AIR QUALITY
GREENHOUSE GAS EMISSIONS

GENERAL PLAN/MUNICIPAL CODE REVISIONS
Heavy Commercial (HC) and Heavy Commercial (C-3)

HILTON HOTEL PROJECT
13624-13650 Harbor Boulevard
Garden Grove, California

General Plan Amendment No. GPA-002-2018
Amendment No. A-024-2018
Site Plan No. SP-056-2018
Conditional Use Permit No. CUP-134-2018
Lot Line Adjustment No. LLA-018-2018

GARDEN GROVE

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May 21, 2018

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1.0 Methodology

This air quality evaluation was prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State Guidelines for the Implementation of the California Environmental Quality Act (Guidelines) in order to determine whether significant air quality impacts are likely to occur in conjunction with the type and scale of development associated with Project No. 2 (Hilton Hotel Project). The City of Garden Grove (City or Lead Agency) has preliminarily concluded that any development activities attributable to Project No. 1 (General Plan/Municipal Code Revisions") is both "speculative" and not "reasonably foreseeable." As a result, no air quality analysis of Project No. 1 (General Plan/Municipal Code Revisions) has been included herein.

As depicted in Figure AQ-1 (Project No. 2: Hilton Hotel Project Site and Former Land Use), the proposed hotel project would be located at 13624-13650 Harbor Boulevard, approximately 800 feet south of the Garden Grove (SR-22) Freeway. The proposed project includes the approval, construction, and operation of a new 62,764 square foot hotel, consisting of 124-room and 100 on-site parking spaces, on an approximately 1.5-acre site.

Figure AQ-1
PROJECT NO. 2: HILTON HOTEL PROJECT AND FORMER LAND USE
Source: Google Earth

For the purposes of this analysis, Project No. 2 (Hilton Hotel Project) replaces a previously-occupied 17,216-square foot automobile dealership (Garden Grove Mazda). The analysis also

assumes that the prior use has been removed and the site cleared of any demolition debris or residual waste products that may have occurred on the property.

The impact analysis contained in this report was prepared in accordance with the methodologies provided by the South Coast Air Quality Management District (SCAQMD) as included in the "CEQA Air Quality Handbook" (April 1993) (Handbook), in combination with more recent updates included the SCAQMD website. The analysis makes use of the California Emissions Estimator Model (CalEEMod) (Version 2016.3.2), as distributed by the SCAQMD, and screening tables included in the SCAQMD's "Final Localized Significance Threshold Methodology" (June 2003) and "Sample Construction Scenarios for Projects Less than Five Acres in Size" (February 2005).

The CalEEMod model uses EMFAC2014 emissions factors for vehicle traffic and OFFROAD2011 emissions factors for construction equipment. For the purposes of this analysis, construction is estimated to begin in January 2019 and follows the CalEEMod's default construction schedule.

The subsequent occupation of the site in 2020 is also based on the CalEEMod model using the traffic-projections provided by RK Engineering Group and contained in a letter report, entitled "13650 Harbor Boulevard Hotel Trip Generation Analysis & Traffic Letter, City of Garden Grove" (April 20, 2018). That traffic study was based on the Institute of Traffic Engineers' "Trip Generation Manual, 10th Edition" (September 2017) whereas the CalEEMod model utilizes the ITE's "Trip Generation Manual, 9th Edition." As such, as a substitute for the default values, the trip generation rates provided by the traffic engineer were used in the CalEEMod model runs.

The proposed 124-room hotel is projected to generate 1,037 average daily trips (ADT) on a weekday, 1,016 ADT on a Saturday, and 738 ADT on a Sunday. While the model uses the weekday value for the estimation of daily emissions, the Saturday and Sunday values are used in the calculation of the annual greenhouse gas (GHG) emissions.

For the purposes of this analysis, the project replaces a 17,216 square foot automobile dealership which formerly operated at the site. Because the trip lengths associated with the dealership could differ from those produced by the proposed hotel, these trips cannot be simply removed from the project-generated trips with the "net" emissions based solely on the differential in the number of trips attributable to those uses. Similarly, the stationary source emissions generated from an automobile dealership and a hotel also differ.

The traffic study estimates that the automobile dealership would generate 479 ADT on a weekday, 900 ADT on a Saturday, and 375 ADT on a Sunday. The emissions model was based on the daily emissions attributable to the automobile dealership on a Saturday rather than a weekday. While both sets of values represent the "worst-case" day, they are not strictly comparable in this respect.

2.0 Existing Conditions

2.1 Climate/Meteorology

The project area lies in the South Coast Air Basin (SCAB or Basin). The SCAB includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming

the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild climatological pattern is infrequently interrupted by periods of extremely hot weather, winter storms, or Santa Ana winds.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (ºF). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The SCAQMD reports at the Los Alamitos Airfield meteorological station, located to the west of the project site, shows an annual average of 61ºF. The average low is reported at 42ºF (January) while the average high is reported to be 80ºF (September). All areas in the Basin have recorded temperatures above 100ºF in recent years and temperatures as high as 108ºF have been recorded at the Los Alamitos Airfield meteorological station.

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast with slightly heavier shower activity in the east and over the mountains. Annual average rainfall is about 13.67 inches in the project area, as measured in Santa Ana to the southeast of the project site.

Although the Basin has a semi-arid climate, the air near the surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by off-shore winds, the ocean effect is dominant. Periods of heavy fog, especially along the coast, are frequent; and low stratus clouds are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the east portions of the Basin.

Wind patterns across the region are characterized by easterly winds during the winter and westerly winds in the summer. Wind speed is somewhat greater during the spring months. Annually, typical winds in the project area average about 5.2 miles per hour (mph), as measured at the Los Alamitos Airfield meteorological station. Based on data from the SCAQMD's Anaheim monitoring station, as illustrated in Figure AQ-2 (Wind Rose for the SCAQMD Anaheim Monitoring Station) the primary wind direction in the general project area is from the northwest to the southeast.

Between the periods of dominant air flow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the Basin, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally have a duration of a few days before predominant meteorological conditions are reestablished.

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed: marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the "mixing height." This mixing height can change under conditions when the top of the inversion does not change. In the project area, the combination of winds and inversions are critical determinants leading to the highly-degraded air quality experienced in summer and the generally good air quality typical in the winter.

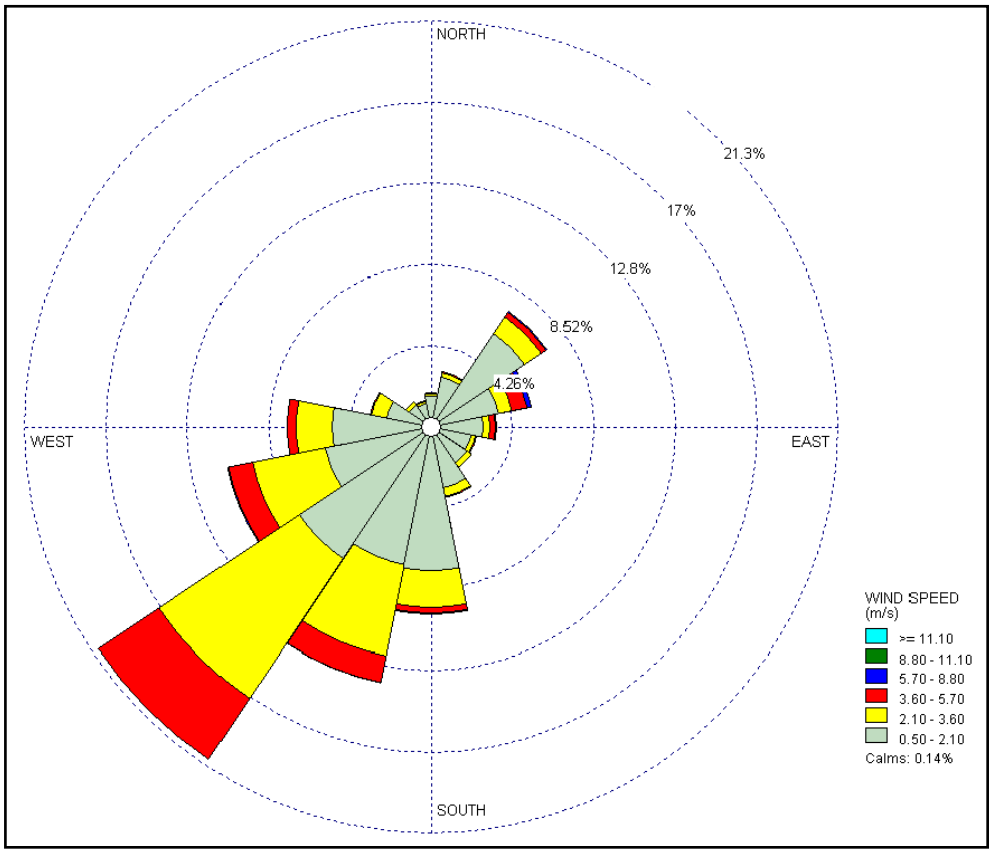

Figure AQ-2
WIND ROSE FOR THE SCAQMD ANAHEIM MONITORING STATION SITE
Source: Windrosa

2.2 Ambient Air Quality

The following characterization of the baseline atmospheric environment includes an evaluation of the ambient air quality and applicable rules, regulations, and standards for the area. Because the proposed project has the ability to release gaseous emissions of criteria pollutants and dust into the ambient air, the project falls under the ambient air quality standards promulgated at the local, State, and federal levels.

2.2.1 Affected Environment

Topographical features that affect the transport and diffusion of pollutants in the project area include the mountain ranges to the northeast that prevent the transport of pollutants. Air quality in the Basin generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

The quality of the ambient air is affected by pollutants emitted into the air from stationary and mobile sources. Stationary sources can be divided into two major subcategories: “point sources” and “area sources.” Point sources consist of one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial processing plants. Area sources are widely distributed and produce many small emissions.
Mobile sources refer to emissions from motor vehicles (including tailpipe and evaporative emissions) and are classified as either “on-road” or “off-road.” On-road sources are a combination of emissions from automobiles, trucks, and other indirect sources. Indirect sources

are sources that, by themselves, may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or consuming energy. Examples of indirect sources include a commercial center that generates vehicle trips and consumes energy resources through the use of natural gas for space and water heating. Indirect sources also include actions proposed by local governments, such as public and private development projects. In addition, indirect sources include those emissions created by the distance vehicles travel. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

2.2.2 Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by State and federal law. These regulated air pollutants are known as "criteria air pollutants" and are categorized as "primary" and "secondary" pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NOx), sulfur dioxide (SO_2), and most fine particulate matter (PM_{10} and $PM_{2.5}$), including lead (Pb) and fugitive dust, are primary air pollutants. Of these CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NOx are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reaction in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

Presented below is a description of each of these primary and secondary criteria air pollutants and their known health effects. Other pollutants, such as carbon dioxide (CO_2), a natural by-product of animal respiration that is also produced in the combustion process, have been linked to such phenomena as global warming. These emissions are regulated and thresholds have been established for their release; however, these pollutants do not jeopardize the Basin's attainment status.

- **Carbon monoxide** (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances (e.g., gasoline or diesel fuel). The primary adverse health effect associated with CO is the interference of normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

- **Reactive organic gases** (ROGs) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion, associated with motor vehicle usage, is the major source of hydrocarbons. Other sources of ROG include the evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG but rather by reactions of ROG forming secondary pollutants. For the purposes of this analysis ROG and volatile organic compounds (VOC), are synonymous.

- **Nitrogen oxides** (NOx) serve as integral participants in the process of photochemical smog production. The two major forms of NOx are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen (O). NOx acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

- **Nitrogen dioxide** (NO_2) is a by-product of fuel combustion. The principal form of NO_2 produced by combustion is nitric oxide (NO). NO reacts to form NO_2, creating the mixture of NO and NO_2 commonly called NOx. NO_2 acts as an acute irritant and, in

equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light, resulting in a brownish-red cast to the atmosphere and a reduction in visibility. NO_2 also contributes to the formation of PM_{10} (particulates having an aerodynamic diameter of 10 microns or 0.0004 inches or less in diameter).

- **Sulfur dioxide** (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract and, at lower concentrations, when combined with particulates, SO_2 may injure lung tissue.

- **Particulate matter** (PM) consists of finely divided solids or liquids, such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulate are now recognized. Course particles (PM_{10}) include that portion of particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 one-millionths of a meter or 0.0004 inches) or less. Fine particles ($PM_{2.5}$) have an aerodynamic diameter of 2.5 microns (i.e., 2.5 one-millionths of a meter or 0.0001 inches) or less. Particulates discharged into the atmosphere result primarily from industrial, agricultural, construction, and transportation activities. Wind action on the arid landscape also contributes to local particulate loading. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to respiratory problems.

- **Fugitive dust** poses primarily two public health and safety concerns. The first concern is that of respiratory problems attributable to the suspended particulates in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent and can result in a nuisance factor due to the soiling of proximate structures and vehicles.

- **Ozone** (O_3) is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds (ROC) and NOx (both by-products of the internal combustion engine) react with sunlight. O_3 is present in relatively high concentrations in the Basin and the damaging effects of photochemical smog are generally related to the concentrations of O_3. O_3 may pose a health threat to those who already suffer from respiratory diseases as well as healthy people. O_3 has been tied to crop damage (typically in the form of stunted growth and pre-mature death) and acts as a corrosive (resulting in property damage such as the embitterment of rubber products).

2.2.3 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TAC) is an environmental health issue in California. In 1983, the Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants in order to protect the public health. The Health and Safety Code (H&SC) defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.” A substance that is listed as a hazardous air pollutant (HAP), pursuant to Section 112(b) of the federal Clean Air Act A of 1970 (42 U.S.C. 7412[b]) is a TAC.

Under State law, the California Environmental Protection Agency (CalEPA), acting through the California Air Resources Board (CARB), is authorized to identify a substance as a TAC if it

determines the substance is an air pollutant which may cause or contribute to an increase in mortality or serious illness or which may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill 1807 (Tanner Air Toxics Act) and Assembly Bill 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology (T-BACT) to minimize emissions.

