fourth High:	Sep 25	50.0	Aug 9	38.8	Sep 3	32.0
California:						
First High:	May 22	51.4	Jun 16	47.6	Dec 8	43.2
Second High:	Nov 12	49.8	Dec 31	40.0	Aug 22	32.1
Third High:	May 4	47.3	May 11	39.6	Dec 2	32.0
Fourth High:	Sep 25	46.7	Aug 9	35.0	Jan 6	29.2

National:			
Estimated # Days > 24-Hour Std:	0.0	0.0	0.0
Measured # Days > 24-Hour Std:	0	0	0
3-Yr Avg Est # Days > 24-Hr Std:	0.0	0.0	0.0
Annual Average:	22.5	23.6	19.3
3-Year Average:	23	23	22
California:			
Estimated # Days > 24-Hour Std:	*	0.0	0.0
Measured # Days > 24-Hour Std:	1	0	0
Annual Average:	*	21.8	17.8
3-Year Maximum Annual Average:	22	22	22
Year Coverage:	94	92	89

◄ Shift Backward 1 year Shift Forward ►

Notes:
Daily PM10 averages and related statistics are available at Ridgecrest-100 West California Avenue between 2000 and 2015. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in italics or italics.

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State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high

Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages

iADAM

at Canebrake

	2013		2014		2015	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	May 22	43.3	Jun 16	86.6	Aug 28	67.1
Second High:	Sep 13	39.7	Sep 26	61.3	Aug 22	39.0
Third High:	Jun 3	29.4	Oct 8	44.1	Mar 31	37.0
Fourth High:	May 4	27.6	Oct 26	42.5	Sep 9	33.8
California:						
First High:	May 22	39.8	Jun 16	78.9	Aug 28	59.4
Second High:	Sep 13	35.4	Sep 26	56.0	Aug 22	34.9
Third High:	Jun 3	26.4	Oct 8	40.2	Mar 31	34.1
Fourth High:	May 4	25.0	Oct 26	40.0	Sep 9	30.0

National:			
Estimated # Days > 24-Hour Std:	0.0	0.0	0.0
Measured # Days > 24-Hour Std:	0	0	0
3-Yr Avg Est # Days > 24-Hr Std:	0.0	0.0	0.0
Annual Average:	13.0	16.8	14.0
3-Year Average:	13	14	15
California:			
Estimated # Days > 24-Hour Std:	*	12.6	6.1
Measured # Days > 24-Hour Std:	0	2	1
Annual Average:	*	15.3	12.6
3-Year Maximum Annual Average:	12	15	15
Year Coverage:	92	98	96

◄ Shift Backward 1 year Shift Forward ►

Notes:

Daily PM10 averages and related statistics are available at Canebrake between 2009 and 2015. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in italics or italics.

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State statistics for 1998 and later are based on local conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on local conditions). National statistics are based on standard conditions.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high

Top 4 Summary: Highest 4 Daily 24-Hour PM2.5 Averages

iADAM

at Ridgecrest-100 West California Avenue

	2013		2014		2015	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Jun 3	15.3	Aug 9	10.5	Aug 22	12.5
Second High:	May 4	10.9	Dec 7	10.3	Jan 18	11.2
Third High:	Dec 12	10.5	Dec 19	10.0	Dec 8	10.7
Fourth High:	Sep 13	9.9	Jan 5	8.8	Jan 12	10.0
California:						
First High:	Jun 3	15.3	Aug 9	10.5	Aug 22	12.5
Second High:	May 4	10.9	Dec 7	10.3	Jan 18	11.2
Third High:	Dec 12	10.5	Dec 19	10.0	Dec 8	10.7
Fourth High:	Sep 13	9.9	Jan 5	8.8	Jan 12	10.0

National:			
Estimated # Days > 24-Hour Std:	0.0	*	0.0
Measured # Days > 24-Hour Std:	0	0	0
24-Hour Standard Design Value:	*	*	*
24-Hour Standard 98th Percentile:	10.9	*	11.2
2006 Annual Std Design Value:	*	*	*
2013 Annual Std Design Value:	*	*	*
Annual Average:	5.4	*	5.0
California:			
Annual Std Designation Value:	*	*	*
Annual Average:	*	*	*
Year Coverage:	89	90	89

◄ Shift Backward 1 year Shift Forward ►

Notes:

Daily PM2.5 averages and related statistics are available at Ridgecrest-100 West California Avenue between 1999 and 2015. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

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State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily 24-Hour PM2.5 Averages

iADAM

at Mojave-923 Poole Street

	2013		2014		2015	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Mar 21	76.2	May 10	36.5	Apr 14	42.2
Second High:	Apr 8	67.9	May 9	33.5	Mar 23	37.1
Third High:	May 18	61.7	Jun 26	30.6	Mar 24	26.3
Fourth High:	Jun 2	53.6	Mar 10	28.8	Dec 14	16.7
California:						
First High:	Mar 21	76.2	May 10	36.5	Apr 14	42.2
Second High:	Apr 8	67.9	May 9	33.5	Mar 23	37.1
Third High:	May 18	61.7	Jun 26	30.6	Sep 12	14.8
Fourth High:	Jun 2	53.6	Mar 10	28.8	Aug 25	14.7

National:			
Estimated # Days > 24-Hour Std:	*	1.0	2.0
Measured # Days > 24-Hour Std:	6	1	2
24-Hour Standard Design Value:	*	*	*
24-Hour Standard 98th Percentile:	*	25.4	12.7
2006 Annual Std Design Value:	*	*	*
2013 Annual Std Design Value:	*	*	*
Annual Average:	*	5.9	5.1
California:			
Annual Std Designation Value:	7	7	6
Annual Average:	*	6.1	*
Year Coverage:	92	97	99

◄ Shift Backward [1 year] Shift Forward ►

Notes:

Daily PM2.5 averages and related statistics are available at Mojave-923 Poole Street between 1999 and 2015. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily 24-Hour PM2.5 Averages

iADAM

at Lancaster-43301 Division Street

	2013		2014		2015	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	May 4	11.9	Feb 23	42.0	Aug 22	10.4
Second High:	Jun 3	10.5	May 23	27.9	Feb 18	9.8
Third High:	Mar 5	9.9	Dec 19	24.0	Dec 2	9.3
Fourth High:	Mar 26	9.8	Dec 25	24.0	Jul 17	8.6
California:						
First High:	May 4	11.9	Feb 23	42.0	Aug 22	10.4
Second High:	Jun 3	10.5	May 23	27.9	Feb 18	9.8
Third High:	Mar 5	9.9	Dec 19	24.0	Dec 2	9.3
Fourth High:	Mar 26	9.8	Dec 25	24.0	Jul 17	8.6

National:			
Estimated # Days > 24-Hour Std:	0.0	6.9	*
Measured # Days > 24-Hour Std:	0	1	0
24-Hour Standard Design Value:	*	*	*
24-Hour Standard 98th Percentile:	10.5	27.9	*
2006 Annual Std Design Value:	*	*	*
2013 Annual Std Design Value:	*	*	*
Annual Average:	5.8	7.2	*
California:			
Annual Std Designation Value:	*	*	*
Annual Average:	*	*	*
Year Coverage:	97	93	86

◄ Shift Backward 1 year Shift Forward ►

Notes:

Daily PM2.5 averages and related statistics are available at Lancaster-43301 Division Street between 2001 and 2015. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

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State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Attachment C - NOx Concentration Data

Top 4 Summary: Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

iADAM

at Trona-Athol and Telegraph

	2013		2014		2015	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Jun 15	58.7	Jul 25	45.6	Apr 1	68.4
Second High:	Jun 13	57.7	Aug 19	42.1	Apr 3	57.8
Third High:	Jun 17	56.2	Jul 22	38.2	Apr 2	51.3
Fourth High:	Oct 9	55.6	Jul 23	37.5	Jun 23	48.1
California:						
First High:	Jun 15	58	Jul 25	45	Apr 1	68
Second High:	Jun 13	57	Aug 19	42	Apr 3	57
Third High:	Jun 17	56	Jul 22	38	Apr 2	51
Fourth High:	Oct 9	55	May 15	37	Jun 23	48

National:			
1-Hour Standard Design Value:	*	*	*
1-Hour Standard 98th Percentile:	52.8	37.0	51.3
# Days Above the Standard:	0	0	0
Annual Standard Design Value:	6	3	*
California:			
1-Hour Std Designation Value:	70	60	60
Expected Peak Day Concentration:	68	59	59
# Days Above the Standard:	0	0	0
Annual Std Designation Value:	*	3	3
Annual Average:	*	3	*
Year Coverage:	84	94	62

◄ Shift Backward 1 year Shift Forward ►

Notes:

Hourly nitrogen dioxide measurements and related statistics are available at Trona-Athol and Telegraph between 1997 and 2015. Some years in this range may not be represented.

All concentrations expressed in parts per billion.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

iADAM

at Barstow

	2013 Date	2013 Measurement	2014 Date	2014 Measurement	2015 Date	2015 Measurement
National:						
First High:	Dec 23	84.9	Jan 6	69.3	Apr 29	61.3
Second High:	May 2	68.1	Apr 8	63.1	Dec 18	61.2
Third High:	Dec 6	64.0	Sep 24	63.0	Aug 9	57.8
Fourth High:	Jun 8	63.3	Feb 2	61.6	May 28	57.4
California:						
First High:	Dec 23	84	Jan 6	69	Apr 29	61
Second High:	May 2	68	Apr 8	63	Dec 18	61
Third High:	Dec 6	64	Sep 24	63	May 28	57
Fourth High:	Jun 8	63	Feb 2	61	Aug 9	57

National:			
1-Hour Standard Design Value:	*	*	*
1-Hour Standard 98th Percentile:	59.9	59.1	54.6
# Days Above the Standard:	0	0	0
Annual Standard Design Value:	*	16	15
California:			
1-Hour Std Designation Value:	80	80	70
Expected Peak Day Concentration:	91	89	67
# Days Above the Standard:	0	0	0
Annual Std Designation Value:	17	17	16
Annual Average:	*	16	15
Year Coverage:	92	100	99

◄ Shift Backward 1 year Shift Forward ►

Notes:

Hourly nitrogen dioxide measurements and related statistics are available at Barstow between 1973 and 2015. Some years in this range may not be represented.

All concentrations expressed in parts per billion.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:
8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Attachment D - Lead Concentration Data

Welcome to California

Air Resources Board

View a Different Site
View a Different Substance
Order a Data CD

Annual Toxics Summary

Bakersfield-5558 California Avenue

Lead

nanograms per cubic meter

iADAM
FAQs

Year	Months Present	Minimum	Median	Mean	90th Percentile	Maximum	Standard Deviation	Number of Observations	Detection Limit	Estimated Risk
2014	----------	0.85	3.6	*	8.8	14	3.78	16	1.7	*
2013	----------	0.5	2.9	*	5.3	6.7	1.71	21	1.0	*
2012	----------	1.7	3.4	4.02	8.2	14	2.74	32	1.5	0.05
2011	----------	0.75	4.0	*	9.1	11	2.90	20	1.5	*
2010	----------	0.75	2.5	*	5.7	8.2	2.07	18	1.5	*
2009	----------	1.5	4.5	5.27	11.2	14	3.22	29	1.5	0.06
2008	----------	*	*	*	*	*	*	0	*	*
2007	----------	0.75	7.1	*	11.7	13	3.23	24	1.5	*
2006	----------	*	*	*	*	*	*	0	*	*
2005	----------	*	*	*	*	*	*	0	*	*
2004	----------	*	*	*	*	*	*	0	*	*
2003	----------	4.0	*	*	*	7.0	1.64	5	3.0	*
2002	----------	1.5	7.0	6.78	10	17	3.34	36	3.0	0.08
2001	----------	2	5.0	5.83	9.2	26	4.41	39	4.0	0.07
2000	----------	2	5.0	5.92	14.1	22	4.76	40	4.0	0.07
1999	----------	2	5.0	5.70	11.2	25	4.55	39	4.0	0.07
1998	----------	2	7.0	9.43	14	78	11.8	42	4.0	0.1
1997	----------	2	7.0	7.92	14	20	4.40	34	4.0	0.1
1996	----------	2	7.0	7.69	14.5	35	6.10	36	4.0	0.09
1995	----------	2	8.0	8.68	15.1	21	5.14	30	4.0	0.1
1994	----------	2	10	*	16	39	7.11	25	4.0	*
1993	----------	*	*	*	*	*	*	0	*	*
1992	----------	*	*	*	*	*	*	0	*	*
1991	----------	*	*	*	*	*	*	0	*	*
1990	----------	*	*	*	*	*	*	0	*	*
1989	----------	*	*	*	*	*	*	0	*	*

Graph It!

Toxics Statistics Home

Notes: Values below the Limit of Detection (LoD) assumed to be ½ LoD.
Means and risks shown only for years with data in all 12 months.
"*" means there was insufficient or no data available to determine the value.

Data Descriptions Page

Attachment E - Project Emissions Calculations

- Proposed Project Construction Emissions Estimates - CalEEMod v.2016.3.1 Output & EMFAC2014 & AP-42 emissions estimates
- Proposed Project Operations Emissions Estimates - EMFAC2014 & AP-42 emissions estimates
- GHG EMFAC2014 Project-related emissions & Climate Action Registry savings

Construction Equipment Operational Hours

District's Default for a 20MW Solar Project[1]			20 MW	
Equipment	Number	Year	HP	Hours Used
Grading (1 month)				
Excavator	1	1997	168	176
Grader	1	1997	174	176
Rubber Tired Dozer	1	1996	357	176
Scraper	2	1996	313	176
Tractor/Loader/ Backhoe	2	1997	108	176
Water Truck	1	1996	189	88
Gravel Roads (1 month)				
Crawler Tractor	1	1997	147	176
Trenching/Electrical (1 month)				
Excavator	1	1997	168	176
Rough Terrain Forklinft	1	1998	93	176
Crawler Tractor	1	1997	147	176
Water Truck	1	1996	189	88
Pile Driving/Panel Assembly (6 months)				
Drill Rig	1	1996	291	1056
Cement Mixer	1	1996	300	1056
Crane	1	1996	250	1056

[1] Equipement type, number, vintage, hp and hours provided by Sharla Yang with the SJVAPCD as a defaul equipment list for 20MW solar projects without exact equipment lists. Information was provided via email on 1/21/16.

RB Inyokern Solar Project Construction Equipment[2]			32 MW			
Equipment	Number	Year	HP	Hours Used	Hours/Piece of Equipment	hours/day /piece of equipment
Grading (1 month)						
Excavator	2	1997	168	281.6	140.8	6.4
Grader	2	1997	174	281.6	140.8	6.4
Rubber Tired Dozer	2	1996	357	281.6	140.8	6.4
Scraper	2	1996	313	281.6	140.8	6.4
Tractor/Loader/ Backhoe	2	1997	108	281.6	140.8	6.4
Water Truck	1	1996	189	140.8	140.8	6.4
Gravel Roads (1 month)						
Crawler Tractor	2	1997	147	281.6	140.8	6.4
Trenching/Electrical (1 month)						
Excavator	2	1997	168	281.6	140.8	6.4
Rough Terrain Forklinft	2	1998	93	281.6	140.8	6.4
Crawler Tractor	2	1997	147	281.6	140.8	6.4
Water Truck	1	1996	189	140.8	140.8	6.4
Pile Driving/Panel Assembly (6 months)						
Drill Rig	2	1996	291	1689.6	844.8	6.4
Cement Mixer	2	1996	300	1689.6	844.8	6.4
Crane	2	1996	250	1689.6	844.8	6.4

[2] Assumed 22 working days/month

2016 Project Solar Panel Delivery T7 Single Exhaust Emissions - EMFAC2014

Based on:

One-way Trips/year:	416	(Client Provided 208 trips for panel delivery)
One -way Miles/Trip:	182	(Distance from Port of Long Beach to the Inyokern Airport)
Total miles traveled/year:	75,712	

	ROG	NOx	CO	SOX	PM10[1]	PM2.5[1]	CO2	CH4[2]	N2O[2]	CO2e
Em. Factor (grams/mile)	0.14	5.45	0.55	0.02	0.14	0.08	1649.81	5.10E-03	4.80E-03	
Lbs/Mile	3.12E-04	1.20E-02	1.22E-03	3.47E-05	3.14E-04	1.73E-04	3.64E+00	1.12E-05	1.06E-05	
Lbs/Year	23.65	909.24	92.51	2.63	23.78	13.07	275380.08	0.85	0.80	
Tons/year	**1.18E-02**	**0.45**	**0.05**	**1.31E-03**	**1.19E-02**	**6.53E-03**	**137.69**	**4.26E-04**	**4.01E-04**	**137.82**

[1] PM accounts for PM from running, tire wear and break wear.

[2]California Climate Action Registry General Reporting Protocol Version 3.1 April 2009. Table C4 Diesel Heavy -Duty Vehicles, All Model Years

On-Site Project Fugitive Dust from Solar Panel Delivery Emissions

Assumptions:
Surface Material Silt Content: 8.5% (From AP-42 Table 13.2.2-1)
Mean Vehicle Weight: 14 tons

Based on:

2019	
One-way Trips/year:	416
Miles/one-way trip:	0.59
Total miles traveled/year:	245

*Miles based on a vehicle entering Phase 1 from Hwy 395 and traveling west on the southern border of Phase 1 - the widest part of the project.

	PM10	PM2.5
Em. Factor (lbs/VMT)[1]	2.20E+00	2.20E-01
Lbs/Year (2019)*	1.18E+02	1.18E+01
Tons/year (2019)	**0.06**	**5.90E-03**

*61% Control for water surpression 3 times daily

*44% Control for reducing speed to less than 15 mph

[1] AP 42 Chapter 13, Section 13.2.2 Equation 1a

Project Construction Equipment and Worker Travel (CalEEMod)

	ROG	NOx	CO	SOX	PM10	PM2.5	CO2	CH4	N2O	CO2e
Tons/year	**1.90E-01**	**2.12E+00**	**1.28E+00**	**2.94E-03**	**3.95E-01**	**1.41E-01**	**2.64E+02**	**7.91E-02**	**0.00E+00**	**2.66E+02**

1) Applied SJVAPCD construction equipment list, project construction schedule (9 months in 2019), CalEEMod defaults for employee number and trip lengths were used.

Total Project Construction Emissions

	ROG	NOx	CO	SOX	PM10	PM2.5	CO2	CH4	N2O	CO2e
Panel Delivery from POLA	0.012	0.455	0.046	0.001	0.012	0.007	**1.4E+02**	**4.3E-04**	**4.0E-04**	**1.38E+02**
Panel Delivery - on-site dust					0.059	0.006				
Construction Equipment & Worker Travel	0.190	2.121	1.275	0.003	0.395	0.141	**2.64E+02**	**7.91E-02**	**0.00E+00**	**2.66E+02**
Tons/year	0.202	2.576	1.322	0.004	0.466	0.153	**4.02E+02**	**7.95E-02**	**4.01E-04**	**4.04E+02**

RB Inyokern Solar - Construction

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	288.00	20,750.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Anticipated start date

Land Use - Acreage detailed in Project Description. Square footage provided in information request October 20, 2016. (O&M and Battery Buildings)

Construction Phase - Phase durations provided by SJVAPCD as defaults for Solar Projects where information is not known

Off-road Equipment - Off Highway truck represents water truck

Off-road Equipment - District-provided equipment listing

Off-road Equipment - See Construction Equipment Operational

Off-road Equipment - District-provided hp and equipment list

Off-road Equipment - District-provided construction equipment

Trips and VMT -

Construction Off-road Equipment Mitigation -

RB Inyokern Solar - Construction - Kern-Mojave Desert County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	4,650.00	132.00
tblConstructionPhase	NumDays	465.00	21.00
tblConstructionPhase	NumDays	330.00	21.00
tblConstructionPhase	PhaseEndDate	8/23/2019	11/28/2019
tblGrading	AcresOfGrading	63.00	1,162.50
tblLandUse	BuildingSpaceSquareFeet	0.00	20,750.00
tblLandUse	LandUseSquareFeet	0.00	20,750.00
tblLandUse	LotAcreage	0.00	288.00
tblOffRoadEquipment	HorsePower	231.00	250.00
tblOffRoadEquipment	HorsePower	158.00	168.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	247.00	357.00
tblOffRoadEquipment	HorsePower	367.00	313.00
tblOffRoadEquipment	HorsePower	97.00	108.00
tblOffRoadEquipment	HorsePower	9.00	291.00
tblOffRoadEquipment	HorsePower	212.00	147.00
tblOffRoadEquipment	HorsePower	212.00	147.00
tblOffRoadEquipment	HorsePower	158.00	168.00
tblOffRoadEquipment	HorsePower	89.00	93.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	LoadFactor	0.43	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.42
tblOffRoadEquipment	LoadFactor	0.20	0.36

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Pile Driving/Panel Assembly
tblOffRoadEquipment	PhaseName		Pile Driving/Panel Assembly
tblOffRoadEquipment	PhaseName		Gravel Roads
tblOffRoadEquipment	PhaseName		Trenching/Electrical
tblOffRoadEquipment	PhaseName		Trenching/Electrical
tblOffRoadEquipment	PhaseName		Trenching/Electrical
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching/Electrical
tblOffRoadEquipment	UsageHours	7.00	6.40
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	6.40
tblOffRoadEquipment	UsageHours	8.00	6.40
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

tblTripsAndVMT	WorkerTripNumber	28.00	20.00
tblTripsAndVMT	WorkerTripNumber	18.00	15.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1904	2.1214	1.2754	2.9400e-003	0.7568	0.0911	0.8479	0.1398	0.0839	0.2237	0.0000	264.4559	264.4559	0.0791	0.0000	266.4328
Maximum	**0.1904**	**2.1214**	**1.2754**	**2.9400e-003**	**0.7568**	**0.0911**	**0.8479**	**0.1398**	**0.0839**	**0.2237**	**0.0000**	**264.4559**	**264.4559**	**0.0791**	**0.0000**	**266.4328**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1904	2.1214	1.2754	2.9400e-003	0.3036	0.0911	0.3948	0.0568	0.0839	0.1406	0.0000	264.4556	264.4556	0.0791	0.0000	266.4325
Maximum	**0.1904**	**2.1214**	**1.2754**	**2.9400e-003**	**0.3036**	**0.0911**	**0.3948**	**0.0568**	**0.0839**	**0.1406**	**0.0000**	**264.4556**	**264.4556**	**0.0791**	**0.0000**	**266.4325**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.88**	**0.00**	**53.44**	**59.37**	**0.00**	**37.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-1-2019**	**6-30-2019**	0.9913	0.9913
		Highest	0.9913	0.9913

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1051	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
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	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	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1051**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1051	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
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	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	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1051**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

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

3.0 Construction Detail

Construction Phase

RB Inyokern Solar - Construction - Kern-Mojave Desert County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/1/2019	4/29/2019	5	21	
2	Trenching/Electrical	Trenching	4/30/2019	5/28/2019	5	21	
3	Pile Driving/Panel Assembly	Building Construction	5/29/2019	11/28/2019	5	132	
4	Gravel Roads	Paving	8/24/2019	9/23/2019	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1162.5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	6.40	168	0.38
Grading	Graders	2	6.40	174	0.41
Grading	Off-Highway Trucks	1	6.40	189	0.38
Grading	Rubber Tired Dozers	2	6.40	357	0.40
Grading	Scrapers	2	6.40	313	0.48
Grading	Tractors/Loaders/Backhoes	2	6.40	108	0.37
Trenching/Electrical	Crawler Tractors	2	6.40	147	0.38
Trenching/Electrical	Excavators	2	6.40	168	0.42
Trenching/Electrical	Forklifts	2	6.40	93	0.36
Trenching/Electrical	Off-Highway Trucks	1	6.40	189	0.38
Pile Driving/Panel Assembly	Bore/Drill Rigs	2	6.40	221	0.50
Pile Driving/Panel Assembly	Cement and Mortar Mixers	2	6.40	291	0.56
Pile Driving/Panel Assembly	Cranes	2	6.40	250	0.29
Gravel Roads	Crawler Tractors	2	6.40	147	0.43

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
Grading	11	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Electrical	7	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pile Driving/Panel Assembly	6	9.00	3.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Gravel Roads	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.7429	0.0000	0.7429	0.1361	0.0000	0.1361	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0646	0.6955	0.5104	7.3000e-004		0.0328	0.0328		0.0302	0.0302	0.0000	65.8326	65.8326	0.0208	0.0000	66.3533
Total	**0.0646**	**0.6955**	**0.5104**	**7.3000e-004**	**0.7429**	**0.0328**	**0.7757**	**0.1361**	**0.0302**	**0.1663**	**0.0000**	**65.8326**	**65.8326**	**0.0208**	**0.0000**	**66.3533**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.2000e-004	8.8400e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4687	2.4687	7.0000e-005	0.0000	2.4704
Total	**1.2400e-003**	**9.2000e-004**	**8.8400e-003**	**3.0000e-005**	**2.6300e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.4687**	**2.4687**	**7.0000e-005**	**0.0000**	**2.4704**

3.2 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.2897	0.0000	0.2897	0.0531	0.0000	0.0531	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0646	0.6955	0.5104	7.3000e-004		0.0328	0.0328		0.0302	0.0302	0.0000	65.8325	65.8325	0.0208	0.0000	66.3532
Total	**0.0646**	**0.6955**	**0.5104**	**7.3000e-004**	**0.2897**	**0.0328**	**0.3225**	**0.0531**	**0.0302**	**0.0833**	**0.0000**	**65.8325**	**65.8325**	**0.0208**	**0.0000**	**66.3532**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.2000e-004	8.8400e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4687	2.4687	7.0000e-005	0.0000	2.4704
Total	**1.2400e-003**	**9.2000e-004**	**8.8400e-003**	**3.0000e-005**	**2.6300e-003**	**2.0000e-005**	**2.6500e-003**	**7.0000e-004**	**2.0000e-005**	**7.2000e-004**	**0.0000**	**2.4687**	**2.4687**	**7.0000e-005**	**0.0000**	**2.4704**

3.3 Trenching/Electrical - 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	tons/yr										MT/yr					
Off-Road	0.0220	0.2189	0.1736	2.8000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	25.3592	25.3592	8.0200e-003	0.0000	25.5597
Total	**0.0220**	**0.2189**	**0.1736**	**2.8000e-004**		**0.0123**	**0.0123**		**0.0113**	**0.0113**	**0.0000**	**25.3592**	**25.3592**	**8.0200e-003**	**0.0000**	**25.5597**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.9000e-004	6.6300e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.8515	1.8515	5.0000e-005	0.0000	1.8528
Total	**9.3000e-004**	**6.9000e-004**	**6.6300e-003**	**2.0000e-005**	**1.9700e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.8515**	**1.8515**	**5.0000e-005**	**0.0000**	**1.8528**

3.3 Trenching/Electrical - 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	tons/yr										MT/yr					
Off-Road	0.0220	0.2189	0.1736	2.8000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	25.3591	25.3591	8.0200e-003	0.0000	25.5597
Total	**0.0220**	**0.2189**	**0.1736**	**2.8000e-004**		**0.0123**	**0.0123**		**0.0113**	**0.0113**	**0.0000**	**25.3591**	**25.3591**	**8.0200e-003**	**0.0000**	**25.5597**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.9000e-004	6.6300e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.8515	1.8515	5.0000e-005	0.0000	1.8528
Total	**9.3000e-004**	**6.9000e-004**	**6.6300e-003**	**2.0000e-005**	**1.9700e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.8515**	**1.8515**	**5.0000e-005**	**0.0000**	**1.8528**

3.4 Pile Driving/Panel Assembly - 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	tons/yr										MT/yr					
Off-Road	0.0871	1.0764	0.4803	1.6500e-003		0.0402	0.0402		0.0369	0.0369	0.0000	148.0524	148.0524	0.0468	0.0000	149.2235
Total	**0.0871**	**1.0764**	**0.4803**	**1.6500e-003**		**0.0402**	**0.0402**		**0.0369**	**0.0369**	**0.0000**	**148.0524**	**148.0524**	**0.0468**	**0.0000**	**149.2235**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.1000e-004	0.0254	5.1000e-003	5.0000e-005	1.2000e-003	1.8000e-004	1.3800e-003	3.5000e-004	1.7000e-004	5.2000e-004	0.0000	5.1085	5.1085	4.6000e-004	0.0000	5.1201
Worker	3.5200e-003	2.6100e-003	0.0250	8.0000e-005	7.4400e-003	5.0000e-005	7.4900e-003	1.9800e-003	5.0000e-005	2.0200e-003	0.0000	6.9828	6.9828	1.9000e-004	0.0000	6.9876
Total	**4.4300e-003**	**0.0280**	**0.0301**	**1.3000e-004**	**8.6400e-003**	**2.3000e-004**	**8.8700e-003**	**2.3300e-003**	**2.2000e-004**	**2.5400e-003**	**0.0000**	**12.0912**	**12.0912**	**6.5000e-004**	**0.0000**	**12.1077**

3.4 Pile Driving/Panel Assembly - 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	tons/yr										MT/yr					
Off-Road	0.0871	1.0764	0.4803	1.6500e-003		0.0402	0.0402		0.0369	0.0369	0.0000	148.0523	148.0523	0.0468	0.0000	149.2233
Total	**0.0871**	**1.0764**	**0.4803**	**1.6500e-003**		**0.0402**	**0.0402**		**0.0369**	**0.0369**	**0.0000**	**148.0523**	**148.0523**	**0.0468**	**0.0000**	**149.2233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.1000e-004	0.0254	5.1000e-003	5.0000e-005	1.2000e-003	1.8000e-004	1.3800e-003	3.5000e-004	1.7000e-004	5.2000e-004	0.0000	5.1085	5.1085	4.6000e-004	0.0000	5.1201
Worker	3.5200e-003	2.6100e-003	0.0250	8.0000e-005	7.4400e-003	5.0000e-005	7.4900e-003	1.9800e-003	5.0000e-005	2.0200e-003	0.0000	6.9828	6.9828	1.9000e-004	0.0000	6.9876
Total	**4.4300e-003**	**0.0280**	**0.0301**	**1.3000e-004**	**8.6400e-003**	**2.3000e-004**	**8.8700e-003**	**2.3300e-003**	**2.2000e-004**	**2.5400e-003**	**0.0000**	**12.0912**	**12.0912**	**6.5000e-004**	**0.0000**	**12.1077**

3.5 Gravel Roads - 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	tons/yr										MT/yr					
Off-Road	9.6800e-003	0.1008	0.0633	9.0000e-005		5.6100e-003	5.6100e-003		5.1600e-003	5.1600e-003	0.0000	8.1832	8.1832	2.5900e-003	0.0000	8.2479
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.6800e-003**	**0.1008**	**0.0633**	**9.0000e-005**		**5.6100e-003**	**5.6100e-003**		**5.1600e-003**	**5.1600e-003**	**0.0000**	**8.1832**	**8.1832**	**2.5900e-003**	**0.0000**	**8.2479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.3000e-004	2.2100e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.6172	0.6172	2.0000e-005	0.0000	0.6176
Total	**3.1000e-004**	**2.3000e-004**	**2.2100e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.7000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.6172**	**0.6172**	**2.0000e-005**	**0.0000**	**0.6176**

3.5 Gravel Roads - 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	tons/yr										MT/yr					
Off-Road	9.6800e-003	0.1008	0.0633	9.0000e-005		5.6100e-003	5.6100e-003		5.1600e-003	5.1600e-003	0.0000	8.1832	8.1832	2.5900e-003	0.0000	8.2479
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.6800e-003**	**0.1008**	**0.0633**	**9.0000e-005**		**5.6100e-003**	**5.6100e-003**		**5.1600e-003**	**5.1600e-003**	**0.0000**	**8.1832**	**8.1832**	**2.5900e-003**	**0.0000**	**8.2479**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.3000e-004	2.2100e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.6172	0.6172	2.0000e-005	0.0000	0.6176
Total	**3.1000e-004**	**2.3000e-004**	**2.2100e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.7000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.6172**	**0.6172**	**2.0000e-005**	**0.0000**	**0.6176**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.472669	0.031291	0.166276	0.125679	0.021211	0.006775	0.020722	0.144029	0.001634	0.001785	0.006011	0.000972	0.000946

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	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	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	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**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	tons/yr										MT/yr					
Mitigated	0.1051	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.1051	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0810					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.1051**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0810					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.1051**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

2019 Project Operational Water Trucks T6 Utility Exhaust Emissions - EMFAC2014

Quarterly panel cleaning - water truck travel to and from site

Based on:

One-way Trips/year:	448	(Client provided 56 trucks per cleaning cycle x 2 for one way trips x 4 cleaning cycles per year)
One-way Miles/Trip:	4	(Client provided trip distance)
Total miles traveled/year:	1,792	

	ROG	NOx	CO	SOX	PM10[1]	PM2.5[1]	CO2	CH4[2]	N2O[2]	CO2e
Em. Factor (grams/mile)	0.03	0.82	0.17	1.17E-02	0.14	0.06	1230.70	5.10E-03	4.80E-03	
Lbs/Mile	7.14E-05	1.80E-03	3.76E-04	2.59E-05	3.18E-04	1.34E-04	2.71E+00	1.12E-05	1.06E-05	
Lbs/Year	0.1280	3.2317	0.6738	0.0464	0.5704	0.2402	4862.0884	0.0201	0.0190	
lbs/day	0.0320	0.8079	0.1684	0.0116	0.1426	0.0601	1215.5221	0.0050	0.0047	1217.0975
Tons/year	**6.40E-05**	**1.62E-03**	**3.37E-04**	**2.32E-05**	**2.85E-04**	**1.20E-04**	**2.43E+00**	**1.01E-05**	**9.48E-06**	**2.43E+00**

[1] PM accounts for PM from running, tire wear and break wear.

[2]California Climate Action Registry General Reporting Protocol Version 3.1 April 2009. Table C4 Diesel Heavy -Duty Vehicles, All Model Years

2019 Project Operational Water Trucks T6 Utility On-Site Exhaust Emissions - EMFAC2014

Quarterly panel cleaning - water truck travel on-site

Based on:

On-Site Miles/Day:	240	(2 water trucks traveling 15mph for 8 hours)
Number of days of panel washing:	4	(Worst case emissions assume all water truck travel in one day x 4 panel cleanings per year)
Total miles traveled/year:	960	

	ROG	NOx	CO	SOX	PM10	PM2.5	CO2	CH4[1]	N2O[1]	CO2e
Em. Factor (grams/mile)	0.10	2.78	0.54	0.00E+00	3.02E-03	2.89E-03	1679.87	5.10E-03	4.80E-03	
Lbs/Mile	2.28E-04	6.13E-03	1.20E-03	0.00E+00	6.66E-06	6.37E-06	3.70E+00	1.12E-05	1.06E-05	
Lbs/Year	0.2190	5.8830	1.1526	0.0000	0.0064	0.0061	3555.3432	0.0108	0.0102	
lbs/day	0.0547	1.4708	0.2881	0.0000	0.0016	0.0015	888.8358	0.0027	0.0025	889.6798
Tons/year	**1.09E-04**	**2.94E-03**	**5.76E-04**	**0.00E+00**	**3.20E-06**	**3.06E-06**	**1.78E+00**	**5.40E-06**	**5.08E-06**	**0.00E+00**

[1]California Climate Action Registry General Reporting Protocol Version 3.1 April 2009. Table C4 Diesel Heavy -Duty Vehicles, All Model Years

Project Unpaved Road Travel Fugitive Dust from Water Truck Emissions

Quarterly panel cleaning - water truck on site movement

Assumptions:

Surface Material Silt Content: 8.5% (From AP-42 Table 13.2.2-1)

Mean Vehicle Weight: 12 tons

Based on:

2019		
On-site miles/cleaning	40.3	(See Note 1)
cleaning per year	4	(Client provided)
Total miles traveled/year:	161	

Note 1: On-site miles per cleaning are estimates made based on numbers from other solar projects. Assumption of 3 on-site miles per 17.5 acres.

