Air Quality Analysis for the Lotus Ranch Project, City of El Centro, California

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Acronyms

$\mu g/m^3$	micrograms per cubic meter
°F	Fahrenheit
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ADT	average daily trips
APN	Assessor's Parcel Number
AQIA	Air Quality Impact Analysis
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator model
CARB	California Air Resources Board
CDPF	catalyzed diesel particulate filters
CEQA	California Environmental Quality Act
CO	carbon monoxide
DOC	diesel oxidation catalysts
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
I-8	Interstate 8
ICAPCD	Imperial County Air Pollution Control District
LOS	Level of Service
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_X	mono-nitrogen oxides NO and NO_2
O_3	ozone
Pb	lead
PM	particulate matter
ppm	parts per million
RAQS	Regional Air Quality Strategy
ROG	reactive organic gas
SIP	state implementation plan
SO_2	sulfur dioxide
SO_x	sulphur oxides
SSAB	Salton Sea Air Basin
TACs	toxic air contaminants
TCMs	transportation control measures
U.S.C.	United States Code
USC	United States Code
VOC	volatile organic compounds

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Executive Summary

This report evaluates potential local and regional air quality impacts associated with the proposed Lotus Ranch project (Project). The project includes the construction of 617 single-family residential units and two 5.8-acre parks on 213 acres.

As detailed below, maximum daily construction emissions would not exceed the applicable construction thresholds. The Imperial County Air Pollution Control District (ICAPCD) requires that standard mitigation measures for construction equipment and fugitive PM_{10} control be implemented at all construction sites, as appropriate and feasible, regardless of the size of construction. In addition, since the project site exceeds ten acres, the project proponent must implement the discretionary mitigation measures for fugitive PM_{10}. With implementation of these measures, construction related air quality impacts would be less than significant.

Operational emissions are projected to be less than the applicable thresholds for all pollutants except reactive organic gases (ROG). Emissions of ROG are due to mobile sources, the use of fireplaces, and the use of consumer products associated with the project. The project would be required to implement all standard mitigation measures as well as discretionary mitigation measures. The discretionary mitigation measure would require that all fireplaces be natural gas as opposed to wood-burning. With implementation of this measure and standard mitigation measures, operational related air quality impacts would be less than significant.

The project would not create objectionable odors that would affect a substantial number of people, thus, impacts would be less than significant. The project is located north of a cattle yard that would create objectionable odors. As discussed in Section 4.3, State of California Health and Safety Code Sections 41700 and 41705 and ICAPCD Rule 407 do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. However, the project would record a notice on the title of all project residences south of Wake Avenue that advises prospective buyers of potential odor impacts.

The project would not expose sensitive receptors to substantial carbon monoxide concentrations or diesel particulate matter. Impacts associated with sensitive receptors would be less than significant. Additionally, the project would not conflict with any regional air quality plans.

1.0 Introduction

The purpose of this report is to assess potential short-term local and regional air quality impacts resulting from development of the project. The project is located within the Salton Sea Air Basin (SSAB), one of 15 air basins that geographically divide the state of California. The SSAB is currently designated a non-attainment area for the state and federal ozone standards, the state and federal PM_{10} standards, and the federal $PM_{2.5}$ standard.

Air quality impacts can result from the construction and operation of the project. Impacts occur on two levels: regional impacts affecting air quality in the whole basin and localized impacts, or "hot-spots," affecting sensitive receivers in close proximity to high concentrations of pollutants. Construction emissions are finite and include fugitive dust, equipment exhaust, and indirect emissions associated with construction worker commutes and deliveries. Operational emissions are primarily related to mobile sources associated with vehicular travel along the roadways but also include other area sources such as combustion of natural gas for space and water heating.

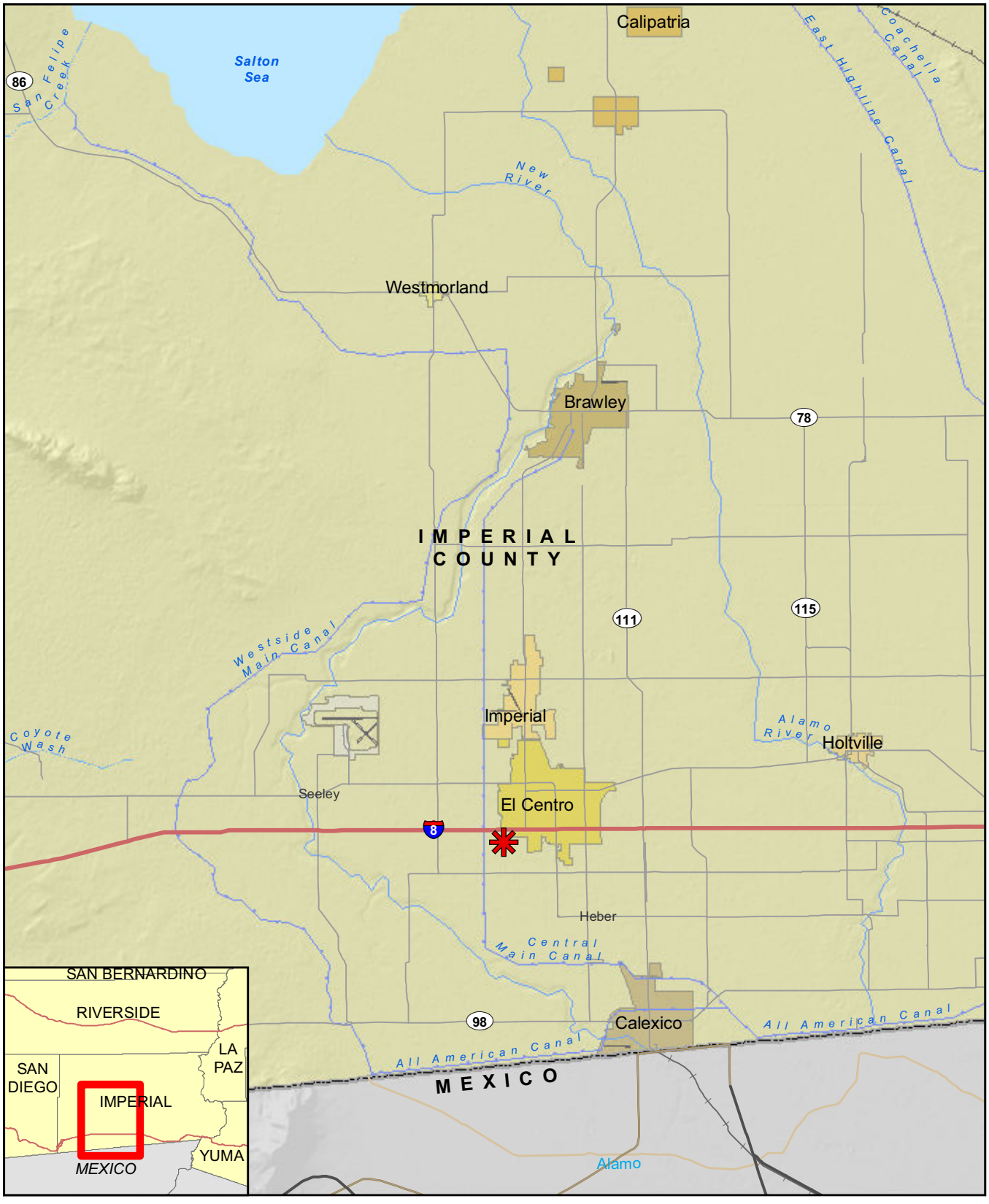
The analysis of impacts is based on national and state Ambient Air Quality Standards (AAQS) and is assessed in accordance with the guidelines, policies, and standards established by the City of El Centro and the Imperial County Air Pollution Control District (ICAPCD). Project consistency with the adopted air quality plan for the area is also assessed. Measures are recommended, as required, to reduce potentially significant impacts.

1.1 Project Description

The project consists of 213 acres of undeveloped land south of Interstate 8 (I-8). The project includes the construction of 617 single-family residential units, two parks each consisting of 5.8 acres, and off-site improvements to serve the project. It is anticipated the development would occur in three major phases. The project would require an Annexation from Imperial County to the City of El Centro, Pre-Zone (Low Density Residential), Vesting Tentative Map, and Development Agreement.

The project would be constructed in three phases. Phase 1 would construct 158 single-family residential units and a 5.8-acre park, Phase 2 would construct 240 single-family residential units, and Phase 3 would construct 219 single-family residential units and a 5.8-acre park.

Figure 1 shows the regional location of the project. Figure 2 shows an aerial photograph of the project site and vicinity. Figure 3 shows the proposed site plan.



Project Location

FIGURE 1

Regional Location

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FIGURE 2

Aerial Photograph of Project Site and Vicinity

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Image source: G-MAC Development (2014)

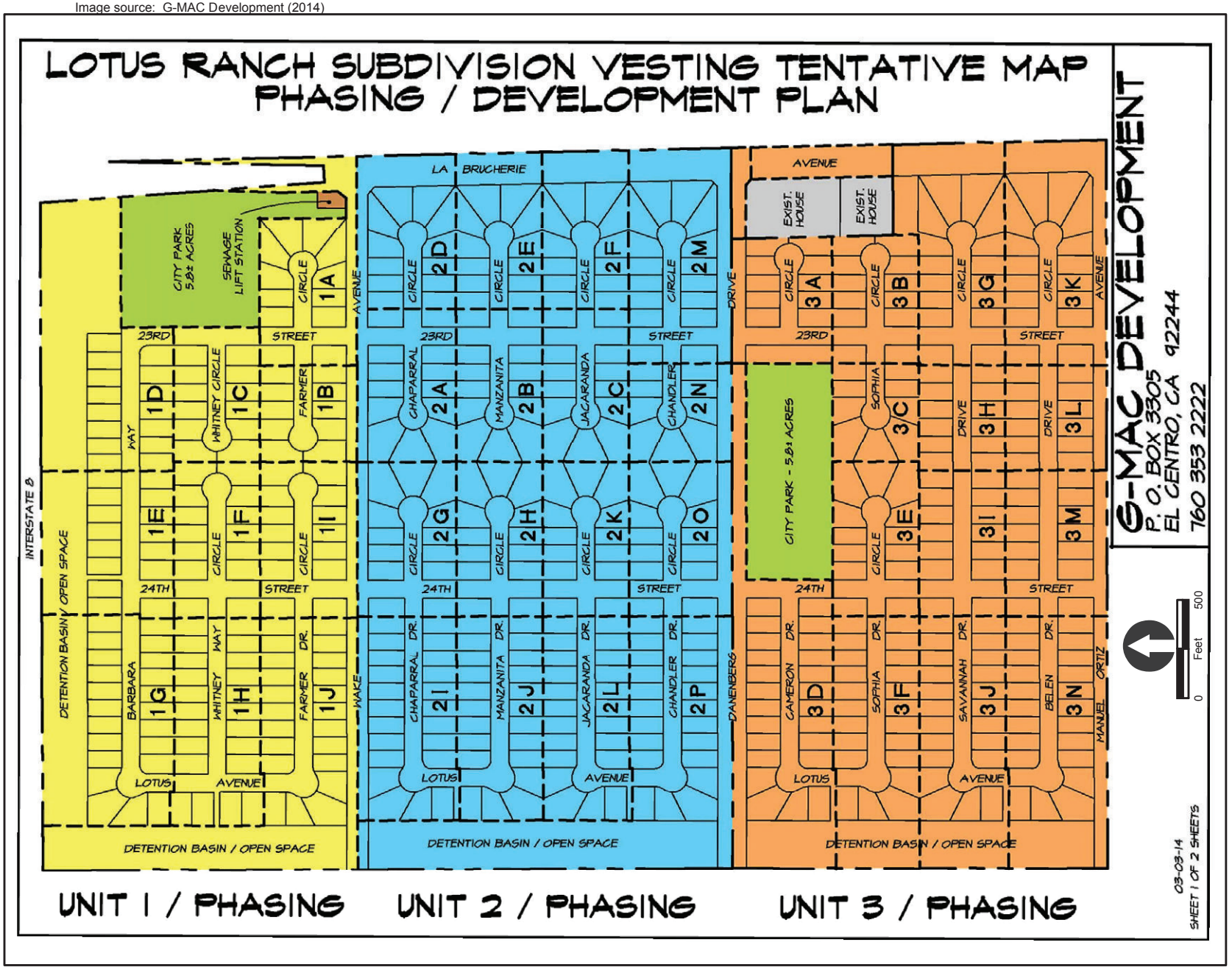

FIGURE 4

Tentative Subdivision Map

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The surrounding properties consist of I-8, Southwest High School, and rural residences to the north; agricultural land, specifically hay storage yard/cattle feed yard to the south; the Farmer Estates Subdivision which includes single-family homes, and agricultural land to the east; and agricultural land to the west.

2.0 Regulatory Framework

Cars, trucks, buses, and agriculture activities are major sources of air pollution in the SSAB. Other sources of air pollution include construction equipment, trains, and airplanes. Emission standards for mobile sources are established by state and federal agencies such as the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (U.S. EPA). Reducing mobile source emissions requires the technological improvement of existing mobile sources and the examination of future mobile sources such as those associated with new or modification projects. Stationary sources of air pollution are generally regulated through the permitting process as implemented by the local air district. The regulatory framework described below details the federal and state agencies that are in charge of monitoring and controlling mobile and stationary source air pollutants and what measures are currently being taken to achieve and maintain healthful air quality in the SSAB.

The state of California is divided geographically into 15 air basins for the purpose of managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a moderate, serious, severe, or extreme nonattainment area (there is also a marginal classification for federal nonattainment areas).

2.1 Federal Regulations

Ambient air quality standards (AAQS) represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (U.S.C.) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the federal CAA [42 U.S.C. 7409], the U.S. EPA developed primary and secondary national ambient air quality standards (NAAQS).

Six criteria pollutants of primary concern have been designated: ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and particulate matter. Particulate matter is divided into two sizes; "respirable" particulate matter has a diameter of 10 micrometers or less (PM_{10}) and "fine" particulate matter has a diameter of

2.5 micrometers or less ($PM_{2.5}$). Primary NAAQS ". . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . " and secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 U.S.C. 7409(b)(2)]. The NAAQS are presented in Table 1 (State of California 2013).

Specific geographic areas are classified as either "attainment" or "nonattainment" areas for each pollutant based on the comparison of measured data with the NAAQS. If an area is non-attainment for ozone, the area is classified as a non-attainment marginal, moderate, serious, severe, or extreme area. If an area is redesignated from nonattainment to attainment for any criteria pollutant, the area is termed a "maintenance area" for 10 years following redesignation. The federal CAA requires maintenance areas to prepare a maintenance plan to demonstrate how the air quality standard will be maintained for a 10-year period with a requirement to demonstrate attainment over a 20-year period.

The SSAB is designated a non-attainment area for the federal 8-hour ozone standard, a non-attainment area for the federal PM_{10} standard, and a non-attainment area for the federal $PM_{2.5}$ standard. It is a designated attainment for all other the NAAQS.

2.2 State Regulations

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California, and for implementing the California CAA. The California CAA, which was adopted in 1988, required CARB to establish the California Ambient Air Quality Standards (CAAQS) (Table 1). California generally has set stricter standards for the six criteria pollutants. In addition to the criteria pollutants regulated in the federal CAA, CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 1). Similar to the federal CAA, the state classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant based on the comparison of measured data with the CAAQS. The SSAB is a nonattainment area for the state ozone and PM_{10} standards. It is in attainment of the state's standards for all of the other criteria air pollutants.

The California CAA requires that districts assess their progress triennially and report to CARB as part of the triennial plan revisions. The act also specifies that local air districts should focus particular attention on reducing the emissions from transportation and area wide emission sources, and the act provides districts with the authority to regulate indirect sources. Through statewide programs to encourage cleaner cars and cleaner fuels, California has reduced smog-forming emissions from motor vehicles by 15 percent since 1996 and the cancer risk from exposure to motor vehicle air toxics by 40 percent

TABLE 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})[8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Fine Particulate Matter ($PM_{2.5}$)[8]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[9]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Fluorescence; Spectro photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[10]	–	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography			

See footnotes on next page.

TABLE 1
AMBIENT AIR QUALITY STANDARDS
(continued)

ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; – = not applicable.

[1]California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

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

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

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

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

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

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

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

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

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

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

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

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

[13]In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

2.3 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel-exhaust particulate matter emissions have been established as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987. The act requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

Diesel-exhaust particulate matter was established as a TAC in 1998, and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of diesel particulate matter as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from diesel particulate matter. The overall strategy for achieving these reductions is found in the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (State of California 2000). A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to diesel particulate matter 85 percent by 2020.

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (State of California 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel-particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to diesel particulate matter will continue to decline.

2.4 State Implementation Plan

The federal CAA requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The SIP is a collection of documents that set forth the state's strategies for achieving the air quality standards. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. U.S. EPA must review all state SIPs to determine whether they conform to the mandates of the federal CAA, and to determine whether implementing them will achieve air quality goals. The ICAPCD is responsible for preparing and implementing the portion of the SIP applicable to the SSAB. The ICAPCD adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve these objectives.

2.5 California Environmental Quality Act

Section 15125(d) of the CEQA Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

2.6 Imperial County Air Pollution Control District

The ICAPCD is the agency that regulates air quality in the SSAB. The ICAPCD provides guidance to mitigate adverse impacts to air quality from development projects within Imperial County. The ICAPCD has prepared guidelines for the implementation of the

California Environmental Quality Act (CEQA) in their "CEQA Air Quality Handbook" (2007). The document is intended to develop and adopt protocol for addressing air quality impacts in the SSAB.

The ICAPCD has also established a set of rules and regulations initially adopted on October 15, 1979, that are periodically reviewed and updated.

3.0 Environmental Setting

3.1 Geographic Setting

The project is located in El Centro within Imperial County in the SSAB. Imperial County is bordered on the south by Mexico, on the east by Arizona, on the west by the Coyote and Fish Creek Mountains, and on the north by Riverside County. The elevation in Imperial County ranges from approximately 230 feet below sea level at the Salton Sea to the north to more than 2,800 feet in the mountains to the east (CARB 2010).

3.2 Climate

Air quality is a function of both the rate and location of pollutant emissions and how meteorological conditions and topographic features influence these pollutants. Atmospheric conditions such as wind speed, direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, and consequently affect air quality.

The desert region of Imperial County in the area of El Centro is one of the hottest and driest parts of California, with a climate characterized by hot, dry summers and relatively mild winters. In El Centro, the normal maximum temperature in the winter is 71 degrees Fahrenheit (ºF); the normal minimum temperature is 41ºF, and the average temperature is 56ºF. In the summer, the normal maximum temperature is 106ºF, the normal minimum temperature is 73ºF, and the average temperature is 90 ºF. Normal annual precipitation in El Centro is 2.64 inches (Western Regional Climate Center 2014).

During the summer, the Pacific High Pressure Zone is well-developed to the west of California and a thermal trough overlies California's southeast desert region. The intensity and orientation of the trough varies from day to day. Although the rugged mountainous country surrounding the Imperial Valley inhibits circulation, the influence of the trough does permit some interbasin exchange of air with more westerly coastal locations through the mountain passes.

Relative humidity in summer is very low, averaging 30 to 50 percent in the early morning and 10 to 20 percent in the afternoon. During the hottest part of the day, a relative humidity below 10 percent is common, although the effect of extensive agricultural

operations in the Imperial Valley tends to raise the humidity locally. The prevailing weather conditions promote intense heating during the day in summer with marked cooling at night. During all seasons, the prevailing wind direction is from the south and west.