In California, air toxics from stationary sources are regulated under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under the act, TAC emissions from individual facilities are quantified and prioritized by the local air quality management district (AQMD) or air pollution control district (APCD). High-priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings. To date, the CARB has designated nearly 200 compounds as TACs. Additionally, the CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds, the most important being particulate matter (PM) from diesel-fueled engines (diesel PM).

In 2000, the SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for about 71 percent of the air toxics risk.

2.2.4 Additional Effects of Air Pollution

Just as humans are affected by air pollution, so too are plants and animals. Animals must breathe the same air and are subject to the same types of negative health effects. Certain plants and trees may absorb air pollutants that can stunt their development, cause premature death, and interfere with their ability to convert CO_2 to oxygen. Air pollutants also adversely impact the economy as a result of lost workdays due to illness, a desire on the part of business to locate in areas with a healthy environment, and increased medical costs. Pollutants may also lower visibility and cause damage to property. Certain air pollutants are responsible for discoloring painted surfaces, eating away at stones used in buildings, dissolving the mortar that holds bricks together, and cracking tires and other items made from rubber.

2.2.5 Greenhouse Gas Emissions

Federal Regulations

On June 1, 2017, President Trump pulled the United States out of the multi-national Paris Climate Accord (Accord). The Accord, known as the "Paris Agreement" (Agreement) by the United Nations, is an international agreement reached in 2015 and aimed at reducing carbon emissions, slowing rising global temperatures, and helping countries deal with the effects of climate change. Under the terms of the Agreement, signatories committed to "holding the increase in the global average temperature to well below 2ºC [Centigrade] above pre-industrial

levels and pursuing efforts to limit the temperature increase to 1.5^{o}C above pre-industrial levels." The Agreement further required countries to set their own targets for reducing emissions by 2020.

President Obama had previously committed the United States to reducing carbon emissions by 26 to 28 percent by 2025 and established a $100 billion fund to help vulnerable countries deal with the effects of climate change. In December 2015, the Agreement was adopted at the "Conference of Parties to the United Nations Framework Convention on Climate Change" (COP_{21}). The United States signed the Agreement in April 2016, along with China, the European Union, and 171 other nations. Collectively, China and the United States account for nearly 40 percent of all global carbon emissions. The Agreement took effect in November 2016, after nations accounting for 55 percent of global carbon emissions ratified the Agreement. As of May 2017, 147 nations (out of the 195 nations who had signed the Accord) ratified the Agreement. The United States is not presently a participant.

State Regulations

In 2005, then Governor Schwarzenegger released Executive Order S-3-05, setting forth the following series of target dates by which Statewide GHG emissions would be progressively reduced, as follows: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32), requiring the CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective Statewide GHG emissions would be reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions). In June 2007, CARB directed staff to pursue 37 early actions for reducing GHG emissions. The broad spectrum of strategies to be developed (e.g., Low Carbon Fuel Standard, regulations for refrigerants with high global warming potentials, guidance and protocols for local governments to facilitate the reduction of GHG emissions, and green ports) reflected that the serious threat of climate change requires prompt action. Since June 2007, CARB has evaluated all 48 recommendations, publishing the "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California."

The 2020 target reductions are estimated to be 174 million metric tons of carbon dioxide (CO_2) equivalent ($MMTCO_2e$). In total, the recommended early actions have the potential to reduce GHG emissions by at least 42 $MMTCO_2e$ emissions by 2020, representing about 25 percent of the estimated reductions needed. CARB adopted Resolution 07-55 in December 2007, approving 427 $MMTCO_2e$ as the Statewide GHG emissions limit for 2020, which is equivalent to the 1990 emissions level. The measures are in the sectors of fuels, transportation, forestry, agriculture, education, energy efficiency, commercial, solid waste, cement, oil and gas, electricity, and fire suppression.

An updated scoping plan was approved by CARB on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The update defines CARB's climate change priorities for the next five years and set the groundwork to reach the State's long-term.

2.3 Ambient Air Quality Standards

The federal Clean Air Act Amendment of 1971 established National Ambient Air Quality Standards (NAAQS) with individual states retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. These NAAQS are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both the State and the federal government have established health-based ambient air quality standards for six air pollutants. As shown in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants), these pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), suspended particulate matter (PM_{10}, $PM_{2.5}$), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table AQ-1
AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	*	
Sulfur Dioxide (SO_2)	Annual Average	*	0.03 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	*	
	24 hours	0.04 ppm	0.14 ppm	
Suspended Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	
Suspended Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	24 hours	*	35 $\mu g/m^3$	
Lead (Pb)	Monthly	1.5 $\mu g/m^3$	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 $\mu g/m^3$	
Sulfates (SO_4)	24 hours	25 $\mu g/m^3$	*	Industrial processes.

Notes:
ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* Standard is not applicable for this pollutant/duration by this entity.

Source: California Air Resources Board

In addition to primary and secondary Ambient Air Quality Standards, the State of California has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur

dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants, which actually threaten public health.

2.4 Air Quality Management Plans

2.4.1 Local Planning Requirements

The SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the "Air Quality Management Plan" (AQMP) for the Basin. Since 1979, a number of AQMPs have been prepared. The AQMP was designed to comply with State and federal requirements, reduce the high level of pollutant emissions in the Basin, and ensure clean air for the region through various control measures. To accomplish its task, the AQMP relies on a multi-level partnership of governmental agencies at the federal, State, regional, and local level.

SCAQMD "2012 Air Quality Management Plan" (2012 AQMP), as adopted on December 7, 2012, set forth a comprehensive and integrated program leading to the Basin's compliance with the federal 24-hour $PM_{2.5}$ air quality standard, satisfied the planning requirements of the federal Clean Air Act of 1970 (42 U.S.C. Section 7401 *et seq*.) (CAA), and updated the Basin's commitments towards meeting the federal 8-hour ozone standards. The 2012 AQMP also served to satisfy the United States Environmental Protection Agency's (USEPA) requirements for a new attainment demonstration of the 1-hour ozone standard and for a vehicle miles traveled (VMT) emissions offset demonstration. The 2012 AQMP further served as the official "State Implementation Plan" (SIP) submittal for the federal 2006 24-hour $PM_{2.5}$ standard. In addition, the 2012 AQMP updated specific new control measures and commitments for emission reductions to implement the attainment strategy for the 8-hour ozone SIP and served as the 24-hour $PM_{2.5}$ SIP addressing the 2006 $PM_{2.5}$ NAAQS, and as a limited update to the approved 8-hour ozone SIP.

The SCAQMD's "2016 Air Quality Management Plan" (2016 AQMP), as adopted on March 3, 2017, identified control measures and strategies to demonstrate the Basin's attainment of the 1997 8-hour ozone NAAQS of 80 parts per billion (ppb) by 2024, the 2008 8-hour ozone standard of 75 ppb by 2032, the 2012 annual fine particulate ($PM_{2.5}$) standard of 12 micrograms per cubic meter (ug/m^3) by 2025, the 2006 24-hour $PM_{2.5}$ standard of 35 ug/m^3 by 2019, and the 1979 1-hour ozone standard of 120 ppb by 2023. The control measures specified therein consist of three main components: (1) the SCAQMD's stationary and mobile source control measures; (2) State and suggested federal source control measures; and (3) control measures outlined in SCAG's "2016-2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Live" (April 7, 2016).

In December 2017 and again in January 2018, the SCAQMD convened a working group to address the "Implementation of the 2016 AQMP – Stationary Source Incentive Guidelines."

2.4.2 Air Quality Attainment Status

The USEPA designates areas as "attainment" or "nonattainment" with the NAAQS and establishes classifications for those nonattainment areas that dictate statutory attainment dates and requirements pursuant to the federal Clean Air Act. In February 2017, the USEPA made a finding of the failure of the SCAQMD to submit a SIP for the 2008 ozone NAAQS, including a

nonattainment New Source Review (NSR) certification for the Basin and for the Coachella Valley.

Areas meeting ambient air quality standards are classified as "attainment" areas while areas that do not meet these standards are classified as "nonattainment" areas. The severities of the classifications for ozone nonattainment include marginal, moderate, serious, severe, and extreme. The Basin's current attainment status is outlined in Table AQ-2 (Attainment Status for the South Coast Air Basin).

Table AQ-2
ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	State Status	Federal Status
Ozone (1-hour)	Extreme Nonattainment	Extreme Nonattainment (under the prior standard)
Ozone (8-hour)	Extreme Nonattainment	Severe-17 (may petition for Extreme)
PM_{10}	Serious Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance

Source: California Air Resources Board

The Basin is also designated as attainment of the California Ambient Air Quality Standards (CAAQS) for SO_2, lead, and sulfates. Areas that are designated as "Severe-17" for the ozone standard must meet attainment of the 8-hour standard by 2021 (2024 if reclassified to "Extreme"). Areas considered as serious nonattainment of the PM_{10} standards must have reached attainment by the end of 2006, or as expeditiously as possible. To date, the Basin still does not meet this standard. The $PM_{2.5}$ attainment date was to be met by 2015.

2.4.3 State Planning Requirements

Executive Order S-3-05

Under Executive Order S-3-05, as signed by Governor Arnold Schwarzenegger on June 1, 2005, the following GHG emission reduction targets were established for California: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels. In response, in March 2006, the CalEPA published a Climate Action Team (CAT) report detailing how State agencies could implement a series of policies to meet the 2010 and 2020 goals. Among the policy actions cited therein were "smart land use and intelligent transportation" and "intelligent transportation systems" (ITE). The CAT stated that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS' encompass the application of advanced technologies and management strategies to improve operational efficiency of transportation systems and movement of people, goods, and service.

Health and Safety Code

Section 41700 of the H&SC requires that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which

endanger the comfort, response, health, or safety of any such person or the public, or which causes, or have a natural tendency to cause, injury or damage to business or property." Section 39606(b) of the H&SC authorizes the CARB to adopt standards for ambient air quality "in consideration of public health and safety, and welfare, including but not limited to health, illness, irritation to the senses, aesthetic value, interference with visibility, and the effects of air pollution on the economy." The objective of ambient air quality standards is to provide a basis for preventing or abating adverse health or welfare effects of air pollution (17 CCR 70101).

Section 39607(e) requires that the CARB establish and periodically review area designation criteria. The CARB makes area designations for the following nine pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns (PM_{10}), sulfates (SO_4), lead (Pb), hydrogen sulfide (H_2S), and visibility-reducing particles.

Assembly Bill 2595, known as the California Clean Air Act (CCAA), divided nonattainment areas into categories with progressively more stringent requirements (Sections 40918-40920.5, H&SC). As specified, it is the responsibility of each APCD and AQMD within the State to attain and maintain CAAQS. The CCAA requires that an attainment plan be developed by all nonattainment districts for O_3, CO, sulfur oxides (SOx), and nitrogen oxides (NOx) that are either receptors or contributors of transported air pollutants. The CAAQS are listed in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants). Areas meeting CAAQS are classified as attainment; areas not meeting CAAQS are classified as non-attainment.

Assembly Bill 32 (California Global Warming Solutions Act of 2006), codified in Section 38500 *et seq*. of the H&SC, established a comprehensive program to reduce GHGs by 2020 and identified several major requirements that CARB is required to implement, including: (1) adoption and implementation of a list of discrete and early action GHG reduction measures; (2) approval of a Statewide 1990 emission level that becomes the Statewide 2020 emissions limits; (3) adoption of mandatory GHG reporting rules for significant GHG sources; and (4) adoption of regulations to achieve the maximum technologically feasible and cost-effective reductions. As defined in Section 38505 of the H&SC, GHG include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

2.4.4 Federal Clean Air Act Requirements

The CAA requires any new major stationary sources of air pollution and any major modifications to major stationary sources to obtain an air pollution permit before commencing construction. NSR requirements (42 U.S.C. 7411) differ depending on the attainment status of the area where the major facility is to be located. Prevention of Significant Deterioration (PSD) requirements (42 U.S.C. 7470-7491) apply in areas that are in attainment of the NAAQS. Nonattainment area NSR requirements apply to areas that have not been able to demonstrate compliance therewith.

Section 108 of the CAA directs the USEPA to list pollutants that may reasonably be anticipated to endanger public health and welfare and to issue air quality criteria for those pollutants. The USEPA has set NAAQS for the following pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), and sulfur dioxide (SO_2). The NAAQS for those primary pollutants are listed in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants). Section 176(c) prohibits federal agencies from taking actions in NAAQS nonattainment or maintenance areas that do not conform to the SIP for the attainment and maintenance of NAAQS.

2.5 Air Quality Baseline

Existing levels of ambient air quality and historical trends and projections in the project area are best documented by measurements made by the SCAQMD. The project is located at the west end of Source Receptor Area (SRA) 17 (Central Orange County). The SCAQMD maintains an air quality monitoring station for this area in Anaheim. Recent data from the Anaheim monitoring station (1630 Pampas Lane, Anaheim), located less than 5.0 miles northwest of the project site, is summarized in Table AQ-3 (Air Quality Monitoring Summary – Anaheim Monitoring Station). Anaheim measurements have shown that while ozone levels continue to exceed State and national hourly standards, with the exception of 2014 and 2016, values appear to have declined over the last five years.