	PM10	PM2.5
Em. Factor (lbs/VMT)	2.05E+00	2.05E-01
Lbs/Year (2019)*	72.23	7.22
Tons/year (2019)	**0.0361**	**0.00361**

*61% Control for water surpression 3 times daily

*44% Control for reducing speed to less than 15 mph

AP 42 Chapter 13, Section 13.2.2 Equation 1a

Project Operational Maintenance Trips (LDT1)

Quarterly maintenance trips - travel to and from site

Based on:

One-way Trips/year[1]:	24
One-way Miles/Trip[2]:	9.3
Total miles travelled/year:	223

[1] Provided by the client - up to 3 round trips per quarter (6 one-way trips)

[2] trip distance is the average operation trip distance in CalEEMod 2016.3.1

	ROG	NOx	CO	SOX	PM10[1]	PM2.5[1]	CO2	CH4[2]	N2O[2]	CO2e
Em. Factor (grams/mile)**	0.0418	0.1885	1.7513	0.0036	0.0477	0.0205	362.03	0.08	0.10	
Lbs/Mile	0.0001	0.0004	0.0039	0.0000	0.0001	0.0000	7.98E-01	1.79E-04	2.28E-04	
Lbs/Year	0.0206	0.0928	0.8618	0.0018	0.0235	0.0101	1.78E+02	4.00E-02	5.09E-02	
lbs/day	0.0051	0.0232	0.2154	0.0004	0.0059	0.0025	4.45E+01	1.00E-02	1.27E-02	48.69
Tons/year	**0.0000**	**0.0000**	**0.0004**	**0.0000**	**0.0000**	**0.0000**	**8.91E-02**	**2.00E-05**	**2.55E-05**	**9.74E-02**

[1] PM accounts for PM from running, tire wear and break wear.

[2]California Climate Action Registry General Reporting Protocol Version 3.1 April 2009. Table C4 Gasoline Light Trucks, Model Years 1987-1993 (used to be most conservative)

Project Unpaved Road Travel Fugitive Dust from Maintenance Vehicle Emissions (LDT1)

Quarterly maintenance trips - on site travel fugitive dust

AP 42 Chapter 13, Section 13.2.2 Equation 1a

Assumptions:

Surface Material Silt Content: 8.5% (From AP-42 Table 13.2.2-1)

Mean Vehicle Weight: 3 tons

Based on:

2019	
One-way Trips/year:	24
Miles/one-way trip*:	0.59
Total miles travelled/year:	14.2

*Miles based on a vehicle entering Phase 1 from Hwy 395 and traveling west on the southern border of Phase 1 - the widest part of the project.

	PM10	PM2.5
Em. Factor (lbs/VMT)	1.10E+00	1.10E-01
Lbs/Year (2019)*	3.40	0.34
Tons/year (2019)	**0.0017**	**0.0002**

*61% Control for water surpression 3 times daily

*44% Control for reducing speed to less than 15 mph

Project Operational On-Road Employee Trip Exhaust Emissions (LDA & LDT1)

Quarterly employee trips - off-site travel

Based on:

One-way Trips/year[1]:	40
One-way Miles/Trip[2]:	9.3
Total miles traveled/year:	372

[1]client estimates 5 trips per quarter for both owner and security site visits

[2] trip distance is the average operation trip distance in CalEEMod 2016.3.1

	ROG	NOx	CO	SOX	PM10[1]	PM2.5[1]	CO2	CH4[2]	N2O[2]	CO2e
Em. Factor (grams/mile)**	0.03	0.13	1.20	3.35E-03	4.71E-02	2.00E-02	333.99	0.08	0.08	
Lbs/Mile	6.13E-05	2.78E-04	2.64E-03	7.39E-06	1.04E-04	4.40E-05	7.36E-01	1.67E-04	1.85E-04	
Lbs/Year	0.02	0.10	0.98	0.00	0.04	0.02	273.91	0.06	0.07	
Tons/year	**1.14E-05**	**5.17E-05**	**4.92E-04**	**1.38E-06**	**1.93E-05**	**8.18E-06**	**1.37E-01**	**3.11E-05**	**3.45E-05**	**1.48E-01**

**Since employee vehicles are not know, a 50% LDA and 50% LDT1 split was assumed to be conservative

[1] PM accounts for PM from running, tire wear and break wear.

[2]California Climate Action Registry General Reporting Protocol Version 3.1 April 2009. Table C4 Gasoline Passenger Cars and Gasoline Light Trucks, Model Years 1987-1993 (used to be most conservative)

Project Unpaved Road Travel Fugitive Dust from Employee Trip Emissions

Quarterly employee trips - on-site travel fugitive dust

AP 42 Chapter 13, Section 13.2.2 Equation 1a and 2

Assumptions:

Surface Material Silt Content: 8.5% (From AP-42 Table 13.2.2-1)

Mean Vehicle Weight: 2.5 tons

Based on:

2019	
One-way Trips/year:	40
Miles/one-way trip*:	0.59
Total miles travelled/year:	24

*Miles based on a vehicle entering Phase 1 from Hwy 395 and traveling west on the southern border of Phase 1 - the widest part of the project.

	PM10	PM2.5
Em. Factor (lbs/VMT)	1.01E+00	1.01E-01
Lbs/Year (2017)*	5.22	0.52
Tons/year (2017)	**0.0026**	**0.0003**

*61% Control for water surpression 3 times daily

*44% Control for reducing speed to less than 15 mph

AP 42 Chapter 13, Section 13.2.2 Equation 1a

Operational Exhaust and Fugitive Emissions (Total)

	ROG	NOx	CO	SOX	PM10	PM2.5	**CO2**	**CH4**	**N2O**	**CO2e**
Water Truck - off-site emissions	0.0001	0.0016	0.0003	0.0000	0.0003	0.0001	**2.43E+00**	**1.01E-05**	**9.48E-06**	**2.43E+00**
Water Truck - on-site emissions	0.0001	0.0029	0.0006	0.0000	0.0000	0.0000	**1.78E+00**	**5.40E-06**	**5.08E-06**	**0.00E+00**
Water truck - fugitive dust emissions					0.0361	0.0036				
Maintenance Trips - LDA & LDT1 off-site emissions	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000	**8.91E-02**	**2.00E-05**	**2.55E-05**	**9.74E-02**
Maintenance Trips - LDA & LDT1 on-site dust					0.0017	0.0002				
Employee Trips - off-site travel	0.0000	0.0001	0.0005	0.0000	0.0000	0.0000	**0.1370**	**0.0000**	**0.0000**	**0.1483**
Employee Trips - on-site fugitive dust emissions					0.0026	0.0003				
Operational total emissions (tons/year)	0.0002	0.0047	0.0018	0.0000	0.0407	0.0042	**4.43E+00**	**6.66E-05**	**7.45E-05**	**2.68E+00**

Reduction In Operational GHG Emissions

	Emission Factor[1]	Electricity Useage2	Conversion	Emissions	Conversion Factor	CO2e Emissions
	lbs/MWh	MWh	lbs/metric ton	metric tons	to CO2e	metric tons
Electricty CO2 Emissions	879	64000	2204.62	25517.323	1	25,517.3
Electricty CH4 Emissions	0.0067	64000	2204.62	0.195	21	4.08
Electricty N2O Emissions	0.0037	64000	2204.62	0.107	310	33.3
					Total CO2e =	25,555

[1]California Climate Action Registry General Reporting Protocol Version 3.1 April 2009

2Industry average for solar panel use is 2,000 hour per MW

Source	CO_2	CH_4	N_2O	CO_2e
Construction GHG Emissions	402.146	0.080	0.000	404.256
Annualized Construction Emissioı	13.405	0.003	0.000	13.475
Operations GHG Emissions	4.435	0.000	0.000	2.680
Project emissions	17.840	0.003	0.000	16.155
GHG Savings from Solar	25517.323	0.195	0.107	25,555
Net Project Savings	25499.483	0.192	0.107	25538.550

Attachment F - California Air Resources Board
2012 Estimated Annual Average Emissions

- Mojave Desert Air Basin
- Kern County

Almanac Emission Projection Data (published in 2013)

2012 Estimated Annual Average Emissions

MOJAVE DESERT AIR BASIN

All emissions are represented in Tons per Day and reflect the most current data provided to ARB.

See detailed information.

Start a new query.

STATIONARY SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5
FUEL COMBUSTION	6.4	1.3	8.3	27.8	2.2	10.8	4.8	2.4
WASTE DISPOSAL	33.1	0.4	0.1	0.1	0.0	0.6	0.2	0.0
CLEANING AND SURFACE COATINGS	10.2	6.9	-	0.0	-	0.5	0.4	0.4
PETROLEUM PRODUCTION AND MARKETING	19.2	6.8	0.0	0.0	-	0.0	0.0	0.0
INDUSTRIAL PROCESSES	2.6	2.0	10.9	46.5	4.6	70.9	34.7	12.8
*** TOTAL STATIONARY SOURCES**	**71.5**	**17.3**	**19.3**	**74.3**	**6.8**	**82.8**	**40.2**	**15.7**
AREAWIDE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
SOLVENT EVAPORATION	10.7	9.3	-	-	-	-	-	-
MISCELLANEOUS PROCESSES	34.9	4.5	8.4	1.6	0.0	179.9	81.4	12.8
*** TOTAL AREAWIDE SOURCES**	**45.6**	**13.8**	**8.4**	**1.6**	**0.0**	**179.9**	**81.4**	**12.8**
MOBILE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
ON-ROAD MOTOR VEHICLES	15.3	13.7	191.6	63.2	0.2	0.5	4.3	2.7
OTHER MOBILE SOURCES	23.0	20.8	89.9	34.8	0.6	6.1	5.3	4.9
*** TOTAL MOBILE SOURCES**	**38.3**	**34.5**	**281.5**	**97.9**	**0.9**	**6.6**	**9.6**	**7.6**
NATURAL (NON-ANTHROPOGENIC) SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
NATURAL SOURCES	58.9	47.6	171.2	1.1	0.9	16.7	16.0	13.6
*** TOTAL NATURAL (NON-ANTHROPOGENIC) SOURCES**	**58.9**	**47.6**	**171.2**	**1.1**	**0.9**	**16.7**	**16.0**	**13.6**
GRAND TOTAL FOR MOJAVE DESERT AIR BASIN	**214.3**	**113.1**	**480.4**	**174.9**	**8.6**	**286.0**	**147.2**	**49.7**

Start a new query.

Almanac Emission Projection Data (published in 2013)

2012 Estimated Annual Average Emissions

KERN COUNTY

All emissions are represented in Tons per Day and reflect the most current data provided to ARB.

See detailed information.
Start a new query.

KERN COUNTY COUNTY - MOJAVE DESERT AIR BASIN

STATIONARY SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5
FUEL COMBUSTION	0.5	0.1	0.6	2.5	0.2	0.4	0.4	0.4
WASTE DISPOSAL	7.3	0.0	-	-	0.0	0.0	0.0	0.0
CLEANING AND SURFACE COATINGS	0.9	0.8	-	-	-	0.0	0.0	0.0
PETROLEUM PRODUCTION AND MARKETING	0.2	0.2	-	-	-	-	-	-
INDUSTRIAL PROCESSES	0.1	0.1	6.8	15.4	2.2	5.7	3.7	1.6
*** TOTAL STATIONARY SOURCES**	**9.0**	**1.2**	**7.4**	**17.9**	**2.5**	**6.1**	**4.0**	**1.9**
AREAWIDE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
SOLVENT EVAPORATION	1.4	1.2	-	-	-	-	-	-
MISCELLANEOUS PROCESSES	1.8	0.3	1.4	0.3	0.0	17.1	8.3	1.4
*** TOTAL AREAWIDE SOURCES**	**3.3**	**1.5**	**1.4**	**0.3**	**0.0**	**17.1**	**8.3**	**1.4**
MOBILE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
ON-ROAD MOTOR VEHICLES	2.6	2.4	23.5	9.7	0.0	0.5	0.5	0.4
OTHER MOBILE SOURCES	5.7	5.5	24.9	7.8	0.3	3.1	3.1	3.0
*** TOTAL MOBILE SOURCES**	**8.3**	**7.9**	**48.4**	**17.5**	**0.3**	**3.7**	**3.6**	**3.4**
NATURAL (NON-ANTHROPOGENIC) SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
NATURAL SOURCES	38.3	30.9	119.6	0.3	0.5	11.3	10.8	9.2
*** TOTAL NATURAL (NON-ANTHROPOGENIC) SOURCES**	**38.3**	**30.9**	**119.6**	**0.3**	**0.5**	**11.3**	**10.8**	**9.2**
TOTAL KERN COUNTY IN MOJAVE DESERT	**58.8**	**41.5**	**176.8**	**36.0**	**3.3**	**38.1**	**26.7**	**15.9**

KERN COUNTY COUNTY - SAN JOAQUIN VALLEY AIR BASIN

STATIONARY SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5
FUEL COMBUSTION	13.0	1.9	10.8	9.3	2.0	3.7	3.5	3.4
WASTE DISPOSAL	184.5	11.0	0.1	0.1	0.0	0.0	0.0	0.0
CLEANING AND SURFACE COATINGS	2.6	2.5	0.0	-	-	0.0	0.0	0.0
PETROLEUM PRODUCTION AND MARKETING	64.2	26.4	0.6	0.2	0.1	0.2	0.2	0.1
INDUSTRIAL PROCESSES	2.3	2.2	0.1	0.1	0.1	2.8	1.3	0.4
*** TOTAL STATIONARY SOURCES**	**266.6**	**44.0**	**11.6**	**9.6**	**2.2**	**6.8**	**5.0**	**4.0**
AREAWIDE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
SOLVENT EVAPORATION	10.5	9.6	-	-	-	-	-	-
MISCELLANEOUS PROCESSES	89.6	12.2	8.9	1.5	0.0	70.5	35.0	6.5
*** TOTAL AREAWIDE SOURCES**	**100.1**	**21.8**	**8.9**	**1.5**	**0.0**	**70.5**	**35.0**	**6.5**
MOBILE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
ON-ROAD MOTOR VEHICLES	10.4	9.4	81.9	48.6	0.2	2.7	2.7	1.8
OTHER MOBILE SOURCES	5.5	5.1	49.6	12.6	0.1	0.6	0.7	0.7
*** TOTAL MOBILE SOURCES**	**15.9**	**14.5**	**131.5**	**61.2**	**0.3**	**3.4**	**3.4**	**2.5**
NATURAL (NON-ANTHROPOGENIC) SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
NATURAL SOURCES	21.5	18.4	7.1	0.1	0.1	0.8	0.7	0.6
*** TOTAL NATURAL (NON-ANTHROPOGENIC) SOURCES**	**21.5**	**18.4**	**7.1**	**0.1**	**0.1**	**0.8**	**0.7**	**0.6**
TOTAL KERN COUNTY IN SAN JOAQUIN VALLEY	**404.1**	**98.7**	**159.2**	**72.4**	**2.6**	**81.4**	**44.1**	**13.6**
GRAND TOTAL FOR KERN COUNTY	**462.9**	**140.1**	**336.0**	**108.4**	**5.9**	**119.5**	**70.8**	**29.5**

Start a new query.

Attachment G - California Air Resources Board
2020 Forecasted Annual Average Emissions

- Mojave Desert Air Basin
- Kern County

Almanac Emission Projection Data (published in 2013)

2020 Estimated Annual Average Emissions

MOJAVE DESERT AIR BASIN

All emissions are represented in Tons per Day and reflect the most current data provided to ARB.

See detailed information.
Start a new query.

STATIONARY SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5
FUEL COMBUSTION	8.2	1.5	9.9	30.6	2.6	11.1	5.1	2.6
WASTE DISPOSAL	37.1	0.4	0.1	0.1	0.0	0.6	0.2	0.0
CLEANING AND SURFACE COATINGS	18.6	12.5	-	0.0	-	0.5	0.5	0.5
PETROLEUM PRODUCTION AND MARKETING	21.0	7.8	0.0	0.0	-	0.0	0.0	0.0
INDUSTRIAL PROCESSES	2.8	2.1	12.5	52.5	5.2	74.4	36.9	13.9
*** TOTAL STATIONARY SOURCES**	**87.8**	**24.3**	**22.4**	**83.2**	**7.8**	**86.6**	**42.7**	**17.0**
AREAWIDE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
SOLVENT EVAPORATION	12.1	10.6	-	-	-	-	-	-
MISCELLANEOUS PROCESSES	35.3	4.7	8.7	1.8	0.0	208.3	95.8	14.9
*** TOTAL AREAWIDE SOURCES**	**47.4**	**15.3**	**8.7**	**1.8**	**0.0**	**208.3**	**95.8**	**14.9**
MOBILE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
ON-ROAD MOTOR VEHICLES	9.2	8.2	109.0	33.9	0.3	0.4	3.3	1.6
OTHER MOBILE SOURCES	20.0	18.3	100.4	37.3	0.7	5.8	5.1	4.7
*** TOTAL MOBILE SOURCES**	**29.2**	**26.5**	**209.4**	**71.3**	**0.9**	**6.2**	**8.4**	**6.3**
NATURAL (NON-ANTHROPOGENIC) SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
NATURAL SOURCES	58.9	47.6	171.2	1.1	0.9	16.7	16.0	13.6
*** TOTAL NATURAL (NON-ANTHROPOGENIC) SOURCES**	**58.9**	**47.6**	**171.2**	**1.1**	**0.9**	**16.7**	**16.0**	**13.6**
GRAND TOTAL FOR MOJAVE DESERT AIR BASIN	**223.2**	**113.7**	**411.6**	**157.3**	**9.7**	**317.8**	**162.9**	**51.8**

Start a new query.

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Almanac Emission Projection Data (published in 2013)

2020 Estimated Annual Average Emissions

KERN COUNTY

All emissions are represented in Tons per Day and reflect the most current data provided to ARB.

See detailed information.
Start a new query.

KERN COUNTY COUNTY - MOJAVE DESERT AIR BASIN

STATIONARY SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5
FUEL COMBUSTION	0.6	0.1	0.6	2.6	0.2	0.4	0.4	0.4
WASTE DISPOSAL	8.1	0.1	-	-	0.0	0.0	0.0	0.0
CLEANING AND SURFACE COATINGS	0.9	0.8	-	-	-	0.0	0.0	0.0
PETROLEUM PRODUCTION AND MARKETING	0.2	0.2	-	-	-	-	-	-
INDUSTRIAL PROCESSES	0.1	0.1	8.1	18.4	2.7	6.8	4.4	1.9
*** TOTAL STATIONARY SOURCES**	**9.9**	**1.3**	**8.7**	**21.0**	**2.9**	**7.2**	**4.8**	**2.2**
AREAWIDE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
SOLVENT EVAPORATION	1.5	1.3	-	-	-	-	-	-
MISCELLANEOUS PROCESSES	1.9	0.3	1.4	0.3	0.0	16.2	7.9	1.3
*** TOTAL AREAWIDE SOURCES**	**3.4**	**1.6**	**1.4**	**0.3**	**0.0**	**16.2**	**7.9**	**1.3**
MOBILE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
ON-ROAD MOTOR VEHICLES	1.6	1.5	13.2	5.1	0.0	0.4	0.4	0.2
OTHER MOBILE SOURCES	5.3	5.2	25.8	8.0	0.3	3.1	3.0	3.0
*** TOTAL MOBILE SOURCES**	**6.9**	**6.6**	**38.9**	**13.0**	**0.4**	**3.5**	**3.4**	**3.2**
NATURAL (NON-ANTHROPOGENIC) SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
NATURAL SOURCES	38.3	30.9	119.6	0.3	0.5	11.3	10.8	9.2
*** TOTAL NATURAL (NON-ANTHROPOGENIC) SOURCES**	**38.3**	**30.9**	**119.6**	**0.3**	**0.5**	**11.3**	**10.8**	**9.2**
TOTAL KERN COUNTY IN MOJAVE DESERT	**58.5**	**40.4**	**168.7**	**34.6**	**3.7**	**38.2**	**26.9**	**15.9**

KERN COUNTY COUNTY - SAN JOAQUIN VALLEY AIR BASIN

STATIONARY SOURCES	TOG	ROG	CO	NOX	SOX	PM	PM10	PM2.5
FUEL COMBUSTION	11.4	1.6	9.9	7.3	1.2	3.3	3.1	3.0
WASTE DISPOSAL	210.7	12.7	0.1	0.1	0.0	0.0	0.0	0.0
CLEANING AND SURFACE COATINGS	2.9	2.7	0.0	-	-	0.0	0.0	0.0
PETROLEUM PRODUCTION AND MARKETING	59.3	22.8	0.5	0.2	0.1	0.2	0.2	0.1
INDUSTRIAL PROCESSES	2.7	2.6	0.1	0.1	0.1	3.4	1.5	0.5
*** TOTAL STATIONARY SOURCES**	**287.0**	**42.4**	**10.6**	**7.7**	**1.4**	**6.9**	**4.8**	**3.7**
AREAWIDE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
SOLVENT EVAPORATION	10.8	9.8	-	-	-	-	-	-
MISCELLANEOUS PROCESSES	101.0	13.1	8.5	1.5	0.0	67.8	33.8	6.4
*** TOTAL AREAWIDE SOURCES**	**111.8**	**22.9**	**8.5**	**1.5**	**0.0**	**67.8**	**33.8**	**6.4**
MOBILE SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
ON-ROAD MOTOR VEHICLES	6.1	5.5	47.5	24.9	0.2	2.0	2.0	1.0
OTHER MOBILE SOURCES	4.2	4.0	50.8	10.2	0.1	0.4	0.5	0.4
*** TOTAL MOBILE SOURCES**	**10.3**	**9.5**	**98.3**	**35.1**	**0.3**	**2.4**	**2.5**	**1.5**
NATURAL (NON-ANTHROPOGENIC) SOURCES	**TOG**	**ROG**	**CO**	**NOX**	**SOX**	**PM**	**PM10**	**PM2.5**
NATURAL SOURCES	21.5	18.4	7.1	0.1	0.1	0.8	0.7	0.6
*** TOTAL NATURAL (NON-ANTHROPOGENIC) SOURCES**	**21.5**	**18.4**	**7.1**	**0.1**	**0.1**	**0.8**	**0.7**	**0.6**
TOTAL KERN COUNTY IN SAN JOAQUIN VALLEY	**430.5**	**93.2**	**124.6**	**44.4**	**1.8**	**77.9**	**41.9**	**12.2**
GRAND TOTAL FOR KERN COUNTY	**489.0**	**133.6**	**293.3**	**79.0**	**5.6**	**116.2**	**68.8**	**28.1**

Start a new query.

Attachment H - Cumulative Projects - CalEEMod v.2016.3.1 Output

TPM 10976

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	3.00	Dwelling Unit	7.83	5,400.00	9

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2018 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.46	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	7.8690e-003	1.0000e-003
tblFleetMix	MCY	6.2390e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.1150e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.5000e-003
tblFleetMix	OBUS	1.6570e-003	0.00
tblFleetMix	SBUS	1.0260e-003	1.0000e-003
tblFleetMix	UBUS	1.9600e-003	3.8000e-003
tblLandUse	LotAcreage	0.97	7.83
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3852	3.3905	2.2170	3.3600e-003	0.1602	0.2199	0.3801	0.0845	0.2059	0.2904	0.0000	302.0642	302.0642	0.0762	0.0000	303.9697
2018	0.1318	0.4300	0.3500	5.5000e-004	2.0000e-003	0.0261	0.0281	5.3000e-004	0.0244	0.0250	0.0000	49.0824	49.0824	0.0126	0.0000	49.3976
Maximum	**0.3852**	**3.3905**	**2.2170**	**3.3600e-003**	**0.1602**	**0.2199**	**0.3801**	**0.0845**	**0.2059**	**0.2904**	**0.0000**	**302.0642**	**302.0642**	**0.0762**	**0.0000**	**303.9697**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3852	3.3905	2.2170	3.3600e-003	0.1602	0.2199	0.3801	0.0845	0.2059	0.2904	0.0000	302.0638	302.0638	0.0762	0.0000	303.9693
2018	0.1318	0.4300	0.3500	5.5000e-004	2.0000e-003	0.0261	0.0281	5.3000e-004	0.0244	0.0250	0.0000	49.0824	49.0824	0.0126	0.0000	49.3976
Maximum	**0.3852**	**3.3905**	**2.2170**	**3.3600e-003**	**0.1602**	**0.2199**	**0.3801**	**0.0845**	**0.2059**	**0.2904**	**0.0000**	**302.0638**	**302.0638**	**0.0762**	**0.0000**	**303.9693**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	0.8925	0.8925
2	**4-2-2017**	**7-1-2017**	0.9647	0.9647
3	**7-2-2017**	**10-1-2017**	0.9753	0.9753
4	**10-2-2017**	**1-1-2018**	0.9740	0.9740
5	**1-2-2018**	**4-1-2018**	0.5339	0.5339
		Highest	0.9753	0.9753

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2185	3.9400e-003	0.2548	4.2000e-004		0.0327	0.0327		0.0327	0.0327	3.0989	1.3360	4.4349	2.9000e-003	2.4000e-004	4.5799
Energy	5.1000e-004	4.3300e-003	1.8400e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	13.8330	13.8330	4.6000e-004	1.7000e-004	13.8943
Mobile	0.0137	0.0550	0.1821	5.1000e-004	0.0412	5.7000e-004	0.0418	0.0110	5.4000e-004	0.0116	0.0000	46.5913	46.5913	2.6600e-003	0.0000	46.6579
Waste						0.0000	0.0000		0.0000	0.0000	0.7490	0.0000	0.7490	0.0443	0.0000	1.8557
Water						0.0000	0.0000		0.0000	0.0000	0.0620	1.2471	1.3091	6.4200e-003	1.6000e-004	1.5177
Total	**0.2327**	**0.0632**	**0.4387**	**9.6000e-004**	**0.0412**	**0.0336**	**0.0749**	**0.0110**	**0.0336**	**0.0446**	**3.9099**	**63.0074**	**66.9174**	**0.0567**	**5.7000e-004**	**68.5055**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2185	3.9400e-003	0.2548	4.2000e-004		0.0327	0.0327		0.0327	0.0327	3.0989	1.3360	4.4349	2.9000e-003	2.4000e-004	4.5799
Energy	5.1000e-004	4.3300e-003	1.8400e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	13.8330	13.8330	4.6000e-004	1.7000e-004	13.8943
Mobile	0.0137	0.0550	0.1821	5.1000e-004	0.0412	5.7000e-004	0.0418	0.0110	5.4000e-004	0.0116	0.0000	46.5913	46.5913	2.6600e-003	0.0000	46.6579
Waste						0.0000	0.0000		0.0000	0.0000	0.7490	0.0000	0.7490	0.0443	0.0000	1.8557
Water						0.0000	0.0000		0.0000	0.0000	0.0620	1.2471	1.3091	6.4200e-003	1.6000e-004	1.5177
Total	**0.2327**	**0.0632**	**0.4387**	**9.6000e-004**	**0.0412**	**0.0336**	**0.0749**	**0.0110**	**0.0336**	**0.0446**	**3.9099**	**63.0074**	**66.9174**	**0.0567**	**5.7000e-004**	**68.5055**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
2	Grading	Grading	2/11/2017	3/10/2017	5	20	
3	Building Construction	Building Construction	3/11/2017	1/26/2018	5	230	
4	Paving	Paving	1/27/2018	2/23/2018	5	20	
5	Architectural Coating	Architectural Coating	2/24/2018	3/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 10,935; Residential Outdoor: 3,645; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5595**	**27.5595**	**8.4400e-003**	**0.0000**	**27.7706**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5594**	**27.5594**	**8.4400e-003**	**0.0000**	**27.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3271	2.7882	1.9092	2.8300e-003		0.1877	0.1877		0.1763	0.1763	0.0000	252.5175	252.5175	0.0622	0.0000	254.0728
Total	**0.3271**	**2.7882**	**1.9092**	**2.8300e-003**		**0.1877**	**0.1877**		**0.1763**	**0.1763**	**0.0000**	**252.5175**	**252.5175**	**0.0622**	**0.0000**	**254.0728**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	6.2000e-004	5.9400e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.3148	1.3148	5.0000e-005	0.0000	1.3159
Total	**8.0000e-004**	**6.2000e-004**	**5.9400e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.3148**	**1.3148**	**5.0000e-005**	**0.0000**	**1.3159**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3271	2.7882	1.9092	2.8300e-003		0.1877	0.1877		0.1763	0.1763	0.0000	252.5172	252.5172	0.0622	0.0000	254.0725
Total	**0.3271**	**2.7882**	**1.9092**	**2.8300e-003**		**0.1877**	**0.1877**		**0.1763**	**0.1763**	**0.0000**	**252.5172**	**252.5172**	**0.0622**	**0.0000**	**254.0725**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	6.2000e-004	5.9400e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.3148	1.3148	5.0000e-005	0.0000	1.3159
Total	**8.0000e-004**	**6.2000e-004**	**5.9400e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.3148**	**1.3148**	**5.0000e-005**	**0.0000**	**1.3159**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.0268	0.2339	0.1758	2.7000e-004		0.0150	0.0150		0.0141	0.0141	0.0000	23.7767	23.7767	5.8300e-003	0.0000	23.9224
Total	**0.0268**	**0.2339**	**0.1758**	**2.7000e-004**		**0.0150**	**0.0150**		**0.0141**	**0.0141**	**0.0000**	**23.7767**	**23.7767**	**5.8300e-003**	**0.0000**	**23.9224**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1213	0.1213	0.0000	0.0000	0.1214
Total	**7.0000e-005**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.0000**	**0.1214**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.0268	0.2339	0.1758	2.7000e-004		0.0150	0.0150		0.0141	0.0141	0.0000	23.7767	23.7767	5.8300e-003	0.0000	23.9223
Total	**0.0268**	**0.2339**	**0.1758**	**2.7000e-004**		**0.0150**	**0.0150**		**0.0141**	**0.0141**	**0.0000**	**23.7767**	**23.7767**	**5.8300e-003**	**0.0000**	**23.9223**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1213	0.1213	0.0000	0.0000	0.1214
Total	**7.0000e-005**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.0000**	**0.1214**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.0875**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.0875**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0137	0.0550	0.1821	5.1000e-004	0.0412	5.7000e-004	0.0418	0.0110	5.4000e-004	0.0116	0.0000	46.5913	46.5913	2.6600e-003	0.0000	46.6579
Unmitigated	0.0137	0.0550	0.1821	5.1000e-004	0.0412	5.7000e-004	0.0418	0.0110	5.4000e-004	0.0116	0.0000	46.5913	46.5913	2.6600e-003	0.0000	46.6579

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	28.56	29.73	25.86	108,969	108,969
Total	28.56	29.73	25.86	108,969	108,969

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.512100	0.213500	0.168900	0.060800	0.002100	0.001000	0.009500	0.021900	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.8211	8.8211	3.6000e-004	8.0000e-005	8.8526
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8.8211	8.8211	3.6000e-004	8.0000e-005	8.8526
NaturalGas Mitigated	5.1000e-004	4.3300e-003	1.8400e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0119	5.0119	1.0000e-004	9.0000e-005	5.0417
NaturalGas Unmitigated	5.1000e-004	4.3300e-003	1.8400e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0119	5.0119	1.0000e-004	9.0000e-005	5.0417

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	93919.8	5.1000e-004	4.3300e-003	1.8400e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0119	5.0119	1.0000e-004	9.0000e-005	5.0417
Total		**5.1000e-004**	**4.3300e-003**	**1.8400e-003**	**3.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**5.0119**	**5.0119**	**1.0000e-004**	**9.0000e-005**	**5.0417**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	93919.8	5.1000e-004	4.3300e-003	1.8400e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0119	5.0119	1.0000e-004	9.0000e-005	5.0417
Total		**5.1000e-004**	**4.3300e-003**	**1.8400e-003**	**3.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**5.0119**	**5.0119**	**1.0000e-004**	**9.0000e-005**	**5.0417**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	27685.1	8.8211	3.6000e-004	8.0000e-005	8.8526
Total		**8.8211**	**3.6000e-004**	**8.0000e-005**	**8.8526**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	27685.1	8.8211	3.6000e-004	8.0000e-005	8.8526
Total		**8.8211**	**3.6000e-004**	**8.0000e-005**	**8.8526**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2185	3.9400e-003	0.2548	4.2000e-004		0.0327	0.0327		0.0327	0.0327	3.0989	1.3360	4.4349	2.9000e-003	2.4000e-004	4.5799
Unmitigated	0.2185	3.9400e-003	0.2548	4.2000e-004		0.0327	0.0327		0.0327	0.0327	3.0989	1.3360	4.4349	2.9000e-003	2.4000e-004	4.5799

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1882	3.6800e-003	0.2324	4.2000e-004		0.0326	0.0326		0.0326	0.0326	3.0989	1.2996	4.3985	2.8600e-003	2.4000e-004	4.5426
Landscaping	6.9000e-004	2.6000e-004	0.0224	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0364	0.0364	4.0000e-005	0.0000	0.0373
Total	**0.2185**	**3.9400e-003**	**0.2548**	**4.2000e-004**		**0.0327**	**0.0327**		**0.0327**	**0.0327**	**3.0989**	**1.3360**	**4.4349**	**2.9000e-003**	**2.4000e-004**	**4.5799**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1882	3.6800e-003	0.2324	4.2000e-004		0.0326	0.0326		0.0326	0.0326	3.0989	1.2996	4.3985	2.8600e-003	2.4000e-004	4.5426
Landscaping	6.9000e-004	2.6000e-004	0.0224	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0364	0.0364	4.0000e-005	0.0000	0.0373
Total	**0.2185**	**3.9400e-003**	**0.2548**	**4.2000e-004**		**0.0327**	**0.0327**		**0.0327**	**0.0327**	**3.0989**	**1.3360**	**4.4349**	**2.9000e-003**	**2.4000e-004**	**4.5799**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.3091	6.4200e-003	1.6000e-004	1.5177
Unmitigated	1.3091	6.4200e-003	1.6000e-004	1.5177

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.195462 / 0.123226	1.3091	6.4200e-003	1.6000e-004	1.5177
Total		**1.3091**	**6.4200e-003**	**1.6000e-004**	**1.5177**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.195462 / 0.123226	1.3091	6.4200e-003	1.6000e-004	1.5177
Total		**1.3091**	**6.4200e-003**	**1.6000e-004**	**1.5177**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7490	0.0443	0.0000	1.8557
Unmitigated	0.7490	0.0443	0.0000	1.8557

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	3.69	0.7490	0.0443	0.0000	1.8557
Total		**0.7490**	**0.0443**	**0.0000**	**1.8557**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	3.69	0.7490	0.0443	0.0000	1.8557
Total		**0.7490**	**0.0443**	**0.0000**	**1.8557**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11120

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	9.98	7,200.00	11

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2018 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.46	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	7.8690e-003	1.0000e-003
tblFleetMix	MCY	6.2390e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.1150e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.5000e-003
tblFleetMix	OBUS	1.6570e-003	0.00
tblFleetMix	SBUS	1.0260e-003	1.0000e-003
tblFleetMix	UBUS	1.9600e-003	3.8000e-003
tblLandUse	LotAcreage	1.30	9.98
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2387	326.2387	0.0822	0.0000	328.2924
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3539
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2387**	**326.2387**	**0.0822**	**0.0000**	**328.2924**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2383	326.2383	0.0822	0.0000	328.2921
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3538
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2383**	**326.2383**	**0.0822**	**0.0000**	**328.2921**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.1482	1.1482
2	**4-2-2017**	**7-1-2017**	0.9647	0.9647
3	**7-2-2017**	**10-1-2017**	0.9753	0.9753
4	**10-2-2017**	**1-1-2018**	0.9668	0.9668
5	**1-2-2018**	**4-1-2018**	0.3085	0.3085
		Highest	1.1482	1.1482

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0843**	**0.5850**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**84.0099**	**89.1399**	**0.0707**	**7.5000e-004**	**91.1345**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0843**	**0.5850**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**84.0099**	**89.1399**	**0.0707**	**7.5000e-004**	**91.1345**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/13/2017	5	10	
2	Grading	Grading	1/14/2017	2/10/2017	5	20	
3	Building Construction	Building Construction	2/11/2017	12/29/2017	5	230	
4	Paving	Paving	12/30/2017	1/26/2018	5	20	
5	Architectural Coating	Architectural Coating	1/27/2018	2/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 14,580; Residential Outdoor: 4,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5595**	**27.5595**	**8.4400e-003**	**0.0000**	**27.7706**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5594**	**27.5594**	**8.4400e-003**	**0.0000**	**27.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5668	276.5668	0.0681	0.0000	278.2702
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5668**	**276.5668**	**0.0681**	**0.0000**	**278.2702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5664	276.5664	0.0681	0.0000	278.2699
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5664**	**276.5664**	**0.0681**	**0.0000**	**278.2699**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106
Unmitigated	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	38.08	39.64	34.48	145,292	145,292
Total	38.08	39.64	34.48	145,292	145,292

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.512100	0.213500	0.168900	0.060800	0.002100	0.001000	0.009500	0.021900	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
NaturalGas Mitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
NaturalGas Unmitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Unmitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7455	8.5600e-003	2.1000e-004	2.0235
Unmitigated	1.7455	8.5600e-003	2.1000e-004	2.0235

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9155	0.0541	0.0000	2.2681
Unmitigated	0.9155	0.0541	0.0000	2.2681