3.3 Existing Air Quality

Air quality at a particular location is a function of the kinds and amounts of pollutants being emitted into the air locally and throughout the basin, and the dispersal rates of pollutants within the region. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the EPA. Table 2 summarizes the number of days per year during which state and federal standards were exceeded in the SSAB overall during the years 2009 to 2013.

The ICAPCD maintains air quality monitoring stations throughout Imperial County. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels. The El Centro–Ninth Street monitoring station, located approximately 1.5 miles northeast of the project site, is the nearest station to the project area. Ozone, carbon monoxide, nitrogen dioxide, PM_{10}, and $PM_{2.5}$ are monitored at the Ninth Street monitoring station. Table 3 provides a summary of measurements of ozone, carbon monoxide, nitrogen dioxide, PM_{10}, and $PM_{2.5}$ collected at the Ninth Street monitoring station from 2009 to 2013.

The following is a summary of the current air quality conditions in the SSAB and city of El Centro.

3.3.1 Ozone

Nitrogen oxides (NO_X) and hydrocarbons (known as volatile organic compounds [VOC] or reactive organic gases [ROG]) are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone, which is the primary air pollution problem in the SSAB. Because sunlight plays such an important role in its formation, ozone pollution, or smog, is mainly a concern during the daytime in summer months. The SSAB is currently designated a federal and state non-attainment area for ozone.

TABLE 2
AMBIENT AIR QUALITY SUMMARY – SALTON SEA AIR BASIN

Pollutant	Average Time	California Ambient Air Quality Standards[a]	Attainment Status	National Ambient Air Quality Standards[b]	Attainment Status[c]	Maximum Concentration					Number of Days Exceeding State Standard					Number of Days Exceeding National Standard				
						2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
O_3	1 hour	0.09 ppm	N	N/A	N/A	0.150	0.122	0.124	0.126	0.113	40	24	29	27	20	N/A	N/A	N/A	N/A	N/A
O_3	8 hours	0.07ppm	N	0.075 ppm	N	0.098	0.099	0.099	0.101	0.104	82	94	81	93	89	59	63	59	58	53
CO	8 hours	9 ppm	A	9 ppm	A	7.46	5.61	9.01	4.47	Na	0	0	0	0	Na	0	0	0	0	Na
NO_2	1 hour	0.18 ppm	A	0.100 ppm	A	0.140	0.130	0.091	0.156	Na	0	0	0	0	Na	1	2	0	2	Na
NO_2	Annual	0.030 ppm	A	0.053 ppm	A	0.014	0.014	0.014	0.012	Na	NX	NX	NX	NX	Na	NX	NX	NX	NX	Na
PM_{10}	24 hours	50 $\mu g/m^3$	N	150 $\mu g/m^3$	N	275.9	144.8	396.9	406.2	385.7	24/ 207.4*	43/ 55.0*	93/ 93.4*	103/3 10.0*	144/1 44.9*	3/18.3*	0/0.0*	2/2.0*	2/9.9*	3/3.0*
PM_{10}	Annual	20 $\mu g/m^3$	N	N/A	N/A	65.4	37.7	40.9	63.7	52.3	EX	EX	EX	EX	EX	--	--	--	--	--
$PM_{2.5}$	24 hours	N/A	N/A	35 $\mu g/m^3$	N	100.9	54.0	103.5	78.5	70.8	--	--	--	--	--	4/3.1*	2/6.3*	3/6.2*	2/0.0*	1/3.0*
$PM_{2.5}$	Annual	12 $\mu g/m^3$	A	15 $\mu g/m^3$	N	8.0	12.8	7.5	8.1	13.3	NX	EX	NX	NX	EX	NX	NX	NX	NX	NX

SOURCE: State of California 2014. California Air Quality Data Statistics. California Air Resources Board Internet Site. URL http://www.arb.ca.gov/adam/welcome.html.

NOTE: Data for SO_2 and 1-hour CO were not available.

*Measured Days/Calculated Days - Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

[a]California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM_{10} are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.

[b]National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

[c]A = attainment; N = non-attainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded. ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter.

TABLE 3
SUMMARY OF AIR QUALITY MEASUREMENTS RECORDED AT THE EL CENTRO – NINTH SREET MONITORING STATION

Pollutant/Standard	2009	2010	2011	2012	2013
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	9	3	5	9	7
Days State 8-hour Standard Exceeded (0.07 ppm)	30	29	21	26	23
Days Federal 8-hour Standard Exceeded (0.075 ppm)	11	10	12	14	11
Max. 1-hr (ppm)	0.111	0.122	0.103	0.111	0.110
Max 8-hr (ppm)	0.086	0.082	0.084	0.091	0.088
Carbon Monoxide					
Days State 1-hour Standard Exceeded (20 ppm)	0	0	2	1	1
Days State 8-hour Standard Exceeded (9.0 ppm)	0	0	0	0	Na
Days Federal 1-hour Standard Exceeded (35 ppm)	0	0	1	0	0
Days Federal 8-hour Standard Exceeded (9 ppm)	0	0	0	0	Na
Max. 1-hr (ppm)	9.4	19.6	36.0	25.1	22.7
Max. 8-hr (ppm)	3.20	5.61	9.01	3.64	Na
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	1	1	1	0	0
Max 1-hr (ppm)	0.121	0.140	0.117	0.072	0.053
Annual Average (ppm)	0.008	Na	Na	0.008	0.007
PM_{10}*					
Measured Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	17	5	9	6	10
Calculated Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	104.6	Na	Na	35.9	Na
Measured Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	2	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	13.1	0.0	0.0	0.0	0.0
Max. Daily ($\mu g/m^3$)	243.1	70.2	81.9	75.6	147.9
State Annual Average ($\mu g/m^3$)	47.9	Na	Na	33.5	Na
Federal Annual Average ($\mu g/m^3$)	49.9	32.9	32.6	33.4	33.7
$PM_{2.5}$*					
Measured Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	1	0	2	0	0
Calculated Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	3.1	0.0	6.2	0.0	0.0
Max. Daily ($\mu g/m^3$)	37.7	19.9	54.4	26.4	30.0
State Annual Average ($\mu g/m^3$)	8.0	6.6	7.5	Na	7.0
Federal Annual Average ($\mu g/m^3$)	7.9	6.5	7.5	7.5	7.0

SOURCE: State of California 2014.
Na = Not available.
*Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

In order to address adverse health effects due to prolonged exposure, the U.S. EPA phased out the national 1-hour ozone standard and replaced it with the more protective 8-hour ozone standard. The SSAB is designated a nonattainment area for the national 8-hour standard of 0.075 parts per million (ppm).

In the SSAB overall, during the five-year period of 2009 to 2013, the national 8-hour standard of 0.075 was exceeded 59 days in 2009, 63 days in 2010, 59 days in 2011, 58 days in 2012, and 53 days in 2013. The stricter state 8-hour ozone standard of 0.07 ppm was exceeded 82 days in 2009, 94 days in 2010, 81 days in 2011, 93 days in 2012, and 89 days in 2013.

Also during the five-year period of 2009 to 2013, the state 1-hour standard (0.09 ppm) was exceeded 40 days in 2009, 24 days in 2010, 29 days in 2011, 27 days in 2012, and 20 days in 2013.

At the Ninth Street monitoring station, the national 8-hour standard was exceeded 11 days in 2009, 10 days in 2010, 12 days in 2011, 14 days in 2012, and 11 days in 2013. The state 8-hour standard was exceeded 30 days in 2009, 29 days in 2010, 21 days in 2011, 26 days in 2012, and 23 days in 2013. The state 1-hour standard was exceeded 9 days in 2009, 3 days in 2010, 5 days in 2011, 9 days in 2012, and 7 days in 2013.

3.3.2 Carbon Monoxide

The SSAB is classified as a state and federal attainment area for carbon monoxide (see Table 2). As seen in Table 2, CO levels did not exceed state or federal standards during the period from 2009 to 2013 in the SSAB.

Small-scale, localized concentrations of carbon monoxide above the state and national standards have the potential to occur at intersections with stagnation points, such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as “CO hot spots,” and are a concern at congested intersections when automobile engines burn fuel less efficiently and their exhaust contains more CO.

3.3.3 PM_{10}

PM_{10} is particulate matter with an aerodynamic diameter of 10 microns or less. Ten microns is about one-seventh of the diameter of a human hair. Particulate matter is a complex mixture of very tiny solid or liquid particles composed of chemicals, soot, and dust. Sources of PM_{10} emissions in the SSAB consist mainly of urban activities, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere.

Under typical conditions (i.e., no wildfires) particles classified under the PM_{10} category are mainly emitted directly from activities that disturb the soil including travel on roads and construction, mining, or agricultural operations. Other sources include windblown dust, salts, brake dust, and tire wear.

The SSAB is designated as a federal and state nonattainment area for PM_{10}. Overall in the SSAB, measured PM_{10} levels exceeded the state standard 24 days in 2009, 43 days in 2010, 93 days in 2011, 103 days in 2012, and 144 days in 2013. Measured PM_{10} levels exceeded the federal standard 3 days in 2009, 2 days in 2011, 2 days in 2012, and 3 days in 2013.

At the Ninth Street monitoring station, measured PM_{10} levels exceeded the federal 24-hour PM_{10} standard 2 days in 2009, but was not exceeded in 2010 through 2013. Measured PM_{10} levels exceeded the stricter state 24-hour PM_{10} standard 17 days in 2009, 5 days in 2010, 9 days in 2011, 6 days in 2012, and 10 days in 2013.

3.3.4 $PM_{2.5}$

Airborne, inhalable particles with aerodynamic diameters of 2.5 microns or less have been recognized as an air quality concern requiring regular monitoring. Federal $PM_{2.5}$ standards established in 1997 include an annual arithmetic mean of 15 $\mu g/m^3$ and a 24-hour concentration of 65 $\mu g/m^3$. As discussed above, the 24-hour $PM_{2.5}$ standard has been changed to 35 $\mu g/m^3$. State $PM_{2.5}$ standards established in 2002 are an annual arithmetic mean of 12 $\mu g/m^3$.

The SSAB is designated as a federal nonattainment area for $PM_{2.5}$. Overall in the SSAB, measured $PM_{2.5}$ levels exceeded the federal standard 4 days in 2009, 2 days in 2010, 3 days in 2011, 2 days in 2012, and 1 day in 2013. The federal standard was exceeded 1 day in 2009 and 2 days in 2011 at the Ninth Street monitoring station.

3.3.5 Other Criteria Pollutants

The national and state standards for NO_2, oxides of sulfur (SO_x), and previous standard for lead are being met in the SSAB, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future. New standards for these pollutants have been adopted, and new designations for the SSAB will be determined in the future. The SSAB is also in attainment of the state standards for hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles.

4.0 Thresholds of Significance

4.1 CEQA

In accordance with State CEQA Guidelines Appendix G, implementation of the project would result in a potentially significant impact if it were to:

1. Conflict with or obstruct implementation of the applicable air quality plan;

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

3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);

4. Expose the public (especially schools, day care centers, hospitals, retirement homes, convalescence facilities, and residences) to substantial pollutant concentrations; or

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

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the significance determinations. As will be discussed in the next section, the ICAPCD has developed a CEQA Air Quality Handbook to provide a protocol for air quality analyses that are prepared under the requirements of CEQA.

4.2 Imperial County

The ICAPCD CEQA Air Quality Handbook establishes the following four separate evaluation categories (ICAPCD 2007):

1. Comparison of calculated project emissions to ICAPCD emission thresholds.

2. Consistency with the most recent Clean Air Plan for Imperial County.

3. Comparison of predicted ambient pollutant concentrations resulting from the project to state and federal health standards, when applicable.

4. The evaluation of special conditions which apply to certain projects.

Any development with a potential to emit criteria pollutants below significance levels defined by the ICAPCD is called a “Tier I project,” and is considered by the ICAPCD to have potential adverse impacts on local air quality. The project proponent should implement a set of “standard” operational mitigation measures (enumerated by the ICAPCD) to reduce the air quality impact to an insignificant level. A “Tier II project” is one whose emissions exceed any of the thresholds. Its impact is significant and the project proponent should select and implement all feasible “discretionary” mitigation measures (also enumerated by the ICAPCD) in addition to the standard mitigation measures.

4.2.1 Operational Impacts

Table 4 provides general guidelines for determining the significance of impacts based on the total emissions that are expected from project operation established by the ICAPCD.

TABLE 4
THRESHOLDS OF SIGNIFICANCE FOR PROJECT OPERATIONS

Pollutant	Tier 1 (pounds/day)	Tier 2 (pounds/day)
PM_{10}	Less than 150	150 and greater
NO_x	Less than 55	55 and greater
SO_x	Less than 150	150 and greater
CO	Less than 550	550 and greater
Reactive Organic Gases (ROGs)	Less than 55	55 and greater
Level of Significance	Potentially Significant	Significant Impact

SOURCE: ICAPCD 2007

Tier 1 projects are required to implement all standard mitigation measures specified by the ICAPCD. Tier 2 projects are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures specified by the ICAPCD.

4.2.1 Construction Impacts

The ICAPCD has also established thresholds of significance for project construction. Table 5 provides general guidelines for determining significance of impacts based on the total emissions that are expected from project construction.

TABLE 5
THRESHOLDS OF SIGNIFICANCE FOR CONSTRUCTION ACTIVITIES

Pollutant	Thresholds (pounds/day)
PM_{10}	150
ROG	75
NO_x	100
CO	550

Regardless of project size, the standard mitigation measures specified by the ICAPCD for construction equipment and fugitive PM_{10} control for construction activities should be implemented at all construction sites. Control measures for fugitive PM_{10} construction emissions in Imperial County are found in ICAPCD Regulation VIII and in the Imperial County CEQA Air Quality Handbook and are discussed below. The implementation of discretionary mitigation measures specified by the ICAPCD applies to construction sites which are five acres or more for non-residential developments or ten acres or more for residential developments.

4.3 Public Nuisance Law (Odors)

State of California Health and Safety Code Sections 41700 and 41705 and ICAPCD Rule 407 prohibit emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Every use and operation shall be conducted so that no unreasonable heat, odor, vapor, glare, vibration (displacement), dust, smoke, or other forms of air pollution subject to air pollution control district standards of particulate matter shall be discernible at the property line of the parcel upon which the use or operation is located.

Therefore, any unreasonable odor discernible at the property line of the project site will be considered a significant odor impact.

The ICAPCD CEQA Air Quality Handbook provides screening level distances for potential odor sources. If a project is proposed within one mile of a wastewater treatment plant, sanitary landfill, composting station, feedlot, asphalt plant, painting and coating operation, or rendering plant, a potential odor problem may result (ICAPCD 2007).

5.0 Methodology and Assumptions

Air quality impacts can result from the construction and operation of the project. Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from growth-inducing development, or local hot-spot effects stemming from sensitive receivers being exposed to substantial concentration to localized pollutants and toxins.

Air emissions were calculated using the California Emission Estimator Model (CalEEMod) computer program, as recommended by the ICAPCD. Inputs to CalEEMod include such items as the air basin containing the project, land uses, trip generation rates, trip lengths, vehicle fleet mix (percentage autos, medium truck, etc.), trip distribution (i.e., percent home to work, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters. The CalEEMod output files contained in Attachment 1 indicate the specific outputs for each model run. Emissions of NO_x, CO, SO_x, PM_{10}, $PM_{2.5}$, and ROG, an ozone precursor, are calculated.

5.1 Estimating Construction Emissions

Construction schedules and equipment required to grade and prepare the project site for the construction of single-family homes was provided by the project engineer. The project site is vacant and flat, and would require minimal earthwork. It is anticipated that land clearing/grubbing would take 2 days, grading/excavation would take 14 days, fine grading would take 7 days, drainage/utilities would take 30 days, and paving would take 3 days. Single-family residential would then be constructed in phases. Chemical soil stabilizers would be applied to inactive construction areas after grading and prior to building construction. At this time, the amount of time required to construct the units is not known. For modeling purposes and to be conservative, building construction was modeled over a period of five years and the architectural coatings phase of construction would occur simultaneous with building construction. This provides a conservative assumption of construction emissions because emission rates for construction equipment and vehicles would decrease with time as new technology and fleet turnover reduce average fleet emissions. Thus, if construction activities for the entire project would occur over an approximate 10-year period they would generate less emissions, either due to smaller-scale activities or the emissions per piece of equipment would be lower.

Heavy-duty construction equipment is usually diesel powered. In general, emissions from diesel-powered equipment contain more nitrogen oxides, sulfur oxides, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROG than do gasoline-powered engines. Standard construction equipment includes dozers, rollers, scrapers, dewatering pumps, backhoes, loaders, paving equipment, delivery/haul trucks, jacking equipment, welding machines, pile drivers, and so on.

Primary inputs are the numbers of each piece of equipment and the length of each construction stage. Specific construction phasing and equipment parameters for the project are not available at this time. For modeling purposes, CalEEMod divides construction into five stages: site preparation, grading, building construction, paving, and architectural coatings. All CalEEMod construction defaults regarding phasing and equipment were assumed except those associated with architectural coatings. It was assumed that the architectural coatings phase of construction would occur simultaneously with the building construction phase. Additionally, during site preparation and grading activities, dust control measures (i.e., water the site three times daily and reduce speed to 15 miles per hour [mph] on unpaved surfaces) would be implemented in accordance with ICAPCD rules and regulations. Table 6 summarizes the construction equipment parameters.

TABLE 6
POTENTIAL CONSTRUCTION EQUIPMENT BY PHASE

Possible Equipment	Land Clearing/ Grubbing	Grading/ Excavation	Fine Grading	Drainage/ Utilities	Paving	Building Construction/ Architectural Coatings
Air Compressors						X
Backhoes			X			X
Compacters			X			
Concrete Saws				X		
Crane						X
Excavators			X			
Forklifts						X
Generator Sets						X
Graders	X	X		X	X	
Loaders			X		X	
Pavers					X	
Rollers					X	
Scrapers		X		X		
Water Truck	X	X	X	X		
Welders						X

The project site is greater than ten acres, therefore, all standard and discretionary measures for construction equipment and fugitive PM_{10} control are required to be implemented, and were included in the analysis of construction emissions.

Standard Mitigation Measures for Construction Equipment:

- Maintain all construction equipment in proper tune according to manufacturer's specifications.
- Fuel all off-road and portable diesel powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- Maximize, to the extent feasible, the use of diesel construction equipment meeting the CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines.
- Install diesel oxidation catalysts (DOC), catalyzed diesel particulate filters (CDPF) or other ICAPCD approved emission reduction retrofit devices.

Standard Mitigation Measures for Fugitive PM_{10} Control:

- The entire site shall be pre-watered for 48 hours prior to clearing and grubbing.
- Reduce the amount of the disturbed area when possible.
- Water at least twice daily or otherwise stabilize all active construction areas.
- All dirt stockpile areas should be sprayed daily as needed.
- Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.

- Haul trucks shall cover loads or maintain at least 6 inches of freeboard when traveling on public roads.
- Pre-moisten, prior to transport, import and export materials that have a silt content of 5 percent or greater. Water all materials with a silt content of 5 percent or greater with a spray bar or cover trucks hauling dirt, sand, or loose materials. Empty trucks and trucks carrying asphalt material are excluded from this requirement.
- Sweep streets at the end of each day if visible soil material is carried onto streets, or wash off truck and equipment leaving site.