Table AQ-3
AIR QUALITY MONITORING SUMMARY
ANAHEIM MONITORING STATION
(Number of Days Standards Exceeded and Maximum Levels During such Violations[1])

State and Federal Pollutant/Standard	2012	2013	2014	2015	2016
Ozone (O_3)					
State 1-hour > 0.09 ppm	0	0	2	1	2
State 8-hour >0.07 ppm	0	0	6	1	4
Federal 1-hour > 0.124 ppm	0	0	0	1	0
Federal 8-hour > 0.075 ppm	0	0	4	1	4
Maximum 1-hour concentration (ppm)	0.079	0.084	0.111	0.100	0.103
Maximum 8-hour concentration (ppm)	0.067	0.070	0.081	0.080	0.074
Carbon Monoxide (CO)					
State 8-hour $\geq$ 9.1 ppm	0	0	0	0	0
Max. 8-hour concentration (ppm)	2.3	2.6	2.1	2.2	2.1
Nitrogen Dioxide (NO_2)					
State 1-hour > 180 (ppb)	0	0	0	0	0
Maximum 1-hour concentration (ppb)	67.3	81.6	75.8	59.1	64.3
Inhalable Particulates (PM_{10})[2]					
State 24-hour > 50 µg/m^3	0/61	1/59	2/61	11/363	3/353
Federal 24-hour > 150 (µg/m^3)	0/61	0/59	0/61	0/363	0/353
Maximum 24-hour concentration (µg/m^3)	48	77	85	66	74
Inhalable Particulates ($PM_{2.5}$)[2]					
Federal 24-Hour > 35 µg/m^3	4/347	1/331	6/344	3/295	1/349
Maximum 24-Hour concentration (µg/m^3)	50.1	37.8	56.2	45.8	44.45

Notes:
1. With the exception of inhalable particulates (PM_{10} and $PM_{2.5}$), all values are based on 365 days per year.
2. Violations per number of samples.

Source: South Coast Air Quality Management District

Although NO_2 measurements indicate that no standards were exceeded, NO_2 is a precursor to O_3 formation, which continually does exceed the standards. Hydrocarbons and NO_2 are emitted by both mobile and stationary sources, with the greater portion emanating from mobile sources in the Basin. Pollutants emitted from upwind cities react during their transport downwind to produce the oxidant concentrations measured at the Los Alamitos Airfield meteorological station. All upwind areas within the Basin, therefore, contribute to ozone (O_3) production. These concentrations increase during the summer, with concentrations increasing from the late morning through the afternoon.

With regard to particulate matter, no trend is readily apparent. The State standard for PM_{10} was exceeded 17 of the 897 times (1.9 percent) in the last five years monitored. The federal standard has not been violated in more than five years. The federal standard for $PM_{2.5}$ was, however, exceeded 15 of the 1,666 times (0.9 percent) in the last five years. Suspended particulate matter (both total suspended particulates [TSP] and PM_{10} and $PM_{2.5}$) is a mixture of natural and man-made materials that include soil particles, biological materials, sulfates, nitrates, organic compounds, and lead. Smaller particles (PM_{10}, $PM_{2.5}$) are created by the combustion of fossil fuels and are given off from tire wear and brake dust.

2.6 Standard Conditions and Uniform Codes

All projects constructed in the Basin are subject to standard conditions and uniform codes. Compliance with these provisions is mandatory and, as such, does not constitute mitigation under CEQA. Those SCAQMD-imposed conditions specific to air quality are included below:

- Rule 403. Sets requirements for dust control from grading and construction activities;
- Rules 431.1/431.2. Require low-sulfur fuel for stationary construction equipment;
- Rule 1108. Sets limitations on ROG content in asphalt;
- Rule 1113. Sets limitations on ROG content in architectural coatings; and
- 1143. Sets limitations on ROG content in paint thinners and multi-purpose solvents.

The project shall comply with both Title 24 (California Code of Regulations) energy-efficient design requirements and provision for window glazing, wall insulation, and efficient ventilation methods in accordance with the requirements of the Uniform Building Code.

During construction, the project would be subject to SCAQMD Rule 403 (Fugitive Dust). SCAQMD Rule 403 does not require a permit for construction activities but sets forth general and specific requirements for all construction sites (as well as other fugitive dust sources) in the Basin. The general requirement prohibits a person from causing or allowing emissions of fugitive dust from construction (or other fugitive dust source) such that the presence of dust remains visible in the atmosphere beyond the property line of the emissions source. SCAQMD Rule 403 also prohibits a construction site from causing an incremental PM_{10} concentration impact at the property line of more than 50 $\mu g/m^3$ (as determined through PM_{10} high-volume sampling). The concentration standard and associated PM_{10} sampling do not apply if specific measures identified in the rule are implemented and appropriately documented.

In accordance with Rule 403, the SCAQMD requires that contractors implement Best Available Control Technology (BACT) for construction activities. Rule 403 identifies two sets of specific measures, one for projects less than 50 acres and another set of conditions for projects that exceed 50 acres. The requirements applicable to the proposed project are included in Table AQ-4 (Best Available Control Measures). These measures are regulatory requirements and do not constitute mitigation under CEQA.

2.7 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Table AQ-4
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measures	Guidance
Backfilling	Stabilize backfill material when not actively handling; and Stabilize backfill material during handling; and Stabilize soil at completion of activity	Mix backfill soil with water prior to moving; Dedicate water truck or high capacity hose to backfilling equipment; Empty loader bucket slowly so that no dust plumes are generated; and Minimize drop height from loader bucket.
Clearing and Grubbing	Maintain stability of soil through prewatering of site prior to clearing and grubbing; and Stabilize soil during clearing and grubbing activities; and Stabilize soil immediately after clearing and grubbing activities.	Maintain live perennial vegetation where possible; Apply water in sufficient quantity to prevent generation of dust plumes.
Clearing Forms	Use water spray to clear forms or use sweeping and water spray to clear forms; or Use vacuum system to clear forms.	Use of high pressure air to clear forms may cause exceedance of rule requirements.
Crushing	Stabilize surface soils prior to operation of support equipment; and Stabilize material after crushing.	Follow permit conditions for crushing equipment; Pre-water material prior to loading into crusher; Monitor crusher emissions opacity; and Apply water to crushed material to prevent dust plumes.
Cut and Fill	Pre-water soils prior to cut and fill activities; Stabilize soil during and after cut and fill activities.	For large sites, pre-water with sprinklers or water trucks and allow time for penetration; Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts.
Demolition Mechanical/Manual	Stabilize wind erodible surfaces to reduce dust; and Stabilize surface soil where support equipment and vehicles will operate; and Stabilize loose soil and demolition debris; and Comply with Rule 1403.	Apply water in sufficient quantities to prevent the generation of visible dust plumes.
Disturbed Soil	Stabilize disturbed soil throughout the construction site; and Stabilize disturbed soil between structures	Limit vehicular traffic and disturbances on soils where possible; and If interior block walls are planned, install as early as possible; and Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Earth-Moving Activities	Pre-apply water to depth of proposed cuts; and Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and Stabilize soils once earth-moving activities are complete.	Grade each project phase separately, timed to coincide with construction phase; and Upwind fencing can prevent material movement on site; and Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Importing/Exporting of Bulk Materials	Stabilize material while loading to reduce fugitive dust emissions; and Maintain at least six inches of freeboard on haul vehicles; Stabilize material while transporting to reduce fugitive dust emissions; Stabilize material while unloading to reduce fugitive dust emissions; and Comply with California Vehicle Code (CVC) Section 23114.	Use tarps or other suitable enclosures on haul trucks; Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage; Comply with track-out prevention/mitigation requirements; Provide water while loading and unloading to reduce visible dust plumes.
Landscaping	Stabilize soils, materials, slopes	Apply water to materials to stabilize; Maintain materials in a crusted condition; Maintain effective cover over materials; Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes; Hydroseed prior to rain season.
Road Shoulder Maintenance	Apply water to unpaved shoulders prior to clearing; Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs; Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.
Screening	Pre-water material prior to screening; Limit fugitive dust emissions to opacity and plume length standards; Stabilize material immediately after screening.	Dedicate water truck or high capacity hose to screening operation; Drop material through the screen slowly and minimize drop height; Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
Staging Areas	Stabilize staging areas during use; Stabilize staging area soils at project completion.	Limit size of staging area; Limit vehicle speeds to 15 miles per hour; Limit number and size of staging area entrances/exits.
Stockpiles/Bulk Material Handling	Stabilize stockpiled materials, and stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	Add or remove material from the downwind portion of the storage pile; and Maintain storage piles to avoid steep sides or faces.

Table AQ-4 (Continued)
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measures	Guidance
Traffic Areas for Construction Activities	Stabilize all off-road traffic and parking areas; Stabilize all haul routes; Direct construction traffic over established haul routes.	Apply gravel/paving to all haul routes as soon as possible to all future roadway areas; Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	Stabilize surface soils where trencher or excavator and support equipment will operate; Stabilize soils at the completion of trenching activities.	Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching; Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck Loading	Pre-water material prior to loading; Ensure that freeboard exceeds six inches (CVC 23114)	Empty loader bucket such that no visible dust plumes are created; and Ensure that the loader bucket is close to the truck to minimize drop height while loading.
Turf Overseeding	Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; Cover haul vehicles prior to exiting the site.	Haul waste material immediately off-site.
Unpaved Roads/Parking Lots	Stabilize soils to meet the applicable performance standards; Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.
Vacant Land	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Source: South Coast Air Quality Management District

Residential areas are considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants that may be present. Schools are also considered as sensitive since children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution since exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the general public.

The proposed project is a hotel and because people would stay, potentially for extended periods, it may be considered sensitive. The project site is located along the east side of Harbor Boulevard. The Meadow Lark Mobile Estates (12152 Trask Avenue) lies to the northeast with the most proximate residents being just over 50 feet from the site's boundary. The Santiago High School (12342 Trask Avenue) athletic fields lies to the immediate east. Single-family residences are located to the south of the project site (at the northern terminus of Figuerosa and Bewley Streets). The nearest of those homes is approximately 350± feet south of the project site and separated therefrom by several intervening structures.

3.0 Thresholds of Significance Criteria

Presented below are the threshold of significance criteria identified by the SCAQMD. In accordance therewith, the proposed project would normally be deemed to produce a significant air quality impact if the project or if project-related activities were to:

- Conflict with or obstruct implementation of the applicable AQMP;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standards;
- Expose sensitive receptors to substantial air pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

"Cumulatively considerable" is defined to mean "that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (Section 15064[i][1], Guidelines).

In order to determine whether the proposed project would cause a significant effect on the environment, the project's potential impact must be determined by examining the types and levels of emissions generated and how those emissions may impact air quality. In order to assist lead agencies in determining whether a proposed project's impacts are significant, the SCAQMD has established air pollution thresholds against which a proposed project can be evaluated. If these thresholds are exceeded, the proposed project's air quality impacts may be deemed significant.

While the final determination of is significant is within the purview of the lead agency, the SCAQMD recommends that the following air pollution thresholds be used in determining whether the construction or operational phases of a proposed project are significant. As recommended by the SCAQMD, if the lead agency finds that the proposed project has the potential to exceed any of these thresholds, the proposed project's air quality impacts may be deemed significant.

3.1 Construction Phase

The following significance thresholds for air quality have been established by the SCAQMD on a daily basis for construction emissions:

- 75 pounds/day for ROG
- 100 pounds/day for NOx
- 550 pounds/day for CO
- 150 pounds/day of SOx
- 150 pounds/day for PM_{10}
- 55 pounds/day for $PM_{2.5}$

3.2 Operational Phase

3.2.1 Criteria Pollutants

Specific criteria air pollutants have been identified by the SCAQMD as pollutants of special regional concern. Based upon this categorization, the following significance thresholds have been established by the SCAQMD for project operations:

- 55 pounds/day of ROG
- 55 pounds/day of NOx
- 550 pounds/day of CO
- 150 pounds/day of SOx
- 150 pounds/day of PM_{10}
- 55 pounds/day for $PM_{2.5}$

3.2.2 Greenhouse Gas Emissions

On September 28, 2010, the SCAQMD presented their proposed significance thresholds for GHGs. At that time the SCAQMD determined a Tier 3 screening significance threshold level of 10,000 MTons CO_2e/year for industrial projects to be adopted where the SCAQMD is the lead agency. SCAQMD staff also proposed to extend the industrial GHG significance threshold for use by all lead agencies.

Similarly, with regard to numerical residential/commercial GHG significance thresholds, SCAQMD staff presented the following two options that lead agencies could choose from.

- **Option No. 1**. This option presents separate numerical thresholds for residential projects (3,500 MTons CO_2e/year), commercial projects (1,400 MTons CO_2e/year), and mixed use projects (3,000 MTons CO_2e/year).

- **Option No. 2**. This option presents a single numerical threshold for all nonindustrial projects of 3,000 MTons CO_2e/year.

3.3 Local Emission Standards

In addition to those mass daily threshold values presented above, projects that have the ability to exceed or add measurably to an existing excess of those ambient concentrations presented in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants) may be deemed to be significant. The following localized significance thresholds have been established by the SCAQMD for individual projects:

- California 1-hour CO standard of 20.0 ppm
- California 8-hour CO standard of 9.0 ppm
- California 1-hour NO_2 standard of 0.18 ppm
- SCAQMD 24-hour construction PM_{10} and $PM_{2.5}$ standards of 10.4 $\mu g/m^3$
- SCAQMD 24-hour operational PM_{10} and $PM_{2.5}$ standards of 2.5 $\mu g/m^3$

If ambient levels already exceed a State or federal standard, then project emissions may be considered significant if they increase ambient concentrations by a “measurable amount.” In the case of CO, the SCAQMD defines a measurable amount as 1.0 ppm or more for the 1-hour CO concentration and/or 0.45 ppm or more for the 8-hour CO concentrations.

4.0 Environmental Impacts

The Hilton Hotel Project includes construction and occupancy of a 62,764 square foot, 124-room hotel on an approximately 1.5-acre site east of Harbor Boulevard and south of Trask Avenue. For the purpose of this analysis, the proposed Hilton Hotel Project replaces the former automobile dealership (Garden Grove Mazda) whose improvements on that same property totaled 17,216 square feet. This analysis further assumes that the subject property has been previously cleared of all associated improvements, leveled to facilitate new construction, and that any residual soil materials and contaminants, if any, have been removed.

Projected emissions have been calculated using the CalEEMod (Version 2013.2.2), as distributed by the SCAQMD. The CalEEMod model uses EMFAC2011 emissions factors for vehicle traffic and the OFFROAD2011 emissions factors for construction equipment. Vehicle trips projected by the model were updated to incorporate the data presented in the traffic study (April 20, 2018). For the purposes of this analysis, construction is estimated to begin in January 2019 following the CalEEMod default construction schedule. Independent of when they may actually occur, daily emissions are based on the higher of the summer or winter emission rates.