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11121

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	9.97	7,200.00	11

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2018 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.46	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	7.8690e-003	1.0000e-003
tblFleetMix	MCY	6.2390e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.1150e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.5000e-003
tblFleetMix	OBUS	1.6570e-003	0.00
tblFleetMix	SBUS	1.0260e-003	1.0000e-003
tblFleetMix	UBUS	1.9600e-003	3.8000e-003
tblLandUse	LotAcreage	1.30	9.97
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2387	326.2387	0.0822	0.0000	328.2924
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3539
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2387**	**326.2387**	**0.0822**	**0.0000**	**328.2924**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2383	326.2383	0.0822	0.0000	328.2921
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3538
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2383**	**326.2383**	**0.0822**	**0.0000**	**328.2921**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.1482	1.1482
2	**4-2-2017**	**7-1-2017**	0.9647	0.9647
3	**7-2-2017**	**10-1-2017**	0.9753	0.9753
4	**10-2-2017**	**1-1-2018**	0.9668	0.9668
5	**1-2-2018**	**4-1-2018**	0.3085	0.3085
		Highest	1.1482	1.1482

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0843**	**0.5850**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**84.0099**	**89.1399**	**0.0707**	**7.5000e-004**	**91.1345**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0843**	**0.5850**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**84.0099**	**89.1399**	**0.0707**	**7.5000e-004**	**91.1345**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/13/2017	5	10	
2	Grading	Grading	1/14/2017	2/10/2017	5	20	
3	Building Construction	Building Construction	2/11/2017	12/29/2017	5	230	
4	Paving	Paving	12/30/2017	1/26/2018	5	20	
5	Architectural Coating	Architectural Coating	1/27/2018	2/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 14,580; Residential Outdoor: 4,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5595**	**27.5595**	**8.4400e-003**	**0.0000**	**27.7706**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5594**	**27.5594**	**8.4400e-003**	**0.0000**	**27.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5668	276.5668	0.0681	0.0000	278.2702
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5668**	**276.5668**	**0.0681**	**0.0000**	**278.2702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5664	276.5664	0.0681	0.0000	278.2699
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5664**	**276.5664**	**0.0681**	**0.0000**	**278.2699**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106
Unmitigated	0.0183	0.0733	0.2428	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.1217	62.1217	3.5500e-003	0.0000	62.2106

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	38.08	39.64	34.48	145,292	145,292
Total	38.08	39.64	34.48	145,292	145,292

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.512100	0.213500	0.168900	0.060800	0.002100	0.001000	0.009500	0.021900	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
NaturalGas Mitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
NaturalGas Unmitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Unmitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7455	8.5600e-003	2.1000e-004	2.0235
Unmitigated	1.7455	8.5600e-003	2.1000e-004	2.0235

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9155	0.0541	0.0000	2.2681
Unmitigated	0.9155	0.0541	0.0000	2.2681

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11122

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	9.73	7,200.00	11

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2018 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.46	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	7.8690e-003	1.0000e-003
tblFleetMix	MCY	6.2390e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.1150e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.4000e-003
tblFleetMix	OBUS	1.6570e-003	0.00
tblFleetMix	SBUS	1.0260e-003	1.0000e-003
tblFleetMix	UBUS	1.9600e-003	3.8000e-003
tblLandUse	LotAcreage	1.30	9.73
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2387	326.2387	0.0822	0.0000	328.2924
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3539
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2387**	**326.2387**	**0.0822**	**0.0000**	**328.2924**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2383	326.2383	0.0822	0.0000	328.2921
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3538
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2383**	**326.2383**	**0.0822**	**0.0000**	**328.2921**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.1482	1.1482
2	**4-2-2017**	**7-1-2017**	0.9647	0.9647
3	**7-2-2017**	**10-1-2017**	0.9753	0.9753
4	**10-2-2017**	**1-1-2018**	0.9668	0.9668
5	**1-2-2018**	**4-1-2018**	0.3085	0.3085
		Highest	1.1482	1.1482

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0728	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0140	62.0140	3.5400e-003	0.0000	62.1026
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0838**	**0.5849**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**83.9022**	**89.0322**	**0.0707**	**7.5000e-004**	**91.0266**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0728	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0140	62.0140	3.5400e-003	0.0000	62.1026
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0838**	**0.5849**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**83.9022**	**89.0322**	**0.0707**	**7.5000e-004**	**91.0266**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/13/2017	5	10	
2	Grading	Grading	1/14/2017	2/10/2017	5	20	
3	Building Construction	Building Construction	2/11/2017	12/29/2017	5	230	
4	Paving	Paving	12/30/2017	1/26/2018	5	20	
5	Architectural Coating	Architectural Coating	1/27/2018	2/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 14,580; Residential Outdoor: 4,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5595**	**27.5595**	**8.4400e-003**	**0.0000**	**27.7706**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5594**	**27.5594**	**8.4400e-003**	**0.0000**	**27.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5668	276.5668	0.0681	0.0000	278.2702
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5668**	**276.5668**	**0.0681**	**0.0000**	**278.2702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5664	276.5664	0.0681	0.0000	278.2699
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5664**	**276.5664**	**0.0681**	**0.0000**	**278.2699**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0183	0.0728	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0140	62.0140	3.5400e-003	0.0000	62.1026
Unmitigated	0.0183	0.0728	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0140	62.0140	3.5400e-003	0.0000	62.1026

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	38.08	39.64	34.48	145,292	145,292
Total	38.08	39.64	34.48	145,292	145,292

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.512100	0.213500	0.168900	0.060900	0.002100	0.001000	0.009400	0.021600	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
NaturalGas Mitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
NaturalGas Unmitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Unmitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7455	8.5600e-003	2.1000e-004	2.0235
Unmitigated	1.7455	8.5600e-003	2.1000e-004	2.0235

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9155	0.0541	0.0000	2.2681
Unmitigated	0.9155	0.0541	0.0000	2.2681

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11154

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	9.98	7,200.00	11

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2018 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.46	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	7.8690e-003	1.0000e-003
tblFleetMix	MCY	6.2390e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.1150e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.4000e-003
tblFleetMix	OBUS	1.6570e-003	0.00
tblFleetMix	SBUS	1.0260e-003	1.0000e-003
tblFleetMix	UBUS	1.9600e-003	3.8000e-003
tblLandUse	LotAcreage	1.30	9.98
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2387	326.2387	0.0822	0.0000	328.2924
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3539
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2387**	**326.2387**	**0.0822**	**0.0000**	**328.2924**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4164	3.6561	2.3994	3.6300e-003	0.1603	0.2378	0.3981	0.0845	0.2227	0.3072	0.0000	326.2383	326.2383	0.0822	0.0000	328.2921
2018	0.1331	0.1960	0.1737	2.8000e-004	1.8800e-003	0.0111	0.0130	5.0000e-004	0.0103	0.0108	0.0000	25.1844	25.1844	6.7800e-003	0.0000	25.3538
Maximum	**0.4164**	**3.6561**	**2.3994**	**3.6300e-003**	**0.1603**	**0.2378**	**0.3981**	**0.0845**	**0.2227**	**0.3072**	**0.0000**	**326.2383**	**326.2383**	**0.0822**	**0.0000**	**328.2921**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.1482	1.1482
2	**4-2-2017**	**7-1-2017**	0.9647	0.9647
3	**7-2-2017**	**10-1-2017**	0.9753	0.9753
4	**10-2-2017**	**1-1-2018**	0.9668	0.9668
5	**1-2-2018**	**4-1-2018**	0.3085	0.3085
		Highest	1.1482	1.1482

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0731	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0709	62.0709	3.5500e-003	0.0000	62.1597
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0841**	**0.5849**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**83.9591**	**89.0891**	**0.0707**	**7.5000e-004**	**91.0836**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	18.4440	18.4440	6.1000e-004	2.2000e-004	18.5258
Mobile	0.0183	0.0731	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0709	62.0709	3.5500e-003	0.0000	62.1597
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.3103**	**0.0841**	**0.5849**	**1.2800e-003**	**0.0550**	**0.0448**	**0.0998**	**0.0147**	**0.0448**	**0.0595**	**5.1300**	**83.9591**	**89.0891**	**0.0707**	**7.5000e-004**	**91.0836**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/13/2017	5	10	
2	Grading	Grading	1/14/2017	2/10/2017	5	20	
3	Building Construction	Building Construction	2/11/2017	12/29/2017	5	230	
4	Paving	Paving	12/30/2017	1/26/2018	5	20	
5	Architectural Coating	Architectural Coating	1/27/2018	2/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 14,580; Residential Outdoor: 4,860; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5595**	**27.5595**	**8.4400e-003**	**0.0000**	**27.7706**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0655**	**0.0178**	**0.0833**	**0.0337**	**0.0164**	**0.0500**	**0.0000**	**27.5594**	**27.5594**	**8.4400e-003**	**0.0000**	**27.7705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5668	276.5668	0.0681	0.0000	278.2702
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5668**	**276.5668**	**0.0681**	**0.0000**	**278.2702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5664	276.5664	0.0681	0.0000	278.2699
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5664**	**276.5664**	**0.0681**	**0.0000**	**278.2699**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.1126					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.1156**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0183	0.0731	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0709	62.0709	3.5500e-003	0.0000	62.1597
Unmitigated	0.0183	0.0731	0.2427	6.8000e-004	0.0550	7.6000e-004	0.0557	0.0147	7.1000e-004	0.0154	0.0000	62.0709	62.0709	3.5500e-003	0.0000	62.1597

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	38.08	39.64	34.48	145,292	145,292
Total	38.08	39.64	34.48	145,292	145,292

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.512100	0.213500	0.168900	0.060800	0.002100	0.001000	0.009400	0.021800	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.7614	11.7614	4.9000e-004	1.0000e-004	11.8035
NaturalGas Mitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
NaturalGas Unmitigated	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	125226	6.8000e-004	5.7700e-003	2.4600e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	6.6826	6.6826	1.3000e-004	1.2000e-004	6.7223
Total		**6.8000e-004**	**5.7700e-003**	**2.4600e-003**	**4.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**6.6826**	**6.6826**	**1.3000e-004**	**1.2000e-004**	**6.7223**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	36913.5	11.7614	4.9000e-004	1.0000e-004	11.8035
Total		**11.7614**	**4.9000e-004**	**1.0000e-004**	**11.8035**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Unmitigated	0.2913	5.2500e-003	0.3397	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0113					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.2000e-004	3.5000e-004	0.0299	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2913**	**5.2500e-003**	**0.3397**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7455	8.5600e-003	2.1000e-004	2.0235
Unmitigated	1.7455	8.5600e-003	2.1000e-004	2.0235

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9155	0.0541	0.0000	2.2681
Unmitigated	0.9155	0.0541	0.0000	2.2681

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
Total		**0.9155**	**0.0541**	**0.0000**	**2.2681**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11390

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	2.00	Dwelling Unit	4.06	3,600.00	6

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2018 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.46	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	7.8690e-003	1.0000e-003
tblFleetMix	MCY	6.2390e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.1150e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.5000e-003
tblFleetMix	OBUS	1.6570e-003	0.00
tblFleetMix	SBUS	1.0260e-003	1.0000e-003
tblFleetMix	UBUS	1.9600e-003	3.8000e-003
tblLandUse	LotAcreage	0.65	4.06
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4001	3.4672	2.3477	3.5200e-003	0.0763	0.2286	0.3049	0.0396	0.2143	0.2539	0.0000	315.9724	315.9724	0.0788	0.0000	317.9416
2018	0.0598	0.0254	0.0234	4.0000e-005	1.3000e-004	1.7700e-003	1.9000e-003	3.0000e-005	1.7400e-003	1.7700e-003	0.0000	3.2686	3.2686	4.8000e-004	0.0000	3.2806
Maximum	**0.4001**	**3.4672**	**2.3477**	**3.5200e-003**	**0.0763**	**0.2286**	**0.3049**	**0.0396**	**0.2143**	**0.2539**	**0.0000**	**315.9724**	**315.9724**	**0.0788**	**0.0000**	**317.9416**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4001	3.4672	2.3477	3.5200e-003	0.0763	0.2286	0.3049	0.0396	0.2143	0.2539	0.0000	315.9721	315.9721	0.0788	0.0000	317.9412
2018	0.0598	0.0254	0.0234	4.0000e-005	1.3000e-004	1.7700e-003	1.9000e-003	3.0000e-005	1.7400e-003	1.7700e-003	0.0000	3.2686	3.2686	4.8000e-004	0.0000	3.2806
Maximum	**0.4001**	**3.4672**	**2.3477**	**3.5200e-003**	**0.0763**	**0.2286**	**0.3049**	**0.0396**	**0.2143**	**0.2539**	**0.0000**	**315.9721**	**315.9721**	**0.0788**	**0.0000**	**317.9412**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.0359	1.0359
2	**4-2-2017**	**7-1-2017**	0.9647	0.9647
3	**7-2-2017**	**10-1-2017**	0.9753	0.9753
4	**10-2-2017**	**1-1-2018**	0.8752	0.8752
5	**1-2-2018**	**4-1-2018**	0.0734	0.0734
		Highest	1.0359	1.0359

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1456	2.6200e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Energy	3.4000e-004	2.8900e-003	1.2300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	9.2220	9.2220	3.1000e-004	1.1000e-004	9.2629
Mobile	9.1600e-003	0.0366	0.1214	3.4000e-004	0.0275	3.8000e-004	0.0279	7.3500e-003	3.6000e-004	7.7100e-003	0.0000	31.0609	31.0609	1.7800e-003	0.0000	31.1053
Waste						0.0000	0.0000		0.0000	0.0000	0.4994	0.0000	0.4994	0.0295	0.0000	1.2371
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.8314	0.8728	4.2800e-003	1.1000e-004	1.0118
Total	**0.1551**	**0.0422**	**0.2925**	**6.4000e-004**	**0.0275**	**0.0224**	**0.0499**	**7.3500e-003**	**0.0224**	**0.0297**	**2.6066**	**42.0050**	**44.6116**	**0.0378**	**3.8000e-004**	**45.6704**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1456	2.6200e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Energy	3.4000e-004	2.8900e-003	1.2300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	9.2220	9.2220	3.1000e-004	1.1000e-004	9.2629
Mobile	9.1600e-003	0.0366	0.1214	3.4000e-004	0.0275	3.8000e-004	0.0279	7.3500e-003	3.6000e-004	7.7100e-003	0.0000	31.0609	31.0609	1.7800e-003	0.0000	31.1053
Waste						0.0000	0.0000		0.0000	0.0000	0.4994	0.0000	0.4994	0.0295	0.0000	1.2371
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.8314	0.8728	4.2800e-003	1.1000e-004	1.0118
Total	**0.1551**	**0.0422**	**0.2925**	**6.4000e-004**	**0.0275**	**0.0224**	**0.0499**	**7.3500e-003**	**0.0224**	**0.0297**	**2.6066**	**42.0050**	**44.6116**	**0.0378**	**3.8000e-004**	**45.6704**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/6/2017	5	5	
2	Grading	Grading	1/7/2017	1/18/2017	5	8	
3	Building Construction	Building Construction	1/19/2017	12/6/2017	5	230	
4	Paving	Paving	12/7/2017	1/1/2018	5	18	
5	Architectural Coating	Architectural Coating	1/2/2018	1/25/2018	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 7,290; Residential Outdoor: 2,430; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1307	0.0586	1.0000e-004		7.2000e-003	7.2000e-003		6.6200e-003	6.6200e-003	0.0000	8.8336	8.8336	2.7100e-003	0.0000	8.9013
Total	**0.0124**	**0.1307**	**0.0586**	**1.0000e-004**	**0.0452**	**7.2000e-003**	**0.0524**	**0.0248**	**6.6200e-003**	**0.0315**	**0.0000**	**8.8336**	**8.8336**	**2.7100e-003**	**0.0000**	**8.9013**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	2.5400e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5635	0.5635	2.0000e-005	0.0000	0.5640
Total	**3.4000e-004**	**2.7000e-004**	**2.5400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5635**	**0.5635**	**2.0000e-005**	**0.0000**	**0.5640**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1307	0.0586	1.0000e-004		7.2000e-003	7.2000e-003		6.6200e-003	6.6200e-003	0.0000	8.8336	8.8336	2.7100e-003	0.0000	8.9013
Total	**0.0124**	**0.1307**	**0.0586**	**1.0000e-004**	**0.0452**	**7.2000e-003**	**0.0524**	**0.0248**	**6.6200e-003**	**0.0315**	**0.0000**	**8.8336**	**8.8336**	**2.7100e-003**	**0.0000**	**8.9013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	2.5400e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5635	0.5635	2.0000e-005	0.0000	0.5640
Total	**3.4000e-004**	**2.7000e-004**	**2.5400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5635**	**0.5635**	**2.0000e-005**	**0.0000**	**0.5640**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1356	0.0684	1.2000e-004		7.1100e-003	7.1100e-003		6.5400e-003	6.5400e-003	0.0000	11.0238	11.0238	3.3800e-003	0.0000	11.1082
Total	**0.0123**	**0.1356**	**0.0684**	**1.2000e-004**	**0.0262**	**7.1100e-003**	**0.0333**	**0.0135**	**6.5400e-003**	**0.0200**	**0.0000**	**11.0238**	**11.0238**	**3.3800e-003**	**0.0000**	**11.1082**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	3.3900e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.6000e-004	2.0000e-004	1.0000e-005	2.0000e-004	0.0000	0.7513	0.7513	3.0000e-005	0.0000	0.7520
Total	**4.6000e-004**	**3.6000e-004**	**3.3900e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**2.0000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7513**	**0.7513**	**3.0000e-005**	**0.0000**	**0.7520**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1356	0.0684	1.2000e-004		7.1100e-003	7.1100e-003		6.5400e-003	6.5400e-003	0.0000	11.0238	11.0238	3.3800e-003	0.0000	11.1082
Total	**0.0123**	**0.1356**	**0.0684**	**1.2000e-004**	**0.0262**	**7.1100e-003**	**0.0333**	**0.0135**	**6.5400e-003**	**0.0200**	**0.0000**	**11.0238**	**11.0238**	**3.3800e-003**	**0.0000**	**11.1082**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	3.3900e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.6000e-004	2.0000e-004	1.0000e-005	2.0000e-004	0.0000	0.7513	0.7513	3.0000e-005	0.0000	0.7520
Total	**4.6000e-004**	**3.6000e-004**	**3.3900e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**2.0000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7513**	**0.7513**	**3.0000e-005**	**0.0000**	**0.7520**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5668	276.5668	0.0681	0.0000	278.2702
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5668**	**276.5668**	**0.0681**	**0.0000**	**278.2702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5664	276.5664	0.0681	0.0000	278.2699
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5664**	**276.5664**	**0.0681**	**0.0000**	**278.2699**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.8000e-004	6.5000e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.4400	1.4400	5.0000e-005	0.0000	1.4413
Total	**8.7000e-004**	**6.8000e-004**	**6.5000e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.4400**	**1.4400**	**5.0000e-005**	**0.0000**	**1.4413**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0143	0.1448	0.1076	1.6000e-004		8.6500e-003	8.6500e-003		7.9700e-003	7.9700e-003	0.0000	14.6647	14.6647	4.3700e-003	0.0000	14.7741
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0143**	**0.1448**	**0.1076**	**1.6000e-004**		**8.6500e-003**	**8.6500e-003**		**7.9700e-003**	**7.9700e-003**	**0.0000**	**14.6647**	**14.6647**	**4.3700e-003**	**0.0000**	**14.7741**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	1.0100e-003	9.6100e-003	2.0000e-005	2.1300e-003	2.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	2.1287	2.1287	7.0000e-005	0.0000	2.1306
Total	**1.2900e-003**	**1.0100e-003**	**9.6100e-003**	**2.0000e-005**	**2.1300e-003**	**2.0000e-005**	**2.1500e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**2.1287**	**2.1287**	**7.0000e-005**	**0.0000**	**2.1306**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0143	0.1448	0.1076	1.6000e-004		8.6500e-003	8.6500e-003		7.9700e-003	7.9700e-003	0.0000	14.6647	14.6647	4.3700e-003	0.0000	14.7741
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0143**	**0.1448**	**0.1076**	**1.6000e-004**		**8.6500e-003**	**8.6500e-003**		**7.9700e-003**	**7.9700e-003**	**0.0000**	**14.6647**	**14.6647**	**4.3700e-003**	**0.0000**	**14.7741**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	1.0100e-003	9.6100e-003	2.0000e-005	2.1300e-003	2.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	2.1287	2.1287	7.0000e-005	0.0000	2.1306
Total	**1.2900e-003**	**1.0100e-003**	**9.6100e-003**	**2.0000e-005**	**2.1300e-003**	**2.0000e-005**	**2.1500e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**2.1287**	**2.1287**	**7.0000e-005**	**0.0000**	**2.1306**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	7.1000e-004	7.2600e-003	6.2200e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	0.8494	0.8494	2.6000e-004	0.0000	0.8558
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.1000e-004**	**7.2600e-003**	**6.2200e-003**	**1.0000e-005**		**4.2000e-004**	**4.2000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**0.8494**	**0.8494**	**2.6000e-004**	**0.0000**	**0.8558**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1213	0.1213	0.0000	0.0000	0.1214
Total	**7.0000e-005**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.0000**	**0.1214**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	7.1000e-004	7.2600e-003	6.2200e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	0.8494	0.8494	2.6000e-004	0.0000	0.8558
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.1000e-004**	**7.2600e-003**	**6.2200e-003**	**1.0000e-005**		**4.2000e-004**	**4.2000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**0.8494**	**0.8494**	**2.6000e-004**	**0.0000**	**0.8558**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1213	0.1213	0.0000	0.0000	0.1214
Total	**7.0000e-005**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.0000**	**0.1214**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6900e-003	0.0181	0.0167	3.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	2.2979	2.2979	2.2000e-004	0.0000	2.3034
Total	**0.0590**	**0.0181**	**0.0167**	**3.0000e-005**		**1.3500e-003**	**1.3500e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**2.2979**	**2.2979**	**2.2000e-004**	**0.0000**	**2.3034**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6900e-003	0.0181	0.0167	3.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	2.2979	2.2979	2.2000e-004	0.0000	2.3034
Total	**0.0590**	**0.0181**	**0.0167**	**3.0000e-005**		**1.3500e-003**	**1.3500e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**2.2979**	**2.2979**	**2.2000e-004**	**0.0000**	**2.3034**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.1600e-003	0.0366	0.1214	3.4000e-004	0.0275	3.8000e-004	0.0279	7.3500e-003	3.6000e-004	7.7100e-003	0.0000	31.0609	31.0609	1.7800e-003	0.0000	31.1053
Unmitigated	9.1600e-003	0.0366	0.1214	3.4000e-004	0.0275	3.8000e-004	0.0279	7.3500e-003	3.6000e-004	7.7100e-003	0.0000	31.0609	31.0609	1.7800e-003	0.0000	31.1053

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	19.04	19.82	17.24	72,646	72,646
Total	19.04	19.82	17.24	72,646	72,646

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.512100	0.213500	0.168900	0.060800	0.002100	0.001000	0.009500	0.021900	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.8807	5.8807	2.4000e-004	5.0000e-005	5.9018
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.8807	5.8807	2.4000e-004	5.0000e-005	5.9018
NaturalGas Mitigated	3.4000e-004	2.8900e-003	1.2300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3413	3.3413	6.0000e-005	6.0000e-005	3.3611
NaturalGas Unmitigated	3.4000e-004	2.8900e-003	1.2300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3413	3.3413	6.0000e-005	6.0000e-005	3.3611

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	62613.2	3.4000e-004	2.8900e-003	1.2300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3413	3.3413	6.0000e-005	6.0000e-005	3.3611
Total		**3.4000e-004**	**2.8900e-003**	**1.2300e-003**	**2.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**3.3413**	**3.3413**	**6.0000e-005**	**6.0000e-005**	**3.3611**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	62613.2	3.4000e-004	2.8900e-003	1.2300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3413	3.3413	6.0000e-005	6.0000e-005	3.3611
Total		**3.4000e-004**	**2.8900e-003**	**1.2300e-003**	**2.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**3.3413**	**3.3413**	**6.0000e-005**	**6.0000e-005**	**3.3611**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	18456.8	5.8807	2.4000e-004	5.0000e-005	5.9018
Total		**5.8807**	**2.4000e-004**	**5.0000e-005**	**5.9018**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	18456.8	5.8807	2.4000e-004	5.0000e-005	5.9018
Total		**5.8807**	**2.4000e-004**	**5.0000e-005**	**5.9018**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1456	2.6200e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Unmitigated	0.1456	2.6200e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0141					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1255	2.4500e-003	0.1549	2.8000e-004		0.0217	0.0217		0.0217	0.0217	2.0659	0.8664	2.9323	1.9100e-003	1.6000e-004	3.0284
Landscaping	4.6000e-004	1.7000e-004	0.0150	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.1456**	**2.6200e-003**	**0.1699**	**2.8000e-004**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**2.0659**	**0.8907**	**2.9566**	**1.9300e-003**	**1.6000e-004**	**3.0533**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0141					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1255	2.4500e-003	0.1549	2.8000e-004		0.0217	0.0217		0.0217	0.0217	2.0659	0.8664	2.9323	1.9100e-003	1.6000e-004	3.0284
Landscaping	4.6000e-004	1.7000e-004	0.0150	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.1456**	**2.6200e-003**	**0.1699**	**2.8000e-004**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**2.0659**	**0.8907**	**2.9566**	**1.9300e-003**	**1.6000e-004**	**3.0533**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8728	4.2800e-003	1.1000e-004	1.0118
Unmitigated	0.8728	4.2800e-003	1.1000e-004	1.0118

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.130308 / 0.0821507	0.8728	4.2800e-003	1.1000e-004	1.0118
Total		**0.8728**	**4.2800e-003**	**1.1000e-004**	**1.0118**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.130308 / 0.0821507	0.8728	4.2800e-003	1.1000e-004	1.0118
Total		**0.8728**	**4.2800e-003**	**1.1000e-004**	**1.0118**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4994	0.0295	0.0000	1.2371
Unmitigated	0.4994	0.0295	0.0000	1.2371

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2.46	0.4994	0.0295	0.0000	1.2371
Total		**0.4994**	**0.0295**	**0.0000**	**1.2371**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2.46	0.4994	0.0295	0.0000	1.2371
Total		**0.4994**	**0.0295**	**0.0000**	**1.2371**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11452

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Mobile Home Park	2.00	Dwelling Unit	1.04	2,400.00	6

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2017 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02

tblFleetMix	LDA	0.45	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	8.5100e-003	1.0000e-003
tblFleetMix	MCY	6.3780e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.2160e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.4000e-003
tblFleetMix	OBUS	1.6740e-003	0.00
tblFleetMix	SBUS	1.0580e-003	1.0000e-003
tblFleetMix	UBUS	2.0580e-003	3.8000e-003
tblLandUse	LotAcreage	0.25	1.04
tblProjectCharacteristics	OperationalYear	2018	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleEF	HHD	2.22	2.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.14	0.11
tblVehicleEF	HHD	4.45	4.11
tblVehicleEF	HHD	0.77	0.70
tblVehicleEF	HHD	1.46	1.32
tblVehicleEF	HHD	6,740.67	6,792.92
tblVehicleEF	HHD	1,631.45	1,612.45
tblVehicleEF	HHD	4.28	3.98
tblVehicleEF	HHD	0.14	0.14
tblVehicleEF	HHD	32.80	31.25
tblVehicleEF	HHD	4.96	4.48

tblVehicleEF	HHD	20.43	20.44
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	7.9000e-005	5.1000e-005
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9410e-003	8.9440e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	7.5000e-005	4.8000e-005
tblVehicleEF	HHD	7.7000e-005	6.2000e-005
tblVehicleEF	HHD	3.4440e-003	2.5500e-003
tblVehicleEF	HHD	1.21	1.10
tblVehicleEF	HHD	3.8000e-005	3.1000e-005
tblVehicleEF	HHD	0.17	0.14
tblVehicleEF	HHD	1.9600e-004	1.5000e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	6.7000e-005	6.2000e-005
tblVehicleEF	HHD	7.7000e-005	6.2000e-005
tblVehicleEF	HHD	3.4440e-003	2.5500e-003
tblVehicleEF	HHD	1.38	1.25
tblVehicleEF	HHD	3.8000e-005	3.1000e-005
tblVehicleEF	HHD	0.19	0.17
tblVehicleEF	HHD	1.9600e-004	1.5000e-004

tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	2.10	1.94
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.13	0.11
tblVehicleEF	HHD	3.27	3.01
tblVehicleEF	HHD	0.77	0.70
tblVehicleEF	HHD	1.39	1.25
tblVehicleEF	HHD	7,129.75	7,188.52
tblVehicleEF	HHD	1,631.45	1,612.45
tblVehicleEF	HHD	4.28	3.98
tblVehicleEF	HHD	0.14	0.14
tblVehicleEF	HHD	33.82	32.23
tblVehicleEF	HHD	4.71	4.24
tblVehicleEF	HHD	20.43	20.43
tblVehicleEF	HHD	0.05	0.03
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	7.9000e-005	5.1000e-005
tblVehicleEF	HHD	0.05	0.03
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9410e-003	8.9440e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	7.5000e-005	4.8000e-005
tblVehicleEF	HHD	2.0000e-004	1.5900e-004
tblVehicleEF	HHD	4.1430e-003	3.0330e-003
tblVehicleEF	HHD	1.14	1.04

tblVehicleEF	HHD	8.9000e-005	7.1000e-005
tblVehicleEF	HHD	0.17	0.14
tblVehicleEF	HHD	2.0200e-004	1.5500e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	6.6000e-005	6.1000e-005
tblVehicleEF	HHD	2.0000e-004	1.5900e-004
tblVehicleEF	HHD	4.1430e-003	3.0330e-003
tblVehicleEF	HHD	1.31	1.18
tblVehicleEF	HHD	8.9000e-005	7.1000e-005
tblVehicleEF	HHD	0.19	0.17
tblVehicleEF	HHD	2.0200e-004	1.5500e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	2.38	2.20
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.14	0.12
tblVehicleEF	HHD	6.07	5.64
tblVehicleEF	HHD	0.77	0.70
tblVehicleEF	HHD	1.56	1.42
tblVehicleEF	HHD	6,203.36	6,246.62
tblVehicleEF	HHD	1,631.45	1,612.45
tblVehicleEF	HHD	4.28	3.98
tblVehicleEF	HHD	0.14	0.14
tblVehicleEF	HHD	31.39	29.89
tblVehicleEF	HHD	5.04	4.54
tblVehicleEF	HHD	20.44	20.44

tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	7.9000e-005	5.1000e-005
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9410e-003	8.9440e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	7.5000e-005	4.8000e-005
tblVehicleEF	HHD	3.5000e-005	2.6000e-005
tblVehicleEF	HHD	4.0010e-003	2.8180e-003
tblVehicleEF	HHD	1.30	1.18
tblVehicleEF	HHD	1.6000e-005	1.3000e-005
tblVehicleEF	HHD	0.17	0.14
tblVehicleEF	HHD	2.1000e-004	1.6100e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	6.9000e-005	6.3000e-005
tblVehicleEF	HHD	3.5000e-005	2.6000e-005
tblVehicleEF	HHD	4.0010e-003	2.8180e-003
tblVehicleEF	HHD	1.48	1.34
tblVehicleEF	HHD	1.6000e-005	1.3000e-005
tblVehicleEF	HHD	0.19	0.17
tblVehicleEF	HHD	2.1000e-004	1.6100e-004
tblVehicleEF	HHD	0.06	0.05

tblVehicleEF	LDA	6.9930e-003	6.0980e-003
tblVehicleEF	LDA	0.01	9.2100e-003
tblVehicleEF	LDA	0.80	0.70
tblVehicleEF	LDA	2.01	1.74
tblVehicleEF	LDA	322.14	310.64
tblVehicleEF	LDA	66.40	64.53
tblVehicleEF	LDA	0.45	0.46
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.14	0.12
tblVehicleEF	LDA	1.8240e-003	1.8390e-003
tblVehicleEF	LDA	2.3990e-003	2.3570e-003
tblVehicleEF	LDA	1.6830e-003	1.6960e-003
tblVehicleEF	LDA	2.2090e-003	2.1680e-003
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.15	0.12
tblVehicleEF	LDA	3.2280e-003	3.1110e-003
tblVehicleEF	LDA	6.9900e-004	6.7500e-004
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.16	0.14

tblVehicleEF	LDA	8.1330e-003	7.1110e-003
tblVehicleEF	LDA	9.1480e-003	7.5710e-003
tblVehicleEF	LDA	1.01	0.89
tblVehicleEF	LDA	1.68	1.44
tblVehicleEF	LDA	357.32	344.57
tblVehicleEF	LDA	66.40	64.53
tblVehicleEF	LDA	0.45	0.46
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.13	0.11
tblVehicleEF	LDA	1.8240e-003	1.8390e-003
tblVehicleEF	LDA	2.3990e-003	2.3570e-003
tblVehicleEF	LDA	1.6830e-003	1.6960e-003
tblVehicleEF	LDA	2.2090e-003	2.1680e-003
tblVehicleEF	LDA	0.19	0.17
tblVehicleEF	LDA	0.20	0.17
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	3.5820e-003	3.4530e-003
tblVehicleEF	LDA	6.9300e-004	6.7000e-004
tblVehicleEF	LDA	0.19	0.17
tblVehicleEF	LDA	0.20	0.17
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.14	0.11

tblVehicleEF	LDA	6.5960e-003	5.7410e-003
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.74	0.65
tblVehicleEF	LDA	2.37	2.05
tblVehicleEF	LDA	308.89	297.87
tblVehicleEF	LDA	66.40	64.53
tblVehicleEF	LDA	0.45	0.46
tblVehicleEF	LDA	0.09	0.07
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	1.8240e-003	1.8390e-003
tblVehicleEF	LDA	2.3990e-003	2.3570e-003
tblVehicleEF	LDA	1.6830e-003	1.6960e-003
tblVehicleEF	LDA	2.2090e-003	2.1680e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.17	0.14
tblVehicleEF	LDA	3.0940e-003	2.9830e-003
tblVehicleEF	LDA	7.0600e-004	6.8100e-004
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.19	0.16

tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	2.49	2.03
tblVehicleEF	LDT1	5.53	4.87
tblVehicleEF	LDT1	381.29	371.22
tblVehicleEF	LDT1	78.82	76.98
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.26	0.22
tblVehicleEF	LDT1	0.32	0.28
tblVehicleEF	LDT1	3.7830e-003	3.3990e-003
tblVehicleEF	LDT1	4.9440e-003	4.4130e-003
tblVehicleEF	LDT1	3.4970e-003	3.1370e-003
tblVehicleEF	LDT1	4.5630e-003	4.0640e-003
tblVehicleEF	LDT1	0.26	0.23
tblVehicleEF	LDT1	0.45	0.40
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.43	0.36
tblVehicleEF	LDT1	3.8480e-003	3.7390e-003
tblVehicleEF	LDT1	8.8800e-004	8.5700e-004
tblVehicleEF	LDT1	0.26	0.23
tblVehicleEF	LDT1	0.45	0.40
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.10	0.07
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.47	0.39

tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	3.02	2.49
tblVehicleEF	LDT1	4.63	4.04
tblVehicleEF	LDT1	420.09	409.31
tblVehicleEF	LDT1	78.82	76.98
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.24	0.20
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	3.7830e-003	3.3990e-003
tblVehicleEF	LDT1	4.9440e-003	4.4130e-003
tblVehicleEF	LDT1	3.4970e-003	3.1370e-003
tblVehicleEF	LDT1	4.5630e-003	4.0640e-003
tblVehicleEF	LDT1	0.67	0.60
tblVehicleEF	LDT1	0.60	0.54
tblVehicleEF	LDT1	0.36	0.33
tblVehicleEF	LDT1	0.08	0.06
tblVehicleEF	LDT1	0.29	0.26
tblVehicleEF	LDT1	0.35	0.30
tblVehicleEF	LDT1	4.2440e-003	4.1270e-003
tblVehicleEF	LDT1	8.7100e-004	8.4200e-004
tblVehicleEF	LDT1	0.67	0.60
tblVehicleEF	LDT1	0.60	0.54
tblVehicleEF	LDT1	0.36	0.33
tblVehicleEF	LDT1	0.11	0.08
tblVehicleEF	LDT1	0.29	0.26
tblVehicleEF	LDT1	0.38	0.32

tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	2.37	1.91
tblVehicleEF	LDT1	6.56	5.79
tblVehicleEF	LDT1	366.70	356.89
tblVehicleEF	LDT1	78.82	76.98
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.28	0.23
tblVehicleEF	LDT1	0.35	0.31
tblVehicleEF	LDT1	3.7830e-003	3.3990e-003
tblVehicleEF	LDT1	4.9440e-003	4.4130e-003
tblVehicleEF	LDT1	3.4970e-003	3.1370e-003
tblVehicleEF	LDT1	4.5630e-003	4.0640e-003
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.47	0.42
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.36	0.32
tblVehicleEF	LDT1	0.49	0.42
tblVehicleEF	LDT1	3.7000e-003	3.5940e-003
tblVehicleEF	LDT1	9.0600e-004	8.7300e-004
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.47	0.42
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.10	0.07
tblVehicleEF	LDT1	0.36	0.32
tblVehicleEF	LDT1	0.54	0.46

tblVehicleEF	LDT2	0.01	9.7300e-003
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	1.23	1.07
tblVehicleEF	LDT2	3.05	2.64
tblVehicleEF	LDT2	438.39	425.57
tblVehicleEF	LDT2	91.06	88.89
tblVehicleEF	LDT2	0.16	0.16
tblVehicleEF	LDT2	0.16	0.14
tblVehicleEF	LDT2	0.28	0.24
tblVehicleEF	LDT2	1.8370e-003	1.8230e-003
tblVehicleEF	LDT2	2.5510e-003	2.4630e-003
tblVehicleEF	LDT2	1.6910e-003	1.6780e-003
tblVehicleEF	LDT2	2.3500e-003	2.2670e-003
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.19	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.23	0.19
tblVehicleEF	LDT2	4.3960e-003	4.2660e-003
tblVehicleEF	LDT2	9.6400e-004	9.3500e-004
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.19	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.25	0.21