Discretionary Mitigation Measures for Fugitive PM_{10} Control:

- Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. When wind speeds exceed 15 mph the operators shall increase watering frequency.
- Apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g. latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseeded areas.
- Plant vegetative ground cover in disturbed areas as soon as possible and where feasible.
- Cover or apply water or chemical suppressants to form and maintain a crust on inactive storage piles.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

- Install wheel washers, rumble gates, provide a gravel pad, or pave the area where vehicles enter and exit unpaved roads onto streets; or wash off trucks and equipment leaving the site.

5.2 Estimating Operation Emissions

Mobile source emissions would originate from traffic generated by the project. Area source emissions would result from activities such as the use of architectural coatings, consumer products, and fireplaces. In addition, landscaping maintenance activities associated with the proposed land uses would produce pollutant emissions.

Operational emissions due to implementation of the project were calculated using CalEEMod. For the purposes of computing the emissions, it was assumed that buildout of Phase 1 would occur in 2020, buildout of Phase 2 would occur in 2023, and total buildout of the project would occur in 2025. CalEEMod estimates vehicle emissions by first calculating trip rate, trip length, trip purpose (e.g., home to work, home to shop, home to other), and trip type percentages for each land use type, based on the land use types and quantities entered by the user in the land use module. Weekday trip generation rates were obtained from the traffic report prepared for the project (Linscott, Law, and Greenspan [LLG] 2014). The single-family residential uses would generate 10 trips per dwelling unit and the park space would generate 1.89 trips per acre, for a total of 6,192 average daily trips. The trip length of two miles was modeled for the park uses since the parks would serve the future occupants of the project. All other CalEEMod default trip characteristics were used.

Other project and area characteristics would reduce total vehicle miles traveled, and were taken into account for the calculation of operational emissions. The project site is located less than one mile from the nearest bus stop, is located near local retail, would increase land use diversity by providing parks adjacent to residential uses, and would improve the walkability design and pedestrian network onsite.

The project would be constructed in accordance with the 2013 Title 24 Energy Code and would install Energy Star appliances in the residential units.

The calculation of emissions due to the use of architectural coatings and consumer products is based on total building square footage. For residential uses, an average building size of 1,800 square feet per unit was modeled. For park uses, a building size of 1,000 square feet was modeled to account for bathrooms and maintenance facilities.

The following standard measures would be implemented at all project sites, and were included in the analysis of project emissions (ICAPCD 2007).

Standard Site Design Measures

Standard Site Design Measures

- Link cul-de-sacs and dead-end streets to encourage pedestrian and bicycle travel.
- Allocate easements or land dedications for bikeways and pedestrian walkways.
- Provide continuous sidewalks separated from the roadway by landscaping and on-street parking. Adequate lighting for sidewalks must be provided, along with crosswalks at intersections.
- Provide bicycle storage at apartment complexes or condos without garages.

Standard Energy Efficiency Measures

- Measures which meet mandatory, prescriptive and/or performance measures as required by Title 24.

6.0 Air Quality Calculations

6.1 Regional Emissions

6.1.1 Construction-related Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include fugitive dust from grading activities; construction equipment exhaust; and construction-related trips by workers, delivery trucks, and material-hauling trucks. Table 7 shows the projected maximum daily emissions from construction. CalEEMod output is contained in Attachment 1.

TABLE 7
SUMMARY OF MAXIMUM DAILY CONSTRUCTION EMISSIONS
(pounds per day)

Phase	ROG	NO_x	CO	PM_{10}
Land Clearing/Grubbing	2.5	26.6	12.8	1.5
Grading/Excavation	6.0	70.6	40.6	4.4
Fine Grading	2.8	31.7	16.9	1.5
Drainage/Utilities	5.0	54.4	31.5	2.6
Paving	2.9	30.7	15.1	1.6
Building Construction/Architectural Coatings	20.4	61.3	82.0	7.4
Maximum Daily	20.4	70.6	82.0	7.4
Significance Threshold	75	100	550	150
Exceed Threshold?	No	No	No	No

When construction emissions are below these thresholds, the project must comply with ICAPCD Regulation VIII and apply standard mitigation measures for construction emissions and fugitive PM_{10} control, regardless of project size. For projects that exceed the thresholds of significance, the ICAPCD requires an additional analysis of localized and, under certain circumstances, regional impacts.

As shown, maximum daily construction emissions would not exceed ICAPCD construction thresholds. ICAPCD requires that standard mitigation measures listed in Section 5.2 for construction equipment and fugitive PM_{10} control be implemented at all construction sites, as appropriate and feasible, regardless of the size of construction. In addition, since the project site exceeds ten acres, the project proponent must implement the discretionary mitigation measures listed in Section 5.2 for fugitive PM_{10}.

6.1.2 Operation-related Emissions

Mobile source emissions would originate from traffic generated by the project. Area source emissions would result from activities such as the use of architectural coatings, consumer products, fireplaces, and landscaping equipment. Table 8 shows the projected maximum daily emissions from project operation. CalEEMod output is contained in Attachment 1.

As discussed previously, the project would be constructed in three phases. Phase 1 would construct 158 single-family residential units and a 5.8-acre park, Phase 2 would construct 240 single-family residential units, and Phase 3 would construct 219 single-family residential units and a 5.8-acre park. Total emissions were calculated for the completion of Phase 1, the completion of Phase 2, and total buildout at the completion of Phase 3.

If emissions fall below the significance thresholds, the project is classified as a Tier 1 project, and if emissions exceed the significance thresholds, the project is classified as a Tier 2 project. Tier 1 projects are required to implement all standard mitigation measures specified by the ICAPCD. Tier 2 projects are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures specified by the ICAPCD.

As shown, operational emissions are projected to be less than the applicable thresholds for all pollutants except ROG after construction of Phase 2 and total buildout. Emissions of ROG are due to mobile sources, the use of fireplaces, and the use of consumer products associated with the project. Impacts would be potentially significant, and discretionary measures shall be implemented (see Section 7.2).

TABLE 8
SUMMARY OF MAXIMUM DAILY OPERATIONAL EMISSIONS
(pounds per day)

	Phase 1 Only					Phase 1 + Phase 2					Total Buildout				
Pollutant Source	ROG	NO_x	CO	SO_x	PM_{10}	ROG	NO_x	CO	SO_x	PM_{10}	ROG	NO_x	CO	SO_x	PM_{10}
SUMMER															
Mobile Sources	7.1	11.3	61.9	0.1	5.5	16.8	24.9	147.2	0.2	13.7	24.3	34.3	216.4	0.3	21.4
Area Sources	26.8	0.4	34.1	0.0	3.1	67.4	0.9	85.8	0.0	7.9	104.4	1.4	132.9	0.0	12.2
Total	33.9	11.6	96.0	0.1	8.6	**84.1**	25.9	233.0	0.2	21.6	**128.8**	35.8	349.3	0.3	33.6
Significance Threshold	55	55	550	150	150	55	55	550	150	150	55	55	550	150	150
Exceed Threshold?	No	No	No	No	No	**Yes**	No	No	No	No	**Yes**	No	No	No	No
WINTER															
Mobile Sources	5.8	12.3	63.6	0.1	5.5	13.7	27.2	152.0	0.2	13.7	20.0	37.4	223.9	0.3	21.4
Area Sources	26.8	0.4	34.1	0.0	3.1	67.4	0.9	85.8	0.0	7.9	104.4	1.4	132.9	0.0	12.2
Total	32.5	12.7	97.7	0.1	8.6	**81.1**	28.1	237.8	0.2	21.6	**124.4**	38.8	356.8	0.3	33.6
Significance Threshold	55	55	550	150	150	55	55	550	150	150	55	55	550	150	150
Exceed Threshold?	No	No	No	No	No	**Yes**	No	No	No	No	**Yes**	No	No	No	No

6.2 Localized Air Quality

6.2.1 Diesel Particulate

Construction projects that are "prone to a significant use of heavy-duty diesel equipment and vehicles and that are within areas prone to human exposure" are required to perform a diesel exhaust screening level health risk assessment. Construction-related activities would result in short-term, project-generated emissions of diesel particulate matter (PM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation (e.g., excavation, grading, and clearing), building construction, and other miscellaneous activities. Diesel PM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential non-cancer health impacts (State of California 2003).

Generation of diesel PM from construction projects typically occurs in a single area for a short period. Construction of the project would occur over a multi-year period, but use of diesel-powered construction equipment in any one area would likely occur for no more than a few months and would cease when construction is completed in that area. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that a person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time.

According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities near any sensitive receptor, i.e., less than one year to prepare the site for construction and an estimated five years for building construction, is approximately 9 percent of the total exposure period used for health risk calculation. However, current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (Bay Area Air Quality Management District 2009).

In addition to the limited exposure duration, in January 2001, U.S. EPA promulgated a Final Rule to make emission standards more stringent for model year 2007 heavy-duty diesel engines and all subsequent model years. These emission standards represent a 90 percent reduction in NO_X emissions, 72 percent reduction in non-methane

hydrocarbon emissions, and 90 percent reduction in PM emissions in comparison to the 2004 model year emission standards. In December 2004, CARB adopted a fourth phase of emission standards (Tier 4) in the Clean Air Non-road Diesel Rule. As such, engine manufacturers are required to meet treatment-based exhaust standards for NO_X and PM starting in 2011 that are more than 90 percent lower than current levels. This would put emission factors from off-road engines (e.g., construction, agricultural, and mining equipment) virtually on par with those from on-road, heavy-duty diesel engines.

In addition to the Clean Air Non-road Diesel Rule, in July 2007, CARB adopted a regulation to reduce diesel PM and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. All self-propelled off-road diesel vehicles 25 horsepower or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the regulation. The In-Use Off-Road Diesel Vehicle Regulation imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; requires all vehicles to be reported to CARB and labeled; restricts the adding of older vehicles into fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).

Therefore, due to the short exposure period, and the ongoing implementation of U.S. EPA and CARB requirements for cleaner fuels, diesel engine retrofits, and new low-emission diesel engine types, diesel PM generated by project construction is not expected to create conditions where the probability is greater than 1 in 1 million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. This impact would be less than significant, and no mitigation is required.

6.2.2 Carbon Monoxide

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur near congested intersections. Procedures and guidelines for use in evaluating the potential local level CO impacts of a project are contained in Transportation Project-Level Carbon Monoxide Protocol (CO Protocol; University of California, Davis – Institute of Transportation Studies 1997). The CO Protocol provides a methodology for determining the level of analysis, if any, required on a project. The guidelines comply with the CAA, federal conformity rules, and the California Environmental Quality Act. The CO Protocol states that the determination of project-level CO impacts should be carried out in accordance with the Local CO Analysis flow charts shown as Figures 1 and 3 of the CO Protocol (Caltrans 2003). Figure 1 of the CO Protocol, which applies to the evaluation of new projects, indicates that local impacts due to the project should be evaluated. The determination of project-level CO impacts

was carried out following the Local Analysis flow chart provided in Figure 3 of the CO Protocol. The CO Protocol procedure for determining project impacts is provided below.

The SSAB is in attainment of state and federal CO standards. In attainment areas, consideration of project-level CO impacts is required at intersections where air quality may be getting worse. The following criteria are used to determine whether the project is likely to worsen air quality:

a. The project significantly increases the percentage of vehicles operating in cold start mode. Increasing the number of vehicles operating in cold start mode by as little as 2 percent should be considered potentially significant.

b. The project significantly increases traffic volumes. Increases in traffic volumes in excess of 5 percent should be considered potentially significant. Increasing the traffic volume by less than 5 percent may still be potentially significant if there is also a reduction in average speeds.

c. The project worsens traffic flow. For uninterrupted roadway segments, a reduction in average speeds (within a range of 3 to 50 mph) should be regarded as worsening traffic flow. For intersection segments, a reduction in average speed or an increase in average delay should be considered as worsening traffic flow.

The project would not increase the percentage of vehicles operating in cold start mode or significantly increase traffic volumes. However, the project has the potential to worsen traffic flow and effect local air quality due to increased congestion at local intersections. The project traffic analysis identifies three intersections that would operate at level of service (LOS) E or LOS F under the cumulative plus project scenario: Imperial Avenue and Ocotillo Drive, La Brucherie Avenue and Wake Avenue, and La Brucherie Avenue and McCabe Road. However, two of the intersections, La Brucherie Avenue and Wake Avenue, and La Brucherie Avenue and McCabe Road, are currently unsignalized and would remain unsignalized under the project. According to the CO Protocol, unsignalized intersections are not evaluated for CO hot spots as the volumes are typically lower than necessary to result in CO hot spots, the delay is related primarily to a low volume side street, and unsignalized intersection are typically signalized when the intersection fails and undergoes a signal-warrant analysis. Therefore, this analysis is limited to the signalized intersection at Imperial Avenue and Ocotillo Drive.

Curbside CO concentrations were estimated using the CALINE-4 dispersion model developed by Caltrans, using peak-hour AM and PM traffic volumes and worst-case meteorological assumptions. Worst-case meteorological conditions include low wind speed and stable atmospheric conditions producing the highest CO concentrations for each case. All approach volumes for the intersections, including left turn lanes, were modeled using emissions factors for vehicles traveling at 5 mph. This is conservative as

the CO Protocol indicates approach and departure speeds due to cruise speeds and the number of lanes would be higher, which would result in lower emission factors. The second highest 8-hour background concentration reported by the ICAPCD was 7.49 ppm in the County between 2009 and 2013. This concentration was used as the background concentration for modeling conditions in 2025 and added to the project's CO contribution. This is considered conservative as concentrations of CO are expected to drop due to fuel reformulations, and increases fuel efficiency requirements for new vehicles.

The results of the CO hot spot modeling for the intersection of Imperial Avenue and Ocotillo Drive is shown in Table 9. As shown, the traffic delays resulting from the project would not exceed the 1-hour or 8-hour NAAQS or CAAQS and would not create a CO hot spot. The Caline 4 output sheets and traffic data are contained in Attachment 2.

TABLE 9
ESTIMATED FUTURE MAXIMUM CO CONCENTRATIONS

		2025 Project + Cumulative Projects (ppm)	
Intersection	Peak Hour	1-hour	8-hour
Imperial Avenue and Ocotillo Drive	AM	8.1	4.9
	PM	8.0	4.8

ppm = parts per million
Federal Standards: 1-hour 35 ppm, 8-hour 9 ppm
State Standards: 1-hour 20 ppm, 8-hour 9.0 ppm

7.0 Air Quality Impact Analysis

7.1 Air Quality Plans

Section 15125(B) of the CEQA Guidelines contains specific reference to the need to evaluate any inconsistencies between the proposed project and the applicable air quality management plans. The current Clean Air Plans in the project area include the ozone Air Quality Attainment Plan (AQAP) and PM_{10} SIP. The ICAPCD CEQA Air Quality Handbook states that a "consistency analysis with the Clean Air Plans is required for large residential developments and large commercial developments which are required to develop an EIR and/or a Comprehensive Air Quality Analysis Report". The basis for the Clean Air Plans is the distribution of population in the region, which is based in part on the land uses established by the General Plan. The City of El Centro has designated the property as Low Density Residential in the General Plan. In addition, Imperial County has designated the project site as an Urban Area. The project would be consistent with these designations, therefore, the project would be consistent with the population distribution assumptions in the Clean Air Plans. Additionally, the project would be required to implement standard and discretionary measures that would reduce emissions to below the significance thresholds for all criteria pollutants. As such, the project is consistent with the Clean Air Plans.

7.2 Air Quality Standards

As shown in Table 7, project construction would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits at which project emissions below the threshold would not significantly change regional air quality. Therefore, as project emissions are well below these limits, project construction would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Additionally, construction emissions would be temporary, intermittent, and would cease at the end of project construction.

Long-term emissions of regional air pollutants occur from operational sources. As shown in Table 8, operational emissions are projected to be less than the applicable thresholds for all pollutants except ROG after construction of Phase 2 and total buildout. Emissions of ROG are due to mobile sources, the use of fireplaces, and the use of consumer products associated with the project. Impacts would be potentially significant, and discretionary measures shall be implemented (see Section 7.2). Implementation of these measures would reduce impacts to a level less than significant.

Localized impacts due to CO hot spots and diesel PM are discussed under subsection 6.4.

7.3 Cumulatively Considerable Net Increase of Any Criteria Pollutant for which the Project Region is Nonattainment

The SSAB is designated a non-attainment area for the state and federal ozone standards, the state and federal PM_{10} standards, and the federal $PM_{2.5}$ standard. Ozone is not emitted directly, but is a result of atmospheric activity on precursors, i.e. NO_X and ROG. These compounds react in the presence of sunlight to produce ozone.

As shown in Table 8, operational emissions are projected to be less than the applicable thresholds for all pollutants except ROG after construction of Phase 2 and total buildout. Emissions of ROG are due to mobile sources, the use of fireplaces, and the use of consumer products associated with the project. Impacts would be potentially significant, and discretionary measures shall be implemented (see Section 7.2). Implementation of these measures would reduce impacts to a level less than significant.

7.4 Sensitive Receptors

A sensitive receptor is a person in the population who is more susceptible to health effects due to exposure to an air contaminant than is the population at large. Examples include residences, schools, playgrounds, child care centers, churches, athletic facilities, retirement homes, and long-term health care facilities.

As discussed under subsection 6.2.1, due to the short exposure period, and the ongoing implementation of U.S. EPA and CARB requirements for cleaner fuels, diesel engine retrofits and new low-emission diesel engine types, diesel PM generated by project construction is not expected to create conditions where the probability is greater than 1 in 1 million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Therefore, localized impact from diesel particulate matter would be less than significant.

As discussed in Section 6.2.2, all signalized intersections would operate at LOS D or better with the exception of the intersection of Imperial Avenue and Ocotillo Drive. Curbside CO concentrations were estimated using the CALINE-4 dispersion model developed by Caltrans, using peak-hour AM and PM traffic volumes and worst-case meteorological assumptions. As shown in Table 9, the traffic delays resulting from the project would not exceed the 1-hour or 8-hour NAAQS or CAAQS and would not create a CO hot spot. Impacts would be less than significant.

7.5 Odors

The project would not create objectionable odors that would affect a substantial number of people. The project does not include any land uses typically associated with odor complaints. During construction, diesel equipment may generate some nuisance odors; however, due to the distance of sensitive receptors from the project site, odors associated with project construction would not be significant.

The project is located north of a cattle yard that would create objectionable odors. As discussed in Section 4.3, State of California Health and Safety Code Sections 41700 and 41705 and ICAPCD Rule 407 do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. However, the project would record a notice on the title of all project residences south of Wake Avenue that advises prospective buyers of potential odor impacts.

8.0 Conclusions and Recommendations

8.1 Construction

ICAPCD requires that standard mitigation measures for construction equipment and fugitive PM_{10} control be implemented at all construction sites, as appropriate and feasible, regardless of the size of construction. In addition, since the project site exceeds ten acres, the project proponent must implement the discretionary mitigation measures for fugitive PM_{10}. In accordance with the CEQA Air Quality Handbook, the short-term construction impacts would be less than significant upon implementation of the following mitigation measures.

Standard Mitigation Measures for Construction Equipment:

- Maintain all construction equipment in proper tune according to manufacturer's specifications.
- Fuel all off-road and portable diesel powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- Maximize, to the extent feasible, the use of diesel construction equipment meeting the CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines.
- Install DOCs, catalyzed diesel particulate filters (CDPF) or other ICAPCD approved emission reduction retrofit devices.