The subsequent occupation of the hotel is assumed to commence in 2020 and its operational analysis based on the CalEEMod model using the traffic-projections presented in the traffic study. The trip generation rates provided by the traffic engineer were used in the CalEEMod model runs as a substitute for the emission model's default values.

Because trip lengths differ based on the nature of the uses, in combination with the stationary emissions generated therefrom, this analysis examines the emissions associated with the use of the automobile dealership and hotel, with the "net" operational impacts based on the difference between those two uses. All construction emissions are directly attributable to the proposed Hilton Hotel Project.

The following analysis follows the format included in the Section III (Air Quality) and Section VII (Greenhouse Gas Emissions) in Appendix G (Environmental Checklist Form) of the Guidelines.

4.1 Consistency with the Applicable Air Quality Plan

CEQA Findings: Less-than-Significant Impact

CEQA requires that projects be consistent with the most recent AQMP. A consistency determination plays an essential role in local agency project-related reviews by linking local planning and individual development projects to the AQMP in the following ways: (1) it fulfills CEQA's goal of fully informing local agency decisionmakers of the environmental consequences of projects under consideration at an early stage to ensure that air quality concerns are considered; and (2) it provides the local agency with ongoing information assuring local decisionmakers that they are making real contributions to those regional clean air goals outlined in the AQMP.

Because the AQMP strategy is based on projections from local general plans, only new or amended general plan elements, specific plans, and regionally significant projects need to undergo a consistency review. Projects that are consistent with the local general plan are, therefore, considered consistent with the AQMP.

As proposed, the Private Applicant seeks approval for a 124-room hotel at an intensity not presently allowable under the provisions of the existing "City of Garden Grove General Plan 2030" (GGGP) for the "Heavy Commercial (HC)" district. Similarly, because the proposed Hilton Hotel Project does not conform to current development standards for the "Heavy Commercial (C-3)" zone, revisions to Title 9 (Land Use) of the "City of Garden Grove Municipal Code" (GGMC) are also required.

As indicated in Table AQ-5 (Projections of Projected Construction Emissions and Daily Criteria Values) and Table AQ-7 (Comparison of Projected Daily Operational Emissions and Daily Criteria Values), based on the analysis presented herein, neither the construction nor the operation of the proposed Hilton Hotel Project is projected to exceed the daily threshold values suggested by the SCAQMD. Additionally, the project would not result in significant localized air quality impacts. As such, the project is consistent with the goals of the AQMP and, in that respect, does not produce a significant air quality impact.

Table AQ-5
COMPARISON OF PROJECTED CONSTRUCTION EMISSIONS AND DAILY CRITERIA VALUES[1]
(pounds/day)

Emissions Source	ROG	NOx	CO	SO_2	PM_{10} Dust	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total
Site Preparation										
Off Road Diesel	1.71	19.48	7.89	0.02	1.17	0.89	2.06	0.60	0.82	1.41
Worker Trips	0.03	0.02	0.29	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Totals	1.74	19.50	8.18	0.02	1.26	0.89	2.15	0.62	0.82	1.43
Grading										
Off Road Diesel	1.42	16.04	6.61	0.01	1.00	0.74	1.73	0.51	0.68	1.19
Worker Trips	0.04	0.02	0.29	0.00	0.09	0.00	0.09	0.02	0.00	0.02
Totals	1.46	16.06	6.90	0.01	1.09	0.74	1.82	0.53	0.68	1.21
Building Construction										
Off Road Diesel	2.27	15.98	13.49	0.02	0.00	0.92	0.92	0.00	0.88	0.88
Vendor Trips	0.04	1.14	0.33	0.00	0.06	0.01	0.07	0.02	0.01	0.03
Worker Trips	0.12	0.08	0.93	0.00	0.29	0.00	0.29	0.08	0.00	0.08
Totals	2.43	17.20	14.75	0.02	0.35	0.93	1.28	0.10	0.89	0.99
Asphalt Paving										
Off-Gas	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off Road Diesel	0.90	9.17	8.90	0.01	0.00	0.52	0.52	0.00	0.48	0.49
Worker Trips	0.06	0.04	0.46	0.00	0.15	0.00	0.15	0.04	0.00	0.04
Asphalt Totals	1.35	9.21	9.36	0.01	0.15	0.52	0.67	0.04	0.48	0.53
Coating										
Off-Gas	58.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off Road Diesel	0.27	1.84	1.84	0.00	0.00	0.13	0.13	0.00	0.13	0.13
Worker Trips	0.06	0.04	0.46	0.00	0.15	0.00	0.15	0.04	0.00	0.04
Coating Totals	58.51	1.88	2.30	0.00	0.15	0.13	0.28	0.04	0.13	0.19
Daily Threshold	75	100	550	150	→	→	150	→	→	55
Exceeds Threshold?	No	No	No	No	→	→	No	→	→	No

Notes:
1. The CalEEMod model projects summer and winter emissions and the higher of the two values is included herein.

Source: Environmental Impact Sciences

4.2 Potential to Violate or Add to a Violation of an Air Quality Standard

The potential air quality impacts associated with and attributable to the construction and operation of the proposed Hilton Hotel Project are separately addressed below.

4.2.1 Construction Impacts

CEQA Findings: Less-than-Significant Impact

Air quality impacts may occur during site preparation and construction activities required to implement the proposed use. Major sources of emissions during construction include exhaust emissions, fugitive dust generated as a result of soil disturbance during site preparation and grading activities, and the emission of ROGs during site paving and the painting of the structure.

Based on the proposed use, by default, the CalEEMod model allocates the hotel's construction over a period of 226 working days. This schedule was retained for the analysis. Construction is assumed to begin in January 2019 and end in December 2019 (allowing for full occupancy in 2020).

With respect to the installation of paving for a hotel, the CalEEMod model calculates the equipment and worker trip emissions but does not calculate the off-gas emissions from the application of the asphalt. The CalEEMod sets a default area paved for structures that is neither user adjustable nor disclosed in the CalEEMod literature or printout. The CalEEMod literature does, however, indicate that the model uses a value of 2.62 pounds of ROG per acre paved, as divided over the paving schedule of the parking lot. As a worst-case scenario, this analysis assumes that the entirety of the site receives asphalt.

As demonstrated by the following equation, assuming the paving of a 1.5-acre area over the default period of 10 working days, ROG emissions are projected to total 0.39 pounds per day:

1.5 acres x 2.62 pounds per acre / 10 days = 0.39 pound per day

SCAQMD's Rule 403 governs fugitive dust emissions from construction projects. This rule sets forth a list of control measures that must be undertaken for all construction projects to ensure that no dust emissions are visible beyond the property boundaries. Adherence to Rule 403 is mandatory and as such, does not constitute mitigation under CEQA. The following analysis assumes the use of the minimal measures specified in Rule 403 that overlap between the rule and the CalEEMod emission's model. These include:

- Soil stabilizers shall be applied to unpaved roads;
- Ground cover shall be quickly applied in all disturbed areas; and
- Active construction site shall be watered twice daily.

The model assigns a control efficiency of 55 percent for twice daily watering and a similar efficiency was assumed for other controlled dust-producing activities. In actuality, as noted in Table AQ-4 (Best Available Control Measures), Rule 403 specifies several measures that the CalEEMod emissions model does not consider. The modeled PM_{10} and $PM_{2.5}$ emissions associated with fugitive dust are, therefore, considered to be conservative.

Table AQ-5 (Projections of Projected Construction Emissions and Daily Criteria Values) includes the daily emissions projected for the project's construction. Because all emissions are projected to fall below their corresponding threshold of significance values, construction-term impacts will be less than significant. As indicated therein, even if construction phases were to overlap, the resulting impact would remain less than significant.

4.2.2 Operational Impacts

CEQA Findings: Less-than-Significant Impact

The major source of long-term air quality impacts is that associated with emissions produced from project-generated vehicle trips. With the exception of wood combustion, stationary sources add only minimally to these values.

This analysis assumes that the proposed 62,764 square foot hotel replaces the former 17,216 square foot automobile dealership that, during its operational life, generated both mobile and stationary source emissions. Because the emissions associated with the automobile dealership are removed from the Basin, the resulting analysis of operational impacts is based on the "net" difference.

Former Automobile Dealership Operational Emissions

The proposed Hilton Hotel Project replaces the site's former 17,216 square foot automobile dealership (Garden Grove Mazda). Because the trip types and trip lengths associated with the automobile dealership would differ from those produced by the proposed hotel, these trips cannot be simply subtracted from the project-generated trips and the resulting "net" emissions based solely on the differential in adjusted trip count. Since the stationary source emissions generated by the former automobile dealership differ from those associated with the proposed hotel use, the calculation of stationary source emissions cannot be derived solely by subtracting the former automobile dealership's square footage from that proposed for the new hotel use.

Both daily and weekend trip values are as presented in the traffic study (April 20, 2018). Because the automobile dealership generates the highest number of trips on a Saturday (900 ADT), the emissions model presents these trips as the operational values. Weekday values (479 ADT) would be reduced by about 45 percent compared to Saturdays. Weekday and Sunday values were used in the calculation of the annual GHG emissions.

In addition to vehicle trips, the automobile dealerships would produce emissions from on-site sources, including the combustion of natural gas for both space and water heating. Additionally, the structures would be maintained, requiring periodic repainting and resulting in the release of additional ROG emissions. The use of commercial aerosol products and cleaners are also associated with that use and result in the further release of ROG emissions. Landscaping would require maintenance and associated equipment would produces combustion emissions. The results of the emissions modeling assignable to the project site are presented in Table AQ-6 (Former Automobile Dealership Daily Operational Emissions).

Proposed Hilton Hotel Project Operational Emissions

Based on the operation of the proposed Hilton Hotel Project, commencing in 2020, operational emissions attributable to the occupation of the project site is based on the CalEEMod emissions model output using the traffic-projections provided in the project's traffic study (April 20, 2018).

In this case the model uses the weekday value (1,037 ADT) for the estimation of daily emissions. The Saturday and Sunday values were used in the calculation of the annual GHG emissions.

Table AQ-6
FORMER AUTOMOBILE DEALERSHIP
DAILY OPERATIONAL EMISSIONS[1]
(pounds/day)

Emissions Source	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Sources	1.15	3.89	10.25	0.03	2.59	0.71
Natural Gas	0.01	0.10	0.08	0.00	0.01	0.01
Structural Maintenance	0.04	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.34	0.00	0.00	0.00	0.00	0.00
Landscape Maintenance	0.00	0.00	0.00	0.00	0.00	0.00
Total Daily Emissions	1.54	3.99	10.33	0.03	2.60	0.72

Notes:
1. The CalEEMod model projects summer and winter emissions. These can differ for mobile sources and the higher of the two values were included herein.

Source: Environmental Impact Sciences

Emissions associated with project-related trips assume full occupancy in 2020. Since emissions per vehicle are reduced each year due to tightening emissions restrictions and the replacement of older vehicles from the road, the use of 2020 emission factors present a reasonable worst-case analysis with regards to operational air quality impacts. Both summer and winter scenarios were modeled and the higher of the two values included in Table AQ-7 (Comparison of Projected Daily Operational Emissions and Daily Criteria Values). Because all emissions are within their criteria values, the proposed Hilton Hotel Project's operational impacts are less than significant.

Table AQ-7
COMPARISON OF PROJECTED DAILY OPERATIONAL EMISSIONS
AND DAILY CRITERIA VALUES
(pounds/day)

Emissions Source	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Proposed Hotel Daily Operational Emissions						
Mobile Sources	1.55	6.01	18.06	0.06	5.31	1.46
Natural Gas	0.06	0.58	0.49	0.00	0.04	0.04
Structural Maintenance	0.16	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.24	0.00	0.00	0.00	0.00	0.00
Landscape Maintenance	0.00	0.00	0.01	0.00	0.00	0.00
Total Hotel Daily Operational Emissions	3.01	6.59	18.56	0.06	5.35	1.50
Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Former Automobile Dealership Daily Emissions	(1.54)	(3.99)	(10.33)	(0.03)	(2.60)	(0.72)
"Net" Daily Operational Emissions	1.47	2.60	8.23	0.03	2.75	0.78
Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
1. The CalEEMod model projects summer and winter emissions. These can differ for mobile sources and the higher of the two values were included herein.

Source: Environmental Impact Sciences

4.3 Potential to Result in a Cumulatively Considerable Increase in Criteria Pollutants

CEQA Findings: Less-than-Significant Impact

In accordance with SCAQMD methodology, projects that do not exceed or can be mitigated to less than the daily threshold values do not add significantly to a cumulative impact. Because neither the construction nor the operation of the proposed Hilton Hotel Project would exceed the recommended SCAQMD threshold levels, cumulative air quality impacts would be less than significant.

4.4 Potential to Expose Sensitive Receptors to Substantial Pollutant Concentrations

4.4.1 Short-Term Localized Impacts

CEQA Findings: Less-than-Significant Impact

In addition to the mass daily threshold standards discussed above, project construction has the potential to raise localized ambient pollutant concentrations. This could potentially present a significant air quality impact if these concentrations were to exceed the ambient air quality standards included in Table AQ-1 (Ambient Air Quality Standards for Criteria Pollutants) at receptor locations.
The SCAQMD has developed screening tables for the construction and operation of projects up to five acres in size. These tables are included in the SCAQMD's "Final Localized Significance Threshold Methodology" (June 2003) and are periodically updated on the SCAQMD website. The most current update was in 2008 and that data is use herein.

Emissions values included in the screening tables are based on the emissions produced from on-site sources and do not include off-site mobile source emissions (i.e., trucks and worker vehicles) that are spread over a much larger geographic area. Rather than using the entire site, the CalEEMod emissions model bases the area of disturbance on equipment use. Dozers, graders, and crawler tractors are estimated to disturb a 0.5-acre area while scrapers are estimated to disturb a 1.0-acre area over an 8-hour work day.