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	1.53	1.34
tblVehicleEF	LDT2	2.52	2.18
tblVehicleEF	LDT2	484.63	470.53
tblVehicleEF	LDT2	91.06	88.89
tblVehicleEF	LDT2	0.16	0.16
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.27	0.23
tblVehicleEF	LDT2	1.8370e-003	1.8230e-003
tblVehicleEF	LDT2	2.5510e-003	2.4630e-003
tblVehicleEF	LDT2	1.6910e-003	1.6780e-003
tblVehicleEF	LDT2	2.3500e-003	2.2670e-003
tblVehicleEF	LDT2	0.26	0.24
tblVehicleEF	LDT2	0.25	0.22
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	4.8630e-003	4.7190e-003
tblVehicleEF	LDT2	9.5500e-004	9.2700e-004
tblVehicleEF	LDT2	0.26	0.24
tblVehicleEF	LDT2	0.25	0.22
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.20	0.17

tblVehicleEF	LDT2	0.01	9.2100e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.15	0.99
tblVehicleEF	LDT2	3.55	3.09
tblVehicleEF	LDT2	421.04	408.69
tblVehicleEF	LDT2	91.06	88.89
tblVehicleEF	LDT2	0.16	0.16
tblVehicleEF	LDT2	0.17	0.15
tblVehicleEF	LDT2	0.31	0.26
tblVehicleEF	LDT2	1.8370e-003	1.8230e-003
tblVehicleEF	LDT2	2.5510e-003	2.4630e-003
tblVehicleEF	LDT2	1.6910e-003	1.6780e-003
tblVehicleEF	LDT2	2.3500e-003	2.2670e-003
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.20	0.18
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.26	0.22
tblVehicleEF	LDT2	4.2220e-003	4.0960e-003
tblVehicleEF	LDT2	9.7300e-004	9.4300e-004
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.20	0.18
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.28	0.24

tblVehicleEF	LHD1	5.4190e-003	5.3200e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.68	1.58
tblVehicleEF	LHD1	3.03	2.86
tblVehicleEF	LHD1	9.46	9.47
tblVehicleEF	LHD1	708.94	705.03
tblVehicleEF	LHD1	29.46	29.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	2.59	2.50
tblVehicleEF	LHD1	0.99	0.97
tblVehicleEF	LHD1	1.0810e-003	1.0880e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1020e-003	1.0310e-003
tblVehicleEF	LHD1	1.0340e-003	1.0410e-003
tblVehicleEF	LHD1	2.5520e-003	2.5570e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0170e-003	9.5100e-004
tblVehicleEF	LHD1	3.7460e-003	3.6910e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.5180e-003	1.5210e-003
tblVehicleEF	LHD1	0.18	0.17
tblVehicleEF	LHD1	0.30	0.30

tblVehicleEF	LHD1	0.30	0.29
tblVehicleEF	LHD1	6.9540e-003	6.9130e-003
tblVehicleEF	LHD1	3.5200e-004	3.4500e-004
tblVehicleEF	LHD1	3.7460e-003	3.6910e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.5180e-003	1.5210e-003
tblVehicleEF	LHD1	0.22	0.21
tblVehicleEF	LHD1	0.30	0.30
tblVehicleEF	LHD1	0.33	0.31
tblVehicleEF	LHD1	5.4190e-003	5.3200e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.72	1.62
tblVehicleEF	LHD1	2.82	2.66
tblVehicleEF	LHD1	9.46	9.47
tblVehicleEF	LHD1	708.94	705.03
tblVehicleEF	LHD1	29.46	29.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	2.44	2.35
tblVehicleEF	LHD1	0.93	0.92
tblVehicleEF	LHD1	1.0810e-003	1.0880e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1020e-003	1.0310e-003

tblVehicleEF	LHD1	1.0340e-003	1.0410e-003
tblVehicleEF	LHD1	2.5520e-003	2.5570e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0170e-003	9.5100e-004
tblVehicleEF	LHD1	9.3990e-003	9.2200e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.4110e-003	3.3710e-003
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.30	0.30
tblVehicleEF	LHD1	0.28	0.27
tblVehicleEF	LHD1	6.9550e-003	6.9130e-003
tblVehicleEF	LHD1	3.4800e-004	3.4100e-004
tblVehicleEF	LHD1	9.3990e-003	9.2200e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.4110e-003	3.3710e-003
tblVehicleEF	LHD1	0.22	0.22
tblVehicleEF	LHD1	0.30	0.30
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	5.4190e-003	5.3200e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.66	1.57
tblVehicleEF	LHD1	3.23	3.05
tblVehicleEF	LHD1	9.46	9.47

tblVehicleEF	LHD1	708.94	705.03
tblVehicleEF	LHD1	29.46	29.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	2.62	2.53
tblVehicleEF	LHD1	1.04	1.03
tblVehicleEF	LHD1	1.0810e-003	1.0880e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1020e-003	1.0310e-003
tblVehicleEF	LHD1	1.0340e-003	1.0410e-003
tblVehicleEF	LHD1	2.5520e-003	2.5570e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0170e-003	9.5100e-004
tblVehicleEF	LHD1	1.8740e-003	1.8420e-003
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3300e-004	7.4100e-004
tblVehicleEF	LHD1	0.18	0.17
tblVehicleEF	LHD1	0.32	0.33
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.9540e-003	6.9120e-003
tblVehicleEF	LHD1	3.5500e-004	3.4800e-004
tblVehicleEF	LHD1	1.8740e-003	1.8420e-003
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3300e-004	7.4100e-004

tblVehicleEF	LHD1	0.22	0.21
tblVehicleEF	LHD1	0.32	0.33
tblVehicleEF	LHD1	0.34	0.33
tblVehicleEF	LHD2	4.1270e-003	4.0460e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.96	0.91
tblVehicleEF	LHD2	1.58	1.47
tblVehicleEF	LHD2	14.67	14.66
tblVehicleEF	LHD2	757.07	751.57
tblVehicleEF	LHD2	25.27	25.01
tblVehicleEF	LHD2	8.5100e-003	7.8690e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	2.25	2.10
tblVehicleEF	LHD2	0.62	0.60
tblVehicleEF	LHD2	1.3540e-003	1.3570e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8100e-004	4.4800e-004
tblVehicleEF	LHD2	1.2960e-003	1.2980e-003
tblVehicleEF	LHD2	2.6760e-003	2.6790e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.4200e-004	4.1200e-004
tblVehicleEF	LHD2	1.7430e-003	1.6680e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.01

tblVehicleEF	LHD2	7.2400e-004	7.1200e-004
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	7.3690e-003	7.3140e-003
tblVehicleEF	LHD2	2.8200e-004	2.7800e-004
tblVehicleEF	LHD2	1.7430e-003	1.6680e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.2400e-004	7.1200e-004
tblVehicleEF	LHD2	0.17	0.17
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	4.1270e-003	4.0460e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.97	0.92
tblVehicleEF	LHD2	1.47	1.37
tblVehicleEF	LHD2	14.67	14.66
tblVehicleEF	LHD2	757.07	751.57
tblVehicleEF	LHD2	25.27	25.01
tblVehicleEF	LHD2	8.5100e-003	7.8690e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	2.13	1.98
tblVehicleEF	LHD2	0.58	0.57
tblVehicleEF	LHD2	1.3540e-003	1.3570e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8100e-004	4.4800e-004
tblVehicleEF	LHD2	1.2960e-003	1.2980e-003
tblVehicleEF	LHD2	2.6760e-003	2.6790e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.4200e-004	4.1200e-004
tblVehicleEF	LHD2	4.3420e-003	4.1360e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.5930e-003	1.5420e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	7.3690e-003	7.3140e-003
tblVehicleEF	LHD2	2.8000e-004	2.7600e-004
tblVehicleEF	LHD2	4.3420e-003	4.1360e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5930e-003	1.5420e-003
tblVehicleEF	LHD2	0.17	0.17
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	4.1270e-003	4.0460e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.12

tblVehicleEF	LHD2	0.95	0.90
tblVehicleEF	LHD2	1.70	1.58
tblVehicleEF	LHD2	14.67	14.66
tblVehicleEF	LHD2	757.07	751.57
tblVehicleEF	LHD2	25.27	25.01
tblVehicleEF	LHD2	8.5100e-003	7.8690e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	2.28	2.13
tblVehicleEF	LHD2	0.65	0.64
tblVehicleEF	LHD2	1.3540e-003	1.3570e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8100e-004	4.4800e-004
tblVehicleEF	LHD2	1.2960e-003	1.2980e-003
tblVehicleEF	LHD2	2.6760e-003	2.6790e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.4200e-004	4.1200e-004
tblVehicleEF	LHD2	7.3800e-004	7.0800e-004
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	3.1500e-004	3.1400e-004
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	7.3690e-003	7.3130e-003
tblVehicleEF	LHD2	2.8400e-004	2.8000e-004
tblVehicleEF	LHD2	7.3800e-004	7.0800e-004

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.1500e-004	3.1400e-004
tblVehicleEF	LHD2	0.17	0.17
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.18	0.17
tblVehicleEF	MCY	0.43	0.44
tblVehicleEF	MCY	0.17	0.17
tblVehicleEF	MCY	26.20	25.27
tblVehicleEF	MCY	9.96	9.98
tblVehicleEF	MCY	174.94	175.75
tblVehicleEF	MCY	49.08	48.55
tblVehicleEF	MCY	6.3780e-003	6.2390e-003
tblVehicleEF	MCY	1.23	1.22
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	1.8580e-003	1.8930e-003
tblVehicleEF	MCY	4.4840e-003	4.3170e-003
tblVehicleEF	MCY	1.7500e-003	1.7810e-003
tblVehicleEF	MCY	4.2550e-003	4.0920e-003
tblVehicleEF	MCY	1.57	1.58
tblVehicleEF	MCY	0.95	0.94
tblVehicleEF	MCY	0.86	0.86
tblVehicleEF	MCY	2.63	2.58
tblVehicleEF	MCY	0.60	0.58
tblVehicleEF	MCY	2.29	2.27
tblVehicleEF	MCY	2.2500e-003	2.2420e-003
tblVehicleEF	MCY	7.2100e-004	7.1600e-004

tblVehicleEF	MCY	1.57	1.58
tblVehicleEF	MCY	0.95	0.94
tblVehicleEF	MCY	0.86	0.86
tblVehicleEF	MCY	3.15	3.11
tblVehicleEF	MCY	0.60	0.58
tblVehicleEF	MCY	2.49	2.47
tblVehicleEF	MCY	0.42	0.43
tblVehicleEF	MCY	0.14	0.14
tblVehicleEF	MCY	26.68	25.75
tblVehicleEF	MCY	9.24	9.22
tblVehicleEF	MCY	174.94	175.75
tblVehicleEF	MCY	49.08	48.55
tblVehicleEF	MCY	6.3780e-003	6.2390e-003
tblVehicleEF	MCY	1.05	1.05
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	1.8580e-003	1.8930e-003
tblVehicleEF	MCY	4.4840e-003	4.3170e-003
tblVehicleEF	MCY	1.7500e-003	1.7810e-003
tblVehicleEF	MCY	4.2550e-003	4.0920e-003
tblVehicleEF	MCY	4.21	4.22
tblVehicleEF	MCY	1.45	1.46
tblVehicleEF	MCY	2.31	2.31
tblVehicleEF	MCY	2.54	2.50
tblVehicleEF	MCY	0.59	0.58
tblVehicleEF	MCY	1.94	1.92
tblVehicleEF	MCY	2.2550e-003	2.2470e-003
tblVehicleEF	MCY	6.9800e-004	6.9200e-004

tblVehicleEF	MCY	4.21	4.22
tblVehicleEF	MCY	1.45	1.46
tblVehicleEF	MCY	2.31	2.31
tblVehicleEF	MCY	3.05	3.01
tblVehicleEF	MCY	0.59	0.58
tblVehicleEF	MCY	2.11	2.09
tblVehicleEF	MCY	0.45	0.45
tblVehicleEF	MCY	0.19	0.19
tblVehicleEF	MCY	27.39	26.41
tblVehicleEF	MCY	10.98	11.03
tblVehicleEF	MCY	174.94	175.75
tblVehicleEF	MCY	49.08	48.55
tblVehicleEF	MCY	6.3780e-003	6.2390e-003
tblVehicleEF	MCY	1.30	1.29
tblVehicleEF	MCY	0.33	0.33
tblVehicleEF	MCY	1.8580e-003	1.8930e-003
tblVehicleEF	MCY	4.4840e-003	4.3170e-003
tblVehicleEF	MCY	1.7500e-003	1.7810e-003
tblVehicleEF	MCY	4.2550e-003	4.0920e-003
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	2.73	2.67
tblVehicleEF	MCY	0.68	0.67
tblVehicleEF	MCY	2.62	2.60
tblVehicleEF	MCY	2.2720e-003	2.2630e-003
tblVehicleEF	MCY	7.4800e-004	7.4300e-004

tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	3.27	3.22
tblVehicleEF	MCY	0.68	0.67
tblVehicleEF	MCY	2.85	2.82
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	1.88	1.76
tblVehicleEF	MDV	4.57	4.25
tblVehicleEF	MDV	591.38	579.44
tblVehicleEF	MDV	119.93	118.40
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.26	0.24
tblVehicleEF	MDV	0.45	0.41
tblVehicleEF	MDV	2.5930e-003	2.5250e-003
tblVehicleEF	MDV	2.3910e-003	2.3270e-003
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.38	0.35
tblVehicleEF	MDV	5.9320e-003	5.8110e-003
tblVehicleEF	MDV	1.2810e-003	1.2600e-003
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.21	0.21

tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.08	0.07
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.41	0.38
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.33	2.18
tblVehicleEF	MDV	3.83	3.57
tblVehicleEF	MDV	652.26	639.04
tblVehicleEF	MDV	119.93	118.40
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.24	0.22
tblVehicleEF	MDV	0.42	0.39
tblVehicleEF	MDV	2.5930e-003	2.5250e-003
tblVehicleEF	MDV	2.3910e-003	2.3270e-003
tblVehicleEF	MDV	0.28	0.28
tblVehicleEF	MDV	0.26	0.26
tblVehicleEF	MDV	0.18	0.18
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.31	0.29
tblVehicleEF	MDV	6.5470e-003	6.4120e-003
tblVehicleEF	MDV	1.2680e-003	1.2470e-003
tblVehicleEF	MDV	0.28	0.28
tblVehicleEF	MDV	0.26	0.26
tblVehicleEF	MDV	0.18	0.18
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.34	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	1.77	1.65
tblVehicleEF	MDV	5.40	5.03
tblVehicleEF	MDV	568.34	556.90
tblVehicleEF	MDV	119.93	118.40
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.28	0.25
tblVehicleEF	MDV	0.48	0.45
tblVehicleEF	MDV	2.5930e-003	2.5250e-003
tblVehicleEF	MDV	2.3910e-003	2.3270e-003
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.22	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.15	0.15
tblVehicleEF	MDV	0.43	0.40
tblVehicleEF	MDV	5.7000e-003	5.5840e-003
tblVehicleEF	MDV	1.2960e-003	1.2740e-003
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.22	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.15	0.15
tblVehicleEF	MDV	0.48	0.44

tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	6.92	5.52
tblVehicleEF	MH	9.47	8.43
tblVehicleEF	MH	1,249.50	1,245.04
tblVehicleEF	MH	68.71	64.21
tblVehicleEF	MH	1.2160e-003	1.1150e-003
tblVehicleEF	MH	2.32	2.22
tblVehicleEF	MH	1.05	1.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.7900e-003	2.1480e-003
tblVehicleEF	MH	3.2410e-003	3.2440e-003
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	2.6150e-003	2.0040e-003
tblVehicleEF	MH	1.95	1.82
tblVehicleEF	MH	0.12	0.11
tblVehicleEF	MH	0.54	0.51
tblVehicleEF	MH	0.28	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.65	0.55
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.5600e-004	7.9100e-004
tblVehicleEF	MH	1.95	1.82
tblVehicleEF	MH	0.12	0.11
tblVehicleEF	MH	0.54	0.51
tblVehicleEF	MH	0.36	0.30

tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.71	0.60
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	7.16	5.73
tblVehicleEF	MH	8.84	7.76
tblVehicleEF	MH	1,249.50	1,245.04
tblVehicleEF	MH	68.71	64.21
tblVehicleEF	MH	1.2160e-003	1.1150e-003
tblVehicleEF	MH	2.13	2.04
tblVehicleEF	MH	0.99	0.95
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.7900e-003	2.1480e-003
tblVehicleEF	MH	3.2410e-003	3.2440e-003
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	2.6150e-003	2.0040e-003
tblVehicleEF	MH	4.92	4.57
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	1.23	1.15
tblVehicleEF	MH	0.28	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.61	0.51
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4500e-004	7.8000e-004
tblVehicleEF	MH	4.92	4.57
tblVehicleEF	MH	0.14	0.13

tblVehicleEF	MH	1.23	1.15
tblVehicleEF	MH	0.36	0.30
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.67	0.56
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	6.96	5.51
tblVehicleEF	MH	10.08	9.01
tblVehicleEF	MH	1,249.50	1,245.04
tblVehicleEF	MH	68.71	64.21
tblVehicleEF	MH	1.2160e-003	1.1150e-003
tblVehicleEF	MH	2.36	2.26
tblVehicleEF	MH	1.09	1.05
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.7900e-003	2.1480e-003
tblVehicleEF	MH	3.2410e-003	3.2440e-003
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	2.6150e-003	2.0040e-003
tblVehicleEF	MH	1.14	1.07
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.34	0.32
tblVehicleEF	MH	0.28	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.68	0.58
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.6700e-004	8.0100e-004

tblVehicleEF	MH	1.14	1.07
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.34	0.32
tblVehicleEF	MH	0.36	0.30
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.75	0.63
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.61	0.57
tblVehicleEF	MHD	1.25	1.07
tblVehicleEF	MHD	8.91	7.90
tblVehicleEF	MHD	172.64	174.53
tblVehicleEF	MHD	1,225.84	1,223.38
tblVehicleEF	MHD	53.21	50.52
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.75	1.65
tblVehicleEF	MHD	4.31	3.92
tblVehicleEF	MHD	12.84	12.96
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	1.5450e-003	1.2480e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.11
tblVehicleEF	MHD	1.4350e-003	1.1550e-003
tblVehicleEF	MHD	2.6270e-003	2.2940e-003
tblVehicleEF	MHD	0.07	0.06

tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	1.0570e-003	9.3100e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.56	0.49
tblVehicleEF	MHD	1.6570e-003	1.6750e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.9000e-004	6.4400e-004
tblVehicleEF	MHD	2.6270e-003	2.2940e-003
tblVehicleEF	MHD	0.07	0.06
tblVehicleEF	MHD	0.07	0.07
tblVehicleEF	MHD	1.0570e-003	9.3100e-004
tblVehicleEF	MHD	0.34	0.30
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.61	0.53
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.43	0.41
tblVehicleEF	MHD	1.27	1.09
tblVehicleEF	MHD	8.38	7.39
tblVehicleEF	MHD	183.00	184.99
tblVehicleEF	MHD	1,225.84	1,223.38
tblVehicleEF	MHD	53.21	50.52
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.80	1.70
tblVehicleEF	MHD	4.07	3.71

tblVehicleEF	MHD	12.78	12.90
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	1.5450e-003	1.2480e-003
tblVehicleEF	MHD	0.01	9.6810e-003
tblVehicleEF	MHD	0.12	0.11
tblVehicleEF	MHD	1.4350e-003	1.1550e-003
tblVehicleEF	MHD	6.7660e-003	5.8790e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	2.4710e-003	2.1540e-003
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.53	0.46
tblVehicleEF	MHD	1.7550e-003	1.7740e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.8000e-004	6.3500e-004
tblVehicleEF	MHD	6.7660e-003	5.8790e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.07	0.07
tblVehicleEF	MHD	2.4710e-003	2.1540e-003
tblVehicleEF	MHD	0.34	0.30
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.58	0.50
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09

tblVehicleEF	MHD	0.82	0.77
tblVehicleEF	MHD	1.24	1.07
tblVehicleEF	MHD	9.58	8.50
tblVehicleEF	MHD	158.61	160.34
tblVehicleEF	MHD	1,225.84	1,223.38
tblVehicleEF	MHD	53.21	50.52
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.67	1.57
tblVehicleEF	MHD	4.38	3.99
tblVehicleEF	MHD	12.91	13.02
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	1.5450e-003	1.2480e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.12	0.11
tblVehicleEF	MHD	1.4350e-003	1.1550e-003
tblVehicleEF	MHD	1.0380e-003	9.1000e-004
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	4.2100e-004	3.7500e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.59	0.51
tblVehicleEF	MHD	1.5250e-003	1.5410e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0100e-004	6.5500e-004
tblVehicleEF	MHD	1.0380e-003	9.1000e-004

tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.08	0.08
tblVehicleEF	MHD	4.2100e-004	3.7500e-004
tblVehicleEF	MHD	0.34	0.30
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.65	0.56
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.31	0.29
tblVehicleEF	OBUS	1.59	1.31
tblVehicleEF	OBUS	8.33	7.69
tblVehicleEF	OBUS	86.48	86.44
tblVehicleEF	OBUS	1,345.85	1,338.73
tblVehicleEF	OBUS	74.74	73.13
tblVehicleEF	OBUS	1.6740e-003	1.6570e-003
tblVehicleEF	OBUS	0.62	0.55
tblVehicleEF	OBUS	2.36	2.09
tblVehicleEF	OBUS	2.43	2.36
tblVehicleEF	OBUS	1.0420e-003	3.3000e-004
tblVehicleEF	OBUS	0.02	9.6130e-003
tblVehicleEF	OBUS	1.1850e-003	1.0190e-003
tblVehicleEF	OBUS	9.9700e-004	3.1600e-004
tblVehicleEF	OBUS	0.02	9.1760e-003
tblVehicleEF	OBUS	1.1050e-003	9.4600e-004
tblVehicleEF	OBUS	2.6970e-003	2.5520e-003
tblVehicleEF	OBUS	0.03	0.02

tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	8.8500e-004	8.4900e-004
tblVehicleEF	OBUS	0.12	0.10
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.54	0.49
tblVehicleEF	OBUS	8.3800e-004	8.3700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.9500e-004	8.6700e-004
tblVehicleEF	OBUS	2.6970e-003	2.5520e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	8.8500e-004	8.4900e-004
tblVehicleEF	OBUS	0.16	0.13
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.59	0.54
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.29	0.27
tblVehicleEF	OBUS	1.63	1.34
tblVehicleEF	OBUS	7.66	7.04
tblVehicleEF	OBUS	90.57	90.53
tblVehicleEF	OBUS	1,345.85	1,338.73
tblVehicleEF	OBUS	74.74	73.13
tblVehicleEF	OBUS	1.6740e-003	1.6570e-003
tblVehicleEF	OBUS	0.64	0.57
tblVehicleEF	OBUS	2.21	1.96

tblVehicleEF	OBUS	2.35	2.29
tblVehicleEF	OBUS	8.7900e-004	2.7900e-004
tblVehicleEF	OBUS	0.02	9.6130e-003
tblVehicleEF	OBUS	1.1850e-003	1.0190e-003
tblVehicleEF	OBUS	8.4100e-004	2.6700e-004
tblVehicleEF	OBUS	0.02	9.1760e-003
tblVehicleEF	OBUS	1.1050e-003	9.4600e-004
tblVehicleEF	OBUS	6.7580e-003	6.3390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	1.9480e-003	1.8370e-003
tblVehicleEF	OBUS	0.13	0.10
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.51	0.46
tblVehicleEF	OBUS	8.7700e-004	8.7600e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.8300e-004	8.5600e-004
tblVehicleEF	OBUS	6.7580e-003	6.3390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.9480e-003	1.8370e-003
tblVehicleEF	OBUS	0.16	0.13
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.56	0.51
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.04

tblVehicleEF	OBUS	0.33	0.31
tblVehicleEF	OBUS	1.56	1.29
tblVehicleEF	OBUS	9.04	8.37
tblVehicleEF	OBUS	80.83	80.78
tblVehicleEF	OBUS	1,345.85	1,338.73
tblVehicleEF	OBUS	74.74	73.13
tblVehicleEF	OBUS	1.6740e-003	1.6570e-003
tblVehicleEF	OBUS	0.59	0.53
tblVehicleEF	OBUS	2.40	2.12
tblVehicleEF	OBUS	2.50	2.43
tblVehicleEF	OBUS	1.2680e-003	4.0200e-004
tblVehicleEF	OBUS	0.02	9.6130e-003
tblVehicleEF	OBUS	1.1850e-003	1.0190e-003
tblVehicleEF	OBUS	1.2130e-003	3.8500e-004
tblVehicleEF	OBUS	0.02	9.1760e-003
tblVehicleEF	OBUS	1.1050e-003	9.4600e-004
tblVehicleEF	OBUS	1.2640e-003	1.1740e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.7700e-004	4.5800e-004
tblVehicleEF	OBUS	0.12	0.10
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.57	0.52
tblVehicleEF	OBUS	7.8400e-004	7.8300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.0700e-004	8.7900e-004
tblVehicleEF	OBUS	1.2640e-003	1.1740e-003

tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	4.7700e-004	4.5800e-004
tblVehicleEF	OBUS	0.16	0.13
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.63	0.57
tblVehicleEF	SBUS	0.86	0.85
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.15	0.13
tblVehicleEF	SBUS	5.73	5.49
tblVehicleEF	SBUS	2.39	1.78
tblVehicleEF	SBUS	10.46	9.21
tblVehicleEF	SBUS	1,281.52	1,289.34
tblVehicleEF	SBUS	1,138.30	1,136.60
tblVehicleEF	SBUS	35.51	35.36
tblVehicleEF	SBUS	1.0580e-003	1.0260e-003
tblVehicleEF	SBUS	14.79	14.36
tblVehicleEF	SBUS	6.80	6.24
tblVehicleEF	SBUS	15.81	15.74
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	9.8900e-004	8.2200e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	2.7310e-003	2.7340e-003
tblVehicleEF	SBUS	0.06	0.03
tblVehicleEF	SBUS	9.0900e-004	7.5600e-004

tblVehicleEF	SBUS	0.01	9.2870e-003
tblVehicleEF	SBUS	0.06	0.06
tblVehicleEF	SBUS	0.70	0.66
tblVehicleEF	SBUS	2.7750e-003	2.4090e-003
tblVehicleEF	SBUS	0.23	0.17
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.55	0.47
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	5.3700e-004	5.1300e-004
tblVehicleEF	SBUS	0.01	9.2870e-003
tblVehicleEF	SBUS	0.06	0.06
tblVehicleEF	SBUS	0.98	0.94
tblVehicleEF	SBUS	2.7750e-003	2.4090e-003
tblVehicleEF	SBUS	0.28	0.21
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.60	0.52
tblVehicleEF	SBUS	0.85	0.85
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.12	0.10
tblVehicleEF	SBUS	5.48	5.31
tblVehicleEF	SBUS	2.46	1.83
tblVehicleEF	SBUS	6.81	5.99
tblVehicleEF	SBUS	1,347.25	1,355.59
tblVehicleEF	SBUS	1,138.30	1,136.60
tblVehicleEF	SBUS	35.51	35.36
tblVehicleEF	SBUS	1.0580e-003	1.0260e-003

tblVehicleEF	SBUS	15.26	14.82
tblVehicleEF	SBUS	6.40	5.88
tblVehicleEF	SBUS	15.75	15.69
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	9.8900e-004	8.2200e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	2.7310e-003	2.7340e-003
tblVehicleEF	SBUS	0.06	0.03
tblVehicleEF	SBUS	9.0900e-004	7.5600e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.69	0.65
tblVehicleEF	SBUS	6.3490e-003	5.4590e-003
tblVehicleEF	SBUS	0.23	0.17
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.43	0.37
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.7600e-004	4.5900e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.97	0.93
tblVehicleEF	SBUS	6.3490e-003	5.4590e-003
tblVehicleEF	SBUS	0.29	0.21
tblVehicleEF	SBUS	0.04	0.03

tblVehicleEF	SBUS	0.47	0.41
tblVehicleEF	SBUS	0.86	0.85
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.17	0.15
tblVehicleEF	SBUS	6.08	5.74
tblVehicleEF	SBUS	2.33	1.73
tblVehicleEF	SBUS	14.25	12.51
tblVehicleEF	SBUS	1,190.74	1,197.87
tblVehicleEF	SBUS	1,138.30	1,136.60
tblVehicleEF	SBUS	35.51	35.36
tblVehicleEF	SBUS	1.0580e-003	1.0260e-003
tblVehicleEF	SBUS	14.13	13.72
tblVehicleEF	SBUS	6.91	6.34
tblVehicleEF	SBUS	15.87	15.80
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	9.8900e-004	8.2200e-004
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	2.7310e-003	2.7340e-003
tblVehicleEF	SBUS	0.06	0.03
tblVehicleEF	SBUS	9.0900e-004	7.5600e-004
tblVehicleEF	SBUS	4.2810e-003	3.6680e-003
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.71	0.66
tblVehicleEF	SBUS	1.3430e-003	1.1820e-003
tblVehicleEF	SBUS	0.22	0.17

tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.66	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.0000e-004	5.6800e-004
tblVehicleEF	SBUS	4.2810e-003	3.6680e-003
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.99	0.94
tblVehicleEF	SBUS	1.3430e-003	1.1820e-003
tblVehicleEF	SBUS	0.28	0.21
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.72	0.62
tblVehicleEF	UBUS	1.84	1.73
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	9.55	8.98
tblVehicleEF	UBUS	12.29	11.93
tblVehicleEF	UBUS	2,030.45	2,008.01
tblVehicleEF	UBUS	103.02	106.62
tblVehicleEF	UBUS	2.0580e-003	1.9600e-003
tblVehicleEF	UBUS	9.57	8.68
tblVehicleEF	UBUS	15.55	15.24
tblVehicleEF	UBUS	0.60	0.59
tblVehicleEF	UBUS	0.14	0.13
tblVehicleEF	UBUS	8.7200e-004	9.0600e-004
tblVehicleEF	UBUS	0.26	0.25
tblVehicleEF	UBUS	0.14	0.12
tblVehicleEF	UBUS	8.0300e-004	8.3500e-004

tblVehicleEF	UBUS	6.9500e-003	6.8290e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5810e-003	2.5720e-003
tblVehicleEF	UBUS	0.79	0.72
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.87	0.86
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.2500e-003	1.2800e-003
tblVehicleEF	UBUS	6.9500e-003	6.8290e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5810e-003	2.5720e-003
tblVehicleEF	UBUS	2.71	2.53
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.96	0.94
tblVehicleEF	UBUS	1.84	1.74
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	9.63	9.05
tblVehicleEF	UBUS	9.99	9.70
tblVehicleEF	UBUS	2,030.45	2,008.01
tblVehicleEF	UBUS	103.02	106.62
tblVehicleEF	UBUS	2.0580e-003	1.9600e-003
tblVehicleEF	UBUS	9.03	8.19
tblVehicleEF	UBUS	15.46	15.15
tblVehicleEF	UBUS	0.60	0.59
tblVehicleEF	UBUS	0.14	0.13
tblVehicleEF	UBUS	8.7200e-004	9.0600e-004
tblVehicleEF	UBUS	0.26	0.25

tblVehicleEF	UBUS	0.14	0.12
tblVehicleEF	UBUS	8.0300e-004	8.3500e-004
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.0190e-003	5.9350e-003
tblVehicleEF	UBUS	0.80	0.72
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.77	0.76
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.2110e-003	1.2420e-003
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.0190e-003	5.9350e-003
tblVehicleEF	UBUS	2.72	2.54
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.84	0.83
tblVehicleEF	UBUS	1.84	1.73
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	9.48	8.91
tblVehicleEF	UBUS	14.83	14.38
tblVehicleEF	UBUS	2,030.45	2,008.01
tblVehicleEF	UBUS	103.02	106.62
tblVehicleEF	UBUS	2.0580e-003	1.9600e-003
tblVehicleEF	UBUS	9.75	8.84
tblVehicleEF	UBUS	15.65	15.34
tblVehicleEF	UBUS	0.60	0.59
tblVehicleEF	UBUS	0.14	0.13

tblVehicleEF	UBUS	8.7200e-004	9.0600e-004
tblVehicleEF	UBUS	0.26	0.25
tblVehicleEF	UBUS	0.14	0.12
tblVehicleEF	UBUS	8.0300e-004	8.3500e-004
tblVehicleEF	UBUS	2.9060e-003	2.8750e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	1.2030e-003	1.2200e-003
tblVehicleEF	UBUS	0.78	0.71
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.98	0.96
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.2930e-003	1.3220e-003
tblVehicleEF	UBUS	2.9060e-003	2.8750e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	1.2030e-003	1.2200e-003
tblVehicleEF	UBUS	2.70	2.52
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.07	1.05

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3483	2.0558	1.5240	2.3600e-003	0.0180	0.1305	0.1485	8.6300e-003	0.1256	0.1343	0.0000	199.4859	199.4859	0.0424	0.0000	200.5451
Maximum	**0.3483**	**2.0558**	**1.5240**	**2.3600e-003**	**0.0180**	**0.1305**	**0.1485**	**8.6300e-003**	**0.1256**	**0.1343**	**0.0000**	**199.4859**	**199.4859**	**0.0424**	**0.0000**	**200.5451**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3483	2.0558	1.5240	2.3600e-003	0.0180	0.1305	0.1485	8.6300e-003	0.1256	0.1343	0.0000	199.4857	199.4857	0.0424	0.0000	200.5448
Maximum	**0.3483**	**2.0558**	**1.5240**	**2.3600e-003**	**0.0180**	**0.1305**	**0.1485**	**8.6300e-003**	**0.1256**	**0.1343**	**0.0000**	**199.4857**	**199.4857**	**0.0424**	**0.0000**	**200.5448**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	0.7108	0.7108
2	**4-2-2017**	**7-1-2017**	0.7220	0.7220
3	**7-2-2017**	**9-30-2017**	0.7220	0.7220
		Highest	0.7220	0.7220