Standard Mitigation Measures for Fugitive PM_{10} Control:

- The entire site shall be pre-watered for 48 hours prior to clearing and grubbing.
- Reduce the amount of the disturbed area when possible.
- Water at least twice daily or otherwise stabilize all active construction areas.
- All dirt stockpile areas should be sprayed daily as needed.
- Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Haul trucks shall cover loads or maintain at least 6 inches of freeboard when traveling on public roads.
- Pre-moisten, prior to transport, import and export materials that have a silt content of 5 percent or greater. Water all materials with a silt content of 5 percent or greater with a spray bar or cover trucks hauling dirt, sand, or loose materials. Empty trucks and trucks carrying asphalt material are excluded from this requirement.
- Sweep streets at the end of each day if visible soil material is carried onto streets, or wash off truck and equipment leaving site.

Discretionary Mitigation Measures for Fugitive PM_{10} Control:

- Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. When wind speeds exceed 15 mph the operators shall increase watering frequency.
- Apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g. latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseeded areas.
- Plant vegetative ground cover in disturbed areas as soon as possible and where feasible.
- Cover or apply water or chemical suppressants to form and maintain a crust on inactive storage piles.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- Install wheel washers, rumble gates, provide a gravel pad, or pave the area where vehicles enter and exit unpaved roads onto streets; or wash off trucks and equipment leaving the site.

8.2 Operation

ICAPCD requires Tier 1 projects to implement all standard mitigation measures. Tier 2 projects are required to implement all standard mitigation measures as well as feasible discretionary mitigation measures.

Standard Site Design Measures

Standard Site Design Measures

- Link cul-de-sacs and dead-end streets to encourage pedestrian and bicycle travel.
- Allocate easements or land dedications for bikeways and pedestrian walkways.
- Provide continuous sidewalks separated from the roadway by landscaping and on-street parking. Adequate lighting for sidewalks must be provided, along with crosswalks at intersections.
- Provide bicycle storage at apartment complexes or condos without garages.

Standard Energy Efficiency Measures

- Measures which meet mandatory, prescriptive and/or performance measures as required by Title 24.

Discretionary Measures

As shown in Table 8, emissions of ROG would exceed 55 pounds per day after completion of Phase 2 and at total buildout. A majority of these emissions are due to fireplaces (75 pounds per day at buildout). A smaller amount of these emissions are due to mobile sources (20 pounds per day in the winter and 24 pounds per day in the summer at buildout), consumer products (24 pounds per day at buildout), architectural coatings (4 pounds per day at buildout), and landscaping equipment (2 pounds per day at buildout).

The following measures would be required to reduce emissions from fireplaces.

- If the project design includes fireplaces, no wood-burning fireplaces shall be installed; rather, all fireplaces shall be natural gas.

Emissions were modeled with implementation of this measure. The results are shown in Table 10. As shown, emissions of ROG would be reduced to below 55 pounds per at total buildout. Impacts would be reduced to a level less than significant.

TABLE 10
SUMMARY OF MITIGATED MAXIMUM DAILY OPERATIONAL EMISSIONS
(pounds per day)

	Phase 1 Only					Phase 1 + Phase 2					Total Buildout				
Pollutant Source	ROG	NO_x	CO	SO_x	PM_{10}	ROG	NO_x	CO	SO_x	PM_{10}	ROG	NO_x	CO	SO_x	PM_{10}
SUMMER															
Mobile Sources	7.1	11.3	61.9	0.1	5.5	16.8	24.9	147.2	0.2	13.7	24.3	34.3	216.4	0.3	21.4
Area Sources	7.8	0.2	13.1	0.0	0.3	19.5	0.4	32.9	0.0	0.7	30.3	0.6	50.9	0.0	1.1
Total	14.9	11.4	75.0	0.1	5.8	36.3	25.3	180.2	0.2	14.4	54.6	34.9	267.3	0.3	22.4
Significance Threshold	55	55	550	150	150	55	55	550	150	150	55	55	550	150	150
Exceed Threshold?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
WINTER															
Mobile Sources	5.8	12.3	63.6	0.1	5.5	13.7	27.2	152.0	0.2	13.7	20.0	37.4	223.9	0.3	21.4
Area Sources	7.8	0.2	13.1	0.0	0.3	19.5	0.4	32.9	0.0	0.7	30.3	0.6	50.9	0.0	1.1
Total	13.5	12.4	76.7	0.1	5.8	33.2	27.5	184.9	0.2	14.4	50.2	38.0	274.8	0.3	22.5
Significance Threshold	55	55	550	150	150	55	55	550	150	150	55	55	550	150	150
Exceed Threshold?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

9.0 References Cited

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ATTACHMENTS

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ATTACHMENT 1
CalEEMod Output

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Summer

7524 Lotus Ranch

Imperial County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	11.60	Acre	11.60	1,000.00	0
Single Family Housing	617.00	Dwelling Unit	201.40	1,110,600.00	1993

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	12
Climate Zone	15			**Operational Year**	2025
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 213 acres

Construction Phase - Grading schedule obtained from project engineer
Building construction/arch coatings assumed to last 5 years

Off-road Equipment - 10 hours construction/day

Off-road Equipment - 10 hours construction/day

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer
Trips and VMT -

On-road Fugitive Dust - Workers and trucks would travel paved roads

Grading -

Architectural Coating -

Vehicle Trips - Park - 1.89 trips/acre
Single-Family - 10 trips/du

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Residential trips would travel paved roads

Woodstoves - No woodstoves

Area Coating -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Consumer Products -

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tblConstructionPhase	PhaseStartDate	3/23/2021	3/22/2016
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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	21.1455	70.5886	83.2630	0.1122	4.0777	3.3085	7.3862	1.1024	3.1179	4.2202	0.0000	10,496.8696	10,496.8696	1.9316	0.0000	10,537.4333
2017	20.1086	54.6597	77.5105	0.1120	4.0770	2.9786	7.0557	1.1021	2.8061	3.9082	0.0000	10,277.7142	10,277.7142	1.1705	0.0000	10,302.2949
2018	18.9701	48.6310	72.0833	0.1118	4.0758	2.5353	6.6111	1.1016	2.3901	3.4916	0.0000	10,067.5828	10,067.5828	1.1366	0.0000	10,091.4517
2019	18.1099	44.0074	68.1413	0.1117	4.0747	2.2008	6.2755	1.1011	2.0745	3.1756	0.0000	9,870.9489	9,870.9489	1.1061	0.0000	9,894.1774
2020	17.3829	39.4343	64.4354	0.1115	4.0736	1.9161	5.9898	1.1007	1.8061	2.9067	0.0000	9,636.5477	9,636.5477	1.0829	0.0000	9,659.2888
2021	16.8631	35.1467	62.3532	0.1115	4.0733	1.6515	5.7247	1.1005	1.5563	2.6568	0.0000	9,599.2271	9,599.2271	1.0659	0.0000	9,621.6116
Total	**112.5801**	**292.4677**	**427.7866**	**0.6707**	**24.4521**	**14.5909**	**39.0430**	**6.6083**	**13.7509**	**20.3592**	**0.0000**	**59,948.8902**	**59,948.8902**	**7.4937**	**0.0000**	**60,106.2577**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	21.1455	70.5886	83.2630	0.1122	4.0777	3.3085	7.3862	1.1024	3.1179	4.2202	0.0000	10,496.8696	10,496.8696	1.9316	0.0000	10,537.4333
2017	20.1086	54.6597	77.5105	0.1120	4.0770	2.9786	7.0557	1.1021	2.8061	3.9082	0.0000	10,277.7142	10,277.7142	1.1705	0.0000	10,302.2949
2018	18.9701	48.6310	72.0833	0.1118	4.0758	2.5353	6.6111	1.1016	2.3901	3.4916	0.0000	10,067.5828	10,067.5828	1.1366	0.0000	10,091.4517
2019	18.1099	44.0074	68.1413	0.1117	4.0747	2.2008	6.2755	1.1011	2.0745	3.1756	0.0000	9,870.9489	9,870.9489	1.1061	0.0000	9,894.1774
2020	17.3829	39.4343	64.4354	0.1115	4.0736	1.9161	5.9898	1.1007	1.8061	2.9067	0.0000	9,636.5477	9,636.5477	1.0829	0.0000	9,659.2888
2021	16.8631	35.1467	62.3532	0.1115	4.0733	1.6515	5.7247	1.1005	1.5563	2.6568	0.0000	9,599.2271	9,599.2271	1.0659	0.0000	9,621.6116
Total	**112.5801**	**292.4677**	**427.7866**	**0.6707**	**24.4521**	**14.5909**	**39.0430**	**6.6083**	**13.7509**	**20.3592**	**0.0000**	**59,948.8902**	**59,948.8902**	**7.4937**	**0.0000**	**60,106.2576**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	104.4444	1.4294	132.8683	2.6900e-003		12.2116	12.2116		12.2042	12.2042	1,103.1358	11,197.6593	12,300.7951	0.3006	0.3010	12,400.4017
Energy	0.6156	5.2603	2.2384	0.0336		0.4253	0.4253		0.4253	0.4253		6,715.2908	6,715.2908	0.1287	0.1231	6,756.1589
Mobile	24.6555	35.8184	223.9557	0.3418	22.1493	0.6436	22.7928	5.9075	0.5933	6.5008		25,364.9769	25,364.9769	1.2839		25,391.9383
Total	**129.7154**	**42.5082**	**359.0624**	**0.3781**	**22.1493**	**13.2805**	**35.4297**	**5.9075**	**13.2227**	**19.1303**	**1,103.1358**	**43,277.9270**	**44,381.0628**	**1.7132**	**0.4241**	**44,548.4990**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.2647	0.5859	50.9183	2.6900e-003		1.0683	1.0683		1.0600	1.0600	0.0000	12,504.2475	12,504.2475	0.3257	0.2276	12,581.6318
Energy	0.4888	4.1770	1.7774	0.0267		0.3377	0.3377		0.3377	0.3377		5,332.2970	5,332.2970	0.1022	0.0978	5,364.7484
Mobile	24.3378	34.3488	216.3875	0.3218	20.7716	0.6076	21.3792	5.5401	0.5601	6.1002		23,879.8040	23,879.8040	1.2193		23,905.4086
Total	**55.0914**	**39.1116**	**269.0832**	**0.3512**	**20.7716**	**2.0136**	**22.7852**	**5.5401**	**1.9579**	**7.4979**	**0.0000**	**41,716.3485**	**41,716.3485**	**1.6472**	**0.3253**	**41,851.7889**

	ROG	NOx	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	57.53	7.99	25.06	7.12	6.22	84.84	35.69	6.22	85.19	60.81	100.00	3.61	6.00	3.86	23.28	6.05

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grubbing/Land Clearing	Site Preparation	1/4/2016	1/5/2016	5	2	
2	Grading	Grading	1/6/2016	1/25/2016	5	14	
3	Fine Grading	Grading	1/26/2016	2/3/2016	5	7	
4	Drainage/Utilities	Trenching	2/4/2016	3/16/2016	5	30	
5	Paving	Paving	3/17/2016	3/21/2016	5	3	
6	Building Construction	Building Construction	3/22/2016	3/22/2021	5	1305	
7	Architectural Coatings	Architectural Coating	3/22/2016	3/22/2021	5	1305	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43.75

Acres of Paving: 0

Residential Indoor: 2,248,965; Residential Outdoor: 749,655; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grubbing/Land Clearing	Graders	1	10.00	174	0.41
Grubbing/Land Clearing	Off-Highway Trucks	1	10.00	400	0.38
Grubbing/Land Clearing	Rubber Tired Dozers	0	0.00	255	0.40

Grubbing/Land Clearing	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Excavators	0	0.00	162	0.38
Grading	Graders	1	10.00	174	0.41
Grading	Off-Highway Trucks	1	10.00	400	0.38
Grading	Rubber Tired Dozers	0	0.00	255	0.40
Grading	Scrapers	2	10.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Fine Grading	Excavators	1	10.00	162	0.38
Fine Grading	Graders	0	0.00	174	0.41
Fine Grading	Off-Highway Trucks	1	10.00	400	0.38
Fine Grading	Plate Compactors	1	10.00	8	0.43
Fine Grading	Rubber Tired Dozers	0	0.00	255	0.40
Fine Grading	Rubber Tired Loaders	1	10.00	199	0.36
Fine Grading	Scrapers	0	0.00	361	0.48
Fine Grading	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Drainage/Utilities	Concrete/Industrial Saws	1	10.00	81	0.73
Drainage/Utilities	Graders	1	10.00	174	0.41
Drainage/Utilities	Off-Highway Trucks	1	10.00	400	0.38
Drainage/Utilities	Scrapers	1	10.00	361	0.48
Paving	Graders	1	10.00	174	0.41
Paving	Pavers	1	10.00	125	0.42
Paving	Paving Equipment	0	0.00	130	0.36
Paving	Rollers	1	10.00	80	0.38
Paving	Rubber Tired Loaders	1	10.00	199	0.36
Building Construction	Cranes	1	10.00	226	0.29
Building Construction	Forklifts	3	10.00	89	0.20
Building Construction	Generator Sets	1	10.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	10.00	97	0.37

Building Construction	Welders	1	10.00	46	0.45
Architectural Coatings	Air Compressors	1	10.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grubbing/Land Clearing	2	5.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	5	13.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	434.00	149.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coatings	1	87.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grubbing/Land Clearing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6628	0.0000	0.6628	0.0716	0.0000	0.0716			0.0000			0.0000
Off-Road	2.4508	26.5398	12.4769	0.0243		1.2407	1.2407		1.1414	1.1414		2,520.3143	2,520.3143	0.7602		2,536.2789
Total	**2.4508**	**26.5398**	**12.4769**	**0.0243**	**0.6628**	**1.2407**	**1.9035**	**0.0716**	**1.1414**	**1.2130**		**2,520.3143**	**2,520.3143**	**0.7602**		**2,536.2789**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0342	0.0298	0.3291	3.2000e-004	0.0278	2.1000e-004	0.0280	7.3700e-003	2.0000e-004	7.5700e-003		25.7396	25.7396	2.2300e-003		25.7864
Total	**0.0342**	**0.0298**	**0.3291**	**3.2000e-004**	**0.0278**	**2.1000e-004**	**0.0280**	**7.3700e-003**	**2.0000e-004**	**7.5700e-003**		**25.7396**	**25.7396**	**2.2300e-003**		**25.7864**

3.2 Grubbing/Land Clearing - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2585	0.0000	0.2585	0.0279	0.0000	0.0279			0.0000			0.0000
Off-Road	2.4508	26.5398	12.4769	0.0243		1.2407	1.2407		1.1414	1.1414	0.0000	2,520.3143	2,520.3143	0.7602		2,536.2789
Total	**2.4508**	**26.5398**	**12.4769**	**0.0243**	**0.2585**	**1.2407**	**1.4992**	**0.0279**	**1.1414**	**1.1693**	**0.0000**	**2,520.3143**	**2,520.3143**	**0.7602**		**2,536.2789**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0342	0.0298	0.3291	3.2000e-004	0.0278	2.1000e-004	0.0280	7.3700e-003	2.0000e-004	7.5700e-003		25.7396	25.7396	2.2300e-003		25.7864
Total	**0.0342**	**0.0298**	**0.3291**	**3.2000e-004**	**0.0278**	**2.1000e-004**	**0.0280**	**7.3700e-003**	**2.0000e-004**	**7.5700e-003**		**25.7396**	**25.7396**	**2.2300e-003**		**25.7864**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3141	0.0000	3.3141	0.3578	0.0000	0.3578			0.0000			0.0000
Off-Road	5.9070	70.5290	40.0305	0.0615		3.0137	3.0137		2.7726	2.7726		6,389.0031	6,389.0031	1.9272		6,429.4732
Total	**5.9070**	**70.5290**	**40.0305**	**0.0615**	**3.3141**	**3.0137**	**6.3278**	**0.3578**	**2.7726**	**3.1305**		**6,389.0031**	**6,389.0031**	**1.9272**		**6,429.4732**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0683	0.0596	0.6583	6.5000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		51.4793	51.4793	4.4500e-003		51.5728
Total	**0.0683**	**0.0596**	**0.6583**	**6.5000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**51.4793**	**51.4793**	**4.4500e-003**		**51.5728**

3.3 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2925	0.0000	1.2925	0.1396	0.0000	0.1396			0.0000			0.0000
Off-Road	5.9070	70.5290	40.0305	0.0615		3.0137	3.0137		2.7726	2.7726	0.0000	6,389.0031	6,389.0031	1.9272		6,429.4732
Total	**5.9070**	**70.5290**	**40.0305**	**0.0615**	**1.2925**	**3.0137**	**4.3062**	**0.1396**	**2.7726**	**2.9122**	**0.0000**	**6,389.0031**	**6,389.0031**	**1.9272**		**6,429.4732**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0683	0.0596	0.6583	6.5000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		51.4793	51.4793	4.4500e-003		51.5728
Total	**0.0683**	**0.0596**	**0.6583**	**6.5000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**51.4793**	**51.4793**	**4.4500e-003**		**51.5728**

3.4 Fine Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.7596	31.5651	16.1753	0.0352		1.3853	1.3853		1.2755	1.2755		3,639.1164	3,639.1164	1.0892		3,661.9888
Total	**2.7596**	**31.5651**	**16.1753**	**0.0352**	**0.0000**	**1.3853**	**1.3853**	**0.0000**	**1.2755**	**1.2755**		**3,639.1164**	**3,639.1164**	**1.0892**		**3,661.9888**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0888	0.0774	0.8558	8.4000e-004	0.0722	5.6000e-004	0.0728	0.0192	5.1000e-004	0.0197		66.9231	66.9231	5.7900e-003		67.0446
Total	**0.0888**	**0.0774**	**0.8558**	**8.4000e-004**	**0.0722**	**5.6000e-004**	**0.0728**	**0.0192**	**5.1000e-004**	**0.0197**		**66.9231**	**66.9231**	**5.7900e-003**		**67.0446**

3.4 Fine Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.7596	31.5651	16.1753	0.0352		1.3853	1.3853		1.2755	1.2755	0.0000	3,639.1164	3,639.1164	1.0892		3,661.9888
Total	**2.7596**	**31.5651**	**16.1753**	**0.0352**	**0.0000**	**1.3853**	**1.3853**	**0.0000**	**1.2755**	**1.2755**	**0.0000**	**3,639.1164**	**3,639.1164**	**1.0892**		**3,661.9888**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0888	0.0774	0.8558	8.4000e-004	0.0722	5.6000e-004	0.0728	0.0192	5.1000e-004	0.0197		66.9231	66.9231	5.7900e-003		67.0446
Total	**0.0888**	**0.0774**	**0.8558**	**8.4000e-004**	**0.0722**	**5.6000e-004**	**0.0728**	**0.0192**	**5.1000e-004**	**0.0197**		**66.9231**	**66.9231**	**5.7900e-003**		**67.0446**

3.5 Drainage/Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.9872	54.3119	30.9727	0.0507		2.5613	2.5613		2.3911	2.3911		5,195.4908	5,195.4908	1.4154		5,225.2138
Total	**4.9872**	**54.3119**	**30.9727**	**0.0507**		**2.5613**	**2.5613**		**2.3911**	**2.3911**		**5,195.4908**	**5,195.4908**	**1.4154**		**5,225.2138**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0683	0.0596	0.6583	6.5000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		51.4793	51.4793	4.4500e-003		51.5728
Total	**0.0683**	**0.0596**	**0.6583**	**6.5000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**51.4793**	**51.4793**	**4.4500e-003**		**51.5728**