The CalEEMod model estimates that site preparation results in the highest levels of daily particulate emissions while disturbing less area when grading. By default, site preparation is modeled using a grader and dozer (15 hours per day combined usage) each disturbing a 0.5-acre area per day for a total of 1.0 acre per day. Contrast this with the grading phase that generates fewer emissions and also uses a grader and a dozer (12 hours a day combined). Because site preparation produces more particulate emissions than grading while disturbing the same area on a daily basis, it results in higher concentrations and, therefore, represents the reasonable worst-case scenario.

The screening tables include sites of 1, 2, and 5 acres with receptors at 25, 50, 100, 200, and 500 meters away. The provided methodology notes that site sizes and receptor distances that lie between those values may be determined by linear interpolation. The methodology also denotes that the 25 meter distance is the minimum distance to be used, even if receptors are located closer to the area of disturbance.

The project site is located along the east side of Harbor Boulevard, south of Trask Avenue and north of Westminster Avenue. The proposed project comprises a hotel and, because people could potentially stay for extended periods, it may itself be considered a sensitive receptor. The Meadow Lark Mobile Estates (12152 Trask Avenue) lies to the northeast of the project site and is the most proximate residents area thereto, located on the north side of Orange County Flood Control District (OCFCD) existing flood control channel and 50 only about feet (15 meters) from the site boundary. Abutting the project site, Santiago High School's (12342 Trask Avenue) athletic fields lie to the east. Single-family residential units are located to the south (at the northern terminus of Figuerosa and Bewley Streets), the closest being about 350 feet away from the project site. Based on these locations, the 25 meter minimal distance was assumed used in this analysis.

Allowable emissions are based on the source receptor area (SRA) in which they are produced. In this case, the project site lies within SRA 17 (Central Orange County). Screening levels for a 1-acre site for CO and NOx with receptors located at a distance of 25 meters are 485 and 81 pounds per day, respectively. At peak values of 7.49 and 19.48 pounds per day for CO and NOx, respectively, these construction emissions would not create significant localized impacts.

Because the Basin is a nonattainment area for particulate matter, the thresholds for both PM_{10} and $PM_{2.5}$ are much more stringent than those for CO and NOx. In these cases, the screening tables show allowable values of 4 and 3 pounds per day, respectively, for a 1-acre site with receptors at a distance of 25 meters. At peak values of 2.06 and 1.41 pounds per day for PM_{10} or $PM_{2.5}$, respectively, these construction emissions would not create significant localized impacts.

4.4.2 Long-Term Localized Impacts

CEQA Findings: Less-than-Significant Impact

Long-term effects of the proposed Hilton Hotel Project could be deemed significant if they expose receptors to air quality emissions that exceed the CAAQS or substantial levels of toxic air pollutants.

In April 2005, the California Air Resources Board (CARB) published the "Air Quality and Land Use Handbook: A Community Health Perspective" (2005). The CARB reported that air pollution studies indicate that living close to high traffic areas and their associated emissions could lead to adverse health effects beyond those associated with regional air pollution in urban areas. Many of the epidemiological studies cited therein focused on children. A number of studies indicated that an association may exist between adverse non-cancer health effects and living or attending a school located near a heavily traveled roadway. Studies have reported an association between residential proximity to high traffic roadways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Measurements of traffic-related pollutants showed concentrations within 300 meters (approximately 1,000 feet) downwind of freeways were higher than regional values.

Other studies have assessed exposure based on proximity factors such as distance to freeways or traffic density. Studies linking traffic emissions with health impacts build upon a wealth of data on the adverse health effects of ambient air pollution. The data on the effects of proximity to traffic-related emissions provides additional information that can be used in land-use siting and regulatory actions. The key observation in these studies is that proximity increases both exposure and the potential for adverse health effects. Other effects associated with traffic

emissions include premature death in elderly individuals with heart disease. The key health findings presented by CARB were that:

- Reduced lung function in children was associated with traffic density, especially trucks, within 1,000 feet and the association was strongest within 300 feet;
- Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume;
- Asthma symptoms increased with proximity to roadways and the risk was greatest within 300 feet;
- Asthma and bronchitis symptoms in children were associated with proximity to high traffic in a San Francisco Bay Area community with good overall regional air quality; and
- A San Diego study found increased medical visits in children living within 550 feet of heavy traffic.

In these and other proximity studies, the distance from the roadway and truck traffic densities were key factors affecting the strength of the association with adverse health effects. The association of traffic-related emissions with adverse health effects was seen within 1,000 feet and was strongest within 300 feet. Adverse effects diminished with distance.

In addition to the respiratory health effects in children, proximity to freeways increases potential cancer risk and contributes to total particulate matter (PM) exposure. On a typical urban freeway (truck traffic of 10,000-20,000/day), diesel PM represents about 70 percent of the potential cancer risk from the vehicle traffic. Diesel particulate emissions are also of special concern because health studies show an association between PM and premature mortality in those with existing cardiovascular disease.

With some exceptions, State law restricts the siting of new schools within 500 feet of a freeway, urban roadways with 100,000 vehicles/day, or rural roadways with 50,000 vehicles. No such restrictions, however, apply to the siting of residences, day-care centers, playgrounds, or medical facilities.

In other traffic-related studies the additional health risk attributable to the proximity effect was strongest within 1,000 feet. The combination of the children's health studies and the distance related findings suggest that it is important to avoid exposing children to elevated air pollution levels immediately downwind of freeways and high-traffic roadways. As illustrated in Figure AQ-2 (Wind Rose for the SCAQMD Anaheim Monitoring Station) the primary wind direction in the general project area is from the northwest to the southeast. Mobile source emissions from the Garden Grove (SR-22) Freeway, therefore, routinely blow toward the project site.

The impact of traffic emissions is on a gradient such that, at some point, those emissions becomes indistinguishable from the ambient regional air quality. As AQMDs and APCDs work to reduce the underlying regional health risk attributable to diesel PM and other pollutants, the impact of proximity may also be reduced.

In April 2017, the CARB published a technical advisory entitled "Strategies to Reduce Air Pollution Exposure near High-Volume Roadways" (2017). This advisory is a technical supplement to CARB's "Air Quality and Land Use Handbook: A Community Health Perspective" (2005). In publishing that technical advisory, in order to protect public health and promote equity and environmental justice, CARB sought to provide planners and other stakeholders involved in land-use planning and decisionmaking with information on scientifically-based strategies to reduce exposure to traffic emissions near high-volume roadways. As indicated therein, research has demonstrated the public health, climate, financial, and other benefits of compact, infill

development along transportation corridors. Moreover, new research has demonstrated promising strategies to help decrease pollution exposure near their sources.
Because freeways and other traffic corridors have been built adjacent to and through existing neighborhoods and because new development projects have been built near existing roadways, many communities in California are located near high-volume roadways. Near-roadway development is a result of a variety of factors, including economic growth, housing demand, and the scarcity of developable land in many urban areas.

CARB's technical advisory serves to demonstrate that planners, developers, and local agencies can pursue infill development while simultaneously reducing exposure to traffic-related pollution by implementing the identified strategies and promoting "sustainable communities." Since infill development can help attain broad societal goals of promote equity, strengthening the economy, protecting the environment, and promoting public health and safety, the State's planning priorities emphasize the benefits of infill development.

Strategies to reduce exposure include practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution, and remove pollution from the air. Based on a review of this body of research, CARB compiled a list of recommended strategies. Focusing on those options that are supported by scientific findings, CARB's list does not include all potential pollution reduction measures but only those meeting all of the following criteria: (1) consistent findings from multiple studies support the strategy as a means for reducing pollution concentrations or emissions rates or improving air flow to disperse pollutants; (2) the scientific literature documents evidence of significantly effective exposure reduction; and (3) diversity in the study methods supports consistent findings (such that strategy efficacy does not exclusively rely on one method of investigation).

The CARB recommends the avoidance of siting new sensitive land uses within 500 feet of a freeway with 100,000 vehicles/day or rural roads with 50,000 vehicles/day. Caltrans reports that the Garden Grove (SR-22) Freeway carries 223,500 ADT east of Harbor Boulevard. Trucks make up about 4.7 percent or about 10,504 ADT of that daily volume. At its closest, the near boundary of the project site is located at a distance of about 800 feet from the edge of the freeway and is well beyond the minimum 500-foot siting distance recommended for freeways that include over 100,000 ADT.

4.5 Potential to Create Objectionable Odors

CEQA Findings: Less-than-Significant Impact

Project construction would involve the use of heavy equipment creating exhaust pollutants from on-site earth movement and from equipment bringing asphalt and other building materials to the site. With regards to nuisance odors, any air quality impacts will be confined to the immediate vicinity of the equipment itself. By the time such emissions reach a sensitive receptor site away from the project site, those emissions would be diluted below any level of air quality concern. An occasional "whiff" of diesel exhaust from passing equipment and trucks accessing the project site from public roadways would, however, be expected to occur. Brief exhaust to odorous emission constitute an adverse but less-than-significant impact. In addition, some odor would be produced from the application of asphalt, paints, and coatings. Any exposure to those common odors would be of short-term duration and, while potentially adverse, would also be less than significant.

Operational odors would be produced from diesel-equipped vehicles (e.g., tour buses) accessing the project site. These odors are common in the environment and would not constitute a significant impact. Odors associated with waste management activities, primarily from the area of the trash enclosure located in close proximity to Meadow Lark Mobile Estates (12152 Trask Avenue), would be controlled through proper management and maintenance of that area and those operations. Since only minimal food services will be provided, limited putrefied wastes would be disposed therein.

4.6 Potential for GHG Emissions to Produce a Significant Environment Impact

CEQA Findings: Less-than-Significant Impact.

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the SCAQMD convened a "GHG CEQA Significance Threshold Working Group" and is in the process of establishing a threshold for GHG emissions to determine a project's regional contribution toward global climate change impacts.

On December 5, 2008, SCAQMD recommended actions for determination the significant of GHG emissions. Those recommendations were tiered to determine which projects would be subject to analyses and mitigation.

- Tier 1 consists of determining if the project would qualify for an exemption under CEQA.

- Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan that, for example, may be part of a local general plan. The concept embodied in this tier is equivalent to the existing concept of consistency in the Guidelines (Sections 15064[h][(3], 15125[d], and 15152[a]). Any cited GHG reduction plan must, at a minimum: (1) comply with Assembly Bill 32's GHG reduction goals; (2) include emissions estimates agreed upon by either CARB or the SCAQMD; (3) have been analyzed under CEQA and be supported by a certified CEQA document; (4) include a GHG emissions inventory tracking mechanism, including a process to monitor progress in achieving GHG emission reduction targets; and (5) contain an enforceable remedy the excess emissions if GHG reduction goals are not met. If the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If a proposed project is not consistent with the local GHG reduction plan or if there is no approved plan or if the GHG reduction plan does not include all of the required components, Tier 3 would then apply.

- Tier 3 establishes a screening significance threshold level of 10,000 MTons per year for industrial facilities based on a 90 percent emission capture rate. If a project exceeds the GHG screening significance threshold level and GHG emissions cannot be mitigated to less than the screening level, then Tier 4 applies.

- Tier 4 consists of a "decision tree" that would allow lead agencies one of three compliance options based on performance standards. Tier 4 was not, however, recommended for approval by the SCAQMD.

- Tier 5 would allow a project proponent to implement off-site mitigation to reduce GHG emissions to less-than-screening-level standards.

This tiered approach was intended for industrial facilities. With respect to non-industrial development, to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects in the residential/commercial sectors and implement a "fair share" approach to reducing emission increases from each sector, SCAQMD staff and "GHG CEQA Significance Threshold Working Group" discussed formulated a proposal combining performance standards and screening thresholds. Those performance standards primarily focused on energy-efficiency measures beyond Title 24 levels and a screening level of 3,000 Mtons CO_2e/year based on the relative GHG emissions contribution between residential/commercial and stationary source (industrial) sectors. With respect to construction, the SCAQMD recommends that the quantified construction emissions be totaled, amortized over a 30-year period, and added to the emissions generated by the proposed project's operation.

On September 28, 2010, where the SCAQMD serves in the role of CEQA lead agency, SCAQMD staff recommended a Tier 3 screening significance threshold level of 10,000 MTons CO_2e/year for industrial projects. SCAQMD staff recommended extending the industrial threshold for use by all lead agencies.

With regard to numerical residential/commercial significance thresholds, SCAQMD staff identified two possible options that lead agencies could choose between. Option No 1 included separate numerical thresholds for residential projects (3,500 MTons CO_2e/year), commercial projects (1,400 MTons CO_2e/year), and mixed-use projects (3,000 MTons CO_2e/year). Option No 2 presented a single numerical threshold for all non-industrial projects of 3,000 MTons CO_2e/year. SCAQMD advised that if a local lead agency chooses one option over the other, it must consistently use that option for all projects where it is the lead agency.

For the purposes of this analysis, the proposed hotel project's impact would be considered potentially significant if it were to generate GHG emissions in excess of the most stringent option formulated by the SCAQMD for commercial land uses (i.e., 1,400 MTons CO_2e/year).

4.6.1 Former Automobile Dealership GHG Emissions

This analysis assumes that the proposed hotel project replaces the site's former 17,216 square foot automobile dealership. The square footage and number of vehicles trips associated with the existing uses are as described above. As shown in Table AQ-8 (Former Automobile Dealership Yearly Operational GHG Emissions), the CalEEMod model projects that the combined, mobile, area source, energy, waste, and water conveyance energy consumed by the former automobile dealership generate about 409.22 Mtons of CO_2e on an annual basis.

4.6.2 Proposed Hilton Hotel Project GHG Emissions

Construction Impacts

The CalEEMod default estimates that construction of the proposed Hilton Hotel Project would take 226 working days to complete. For the purposes of this analysis, construction is estimated to begin in January 2019 and, following the CalEEMod default construction schedule, and will be completed in December 2019. Construction activities would consume fuel and, in so doing, result in the generation of greenhouse gases. Construction CO_2e emissions are as projected using the CalEEMod computer model and are included in Table AQ-9 (Proposed Hilton Hotel Project - Construction-Related Yearly GHG Emissions). Because site clearance activities have

already been completed, no construction offsets are associated with the former automobile dealership (Garden Grove Mazda).