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Energy	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	6.4260	6.4260	2.1000e-004	8.0000e-005	6.4552
Mobile	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276
Waste						0.0000	0.0000		0.0000	0.0000	0.1868	0.0000	0.1868	0.0110	0.0000	0.4627
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.8314	0.8728	4.2800e-003	1.1000e-004	1.0118
Total	**0.1441**	**0.0238**	**0.2338**	**4.7000e-004**	**0.0143**	**0.0222**	**0.0364**	**3.8200e-003**	**0.0222**	**0.0260**	**2.2940**	**24.2527**	**26.5467**	**0.0184**	**3.5000e-004**	**27.1104**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Energy	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	6.4260	6.4260	2.1000e-004	8.0000e-005	6.4552
Mobile	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276
Waste						0.0000	0.0000		0.0000	0.0000	0.1868	0.0000	0.1868	0.0110	0.0000	0.4627
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.8314	0.8728	4.2800e-003	1.1000e-004	1.0118
Total	**0.1441**	**0.0238**	**0.2338**	**4.7000e-004**	**0.0143**	**0.0222**	**0.0364**	**3.8200e-003**	**0.0222**	**0.0260**	**2.2940**	**24.2527**	**26.5467**	**0.0184**	**3.5000e-004**	**27.1104**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/3/2017	5	2	
2	Grading	Grading	1/4/2017	1/9/2017	5	4	
3	Building Construction	Building Construction	1/10/2017	10/16/2017	5	200	
4	Paving	Paving	10/17/2017	10/30/2017	5	10	
5	Architectural Coating	Architectural Coating	10/31/2017	11/13/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 4,860; Residential Outdoor: 1,620; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9300e-003	0.0222	8.4000e-003	2.0000e-005		1.0500e-003	1.0500e-003		9.6000e-004	9.6000e-004	0.0000	1.6005	1.6005	4.9000e-004	0.0000	1.6128
Total	**1.9300e-003**	**0.0222**	**8.4000e-003**	**2.0000e-005**	**5.8000e-003**	**1.0500e-003**	**6.8500e-003**	**2.9500e-003**	**9.6000e-004**	**3.9100e-003**	**0.0000**	**1.6005**	**1.6005**	**4.9000e-004**	**0.0000**	**1.6128**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1002	0.1002	0.0000	0.0000	0.1003
Total	**6.0000e-005**	**5.0000e-005**	**4.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1002**	**0.1002**	**0.0000**	**0.0000**	**0.1003**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9300e-003	0.0222	8.4000e-003	2.0000e-005		1.0500e-003	1.0500e-003		9.6000e-004	9.6000e-004	0.0000	1.6005	1.6005	4.9000e-004	0.0000	1.6128
Total	**1.9300e-003**	**0.0222**	**8.4000e-003**	**2.0000e-005**	**5.8000e-003**	**1.0500e-003**	**6.8500e-003**	**2.9500e-003**	**9.6000e-004**	**3.9100e-003**	**0.0000**	**1.6005**	**1.6005**	**4.9000e-004**	**0.0000**	**1.6128**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1002	0.1002	0.0000	0.0000	0.1003
Total	**6.0000e-005**	**5.0000e-005**	**4.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1002**	**0.1002**	**0.0000**	**0.0000**	**0.1003**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-003	0.0366	0.0141	3.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	2.6216	2.6216	8.0000e-004	0.0000	2.6417
Total	**3.2000e-003**	**0.0366**	**0.0141**	**3.0000e-005**	**9.8300e-003**	**1.7500e-003**	**0.0116**	**5.0500e-003**	**1.6100e-003**	**6.6600e-003**	**0.0000**	**2.6216**	**2.6216**	**8.0000e-004**	**0.0000**	**2.6417**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.2004	0.2004	1.0000e-005	0.0000	0.2005
Total	**1.2000e-004**	**9.0000e-005**	**9.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.2004**	**0.2004**	**1.0000e-005**	**0.0000**	**0.2005**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-003	0.0366	0.0141	3.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	2.6216	2.6216	8.0000e-004	0.0000	2.6417
Total	**3.2000e-003**	**0.0366**	**0.0141**	**3.0000e-005**	**9.8300e-003**	**1.7500e-003**	**0.0116**	**5.0500e-003**	**1.6100e-003**	**6.6600e-003**	**0.0000**	**2.6216**	**2.6216**	**8.0000e-004**	**0.0000**	**2.6417**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	9.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.2004	0.2004	1.0000e-005	0.0000	0.2005
Total	**1.2000e-004**	**9.0000e-005**	**9.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.2004**	**0.2004**	**1.0000e-005**	**0.0000**	**0.2005**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.2965	1.9237	1.4357	2.2000e-003		0.1231	0.1231		0.1188	0.1188	0.0000	185.4162	185.4162	0.0390	0.0000	186.3909
Total	**0.2965**	**1.9237**	**1.4357**	**2.2000e-003**		**0.1231**	**0.1231**		**0.1188**	**0.1188**	**0.0000**	**185.4162**	**185.4162**	**0.0390**	**0.0000**	**186.3909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.9000e-004	5.6600e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.2522	1.2522	4.0000e-005	0.0000	1.2533
Total	**7.6000e-004**	**5.9000e-004**	**5.6600e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.2522**	**1.2522**	**4.0000e-005**	**0.0000**	**1.2533**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.2965	1.9237	1.4357	2.2000e-003		0.1231	0.1231		0.1188	0.1188	0.0000	185.4160	185.4160	0.0390	0.0000	186.3907
Total	**0.2965**	**1.9237**	**1.4357**	**2.2000e-003**		**0.1231**	**0.1231**		**0.1188**	**0.1188**	**0.0000**	**185.4160**	**185.4160**	**0.0390**	**0.0000**	**186.3907**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.9000e-004	5.6600e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.2522	1.2522	4.0000e-005	0.0000	1.2533
Total	**7.6000e-004**	**5.9000e-004**	**5.6600e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.2522**	**1.2522**	**4.0000e-005**	**0.0000**	**1.2533**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	6.0000e-003	0.0613	0.0458	7.0000e-005		3.7100e-003	3.7100e-003		3.4200e-003	3.4200e-003	0.0000	6.2044	6.2044	1.8700e-003	0.0000	6.2510
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.0000e-003**	**0.0613**	**0.0458**	**7.0000e-005**		**3.7100e-003**	**3.7100e-003**		**3.4200e-003**	**3.4200e-003**	**0.0000**	**6.2044**	**6.2044**	**1.8700e-003**	**0.0000**	**6.2510**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.9000e-004	3.6800e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.8139	0.8139	3.0000e-005	0.0000	0.8146
Total	**4.9000e-004**	**3.9000e-004**	**3.6800e-003**	**1.0000e-005**	**8.1000e-004**	**1.0000e-005**	**8.2000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.8139**	**0.8139**	**3.0000e-005**	**0.0000**	**0.8146**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	6.0000e-003	0.0613	0.0458	7.0000e-005		3.7100e-003	3.7100e-003		3.4200e-003	3.4200e-003	0.0000	6.2044	6.2044	1.8700e-003	0.0000	6.2510
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.0000e-003**	**0.0613**	**0.0458**	**7.0000e-005**		**3.7100e-003**	**3.7100e-003**		**3.4200e-003**	**3.4200e-003**	**0.0000**	**6.2044**	**6.2044**	**1.8700e-003**	**0.0000**	**6.2510**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.9000e-004	3.6800e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.8139	0.8139	3.0000e-005	0.0000	0.8146
Total	**4.9000e-004**	**3.9000e-004**	**3.6800e-003**	**1.0000e-005**	**8.1000e-004**	**1.0000e-005**	**8.2000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.8139**	**0.8139**	**3.0000e-005**	**0.0000**	**0.8146**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2800
Total	**0.0392**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2800**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2800
Total	**0.0392**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2800**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276
Unmitigated	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Mobile Home Park	9.98	10.00	8.72	37,691	37,691
Total	9.98	10.00	8.72	37,691	37,691

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Mobile Home Park	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Mobile Home Park	0.512500	0.213300	0.168800	0.060900	0.002100	0.001000	0.009400	0.021800	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.8295	3.8295	1.6000e-004	3.0000e-005	3.8432
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.8295	3.8295	1.6000e-004	3.0000e-005	3.8432
NaturalGas Mitigated	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120
NaturalGas Unmitigated	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Mobile Home Park	48657	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120
Total		**2.6000e-004**	**2.2400e-003**	**9.5000e-004**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**2.5965**	**2.5965**	**5.0000e-005**	**5.0000e-005**	**2.6120**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Mobile Home Park	48657	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120
Total		**2.6000e-004**	**2.2400e-003**	**9.5000e-004**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**2.5965**	**2.5965**	**5.0000e-005**	**5.0000e-005**	**2.6120**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	12019	3.8295	1.6000e-004	3.0000e-005	3.8432
Total		**3.8295**	**1.6000e-004**	**3.0000e-005**	**3.8432**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	12019	3.8295	1.6000e-004	3.0000e-005	3.8432
Total		**3.8295**	**1.6000e-004**	**3.0000e-005**	**3.8432**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Unmitigated	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1255	2.4500e-003	0.1549	2.8000e-004		0.0217	0.0217		0.0217	0.0217	2.0659	0.8664	2.9323	1.9100e-003	1.6000e-004	3.0284
Landscaping	4.7000e-004	1.7000e-004	0.0150	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.1391**	**2.6200e-003**	**0.1699**	**2.8000e-004**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**2.0659**	**0.8907**	**2.9566**	**1.9300e-003**	**1.6000e-004**	**3.0533**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1255	2.4500e-003	0.1549	2.8000e-004		0.0217	0.0217		0.0217	0.0217	2.0659	0.8664	2.9323	1.9100e-003	1.6000e-004	3.0284
Landscaping	4.7000e-004	1.7000e-004	0.0150	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.1391**	**2.6200e-003**	**0.1699**	**2.8000e-004**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**2.0659**	**0.8907**	**2.9566**	**1.9300e-003**	**1.6000e-004**	**3.0533**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8728	4.2800e-003	1.1000e-004	1.0118
Unmitigated	0.8728	4.2800e-003	1.1000e-004	1.0118

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	0.130308 / 0.0821507	0.8728	4.2800e-003	1.1000e-004	1.0118
Total		**0.8728**	**4.2800e-003**	**1.1000e-004**	**1.0118**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	0.130308 / 0.0821507	0.8728	4.2800e-003	1.1000e-004	1.0118
Total		**0.8728**	**4.2800e-003**	**1.1000e-004**	**1.0118**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1868	0.0110	0.0000	0.4627
Unmitigated	0.1868	0.0110	0.0000	0.4627

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	0.92	0.1868	0.0110	0.0000	0.4627
Total		**0.1868**	**0.0110**	**0.0000**	**0.4627**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	0.92	0.1868	0.0110	0.0000	0.4627
Total		**0.1868**	**0.0110**	**0.0000**	**0.4627**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11673

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Mobile Home Park	2.00	Dwelling Unit	5.01	2,400.00	6

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2017 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02

tblFleetMix	LDA	0.45	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	8.5100e-003	1.0000e-003
tblFleetMix	MCY	6.3780e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.2160e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.4000e-003
tblFleetMix	OBUS	1.6740e-003	0.00
tblFleetMix	SBUS	1.0580e-003	1.0000e-003
tblFleetMix	UBUS	2.0580e-003	3.8000e-003
tblLandUse	LotAcreage	0.25	5.01
tblProjectCharacteristics	OperationalYear	2018	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleEF	HHD	2.22	2.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.14	0.11
tblVehicleEF	HHD	4.45	4.11
tblVehicleEF	HHD	0.77	0.70
tblVehicleEF	HHD	1.46	1.32
tblVehicleEF	HHD	6,740.67	6,792.92
tblVehicleEF	HHD	1,631.45	1,612.45
tblVehicleEF	HHD	4.28	3.98
tblVehicleEF	HHD	0.14	0.14
tblVehicleEF	HHD	32.80	31.25
tblVehicleEF	HHD	4.96	4.48

tblVehicleEF	HHD	20.43	20.44
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	7.9000e-005	5.1000e-005
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9410e-003	8.9440e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	7.5000e-005	4.8000e-005
tblVehicleEF	HHD	7.7000e-005	6.2000e-005
tblVehicleEF	HHD	3.4440e-003	2.5500e-003
tblVehicleEF	HHD	1.21	1.10
tblVehicleEF	HHD	3.8000e-005	3.1000e-005
tblVehicleEF	HHD	0.17	0.14
tblVehicleEF	HHD	1.9600e-004	1.5000e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	6.7000e-005	6.2000e-005
tblVehicleEF	HHD	7.7000e-005	6.2000e-005
tblVehicleEF	HHD	3.4440e-003	2.5500e-003
tblVehicleEF	HHD	1.38	1.25
tblVehicleEF	HHD	3.8000e-005	3.1000e-005
tblVehicleEF	HHD	0.19	0.17
tblVehicleEF	HHD	1.9600e-004	1.5000e-004

tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	2.10	1.94
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.13	0.11
tblVehicleEF	HHD	3.27	3.01
tblVehicleEF	HHD	0.77	0.70
tblVehicleEF	HHD	1.39	1.25
tblVehicleEF	HHD	7,129.75	7,188.52
tblVehicleEF	HHD	1,631.45	1,612.45
tblVehicleEF	HHD	4.28	3.98
tblVehicleEF	HHD	0.14	0.14
tblVehicleEF	HHD	33.82	32.23
tblVehicleEF	HHD	4.71	4.24
tblVehicleEF	HHD	20.43	20.43
tblVehicleEF	HHD	0.05	0.03
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	7.9000e-005	5.1000e-005
tblVehicleEF	HHD	0.05	0.03
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9410e-003	8.9440e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	7.5000e-005	4.8000e-005
tblVehicleEF	HHD	2.0000e-004	1.5900e-004
tblVehicleEF	HHD	4.1430e-003	3.0330e-003
tblVehicleEF	HHD	1.14	1.04

tblVehicleEF	HHD	8.9000e-005	7.1000e-005
tblVehicleEF	HHD	0.17	0.14
tblVehicleEF	HHD	2.0200e-004	1.5500e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	6.6000e-005	6.1000e-005
tblVehicleEF	HHD	2.0000e-004	1.5900e-004
tblVehicleEF	HHD	4.1430e-003	3.0330e-003
tblVehicleEF	HHD	1.31	1.18
tblVehicleEF	HHD	8.9000e-005	7.1000e-005
tblVehicleEF	HHD	0.19	0.17
tblVehicleEF	HHD	2.0200e-004	1.5500e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	2.38	2.20
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.14	0.12
tblVehicleEF	HHD	6.07	5.64
tblVehicleEF	HHD	0.77	0.70
tblVehicleEF	HHD	1.56	1.42
tblVehicleEF	HHD	6,203.36	6,246.62
tblVehicleEF	HHD	1,631.45	1,612.45
tblVehicleEF	HHD	4.28	3.98
tblVehicleEF	HHD	0.14	0.14
tblVehicleEF	HHD	31.39	29.89
tblVehicleEF	HHD	5.04	4.54
tblVehicleEF	HHD	20.44	20.44

tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.04	0.03
tblVehicleEF	HHD	7.9000e-005	5.1000e-005
tblVehicleEF	HHD	0.06	0.04
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.9410e-003	8.9440e-003
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	7.5000e-005	4.8000e-005
tblVehicleEF	HHD	3.5000e-005	2.6000e-005
tblVehicleEF	HHD	4.0010e-003	2.8180e-003
tblVehicleEF	HHD	1.30	1.18
tblVehicleEF	HHD	1.6000e-005	1.3000e-005
tblVehicleEF	HHD	0.17	0.14
tblVehicleEF	HHD	2.1000e-004	1.6100e-004
tblVehicleEF	HHD	0.05	0.04
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	6.9000e-005	6.3000e-005
tblVehicleEF	HHD	3.5000e-005	2.6000e-005
tblVehicleEF	HHD	4.0010e-003	2.8180e-003
tblVehicleEF	HHD	1.48	1.34
tblVehicleEF	HHD	1.6000e-005	1.3000e-005
tblVehicleEF	HHD	0.19	0.17
tblVehicleEF	HHD	2.1000e-004	1.6100e-004
tblVehicleEF	HHD	0.06	0.05

tblVehicleEF	LDA	6.9930e-003	6.0980e-003
tblVehicleEF	LDA	0.01	9.2100e-003
tblVehicleEF	LDA	0.80	0.70
tblVehicleEF	LDA	2.01	1.74
tblVehicleEF	LDA	322.14	310.64
tblVehicleEF	LDA	66.40	64.53
tblVehicleEF	LDA	0.45	0.46
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.14	0.12
tblVehicleEF	LDA	1.8240e-003	1.8390e-003
tblVehicleEF	LDA	2.3990e-003	2.3570e-003
tblVehicleEF	LDA	1.6830e-003	1.6960e-003
tblVehicleEF	LDA	2.2090e-003	2.1680e-003
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.15	0.12
tblVehicleEF	LDA	3.2280e-003	3.1110e-003
tblVehicleEF	LDA	6.9900e-004	6.7500e-004
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	0.05	0.05
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.16	0.14

tblVehicleEF	LDA	8.1330e-003	7.1110e-003
tblVehicleEF	LDA	9.1480e-003	7.5710e-003
tblVehicleEF	LDA	1.01	0.89
tblVehicleEF	LDA	1.68	1.44
tblVehicleEF	LDA	357.32	344.57
tblVehicleEF	LDA	66.40	64.53
tblVehicleEF	LDA	0.45	0.46
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	0.13	0.11
tblVehicleEF	LDA	1.8240e-003	1.8390e-003
tblVehicleEF	LDA	2.3990e-003	2.3570e-003
tblVehicleEF	LDA	1.6830e-003	1.6960e-003
tblVehicleEF	LDA	2.2090e-003	2.1680e-003
tblVehicleEF	LDA	0.19	0.17
tblVehicleEF	LDA	0.20	0.17
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	3.5820e-003	3.4530e-003
tblVehicleEF	LDA	6.9300e-004	6.7000e-004
tblVehicleEF	LDA	0.19	0.17
tblVehicleEF	LDA	0.20	0.17
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	0.14	0.11

tblVehicleEF	LDA	6.5960e-003	5.7410e-003
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.74	0.65
tblVehicleEF	LDA	2.37	2.05
tblVehicleEF	LDA	308.89	297.87
tblVehicleEF	LDA	66.40	64.53
tblVehicleEF	LDA	0.45	0.46
tblVehicleEF	LDA	0.09	0.07
tblVehicleEF	LDA	0.15	0.13
tblVehicleEF	LDA	1.8240e-003	1.8390e-003
tblVehicleEF	LDA	2.3990e-003	2.3570e-003
tblVehicleEF	LDA	1.6830e-003	1.6960e-003
tblVehicleEF	LDA	2.2090e-003	2.1680e-003
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.17	0.14
tblVehicleEF	LDA	3.0940e-003	2.9830e-003
tblVehicleEF	LDA	7.0600e-004	6.8100e-004
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.19	0.16

tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	2.49	2.03
tblVehicleEF	LDT1	5.53	4.87
tblVehicleEF	LDT1	381.29	371.22
tblVehicleEF	LDT1	78.82	76.98
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.26	0.22
tblVehicleEF	LDT1	0.32	0.28
tblVehicleEF	LDT1	3.7830e-003	3.3990e-003
tblVehicleEF	LDT1	4.9440e-003	4.4130e-003
tblVehicleEF	LDT1	3.4970e-003	3.1370e-003
tblVehicleEF	LDT1	4.5630e-003	4.0640e-003
tblVehicleEF	LDT1	0.26	0.23
tblVehicleEF	LDT1	0.45	0.40
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.43	0.36
tblVehicleEF	LDT1	3.8480e-003	3.7390e-003
tblVehicleEF	LDT1	8.8800e-004	8.5700e-004
tblVehicleEF	LDT1	0.26	0.23
tblVehicleEF	LDT1	0.45	0.40
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.10	0.07
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.47	0.39

tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	3.02	2.49
tblVehicleEF	LDT1	4.63	4.04
tblVehicleEF	LDT1	420.09	409.31
tblVehicleEF	LDT1	78.82	76.98
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.24	0.20
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	3.7830e-003	3.3990e-003
tblVehicleEF	LDT1	4.9440e-003	4.4130e-003
tblVehicleEF	LDT1	3.4970e-003	3.1370e-003
tblVehicleEF	LDT1	4.5630e-003	4.0640e-003
tblVehicleEF	LDT1	0.67	0.60
tblVehicleEF	LDT1	0.60	0.54
tblVehicleEF	LDT1	0.36	0.33
tblVehicleEF	LDT1	0.08	0.06
tblVehicleEF	LDT1	0.29	0.26
tblVehicleEF	LDT1	0.35	0.30
tblVehicleEF	LDT1	4.2440e-003	4.1270e-003
tblVehicleEF	LDT1	8.7100e-004	8.4200e-004
tblVehicleEF	LDT1	0.67	0.60
tblVehicleEF	LDT1	0.60	0.54
tblVehicleEF	LDT1	0.36	0.33
tblVehicleEF	LDT1	0.11	0.08
tblVehicleEF	LDT1	0.29	0.26
tblVehicleEF	LDT1	0.38	0.32

tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	2.37	1.91
tblVehicleEF	LDT1	6.56	5.79
tblVehicleEF	LDT1	366.70	356.89
tblVehicleEF	LDT1	78.82	76.98
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.28	0.23
tblVehicleEF	LDT1	0.35	0.31
tblVehicleEF	LDT1	3.7830e-003	3.3990e-003
tblVehicleEF	LDT1	4.9440e-003	4.4130e-003
tblVehicleEF	LDT1	3.4970e-003	3.1370e-003
tblVehicleEF	LDT1	4.5630e-003	4.0640e-003
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.47	0.42
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.07	0.05
tblVehicleEF	LDT1	0.36	0.32
tblVehicleEF	LDT1	0.49	0.42
tblVehicleEF	LDT1	3.7000e-003	3.5940e-003
tblVehicleEF	LDT1	9.0600e-004	8.7300e-004
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.47	0.42
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.10	0.07
tblVehicleEF	LDT1	0.36	0.32
tblVehicleEF	LDT1	0.54	0.46

tblVehicleEF	LDT2	0.01	9.7300e-003
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	1.23	1.07
tblVehicleEF	LDT2	3.05	2.64
tblVehicleEF	LDT2	438.39	425.57
tblVehicleEF	LDT2	91.06	88.89
tblVehicleEF	LDT2	0.16	0.16
tblVehicleEF	LDT2	0.16	0.14
tblVehicleEF	LDT2	0.28	0.24
tblVehicleEF	LDT2	1.8370e-003	1.8230e-003
tblVehicleEF	LDT2	2.5510e-003	2.4630e-003
tblVehicleEF	LDT2	1.6910e-003	1.6780e-003
tblVehicleEF	LDT2	2.3500e-003	2.2670e-003
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.19	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.23	0.19
tblVehicleEF	LDT2	4.3960e-003	4.2660e-003
tblVehicleEF	LDT2	9.6400e-004	9.3500e-004
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.19	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.25	0.21

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	1.53	1.34
tblVehicleEF	LDT2	2.52	2.18
tblVehicleEF	LDT2	484.63	470.53
tblVehicleEF	LDT2	91.06	88.89
tblVehicleEF	LDT2	0.16	0.16
tblVehicleEF	LDT2	0.15	0.13
tblVehicleEF	LDT2	0.27	0.23
tblVehicleEF	LDT2	1.8370e-003	1.8230e-003
tblVehicleEF	LDT2	2.5510e-003	2.4630e-003
tblVehicleEF	LDT2	1.6910e-003	1.6780e-003
tblVehicleEF	LDT2	2.3500e-003	2.2670e-003
tblVehicleEF	LDT2	0.26	0.24
tblVehicleEF	LDT2	0.25	0.22
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	4.8630e-003	4.7190e-003
tblVehicleEF	LDT2	9.5500e-004	9.2700e-004
tblVehicleEF	LDT2	0.26	0.24
tblVehicleEF	LDT2	0.25	0.22
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.11	0.10
tblVehicleEF	LDT2	0.20	0.17

tblVehicleEF	LDT2	0.01	9.2100e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	1.15	0.99
tblVehicleEF	LDT2	3.55	3.09
tblVehicleEF	LDT2	421.04	408.69
tblVehicleEF	LDT2	91.06	88.89
tblVehicleEF	LDT2	0.16	0.16
tblVehicleEF	LDT2	0.17	0.15
tblVehicleEF	LDT2	0.31	0.26
tblVehicleEF	LDT2	1.8370e-003	1.8230e-003
tblVehicleEF	LDT2	2.5510e-003	2.4630e-003
tblVehicleEF	LDT2	1.6910e-003	1.6780e-003
tblVehicleEF	LDT2	2.3500e-003	2.2670e-003
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.20	0.18
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.03	0.02
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.26	0.22
tblVehicleEF	LDT2	4.2220e-003	4.0960e-003
tblVehicleEF	LDT2	9.7300e-004	9.4300e-004
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.20	0.18
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.28	0.24

tblVehicleEF	LHD1	5.4190e-003	5.3200e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.68	1.58
tblVehicleEF	LHD1	3.03	2.86
tblVehicleEF	LHD1	9.46	9.47
tblVehicleEF	LHD1	708.94	705.03
tblVehicleEF	LHD1	29.46	29.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	2.59	2.50
tblVehicleEF	LHD1	0.99	0.97
tblVehicleEF	LHD1	1.0810e-003	1.0880e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1020e-003	1.0310e-003
tblVehicleEF	LHD1	1.0340e-003	1.0410e-003
tblVehicleEF	LHD1	2.5520e-003	2.5570e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0170e-003	9.5100e-004
tblVehicleEF	LHD1	3.7460e-003	3.6910e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.5180e-003	1.5210e-003
tblVehicleEF	LHD1	0.18	0.17
tblVehicleEF	LHD1	0.30	0.30

tblVehicleEF	LHD1	0.30	0.29
tblVehicleEF	LHD1	6.9540e-003	6.9130e-003
tblVehicleEF	LHD1	3.5200e-004	3.4500e-004
tblVehicleEF	LHD1	3.7460e-003	3.6910e-003
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.5180e-003	1.5210e-003
tblVehicleEF	LHD1	0.22	0.21
tblVehicleEF	LHD1	0.30	0.30
tblVehicleEF	LHD1	0.33	0.31
tblVehicleEF	LHD1	5.4190e-003	5.3200e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.72	1.62
tblVehicleEF	LHD1	2.82	2.66
tblVehicleEF	LHD1	9.46	9.47
tblVehicleEF	LHD1	708.94	705.03
tblVehicleEF	LHD1	29.46	29.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	2.44	2.35
tblVehicleEF	LHD1	0.93	0.92
tblVehicleEF	LHD1	1.0810e-003	1.0880e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1020e-003	1.0310e-003

tblVehicleEF	LHD1	1.0340e-003	1.0410e-003
tblVehicleEF	LHD1	2.5520e-003	2.5570e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0170e-003	9.5100e-004
tblVehicleEF	LHD1	9.3990e-003	9.2200e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.4110e-003	3.3710e-003
tblVehicleEF	LHD1	0.18	0.18
tblVehicleEF	LHD1	0.30	0.30
tblVehicleEF	LHD1	0.28	0.27
tblVehicleEF	LHD1	6.9550e-003	6.9130e-003
tblVehicleEF	LHD1	3.4800e-004	3.4100e-004
tblVehicleEF	LHD1	9.3990e-003	9.2200e-003
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.4110e-003	3.3710e-003
tblVehicleEF	LHD1	0.22	0.22
tblVehicleEF	LHD1	0.30	0.30
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	5.4190e-003	5.3200e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	1.66	1.57
tblVehicleEF	LHD1	3.23	3.05
tblVehicleEF	LHD1	9.46	9.47

tblVehicleEF	LHD1	708.94	705.03
tblVehicleEF	LHD1	29.46	29.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	2.62	2.53
tblVehicleEF	LHD1	1.04	1.03
tblVehicleEF	LHD1	1.0810e-003	1.0880e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.1020e-003	1.0310e-003
tblVehicleEF	LHD1	1.0340e-003	1.0410e-003
tblVehicleEF	LHD1	2.5520e-003	2.5570e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0170e-003	9.5100e-004
tblVehicleEF	LHD1	1.8740e-003	1.8420e-003
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3300e-004	7.4100e-004
tblVehicleEF	LHD1	0.18	0.17
tblVehicleEF	LHD1	0.32	0.33
tblVehicleEF	LHD1	0.31	0.30
tblVehicleEF	LHD1	6.9540e-003	6.9120e-003
tblVehicleEF	LHD1	3.5500e-004	3.4800e-004
tblVehicleEF	LHD1	1.8740e-003	1.8420e-003
tblVehicleEF	LHD1	0.11	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	7.3300e-004	7.4100e-004

tblVehicleEF	LHD1	0.22	0.21
tblVehicleEF	LHD1	0.32	0.33
tblVehicleEF	LHD1	0.34	0.33
tblVehicleEF	LHD2	4.1270e-003	4.0460e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.96	0.91
tblVehicleEF	LHD2	1.58	1.47
tblVehicleEF	LHD2	14.67	14.66
tblVehicleEF	LHD2	757.07	751.57
tblVehicleEF	LHD2	25.27	25.01
tblVehicleEF	LHD2	8.5100e-003	7.8690e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	2.25	2.10
tblVehicleEF	LHD2	0.62	0.60
tblVehicleEF	LHD2	1.3540e-003	1.3570e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8100e-004	4.4800e-004
tblVehicleEF	LHD2	1.2960e-003	1.2980e-003
tblVehicleEF	LHD2	2.6760e-003	2.6790e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.4200e-004	4.1200e-004
tblVehicleEF	LHD2	1.7430e-003	1.6680e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.01

tblVehicleEF	LHD2	7.2400e-004	7.1200e-004
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	7.3690e-003	7.3140e-003
tblVehicleEF	LHD2	2.8200e-004	2.7800e-004
tblVehicleEF	LHD2	1.7430e-003	1.6680e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.2400e-004	7.1200e-004
tblVehicleEF	LHD2	0.17	0.17
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.17	0.16
tblVehicleEF	LHD2	4.1270e-003	4.0460e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.97	0.92
tblVehicleEF	LHD2	1.47	1.37
tblVehicleEF	LHD2	14.67	14.66
tblVehicleEF	LHD2	757.07	751.57
tblVehicleEF	LHD2	25.27	25.01
tblVehicleEF	LHD2	8.5100e-003	7.8690e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	2.13	1.98
tblVehicleEF	LHD2	0.58	0.57
tblVehicleEF	LHD2	1.3540e-003	1.3570e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8100e-004	4.4800e-004
tblVehicleEF	LHD2	1.2960e-003	1.2980e-003
tblVehicleEF	LHD2	2.6760e-003	2.6790e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.4200e-004	4.1200e-004
tblVehicleEF	LHD2	4.3420e-003	4.1360e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.5930e-003	1.5420e-003
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	7.3690e-003	7.3140e-003
tblVehicleEF	LHD2	2.8000e-004	2.7600e-004
tblVehicleEF	LHD2	4.3420e-003	4.1360e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.5930e-003	1.5420e-003
tblVehicleEF	LHD2	0.17	0.17
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	4.1270e-003	4.0460e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.13	0.12

tblVehicleEF	LHD2	0.95	0.90
tblVehicleEF	LHD2	1.70	1.58
tblVehicleEF	LHD2	14.67	14.66
tblVehicleEF	LHD2	757.07	751.57
tblVehicleEF	LHD2	25.27	25.01
tblVehicleEF	LHD2	8.5100e-003	7.8690e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	2.28	2.13
tblVehicleEF	LHD2	0.65	0.64
tblVehicleEF	LHD2	1.3540e-003	1.3570e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8100e-004	4.4800e-004
tblVehicleEF	LHD2	1.2960e-003	1.2980e-003
tblVehicleEF	LHD2	2.6760e-003	2.6790e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.4200e-004	4.1200e-004
tblVehicleEF	LHD2	7.3800e-004	7.0800e-004
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	3.1500e-004	3.1400e-004
tblVehicleEF	LHD2	0.15	0.14
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	7.3690e-003	7.3130e-003
tblVehicleEF	LHD2	2.8400e-004	2.8000e-004
tblVehicleEF	LHD2	7.3800e-004	7.0800e-004