3.5 Drainage/Utilities - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.9872	54.3119	30.9727	0.0507		2.5613	2.5613		2.3911	2.3911	0.0000	5,195.4908	5,195.4908	1.4154		5,225.2138
Total	**4.9872**	**54.3119**	**30.9727**	**0.0507**		**2.5613**	**2.5613**		**2.3911**	**2.3911**	**0.0000**	**5,195.4908**	**5,195.4908**	**1.4154**		**5,225.2138**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0683	0.0596	0.6583	6.5000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		51.4793	51.4793	4.4500e-003		51.5728
Total	**0.0683**	**0.0596**	**0.6583**	**6.5000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**51.4793**	**51.4793**	**4.4500e-003**		**51.5728**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8170	30.5859	14.5349	0.0244		1.5713	1.5713		1.4456	1.4456		2,534.1065	2,534.1065	0.7644		2,550.1584
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8170**	**30.5859**	**14.5349**	**0.0244**		**1.5713**	**1.5713**		**1.4456**	**1.4456**		**2,534.1065**	**2,534.1065**	**0.7644**		**2,550.1584**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0683	0.0596	0.6583	6.5000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		51.4793	51.4793	4.4500e-003		51.5728
Total	**0.0683**	**0.0596**	**0.6583**	**6.5000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**51.4793**	**51.4793**	**4.4500e-003**		**51.5728**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8170	30.5859	14.5349	0.0244		1.5713	1.5713		1.4456	1.4456	0.0000	2,534.1065	2,534.1065	0.7644		2,550.1584
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8170**	**30.5859**	**14.5349**	**0.0244**		**1.5713**	**1.5713**		**1.4456**	**1.4456**	**0.0000**	**2,534.1065**	**2,534.1065**	**0.7644**		**2,550.1584**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0683	0.0596	0.6583	6.5000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		51.4793	51.4793	4.4500e-003		51.5728
Total	**0.0683**	**0.0596**	**0.6583**	**6.5000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**51.4793**	**51.4793**	**4.4500e-003**		**51.5728**

3.7 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5299	38.4918	24.7306	0.0359		2.6372	2.6372		2.4743	2.4743		3,579.9309	3,579.9309	0.9009		3,598.8505
Total	**4.5299**	**38.4918**	**24.7306**	**0.0359**		**2.6372**	**2.6372**		**2.4743**	**2.4743**		**3,579.9309**	**3,579.9309**	**0.9009**		**3,598.8505**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7805	14.0977	21.0969	0.0377	1.1831	0.3214	1.5045	0.3344	0.2955	0.6298		3,765.7883	3,765.7883	0.0223		3,766.2565
Worker	2.9656	2.5850	28.5687	0.0281	2.4112	0.0186	2.4298	0.6398	0.0170	0.6568		2,234.2006	2,234.2006	0.1932		2,238.2580
Total	**4.7461**	**16.6826**	**49.6656**	**0.0658**	**3.5943**	**0.3399**	**3.9343**	**0.9741**	**0.3125**	**1.2866**		**5,999.9889**	**5,999.9889**	**0.2155**		**6,004.5144**

3.7 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5299	38.4918	24.7306	0.0359		2.6372	2.6372		2.4743	2.4743	0.0000	3,579.9309	3,579.9309	0.9009		3,598.8505
Total	**4.5299**	**38.4918**	**24.7306**	**0.0359**		**2.6372**	**2.6372**		**2.4743**	**2.4743**	**0.0000**	**3,579.9309**	**3,579.9309**	**0.9009**		**3,598.8505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7805	14.0977	21.0969	0.0377	1.1831	0.3214	1.5045	0.3344	0.2955	0.6298		3,765.7883	3,765.7883	0.0223		3,766.2565
Worker	2.9656	2.5850	28.5687	0.0281	2.4112	0.0186	2.4298	0.6398	0.0170	0.6568		2,234.2006	2,234.2006	0.1932		2,238.2580
Total	**4.7461**	**16.6826**	**49.6656**	**0.0658**	**3.5943**	**0.3399**	**3.9343**	**0.9741**	**0.3125**	**1.2866**		**5,999.9889**	**5,999.9889**	**0.2155**		**6,004.5144**

3.7 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	lb/day										lb/day					
Off-Road	4.1277	35.6359	24.2142	0.0359		2.3874	2.3874		2.2392	2.2392		3,539.1368	3,539.1368	0.8855		3,557.7317
Total	**4.1277**	**35.6359**	**24.2142**	**0.0359**		**2.3874**	**2.3874**		**2.2392**	**2.2392**		**3,539.1368**	**3,539.1368**	**0.8855**		**3,557.7317**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.5592	12.5509	19.2441	0.0376	1.1825	0.2810	1.4635	0.3341	0.2584	0.5925		3,698.2155	3,698.2155	0.0209		3,698.6532
Worker	2.6715	2.3583	25.7723	0.0280	2.4112	0.0177	2.4289	0.6398	0.0163	0.6561		2,141.9123	2,141.9123	0.1788		2,145.6676
Total	**4.2306**	**14.9093**	**45.0164**	**0.0656**	**3.5937**	**0.2988**	**3.8925**	**0.9739**	**0.2747**	**1.2486**		**5,840.1278**	**5,840.1278**	**0.1997**		**5,844.3208**

3.7 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	lb/day										lb/day					
Off-Road	4.1277	35.6359	24.2142	0.0359		2.3874	2.3874		2.2392	2.2392	0.0000	3,539.1368	3,539.1368	0.8855		3,557.7317
Total	**4.1277**	**35.6359**	**24.2142**	**0.0359**		**2.3874**	**2.3874**		**2.2392**	**2.2392**	**0.0000**	**3,539.1368**	**3,539.1368**	**0.8855**		**3,557.7317**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.5592	12.5509	19.2441	0.0376	1.1825	0.2810	1.4635	0.3341	0.2584	0.5925		3,698.2155	3,698.2155	0.0209		3,698.6532
Worker	2.6715	2.3583	25.7723	0.0280	2.4112	0.0177	2.4289	0.6398	0.0163	0.6561		2,141.9123	2,141.9123	0.1788		2,145.6676
Total	**4.2306**	**14.9093**	**45.0164**	**0.0656**	**3.5937**	**0.2988**	**3.8925**	**0.9739**	**0.2747**	**1.2486**		**5,840.1278**	**5,840.1278**	**0.1997**		**5,844.3208**

3.7 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	lb/day										lb/day					
Off-Road	3.5478	31.3514	23.3967	0.0358		2.0003	2.0003		1.8778	1.8778		3,497.7922	3,497.7922	0.8717		3,516.0969
Total	**3.5478**	**31.3514**	**23.3967**	**0.0358**		**2.0003**	**2.0003**		**1.8778**	**1.8778**		**3,497.7922**	**3,497.7922**	**0.8717**		**3,516.0969**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3641	11.3375	17.5113	0.0374	1.1812	0.2634	1.4446	0.3336	0.2422	0.5758		3,628.2534	3,628.2534	0.0203		3,628.6806
Worker	2.4153	2.1652	23.3952	0.0280	2.4112	0.0172	2.4284	0.6398	0.0159	0.6557		2,059.5893	2,059.5893	0.1666		2,063.0888
Total	**3.7794**	**13.5027**	**40.9065**	**0.0654**	**3.5924**	**0.2806**	**3.8730**	**0.9733**	**0.2581**	**1.2314**		**5,687.8426**	**5,687.8426**	**0.1870**		**5,691.7694**

3.7 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	lb/day										lb/day					
Off-Road	3.5478	31.3514	23.3967	0.0358		2.0003	2.0003		1.8778	1.8778	0.0000	3,497.7922	3,497.7922	0.8717		3,516.0969
Total	**3.5478**	**31.3514**	**23.3967**	**0.0358**		**2.0003**	**2.0003**		**1.8778**	**1.8778**	**0.0000**	**3,497.7922**	**3,497.7922**	**0.8717**		**3,516.0969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3641	11.3375	17.5113	0.0374	1.1812	0.2634	1.4446	0.3336	0.2422	0.5758		3,628.2534	3,628.2534	0.0203		3,628.6806
Worker	2.4153	2.1652	23.3952	0.0280	2.4112	0.0172	2.4284	0.6398	0.0159	0.6557		2,059.5893	2,059.5893	0.1666		2,063.0888
Total	**3.7794**	**13.5027**	**40.9065**	**0.0654**	**3.5924**	**0.2806**	**3.8730**	**0.9733**	**0.2581**	**1.2314**		**5,687.8426**	**5,687.8426**	**0.1870**		**5,691.7694**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1257	28.2202	22.8304	0.0358		1.7184	1.7184		1.6135	1.6135		3,457.4323	3,457.4323	0.8581		3,475.4529
Total	**3.1257**	**28.2202**	**22.8304**	**0.0358**		**1.7184**	**1.7184**		**1.6135**	**1.6135**		**3,457.4323**	**3,457.4323**	**0.8581**		**3,475.4529**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.2270	10.3227	16.3705	0.0373	1.1802	0.2474	1.4276	0.3331	0.2276	0.5607		3,562.5996	3,562.5996	0.0198		3,563.0155
Worker	2.2093	2.0039	21.5513	0.0280	2.4112	0.0170	2.4282	0.6398	0.0157	0.6555		1,984.1022	1,984.1022	0.1571		1,987.4009
Total	**3.4364**	**12.3265**	**37.9218**	**0.0653**	**3.5914**	**0.2644**	**3.8558**	**0.9729**	**0.2433**	**1.2162**		**5,546.7018**	**5,546.7018**	**0.1769**		**5,550.4164**

3.7 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1257	28.2202	22.8304	0.0358		1.7184	1.7184		1.6135	1.6135	0.0000	3,457.4323	3,457.4323	0.8581		3,475.4529
Total	**3.1257**	**28.2202**	**22.8304**	**0.0358**		**1.7184**	**1.7184**		**1.6135**	**1.6135**	**0.0000**	**3,457.4323**	**3,457.4323**	**0.8581**		**3,475.4529**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.2270	10.3227	16.3705	0.0373	1.1802	0.2474	1.4276	0.3331	0.2276	0.5607		3,562.5996	3,562.5996	0.0198		3,563.0155
Worker	2.2093	2.0039	21.5513	0.0280	2.4112	0.0170	2.4282	0.6398	0.0157	0.6555		1,984.1022	1,984.1022	0.1571		1,987.4009
Total	**3.4364**	**12.3265**	**37.9218**	**0.0653**	**3.5914**	**0.2644**	**3.8558**	**0.9729**	**0.2433**	**1.2162**		**5,546.7018**	**5,546.7018**	**0.1769**		**5,550.4164**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8066	25.6659	22.4025	0.0358		1.4874	1.4874		1.3968	1.3968		3,404.5062	3,404.5062	0.8475		3,422.3040
Total	**2.8066**	**25.6659**	**22.4025**	**0.0358**		**1.4874**	**1.4874**		**1.3968**	**1.3968**		**3,404.5062**	**3,404.5062**	**0.8475**		**3,422.3040**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0459	8.6997	14.7580	0.0372	1.1791	0.2236	1.4027	0.3327	0.2057	0.5384		3,475.3073	3,475.3073	0.0190		3,475.7052
Worker	2.0540	1.8845	20.1777	0.0279	2.4112	0.0168	2.4280	0.6398	0.0156	0.6554		1,905.6467	1,905.6467	0.1501		1,908.7976
Total	**3.1000**	**10.5843**	**34.9357**	**0.0651**	**3.5903**	**0.2404**	**3.8307**	**0.9724**	**0.2213**	**1.1937**		**5,380.9540**	**5,380.9540**	**0.1690**		**5,384.5028**

3.7 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8066	25.6659	22.4025	0.0358		1.4874	1.4874		1.3968	1.3968	0.0000	3,404.5062	3,404.5062	0.8475		3,422.3040
Total	**2.8066**	**25.6659**	**22.4025**	**0.0358**		**1.4874**	**1.4874**		**1.3968**	**1.3968**	**0.0000**	**3,404.5062**	**3,404.5062**	**0.8475**		**3,422.3040**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0459	8.6997	14.7580	0.0372	1.1791	0.2236	1.4027	0.3327	0.2057	0.5384		3,475.3073	3,475.3073	0.0190		3,475.7052
Worker	2.0540	1.8845	20.1777	0.0279	2.4112	0.0168	2.4280	0.6398	0.0156	0.6554		1,905.6467	1,905.6467	0.1501		1,908.7976
Total	**3.1000**	**10.5843**	**34.9357**	**0.0651**	**3.5903**	**0.2404**	**3.8307**	**0.9724**	**0.2213**	**1.1937**		**5,380.9540**	**5,380.9540**	**0.1690**		**5,384.5028**

3.7 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5173	23.3053	22.0347	0.0359		1.2761	1.2761		1.1982	1.1982		3,404.9373	3,404.9373	0.8390		3,422.5560
Total	**2.5173**	**23.3053**	**22.0347**	**0.0359**		**1.2761**	**1.2761**		**1.1982**	**1.1982**		**3,404.9373**	**3,404.9373**	**0.8390**		**3,422.5560**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9796	7.1242	14.1380	0.0371	1.1787	0.1984	1.3771	0.3325	0.1826	0.5151		3,470.0157	3,470.0157	0.0189		3,470.4126
Worker	1.9496	1.8097	19.2853	0.0279	2.4112	0.0168	2.4280	0.6398	0.0155	0.6553		1,878.6069	1,878.6069	0.1465		1,881.6833
Total	**2.9292**	**8.9339**	**33.4233**	**0.0650**	**3.5899**	**0.2152**	**3.8051**	**0.9723**	**0.1981**	**1.1704**		**5,348.6226**	**5,348.6226**	**0.1654**		**5,352.0958**

3.7 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5173	23.3053	22.0347	0.0359		1.2761	1.2761		1.1982	1.1982	0.0000	3,404.9373	3,404.9373	0.8390		3,422.5559
Total	**2.5173**	**23.3053**	**22.0347**	**0.0359**		**1.2761**	**1.2761**		**1.1982**	**1.1982**	**0.0000**	**3,404.9373**	**3,404.9373**	**0.8390**		**3,422.5559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9796	7.1242	14.1380	0.0371	1.1787	0.1984	1.3771	0.3325	0.1826	0.5151		3,470.0157	3,470.0157	0.0189		3,470.4126
Worker	1.9496	1.8097	19.2853	0.0279	2.4112	0.0168	2.4280	0.6398	0.0155	0.6553		1,878.6069	1,878.6069	0.1465		1,881.6833
Total	**2.9292**	**8.9339**	**33.4233**	**0.0650**	**3.5899**	**0.2152**	**3.8051**	**0.9723**	**0.1981**	**1.1704**		**5,348.6226**	**5,348.6226**	**0.1654**		**5,352.0958**

3.8 Architectural Coatings - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6141	3.9537	3.1399	4.9500e-003		0.3277	0.3277		0.3277	0.3277		469.0801	469.0801	0.0553		470.2414
Total	**11.2750**	**3.9537**	**3.1399**	**4.9500e-003**		**0.3277**	**0.3277**		**0.3277**	**0.3277**		**469.0801**	**469.0801**	**0.0553**		**470.2414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5945	0.5182	5.7269	5.6300e-003	0.4834	3.7200e-003	0.4871	0.1282	3.4100e-003	0.1317		447.8697	447.8697	0.0387		448.6831
Total	**0.5945**	**0.5182**	**5.7269**	**5.6300e-003**	**0.4834**	**3.7200e-003**	**0.4871**	**0.1282**	**3.4100e-003**	**0.1317**		**447.8697**	**447.8697**	**0.0387**		**448.6831**

3.8 Architectural Coatings - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6141	3.9537	3.1399	4.9500e-003		0.3277	0.3277		0.3277	0.3277	0.0000	469.0801	469.0801	0.0553		470.2414
Total	**11.2750**	**3.9537**	**3.1399**	**4.9500e-003**		**0.3277**	**0.3277**		**0.3277**	**0.3277**	**0.0000**	**469.0801**	**469.0801**	**0.0553**		**470.2414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5945	0.5182	5.7269	5.6300e-003	0.4834	3.7200e-003	0.4871	0.1282	3.4100e-003	0.1317		447.8697	447.8697	0.0387		448.6831
Total	**0.5945**	**0.5182**	**5.7269**	**5.6300e-003**	**0.4834**	**3.7200e-003**	**0.4871**	**0.1282**	**3.4100e-003**	**0.1317**		**447.8697**	**447.8697**	**0.0387**		**448.6831**

3.8 Architectural Coatings - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5539	3.6417	3.1135	4.9500e-003		0.2889	0.2889		0.2889	0.2889		469.0801	469.0801	0.0495		470.1201
Total	**11.2148**	**3.6417**	**3.1135**	**4.9500e-003**		**0.2889**	**0.2889**		**0.2889**	**0.2889**		**469.0801**	**469.0801**	**0.0495**		**470.1201**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5355	0.4728	5.1664	5.6200e-003	0.4834	3.5600e-003	0.4869	0.1282	3.2700e-003	0.1315		429.3695	429.3695	0.0359		430.1223
Total	**0.5355**	**0.4728**	**5.1664**	**5.6200e-003**	**0.4834**	**3.5600e-003**	**0.4869**	**0.1282**	**3.2700e-003**	**0.1315**		**429.3695**	**429.3695**	**0.0359**		**430.1223**

3.8 Architectural Coatings - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5539	3.6417	3.1135	4.9500e-003		0.2889	0.2889		0.2889	0.2889	0.0000	469.0801	469.0801	0.0495		470.1201
Total	**11.2148**	**3.6417**	**3.1135**	**4.9500e-003**		**0.2889**	**0.2889**		**0.2889**	**0.2889**	**0.0000**	**469.0801**	**469.0801**	**0.0495**		**470.1201**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5355	0.4728	5.1664	5.6200e-003	0.4834	3.5600e-003	0.4869	0.1282	3.2700e-003	0.1315		429.3695	429.3695	0.0359		430.1223
Total	**0.5355**	**0.4728**	**5.1664**	**5.6200e-003**	**0.4834**	**3.5600e-003**	**0.4869**	**0.1282**	**3.2700e-003**	**0.1315**		**429.3695**	**429.3695**	**0.0359**		**430.1223**

3.8 Architectural Coatings - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4977	3.3429	3.0903	4.9500e-003		0.2509	0.2509		0.2509	0.2509		469.0809	469.0809	0.0446		470.0169
Total	**11.1587**	**3.3429**	**3.0903**	**4.9500e-003**		**0.2509**	**0.2509**		**0.2509**	**0.2509**		**469.0809**	**469.0809**	**0.0446**		**470.0169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4842	0.4340	4.6898	5.6100e-003	0.4834	3.4500e-003	0.4868	0.1282	3.1900e-003	0.1314		412.8670	412.8670	0.0334		413.5685
Total	**0.4842**	**0.4340**	**4.6898**	**5.6100e-003**	**0.4834**	**3.4500e-003**	**0.4868**	**0.1282**	**3.1900e-003**	**0.1314**		**412.8670**	**412.8670**	**0.0334**		**413.5685**

3.8 Architectural Coatings - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4977	3.3429	3.0903	4.9500e-003		0.2509	0.2509		0.2509	0.2509	0.0000	469.0809	469.0809	0.0446		470.0169
Total	**11.1587**	**3.3429**	**3.0903**	**4.9500e-003**		**0.2509**	**0.2509**		**0.2509**	**0.2509**	**0.0000**	**469.0809**	**469.0809**	**0.0446**		**470.0169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4842	0.4340	4.6898	5.6100e-003	0.4834	3.4500e-003	0.4868	0.1282	3.1900e-003	0.1314		412.8670	412.8670	0.0334		413.5685
Total	**0.4842**	**0.4340**	**4.6898**	**5.6100e-003**	**0.4834**	**3.4500e-003**	**0.4868**	**0.1282**	**3.1900e-003**	**0.1314**		**412.8670**	**412.8670**	**0.0334**		**413.5685**