Table AQ-8
FORMER AUTOMOBILE DEALERSHIP
YEARLY OPERATIONAL GHG EMISSIONS
(Mtons/year)

Source	CO_2	CH_4	N_2O	Total CO_2e[1]
Mobile Sources	297.45	0.01	0.00	297.82
Electricity	46.35	0.00	0.00	46.52
Natural Gas	19.20	0.00	0.00	19.32
Landscape Maintenance	0.00	0.00	0.00	0.00
Water Use	10.75	0.05	0.00	12.48
Waste Disposal	13.35	0.79	0.00	33.08
Total Yearly GHG Emissions	387.10	0.85	0.00	409.22

Notes:
1. Because different gases have different conversion factors, totals may not equal.

Source: Environmental Impact Sciences

Table AQ-9
PROPOSED HILTON HOTEL PROJECT
CONSTRUCTION-RELATED YEARLY GHG EMISSIONS
(Mtons/year)

Year	CO_2	CH_4	N_2O	Total CO_2e[1]
2019 (January-December)	245.59	0.04	0.00	246.62
Total	245.59	0.04	0.00	246.62
Total Amortized GHG Emissions[2]	8.19	0.00	0.00	8.22

Notes:
1. Because different gases have different conversion factors, totals may not equal.
2. Averaged over a period of 30 years.

Source: Environmental Impact Sciences

Operational Impacts

Operationally, the majority of GHG emissions (specifically CO_2) are due to vehicle travel and energy consumption. The former automobile dealership would also produce these emissions and, with the implementation of the proposed Hilton Hotel Project, those emissions would be removed from the Basin. As shown in Table AQ-10 (Yearly Operational GHG Emissions), the CalEEMod model projects that, for the proposed hotel development, the combined, mobile, area source, energy, waste, and water conveyance energy consumed by the hotel would generate 1,312.02 Mtons of CO_2e on an annual basis. When the projected construction-related GHG emissions are amortized over a 30-year period (8.22 Mtons of CO_2e) and then added, GHG emissions are projected to total 1,320.24 Mtons of CO_2e per year.

Even without consideration of the “net” change attributable to the removal of those GHG emissions attributable to the former automobile dealership, since the projected quantity of GHG remains for the hotel remain below the SCAQMD’s suggested commercial-use threshold of 1,400 Mtons per year, the proposed project’s GHG emission constitute a less-than-significant impact.

Table AQ-10
YEARLY OPERATIONAL GHG EMISSIONS
(Mtons/year)

Source	CO_2	CH_4	N_2O	Total CO_2e[1]
Proposed Hotel Yearly Operational GHG Emissions				
Mobile Sources	961.35	0.04	0.00	962.43
Electricity	180.78	0.01	0.00	181.43
Natural Gas	114.71	0.00	0.00	115.40
Landscape Maintenance	0.00	0.00	0.00	0.00
Water Use	15.29	0.10	0.00	18.62
Waste Disposal	13.78	0.81	0.00	34.14
Subtotal	1,285.91	0.96	0.00	1,312.02
Construction Amortization	8.19	0.00	0.00	8.22
Total Hotel Yearly Operational GHG Emissions	1,294.10	0.96	0.00	1,320.24
Commercial-Use GHG Threshold	---	---	---	1,400
Exceeds Threshold?				No
Former Automobile Dealership Yearly GHG Emissions	(387.10)	(0.85)	(0.00)	(409.22)
"Net" Yearly Operational GHG Emissions	907.00	0.11	0.00	911.00
Threshold	---	---	---	1,400
Exceeds Threshold?				No

Notes:
1. Because different gases have different conversion factors, totals may not equal.

Source: Environmental Impact Sciences

When the GHG emissions attributable to the former automobile dealership (409.22 Mtons of CO_2e) are subtracted therefrom, the projected "net" increase in GHG emissions are 911.00 Mtons of CO_2e and falls below SCAQMD's suggested commercial-use threshold of 1,400 Mtons per year. As a result, the projected increase in GHG emissions associated with the proposed hotel project is less than significant.

4.7 Potential to Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing GHG Emissions

CEQA Findings: Less-than-Significant Impact

An impact can be potentially significant if the proposed project does not comply with the applicable plans necessary for the reduction of greenhouse gases.

Projects that generate de minimus GHG emission levels (e.g., commercial projects generating less than 1,400 Mtons of CO_2e per year) and projects that either do not result in a significant GHG impact or that can be mitigated to a less-than-significant level would be deemed to be in compliance with local policies regarding GHG emissions.

The proposed hotel project is subject to the provisions of Assembly Bill 32 and any requirements set forth therein. In the same fashion that the proposed project is subject to adherence to all applicable SCAQMD requirements (e.g., Rule 403 for dust control), adherence to Assembly Bill 32 and any measures outlined therein is mandatory and, therefore, does not constitute mitigation under CEQA.

As demonstrated herein, the operation of the proposed hotel project is anticipated to result in about 911.00 Mtons of CO_2e on an annual basis and remains less than the 1,400-Mton per year threshold suggested by the SCAQMD for commercial uses. As such, the resulting impact remains less than significant.

5.0 Mitigation Measures

Since none of the air quality impacts identified herein elevate to a level of significance, no mitigation measures are either required or recommended.

6.0 References

- California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective, April 2005.
- California Air Resources Board, Technical Advisory: Strategies to Reduce Air Pollution Exposure near High-Volume Roadways, April 2017.
- California Air Resources Board, California Surface Wind Climatology, reprinted February 1994.
- California Department of Transportation, 2016 Annual Average Daily Truck Traffic on the California State Highway System, 2017.
- California Department of Transportation, 2016 Traffic Volumes on the California State Highway System, 2017.
- Keith, Ralph W., A Climatological/Air Quality Profile, California South Coast Air Basin, South Coast Air Quality Management District, 1980.
- South Coast Air Quality Management District, 2012-2016, Air Pollution Data Monitoring Cards (2013, 2014, 2015, 2016, and 2017).
- South Coast Air Quality Management District, California Emission Estimator Model, Version 2016.3.1, December 2016.
- South Coast Air Quality Management District, Draft Final 2012 Air Quality Management Plan, December 7, 2012.
- South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2003.
- South Coast Air Quality Management District, Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, December 5, 2008.
- South Coast Air Quality Management District, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15 Tuesday, September 28, 2010.
- South Coast Air Quality Management District, Rules and Regulations, January 1993.
- South Coast Air Quality Management District, Sample Construction Scenarios for Projects Less than Five Acres in Size, February 2005.
- South Coast Air Quality Management District, SCAQMD CEQA Air Quality Handbook, April 1993.
- Thomas J. Glover, Pocket Reference, April 1994.

Appendix A
CalEEMod Model Results
Former Automobile Dealership
Winter Emissions

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Harbor Automobile Dealership

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	17.22	1000sqft	1.50	17,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Size and acreage based on Applicant.

Construction Phase -

Vehicle Trips - Values based on ITE 10th Edition.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.40	1.50
tblVehicleTrips	ST_TR	23.72	52.24
tblVehicleTrips	SU_TR	11.88	21.73
tblVehicleTrips	WD_TR	23.72	27.84

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					
2019	16.2303	19.5058	13.7840	0.0234	5.8890	0.9186	6.7720	2.9774	0.8872	3.7897	0.0000	2,161.8754	2,161.8754	0.5415	0.0000	2,171.7953
Maximum	**16.2303**	**19.5058**	**13.7840**	**0.0234**	**5.8890**	**0.9186**	**6.7720**	**2.9774**	**0.8872**	**3.7897**	**0.0000**	**2,161.8754**	**2,161.8754**	**0.5415**	**0.0000**	**2,171.7953**

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					
2019	16.2303	19.5058	13.7840	0.0234	1.2638	0.9186	2.1468	0.6218	0.8872	1.4342	0.0000	2,161.8754	2,161.8754	0.5415	0.0000	2,171.7953
Maximum	**16.2303**	**19.5058**	**13.7840**	**0.0234**	**1.2638**	**0.9186**	**2.1468**	**0.6218**	**0.8872**	**1.4342**	**0.0000**	**2,161.8754**	**2,161.8754**	**0.5415**	**0.0000**	**2,171.7953**

	ROG	**NOx**	**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**	**78.54**	**0.00**	**68.30**	**79.12**	**0.00**	**62.16**	**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	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Energy	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Mobile	1.1325	3.8922	10.2511	0.0300	2.5553	0.0325	2.5878	0.6833	0.0305	0.7138		3,048.3384	3,048.3384	0.1551		3,052.2145
Total	**1.5279**	**3.9889**	**10.3340**	**0.0306**	**2.5553**	**0.0398**	**2.5952**	**0.6833**	**0.0378**	**0.7211**		**3,164.3178**	**3,164.3178**	**0.1573**	**2.1300e-003**	**3,168.8834**

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	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Energy	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Mobile	1.1325	3.8922	10.2511	0.0300	2.5553	0.0325	2.5878	0.6833	0.0305	0.7138		3,048.3384	3,048.3384	0.1551		3,052.2145
Total	**1.5279**	**3.9889**	**10.3340**	**0.0306**	**2.5553**	**0.0398**	**2.5952**	**0.6833**	**0.0378**	**0.7211**		**3,164.3178**	**3,164.3178**	**0.1573**	**2.1300e-003**	**3,168.8834**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/30/2019	1/31/2019	5	2	
2	Grading	Grading	2/1/2019	2/6/2019	5	4	
3	Building Construction	Building Construction	2/7/2019	11/13/2019	5	200	
4	Paving	Paving	11/14/2019	11/27/2019	5	10	
5	Architectural Coating	Architectural Coating	11/28/2019	12/11/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 25,824; Non-Residential Outdoor: 8,608; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Harbor Automobile Dealership - Orange County, Winter

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	6.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

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					1.1744	0.0000	1.1744	0.5981	0.0000	0.5981			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**1.1744**	**0.8824**	**2.0568**	**0.5981**	**0.8118**	**1.4099**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**		**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

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					0.9951	0.0000	0.9951	0.5114	0.0000	0.5114			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**0.9951**	**0.7365**	**1.7316**	**0.5114**	**0.6775**	**1.1890**	**0.0000**	**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

3.4 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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0117	0.3408	0.0988	7.4000e-004	0.0192	2.3400e-003	0.0215	5.5200e-003	2.2400e-003	7.7600e-003		79.9065	79.9065	7.2800e-003		80.0885
Worker	0.0279	0.0178	0.1982	6.4000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.1000e-004	0.0182		63.9464	63.9464	1.5800e-003		63.9858
Total	**0.0396**	**0.3586**	**0.2970**	**1.3800e-003**	**0.0862**	**2.7900e-003**	**0.0890**	**0.0233**	**2.6500e-003**	**0.0260**		**143.8530**	**143.8530**	**8.8600e-003**		**144.0743**

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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0117	0.3408	0.0988	7.4000e-004	0.0192	2.3400e-003	0.0215	5.5200e-003	2.2400e-003	7.7600e-003		79.9065	79.9065	7.2800e-003		80.0885
Worker	0.0279	0.0178	0.1982	6.4000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.1000e-004	0.0182		63.9464	63.9464	1.5800e-003		63.9858
Total	**0.0396**	**0.3586**	**0.2970**	**1.3800e-003**	**0.0862**	**2.7900e-003**	**0.0890**	**0.0233**	**2.6500e-003**	**0.0260**		**143.8530**	**143.8530**	**8.8600e-003**		**144.0743**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0604	0.0386	0.4294	1.3900e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		138.5506	138.5506	3.4100e-003		138.6359
Total	**0.0604**	**0.0386**	**0.4294**	**1.3900e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**138.5506**	**138.5506**	**3.4100e-003**		**138.6359**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0604	0.0386	0.4294	1.3900e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		138.5506	138.5506	3.4100e-003		138.6359
Total	**0.0604**	**0.0386**	**0.4294**	**1.3900e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**138.5506**	**138.5506**	**3.4100e-003**		**138.6359**

3.6 Architectural Coating - 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	15.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**16.2257**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.6500e-003	2.9700e-003	0.0330	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.6577	10.6577	2.6000e-004		10.6643
Total	**4.6500e-003**	**2.9700e-003**	**0.0330**	**1.1000e-004**	**0.0112**	**7.0000e-005**	**0.0113**	**2.9600e-003**	**7.0000e-005**	**3.0300e-003**		**10.6577**	**10.6577**	**2.6000e-004**		**10.6643**

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	15.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**16.2257**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.6500e-003	2.9700e-003	0.0330	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.6577	10.6577	2.6000e-004		10.6643
Total	**4.6500e-003**	**2.9700e-003**	**0.0330**	**1.1000e-004**	**0.0112**	**7.0000e-005**	**0.0113**	**2.9600e-003**	**7.0000e-005**	**3.0300e-003**		**10.6577**	**10.6577**	**2.6000e-004**		**10.6643**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1325	3.8922	10.2511	0.0300	2.5553	0.0325	2.5878	0.6833	0.0305	0.7138		3,048.3384	3,048.3384	0.1551		3,052.2145
Unmitigated	1.1325	3.8922	10.2511	0.0300	2.5553	0.0325	2.5878	0.6833	0.0305	0.7138		3,048.3384	3,048.3384	0.1551		3,052.2145

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	479.29	899.36	374.10	702,295	702,295
Total	479.29	899.36	374.10	702,295	702,295

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.555968	0.043848	0.210359	0.116378	0.016765	0.005795	0.025008	0.016160	0.001677	0.001586	0.004867	0.000586	0.001002

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
NaturalGas Unmitigated	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648

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					
Automobile Care Center	985.793	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Total		**0.0106**	**0.0967**	**0.0812**	**5.8000e-004**		**7.3500e-003**	**7.3500e-003**		**7.3500e-003**	**7.3500e-003**		**115.9756**	**115.9756**	**2.2200e-003**	**2.1300e-003**	**116.6648**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.985793	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Total		**0.0106**	**0.0967**	**0.0812**	**5.8000e-004**		**7.3500e-003**	**7.3500e-003**		**7.3500e-003**	**7.3500e-003**		**115.9756**	**115.9756**	**2.2200e-003**	**2.1300e-003**	**116.6648**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Unmitigated	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0437					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Total	**0.3848**	**2.0000e-005**	**1.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.7700e-003**	**3.7700e-003**	**1.0000e-005**		**4.0200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0437					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Total	**0.3848**	**2.0000e-005**	**1.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.7700e-003**	**3.7700e-003**	**1.0000e-005**		**4.0200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B
CalEEMod Model Results
Former Automobile Dealership
Summer Emissions

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Harbor Automobile Dealership

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	17.22	1000sqft	1.50	17,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Size and acreage based on Applicant.