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.1500e-004	3.1400e-004
tblVehicleEF	LHD2	0.17	0.17
tblVehicleEF	LHD2	0.13	0.12
tblVehicleEF	LHD2	0.18	0.17
tblVehicleEF	MCY	0.43	0.44
tblVehicleEF	MCY	0.17	0.17
tblVehicleEF	MCY	26.20	25.27
tblVehicleEF	MCY	9.96	9.98
tblVehicleEF	MCY	174.94	175.75
tblVehicleEF	MCY	49.08	48.55
tblVehicleEF	MCY	6.3780e-003	6.2390e-003
tblVehicleEF	MCY	1.23	1.22
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	1.8580e-003	1.8930e-003
tblVehicleEF	MCY	4.4840e-003	4.3170e-003
tblVehicleEF	MCY	1.7500e-003	1.7810e-003
tblVehicleEF	MCY	4.2550e-003	4.0920e-003
tblVehicleEF	MCY	1.57	1.58
tblVehicleEF	MCY	0.95	0.94
tblVehicleEF	MCY	0.86	0.86
tblVehicleEF	MCY	2.63	2.58
tblVehicleEF	MCY	0.60	0.58
tblVehicleEF	MCY	2.29	2.27
tblVehicleEF	MCY	2.2500e-003	2.2420e-003
tblVehicleEF	MCY	7.2100e-004	7.1600e-004

tblVehicleEF	MCY	1.57	1.58
tblVehicleEF	MCY	0.95	0.94
tblVehicleEF	MCY	0.86	0.86
tblVehicleEF	MCY	3.15	3.11
tblVehicleEF	MCY	0.60	0.58
tblVehicleEF	MCY	2.49	2.47
tblVehicleEF	MCY	0.42	0.43
tblVehicleEF	MCY	0.14	0.14
tblVehicleEF	MCY	26.68	25.75
tblVehicleEF	MCY	9.24	9.22
tblVehicleEF	MCY	174.94	175.75
tblVehicleEF	MCY	49.08	48.55
tblVehicleEF	MCY	6.3780e-003	6.2390e-003
tblVehicleEF	MCY	1.05	1.05
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	1.8580e-003	1.8930e-003
tblVehicleEF	MCY	4.4840e-003	4.3170e-003
tblVehicleEF	MCY	1.7500e-003	1.7810e-003
tblVehicleEF	MCY	4.2550e-003	4.0920e-003
tblVehicleEF	MCY	4.21	4.22
tblVehicleEF	MCY	1.45	1.46
tblVehicleEF	MCY	2.31	2.31
tblVehicleEF	MCY	2.54	2.50
tblVehicleEF	MCY	0.59	0.58
tblVehicleEF	MCY	1.94	1.92
tblVehicleEF	MCY	2.2550e-003	2.2470e-003
tblVehicleEF	MCY	6.9800e-004	6.9200e-004

tblVehicleEF	MCY	4.21	4.22
tblVehicleEF	MCY	1.45	1.46
tblVehicleEF	MCY	2.31	2.31
tblVehicleEF	MCY	3.05	3.01
tblVehicleEF	MCY	0.59	0.58
tblVehicleEF	MCY	2.11	2.09
tblVehicleEF	MCY	0.45	0.45
tblVehicleEF	MCY	0.19	0.19
tblVehicleEF	MCY	27.39	26.41
tblVehicleEF	MCY	10.98	11.03
tblVehicleEF	MCY	174.94	175.75
tblVehicleEF	MCY	49.08	48.55
tblVehicleEF	MCY	6.3780e-003	6.2390e-003
tblVehicleEF	MCY	1.30	1.29
tblVehicleEF	MCY	0.33	0.33
tblVehicleEF	MCY	1.8580e-003	1.8930e-003
tblVehicleEF	MCY	4.4840e-003	4.3170e-003
tblVehicleEF	MCY	1.7500e-003	1.7810e-003
tblVehicleEF	MCY	4.2550e-003	4.0920e-003
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	2.73	2.67
tblVehicleEF	MCY	0.68	0.67
tblVehicleEF	MCY	2.62	2.60
tblVehicleEF	MCY	2.2720e-003	2.2630e-003
tblVehicleEF	MCY	7.4800e-004	7.4300e-004

tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	3.27	3.22
tblVehicleEF	MCY	0.68	0.67
tblVehicleEF	MCY	2.85	2.82
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	1.88	1.76
tblVehicleEF	MDV	4.57	4.25
tblVehicleEF	MDV	591.38	579.44
tblVehicleEF	MDV	119.93	118.40
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.26	0.24
tblVehicleEF	MDV	0.45	0.41
tblVehicleEF	MDV	2.5930e-003	2.5250e-003
tblVehicleEF	MDV	2.3910e-003	2.3270e-003
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.38	0.35
tblVehicleEF	MDV	5.9320e-003	5.8110e-003
tblVehicleEF	MDV	1.2810e-003	1.2600e-003
tblVehicleEF	MDV	0.11	0.11
tblVehicleEF	MDV	0.21	0.21

tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.08	0.07
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.41	0.38
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	2.33	2.18
tblVehicleEF	MDV	3.83	3.57
tblVehicleEF	MDV	652.26	639.04
tblVehicleEF	MDV	119.93	118.40
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.24	0.22
tblVehicleEF	MDV	0.42	0.39
tblVehicleEF	MDV	2.5930e-003	2.5250e-003
tblVehicleEF	MDV	2.3910e-003	2.3270e-003
tblVehicleEF	MDV	0.28	0.28
tblVehicleEF	MDV	0.26	0.26
tblVehicleEF	MDV	0.18	0.18
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.31	0.29
tblVehicleEF	MDV	6.5470e-003	6.4120e-003
tblVehicleEF	MDV	1.2680e-003	1.2470e-003
tblVehicleEF	MDV	0.28	0.28
tblVehicleEF	MDV	0.26	0.26
tblVehicleEF	MDV	0.18	0.18
tblVehicleEF	MDV	0.09	0.08

tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.34	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	1.77	1.65
tblVehicleEF	MDV	5.40	5.03
tblVehicleEF	MDV	568.34	556.90
tblVehicleEF	MDV	119.93	118.40
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.28	0.25
tblVehicleEF	MDV	0.48	0.45
tblVehicleEF	MDV	2.5930e-003	2.5250e-003
tblVehicleEF	MDV	2.3910e-003	2.3270e-003
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.22	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.15	0.15
tblVehicleEF	MDV	0.43	0.40
tblVehicleEF	MDV	5.7000e-003	5.5840e-003
tblVehicleEF	MDV	1.2960e-003	1.2740e-003
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.22	0.21
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.15	0.15
tblVehicleEF	MDV	0.48	0.44

tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	6.92	5.52
tblVehicleEF	MH	9.47	8.43
tblVehicleEF	MH	1,249.50	1,245.04
tblVehicleEF	MH	68.71	64.21
tblVehicleEF	MH	1.2160e-003	1.1150e-003
tblVehicleEF	MH	2.32	2.22
tblVehicleEF	MH	1.05	1.01
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.7900e-003	2.1480e-003
tblVehicleEF	MH	3.2410e-003	3.2440e-003
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	2.6150e-003	2.0040e-003
tblVehicleEF	MH	1.95	1.82
tblVehicleEF	MH	0.12	0.11
tblVehicleEF	MH	0.54	0.51
tblVehicleEF	MH	0.28	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.65	0.55
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.5600e-004	7.9100e-004
tblVehicleEF	MH	1.95	1.82
tblVehicleEF	MH	0.12	0.11
tblVehicleEF	MH	0.54	0.51
tblVehicleEF	MH	0.36	0.30

tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.71	0.60
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	7.16	5.73
tblVehicleEF	MH	8.84	7.76
tblVehicleEF	MH	1,249.50	1,245.04
tblVehicleEF	MH	68.71	64.21
tblVehicleEF	MH	1.2160e-003	1.1150e-003
tblVehicleEF	MH	2.13	2.04
tblVehicleEF	MH	0.99	0.95
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.7900e-003	2.1480e-003
tblVehicleEF	MH	3.2410e-003	3.2440e-003
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	2.6150e-003	2.0040e-003
tblVehicleEF	MH	4.92	4.57
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	1.23	1.15
tblVehicleEF	MH	0.28	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.61	0.51
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.4500e-004	7.8000e-004
tblVehicleEF	MH	4.92	4.57
tblVehicleEF	MH	0.14	0.13

tblVehicleEF	MH	1.23	1.15
tblVehicleEF	MH	0.36	0.30
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.67	0.56
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	6.96	5.51
tblVehicleEF	MH	10.08	9.01
tblVehicleEF	MH	1,249.50	1,245.04
tblVehicleEF	MH	68.71	64.21
tblVehicleEF	MH	1.2160e-003	1.1150e-003
tblVehicleEF	MH	2.36	2.26
tblVehicleEF	MH	1.09	1.05
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.7900e-003	2.1480e-003
tblVehicleEF	MH	3.2410e-003	3.2440e-003
tblVehicleEF	MH	0.05	0.04
tblVehicleEF	MH	2.6150e-003	2.0040e-003
tblVehicleEF	MH	1.14	1.07
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.34	0.32
tblVehicleEF	MH	0.28	0.23
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.68	0.58
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	8.6700e-004	8.0100e-004

tblVehicleEF	MH	1.14	1.07
tblVehicleEF	MH	0.14	0.13
tblVehicleEF	MH	0.34	0.32
tblVehicleEF	MH	0.36	0.30
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	0.75	0.63
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.61	0.57
tblVehicleEF	MHD	1.25	1.07
tblVehicleEF	MHD	8.91	7.90
tblVehicleEF	MHD	172.64	174.53
tblVehicleEF	MHD	1,225.84	1,223.38
tblVehicleEF	MHD	53.21	50.52
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.75	1.65
tblVehicleEF	MHD	4.31	3.92
tblVehicleEF	MHD	12.84	12.96
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	1.5450e-003	1.2480e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.11
tblVehicleEF	MHD	1.4350e-003	1.1550e-003
tblVehicleEF	MHD	2.6270e-003	2.2940e-003
tblVehicleEF	MHD	0.07	0.06

tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	1.0570e-003	9.3100e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.56	0.49
tblVehicleEF	MHD	1.6570e-003	1.6750e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.9000e-004	6.4400e-004
tblVehicleEF	MHD	2.6270e-003	2.2940e-003
tblVehicleEF	MHD	0.07	0.06
tblVehicleEF	MHD	0.07	0.07
tblVehicleEF	MHD	1.0570e-003	9.3100e-004
tblVehicleEF	MHD	0.34	0.30
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.61	0.53
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.43	0.41
tblVehicleEF	MHD	1.27	1.09
tblVehicleEF	MHD	8.38	7.39
tblVehicleEF	MHD	183.00	184.99
tblVehicleEF	MHD	1,225.84	1,223.38
tblVehicleEF	MHD	53.21	50.52
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.80	1.70
tblVehicleEF	MHD	4.07	3.71

tblVehicleEF	MHD	12.78	12.90
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	1.5450e-003	1.2480e-003
tblVehicleEF	MHD	0.01	9.6810e-003
tblVehicleEF	MHD	0.12	0.11
tblVehicleEF	MHD	1.4350e-003	1.1550e-003
tblVehicleEF	MHD	6.7660e-003	5.8790e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.06	0.05
tblVehicleEF	MHD	2.4710e-003	2.1540e-003
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.53	0.46
tblVehicleEF	MHD	1.7550e-003	1.7740e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.8000e-004	6.3500e-004
tblVehicleEF	MHD	6.7660e-003	5.8790e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.07	0.07
tblVehicleEF	MHD	2.4710e-003	2.1540e-003
tblVehicleEF	MHD	0.34	0.30
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.58	0.50
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.10	0.09

tblVehicleEF	MHD	0.82	0.77
tblVehicleEF	MHD	1.24	1.07
tblVehicleEF	MHD	9.58	8.50
tblVehicleEF	MHD	158.61	160.34
tblVehicleEF	MHD	1,225.84	1,223.38
tblVehicleEF	MHD	53.21	50.52
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.67	1.57
tblVehicleEF	MHD	4.38	3.99
tblVehicleEF	MHD	12.91	13.02
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.13	0.11
tblVehicleEF	MHD	1.5450e-003	1.2480e-003
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.12	0.11
tblVehicleEF	MHD	1.4350e-003	1.1550e-003
tblVehicleEF	MHD	1.0380e-003	9.1000e-004
tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.06	0.06
tblVehicleEF	MHD	4.2100e-004	3.7500e-004
tblVehicleEF	MHD	0.30	0.26
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.59	0.51
tblVehicleEF	MHD	1.5250e-003	1.5410e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0100e-004	6.5500e-004
tblVehicleEF	MHD	1.0380e-003	9.1000e-004

tblVehicleEF	MHD	0.08	0.07
tblVehicleEF	MHD	0.08	0.08
tblVehicleEF	MHD	4.2100e-004	3.7500e-004
tblVehicleEF	MHD	0.34	0.30
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	0.65	0.56
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.31	0.29
tblVehicleEF	OBUS	1.59	1.31
tblVehicleEF	OBUS	8.33	7.69
tblVehicleEF	OBUS	86.48	86.44
tblVehicleEF	OBUS	1,345.85	1,338.73
tblVehicleEF	OBUS	74.74	73.13
tblVehicleEF	OBUS	1.6740e-003	1.6570e-003
tblVehicleEF	OBUS	0.62	0.55
tblVehicleEF	OBUS	2.36	2.09
tblVehicleEF	OBUS	2.43	2.36
tblVehicleEF	OBUS	1.0420e-003	3.3000e-004
tblVehicleEF	OBUS	0.02	9.6130e-003
tblVehicleEF	OBUS	1.1850e-003	1.0190e-003
tblVehicleEF	OBUS	9.9700e-004	3.1600e-004
tblVehicleEF	OBUS	0.02	9.1760e-003
tblVehicleEF	OBUS	1.1050e-003	9.4600e-004
tblVehicleEF	OBUS	2.6970e-003	2.5520e-003
tblVehicleEF	OBUS	0.03	0.02

tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	8.8500e-004	8.4900e-004
tblVehicleEF	OBUS	0.12	0.10
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.54	0.49
tblVehicleEF	OBUS	8.3800e-004	8.3700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.9500e-004	8.6700e-004
tblVehicleEF	OBUS	2.6970e-003	2.5520e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	8.8500e-004	8.4900e-004
tblVehicleEF	OBUS	0.16	0.13
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.59	0.54
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.29	0.27
tblVehicleEF	OBUS	1.63	1.34
tblVehicleEF	OBUS	7.66	7.04
tblVehicleEF	OBUS	90.57	90.53
tblVehicleEF	OBUS	1,345.85	1,338.73
tblVehicleEF	OBUS	74.74	73.13
tblVehicleEF	OBUS	1.6740e-003	1.6570e-003
tblVehicleEF	OBUS	0.64	0.57
tblVehicleEF	OBUS	2.21	1.96

tblVehicleEF	OBUS	2.35	2.29
tblVehicleEF	OBUS	8.7900e-004	2.7900e-004
tblVehicleEF	OBUS	0.02	9.6130e-003
tblVehicleEF	OBUS	1.1850e-003	1.0190e-003
tblVehicleEF	OBUS	8.4100e-004	2.6700e-004
tblVehicleEF	OBUS	0.02	9.1760e-003
tblVehicleEF	OBUS	1.1050e-003	9.4600e-004
tblVehicleEF	OBUS	6.7580e-003	6.3390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	1.9480e-003	1.8370e-003
tblVehicleEF	OBUS	0.13	0.10
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.51	0.46
tblVehicleEF	OBUS	8.7700e-004	8.7600e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.8300e-004	8.5600e-004
tblVehicleEF	OBUS	6.7580e-003	6.3390e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	1.9480e-003	1.8370e-003
tblVehicleEF	OBUS	0.16	0.13
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	0.56	0.51
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.04

tblVehicleEF	OBUS	0.33	0.31
tblVehicleEF	OBUS	1.56	1.29
tblVehicleEF	OBUS	9.04	8.37
tblVehicleEF	OBUS	80.83	80.78
tblVehicleEF	OBUS	1,345.85	1,338.73
tblVehicleEF	OBUS	74.74	73.13
tblVehicleEF	OBUS	1.6740e-003	1.6570e-003
tblVehicleEF	OBUS	0.59	0.53
tblVehicleEF	OBUS	2.40	2.12
tblVehicleEF	OBUS	2.50	2.43
tblVehicleEF	OBUS	1.2680e-003	4.0200e-004
tblVehicleEF	OBUS	0.02	9.6130e-003
tblVehicleEF	OBUS	1.1850e-003	1.0190e-003
tblVehicleEF	OBUS	1.2130e-003	3.8500e-004
tblVehicleEF	OBUS	0.02	9.1760e-003
tblVehicleEF	OBUS	1.1050e-003	9.4600e-004
tblVehicleEF	OBUS	1.2640e-003	1.1740e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.7700e-004	4.5800e-004
tblVehicleEF	OBUS	0.12	0.10
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.57	0.52
tblVehicleEF	OBUS	7.8400e-004	7.8300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	9.0700e-004	8.7900e-004
tblVehicleEF	OBUS	1.2640e-003	1.1740e-003

tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.06	0.06
tblVehicleEF	OBUS	4.7700e-004	4.5800e-004
tblVehicleEF	OBUS	0.16	0.13
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	0.63	0.57
tblVehicleEF	SBUS	0.86	0.85
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.15	0.13
tblVehicleEF	SBUS	5.73	5.49
tblVehicleEF	SBUS	2.39	1.78
tblVehicleEF	SBUS	10.46	9.21
tblVehicleEF	SBUS	1,281.52	1,289.34
tblVehicleEF	SBUS	1,138.30	1,136.60
tblVehicleEF	SBUS	35.51	35.36
tblVehicleEF	SBUS	1.0580e-003	1.0260e-003
tblVehicleEF	SBUS	14.79	14.36
tblVehicleEF	SBUS	6.80	6.24
tblVehicleEF	SBUS	15.81	15.74
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	9.8900e-004	8.2200e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	2.7310e-003	2.7340e-003
tblVehicleEF	SBUS	0.06	0.03
tblVehicleEF	SBUS	9.0900e-004	7.5600e-004

tblVehicleEF	SBUS	0.01	9.2870e-003
tblVehicleEF	SBUS	0.06	0.06
tblVehicleEF	SBUS	0.70	0.66
tblVehicleEF	SBUS	2.7750e-003	2.4090e-003
tblVehicleEF	SBUS	0.23	0.17
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.55	0.47
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	5.3700e-004	5.1300e-004
tblVehicleEF	SBUS	0.01	9.2870e-003
tblVehicleEF	SBUS	0.06	0.06
tblVehicleEF	SBUS	0.98	0.94
tblVehicleEF	SBUS	2.7750e-003	2.4090e-003
tblVehicleEF	SBUS	0.28	0.21
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.60	0.52
tblVehicleEF	SBUS	0.85	0.85
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.12	0.10
tblVehicleEF	SBUS	5.48	5.31
tblVehicleEF	SBUS	2.46	1.83
tblVehicleEF	SBUS	6.81	5.99
tblVehicleEF	SBUS	1,347.25	1,355.59
tblVehicleEF	SBUS	1,138.30	1,136.60
tblVehicleEF	SBUS	35.51	35.36
tblVehicleEF	SBUS	1.0580e-003	1.0260e-003

tblVehicleEF	SBUS	15.26	14.82
tblVehicleEF	SBUS	6.40	5.88
tblVehicleEF	SBUS	15.75	15.69
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	9.8900e-004	8.2200e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	2.7310e-003	2.7340e-003
tblVehicleEF	SBUS	0.06	0.03
tblVehicleEF	SBUS	9.0900e-004	7.5600e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.69	0.65
tblVehicleEF	SBUS	6.3490e-003	5.4590e-003
tblVehicleEF	SBUS	0.23	0.17
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.43	0.37
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	4.7600e-004	4.5900e-004
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.97	0.93
tblVehicleEF	SBUS	6.3490e-003	5.4590e-003
tblVehicleEF	SBUS	0.29	0.21
tblVehicleEF	SBUS	0.04	0.03

tblVehicleEF	SBUS	0.47	0.41
tblVehicleEF	SBUS	0.86	0.85
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	SBUS	0.17	0.15
tblVehicleEF	SBUS	6.08	5.74
tblVehicleEF	SBUS	2.33	1.73
tblVehicleEF	SBUS	14.25	12.51
tblVehicleEF	SBUS	1,190.74	1,197.87
tblVehicleEF	SBUS	1,138.30	1,136.60
tblVehicleEF	SBUS	35.51	35.36
tblVehicleEF	SBUS	1.0580e-003	1.0260e-003
tblVehicleEF	SBUS	14.13	13.72
tblVehicleEF	SBUS	6.91	6.34
tblVehicleEF	SBUS	15.87	15.80
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.06	0.04
tblVehicleEF	SBUS	9.8900e-004	8.2200e-004
tblVehicleEF	SBUS	0.04	0.02
tblVehicleEF	SBUS	2.7310e-003	2.7340e-003
tblVehicleEF	SBUS	0.06	0.03
tblVehicleEF	SBUS	9.0900e-004	7.5600e-004
tblVehicleEF	SBUS	4.2810e-003	3.6680e-003
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.71	0.66
tblVehicleEF	SBUS	1.3430e-003	1.1820e-003
tblVehicleEF	SBUS	0.22	0.17

tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.66	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.0000e-004	5.6800e-004
tblVehicleEF	SBUS	4.2810e-003	3.6680e-003
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.99	0.94
tblVehicleEF	SBUS	1.3430e-003	1.1820e-003
tblVehicleEF	SBUS	0.28	0.21
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	0.72	0.62
tblVehicleEF	UBUS	1.84	1.73
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	9.55	8.98
tblVehicleEF	UBUS	12.29	11.93
tblVehicleEF	UBUS	2,030.45	2,008.01
tblVehicleEF	UBUS	103.02	106.62
tblVehicleEF	UBUS	2.0580e-003	1.9600e-003
tblVehicleEF	UBUS	9.57	8.68
tblVehicleEF	UBUS	15.55	15.24
tblVehicleEF	UBUS	0.60	0.59
tblVehicleEF	UBUS	0.14	0.13
tblVehicleEF	UBUS	8.7200e-004	9.0600e-004
tblVehicleEF	UBUS	0.26	0.25
tblVehicleEF	UBUS	0.14	0.12
tblVehicleEF	UBUS	8.0300e-004	8.3500e-004

tblVehicleEF	UBUS	6.9500e-003	6.8290e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5810e-003	2.5720e-003
tblVehicleEF	UBUS	0.79	0.72
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.87	0.86
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.2500e-003	1.2800e-003
tblVehicleEF	UBUS	6.9500e-003	6.8290e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5810e-003	2.5720e-003
tblVehicleEF	UBUS	2.71	2.53
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.96	0.94
tblVehicleEF	UBUS	1.84	1.74
tblVehicleEF	UBUS	0.06	0.06
tblVehicleEF	UBUS	9.63	9.05
tblVehicleEF	UBUS	9.99	9.70
tblVehicleEF	UBUS	2,030.45	2,008.01
tblVehicleEF	UBUS	103.02	106.62
tblVehicleEF	UBUS	2.0580e-003	1.9600e-003
tblVehicleEF	UBUS	9.03	8.19
tblVehicleEF	UBUS	15.46	15.15
tblVehicleEF	UBUS	0.60	0.59
tblVehicleEF	UBUS	0.14	0.13
tblVehicleEF	UBUS	8.7200e-004	9.0600e-004
tblVehicleEF	UBUS	0.26	0.25

tblVehicleEF	UBUS	0.14	0.12
tblVehicleEF	UBUS	8.0300e-004	8.3500e-004
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.0190e-003	5.9350e-003
tblVehicleEF	UBUS	0.80	0.72
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.77	0.76
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.2110e-003	1.2420e-003
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	6.0190e-003	5.9350e-003
tblVehicleEF	UBUS	2.72	2.54
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	0.84	0.83
tblVehicleEF	UBUS	1.84	1.73
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	9.48	8.91
tblVehicleEF	UBUS	14.83	14.38
tblVehicleEF	UBUS	2,030.45	2,008.01
tblVehicleEF	UBUS	103.02	106.62
tblVehicleEF	UBUS	2.0580e-003	1.9600e-003
tblVehicleEF	UBUS	9.75	8.84
tblVehicleEF	UBUS	15.65	15.34
tblVehicleEF	UBUS	0.60	0.59
tblVehicleEF	UBUS	0.14	0.13

tblVehicleEF	UBUS	8.7200e-004	9.0600e-004
tblVehicleEF	UBUS	0.26	0.25
tblVehicleEF	UBUS	0.14	0.12
tblVehicleEF	UBUS	8.0300e-004	8.3500e-004
tblVehicleEF	UBUS	2.9060e-003	2.8750e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	1.2030e-003	1.2200e-003
tblVehicleEF	UBUS	0.78	0.71
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.98	0.96
tblVehicleEF	UBUS	0.01	0.01
tblVehicleEF	UBUS	1.2930e-003	1.3220e-003
tblVehicleEF	UBUS	2.9060e-003	2.8750e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	1.2030e-003	1.2200e-003
tblVehicleEF	UBUS	2.70	2.52
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	1.07	1.05

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3544	2.8913	1.9730	2.9500e-003	0.0340	0.1919	0.2259	0.0174	0.1800	0.1975	0.0000	264.1788	264.1788	0.0655	0.0000	265.8161
Maximum	**0.3544**	**2.8913**	**1.9730**	**2.9500e-003**	**0.0340**	**0.1919**	**0.2259**	**0.0174**	**0.1800**	**0.1975**	**0.0000**	**264.1788**	**264.1788**	**0.0655**	**0.0000**	**265.8161**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3544	2.8913	1.9730	2.9500e-003	0.0340	0.1919	0.2259	0.0174	0.1800	0.1975	0.0000	264.1785	264.1785	0.0655	0.0000	265.8158
Maximum	**0.3544**	**2.8913**	**1.9730**	**2.9500e-003**	**0.0340**	**0.1919**	**0.2259**	**0.0174**	**0.1800**	**0.1975**	**0.0000**	**264.1785**	**264.1785**	**0.0655**	**0.0000**	**265.8158**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	0.9901	0.9901
2	**4-2-2017**	**7-1-2017**	0.9647	0.9647
3	**7-2-2017**	**9-30-2017**	0.9647	0.9647
		Highest	0.9901	0.9901

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Energy	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	6.4260	6.4260	2.1000e-004	8.0000e-005	6.4552
Mobile	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276
Waste						0.0000	0.0000		0.0000	0.0000	0.1868	0.0000	0.1868	0.0110	0.0000	0.4627
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.8314	0.8728	4.2800e-003	1.1000e-004	1.0118
Total	**0.1441**	**0.0238**	**0.2338**	**4.7000e-004**	**0.0143**	**0.0222**	**0.0364**	**3.8200e-003**	**0.0222**	**0.0260**	**2.2940**	**24.2527**	**26.5467**	**0.0184**	**3.5000e-004**	**27.1104**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Energy	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	6.4260	6.4260	2.1000e-004	8.0000e-005	6.4552
Mobile	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276
Waste						0.0000	0.0000		0.0000	0.0000	0.1868	0.0000	0.1868	0.0110	0.0000	0.4627
Water						0.0000	0.0000		0.0000	0.0000	0.0413	0.8314	0.8728	4.2800e-003	1.1000e-004	1.0118
Total	**0.1441**	**0.0238**	**0.2338**	**4.7000e-004**	**0.0143**	**0.0222**	**0.0364**	**3.8200e-003**	**0.0222**	**0.0260**	**2.2940**	**24.2527**	**26.5467**	**0.0184**	**3.5000e-004**	**27.1104**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/3/2017	5	10	
2	Grading	Grading	1/4/2017	1/9/2017	5	20	
3	Building Construction	Building Construction	1/10/2017	10/16/2017	5	230	
4	Paving	Paving	10/17/2017	10/30/2017	5	20	
5	Architectural Coating	Architectural Coating	10/31/2017	11/13/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 4,860; Residential Outdoor: 1,620; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9600e-003	0.0523	0.0235	4.0000e-005		2.8800e-003	2.8800e-003		2.6500e-003	2.6500e-003	0.0000	3.5334	3.5334	1.0800e-003	0.0000	3.5605
Total	**4.9600e-003**	**0.0523**	**0.0235**	**4.0000e-005**	**0.0181**	**2.8800e-003**	**0.0210**	**9.9300e-003**	**2.6500e-003**	**0.0126**	**0.0000**	**3.5334**	**3.5334**	**1.0800e-003**	**0.0000**	**3.5605**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.1000e-004	1.0200e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2254	0.2254	1.0000e-005	0.0000	0.2256
Total	**1.4000e-004**	**1.1000e-004**	**1.0200e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2254**	**0.2254**	**1.0000e-005**	**0.0000**	**0.2256**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9600e-003	0.0523	0.0235	4.0000e-005		2.8800e-003	2.8800e-003		2.6500e-003	2.6500e-003	0.0000	3.5334	3.5334	1.0800e-003	0.0000	3.5605
Total	**4.9600e-003**	**0.0523**	**0.0235**	**4.0000e-005**	**0.0181**	**2.8800e-003**	**0.0210**	**9.9300e-003**	**2.6500e-003**	**0.0126**	**0.0000**	**3.5334**	**3.5334**	**1.0800e-003**	**0.0000**	**3.5605**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.1000e-004	1.0200e-003	0.0000	2.3000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2254	0.2254	1.0000e-005	0.0000	0.2256
Total	**1.4000e-004**	**1.1000e-004**	**1.0200e-003**	**0.0000**	**2.3000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2254**	**0.2254**	**1.0000e-005**	**0.0000**	**0.2256**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0131	0.0000	0.0131	6.7300e-003	0.0000	6.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1400e-003	0.0678	0.0342	6.0000e-005		3.5500e-003	3.5500e-003		3.2700e-003	3.2700e-003	0.0000	5.5119	5.5119	1.6900e-003	0.0000	5.5541
Total	**6.1400e-003**	**0.0678**	**0.0342**	**6.0000e-005**	**0.0131**	**3.5500e-003**	**0.0167**	**6.7300e-003**	**3.2700e-003**	**0.0100**	**0.0000**	**5.5119**	**5.5119**	**1.6900e-003**	**0.0000**	**5.5541**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7000e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3757	0.3757	1.0000e-005	0.0000	0.3760
Total	**2.3000e-004**	**1.8000e-004**	**1.7000e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3757**	**0.3757**	**1.0000e-005**	**0.0000**	**0.3760**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0131	0.0000	0.0131	6.7300e-003	0.0000	6.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1400e-003	0.0678	0.0342	6.0000e-005		3.5500e-003	3.5500e-003		3.2700e-003	3.2700e-003	0.0000	5.5119	5.5119	1.6900e-003	0.0000	5.5541
Total	**6.1400e-003**	**0.0678**	**0.0342**	**6.0000e-005**	**0.0131**	**3.5500e-003**	**0.0167**	**6.7300e-003**	**3.2700e-003**	**0.0100**	**0.0000**	**5.5119**	**5.5119**	**1.6900e-003**	**0.0000**	**5.5541**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7000e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3757	0.3757	1.0000e-005	0.0000	0.3760
Total	**2.3000e-004**	**1.8000e-004**	**1.7000e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3757**	**0.3757**	**1.0000e-005**	**0.0000**	**0.3760**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3115	2.6555	1.8183	2.6900e-003		0.1788	0.1788		0.1679	0.1679	0.0000	240.4928	240.4928	0.0593	0.0000	241.9741
Total	**0.3115**	**2.6555**	**1.8183**	**2.6900e-003**		**0.1788**	**0.1788**		**0.1679**	**0.1679**	**0.0000**	**240.4928**	**240.4928**	**0.0593**	**0.0000**	**241.9741**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.9000e-004	5.6600e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.2522	1.2522	4.0000e-005	0.0000	1.2533
Total	**7.6000e-004**	**5.9000e-004**	**5.6600e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.2522**	**1.2522**	**4.0000e-005**	**0.0000**	**1.2533**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3115	2.6555	1.8183	2.6900e-003		0.1788	0.1788		0.1679	0.1679	0.0000	240.4926	240.4926	0.0593	0.0000	241.9738
Total	**0.3115**	**2.6555**	**1.8183**	**2.6900e-003**		**0.1788**	**0.1788**		**0.1679**	**0.1679**	**0.0000**	**240.4926**	**240.4926**	**0.0593**	**0.0000**	**241.9738**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.9000e-004	5.6600e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.2522	1.2522	4.0000e-005	0.0000	1.2533
Total	**7.6000e-004**	**5.9000e-004**	**5.6600e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.2522**	**1.2522**	**4.0000e-005**	**0.0000**	**1.2533**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	9.7200e-003	0.1036	0.0752	1.1000e-004		5.8000e-003	5.8000e-003		5.3300e-003	5.3300e-003	0.0000	10.5716	10.5716	3.2400e-003	0.0000	10.6526
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7200e-003**	**0.1036**	**0.0752**	**1.1000e-004**		**5.8000e-003**	**5.8000e-003**		**5.3300e-003**	**5.3300e-003**	**0.0000**	**10.5716**	**10.5716**	**3.2400e-003**	**0.0000**	**10.6526**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.4000e-004	4.2400e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9391	0.9391	3.0000e-005	0.0000	0.9400
Total	**5.7000e-004**	**4.4000e-004**	**4.2400e-003**	**1.0000e-005**	**9.4000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.9391**	**0.9391**	**3.0000e-005**	**0.0000**	**0.9400**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	9.7200e-003	0.1036	0.0752	1.1000e-004		5.8000e-003	5.8000e-003		5.3300e-003	5.3300e-003	0.0000	10.5716	10.5716	3.2400e-003	0.0000	10.6526
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.7200e-003**	**0.1036**	**0.0752**	**1.1000e-004**		**5.8000e-003**	**5.8000e-003**		**5.3300e-003**	**5.3300e-003**	**0.0000**	**10.5716**	**10.5716**	**3.2400e-003**	**0.0000**	**10.6526**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.4000e-004	4.2400e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9391	0.9391	3.0000e-005	0.0000	0.9400
Total	**5.7000e-004**	**4.4000e-004**	**4.2400e-003**	**1.0000e-005**	**9.4000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.9391**	**0.9391**	**3.0000e-005**	**0.0000**	**0.9400**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0188					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2800
Total	**0.0204**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2800**

Unmitigated Construction Off-Site

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

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0188					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2800
Total	**0.0204**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2800**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276
Unmitigated	4.7500e-003	0.0190	0.0630	1.8000e-004	0.0143	2.0000e-004	0.0145	3.8200e-003	1.8000e-004	4.0000e-003	0.0000	16.1045	16.1045	9.2000e-004	0.0000	16.1276

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Mobile Home Park	9.98	10.00	8.72	37,691	37,691
Total	9.98	10.00	8.72	37,691	37,691

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Mobile Home Park	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Mobile Home Park	0.512500	0.213300	0.168800	0.060900	0.002100	0.001000	0.009400	0.021800	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.8295	3.8295	1.6000e-004	3.0000e-005	3.8432
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.8295	3.8295	1.6000e-004	3.0000e-005	3.8432
NaturalGas Mitigated	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120
NaturalGas Unmitigated	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Mobile Home Park	48657	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120
Total		**2.6000e-004**	**2.2400e-003**	**9.5000e-004**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**2.5965**	**2.5965**	**5.0000e-005**	**5.0000e-005**	**2.6120**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Mobile Home Park	48657	2.6000e-004	2.2400e-003	9.5000e-004	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5965	2.5965	5.0000e-005	5.0000e-005	2.6120
Total		**2.6000e-004**	**2.2400e-003**	**9.5000e-004**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**2.5965**	**2.5965**	**5.0000e-005**	**5.0000e-005**	**2.6120**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	12019	3.8295	1.6000e-004	3.0000e-005	3.8432
Total		**3.8295**	**1.6000e-004**	**3.0000e-005**	**3.8432**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	12019	3.8295	1.6000e-004	3.0000e-005	3.8432
Total		**3.8295**	**1.6000e-004**	**3.0000e-005**	**3.8432**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533
Unmitigated	0.1391	2.6300e-003	0.1699	2.8000e-004		0.0218	0.0218		0.0218	0.0218	2.0659	0.8907	2.9566	1.9300e-003	1.6000e-004	3.0533

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1255	2.4500e-003	0.1549	2.8000e-004		0.0217	0.0217		0.0217	0.0217	2.0659	0.8664	2.9323	1.9100e-003	1.6000e-004	3.0284
Landscaping	4.7000e-004	1.7000e-004	0.0150	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.1391**	**2.6200e-003**	**0.1699**	**2.8000e-004**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**2.0659**	**0.8907**	**2.9566**	**1.9300e-003**	**1.6000e-004**	**3.0533**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1255	2.4500e-003	0.1549	2.8000e-004		0.0217	0.0217		0.0217	0.0217	2.0659	0.8664	2.9323	1.9100e-003	1.6000e-004	3.0284
Landscaping	4.7000e-004	1.7000e-004	0.0150	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0243	0.0243	2.0000e-005	0.0000	0.0249
Total	**0.1391**	**2.6200e-003**	**0.1699**	**2.8000e-004**		**0.0218**	**0.0218**		**0.0218**	**0.0218**	**2.0659**	**0.8907**	**2.9566**	**1.9300e-003**	**1.6000e-004**	**3.0533**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8728	4.2800e-003	1.1000e-004	1.0118
Unmitigated	0.8728	4.2800e-003	1.1000e-004	1.0118

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	0.130308 / 0.0821507	0.8728	4.2800e-003	1.1000e-004	1.0118
Total		**0.8728**	**4.2800e-003**	**1.1000e-004**	**1.0118**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	0.130308 / 0.0821507	0.8728	4.2800e-003	1.1000e-004	1.0118
Total		**0.8728**	**4.2800e-003**	**1.1000e-004**	**1.0118**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1868	0.0110	0.0000	0.4627
Unmitigated	0.1868	0.0110	0.0000	0.4627

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	0.92	0.1868	0.0110	0.0000	0.4627
Total		**0.1868**	**0.0110**	**0.0000**	**0.4627**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	0.92	0.1868	0.0110	0.0000	0.4627
Total		**0.1868**	**0.0110**	**0.0000**	**0.4627**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11781

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	15.00	Dwelling Unit	20.35	27,000.00	43

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2018 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.46	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	7.8690e-003	1.0000e-003
tblFleetMix	MCY	6.2390e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.1150e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.5000e-003
tblFleetMix	OBUS	1.6570e-003	0.00
tblFleetMix	SBUS	1.0260e-003	1.0000e-003
tblFleetMix	UBUS	1.9600e-003	3.8000e-003
tblLandUse	LotAcreage	4.87	20.35
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4484	4.0326	2.6523	4.0900e-003	0.1893	0.2511	0.4404	0.0889	0.2350	0.3239	0.0000	368.6316	368.6316	0.0922	0.0000	370.9362
2018	0.4429	0.1961	0.1742	2.8000e-004	2.0000e-003	0.0111	0.0131	5.3000e-004	0.0103	0.0109	0.0000	25.3057	25.3057	6.7800e-003	0.0000	25.4753
Maximum	**0.4484**	**4.0326**	**2.6523**	**4.0900e-003**	**0.1893**	**0.2511**	**0.4404**	**0.0889**	**0.2350**	**0.3239**	**0.0000**	**368.6316**	**368.6316**	**0.0922**	**0.0000**	**370.9362**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4484	4.0326	2.6523	4.0900e-003	0.1893	0.2511	0.4404	0.0889	0.2350	0.3239	0.0000	368.6312	368.6312	0.0922	0.0000	370.9357
2018	0.4429	0.1961	0.1742	2.8000e-004	2.0000e-003	0.0111	0.0131	5.3000e-004	0.0103	0.0109	0.0000	25.3057	25.3057	6.7800e-003	0.0000	25.4752
Maximum	**0.4484**	**4.0326**	**2.6523**	**4.0900e-003**	**0.1893**	**0.2511**	**0.4404**	**0.0889**	**0.2350**	**0.3239**	**0.0000**	**368.6312**	**368.6312**	**0.0922**	**0.0000**	**370.9357**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.5226	1.5226
2	**4-2-2017**	**7-1-2017**	0.9760	0.9760
3	**7-2-2017**	**10-1-2017**	0.9868	0.9868
4	**10-2-2017**	**1-1-2018**	0.9781	0.9781
5	**1-2-2018**	**4-1-2018**	0.6183	0.6183
		Highest	1.5226	1.5226