3.8 Architectural Coatings - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4441	3.0590	3.0689	4.9500e-003		0.2146	0.2146		0.2146	0.2146		469.0801	469.0801	0.0396		469.9121
Total	**11.1050**	**3.0590**	**3.0689**	**4.9500e-003**		**0.2146**	**0.2146**		**0.2146**	**0.2146**		**469.0801**	**469.0801**	**0.0396**		**469.9121**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4429	0.4017	4.3202	5.6100e-003	0.4834	3.4000e-003	0.4868	0.1282	3.1500e-003	0.1314		397.7348	397.7348	0.0315		398.3960
Total	**0.4429**	**0.4017**	**4.3202**	**5.6100e-003**	**0.4834**	**3.4000e-003**	**0.4868**	**0.1282**	**3.1500e-003**	**0.1314**		**397.7348**	**397.7348**	**0.0315**		**398.3960**

3.8 Architectural Coatings - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4441	3.0590	3.0689	4.9500e-003		0.2146	0.2146		0.2146	0.2146	0.0000	469.0801	469.0801	0.0396		469.9121
Total	**11.1050**	**3.0590**	**3.0689**	**4.9500e-003**		**0.2146**	**0.2146**		**0.2146**	**0.2146**	**0.0000**	**469.0801**	**469.0801**	**0.0396**		**469.9121**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4429	0.4017	4.3202	5.6100e-003	0.4834	3.4000e-003	0.4868	0.1282	3.1500e-003	0.1314		397.7348	397.7348	0.0315		398.3960
Total	**0.4429**	**0.4017**	**4.3202**	**5.6100e-003**	**0.4834**	**3.4000e-003**	**0.4868**	**0.1282**	**3.1500e-003**	**0.1314**		**397.7348**	**397.7348**	**0.0315**		**398.3960**

3.8 Architectural Coatings - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4036	2.8064	3.0524	4.9500e-003		0.1849	0.1849		0.1849	0.1849		469.0801	469.0801	0.0363		469.8428
Total	**11.0646**	**2.8064**	**3.0524**	**4.9500e-003**		**0.1849**	**0.1849**		**0.1849**	**0.1849**		**469.0801**	**469.0801**	**0.0363**		**469.8428**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4118	0.3778	4.0448	5.6000e-003	0.4834	3.3800e-003	0.4867	0.1282	3.1300e-003	0.1314		382.0075	382.0075	0.0301		382.6392
Total	**0.4118**	**0.3778**	**4.0448**	**5.6000e-003**	**0.4834**	**3.3800e-003**	**0.4867**	**0.1282**	**3.1300e-003**	**0.1314**		**382.0075**	**382.0075**	**0.0301**		**382.6392**

3.8 Architectural Coatings - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4036	2.8064	3.0524	4.9500e-003		0.1849	0.1849		0.1849	0.1849	0.0000	469.0801	469.0801	0.0363		469.8428
Total	**11.0646**	**2.8064**	**3.0524**	**4.9500e-003**		**0.1849**	**0.1849**		**0.1849**	**0.1849**	**0.0000**	**469.0801**	**469.0801**	**0.0363**		**469.8428**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4118	0.3778	4.0448	5.6000e-003	0.4834	3.3800e-003	0.4867	0.1282	3.1300e-003	0.1314		382.0075	382.0075	0.0301		382.6392
Total	**0.4118**	**0.3778**	**4.0448**	**5.6000e-003**	**0.4834**	**3.3800e-003**	**0.4867**	**0.1282**	**3.1300e-003**	**0.1314**		**382.0075**	**382.0075**	**0.0301**		**382.6392**

3.8 Architectural Coatings - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3648	2.5447	3.0293	4.9500e-003		0.1568	0.1568		0.1568	0.1568		469.0801	469.0801	0.0322		469.7561
Total	**11.0258**	**2.5447**	**3.0293**	**4.9500e-003**		**0.1568**	**0.1568**		**0.1568**	**0.1568**		**469.0801**	**469.0801**	**0.0322**		**469.7561**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3908	0.3628	3.8660	5.6000e-003	0.4834	3.3600e-003	0.4867	0.1282	3.1200e-003	0.1314		376.5871	376.5871	0.0294		377.2038
Total	**0.3908**	**0.3628**	**3.8660**	**5.6000e-003**	**0.4834**	**3.3600e-003**	**0.4867**	**0.1282**	**3.1200e-003**	**0.1314**		**376.5871**	**376.5871**	**0.0294**		**377.2038**

3.8 Architectural Coatings - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3648	2.5447	3.0293	4.9500e-003		0.1568	0.1568		0.1568	0.1568	0.0000	469.0801	469.0801	0.0322		469.7561
Total	**11.0258**	**2.5447**	**3.0293**	**4.9500e-003**		**0.1568**	**0.1568**		**0.1568**	**0.1568**	**0.0000**	**469.0801**	**469.0801**	**0.0322**		**469.7561**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3908	0.3628	3.8660	5.6000e-003	0.4834	3.3600e-003	0.4867	0.1282	3.1200e-003	0.1314		376.5871	376.5871	0.0294		377.2038
Total	**0.3908**	**0.3628**	**3.8660**	**5.6000e-003**	**0.4834**	**3.3600e-003**	**0.4867**	**0.1282**	**3.1200e-003**	**0.1314**		**376.5871**	**376.5871**	**0.0294**		**377.2038**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	24.3378	34.3488	216.3875	0.3218	20.7716	0.6076	21.3792	5.5401	0.5601	6.1002		23,879.8040	23,879.8040	1.2193		23,905.4086
Unmitigated	24.6555	35.8184	223.9557	0.3418	22.1493	0.6436	22.7928	5.9075	0.5933	6.5008		25,364.9769	25,364.9769	1.2839		25,391.9383

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	21.92	18.44	18.44	11,169	10,474
Single Family Housing	6,170.00	6,219.36	5411.09	10,172,855	9,540,107
Total	6,191.92	6,237.80	5,429.53	10,184,023	9,550,581

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
City Park	2.00	2.00	2.00	33.00	48.00	19.00	66	28	6
Single Family Housing	7.30	3.90	3.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.453705	0.072187	0.167941	0.164907	0.044177	0.005634	0.011849	0.072446	0.001781	0.000160	0.002442	0.000636	0.002137

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4888	4.1770	1.7774	0.0267		0.3377	0.3377		0.3377	0.3377		5,332.2970	5,332.2970	0.1022	0.0978	5,364.7484
NaturalGas Unmitigated	0.6156	5.2603	2.2384	0.0336		0.4253	0.4253		0.4253	0.4253		6,715.2908	6,715.2908	0.1287	0.1231	6,756.1589

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	57080	0.6156	5.2603	2.2384	0.0336		0.4253	0.4253		0.4253	0.4253		6,715.2908	6,715.2908	0.1287	0.1231	6,756.1589
Total		**0.6156**	**5.2603**	**2.2384**	**0.0336**		**0.4253**	**0.4253**		**0.4253**	**0.4253**		**6,715.2908**	**6,715.2908**	**0.1287**	**0.1231**	**6,756.1589**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.3245	0.4888	4.1770	1.7774	0.0267		0.3377	0.3377		0.3377	0.3377		5,332.2970	5,332.2970	0.1022	0.0978	5,364.7484
Total		**0.4888**	**4.1770**	**1.7774**	**0.0267**		**0.3377**	**0.3377**		**0.3377**	**0.3377**		**5,332.2970**	**5,332.2970**	**0.1022**	**0.0978**	**5,364.7484**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.2647	0.5859	50.9183	2.6900e-003		1.0683	1.0683		1.0600	1.0600	0.0000	12,504.2475	12,504.2475	0.3257	0.2276	12,581.6318
Unmitigated	104.4444	1.4294	132.8683	2.6900e-003		12.2116	12.2116		12.2042	12.2042	1,103.1358	11,197.6593	12,300.7951	0.3006	0.3010	12,400.4017

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	23.7882					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	75.3175	0.8436	82.0120	0.0000		11.9294	11.9294		11.9220	11.9220	1,103.1358	11,106.0000	12,209.1358	0.2129	0.3010	12,306.8991
Landscaping	1.5270	0.5858	50.8562	2.6900e-003		0.2822	0.2822		0.2822	0.2822		91.6593	91.6593	0.0878		93.5027
Total	**104.4444**	**1.4294**	**132.8683**	**2.6900e-003**		**12.2116**	**12.2116**		**12.2042**	**12.2042**	**1,103.1358**	**11,197.6593**	**12,300.7951**	**0.3006**	**0.3010**	**12,400.4017**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	23.7882					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.1378	5.0000e-005	0.0621	0.0000		0.7861	0.7861		0.7779	0.7779	0.0000	12,412.5882	12,412.5882	0.2379	0.2276	12,488.1292
Landscaping	1.5270	0.5858	50.8562	2.6900e-003		0.2822	0.2822		0.2822	0.2822		91.6593	91.6593	0.0878		93.5027
Total	**30.2647**	**0.5859**	**50.9183**	**2.6900e-003**		**1.0683**	**1.0683**		**1.0600**	**1.0600**	**0.0000**	**12,504.2476**	**12,504.2476**	**0.3257**	**0.2276**	**12,581.6318**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Winter

7524 Lotus Ranch

Imperial County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	11.60	Acre	11.60	1,000.00	0
Single Family Housing	617.00	Dwelling Unit	201.40	1,110,600.00	1993

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	12
Climate Zone	15			**Operational Year**	2025
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 213 acres

Construction Phase - Grading schedule obtained from project engineer
Building construction/arch coatings assumed to last 5 years

Off-road Equipment - 10 hours construction/day

Off-road Equipment - 10 hours construction/day

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer

Off-road Equipment - Equipment obtained from project engineer
Trips and VMT -

On-road Fugitive Dust - Workers and trucks would travel paved roads

Grading -

Architectural Coating -

Vehicle Trips - Park - 1.89 trips/acre
Single-Family - 10 trips/du

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Road Dust - Residential trips would travel paved roads

Woodstoves - No woodstoves

Area Coating -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Consumer Products -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	330.00	1,305.00
tblConstructionPhase	NumDays	4,650.00	1,305.00
tblConstructionPhase	NumDays	465.00	14.00
tblConstructionPhase	NumDays	465.00	7.00
tblConstructionPhase	NumDays	330.00	3.00

tblConstructionPhase	NumDays	180.00	2.00
tblConstructionPhase	PhaseEndDate	3/23/2026	3/22/2021
tblConstructionPhase	PhaseStartDate	3/23/2021	3/22/2016
tblLandUse	LandUseSquareFeet	505,296.00	1,000.00
tblLandUse	LotAcreage	200.32	201.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	0.00

tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00

tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblProjectCharacteristics	OperationalYear	2014	2025
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripNumber	66.00	149.00
tblTripsAndVMT	WorkerTripNumber	223.00	434.00
tblTripsAndVMT	WorkerTripNumber	45.00	87.00
tblVehicleTrips	CC_TL	5.00	2.00
tblVehicleTrips	CNW_TL	8.90	2.00
tblVehicleTrips	CW_TL	6.70	2.00
tblVehicleTrips	WD_TR	1.59	1.89
tblVehicleTrips	WD_TR	9.57	10.00
tblWoodstoves	NumberCatalytic	15.43	0.00
tblWoodstoves	NumberNoncatalytic	15.43	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	1,509.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	20.4438	70.5963	82.0315	0.1093	4.0777	3.3117	7.3894	1.1024	3.1207	4.2231	0.0000	10,264.0014	10,264.0014	1.9316	0.0000	10,304.5650
2017	19.4654	56.1122	76.8949	0.1092	4.0770	2.9812	7.0583	1.1021	2.8085	3.9106	0.0000	10,053.1552	10,053.1552	1.1713	0.0000	10,077.7516
2018	18.3759	49.9245	72.0662	0.1090	4.0758	2.5376	6.6134	1.1016	2.3922	3.4938	0.0000	9,850.6498	9,850.6498	1.1374	0.0000	9,874.5348
2019	17.5622	45.1691	68.5098	0.1088	4.0747	2.2029	6.2776	1.1011	2.0765	3.1776	0.0000	9,661.0629	9,661.0629	1.1069	0.0000	9,684.3077
2020	16.8686	40.4202	65.2679	0.1087	4.0736	1.9179	5.9915	1.1007	1.8077	2.9084	0.0000	9,434.1756	9,434.1756	1.0837	0.0000	9,456.9332
2021	16.3819	35.9843	63.4074	0.1086	4.0733	1.6530	5.7262	1.1005	1.5576	2.6581	0.0000	9,399.6018	9,399.6018	1.0668	0.0000	9,422.0036
Total	**109.0978**	**298.2066**	**428.1777**	**0.6536**	**24.4521**	**14.6043**	**39.0564**	**6.6083**	**13.7632**	**20.3716**	**0.0000**	**58,662.6467**	**58,662.6467**	**7.4976**	**0.0000**	**58,820.0959**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	20.4438	70.5963	82.0315	0.1093	4.0777	3.3117	7.3894	1.1024	3.1207	4.2231	0.0000	10,264.0014	10,264.0014	1.9316	0.0000	10,304.5650
2017	19.4654	56.1122	76.8949	0.1092	4.0770	2.9812	7.0583	1.1021	2.8085	3.9106	0.0000	10,053.1552	10,053.1552	1.1713	0.0000	10,077.7516
2018	18.3759	49.9245	72.0662	0.1090	4.0758	2.5376	6.6134	1.1016	2.3922	3.4938	0.0000	9,850.6498	9,850.6498	1.1374	0.0000	9,874.5348
2019	17.5622	45.1691	68.5098	0.1088	4.0747	2.2029	6.2776	1.1011	2.0765	3.1776	0.0000	9,661.0629	9,661.0629	1.1069	0.0000	9,684.3077
2020	16.8686	40.4202	65.2679	0.1087	4.0736	1.9179	5.9915	1.1007	1.8077	2.9084	0.0000	9,434.1756	9,434.1756	1.0837	0.0000	9,456.9332
2021	16.3819	35.9843	63.4074	0.1086	4.0733	1.6530	5.7262	1.1005	1.5576	2.6581	0.0000	9,399.6018	9,399.6018	1.0668	0.0000	9,422.0036
Total	**109.0978**	**298.2066**	**428.1777**	**0.6536**	**24.4521**	**14.6043**	**39.0564**	**6.6083**	**13.7632**	**20.3716**	**0.0000**	**58,662.6467**	**58,662.6467**	**7.4976**	**0.0000**	**58,820.0959**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	104.4444	1.4294	132.8683	2.6900e-003		12.2116	12.2116		12.2042	12.2042	1,103.1358	11,197.6593	12,300.7951	0.3006	0.3010	12,400.4017
Energy	0.6156	5.2603	2.2384	0.0336		0.4253	0.4253		0.4253	0.4253		6,715.2908	6,715.2908	0.1287	0.1231	6,756.1589
Mobile	20.2367	39.0283	229.8298	0.3229	22.1493	0.6475	22.7968	5.9075	0.5969	6.5044		24,080.7131	24,080.7131	1.2881		24,107.7624
Total	**125.2967**	**45.7180**	**364.9365**	**0.3592**	**22.1493**	**13.2844**	**35.4337**	**5.9075**	**13.2264**	**19.1339**	**1,103.1358**	**41,993.6632**	**43,096.7990**	**1.7174**	**0.4241**	**43,264.3231**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.2647	0.5859	50.9183	2.6900e-003		1.0683	1.0683		1.0600	1.0600	0.0000	12,504.2475	12,504.2475	0.3257	0.2276	12,581.6318
Energy	0.4888	4.1770	1.7774	0.0267		0.3377	0.3377		0.3377	0.3377		5,332.2970	5,332.2970	0.1022	0.0978	5,364.7484
Mobile	19.9642	37.3724	223.9279	0.3041	20.7716	0.6116	21.3831	5.5401	0.5637	6.1038		22,669.8139	22,669.8139	1.2235		22,695.5064
Total	**50.7178**	**42.1352**	**276.6236**	**0.3335**	**20.7716**	**2.0176**	**22.7892**	**5.5401**	**1.9615**	**7.5016**	**0.0000**	**40,506.3584**	**40,506.3584**	**1.6513**	**0.3253**	**40,641.8867**

	ROG	NOx	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	59.52	7.84	24.20	7.17	6.22	84.81	35.69	6.22	85.17	60.79	100.00	3.54	6.01	3.85	23.28	6.06

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grubbing/Land Clearing	Site Preparation	1/4/2016	1/5/2016	5	2	
2	Grading	Grading	1/6/2016	1/25/2016	5	14	
3	Fine Grading	Grading	1/26/2016	2/3/2016	5	7	
4	Drainage/Utilities	Trenching	2/4/2016	3/16/2016	5	30	
5	Paving	Paving	3/17/2016	3/21/2016	5	3	
6	Building Construction	Building Construction	3/22/2016	3/22/2021	5	1305	
7	Architectural Coatings	Architectural Coating	3/22/2016	3/22/2021	5	1305	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 43.75

Acres of Paving: 0

Residential Indoor: 2,248,965; Residential Outdoor: 749,655; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grubbing/Land Clearing	Graders	1	10.00	174	0.41
Grubbing/Land Clearing	Off-Highway Trucks	1	10.00	400	0.38
Grubbing/Land Clearing	Rubber Tired Dozers	0	0.00	255	0.40

Grubbing/Land Clearing	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Excavators	0	0.00	162	0.38
Grading	Graders	1	10.00	174	0.41
Grading	Off-Highway Trucks	1	10.00	400	0.38
Grading	Rubber Tired Dozers	0	0.00	255	0.40
Grading	Scrapers	2	10.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Fine Grading	Excavators	1	10.00	162	0.38
Fine Grading	Graders	0	0.00	174	0.41
Fine Grading	Off-Highway Trucks	1	10.00	400	0.38
Fine Grading	Plate Compactors	1	10.00	8	0.43
Fine Grading	Rubber Tired Dozers	0	0.00	255	0.40
Fine Grading	Rubber Tired Loaders	1	10.00	199	0.36
Fine Grading	Scrapers	0	0.00	361	0.48
Fine Grading	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Drainage/Utilities	Concrete/Industrial Saws	1	10.00	81	0.73
Drainage/Utilities	Graders	1	10.00	174	0.41
Drainage/Utilities	Off-Highway Trucks	1	10.00	400	0.38
Drainage/Utilities	Scrapers	1	10.00	361	0.48
Paving	Graders	1	10.00	174	0.41
Paving	Pavers	1	10.00	125	0.42
Paving	Paving Equipment	0	0.00	130	0.36
Paving	Rollers	1	10.00	80	0.38
Paving	Rubber Tired Loaders	1	10.00	199	0.36
Building Construction	Cranes	1	10.00	226	0.29
Building Construction	Forklifts	3	10.00	89	0.20
Building Construction	Generator Sets	1	10.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	10.00	97	0.37