Construction Phase -

Vehicle Trips - Values based on ITE 10th Edition.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.40	1.50
tblVehicleTrips	ST_TR	23.72	52.24
tblVehicleTrips	SU_TR	11.88	21.73
tblVehicleTrips	WD_TR	23.72	27.84

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					
2019	16.2298	19.5037	13.7911	0.0235	5.8890	0.9186	6.7720	2.9774	0.8872	3.7897	0.0000	2,167.4815	2,167.4815	0.5416	0.0000	2,177.3945
Maximum	**16.2298**	**19.5037**	**13.7911**	**0.0235**	**5.8890**	**0.9186**	**6.7720**	**2.9774**	**0.8872**	**3.7897**	**0.0000**	**2,167.4815**	**2,167.4815**	**0.5416**	**0.0000**	**2,177.3945**

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					
2019	16.2298	19.5037	13.7911	0.0235	1.2638	0.9186	2.1468	0.6218	0.8872	1.4342	0.0000	2,167.4815	2,167.4815	0.5416	0.0000	2,177.3945
Maximum	**16.2298**	**19.5037**	**13.7911**	**0.0235**	**1.2638**	**0.9186**	**2.1468**	**0.6218**	**0.8872**	**1.4342**	**0.0000**	**2,167.4815**	**2,167.4815**	**0.5416**	**0.0000**	**2,177.3945**

	ROG	**NOx**	**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**	**78.54**	**0.00**	**68.30**	**79.12**	**0.00**	**62.16**	**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	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Energy	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Mobile	1.1474	3.8321	10.2535	0.0315	2.5553	0.0322	2.5875	0.6833	0.0302	0.7135		3,195.2754	3,195.2754	0.1524		3,199.0864
Total	**1.5428**	**3.9288**	**10.3365**	**0.0321**	**2.5553**	**0.0396**	**2.5949**	**0.6833**	**0.0375**	**0.7208**		**3,311.2548**	**3,311.2548**	**0.1547**	**2.1300e-003**	**3,315.7553**

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	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Energy	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Mobile	1.1474	3.8321	10.2535	0.0315	2.5553	0.0322	2.5875	0.6833	0.0302	0.7135		3,195.2754	3,195.2754	0.1524		3,199.0864
Total	**1.5428**	**3.9288**	**10.3365**	**0.0321**	**2.5553**	**0.0396**	**2.5949**	**0.6833**	**0.0375**	**0.7208**		**3,311.2548**	**3,311.2548**	**0.1547**	**2.1300e-003**	**3,315.7553**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/30/2019	1/31/2019	5	2	
2	Grading	Grading	2/1/2019	2/6/2019	5	4	
3	Building Construction	Building Construction	2/7/2019	11/13/2019	5	200	
4	Paving	Paving	11/14/2019	11/27/2019	5	10	
5	Architectural Coating	Architectural Coating	11/28/2019	12/11/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 25,824; Non-Residential Outdoor: 8,608; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Harbor Automobile Dealership - Orange County, Summer

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	6.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

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					1.1744	0.0000	1.1744	0.5981	0.0000	0.5981			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**1.1744**	**0.8824**	**2.0568**	**0.5981**	**0.8118**	**1.4099**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**		**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

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					0.9951	0.0000	0.9951	0.5114	0.0000	0.5114			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**0.9951**	**0.7365**	**1.7316**	**0.5114**	**0.6775**	**1.1890**	**0.0000**	**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

3.4 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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0113	0.3404	0.0900	7.5000e-004	0.0192	2.3000e-003	0.0215	5.5200e-003	2.2000e-003	7.7200e-003		81.8907	81.8907	6.9100e-003		82.0635
Worker	0.0247	0.0162	0.2141	6.8000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.1000e-004	0.0182		67.5684	67.5684	1.6600e-003		67.6100
Total	**0.0360**	**0.3567**	**0.3040**	**1.4300e-003**	**0.0862**	**2.7500e-003**	**0.0890**	**0.0233**	**2.6100e-003**	**0.0259**		**149.4591**	**149.4591**	**8.5700e-003**		**149.6734**

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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0113	0.3404	0.0900	7.5000e-004	0.0192	2.3000e-003	0.0215	5.5200e-003	2.2000e-003	7.7200e-003		81.8907	81.8907	6.9100e-003		82.0635
Worker	0.0247	0.0162	0.2141	6.8000e-004	0.0671	4.5000e-004	0.0675	0.0178	4.1000e-004	0.0182		67.5684	67.5684	1.6600e-003		67.6100
Total	**0.0360**	**0.3567**	**0.3040**	**1.4300e-003**	**0.0862**	**2.7500e-003**	**0.0890**	**0.0233**	**2.6100e-003**	**0.0259**		**149.4591**	**149.4591**	**8.5700e-003**		**149.6734**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0351	0.4638	1.4700e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		146.3982	146.3982	3.6000e-003		146.4882
Total	**0.0536**	**0.0351**	**0.4638**	**1.4700e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**146.3982**	**146.3982**	**3.6000e-003**		**146.4882**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0351	0.4638	1.4700e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		146.3982	146.3982	3.6000e-003		146.4882
Total	**0.0536**	**0.0351**	**0.4638**	**1.4700e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**146.3982**	**146.3982**	**3.6000e-003**		**146.4882**

3.6 Architectural Coating - 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	15.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**16.2257**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.1200e-003	2.7000e-003	0.0357	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		11.2614	11.2614	2.8000e-004		11.2683
Total	**4.1200e-003**	**2.7000e-003**	**0.0357**	**1.1000e-004**	**0.0112**	**7.0000e-005**	**0.0113**	**2.9600e-003**	**7.0000e-005**	**3.0300e-003**		**11.2614**	**11.2614**	**2.8000e-004**		**11.2683**

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	15.9592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**16.2257**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.1200e-003	2.7000e-003	0.0357	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		11.2614	11.2614	2.8000e-004		11.2683
Total	**4.1200e-003**	**2.7000e-003**	**0.0357**	**1.1000e-004**	**0.0112**	**7.0000e-005**	**0.0113**	**2.9600e-003**	**7.0000e-005**	**3.0300e-003**		**11.2614**	**11.2614**	**2.8000e-004**		**11.2683**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1474	3.8321	10.2535	0.0315	2.5553	0.0322	2.5875	0.6833	0.0302	0.7135		3,195.2754	3,195.2754	0.1524		3,199.0864
Unmitigated	1.1474	3.8321	10.2535	0.0315	2.5553	0.0322	2.5875	0.6833	0.0302	0.7135		3,195.2754	3,195.2754	0.1524		3,199.0864

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	479.29	899.36	374.10	702,295	702,295
Total	479.29	899.36	374.10	702,295	702,295

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.555968	0.043848	0.210359	0.116378	0.016765	0.005795	0.025008	0.016160	0.001677	0.001586	0.004867	0.000586	0.001002

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
NaturalGas Unmitigated	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648

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					
Automobile Care Center	985.793	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Total		**0.0106**	**0.0967**	**0.0812**	**5.8000e-004**		**7.3500e-003**	**7.3500e-003**		**7.3500e-003**	**7.3500e-003**		**115.9756**	**115.9756**	**2.2200e-003**	**2.1300e-003**	**116.6648**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.985793	0.0106	0.0967	0.0812	5.8000e-004		7.3500e-003	7.3500e-003		7.3500e-003	7.3500e-003		115.9756	115.9756	2.2200e-003	2.1300e-003	116.6648
Total		**0.0106**	**0.0967**	**0.0812**	**5.8000e-004**		**7.3500e-003**	**7.3500e-003**		**7.3500e-003**	**7.3500e-003**		**115.9756**	**115.9756**	**2.2200e-003**	**2.1300e-003**	**116.6648**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Unmitigated	0.3848	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0437					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Total	**0.3848**	**2.0000e-005**	**1.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.7700e-003**	**3.7700e-003**	**1.0000e-005**		**4.0200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0437					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7700e-003	3.7700e-003	1.0000e-005		4.0200e-003
Total	**0.3848**	**2.0000e-005**	**1.7700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.7700e-003**	**3.7700e-003**	**1.0000e-005**		**4.0200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix C
CalEEMod Model Results
Former Automobile Dealership
Annual Emissions

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Harbor Automobile Dealership

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	17.22	1000sqft	1.50	17,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Size and acreage based on Applicant.

Construction Phase -

Vehicle Trips - Values based on ITE 10th Edition.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.40	1.50
tblVehicleTrips	ST_TR	23.72	52.24
tblVehicleTrips	SU_TR	11.88	21.73
tblVehicleTrips	WD_TR	23.72	27.84

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3215	1.7415	1.4565	2.4800e-003	0.0251	0.0975	0.1226	0.0106	0.0939	0.1045	0.0000	208.6052	208.6052	0.0393	0.0000	209.5868
Maximum	**0.3215**	**1.7415**	**1.4565**	**2.4800e-003**	**0.0251**	**0.0975**	**0.1226**	**0.0106**	**0.0939**	**0.1045**	**0.0000**	**208.6052**	**208.6052**	**0.0393**	**0.0000**	**209.5868**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3215	1.7415	1.4565	2.4800e-003	0.0127	0.0975	0.1102	4.1900e-003	0.0939	0.0981	0.0000	208.6049	208.6049	0.0393	0.0000	209.5866
Maximum	**0.3215**	**1.7415**	**1.4565**	**2.4800e-003**	**0.0127**	**0.0975**	**0.1102**	**4.1900e-003**	**0.0939**	**0.0981**	**0.0000**	**208.6049**	**208.6049**	**0.0393**	**0.0000**	**209.5866**

	ROG	**NOx**	**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**	**49.60**	**0.00**	**10.16**	**60.36**	**0.00**	**6.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2019**	**4-1-2019**	0.4124	0.4124
2	**4-2-2019**	**7-1-2019**	0.6060	0.6060
3	**7-2-2019**	**9-30-2019**	0.6060	0.6060
		Highest	0.6060	0.6060

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0702	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	1.9400e-003	0.0176	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	65.5526	65.5526	2.2800e-003	7.5000e-004	65.8325
Mobile	0.1153	0.4194	1.0904	3.2300e-003	0.2663	3.4200e-003	0.2698	0.0713	3.2100e-003	0.0745	0.0000	297.4499	297.4499	0.0148	0.0000	297.8191
Waste						0.0000	0.0000		0.0000	0.0000	13.3528	0.0000	13.3528	0.7891	0.0000	33.0809
Water						0.0000	0.0000		0.0000	0.0000	0.5140	10.2363	10.7502	0.0532	1.3300e-003	12.4781
Total	**0.1875**	**0.4370**	**1.1055**	**3.3400e-003**	**0.2663**	**4.7600e-003**	**0.2711**	**0.0713**	**4.5500e-003**	**0.0759**	**13.8667**	**373.2392**	**387.1059**	**0.8594**	**2.0800e-003**	**409.2110**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0702	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Energy	1.9400e-003	0.0176	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	65.5526	65.5526	2.2800e-003	7.5000e-004	65.8325
Mobile	0.1153	0.4194	1.0904	3.2300e-003	0.2663	3.4200e-003	0.2698	0.0713	3.2100e-003	0.0745	0.0000	297.4499	297.4499	0.0148	0.0000	297.8191
Waste						0.0000	0.0000		0.0000	0.0000	13.3528	0.0000	13.3528	0.7891	0.0000	33.0809
Water						0.0000	0.0000		0.0000	0.0000	0.5140	10.2363	10.7502	0.0532	1.3300e-003	12.4781
Total	**0.1875**	**0.4370**	**1.1055**	**3.3400e-003**	**0.2663**	**4.7600e-003**	**0.2711**	**0.0713**	**4.5500e-003**	**0.0759**	**13.8667**	**373.2392**	**387.1059**	**0.8594**	**2.0800e-003**	**409.2110**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/30/2019	1/31/2019	5	2	
2	Grading	Grading	2/1/2019	2/6/2019	5	4	
3	Building Construction	Building Construction	2/7/2019	11/13/2019	5	200	
4	Paving	Paving	11/14/2019	11/27/2019	5	10	
5	Architectural Coating	Architectural Coating	11/28/2019	12/11/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 25,824; Non-Residential Outdoor: 8,608; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Harbor Automobile Dealership - Orange County, Annual