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0923	0.0197	1.2740	2.1100e-003		0.1635	0.1635		0.1635	0.1635	15.4944	6.6800	22.1744	0.0145	1.2200e-003	22.8996
Energy	2.5300e-003	0.0216	9.2100e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	69.1650	69.1650	2.3000e-003	8.4000e-004	69.4717
Mobile	0.0687	0.2748	0.9104	2.5500e-003	0.2061	2.8500e-003	0.2090	0.0552	2.6800e-003	0.0578	0.0000	232.9565	232.9565	0.0133	0.0000	233.2896
Waste						0.0000	0.0000		0.0000	0.0000	3.5787	0.0000	3.5787	0.2115	0.0000	8.8662
Water						0.0000	0.0000		0.0000	0.0000	0.3101	6.2357	6.5457	0.0321	8.1000e-004	7.5883
Total	**1.1636**	**0.3161**	**2.1936**	**4.8000e-003**	**0.2061**	**0.1681**	**0.3742**	**0.0552**	**0.1679**	**0.2231**	**19.3832**	**315.0372**	**334.4203**	**0.2737**	**2.8700e-003**	**342.1153**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0923	0.0197	1.2740	2.1100e-003		0.1635	0.1635		0.1635	0.1635	15.4944	6.6800	22.1744	0.0145	1.2200e-003	22.8996
Energy	2.5300e-003	0.0216	9.2100e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	69.1650	69.1650	2.3000e-003	8.4000e-004	69.4717
Mobile	0.0687	0.2748	0.9104	2.5500e-003	0.2061	2.8500e-003	0.2090	0.0552	2.6800e-003	0.0578	0.0000	232.9565	232.9565	0.0133	0.0000	233.2896
Waste						0.0000	0.0000		0.0000	0.0000	3.5787	0.0000	3.5787	0.2115	0.0000	8.8662
Water						0.0000	0.0000		0.0000	0.0000	0.3101	6.2357	6.5457	0.0321	8.1000e-004	7.5883
Total	**1.1636**	**0.3161**	**2.1936**	**4.8000e-003**	**0.2061**	**0.1681**	**0.3742**	**0.0552**	**0.1679**	**0.2231**	**19.3832**	**315.0372**	**334.4203**	**0.2737**	**2.8700e-003**	**342.1153**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/13/2017	5	10	
2	Grading	Grading	1/14/2017	2/10/2017	5	35	
3	Building Construction	Building Construction	2/11/2017	12/29/2017	5	370	
4	Paving	Paving	12/30/2017	1/26/2018	5	20	
5	Architectural Coating	Architectural Coating	1/27/2018	2/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 54,675; Residential Outdoor: 18,225; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	5.3000e-004	5.0900e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.1270	1.1270	4.0000e-005	0.0000	1.1280
Total	**6.8000e-004**	**5.3000e-004**	**5.0900e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.1270**	**1.1270**	**4.0000e-005**	**0.0000**	**1.1280**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0360	0.0000	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0575	0.6794	0.3878	6.2000e-004		0.0307	0.0307		0.0283	0.0283	0.0000	57.5598	57.5598	0.0176	0.0000	58.0008
Total	**0.0575**	**0.6794**	**0.3878**	**6.2000e-004**	**0.0867**	**0.0307**	**0.1175**	**0.0360**	**0.0283**	**0.0642**	**0.0000**	**57.5598**	**57.5598**	**0.0176**	**0.0000**	**58.0008**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	1.1800e-003	0.0113	3.0000e-005	2.5100e-003	2.0000e-005	2.5200e-003	6.7000e-004	2.0000e-005	6.8000e-004	0.0000	2.5044	2.5044	9.0000e-005	0.0000	2.5066
Total	**1.5200e-003**	**1.1800e-003**	**0.0113**	**3.0000e-005**	**2.5100e-003**	**2.0000e-005**	**2.5200e-003**	**6.7000e-004**	**2.0000e-005**	**6.8000e-004**	**0.0000**	**2.5044**	**2.5044**	**9.0000e-005**	**0.0000**	**2.5066**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0360	0.0000	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0575	0.6794	0.3878	6.2000e-004		0.0307	0.0307		0.0283	0.0283	0.0000	57.5598	57.5598	0.0176	0.0000	58.0007
Total	**0.0575**	**0.6794**	**0.3878**	**6.2000e-004**	**0.0867**	**0.0307**	**0.1175**	**0.0360**	**0.0283**	**0.0642**	**0.0000**	**57.5598**	**57.5598**	**0.0176**	**0.0000**	**58.0007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	1.1800e-003	0.0113	3.0000e-005	2.5100e-003	2.0000e-005	2.5200e-003	6.7000e-004	2.0000e-005	6.8000e-004	0.0000	2.5044	2.5044	9.0000e-005	0.0000	2.5066
Total	**1.5200e-003**	**1.1800e-003**	**0.0113**	**3.0000e-005**	**2.5100e-003**	**2.0000e-005**	**2.5200e-003**	**6.7000e-004**	**2.0000e-005**	**6.8000e-004**	**0.0000**	**2.5044**	**2.5044**	**9.0000e-005**	**0.0000**	**2.5066**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5668	276.5668	0.0681	0.0000	278.2702
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5668**	**276.5668**	**0.0681**	**0.0000**	**278.2702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3300e-003	0.0329	7.3400e-003	6.0000e-005	1.3900e-003	3.0000e-004	1.6900e-003	4.0000e-004	2.9000e-004	6.9000e-004	0.0000	6.0064	6.0064	6.2000e-004	0.0000	6.0218
Worker	4.3600e-003	3.4100e-003	0.0325	8.0000e-005	7.2000e-003	5.0000e-005	7.2600e-003	1.9100e-003	5.0000e-005	1.9600e-003	0.0000	7.2001	7.2001	2.5000e-004	0.0000	7.2063
Total	**5.6900e-003**	**0.0364**	**0.0399**	**1.4000e-004**	**8.5900e-003**	**3.5000e-004**	**8.9500e-003**	**2.3100e-003**	**3.4000e-004**	**2.6500e-003**	**0.0000**	**13.2065**	**13.2065**	**8.7000e-004**	**0.0000**	**13.2282**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5664	276.5664	0.0681	0.0000	278.2699
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5664**	**276.5664**	**0.0681**	**0.0000**	**278.2699**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3300e-003	0.0329	7.3400e-003	6.0000e-005	1.3900e-003	3.0000e-004	1.6900e-003	4.0000e-004	2.9000e-004	6.9000e-004	0.0000	6.0064	6.0064	6.2000e-004	0.0000	6.0218
Worker	4.3600e-003	3.4100e-003	0.0325	8.0000e-005	7.2000e-003	5.0000e-005	7.2600e-003	1.9100e-003	5.0000e-005	1.9600e-003	0.0000	7.2001	7.2001	2.5000e-004	0.0000	7.2063
Total	**5.6900e-003**	**0.0364**	**0.0399**	**1.4000e-004**	**8.5900e-003**	**3.5000e-004**	**8.9500e-003**	**2.3100e-003**	**3.4000e-004**	**2.6500e-003**	**0.0000**	**13.2065**	**13.2065**	**8.7000e-004**	**0.0000**	**13.2282**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8195	1.8195	6.0000e-005	0.0000	1.8209
Total	**9.9000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8195**	**1.8195**	**6.0000e-005**	**0.0000**	**1.8209**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.4224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.4254**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1213	0.1213	0.0000	0.0000	0.1214
Total	**7.0000e-005**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.0000**	**0.1214**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.4224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**0.4254**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1213	0.1213	0.0000	0.0000	0.1214
Total	**7.0000e-005**	**5.0000e-005**	**4.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1213**	**0.1213**	**0.0000**	**0.0000**	**0.1214**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0687	0.2748	0.9104	2.5500e-003	0.2061	2.8500e-003	0.2090	0.0552	2.6800e-003	0.0578	0.0000	232.9565	232.9565	0.0133	0.0000	233.2896
Unmitigated	0.0687	0.2748	0.9104	2.5500e-003	0.2061	2.8500e-003	0.2090	0.0552	2.6800e-003	0.0578	0.0000	232.9565	232.9565	0.0133	0.0000	233.2896

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	142.80	148.65	129.30	544,846	544,846
Total	142.80	148.65	129.30	544,846	544,846

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.512100	0.213500	0.168900	0.060800	0.002100	0.001000	0.009500	0.021900	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	44.1054	44.1054	1.8200e-003	3.8000e-004	44.2632
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	44.1054	44.1054	1.8200e-003	3.8000e-004	44.2632
NaturalGas Mitigated	2.5300e-003	0.0216	9.2100e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0596	25.0596	4.8000e-004	4.6000e-004	25.2085
NaturalGas Unmitigated	2.5300e-003	0.0216	9.2100e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0596	25.0596	4.8000e-004	4.6000e-004	25.2085

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	469599	2.5300e-003	0.0216	9.2100e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0596	25.0596	4.8000e-004	4.6000e-004	25.2085
Total		**2.5300e-003**	**0.0216**	**9.2100e-003**	**1.4000e-004**		**1.7500e-003**	**1.7500e-003**		**1.7500e-003**	**1.7500e-003**	**0.0000**	**25.0596**	**25.0596**	**4.8000e-004**	**4.6000e-004**	**25.2085**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	469599	2.5300e-003	0.0216	9.2100e-003	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	25.0596	25.0596	4.8000e-004	4.6000e-004	25.2085
Total		**2.5300e-003**	**0.0216**	**9.2100e-003**	**1.4000e-004**		**1.7500e-003**	**1.7500e-003**		**1.7500e-003**	**1.7500e-003**	**0.0000**	**25.0596**	**25.0596**	**4.8000e-004**	**4.6000e-004**	**25.2085**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	138426	44.1054	1.8200e-003	3.8000e-004	44.2632
Total		**44.1054**	**1.8200e-003**	**3.8000e-004**	**44.2632**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	138426	44.1054	1.8200e-003	3.8000e-004	44.2632
Total		**44.1054**	**1.8200e-003**	**3.8000e-004**	**44.2632**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0923	0.0197	1.2740	2.1100e-003		0.1635	0.1635		0.1635	0.1635	15.4944	6.6800	22.1744	0.0145	1.2200e-003	22.8996
Unmitigated	1.0923	0.0197	1.2740	2.1100e-003		0.1635	0.1635		0.1635	0.1635	15.4944	6.6800	22.1744	0.0145	1.2200e-003	22.8996

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0422					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.9412	0.0184	1.1618	2.1000e-003		0.1629	0.1629		0.1629	0.1629	15.4944	6.4981	21.9925	0.0143	1.2200e-003	22.7131
Landscaping	3.4600e-003	1.3000e-003	0.1122	1.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	0.1819	0.1819	1.8000e-004	0.0000	0.1864
Total	**1.0923**	**0.0197**	**1.2740**	**2.1100e-003**		**0.1635**	**0.1635**		**0.1635**	**0.1635**	**15.4944**	**6.6800**	**22.1744**	**0.0145**	**1.2200e-003**	**22.8996**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0422					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.9412	0.0184	1.1618	2.1000e-003		0.1629	0.1629		0.1629	0.1629	15.4944	6.4981	21.9925	0.0143	1.2200e-003	22.7131
Landscaping	3.4600e-003	1.3000e-003	0.1122	1.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	0.1819	0.1819	1.8000e-004	0.0000	0.1864
Total	**1.0923**	**0.0197**	**1.2740**	**2.1100e-003**		**0.1635**	**0.1635**		**0.1635**	**0.1635**	**15.4944**	**6.6800**	**22.1744**	**0.0145**	**1.2200e-003**	**22.8996**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.5457	0.0321	8.1000e-004	7.5883
Unmitigated	6.5457	0.0321	8.1000e-004	7.5883

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.97731 / 0.61613	6.5457	0.0321	8.1000e-004	7.5883
Total		**6.5457**	**0.0321**	**8.1000e-004**	**7.5883**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.97731 / 0.61613	6.5457	0.0321	8.1000e-004	7.5883
Total		**6.5457**	**0.0321**	**8.1000e-004**	**7.5883**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.5787	0.2115	0.0000	8.8662
Unmitigated	3.5787	0.2115	0.0000	8.8662

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	17.63	3.5787	0.2115	0.0000	8.8662
Total		**3.5787**	**0.2115**	**0.0000**	**8.8662**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	17.63	3.5787	0.2115	0.0000	8.8662
Total		**3.5787**	**0.2115**	**0.0000**	**8.8662**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 11922

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Mobile Home Park	4.00	Dwelling Unit	1.00	4,800.00	11

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2017 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.14	0.02
tblFleetMix	LDA	0.45	0.51
tblFleetMix	LDT1	0.03	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.03	2.1000e-003
tblFleetMix	LHD2	8.5100e-003	1.0000e-003
tblFleetMix	MCY	6.3780e-003	3.1000e-003
tblFleetMix	MDV	0.14	0.06
tblFleetMix	MH	1.2160e-003	2.3000e-003
tblFleetMix	MHD	0.02	9.4000e-003
tblFleetMix	OBUS	1.6740e-003	0.00
tblFleetMix	SBUS	1.0580e-003	1.0000e-003
tblFleetMix	UBUS	2.0580e-003	3.8000e-003
tblLandUse	LotAcreage	0.50	1.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2313	1.0285	0.7678	1.1900e-003	0.0103	0.0653	0.0756	4.6600e-003	0.0628	0.0675	0.0000	101.0265	101.0265	0.0212	0.0000	101.5571
Maximum	**0.2313**	**1.0285**	**0.7678**	**1.1900e-003**	**0.0103**	**0.0653**	**0.0756**	**4.6600e-003**	**0.0628**	**0.0675**	**0.0000**	**101.0265**	**101.0265**	**0.0212**	**0.0000**	**101.5571**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2313	1.0285	0.7678	1.1900e-003	0.0103	0.0653	0.0756	4.6600e-003	0.0628	0.0675	0.0000	101.0264	101.0264	0.0212	0.0000	101.5570
Maximum	**0.2313**	**1.0285**	**0.7678**	**1.1900e-003**	**0.0103**	**0.0653**	**0.0756**	**4.6600e-003**	**0.0628**	**0.0675**	**0.0000**	**101.0264**	**101.0264**	**0.0212**	**0.0000**	**101.5570**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	0.7142	0.7142
2	**4-2-2017**	**7-1-2017**	0.5366	0.5366
		Highest	0.7142	0.7142

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2782	5.2500e-003	0.3398	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	5.2000e-004	4.4800e-003	1.9100e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	12.8521	12.8521	4.2000e-004	1.6000e-004	12.9103
Mobile	0.0110	0.0416	0.1452	3.6000e-004	0.0285	4.5000e-004	0.0290	7.6300e-003	4.2000e-004	8.0500e-003	0.0000	33.0781	33.0781	2.0400e-003	0.0000	33.1291
Waste						0.0000	0.0000		0.0000	0.0000	0.3735	0.0000	0.3735	0.0221	0.0000	0.9253
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.2897**	**0.0513**	**0.4870**	**9.5000e-004**	**0.0285**	**0.0444**	**0.0729**	**7.6300e-003**	**0.0444**	**0.0520**	**4.5880**	**49.3744**	**53.9624**	**0.0370**	**6.9000e-004**	**55.0949**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2782	5.2500e-003	0.3398	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Energy	5.2000e-004	4.4800e-003	1.9100e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	12.8521	12.8521	4.2000e-004	1.6000e-004	12.9103
Mobile	0.0110	0.0416	0.1452	3.6000e-004	0.0285	4.5000e-004	0.0290	7.6300e-003	4.2000e-004	8.0500e-003	0.0000	33.0781	33.0781	2.0400e-003	0.0000	33.1291
Waste						0.0000	0.0000		0.0000	0.0000	0.3735	0.0000	0.3735	0.0221	0.0000	0.9253
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.6628	1.7455	8.5600e-003	2.1000e-004	2.0235
Total	**0.2897**	**0.0513**	**0.4870**	**9.5000e-004**	**0.0285**	**0.0444**	**0.0729**	**7.6300e-003**	**0.0444**	**0.0520**	**4.5880**	**49.3744**	**53.9624**	**0.0370**	**6.9000e-004**	**55.0949**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/2/2017	5	1	
2	Grading	Grading	1/3/2017	1/4/2017	5	2	
3	Building Construction	Building Construction	1/5/2017	5/24/2017	5	100	
4	Paving	Paving	5/25/2017	5/31/2017	5	5	
5	Architectural Coating	Architectural Coating	6/1/2017	6/7/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.75

Acres of Paving: 0

Residential Indoor: 9,720; Residential Outdoor: 3,240; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Graders	1	8.00	187	0.41
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	1.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	0.0111	4.2000e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	0.8002	0.8002	2.5000e-004	0.0000	0.8064
Total	**9.6000e-004**	**0.0111**	**4.2000e-003**	**1.0000e-005**	**2.9000e-003**	**5.2000e-004**	**3.4200e-003**	**1.4800e-003**	**4.8000e-004**	**1.9600e-003**	**0.0000**	**0.8002**	**0.8002**	**2.5000e-004**	**0.0000**	**0.8064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0501	0.0501	0.0000	0.0000	0.0501
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0501**	**0.0501**	**0.0000**	**0.0000**	**0.0501**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	0.0111	4.2000e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	0.8002	0.8002	2.5000e-004	0.0000	0.8064
Total	**9.6000e-004**	**0.0111**	**4.2000e-003**	**1.0000e-005**	**2.9000e-003**	**5.2000e-004**	**3.4200e-003**	**1.4800e-003**	**4.8000e-004**	**1.9600e-003**	**0.0000**	**0.8002**	**0.8002**	**2.5000e-004**	**0.0000**	**0.8064**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0501	0.0501	0.0000	0.0000	0.0501
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0501**	**0.0501**	**0.0000**	**0.0000**	**0.0501**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					4.9100e-003	0.0000	4.9100e-003	2.5300e-003	0.0000	2.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6000e-003	0.0183	7.0300e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.0000e-004	8.0000e-004	0.0000	1.3108	1.3108	4.0000e-004	0.0000	1.3208
Total	**1.6000e-003**	**0.0183**	**7.0300e-003**	**1.0000e-005**	**4.9100e-003**	**8.7000e-004**	**5.7800e-003**	**2.5300e-003**	**8.0000e-004**	**3.3300e-003**	**0.0000**	**1.3108**	**1.3108**	**4.0000e-004**	**0.0000**	**1.3208**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1002	0.1002	0.0000	0.0000	0.1003
Total	**6.0000e-005**	**5.0000e-005**	**4.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1002**	**0.1002**	**0.0000**	**0.0000**	**0.1003**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					4.9100e-003	0.0000	4.9100e-003	2.5300e-003	0.0000	2.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6000e-003	0.0183	7.0300e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.0000e-004	8.0000e-004	0.0000	1.3108	1.3108	4.0000e-004	0.0000	1.3208
Total	**1.6000e-003**	**0.0183**	**7.0300e-003**	**1.0000e-005**	**4.9100e-003**	**8.7000e-004**	**5.7800e-003**	**2.5300e-003**	**8.0000e-004**	**3.3300e-003**	**0.0000**	**1.3108**	**1.3108**	**4.0000e-004**	**0.0000**	**1.3208**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1002	0.1002	0.0000	0.0000	0.1003
Total	**6.0000e-005**	**5.0000e-005**	**4.5000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1002**	**0.1002**	**0.0000**	**0.0000**	**0.1003**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1483	0.9618	0.7178	1.1000e-003		0.0616	0.0616		0.0594	0.0594	0.0000	92.7081	92.7081	0.0195	0.0000	93.1955
Total	**0.1483**	**0.9618**	**0.7178**	**1.1000e-003**		**0.0616**	**0.0616**		**0.0594**	**0.0594**	**0.0000**	**92.7081**	**92.7081**	**0.0195**	**0.0000**	**93.1955**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1483	0.9618	0.7178	1.1000e-003		0.0616	0.0616		0.0594	0.0594	0.0000	92.7080	92.7080	0.0195	0.0000	93.1954
Total	**0.1483**	**0.9618**	**0.7178**	**1.1000e-003**		**0.0616**	**0.0616**		**0.0594**	**0.0594**	**0.0000**	**92.7080**	**92.7080**	**0.0195**	**0.0000**	**93.1954**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.9000e-004	8.4800e-003	2.0000e-005	1.8800e-003	1.0000e-005	1.8900e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8783	1.8783	7.0000e-005	0.0000	1.8799
Total	**1.1400e-003**	**8.9000e-004**	**8.4800e-003**	**2.0000e-005**	**1.8800e-003**	**1.0000e-005**	**1.8900e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.8783**	**1.8783**	**7.0000e-005**	**0.0000**	**1.8799**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	3.0000e-003	0.0307	0.0229	3.0000e-005		1.8500e-003	1.8500e-003		1.7100e-003	1.7100e-003	0.0000	3.1022	3.1022	9.3000e-004	0.0000	3.1255
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0000e-003**	**0.0307**	**0.0229**	**3.0000e-005**		**1.8500e-003**	**1.8500e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**3.1022**	**3.1022**	**9.3000e-004**	**0.0000**	**3.1255**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.9000e-004	1.8400e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4070	0.4070	1.0000e-005	0.0000	0.4073
Total	**2.5000e-004**	**1.9000e-004**	**1.8400e-003**	**0.0000**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4070**	**0.4070**	**1.0000e-005**	**0.0000**	**0.4073**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	3.0000e-003	0.0307	0.0229	3.0000e-005		1.8500e-003	1.8500e-003		1.7100e-003	1.7100e-003	0.0000	3.1022	3.1022	9.3000e-004	0.0000	3.1255
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0000e-003**	**0.0307**	**0.0229**	**3.0000e-005**		**1.8500e-003**	**1.8500e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**3.1022**	**3.1022**	**9.3000e-004**	**0.0000**	**3.1255**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.9000e-004	1.8400e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4070	0.4070	1.0000e-005	0.0000	0.4073
Total	**2.5000e-004**	**1.9000e-004**	**1.8400e-003**	**0.0000**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4070**	**0.4070**	**1.0000e-005**	**0.0000**	**0.4073**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0751					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6400
Total	**0.0759**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6400**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0313	0.0313	0.0000	0.0000	0.0313
Total	**2.0000e-005**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0313**	**0.0313**	**0.0000**	**0.0000**	**0.0313**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0751					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6400
Total	**0.0759**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6400**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0313	0.0313	0.0000	0.0000	0.0313
Total	**2.0000e-005**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0313**	**0.0313**	**0.0000**	**0.0000**	**0.0313**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0110	0.0416	0.1452	3.6000e-004	0.0285	4.5000e-004	0.0290	7.6300e-003	4.2000e-004	8.0500e-003	0.0000	33.0781	33.0781	2.0400e-003	0.0000	33.1291
Unmitigated	0.0110	0.0416	0.1452	3.6000e-004	0.0285	4.5000e-004	0.0290	7.6300e-003	4.2000e-004	8.0500e-003	0.0000	33.0781	33.0781	2.0400e-003	0.0000	33.1291

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Mobile Home Park	19.96	20.00	17.44	75,381	75,381
Total	19.96	20.00	17.44	75,381	75,381

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Mobile Home Park	16.80	7.10	7.90	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Mobile Home Park	0.512500	0.213300	0.168800	0.060900	0.002100	0.001000	0.009400	0.021800	0.000000	0.003800	0.003100	0.001000	0.002300

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.6590	7.6590	3.2000e-004	7.0000e-005	7.6864
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.6590	7.6590	3.2000e-004	7.0000e-005	7.6864
NaturalGas Mitigated	5.2000e-004	4.4800e-003	1.9100e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1930	5.1930	1.0000e-004	1.0000e-004	5.2239
NaturalGas Unmitigated	5.2000e-004	4.4800e-003	1.9100e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1930	5.1930	1.0000e-004	1.0000e-004	5.2239

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Mobile Home Park	97313.9	5.2000e-004	4.4800e-003	1.9100e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1930	5.1930	1.0000e-004	1.0000e-004	5.2239
Total		**5.2000e-004**	**4.4800e-003**	**1.9100e-003**	**3.0000e-005**		**3.6000e-004**	**3.6000e-004**		**3.6000e-004**	**3.6000e-004**	**0.0000**	**5.1930**	**5.1930**	**1.0000e-004**	**1.0000e-004**	**5.2239**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Mobile Home Park	97313.9	5.2000e-004	4.4800e-003	1.9100e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1930	5.1930	1.0000e-004	1.0000e-004	5.2239
Total		**5.2000e-004**	**4.4800e-003**	**1.9100e-003**	**3.0000e-005**		**3.6000e-004**	**3.6000e-004**		**3.6000e-004**	**3.6000e-004**	**0.0000**	**5.1930**	**5.1930**	**1.0000e-004**	**1.0000e-004**	**5.2239**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	24038	7.6590	3.2000e-004	7.0000e-005	7.6864
Total		**7.6590**	**3.2000e-004**	**7.0000e-005**	**7.6864**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Mobile Home Park	24038	7.6590	3.2000e-004	7.0000e-005	7.6864
Total		**7.6590**	**3.2000e-004**	**7.0000e-005**	**7.6864**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2782	5.2500e-003	0.3398	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066
Unmitigated	0.2782	5.2500e-003	0.3398	5.6000e-004		0.0436	0.0436		0.0436	0.0436	4.1318	1.7813	5.9132	3.8600e-003	3.2000e-004	6.1066

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0188					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.3000e-004	3.5000e-004	0.0300	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2782**	**5.2500e-003**	**0.3398**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.5100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0188					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2510	4.9000e-003	0.3098	5.6000e-004		0.0434	0.0434		0.0434	0.0434	4.1318	1.7328	5.8647	3.8100e-003	3.2000e-004	6.0568
Landscaping	9.3000e-004	3.5000e-004	0.0300	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	0.0485	0.0485	5.0000e-005	0.0000	0.0497
Total	**0.2782**	**5.2500e-003**	**0.3398**	**5.6000e-004**		**0.0436**	**0.0436**		**0.0436**	**0.0436**	**4.1318**	**1.7814**	**5.9132**	**3.8600e-003**	**3.2000e-004**	**6.1066**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7455	8.5600e-003	2.1000e-004	2.0235
Unmitigated	1.7455	8.5600e-003	2.1000e-004	2.0235

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Mobile Home Park	0.260616 / 0.164301	1.7455	8.5600e-003	2.1000e-004	2.0235
Total		**1.7455**	**8.5600e-003**	**2.1000e-004**	**2.0235**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.3735	0.0221	0.0000	0.9253
Unmitigated	0.3735	0.0221	0.0000	0.9253

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	1.84	0.3735	0.0221	0.0000	0.9253
Total		**0.3735**	**0.0221**	**0.0000**	**0.9253**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Mobile Home Park	1.84	0.3735	0.0221	0.0000	0.9253
Total		**0.3735**	**0.0221**	**0.0000**	**0.9253**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 12012

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	111.08	1000sqft	5.10	111,078.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage. Assumed SF is 50% of total acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2017 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	2.55	5.10
tblProjectCharacteristics	OperationalYear	2018	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.5082	1.5850	1.1152	1.9700e-003	0.0446	0.0973	0.1418	0.0162	0.0913	0.1074	0.0000	177.7250	177.7250	0.0359	0.0000	178.6235
Maximum	**0.5082**	**1.5850**	**1.1152**	**1.9700e-003**	**0.0446**	**0.0973**	**0.1418**	**0.0162**	**0.0913**	**0.1074**	**0.0000**	**177.7250**	**177.7250**	**0.0359**	**0.0000**	**178.6235**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.5082	1.5850	1.1152	1.9700e-003	0.0446	0.0973	0.1418	0.0162	0.0913	0.1074	0.0000	177.7249	177.7249	0.0359	0.0000	178.6233
Maximum	**0.5082**	**1.5850**	**1.1152**	**1.9700e-003**	**0.0446**	**0.0973**	**0.1418**	**0.0162**	**0.0913**	**0.1074**	**0.0000**	**177.7249**	**177.7249**	**0.0359**	**0.0000**	**178.6233**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.0684	1.0684
2	**4-2-2017**	**7-1-2017**	1.0065	1.0065
		Highest	1.0684	1.0684

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Energy	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	463.3654	463.3654	0.0169	4.9600e-003	465.2652
Mobile	0.5155	5.8811	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.3681	1,892.3681	0.1636	0.0000	1,896.4587
Waste						0.0000	0.0000		0.0000	0.0000	20.9690	0.0000	20.9690	1.2392	0.0000	51.9497
Water						0.0000	0.0000		0.0000	0.0000	6.2634	124.7416	131.0050	0.6485	0.0163	152.0608
Total	**1.0884**	**5.9752**	**5.0837**	**0.0209**	**0.9945**	**0.0413**	**1.0357**	**0.2680**	**0.0396**	**0.3076**	**27.2324**	**2,480.4770**	**2,507.7094**	**2.0682**	**0.0212**	**2,565.7366**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Energy	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	463.3654	463.3654	0.0169	4.9600e-003	465.2652
Mobile	0.5155	5.8811	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.3681	1,892.3681	0.1636	0.0000	1,896.4587
Waste						0.0000	0.0000		0.0000	0.0000	20.9690	0.0000	20.9690	1.2392	0.0000	51.9497
Water						0.0000	0.0000		0.0000	0.0000	6.2634	124.7416	131.0050	0.6485	0.0163	152.0608
Total	**1.0884**	**5.9752**	**5.0837**	**0.0209**	**0.9945**	**0.0413**	**1.0357**	**0.2680**	**0.0396**	**0.3076**	**27.2324**	**2,480.4770**	**2,507.7094**	**2.0682**	**0.0212**	**2,565.7366**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/2/2017	5	10	
2	Grading	Grading	1/3/2017	1/4/2017	5	20	
3	Building Construction	Building Construction	1/5/2017	5/24/2017	5	230	
4	Paving	Paving	5/25/2017	5/31/2017	5	20	
5	Architectural Coating	Architectural Coating	6/1/2017	6/7/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 166,617; Non-Residential Outdoor: 55,539; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	7.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	36.00	18.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0261	0.0117	2.0000e-005		1.4400e-003	1.4400e-003		1.3200e-003	1.3200e-003	0.0000	1.7667	1.7667	5.4000e-004	0.0000	1.7803
Total	**2.4800e-003**	**0.0261**	**0.0117**	**2.0000e-005**	**9.0300e-003**	**1.4400e-003**	**0.0105**	**4.9700e-003**	**1.3200e-003**	**6.2900e-003**	**0.0000**	**1.7667**	**1.7667**	**5.4000e-004**	**0.0000**	**1.7803**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1127	0.1127	0.0000	0.0000	0.1128
Total	**7.0000e-005**	**5.0000e-005**	**5.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1127**	**0.1127**	**0.0000**	**0.0000**	**0.1128**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0261	0.0117	2.0000e-005		1.4400e-003	1.4400e-003		1.3200e-003	1.3200e-003	0.0000	1.7667	1.7667	5.4000e-004	0.0000	1.7803
Total	**2.4800e-003**	**0.0261**	**0.0117**	**2.0000e-005**	**9.0300e-003**	**1.4400e-003**	**0.0105**	**4.9700e-003**	**1.3200e-003**	**6.2900e-003**	**0.0000**	**1.7667**	**1.7667**	**5.4000e-004**	**0.0000**	**1.7803**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1127	0.1127	0.0000	0.0000	0.1128
Total	**7.0000e-005**	**5.0000e-005**	**5.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1127**	**0.1127**	**0.0000**	**0.0000**	**0.1128**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					6.5500e-003	0.0000	6.5500e-003	3.3700e-003	0.0000	3.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0339	0.0171	3.0000e-005		1.7800e-003	1.7800e-003		1.6400e-003	1.6400e-003	0.0000	2.7560	2.7560	8.4000e-004	0.0000	2.7771
Total	**3.0700e-003**	**0.0339**	**0.0171**	**3.0000e-005**	**6.5500e-003**	**1.7800e-003**	**8.3300e-003**	**3.3700e-003**	**1.6400e-003**	**5.0100e-003**	**0.0000**	**2.7560**	**2.7560**	**8.4000e-004**	**0.0000**	**2.7771**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	9.0000e-005	8.5000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1878	0.1878	1.0000e-005	0.0000	0.1880
Total	**1.1000e-004**	**9.0000e-005**	**8.5000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1878**	**0.1878**	**1.0000e-005**	**0.0000**	**0.1880**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					6.5500e-003	0.0000	6.5500e-003	3.3700e-003	0.0000	3.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0339	0.0171	3.0000e-005		1.7800e-003	1.7800e-003		1.6400e-003	1.6400e-003	0.0000	2.7559	2.7559	8.4000e-004	0.0000	2.7771
Total	**3.0700e-003**	**0.0339**	**0.0171**	**3.0000e-005**	**6.5500e-003**	**1.7800e-003**	**8.3300e-003**	**3.3700e-003**	**1.6400e-003**	**5.0100e-003**	**0.0000**	**2.7559**	**2.7559**	**8.4000e-004**	**0.0000**	**2.7771**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	9.0000e-005	8.5000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1878	0.1878	1.0000e-005	0.0000	0.1880
Total	**1.1000e-004**	**9.0000e-005**	**8.5000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1878**	**0.1878**	**1.0000e-005**	**0.0000**	**0.1880**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1558	1.3277	0.9091	1.3500e-003		0.0894	0.0894		0.0840	0.0840	0.0000	120.2464	120.2464	0.0296	0.0000	120.9871
Total	**0.1558**	**1.3277**	**0.9091**	**1.3500e-003**		**0.0894**	**0.0894**		**0.0840**	**0.0840**	**0.0000**	**120.2464**	**120.2464**	**0.0296**	**0.0000**	**120.9871**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2000e-003	0.1289	0.0287	2.5000e-004	5.4300e-003	1.1700e-003	6.6000e-003	1.5700e-003	1.1200e-003	2.6900e-003	0.0000	23.5031	23.5031	2.4200e-003	0.0000	23.5637
Worker	0.0137	0.0107	0.1018	2.5000e-004	0.0226	1.7000e-004	0.0227	5.9900e-003	1.5000e-004	6.1400e-003	0.0000	22.5394	22.5394	7.8000e-004	0.0000	22.5590
Total	**0.0189**	**0.1396**	**0.1305**	**5.0000e-004**	**0.0280**	**1.3400e-003**	**0.0293**	**7.5600e-003**	**1.2700e-003**	**8.8300e-003**	**0.0000**	**46.0426**	**46.0426**	**3.2000e-003**	**0.0000**	**46.1227**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1558	1.3277	0.9091	1.3500e-003		0.0894	0.0894		0.0840	0.0840	0.0000	120.2463	120.2463	0.0296	0.0000	120.9869
Total	**0.1558**	**1.3277**	**0.9091**	**1.3500e-003**		**0.0894**	**0.0894**		**0.0840**	**0.0840**	**0.0000**	**120.2463**	**120.2463**	**0.0296**	**0.0000**	**120.9869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2000e-003	0.1289	0.0287	2.5000e-004	5.4300e-003	1.1700e-003	6.6000e-003	1.5700e-003	1.1200e-003	2.6900e-003	0.0000	23.5031	23.5031	2.4200e-003	0.0000	23.5637
Worker	0.0137	0.0107	0.1018	2.5000e-004	0.0226	1.7000e-004	0.0227	5.9900e-003	1.5000e-004	6.1400e-003	0.0000	22.5394	22.5394	7.8000e-004	0.0000	22.5590
Total	**0.0189**	**0.1396**	**0.1305**	**5.0000e-004**	**0.0280**	**1.3400e-003**	**0.0293**	**7.5600e-003**	**1.2700e-003**	**8.8300e-003**	**0.0000**	**46.0426**	**46.0426**	**3.2000e-003**	**0.0000**	**46.1227**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	4.8600e-003	0.0518	0.0376	6.0000e-005		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	5.2858	5.2858	1.6200e-003	0.0000	5.3263
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8600e-003**	**0.0518**	**0.0376**	**6.0000e-005**		**2.9000e-003**	**2.9000e-003**		**2.6700e-003**	**2.6700e-003**	**0.0000**	**5.2858**	**5.2858**	**1.6200e-003**	**0.0000**	**5.3263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.2000e-004	2.1200e-003	1.0000e-005	4.7000e-004	0.0000	4.7000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.4696	0.4696	2.0000e-005	0.0000	0.4700
Total	**2.8000e-004**	**2.2000e-004**	**2.1200e-003**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**1.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4696**	**0.4696**	**2.0000e-005**	**0.0000**	**0.4700**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	4.8600e-003	0.0518	0.0376	6.0000e-005		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	5.2858	5.2858	1.6200e-003	0.0000	5.3263
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8600e-003**	**0.0518**	**0.0376**	**6.0000e-005**		**2.9000e-003**	**2.9000e-003**		**2.6700e-003**	**2.6700e-003**	**0.0000**	**5.2858**	**5.2858**	**1.6200e-003**	**0.0000**	**5.3263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.2000e-004	2.1200e-003	1.0000e-005	4.7000e-004	0.0000	4.7000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.4696	0.4696	2.0000e-005	0.0000	0.4700
Total	**2.8000e-004**	**2.2000e-004**	**2.1200e-003**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**1.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4696**	**0.4696**	**2.0000e-005**	**0.0000**	**0.4700**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.3218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6400
Total	**0.3226**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6400**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.9000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2191	0.2191	1.0000e-005	0.0000	0.2193
Total	**1.3000e-004**	**1.0000e-004**	**9.9000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2191**	**0.2191**	**1.0000e-005**	**0.0000**	**0.2193**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.3218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6400
Total	**0.3226**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6400**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.9000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2191	0.2191	1.0000e-005	0.0000	0.2193
Total	**1.3000e-004**	**1.0000e-004**	**9.9000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2191**	**0.2191**	**1.0000e-005**	**0.0000**	**0.2193**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5155	5.8811	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.3681	1,892.3681	0.1636	0.0000	1,896.4587
Unmitigated	0.5155	5.8811	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.3681	1,892.3681	0.1636	0.0000	1,896.4587