Building Construction	Welders	1	10.00	46	0.45
Architectural Coatings	Air Compressors	1	10.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grubbing/Land Clearing	2	5.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading	5	13.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	434.00	149.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coatings	1	87.00	0.00	0.00	7.30	8.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grubbing/Land Clearing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6628	0.0000	0.6628	0.0716	0.0000	0.0716			0.0000			0.0000
Off-Road	2.4508	26.5398	12.4769	0.0243		1.2407	1.2407		1.1414	1.1414		2,520.3143	2,520.3143	0.7602		2,536.2789
Total	**2.4508**	**26.5398**	**12.4769**	**0.0243**	**0.6628**	**1.2407**	**1.9035**	**0.0716**	**1.1414**	**1.2130**		**2,520.3143**	**2,520.3143**	**0.7602**		**2,536.2789**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0258	0.0337	0.2794	3.0000e-004	0.0278	2.1000e-004	0.0280	7.3700e-003	2.0000e-004	7.5700e-003		23.7648	23.7648	2.2300e-003		23.8116
Total	**0.0258**	**0.0337**	**0.2794**	**3.0000e-004**	**0.0278**	**2.1000e-004**	**0.0280**	**7.3700e-003**	**2.0000e-004**	**7.5700e-003**		**23.7648**	**23.7648**	**2.2300e-003**		**23.8116**

3.2 Grubbing/Land Clearing - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2585	0.0000	0.2585	0.0279	0.0000	0.0279			0.0000			0.0000
Off-Road	2.4508	26.5398	12.4769	0.0243		1.2407	1.2407		1.1414	1.1414	0.0000	2,520.3143	2,520.3143	0.7602		2,536.2789
Total	**2.4508**	**26.5398**	**12.4769**	**0.0243**	**0.2585**	**1.2407**	**1.4992**	**0.0279**	**1.1414**	**1.1693**	**0.0000**	**2,520.3143**	**2,520.3143**	**0.7602**		**2,536.2789**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0258	0.0337	0.2794	3.0000e-004	0.0278	2.1000e-004	0.0280	7.3700e-003	2.0000e-004	7.5700e-003		23.7648	23.7648	2.2300e-003		23.8116
Total	**0.0258**	**0.0337**	**0.2794**	**3.0000e-004**	**0.0278**	**2.1000e-004**	**0.0280**	**7.3700e-003**	**2.0000e-004**	**7.5700e-003**		**23.7648**	**23.7648**	**2.2300e-003**		**23.8116**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3141	0.0000	3.3141	0.3578	0.0000	0.3578			0.0000			0.0000
Off-Road	5.9070	70.5290	40.0305	0.0615		3.0137	3.0137		2.7726	2.7726		6,389.0031	6,389.0031	1.9272		6,429.4732
Total	**5.9070**	**70.5290**	**40.0305**	**0.0615**	**3.3141**	**3.0137**	**6.3278**	**0.3578**	**2.7726**	**3.1305**		**6,389.0031**	**6,389.0031**	**1.9272**		**6,429.4732**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0673	0.5589	6.0000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		47.5297	47.5297	4.4500e-003		47.6232
Total	**0.0515**	**0.0673**	**0.5589**	**6.0000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**47.5297**	**47.5297**	**4.4500e-003**		**47.6232**

3.3 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2925	0.0000	1.2925	0.1396	0.0000	0.1396			0.0000			0.0000
Off-Road	5.9070	70.5290	40.0305	0.0615		3.0137	3.0137		2.7726	2.7726	0.0000	6,389.0031	6,389.0031	1.9272		6,429.4732
Total	**5.9070**	**70.5290**	**40.0305**	**0.0615**	**1.2925**	**3.0137**	**4.3062**	**0.1396**	**2.7726**	**2.9122**	**0.0000**	**6,389.0031**	**6,389.0031**	**1.9272**		**6,429.4732**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0673	0.5589	6.0000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		47.5297	47.5297	4.4500e-003		47.6232
Total	**0.0515**	**0.0673**	**0.5589**	**6.0000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**47.5297**	**47.5297**	**4.4500e-003**		**47.6232**

3.4 Fine Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.7596	31.5651	16.1753	0.0352		1.3853	1.3853		1.2755	1.2755		3,639.1164	3,639.1164	1.0892		3,661.9888
Total	**2.7596**	**31.5651**	**16.1753**	**0.0352**	**0.0000**	**1.3853**	**1.3853**	**0.0000**	**1.2755**	**1.2755**		**3,639.1164**	**3,639.1164**	**1.0892**		**3,661.9888**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0670	0.0875	0.7265	7.7000e-004	0.0722	5.6000e-004	0.0728	0.0192	5.1000e-004	0.0197		61.7886	61.7886	5.7900e-003		61.9101
Total	**0.0670**	**0.0875**	**0.7265**	**7.7000e-004**	**0.0722**	**5.6000e-004**	**0.0728**	**0.0192**	**5.1000e-004**	**0.0197**		**61.7886**	**61.7886**	**5.7900e-003**		**61.9101**

3.4 Fine Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.7596	31.5651	16.1753	0.0352		1.3853	1.3853		1.2755	1.2755	0.0000	3,639.1164	3,639.1164	1.0892		3,661.9888
Total	**2.7596**	**31.5651**	**16.1753**	**0.0352**	**0.0000**	**1.3853**	**1.3853**	**0.0000**	**1.2755**	**1.2755**	**0.0000**	**3,639.1164**	**3,639.1164**	**1.0892**		**3,661.9888**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0670	0.0875	0.7265	7.7000e-004	0.0722	5.6000e-004	0.0728	0.0192	5.1000e-004	0.0197		61.7886	61.7886	5.7900e-003		61.9101
Total	**0.0670**	**0.0875**	**0.7265**	**7.7000e-004**	**0.0722**	**5.6000e-004**	**0.0728**	**0.0192**	**5.1000e-004**	**0.0197**		**61.7886**	**61.7886**	**5.7900e-003**		**61.9101**

3.5 Drainage/Utilities - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.9872	54.3119	30.9727	0.0507		2.5613	2.5613		2.3911	2.3911		5,195.4908	5,195.4908	1.4154		5,225.2138
Total	**4.9872**	**54.3119**	**30.9727**	**0.0507**		**2.5613**	**2.5613**		**2.3911**	**2.3911**		**5,195.4908**	**5,195.4908**	**1.4154**		**5,225.2138**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0673	0.5589	6.0000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		47.5297	47.5297	4.4500e-003		47.6232
Total	**0.0515**	**0.0673**	**0.5589**	**6.0000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**47.5297**	**47.5297**	**4.4500e-003**		**47.6232**

3.5 Drainage/Utilities - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.9872	54.3119	30.9727	0.0507		2.5613	2.5613		2.3911	2.3911	0.0000	5,195.4908	5,195.4908	1.4154		5,225.2138
Total	**4.9872**	**54.3119**	**30.9727**	**0.0507**		**2.5613**	**2.5613**		**2.3911**	**2.3911**	**0.0000**	**5,195.4908**	**5,195.4908**	**1.4154**		**5,225.2138**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0673	0.5589	6.0000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		47.5297	47.5297	4.4500e-003		47.6232
Total	**0.0515**	**0.0673**	**0.5589**	**6.0000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**47.5297**	**47.5297**	**4.4500e-003**		**47.6232**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8170	30.5859	14.5349	0.0244		1.5713	1.5713		1.4456	1.4456		2,534.1065	2,534.1065	0.7644		2,550.1584
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8170**	**30.5859**	**14.5349**	**0.0244**		**1.5713**	**1.5713**		**1.4456**	**1.4456**		**2,534.1065**	**2,534.1065**	**0.7644**		**2,550.1584**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0673	0.5589	6.0000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		47.5297	47.5297	4.4500e-003		47.6232
Total	**0.0515**	**0.0673**	**0.5589**	**6.0000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**47.5297**	**47.5297**	**4.4500e-003**		**47.6232**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8170	30.5859	14.5349	0.0244		1.5713	1.5713		1.4456	1.4456	0.0000	2,534.1065	2,534.1065	0.7644		2,550.1584
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8170**	**30.5859**	**14.5349**	**0.0244**		**1.5713**	**1.5713**		**1.4456**	**1.4456**	**0.0000**	**2,534.1065**	**2,534.1065**	**0.7644**		**2,550.1584**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0673	0.5589	6.0000e-004	0.0556	4.3000e-004	0.0560	0.0147	3.9000e-004	0.0151		47.5297	47.5297	4.4500e-003		47.6232
Total	**0.0515**	**0.0673**	**0.5589**	**6.0000e-004**	**0.0556**	**4.3000e-004**	**0.0560**	**0.0147**	**3.9000e-004**	**0.0151**		**47.5297**	**47.5297**	**4.4500e-003**		**47.6232**

3.7 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5299	38.4918	24.7306	0.0359		2.6372	2.6372		2.4743	2.4743		3,579.9309	3,579.9309	0.9009		3,598.8505
Total	**4.5299**	**38.4918**	**24.7306**	**0.0359**		**2.6372**	**2.6372**		**2.4743**	**2.4743**		**3,579.9309**	**3,579.9309**	**0.9009**		**3,598.8505**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.9555	15.3460	25.0444	0.0375	1.1831	0.3245	1.5076	0.3344	0.2983	0.6327		3,738.6944	3,738.6944	0.0230		3,739.1783
Worker	2.2353	2.9220	24.2546	0.0259	2.4112	0.0186	2.4298	0.6398	0.0170	0.6568		2,062.7878	2,062.7878	0.1932		2,066.8452
Total	**4.1908**	**18.2680**	**49.2990**	**0.0633**	**3.5943**	**0.3430**	**3.9374**	**0.9741**	**0.3153**	**1.2895**		**5,801.4823**	**5,801.4823**	**0.2163**		**5,806.0234**

3.7 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5299	38.4918	24.7306	0.0359		2.6372	2.6372		2.4743	2.4743	0.0000	3,579.9309	3,579.9309	0.9009		3,598.8505
Total	**4.5299**	**38.4918**	**24.7306**	**0.0359**		**2.6372**	**2.6372**		**2.4743**	**2.4743**	**0.0000**	**3,579.9309**	**3,579.9309**	**0.9009**		**3,598.8505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.9555	15.3460	25.0444	0.0375	1.1831	0.3245	1.5076	0.3344	0.2983	0.6327		3,738.6944	3,738.6944	0.0230		3,739.1783
Worker	2.2353	2.9220	24.2546	0.0259	2.4112	0.0186	2.4298	0.6398	0.0170	0.6568		2,062.7878	2,062.7878	0.1932		2,066.8452
Total	**4.1908**	**18.2680**	**49.2990**	**0.0633**	**3.5943**	**0.3430**	**3.9374**	**0.9741**	**0.3153**	**1.2895**		**5,801.4823**	**5,801.4823**	**0.2163**		**5,806.0234**

3.7 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	lb/day										lb/day					
Off-Road	4.1277	35.6359	24.2142	0.0359		2.3874	2.3874		2.2392	2.2392		3,539.1368	3,539.1368	0.8855		3,557.7317
Total	**4.1277**	**35.6359**	**24.2142**	**0.0359**		**2.3874**	**2.3874**		**2.2392**	**2.2392**		**3,539.1368**	**3,539.1368**	**0.8855**		**3,557.7317**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7117	13.6404	23.3197	0.0374	1.1825	0.2836	1.4661	0.3341	0.2608	0.5949		3,671.4596	3,671.4596	0.0216		3,671.9131
Worker	2.0086	2.6608	21.8646	0.0258	2.4112	0.0177	2.4289	0.6398	0.0163	0.6561		1,977.1396	1,977.1396	0.1788		1,980.8949
Total	**3.7203**	**16.3012**	**45.1843**	**0.0632**	**3.5937**	**0.3014**	**3.8950**	**0.9739**	**0.2771**	**1.2510**		**5,648.5993**	**5,648.5993**	**0.2004**		**5,652.8080**

3.7 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	lb/day										lb/day					
Off-Road	4.1277	35.6359	24.2142	0.0359		2.3874	2.3874		2.2392	2.2392	0.0000	3,539.1368	3,539.1368	0.8855		3,557.7317
Total	**4.1277**	**35.6359**	**24.2142**	**0.0359**		**2.3874**	**2.3874**		**2.2392**	**2.2392**	**0.0000**	**3,539.1368**	**3,539.1368**	**0.8855**		**3,557.7317**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.7117	13.6404	23.3197	0.0374	1.1825	0.2836	1.4661	0.3341	0.2608	0.5949		3,671.4596	3,671.4596	0.0216		3,671.9131
Worker	2.0086	2.6608	21.8646	0.0258	2.4112	0.0177	2.4289	0.6398	0.0163	0.6561		1,977.1396	1,977.1396	0.1788		1,980.8949
Total	**3.7203**	**16.3012**	**45.1843**	**0.0632**	**3.5937**	**0.3014**	**3.8950**	**0.9739**	**0.2771**	**1.2510**		**5,648.5993**	**5,648.5993**	**0.2004**		**5,652.8080**

3.7 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	lb/day										lb/day					
Off-Road	3.5478	31.3514	23.3967	0.0358		2.0003	2.0003		1.8778	1.8778		3,497.7922	3,497.7922	0.8717		3,516.0969
Total	**3.5478**	**31.3514**	**23.3967**	**0.0358**		**2.0003**	**2.0003**		**1.8778**	**1.8778**		**3,497.7922**	**3,497.7922**	**0.8717**		**3,516.0969**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.4948	12.3029	21.7728	0.0372	1.1812	0.2657	1.4469	0.3336	0.2444	0.5779		3,601.8776	3,601.8776	0.0211		3,602.3209
Worker	1.8114	2.4384	19.8310	0.0258	2.4112	0.0172	2.4284	0.6398	0.0159	0.6557		1,900.8525	1,900.8525	0.1666		1,904.3520
Total	**3.3063**	**14.7413**	**41.6038**	**0.0630**	**3.5924**	**0.2829**	**3.8754**	**0.9733**	**0.2603**	**1.2336**		**5,502.7301**	**5,502.7301**	**0.1878**		**5,506.6729**

3.7 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	lb/day										lb/day					
Off-Road	3.5478	31.3514	23.3967	0.0358		2.0003	2.0003		1.8778	1.8778	0.0000	3,497.7922	3,497.7922	0.8717		3,516.0969
Total	**3.5478**	**31.3514**	**23.3967**	**0.0358**		**2.0003**	**2.0003**		**1.8778**	**1.8778**	**0.0000**	**3,497.7922**	**3,497.7922**	**0.8717**		**3,516.0969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.4948	12.3029	21.7728	0.0372	1.1812	0.2657	1.4469	0.3336	0.2444	0.5779		3,601.8776	3,601.8776	0.0211		3,602.3209
Worker	1.8114	2.4384	19.8310	0.0258	2.4112	0.0172	2.4284	0.6398	0.0159	0.6557		1,900.8525	1,900.8525	0.1666		1,904.3520
Total	**3.3063**	**14.7413**	**41.6038**	**0.0630**	**3.5924**	**0.2829**	**3.8754**	**0.9733**	**0.2603**	**1.2336**		**5,502.7301**	**5,502.7301**	**0.1878**		**5,506.6729**

3.7 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1257	28.2202	22.8304	0.0358		1.7184	1.7184		1.6135	1.6135		3,457.4323	3,457.4323	0.8581		3,475.4529
Total	**3.1257**	**28.2202**	**22.8304**	**0.0358**		**1.7184**	**1.7184**		**1.6135**	**1.6135**		**3,457.4323**	**3,457.4323**	**0.8581**		**3,475.4529**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3431	11.1845	20.7034	0.0371	1.1802	0.2496	1.4297	0.3331	0.2295	0.5627		3,536.6041	3,536.6041	0.0206		3,537.0363
Worker	1.6563	2.2537	18.2490	0.0258	2.4112	0.0170	2.4282	0.6398	0.0157	0.6555		1,830.9190	1,830.9190	0.1571		1,834.2176
Total	**2.9995**	**13.4382**	**38.9524**	**0.0629**	**3.5914**	**0.2665**	**3.8579**	**0.9729**	**0.2453**	**1.2181**		**5,367.5231**	**5,367.5231**	**0.1777**		**5,371.2539**

3.7 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1257	28.2202	22.8304	0.0358		1.7184	1.7184		1.6135	1.6135	0.0000	3,457.4323	3,457.4323	0.8581		3,475.4529
Total	**3.1257**	**28.2202**	**22.8304**	**0.0358**		**1.7184**	**1.7184**		**1.6135**	**1.6135**	**0.0000**	**3,457.4323**	**3,457.4323**	**0.8581**		**3,475.4529**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3431	11.1845	20.7034	0.0371	1.1802	0.2496	1.4297	0.3331	0.2295	0.5627		3,536.6041	3,536.6041	0.0206		3,537.0363
Worker	1.6563	2.2537	18.2490	0.0258	2.4112	0.0170	2.4282	0.6398	0.0157	0.6555		1,830.9190	1,830.9190	0.1571		1,834.2176
Total	**2.9995**	**13.4382**	**38.9524**	**0.0629**	**3.5914**	**0.2665**	**3.8579**	**0.9729**	**0.2453**	**1.2181**		**5,367.5231**	**5,367.5231**	**0.1777**		**5,371.2539**

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8066	25.6659	22.4025	0.0358		1.4874	1.4874		1.3968	1.3968		3,404.5062	3,404.5062	0.8475		3,422.3040
Total	**2.8066**	**25.6659**	**22.4025**	**0.0358**		**1.4874**	**1.4874**		**1.3968**	**1.3968**		**3,404.5062**	**3,404.5062**	**0.8475**		**3,422.3040**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1430	9.4060	19.3106	0.0370	1.1791	0.2254	1.4044	0.3327	0.2073	0.5400		3,449.8013	3,449.8013	0.0197		3,450.2158
Worker	1.5448	2.1174	17.0788	0.0257	2.4112	0.0168	2.4280	0.6398	0.0156	0.6554		1,758.3148	1,758.3148	0.1501		1,761.4658
Total	**2.6878**	**11.5234**	**36.3894**	**0.0627**	**3.5903**	**0.2422**	**3.8325**	**0.9724**	**0.2229**	**1.1954**		**5,208.1161**	**5,208.1161**	**0.1698**		**5,211.6816**

3.7 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8066	25.6659	22.4025	0.0358		1.4874	1.4874		1.3968	1.3968	0.0000	3,404.5062	3,404.5062	0.8475		3,422.3040
Total	**2.8066**	**25.6659**	**22.4025**	**0.0358**		**1.4874**	**1.4874**		**1.3968**	**1.3968**	**0.0000**	**3,404.5062**	**3,404.5062**	**0.8475**		**3,422.3040**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1430	9.4060	19.3106	0.0370	1.1791	0.2254	1.4044	0.3327	0.2073	0.5400		3,449.8013	3,449.8013	0.0197		3,450.2158
Worker	1.5448	2.1174	17.0788	0.0257	2.4112	0.0168	2.4280	0.6398	0.0156	0.6554		1,758.3148	1,758.3148	0.1501		1,761.4658
Total	**2.6878**	**11.5234**	**36.3894**	**0.0627**	**3.5903**	**0.2422**	**3.8325**	**0.9724**	**0.2229**	**1.1954**		**5,208.1161**	**5,208.1161**	**0.1698**		**5,211.6816**

3.7 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5173	23.3053	22.0347	0.0359		1.2761	1.2761		1.1982	1.1982		3,404.9373	3,404.9373	0.8390		3,422.5560
Total	**2.5173**	**23.3053**	**22.0347**	**0.0359**		**1.2761**	**1.2761**		**1.1982**	**1.1982**		**3,404.9373**	**3,404.9373**	**0.8390**		**3,422.5560**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0692	7.6960	18.7591	0.0369	1.1787	0.1999	1.3786	0.3325	0.1839	0.5164		3,444.4974	3,444.4974	0.0197		3,444.9115
Worker	1.4742	2.0311	16.3140	0.0257	2.4112	0.0168	2.4280	0.6398	0.0155	0.6553		1,733.5734	1,733.5734	0.1465		1,736.6498
Total	**2.5434**	**9.7271**	**35.0731**	**0.0627**	**3.5899**	**0.2167**	**3.8066**	**0.9723**	**0.1995**	**1.1717**		**5,178.0708**	**5,178.0708**	**0.1662**		**5,181.5613**