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,225.19	273.25	116.63	2,569,867	2,569,867
Total	1,225.19	273.25	116.63	2,569,867	2,569,867

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.450224	0.033776	0.162101	0.144985	0.027567	0.008510	0.021512	0.138944	0.001674	0.002058	0.006378	0.001058	0.001216

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	360.9967	360.9967	0.0149	3.0800e-003	362.2882
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	360.9967	360.9967	0.0149	3.0800e-003	362.2882
NaturalGas Mitigated	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770
NaturalGas Unmitigated	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.91832e+006	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770
Total		**0.0103**	**0.0940**	**0.0790**	**5.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**102.3687**	**102.3687**	**1.9600e-003**	**1.8800e-003**	**102.9770**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.91832e+006	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770
Total		**0.0103**	**0.0940**	**0.0790**	**5.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**102.3687**	**102.3687**	**1.9600e-003**	**1.8800e-003**	**102.9770**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.133e +006	360.9967	0.0149	3.0800e-003	362.2882
Total		**360.9967**	**0.0149**	**3.0800e-003**	**362.2882**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.133e +006	360.9967	0.0149	3.0800e-003	362.2882
Total		**360.9967**	**0.0149**	**3.0800e-003**	**362.2882**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Unmitigated	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Total	**0.5626**	**1.0000e-005**	**1.0400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9800e-003**	**1.9800e-003**	**1.0000e-005**	**0.0000**	**2.1200e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Total	**0.5626**	**1.0000e-005**	**1.0400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9800e-003**	**1.9800e-003**	**1.0000e-005**	**0.0000**	**2.1200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	131.0050	0.6485	0.0163	152.0608
Unmitigated	131.0050	0.6485	0.0163	152.0608

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7427 / 12.1003	131.0050	0.6485	0.0163	152.0608
Total		**131.0050**	**0.6485**	**0.0163**	**152.0608**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7427 / 12.1003	131.0050	0.6485	0.0163	152.0608
Total		**131.0050**	**0.6485**	**0.0163**	**152.0608**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.9690	1.2392	0.0000	51.9497
Unmitigated	20.9690	1.2392	0.0000	51.9497

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.3	20.9690	1.2392	0.0000	51.9497
Total		**20.9690**	**1.2392**	**0.0000**	**51.9497**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.3	20.9690	1.2392	0.0000	51.9497
Total		**20.9690**	**1.2392**	**0.0000**	**51.9497**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 1111009

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	192.53	1000sqft	8.84	192,535.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage. Assumed SF is 50% of total acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2017 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblLandUse	BuildingSpaceSquareFeet	192,530.00	192,535.00
tblLandUse	LandUseSquareFeet	192,530.00	192,535.00
tblLandUse	LotAcreage	4.42	8.84
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4932	4.0797	3.0032	5.8400e-003	0.2132	0.2354	0.4486	0.0765	0.2207	0.2972	0.0000	530.0506	530.0506	0.0938	0.0000	532.3952
2018	2.0124	0.0276	0.0314	6.0000e-005	1.9000e-003	1.8500e-003	3.7400e-003	5.0000e-004	1.8100e-003	2.3100e-003	0.0000	5.1763	5.1763	6.0000e-004	0.0000	5.1912
Maximum	**2.0124**	**4.0797**	**3.0032**	**5.8400e-003**	**0.2132**	**0.2354**	**0.4486**	**0.0765**	**0.2207**	**0.2972**	**0.0000**	**530.0506**	**530.0506**	**0.0938**	**0.0000**	**532.3952**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4932	4.0797	3.0032	5.8400e-003	0.2132	0.2354	0.4486	0.0765	0.2207	0.2972	0.0000	530.0502	530.0502	0.0938	0.0000	532.3948
2018	2.0124	0.0276	0.0314	6.0000e-005	1.9000e-003	1.8500e-003	3.7400e-003	5.0000e-004	1.8100e-003	2.3100e-003	0.0000	5.1762	5.1762	6.0000e-004	0.0000	5.1912
Maximum	**2.0124**	**4.0797**	**3.0032**	**5.8400e-003**	**0.2132**	**0.2354**	**0.4486**	**0.0765**	**0.2207**	**0.2972**	**0.0000**	**530.0502**	**530.0502**	**0.0938**	**0.0000**	**532.3948**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.1903	1.1903
2	**4-2-2017**	**7-1-2017**	1.1532	1.1532
3	**7-2-2017**	**10-1-2017**	1.1659	1.1659
4	**10-2-2017**	**1-1-2018**	1.0505	1.0505
5	**1-2-2018**	**4-1-2018**	1.9338	1.9338
		Highest	1.9338	1.9338

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9752	2.0000e-005	1.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4400e-003	3.4400e-003	1.0000e-005	0.0000	3.6800e-003
Energy	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	320.6618	320.6618	9.4000e-003	4.4400e-003	322.2191
Mobile	0.3370	4.1172	3.6125	0.0166	0.8717	0.0230	0.8947	0.2348	0.0219	0.2567	0.0000	1,545.6571	1,545.6571	0.1046	0.0000	1,548.2712
Waste						0.0000	0.0000		0.0000	0.0000	48.4621	0.0000	48.4621	2.8640	0.0000	120.0627
Water						0.0000	0.0000		0.0000	0.0000	14.1250	184.7139	198.8388	1.4584	0.0358	245.9771
Total	**1.3297**	**4.2765**	**3.7482**	**0.0176**	**0.8717**	**0.0352**	**0.9068**	**0.2348**	**0.0340**	**0.2688**	**62.5870**	**2,051.0362**	**2,113.6232**	**4.4364**	**0.0403**	**2,236.5337**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9752	2.0000e-005	1.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4400e-003	3.4400e-003	1.0000e-005	0.0000	3.6800e-003
Energy	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	320.6618	320.6618	9.4000e-003	4.4400e-003	322.2191
Mobile	0.3370	4.1172	3.6125	0.0166	0.8717	0.0230	0.8947	0.2348	0.0219	0.2567	0.0000	1,545.6571	1,545.6571	0.1046	0.0000	1,548.2712
Waste						0.0000	0.0000		0.0000	0.0000	48.4621	0.0000	48.4621	2.8640	0.0000	120.0627
Water						0.0000	0.0000		0.0000	0.0000	14.1250	184.7139	198.8388	1.4584	0.0358	245.9771
Total	**1.3297**	**4.2765**	**3.7482**	**0.0176**	**0.8717**	**0.0352**	**0.9068**	**0.2348**	**0.0340**	**0.2688**	**62.5870**	**2,051.0362**	**2,113.6232**	**4.4364**	**0.0403**	**2,236.5337**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/6/2017	5	10	
2	Grading	Grading	1/7/2017	1/18/2017	5	20	
3	Building Construction	Building Construction	1/19/2017	12/6/2017	5	230	
4	Paving	Paving	12/7/2017	1/1/2018	5	20	
5	Architectural Coating	Architectural Coating	1/2/2018	1/25/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 288,803; Non-Residential Outdoor: 96,268; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	81.00	32.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1307	0.0586	1.0000e-004		7.2000e-003	7.2000e-003		6.6200e-003	6.6200e-003	0.0000	8.8336	8.8336	2.7100e-003	0.0000	8.9013
Total	**0.0124**	**0.1307**	**0.0586**	**1.0000e-004**	**0.0452**	**7.2000e-003**	**0.0524**	**0.0248**	**6.6200e-003**	**0.0315**	**0.0000**	**8.8336**	**8.8336**	**2.7100e-003**	**0.0000**	**8.9013**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	2.5400e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5635	0.5635	2.0000e-005	0.0000	0.5640
Total	**3.4000e-004**	**2.7000e-004**	**2.5400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5635**	**0.5635**	**2.0000e-005**	**0.0000**	**0.5640**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1307	0.0586	1.0000e-004		7.2000e-003	7.2000e-003		6.6200e-003	6.6200e-003	0.0000	8.8336	8.8336	2.7100e-003	0.0000	8.9013
Total	**0.0124**	**0.1307**	**0.0586**	**1.0000e-004**	**0.0452**	**7.2000e-003**	**0.0524**	**0.0248**	**6.6200e-003**	**0.0315**	**0.0000**	**8.8336**	**8.8336**	**2.7100e-003**	**0.0000**	**8.9013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	2.5400e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5635	0.5635	2.0000e-005	0.0000	0.5640
Total	**3.4000e-004**	**2.7000e-004**	**2.5400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.7000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5635**	**0.5635**	**2.0000e-005**	**0.0000**	**0.5640**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1356	0.0684	1.2000e-004		7.1100e-003	7.1100e-003		6.5400e-003	6.5400e-003	0.0000	11.0238	11.0238	3.3800e-003	0.0000	11.1082
Total	**0.0123**	**0.1356**	**0.0684**	**1.2000e-004**	**0.0262**	**7.1100e-003**	**0.0333**	**0.0135**	**6.5400e-003**	**0.0200**	**0.0000**	**11.0238**	**11.0238**	**3.3800e-003**	**0.0000**	**11.1082**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	3.3900e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.6000e-004	2.0000e-004	1.0000e-005	2.0000e-004	0.0000	0.7513	0.7513	3.0000e-005	0.0000	0.7520
Total	**4.6000e-004**	**3.6000e-004**	**3.3900e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**2.0000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7513**	**0.7513**	**3.0000e-005**	**0.0000**	**0.7520**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1356	0.0684	1.2000e-004		7.1100e-003	7.1100e-003		6.5400e-003	6.5400e-003	0.0000	11.0238	11.0238	3.3800e-003	0.0000	11.1082
Total	**0.0123**	**0.1356**	**0.0684**	**1.2000e-004**	**0.0262**	**7.1100e-003**	**0.0333**	**0.0135**	**6.5400e-003**	**0.0200**	**0.0000**	**11.0238**	**11.0238**	**3.3800e-003**	**0.0000**	**11.1082**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	3.3900e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.6000e-004	2.0000e-004	1.0000e-005	2.0000e-004	0.0000	0.7513	0.7513	3.0000e-005	0.0000	0.7520
Total	**4.6000e-004**	**3.6000e-004**	**3.3900e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.6000e-004**	**2.0000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.7513**	**0.7513**	**3.0000e-005**	**0.0000**	**0.7520**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5668	276.5668	0.0681	0.0000	278.2702
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5668**	**276.5668**	**0.0681**	**0.0000**	**278.2702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.5271	0.1174	1.0100e-003	0.0222	4.7700e-003	0.0270	6.4100e-003	4.5700e-003	0.0110	0.0000	96.1017	96.1017	9.9100e-003	0.0000	96.3495
Worker	0.0707	0.0552	0.5268	1.2900e-003	0.1167	8.7000e-004	0.1176	0.0310	8.0000e-004	0.0318	0.0000	116.6416	116.6416	4.0400e-003	0.0000	116.7426
Total	**0.0920**	**0.5822**	**0.6442**	**2.3000e-003**	**0.1389**	**5.6400e-003**	**0.1446**	**0.0374**	**5.3700e-003**	**0.0428**	**0.0000**	**212.7433**	**212.7433**	**0.0140**	**0.0000**	**213.0922**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.3582	3.0538	2.0910	3.1000e-003		0.2056	0.2056		0.1931	0.1931	0.0000	276.5664	276.5664	0.0681	0.0000	278.2699
Total	**0.3582**	**3.0538**	**2.0910**	**3.1000e-003**		**0.2056**	**0.2056**		**0.1931**	**0.1931**	**0.0000**	**276.5664**	**276.5664**	**0.0681**	**0.0000**	**278.2699**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.5271	0.1174	1.0100e-003	0.0222	4.7700e-003	0.0270	6.4100e-003	4.5700e-003	0.0110	0.0000	96.1017	96.1017	9.9100e-003	0.0000	96.3495
Worker	0.0707	0.0552	0.5268	1.2900e-003	0.1167	8.7000e-004	0.1176	0.0310	8.0000e-004	0.0318	0.0000	116.6416	116.6416	4.0400e-003	0.0000	116.7426
Total	**0.0920**	**0.5822**	**0.6442**	**2.3000e-003**	**0.1389**	**5.6400e-003**	**0.1446**	**0.0374**	**5.3700e-003**	**0.0428**	**0.0000**	**212.7433**	**212.7433**	**0.0140**	**0.0000**	**213.0922**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0165	0.1761	0.1278	1.9000e-004		9.8500e-003	9.8500e-003		9.0700e-003	9.0700e-003	0.0000	17.9718	17.9718	5.5100e-003	0.0000	18.1094
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0165**	**0.1761**	**0.1278**	**1.9000e-004**		**9.8500e-003**	**9.8500e-003**		**9.0700e-003**	**9.0700e-003**	**0.0000**	**17.9718**	**17.9718**	**5.5100e-003**	**0.0000**	**18.1094**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.5965	1.5965	6.0000e-005	0.0000	1.5979
Total	**9.7000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.6000e-003**	**1.0000e-005**	**1.6100e-003**	**4.2000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.5965**	**1.5965**	**6.0000e-005**	**0.0000**	**1.5979**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0165	0.1761	0.1278	1.9000e-004		9.8500e-003	9.8500e-003		9.0700e-003	9.0700e-003	0.0000	17.9718	17.9718	5.5100e-003	0.0000	18.1094
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0165**	**0.1761**	**0.1278**	**1.9000e-004**		**9.8500e-003**	**9.8500e-003**		**9.0700e-003**	**9.0700e-003**	**0.0000**	**17.9718**	**17.9718**	**5.5100e-003**	**0.0000**	**18.1094**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.6000e-004	7.2100e-003	2.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.4000e-004	0.0000	1.5965	1.5965	6.0000e-005	0.0000	1.5979
Total	**9.7000e-004**	**7.6000e-004**	**7.2100e-003**	**2.0000e-005**	**1.6000e-003**	**1.0000e-005**	**1.6100e-003**	**4.2000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.5965**	**1.5965**	**6.0000e-005**	**0.0000**	**1.5979**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	8.2000e-004	8.7600e-003	7.4000e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.0406	1.0406	3.2000e-004	0.0000	1.0487
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2000e-004**	**8.7600e-003**	**7.4000e-003**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**1.0406**	**1.0406**	**3.2000e-004**	**0.0000**	**1.0487**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.6000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.0910	0.0910	0.0000	0.0000	0.0911
Total	**5.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0000**	**0.0911**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	8.2000e-004	8.7600e-003	7.4000e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.0406	1.0406	3.2000e-004	0.0000	1.0487
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.2000e-004**	**8.7600e-003**	**7.4000e-003**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**1.0406**	**1.0406**	**3.2000e-004**	**0.0000**	**1.0487**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.6000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.0910	0.0910	0.0000	0.0000	0.0911
Total	**5.0000e-005**	**4.0000e-005**	**3.6000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0910**	**0.0910**	**0.0000**	**0.0000**	**0.0911**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	2.0079					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6900e-003	0.0181	0.0167	3.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	2.2979	2.2979	2.2000e-004	0.0000	2.3034
Total	**2.0106**	**0.0181**	**0.0167**	**3.0000e-005**		**1.3500e-003**	**1.3500e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**2.2979**	**2.2979**	**2.2000e-004**	**0.0000**	**2.3034**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5000e-004	7.3000e-004	6.9200e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.7468	1.7468	5.0000e-005	0.0000	1.7481
Total	**9.5000e-004**	**7.3000e-004**	**6.9200e-003**	**2.0000e-005**	**1.8000e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.7468**	**1.7468**	**5.0000e-005**	**0.0000**	**1.7481**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	2.0079					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6900e-003	0.0181	0.0167	3.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	2.2979	2.2979	2.2000e-004	0.0000	2.3034
Total	**2.0106**	**0.0181**	**0.0167**	**3.0000e-005**		**1.3500e-003**	**1.3500e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**2.2979**	**2.2979**	**2.2000e-004**	**0.0000**	**2.3034**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5000e-004	7.3000e-004	6.9200e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.7468	1.7468	5.0000e-005	0.0000	1.7481
Total	**9.5000e-004**	**7.3000e-004**	**6.9200e-003**	**2.0000e-005**	**1.8000e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.7468**	**1.7468**	**5.0000e-005**	**0.0000**	**1.7481**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3370	4.1172	3.6125	0.0166	0.8717	0.0230	0.8947	0.2348	0.0219	0.2567	0.0000	1,545.6571	1,545.6571	0.1046	0.0000	1,548.2712
Unmitigated	0.3370	4.1172	3.6125	0.0166	0.8717	0.0230	0.8947	0.2348	0.0219	0.2567	0.0000	1,545.6571	1,545.6571	0.1046	0.0000	1,548.2712

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	735.46	286.87	119.37	2,253,814	2,253,814
Total	735.46	286.87	119.37	2,253,814	2,253,814

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.458981	0.032799	0.163582	0.138021	0.025236	0.007869	0.021203	0.140312	0.001657	0.001960	0.006239	0.001026	0.001115

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	147.2299	147.2299	6.0800e-003	1.2600e-003	147.7566
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	147.2299	147.2299	6.0800e-003	1.2600e-003	147.7566
NaturalGas Mitigated	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	173.4319	173.4319	3.3200e-003	3.1800e-003	174.4625
NaturalGas Unmitigated	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	173.4319	173.4319	3.3200e-003	3.1800e-003	174.4625

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	3.24999e+006	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	173.4319	173.4319	3.3200e-003	3.1800e-003	174.4625
Total		**0.0175**	**0.1593**	**0.1338**	**9.6000e-004**		**0.0121**	**0.0121**		**0.0121**	**0.0121**	**0.0000**	**173.4319**	**173.4319**	**3.3200e-003**	**3.1800e-003**	**174.4625**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	3.24999e+006	0.0175	0.1593	0.1338	9.6000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	173.4319	173.4319	3.3200e-003	3.1800e-003	174.4625
Total		**0.0175**	**0.1593**	**0.1338**	**9.6000e-004**		**0.0121**	**0.0121**		**0.0121**	**0.0121**	**0.0000**	**173.4319**	**173.4319**	**3.3200e-003**	**3.1800e-003**	**174.4625**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	462084	147.2299	6.0800e-003	1.2600e-003	147.7566
Total		**147.2299**	**6.0800e-003**	**1.2600e-003**	**147.7566**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	462084	147.2299	6.0800e-003	1.2600e-003	147.7566
Total		**147.2299**	**6.0800e-003**	**1.2600e-003**	**147.7566**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9752	2.0000e-005	1.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4400e-003	3.4400e-003	1.0000e-005	0.0000	3.6800e-003
Unmitigated	0.9752	2.0000e-005	1.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4400e-003	3.4400e-003	1.0000e-005	0.0000	3.6800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7520					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4400e-003	3.4400e-003	1.0000e-005	0.0000	3.6800e-003
Total	**0.9752**	**2.0000e-005**	**1.7900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.4400e-003**	**3.4400e-003**	**1.0000e-005**	**0.0000**	**3.6800e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7520					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4400e-003	3.4400e-003	1.0000e-005	0.0000	3.6800e-003
Total	**0.9752**	**2.0000e-005**	**1.7900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.4400e-003**	**3.4400e-003**	**1.0000e-005**	**0.0000**	**3.6800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	198.8388	1.4584	0.0358	245.9771
Unmitigated	198.8388	1.4584	0.0358	245.9771

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	44.5226 / 0	198.8388	1.4584	0.0358	245.9771
Total		**198.8388**	**1.4584**	**0.0358**	**245.9771**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	44.5226 / 0	198.8388	1.4584	0.0358	245.9771
Total		**198.8388**	**1.4584**	**0.0358**	**245.9771**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	48.4621	2.8640	0.0000	120.0627
Unmitigated	48.4621	2.8640	0.0000	120.0627

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	238.74	48.4621	2.8640	0.0000	120.0627
Total		**48.4621**	**2.8640**	**0.0000**	**120.0627**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	238.74	48.4621	2.8640	0.0000	120.0627
Total		**48.4621**	**2.8640**	**0.0000**	**120.0627**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TPM 111017

Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	111.08	1000sqft	5.10	111,078.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	7			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - actual acreage. Assumed SF is 50% of total acreage

Construction Phase -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix - 2017 Residential fleet mix

Table Name	Column Name	Default Value	New Value
tblLandUse	BuildingSpaceSquareFeet	111,080.00	111,078.00
tblLandUse	LandUseSquareFeet	111,080.00	111,078.00
tblLandUse	LotAcreage	2.55	5.10
tblProjectCharacteristics	OperationalYear	2018	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.5082	1.5850	1.1152	1.9700e-003	0.0446	0.0973	0.1418	0.0162	0.0913	0.1074	0.0000	177.7250	177.7250	0.0359	0.0000	178.6235
Maximum	**0.5082**	**1.5850**	**1.1152**	**1.9700e-003**	**0.0446**	**0.0973**	**0.1418**	**0.0162**	**0.0913**	**0.1074**	**0.0000**	**177.7250**	**177.7250**	**0.0359**	**0.0000**	**178.6235**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.5082	1.5850	1.1152	1.9700e-003	0.0446	0.0973	0.1418	0.0162	0.0913	0.1074	0.0000	177.7249	177.7249	0.0359	0.0000	178.6233
Maximum	**0.5082**	**1.5850**	**1.1152**	**1.9700e-003**	**0.0446**	**0.0973**	**0.1418**	**0.0162**	**0.0913**	**0.1074**	**0.0000**	**177.7249**	**177.7249**	**0.0359**	**0.0000**	**178.6233**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2017**	**4-1-2017**	1.0684	1.0684
2	**4-2-2017**	**7-1-2017**	1.0065	1.0065
		Highest	1.0684	1.0684

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Energy	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	463.3654	463.3654	0.0169	4.9600e-003	465.2652
Mobile	0.5155	5.8812	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.4022	1,892.4022	0.1636	0.0000	1,896.4929
Waste						0.0000	0.0000		0.0000	0.0000	20.9690	0.0000	20.9690	1.2392	0.0000	51.9497
Water						0.0000	0.0000		0.0000	0.0000	6.2634	124.7416	131.0050	0.6485	0.0163	152.0608
Total	**1.0884**	**5.9753**	**5.0838**	**0.0209**	**0.9945**	**0.0413**	**1.0358**	**0.2680**	**0.0396**	**0.3076**	**27.2324**	**2,480.5111**	**2,507.7435**	**2.0682**	**0.0212**	**2,565.7707**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Energy	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	463.3654	463.3654	0.0169	4.9600e-003	465.2652
Mobile	0.5155	5.8812	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.4022	1,892.4022	0.1636	0.0000	1,896.4929
Waste						0.0000	0.0000		0.0000	0.0000	20.9690	0.0000	20.9690	1.2392	0.0000	51.9497
Water						0.0000	0.0000		0.0000	0.0000	6.2634	124.7416	131.0050	0.6485	0.0163	152.0608
Total	**1.0884**	**5.9753**	**5.0838**	**0.0209**	**0.9945**	**0.0413**	**1.0358**	**0.2680**	**0.0396**	**0.3076**	**27.2324**	**2,480.5111**	**2,507.7435**	**2.0682**	**0.0212**	**2,565.7707**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2017	1/2/2017	5	10	
2	Grading	Grading	1/3/2017	1/4/2017	5	20	
3	Building Construction	Building Construction	1/5/2017	5/24/2017	5	230	
4	Paving	Paving	5/25/2017	5/31/2017	5	20	
5	Architectural Coating	Architectural Coating	6/1/2017	6/7/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 166,617; Non-Residential Outdoor: 55,539; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	7.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	36.00	18.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0261	0.0117	2.0000e-005		1.4400e-003	1.4400e-003		1.3200e-003	1.3200e-003	0.0000	1.7667	1.7667	5.4000e-004	0.0000	1.7803
Total	**2.4800e-003**	**0.0261**	**0.0117**	**2.0000e-005**	**9.0300e-003**	**1.4400e-003**	**0.0105**	**4.9700e-003**	**1.3200e-003**	**6.2900e-003**	**0.0000**	**1.7667**	**1.7667**	**5.4000e-004**	**0.0000**	**1.7803**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1127	0.1127	0.0000	0.0000	0.1128
Total	**7.0000e-005**	**5.0000e-005**	**5.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1127**	**0.1127**	**0.0000**	**0.0000**	**0.1128**

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					9.0300e-003	0.0000	9.0300e-003	4.9700e-003	0.0000	4.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4800e-003	0.0261	0.0117	2.0000e-005		1.4400e-003	1.4400e-003		1.3200e-003	1.3200e-003	0.0000	1.7667	1.7667	5.4000e-004	0.0000	1.7803
Total	**2.4800e-003**	**0.0261**	**0.0117**	**2.0000e-005**	**9.0300e-003**	**1.4400e-003**	**0.0105**	**4.9700e-003**	**1.3200e-003**	**6.2900e-003**	**0.0000**	**1.7667**	**1.7667**	**5.4000e-004**	**0.0000**	**1.7803**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1127	0.1127	0.0000	0.0000	0.1128
Total	**7.0000e-005**	**5.0000e-005**	**5.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1127**	**0.1127**	**0.0000**	**0.0000**	**0.1128**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					6.5500e-003	0.0000	6.5500e-003	3.3700e-003	0.0000	3.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0339	0.0171	3.0000e-005		1.7800e-003	1.7800e-003		1.6400e-003	1.6400e-003	0.0000	2.7560	2.7560	8.4000e-004	0.0000	2.7771
Total	**3.0700e-003**	**0.0339**	**0.0171**	**3.0000e-005**	**6.5500e-003**	**1.7800e-003**	**8.3300e-003**	**3.3700e-003**	**1.6400e-003**	**5.0100e-003**	**0.0000**	**2.7560**	**2.7560**	**8.4000e-004**	**0.0000**	**2.7771**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	9.0000e-005	8.5000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1878	0.1878	1.0000e-005	0.0000	0.1880
Total	**1.1000e-004**	**9.0000e-005**	**8.5000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1878**	**0.1878**	**1.0000e-005**	**0.0000**	**0.1880**

3.3 Grading - 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	tons/yr										MT/yr					
Fugitive Dust					6.5500e-003	0.0000	6.5500e-003	3.3700e-003	0.0000	3.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0339	0.0171	3.0000e-005		1.7800e-003	1.7800e-003		1.6400e-003	1.6400e-003	0.0000	2.7559	2.7559	8.4000e-004	0.0000	2.7771
Total	**3.0700e-003**	**0.0339**	**0.0171**	**3.0000e-005**	**6.5500e-003**	**1.7800e-003**	**8.3300e-003**	**3.3700e-003**	**1.6400e-003**	**5.0100e-003**	**0.0000**	**2.7559**	**2.7559**	**8.4000e-004**	**0.0000**	**2.7771**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	9.0000e-005	8.5000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1878	0.1878	1.0000e-005	0.0000	0.1880
Total	**1.1000e-004**	**9.0000e-005**	**8.5000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1878**	**0.1878**	**1.0000e-005**	**0.0000**	**0.1880**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1558	1.3277	0.9091	1.3500e-003		0.0894	0.0894		0.0840	0.0840	0.0000	120.2464	120.2464	0.0296	0.0000	120.9871
Total	**0.1558**	**1.3277**	**0.9091**	**1.3500e-003**		**0.0894**	**0.0894**		**0.0840**	**0.0840**	**0.0000**	**120.2464**	**120.2464**	**0.0296**	**0.0000**	**120.9871**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2000e-003	0.1289	0.0287	2.5000e-004	5.4300e-003	1.1700e-003	6.6000e-003	1.5700e-003	1.1200e-003	2.6900e-003	0.0000	23.5031	23.5031	2.4200e-003	0.0000	23.5637
Worker	0.0137	0.0107	0.1018	2.5000e-004	0.0226	1.7000e-004	0.0227	5.9900e-003	1.5000e-004	6.1400e-003	0.0000	22.5394	22.5394	7.8000e-004	0.0000	22.5590
Total	**0.0189**	**0.1396**	**0.1305**	**5.0000e-004**	**0.0280**	**1.3400e-003**	**0.0293**	**7.5600e-003**	**1.2700e-003**	**8.8300e-003**	**0.0000**	**46.0426**	**46.0426**	**3.2000e-003**	**0.0000**	**46.1227**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1558	1.3277	0.9091	1.3500e-003		0.0894	0.0894		0.0840	0.0840	0.0000	120.2463	120.2463	0.0296	0.0000	120.9869
Total	**0.1558**	**1.3277**	**0.9091**	**1.3500e-003**		**0.0894**	**0.0894**		**0.0840**	**0.0840**	**0.0000**	**120.2463**	**120.2463**	**0.0296**	**0.0000**	**120.9869**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2000e-003	0.1289	0.0287	2.5000e-004	5.4300e-003	1.1700e-003	6.6000e-003	1.5700e-003	1.1200e-003	2.6900e-003	0.0000	23.5031	23.5031	2.4200e-003	0.0000	23.5637
Worker	0.0137	0.0107	0.1018	2.5000e-004	0.0226	1.7000e-004	0.0227	5.9900e-003	1.5000e-004	6.1400e-003	0.0000	22.5394	22.5394	7.8000e-004	0.0000	22.5590
Total	**0.0189**	**0.1396**	**0.1305**	**5.0000e-004**	**0.0280**	**1.3400e-003**	**0.0293**	**7.5600e-003**	**1.2700e-003**	**8.8300e-003**	**0.0000**	**46.0426**	**46.0426**	**3.2000e-003**	**0.0000**	**46.1227**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	4.8600e-003	0.0518	0.0376	6.0000e-005		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	5.2858	5.2858	1.6200e-003	0.0000	5.3263
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8600e-003**	**0.0518**	**0.0376**	**6.0000e-005**		**2.9000e-003**	**2.9000e-003**		**2.6700e-003**	**2.6700e-003**	**0.0000**	**5.2858**	**5.2858**	**1.6200e-003**	**0.0000**	**5.3263**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.2000e-004	2.1200e-003	1.0000e-005	4.7000e-004	0.0000	4.7000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.4696	0.4696	2.0000e-005	0.0000	0.4700
Total	**2.8000e-004**	**2.2000e-004**	**2.1200e-003**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**1.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4696**	**0.4696**	**2.0000e-005**	**0.0000**	**0.4700**

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	4.8600e-003	0.0518	0.0376	6.0000e-005		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	5.2858	5.2858	1.6200e-003	0.0000	5.3263
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8600e-003**	**0.0518**	**0.0376**	**6.0000e-005**		**2.9000e-003**	**2.9000e-003**		**2.6700e-003**	**2.6700e-003**	**0.0000**	**5.2858**	**5.2858**	**1.6200e-003**	**0.0000**	**5.3263**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.2000e-004	2.1200e-003	1.0000e-005	4.7000e-004	0.0000	4.7000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.4696	0.4696	2.0000e-005	0.0000	0.4700
Total	**2.8000e-004**	**2.2000e-004**	**2.1200e-003**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**1.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4696**	**0.4696**	**2.0000e-005**	**0.0000**	**0.4700**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.3218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6400
Total	**0.3226**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6400**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.9000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2191	0.2191	1.0000e-005	0.0000	0.2193
Total	**1.3000e-004**	**1.0000e-004**	**9.9000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2191**	**0.2191**	**1.0000e-005**	**0.0000**	**0.2193**

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.3218					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	5.4600e-003	4.6700e-003	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	0.6383	0.6383	7.0000e-005	0.0000	0.6400
Total	**0.3226**	**5.4600e-003**	**4.6700e-003**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**7.0000e-005**	**0.0000**	**0.6400**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.9000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2191	0.2191	1.0000e-005	0.0000	0.2193
Total	**1.3000e-004**	**1.0000e-004**	**9.9000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.2191**	**0.2191**	**1.0000e-005**	**0.0000**	**0.2193**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5155	5.8812	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.4022	1,892.4022	0.1636	0.0000	1,896.4929
Unmitigated	0.5155	5.8812	5.0037	0.0204	0.9945	0.0341	1.0286	0.2680	0.0325	0.3005	0.0000	1,892.4022	1,892.4022	0.1636	0.0000	1,896.4929

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,225.21	273.26	116.63	2,569,913	2,569,913
Total	1,225.21	273.26	116.63	2,569,913	2,569,913

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.450224	0.033776	0.162101	0.144985	0.027567	0.008510	0.021512	0.138944	0.001674	0.002058	0.006378	0.001058	0.001216

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	360.9967	360.9967	0.0149	3.0800e-003	362.2882
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	360.9967	360.9967	0.0149	3.0800e-003	362.2882
NaturalGas Mitigated	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770
NaturalGas Unmitigated	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.91832e+006	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770
Total		**0.0103**	**0.0940**	**0.0790**	**5.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**102.3687**	**102.3687**	**1.9600e-003**	**1.8800e-003**	**102.9770**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.91832e+006	0.0103	0.0940	0.0790	5.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	102.3687	102.3687	1.9600e-003	1.8800e-003	102.9770
Total		**0.0103**	**0.0940**	**0.0790**	**5.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**102.3687**	**102.3687**	**1.9600e-003**	**1.8800e-003**	**102.9770**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.133e +006	360.9967	0.0149	3.0800e-003	362.2882
Total		**360.9967**	**0.0149**	**3.0800e-003**	**362.2882**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.133e +006	360.9967	0.0149	3.0800e-003	362.2882
Total		**360.9967**	**0.0149**	**3.0800e-003**	**362.2882**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Unmitigated	0.5626	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Total	**0.5626**	**1.0000e-005**	**1.0400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9800e-003**	**1.9800e-003**	**1.0000e-005**	**0.0000**	**2.1200e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4338					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9800e-003	1.9800e-003	1.0000e-005	0.0000	2.1200e-003
Total	**0.5626**	**1.0000e-005**	**1.0400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.9800e-003**	**1.9800e-003**	**1.0000e-005**	**0.0000**	**2.1200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	131.0050	0.6485	0.0163	152.0608
Unmitigated	131.0050	0.6485	0.0163	152.0608

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7427 / 12.1003	131.0050	0.6485	0.0163	152.0608
Total		**131.0050**	**0.6485**	**0.0163**	**152.0608**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7427 / 12.1003	131.0050	0.6485	0.0163	152.0608
Total		**131.0050**	**0.6485**	**0.0163**	**152.0608**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.9690	1.2392	0.0000	51.9497
Unmitigated	20.9690	1.2392	0.0000	51.9497

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.3	20.9690	1.2392	0.0000	51.9497
Total		**20.9690**	**1.2392**	**0.0000**	**51.9497**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.3	20.9690	1.2392	0.0000	51.9497
Total		**20.9690**	**1.2392**	**0.0000**	**51.9497**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

MEMORANDUM

To: Jamie Brauer, QK, Inc.

From: Matthew Daniel, Insight Environmental / Trinity Consultants

Date: October 23, 2019

RE: **Inyokern Solar Project – Air Quality Impacts Posed by the Revision of the Initial Project Boundary and Project Description ; 160505.0174**

Per your email request on October 22, 2019, Insight Environmental Consultants, Inc. (IEC), *a Trinity Consultants Company,* has reviewed the revised Project boundary and Project description for the RB Inyokern Solar Project in order to determine if such revisions would require any additional analysis, new mitigation or change the significance findings of the Air Quality Impact Analysis (AQIA) completed by IEC in 2016 for the Project. IEC has completed the review and is pleased to provide the following comments regarding the revised Project.

PROJECT COMPARISON

- The revised Project would reduce the overall size of the Project area from 235 acres to 166.5 acres.
- The revised Project would reduce the overall size of the Project from a two phase 32 megawatt (MW) total facility to a one or two phase 26.6 MW total facility.
- The revised Project site would shift slightly to the north from its previously analyzed location.

EFFECTS OF REVISION ON AIR QUALITY EMISSIONS

- The revised Project would reduce short-term construction related emissions due to the smaller size and footprint of the facility.
- The revised Project would reduce long-term operational related emissions due to the smaller size and footprint of the facility.
- The revised Project will continue to have a net benefit with regard to greenhouse gas emissions.

EFFECTS OF REVISION ON AIR QUALITY SIGNIFICANCE

Based on the revisions to the subject Project, it is determined that the revised Project will continue to be consistent with adopted Federal and State Air Quality Attainment Plans and will continue to have a *less than significant impact* on:

- short-term construction related emissions;
- long-term operational related emissions;
- global climate change;
- cumulative impacts based on the Project's incremental contribution;
- sensitive receptors;
- health risk; and
- ambient air quality.

CONCLUSION

Based on this review it is IEC's conclusion that all findings in the Air Quality Impact Analysis for the RB Inyokern Solar Project would remain unchanged as a result of the specified revisions to the Project. Therefore, no further analysis or mitigation measures are required. If you have any questions concerning this review, please contact Matt Daniel or Ron Hunter 661-282-2200 or by email at mdaniel@insenv.com or rhunter@insenv.com.

Matt Daniel
Senior Consultant

Ronald Hunter
Managing Principal Consultant