3.7 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5173	23.3053	22.0347	0.0359		1.2761	1.2761		1.1982	1.1982	0.0000	3,404.9373	3,404.9373	0.8390		3,422.5559
Total	**2.5173**	**23.3053**	**22.0347**	**0.0359**		**1.2761**	**1.2761**		**1.1982**	**1.1982**	**0.0000**	**3,404.9373**	**3,404.9373**	**0.8390**		**3,422.5559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0692	7.6960	18.7591	0.0369	1.1787	0.1999	1.3786	0.3325	0.1839	0.5164		3,444.4974	3,444.4974	0.0197		3,444.9115
Worker	1.4742	2.0311	16.3140	0.0257	2.4112	0.0168	2.4280	0.6398	0.0155	0.6553		1,733.5734	1,733.5734	0.1465		1,736.6498
Total	**2.5434**	**9.7271**	**35.0731**	**0.0627**	**3.5899**	**0.2167**	**3.8066**	**0.9723**	**0.1995**	**1.1717**		**5,178.0708**	**5,178.0708**	**0.1662**		**5,181.5613**

3.8 Architectural Coatings - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6141	3.9537	3.1399	4.9500e-003		0.3277	0.3277		0.3277	0.3277		469.0801	469.0801	0.0553		470.2414
Total	**11.2750**	**3.9537**	**3.1399**	**4.9500e-003**		**0.3277**	**0.3277**		**0.3277**	**0.3277**		**469.0801**	**469.0801**	**0.0553**		**470.2414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4481	0.5857	4.8621	5.1900e-003	0.4834	3.7200e-003	0.4871	0.1282	3.4100e-003	0.1317		413.5082	413.5082	0.0387		414.3215
Total	**0.4481**	**0.5857**	**4.8621**	**5.1900e-003**	**0.4834**	**3.7200e-003**	**0.4871**	**0.1282**	**3.4100e-003**	**0.1317**		**413.5082**	**413.5082**	**0.0387**		**414.3215**

3.8 Architectural Coatings - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6141	3.9537	3.1399	4.9500e-003		0.3277	0.3277		0.3277	0.3277	0.0000	469.0801	469.0801	0.0553		470.2414
Total	**11.2750**	**3.9537**	**3.1399**	**4.9500e-003**		**0.3277**	**0.3277**		**0.3277**	**0.3277**	**0.0000**	**469.0801**	**469.0801**	**0.0553**		**470.2414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4481	0.5857	4.8621	5.1900e-003	0.4834	3.7200e-003	0.4871	0.1282	3.4100e-003	0.1317		413.5082	413.5082	0.0387		414.3215
Total	**0.4481**	**0.5857**	**4.8621**	**5.1900e-003**	**0.4834**	**3.7200e-003**	**0.4871**	**0.1282**	**3.4100e-003**	**0.1317**		**413.5082**	**413.5082**	**0.0387**		**414.3215**

3.8 Architectural Coatings - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5539	3.6417	3.1135	4.9500e-003		0.2889	0.2889		0.2889	0.2889		469.0801	469.0801	0.0495		470.1201
Total	**11.2148**	**3.6417**	**3.1135**	**4.9500e-003**		**0.2889**	**0.2889**		**0.2889**	**0.2889**		**469.0801**	**469.0801**	**0.0495**		**470.1201**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4027	0.5334	4.3830	5.1800e-003	0.4834	3.5600e-003	0.4869	0.1282	3.2700e-003	0.1315		396.3391	396.3391	0.0359		397.0918
Total	**0.4027**	**0.5334**	**4.3830**	**5.1800e-003**	**0.4834**	**3.5600e-003**	**0.4869**	**0.1282**	**3.2700e-003**	**0.1315**		**396.3391**	**396.3391**	**0.0359**		**397.0918**

3.8 Architectural Coatings - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5539	3.6417	3.1135	4.9500e-003		0.2889	0.2889		0.2889	0.2889	0.0000	469.0801	469.0801	0.0495		470.1201
Total	**11.2148**	**3.6417**	**3.1135**	**4.9500e-003**		**0.2889**	**0.2889**		**0.2889**	**0.2889**	**0.0000**	**469.0801**	**469.0801**	**0.0495**		**470.1201**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4027	0.5334	4.3830	5.1800e-003	0.4834	3.5600e-003	0.4869	0.1282	3.2700e-003	0.1315		396.3391	396.3391	0.0359		397.0918
Total	**0.4027**	**0.5334**	**4.3830**	**5.1800e-003**	**0.4834**	**3.5600e-003**	**0.4869**	**0.1282**	**3.2700e-003**	**0.1315**		**396.3391**	**396.3391**	**0.0359**		**397.0918**

3.8 Architectural Coatings - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4977	3.3429	3.0903	4.9500e-003		0.2509	0.2509		0.2509	0.2509		469.0809	469.0809	0.0446		470.0169
Total	**11.1587**	**3.3429**	**3.0903**	**4.9500e-003**		**0.2509**	**0.2509**		**0.2509**	**0.2509**		**469.0809**	**469.0809**	**0.0446**		**470.0169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3631	0.4888	3.9753	5.1700e-003	0.4834	3.4500e-003	0.4868	0.1282	3.1900e-003	0.1314		381.0465	381.0465	0.0334		381.7480
Total	**0.3631**	**0.4888**	**3.9753**	**5.1700e-003**	**0.4834**	**3.4500e-003**	**0.4868**	**0.1282**	**3.1900e-003**	**0.1314**		**381.0465**	**381.0465**	**0.0334**		**381.7480**

3.8 Architectural Coatings - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4977	3.3429	3.0903	4.9500e-003		0.2509	0.2509		0.2509	0.2509	0.0000	469.0809	469.0809	0.0446		470.0169
Total	**11.1587**	**3.3429**	**3.0903**	**4.9500e-003**		**0.2509**	**0.2509**		**0.2509**	**0.2509**	**0.0000**	**469.0809**	**469.0809**	**0.0446**		**470.0169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3631	0.4888	3.9753	5.1700e-003	0.4834	3.4500e-003	0.4868	0.1282	3.1900e-003	0.1314		381.0465	381.0465	0.0334		381.7480
Total	**0.3631**	**0.4888**	**3.9753**	**5.1700e-003**	**0.4834**	**3.4500e-003**	**0.4868**	**0.1282**	**3.1900e-003**	**0.1314**		**381.0465**	**381.0465**	**0.0334**		**381.7480**

3.8 Architectural Coatings - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4441	3.0590	3.0689	4.9500e-003		0.2146	0.2146		0.2146	0.2146		469.0801	469.0801	0.0396		469.9121
Total	**11.1050**	**3.0590**	**3.0689**	**4.9500e-003**		**0.2146**	**0.2146**		**0.2146**	**0.2146**		**469.0801**	**469.0801**	**0.0396**		**469.9121**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3320	0.4518	3.6582	5.1600e-003	0.4834	3.4000e-003	0.4868	0.1282	3.1500e-003	0.1314		367.0275	367.0275	0.0315		367.6888
Total	**0.3320**	**0.4518**	**3.6582**	**5.1600e-003**	**0.4834**	**3.4000e-003**	**0.4868**	**0.1282**	**3.1500e-003**	**0.1314**		**367.0275**	**367.0275**	**0.0315**		**367.6888**

3.8 Architectural Coatings - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4441	3.0590	3.0689	4.9500e-003		0.2146	0.2146		0.2146	0.2146	0.0000	469.0801	469.0801	0.0396		469.9121
Total	**11.1050**	**3.0590**	**3.0689**	**4.9500e-003**		**0.2146**	**0.2146**		**0.2146**	**0.2146**	**0.0000**	**469.0801**	**469.0801**	**0.0396**		**469.9121**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3320	0.4518	3.6582	5.1600e-003	0.4834	3.4000e-003	0.4868	0.1282	3.1500e-003	0.1314		367.0275	367.0275	0.0315		367.6888
Total	**0.3320**	**0.4518**	**3.6582**	**5.1600e-003**	**0.4834**	**3.4000e-003**	**0.4868**	**0.1282**	**3.1500e-003**	**0.1314**		**367.0275**	**367.0275**	**0.0315**		**367.6888**

3.8 Architectural Coatings - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4036	2.8064	3.0524	4.9500e-003		0.1849	0.1849		0.1849	0.1849		469.0801	469.0801	0.0363		469.8428
Total	**11.0646**	**2.8064**	**3.0524**	**4.9500e-003**		**0.1849**	**0.1849**		**0.1849**	**0.1849**		**469.0801**	**469.0801**	**0.0363**		**469.8428**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3097	0.4245	3.4236	5.1600e-003	0.4834	3.3800e-003	0.4867	0.1282	3.1300e-003	0.1314		352.4733	352.4733	0.0301		353.1049
Total	**0.3097**	**0.4245**	**3.4236**	**5.1600e-003**	**0.4834**	**3.3800e-003**	**0.4867**	**0.1282**	**3.1300e-003**	**0.1314**		**352.4733**	**352.4733**	**0.0301**		**353.1049**

3.8 Architectural Coatings - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4036	2.8064	3.0524	4.9500e-003		0.1849	0.1849		0.1849	0.1849	0.0000	469.0801	469.0801	0.0363		469.8428
Total	**11.0646**	**2.8064**	**3.0524**	**4.9500e-003**		**0.1849**	**0.1849**		**0.1849**	**0.1849**	**0.0000**	**469.0801**	**469.0801**	**0.0363**		**469.8428**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3097	0.4245	3.4236	5.1600e-003	0.4834	3.3800e-003	0.4867	0.1282	3.1300e-003	0.1314		352.4733	352.4733	0.0301		353.1049
Total	**0.3097**	**0.4245**	**3.4236**	**5.1600e-003**	**0.4834**	**3.3800e-003**	**0.4867**	**0.1282**	**3.1300e-003**	**0.1314**		**352.4733**	**352.4733**	**0.0301**		**353.1049**

3.8 Architectural Coatings - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3648	2.5447	3.0293	4.9500e-003		0.1568	0.1568		0.1568	0.1568		469.0801	469.0801	0.0322		469.7561
Total	**11.0258**	**2.5447**	**3.0293**	**4.9500e-003**		**0.1568**	**0.1568**		**0.1568**	**0.1568**		**469.0801**	**469.0801**	**0.0322**		**469.7561**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2955	0.4072	3.2703	5.1600e-003	0.4834	3.3600e-003	0.4867	0.1282	3.1200e-003	0.1314		347.5136	347.5136	0.0294		348.1303
Total	**0.2955**	**0.4072**	**3.2703**	**5.1600e-003**	**0.4834**	**3.3600e-003**	**0.4867**	**0.1282**	**3.1200e-003**	**0.1314**		**347.5136**	**347.5136**	**0.0294**		**348.1303**

3.8 Architectural Coatings - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3648	2.5447	3.0293	4.9500e-003		0.1568	0.1568		0.1568	0.1568	0.0000	469.0801	469.0801	0.0322		469.7561
Total	**11.0258**	**2.5447**	**3.0293**	**4.9500e-003**		**0.1568**	**0.1568**		**0.1568**	**0.1568**	**0.0000**	**469.0801**	**469.0801**	**0.0322**		**469.7561**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2955	0.4072	3.2703	5.1600e-003	0.4834	3.3600e-003	0.4867	0.1282	3.1200e-003	0.1314		347.5136	347.5136	0.0294		348.1303
Total	**0.2955**	**0.4072**	**3.2703**	**5.1600e-003**	**0.4834**	**3.3600e-003**	**0.4867**	**0.1282**	**3.1200e-003**	**0.1314**		**347.5136**	**347.5136**	**0.0294**		**348.1303**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.9642	37.3724	223.9279	0.3041	20.7716	0.6116	21.3831	5.5401	0.5637	6.1038		22,669.8139	22,669.8139	1.2235		22,695.5064
Unmitigated	20.2367	39.0283	229.8298	0.3229	22.1493	0.6475	22.7968	5.9075	0.5969	6.5044		24,080.7131	24,080.7131	1.2881		24,107.7624

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	21.92	18.44	18.44	11,169	10,474
Single Family Housing	6,170.00	6,219.36	5411.09	10,172,855	9,540,107
Total	6,191.92	6,237.80	5,429.53	10,184,023	9,550,581

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
City Park	2.00	2.00	2.00	33.00	48.00	19.00	66	28	6
Single Family Housing	7.30	3.90	3.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.453705	0.072187	0.167941	0.164907	0.044177	0.005634	0.011849	0.072446	0.001781	0.000160	0.002442	0.000636	0.002137

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.4888	4.1770	1.7774	0.0267		0.3377	0.3377		0.3377	0.3377		5,332.2970	5,332.2970	0.1022	0.0978	5,364.7484
NaturalGas Unmitigated	0.6156	5.2603	2.2384	0.0336		0.4253	0.4253		0.4253	0.4253		6,715.2908	6,715.2908	0.1287	0.1231	6,756.1589

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	57080	0.6156	5.2603	2.2384	0.0336		0.4253	0.4253		0.4253	0.4253		6,715.2908	6,715.2908	0.1287	0.1231	6,756.1589
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.6156**	**5.2603**	**2.2384**	**0.0336**		**0.4253**	**0.4253**		**0.4253**	**0.4253**		**6,715.2908**	**6,715.2908**	**0.1287**	**0.1231**	**6,756.1589**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.3245	0.4888	4.1770	1.7774	0.0267		0.3377	0.3377		0.3377	0.3377		5,332.2970	5,332.2970	0.1022	0.0978	5,364.7484
Total		**0.4888**	**4.1770**	**1.7774**	**0.0267**		**0.3377**	**0.3377**		**0.3377**	**0.3377**		**5,332.2970**	**5,332.2970**	**0.1022**	**0.0978**	**5,364.7484**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.2647	0.5859	50.9183	2.6900e-003		1.0683	1.0683		1.0600	1.0600	0.0000	12,504.2475	12,504.2475	0.3257	0.2276	12,581.6318
Unmitigated	104.4444	1.4294	132.8683	2.6900e-003		12.2116	12.2116		12.2042	12.2042	1,103.1358	11,197.6593	12,300.7951	0.3006	0.3010	12,400.4017

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	23.7882					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	75.3175	0.8436	82.0120	0.0000		11.9294	11.9294		11.9220	11.9220	1,103.1358	11,106.0000	12,209.1358	0.2129	0.3010	12,306.8991
Landscaping	1.5270	0.5858	50.8562	2.6900e-003		0.2822	0.2822		0.2822	0.2822		91.6593	91.6593	0.0878		93.5027
Total	**104.4444**	**1.4294**	**132.8683**	**2.6900e-003**		**12.2116**	**12.2116**		**12.2042**	**12.2042**	**1,103.1358**	**11,197.6593**	**12,300.7951**	**0.3006**	**0.3010**	**12,400.4017**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.8117					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	23.7882					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.1378	5.0000e-005	0.0621	0.0000		0.7861	0.7861		0.7779	0.7779	0.0000	12,412.5882	12,412.5882	0.2379	0.2276	12,488.1292
Landscaping	1.5270	0.5858	50.8562	2.6900e-003		0.2822	0.2822		0.2822	0.2822		91.6593	91.6593	0.0878		93.5027
Total	**30.2647**	**0.5859**	**50.9183**	**2.6900e-003**		**1.0683**	**1.0683**		**1.0600**	**1.0600**	**0.0000**	**12,504.2476**	**12,504.2476**	**0.3257**	**0.2276**	**12,581.6318**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

ATTACHMENT 2

Caline Output – Imperial and Ocotillo

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JOB: Lotus Ranch - Imperial and Ocotillo AM
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	10. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	7.5 PPM		
SIGTH=	5. DEGREES	TEMP=	6.2 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Link_1	*	*****	*****	*****	*****	* AG	1103	2.0	0.0	17.0
B. Link_2	*	*****	*****	*****	*****	* AG	1085	2.0	0.0	17.0
C. Link_3	*	*****	*****	*****	*****	* AG	826	2.0	0.0	17.0
D. Link_4	*	*****	*****	*****	*****	* AG	1040	2.0	0.0	17.0
E. Link_5	*	*****	*****	*****	*****	* AG	692	2.0	0.0	14.0
F. Link_6	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
G. Link_9	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
H. Link_11	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
I. Link_12	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
J. Link_13	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
K. Link_14	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
L. Link_16	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
M. Link_7	*	*****	*****	*****	*****	* AG	282	2.0	0.0	10.0
N. Link_8	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
O. Link_10	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
P. Link_15	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
Q. Link_17	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
R. Link_18	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
S. Link_19	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
T. Link_20	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
U. Link_21	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
V. Link_22	*	*****	*****	*****	*****	* AG	342	2.0	0.0	10.0
W. Link_23	*	*****	*****	*****	*****	* AG	556	2.0	0.0	14.0

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JOB: Lotus Ranch - Imperial and Ocotillo AM
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. RECPT 1	633948	******	1.8
2. RECPT 2	633949	******	1.8
3. RECPT 3	633979	******	1.8
4. RECPT 4	633978	******	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. RECPT 1	10.	7.9	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0
2. RECPT 2	168.	8.1	0.2	0.0	0.0	0.3	0.1	0.0	0.0	0.0
3. RECPT 3	188.	8.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
4. RECPT 4	349.	8.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1. RECPT 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. RECPT 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3. RECPT 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. RECPT 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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EXIT

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Lotus Ranch - Imperial and Ocotillo PM
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	10. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	7.5 PPM		
SIGTH=	5. DEGREES	TEMP=	6.2 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Link_1	*****	*****	*****	*****	AG	883	2.0	0.0	17.0
B. Link_2	*****	*****	*****	*****	AG	776	2.0	0.0	17.0
C. Link_3	*****	*****	*****	*****	AG	1143	2.0	0.0	17.0
D. Link_4	*****	*****	*****	*****	AG	1292	2.0	0.0	17.0
E. Link_5	*****	*****	*****	*****	AG	542	2.0	0.0	14.0
F. Link_6	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
G. Link_9	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
H. Link_11	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
I. Link_12	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
J. Link_13	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
K. Link_14	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
L. Link_16	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
M. Link_7	*****	*****	*****	*****	AG	242	2.0	0.0	10.0
N. Link_8	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
O. Link_10	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
P. Link_15	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
Q. Link_17	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
R. Link_18	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
S. Link_19	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
T. Link_20	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
U. Link_21	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
V. Link_22	*****	*****	*****	*****	AG	221	2.0	0.0	10.0
W. Link_23	*****	*****	*****	*****	AG	479	2.0	0.0	14.0

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JOB: Lotus Ranch - Imperial and Ocotillo PM
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. RECPT 1	633948	******	1.8
2. RECPT 2	633949	******	1.8
3. RECPT 3	633979	******	1.8
4. RECPT 4	633978	******	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. RECPT 1	9.	7.9	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0
2. RECPT 2	169.	8.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3. RECPT 3	188.	7.9	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0
4. RECPT 4	274.	8.0	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0

RECEPTOR	CONC/LINK I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1. RECPT 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. RECPT 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3. RECPT 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. RECPT 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

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EXIT