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	6.00	3.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0195	7.8900e-003	2.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	1.5467	1.5467	4.9000e-004	0.0000	1.5589
Total	**1.7100e-003**	**0.0195**	**7.8900e-003**	**2.0000e-005**	**5.8000e-003**	**8.8000e-004**	**6.6800e-003**	**2.9500e-003**	**8.1000e-004**	**3.7600e-003**	**0.0000**	**1.5467**	**1.5467**	**4.9000e-004**	**0.0000**	**1.5589**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0785	0.0785	0.0000	0.0000	0.0786
Total	**3.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0785**	**0.0785**	**0.0000**	**0.0000**	**0.0786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1700e-003	0.0000	1.1700e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0195	7.8900e-003	2.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	1.5467	1.5467	4.9000e-004	0.0000	1.5589
Total	**1.7100e-003**	**0.0195**	**7.8900e-003**	**2.0000e-005**	**1.1700e-003**	**8.8000e-004**	**2.0500e-003**	**6.0000e-004**	**8.1000e-004**	**1.4100e-003**	**0.0000**	**1.5467**	**1.5467**	**4.9000e-004**	**0.0000**	**1.5589**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0785	0.0785	0.0000	0.0000	0.0786
Total	**3.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0785**	**0.0785**	**0.0000**	**0.0000**	**0.0786**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8400e-003	0.0321	0.0132	3.0000e-005		1.4700e-003	1.4700e-003		1.3600e-003	1.3600e-003	0.0000	2.5336	2.5336	8.0000e-004	0.0000	2.5536
Total	**2.8400e-003**	**0.0321**	**0.0132**	**3.0000e-005**	**9.8300e-003**	**1.4700e-003**	**0.0113**	**5.0500e-003**	**1.3600e-003**	**6.4100e-003**	**0.0000**	**2.5336**	**2.5336**	**8.0000e-004**	**0.0000**	**2.5536**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.4000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1571	0.1571	0.0000	0.0000	0.1572
Total	**7.0000e-005**	**5.0000e-005**	**5.4000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1571**	**0.1571**	**0.0000**	**0.0000**	**0.1572**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9900e-003	0.0000	1.9900e-003	1.0200e-003	0.0000	1.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8400e-003	0.0321	0.0132	3.0000e-005		1.4700e-003	1.4700e-003		1.3600e-003	1.3600e-003	0.0000	2.5336	2.5336	8.0000e-004	0.0000	2.5536
Total	**2.8400e-003**	**0.0321**	**0.0132**	**3.0000e-005**	**1.9900e-003**	**1.4700e-003**	**3.4600e-003**	**1.0200e-003**	**1.3600e-003**	**2.3800e-003**	**0.0000**	**2.5336**	**2.5336**	**8.0000e-004**	**0.0000**	**2.5536**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.4000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1571	0.1571	0.0000	0.0000	0.1572
Total	**7.0000e-005**	**5.0000e-005**	**5.4000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1571**	**0.1571**	**0.0000**	**0.0000**	**0.1572**

3.4 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	tons/yr										MT/yr					
Off-Road	0.2272	1.5980	1.3487	2.2000e-003		0.0916	0.0916		0.0885	0.0885	0.0000	183.0719	183.0719	0.0352	0.0000	183.9518
Total	**0.2272**	**1.5980**	**1.3487**	**2.2000e-003**		**0.0916**	**0.0916**		**0.0885**	**0.0885**	**0.0000**	**183.0719**	**183.0719**	**0.0352**	**0.0000**	**183.9518**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1500e-003	0.0347	9.4500e-003	7.0000e-005	1.8900e-003	2.3000e-004	2.1200e-003	5.4000e-004	2.2000e-004	7.7000e-004	0.0000	7.3534	7.3534	6.4000e-004	0.0000	7.3695
Worker	2.5100e-003	1.8300e-003	0.0203	7.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8897	5.8897	1.5000e-004	0.0000	5.8933
Total	**3.6600e-003**	**0.0366**	**0.0298**	**1.4000e-004**	**8.4800e-003**	**2.7000e-004**	**8.7500e-003**	**2.2900e-003**	**2.6000e-004**	**2.5600e-003**	**0.0000**	**13.2431**	**13.2431**	**7.9000e-004**	**0.0000**	**13.2628**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2272	1.5980	1.3487	2.2000e-003		0.0916	0.0916		0.0885	0.0885	0.0000	183.0717	183.0717	0.0352	0.0000	183.9515
Total	**0.2272**	**1.5980**	**1.3487**	**2.2000e-003**		**0.0916**	**0.0916**		**0.0885**	**0.0885**	**0.0000**	**183.0717**	**183.0717**	**0.0352**	**0.0000**	**183.9515**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1500e-003	0.0347	9.4500e-003	7.0000e-005	1.8900e-003	2.3000e-004	2.1200e-003	5.4000e-004	2.2000e-004	7.7000e-004	0.0000	7.3534	7.3534	6.4000e-004	0.0000	7.3695
Worker	2.5100e-003	1.8300e-003	0.0203	7.0000e-005	6.5900e-003	4.0000e-005	6.6300e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.8897	5.8897	1.5000e-004	0.0000	5.8933
Total	**3.6600e-003**	**0.0366**	**0.0298**	**1.4000e-004**	**8.4800e-003**	**2.7000e-004**	**8.7500e-003**	**2.2900e-003**	**2.6000e-004**	**2.5600e-003**	**0.0000**	**13.2431**	**13.2431**	**7.9000e-004**	**0.0000**	**13.2628**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5200e-003	0.0459	0.0445	7.0000e-005		2.6100e-003	2.6100e-003		2.4100e-003	2.4100e-003	0.0000	6.0105	6.0105	1.8700e-003	0.0000	6.0572
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5200e-003**	**0.0459**	**0.0445**	**7.0000e-005**		**2.6100e-003**	**2.6100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**6.0105**	**6.0105**	**1.8700e-003**	**0.0000**	**6.0572**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.2000e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6381	0.6381	2.0000e-005	0.0000	0.6384
Total	**2.7000e-004**	**2.0000e-004**	**2.2000e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6381**	**0.6381**	**2.0000e-005**	**0.0000**	**0.6384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5200e-003	0.0459	0.0445	7.0000e-005		2.6100e-003	2.6100e-003		2.4100e-003	2.4100e-003	0.0000	6.0105	6.0105	1.8700e-003	0.0000	6.0572
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5200e-003**	**0.0459**	**0.0445**	**7.0000e-005**		**2.6100e-003**	**2.6100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**6.0105**	**6.0105**	**1.8700e-003**	**0.0000**	**6.0572**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.2000e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6381	0.6381	2.0000e-005	0.0000	0.6384
Total	**2.7000e-004**	**2.0000e-004**	**2.2000e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6381**	**0.6381**	**2.0000e-005**	**0.0000**	**0.6384**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0798					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.1800e-003	9.2100e-003	1.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.2766	1.2766	1.1000e-004	0.0000	1.2793
Total	**0.0811**	**9.1800e-003**	**9.2100e-003**	**1.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.1000e-004**	**0.0000**	**1.2793**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.7000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0491	0.0491	0.0000	0.0000	0.0491
Total	**2.0000e-005**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0491**	**0.0491**	**0.0000**	**0.0000**	**0.0491**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0798					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.1800e-003	9.2100e-003	1.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.2766	1.2766	1.1000e-004	0.0000	1.2793
Total	**0.0811**	**9.1800e-003**	**9.2100e-003**	**1.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.1000e-004**	**0.0000**	**1.2793**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.7000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0491	0.0491	0.0000	0.0000	0.0491
Total	**2.0000e-005**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0491**	**0.0491**	**0.0000**	**0.0000**	**0.0491**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1153	0.4194	1.0904	3.2300e-003	0.2663	3.4200e-003	0.2698	0.0713	3.2100e-003	0.0745	0.0000	297.4499	297.4499	0.0148	0.0000	297.8191
Unmitigated	0.1153	0.4194	1.0904	3.2300e-003	0.2663	3.4200e-003	0.2698	0.0713	3.2100e-003	0.0745	0.0000	297.4499	297.4499	0.0148	0.0000	297.8191

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	479.29	899.36	374.10	702,295	702,295
Total	479.29	899.36	374.10	702,295	702,295

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.555968	0.043848	0.210359	0.116378	0.016765	0.005795	0.025008	0.016160	0.001677	0.001586	0.004867	0.000586	0.001002

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.3515	46.3515	1.9100e-003	4.0000e-004	46.5173
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	46.3515	46.3515	1.9100e-003	4.0000e-004	46.5173
NaturalGas Mitigated	1.9400e-003	0.0176	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2011	19.2011	3.7000e-004	3.5000e-004	19.3152
NaturalGas Unmitigated	1.9400e-003	0.0176	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2011	19.2011	3.7000e-004	3.5000e-004	19.3152

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	359814	1.9400e-003	0.0176	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2011	19.2011	3.7000e-004	3.5000e-004	19.3152
Total		**1.9400e-003**	**0.0176**	**0.0148**	**1.1000e-004**		**1.3400e-003**	**1.3400e-003**		**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.2011**	**19.2011**	**3.7000e-004**	**3.5000e-004**	**19.3152**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	359814	1.9400e-003	0.0176	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.2011	19.2011	3.7000e-004	3.5000e-004	19.3152
Total		**1.9400e-003**	**0.0176**	**0.0148**	**1.1000e-004**		**1.3400e-003**	**1.3400e-003**		**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.2011**	**19.2011**	**3.7000e-004**	**3.5000e-004**	**19.3152**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	145475	46.3515	1.9100e-003	4.0000e-004	46.5173
Total		**46.3515**	**1.9100e-003**	**4.0000e-004**	**46.5173**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	145475	46.3515	1.9100e-003	4.0000e-004	46.5173
Total		**46.3515**	**1.9100e-003**	**4.0000e-004**	**46.5173**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0702	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Unmitigated	0.0702	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**0.0702**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.9800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.6000e-004
Total	**0.0702**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.3000e-004**	**4.3000e-004**	**0.0000**	**0.0000**	**4.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.7502	0.0532	1.3300e-003	12.4781
Unmitigated	10.7502	0.0532	1.3300e-003	12.4781

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	1.62008 / 0.99295	10.7502	0.0532	1.3300e-003	12.4781
Total		**10.7502**	**0.0532**	**1.3300e-003**	**12.4781**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	1.62008 / 0.99295	10.7502	0.0532	1.3300e-003	12.4781
Total		**10.7502**	**0.0532**	**1.3300e-003**	**12.4781**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.3528	0.7891	0.0000	33.0809
Unmitigated	13.3528	0.7891	0.0000	33.0809

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	65.78	13.3528	0.7891	0.0000	33.0809
Total		**13.3528**	**0.7891**	**0.0000**	**33.0809**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	65.78	13.3528	0.7891	0.0000	33.0809
Total		**13.3528**	**0.7891**	**0.0000**	**33.0809**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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Appendix D
CalEEMod Model Results
Proposed Hotel Project
Winter Emissions

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Harbor Hotel

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	124.00	Room	1.50	62,764.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage and square footage based on Applicant.

Construction Phase -

Vehicle Trips - Value updated to 10th edition.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	180,048.00	62,764.00
tblLandUse	LotAcreage	4.13	1.50
tblVehicleTrips	WD_TR	8.17	8.36

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					
2019	58.4719	19.5058	14.6751	0.0273	5.8890	0.9256	6.7720	2.9774	0.8938	3.7897	0.0000	2,561.4787	2,561.4787	0.5415	0.0000	2,571.9545
Maximum	**58.4719**	**19.5058**	**14.6751**	**0.0273**	**5.8890**	**0.9256**	**6.7720**	**2.9774**	**0.8938**	**3.7897**	**0.0000**	**2,561.4787**	**2,561.4787**	**0.5415**	**0.0000**	**2,571.9545**

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					
2019	58.4719	19.5058	14.6751	0.0273	1.2638	0.9256	2.1468	0.6218	0.8938	1.4342	0.0000	2,561.4787	2,561.4787	0.5415	0.0000	2,571.9545
Maximum	**58.4719**	**19.5058**	**14.6751**	**0.0273**	**1.2638**	**0.9256**	**2.1468**	**0.6218**	**0.8938**	**1.4342**	**0.0000**	**2,561.4787**	**2,561.4787**	**0.5415**	**0.0000**	**2,571.9545**

Harbor Hotel - Orange County, Winter

	ROG	NOx	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**	**78.54**	**0.00**	**68.30**	**79.12**	**0.00**	**62.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Energy	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Mobile	1.5281	6.0115	17.5175	0.0593	5.2466	0.0618	5.3084	1.4030	0.0579	1.4609		6,014.7367	6,014.7367	0.2739		6,021.5831
Total	**2.9950**	**6.5890**	**18.0152**	**0.0628**	**5.2466**	**0.1057**	**5.3523**	**1.4030**	**0.1019**	**1.5049**		**6,707.6460**	**6,707.6460**	**0.2872**	**0.0127**	**6,718.6117**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Energy	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Mobile	1.5281	6.0115	17.5175	0.0593	5.2466	0.0618	5.3084	1.4030	0.0579	1.4609		6,014.7367	6,014.7367	0.2739		6,021.5831
Total	**2.9950**	**6.5890**	**18.0152**	**0.0628**	**5.2466**	**0.1057**	**5.3523**	**1.4030**	**0.1019**	**1.5049**		**6,707.6460**	**6,707.6460**	**0.2872**	**0.0127**	**6,718.6117**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/30/2019	1/31/2019	5	2	
2	Grading	Grading	2/1/2019	2/6/2019	5	4	
3	Building Construction	Building Construction	2/7/2019	11/13/2019	5	200	
4	Paving	Paving	11/14/2019	11/27/2019	5	10	
5	Architectural Coating	Architectural Coating	11/28/2019	12/11/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 94,146; Non-Residential Outdoor: 31,382; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Harbor Hotel - Orange County, Winter

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	26.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

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					1.1744	0.0000	1.1744	0.5981	0.0000	0.5981			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**1.1744**	**0.8824**	**2.0568**	**0.5981**	**0.8118**	**1.4099**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**		**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

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					0.9951	0.0000	0.9951	0.5114	0.0000	0.5114			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**0.9951**	**0.7365**	**1.7316**	**0.5114**	**0.6775**	**1.1890**	**0.0000**	**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0238	0.2642	8.6000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		85.2619	85.2619	2.1000e-003		85.3144
Total	**0.0372**	**0.0238**	**0.2642**	**8.6000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**85.2619**	**85.2619**	**2.1000e-003**		**85.3144**

3.4 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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0391	1.1360	0.3294	2.4500e-003	0.0639	7.8100e-003	0.0717	0.0184	7.4700e-003	0.0259		266.3551	266.3551	0.0243		266.9616
Worker	0.1209	0.0772	0.8587	2.7800e-003	0.2906	1.9400e-003	0.2926	0.0771	1.7900e-003	0.0789		277.1012	277.1012	6.8300e-003		277.2718
Total	**0.1600**	**1.2132**	**1.1881**	**5.2300e-003**	**0.3545**	**9.7500e-003**	**0.3643**	**0.0955**	**9.2600e-003**	**0.1047**		**543.4563**	**543.4563**	**0.0311**		**544.2335**

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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0391	1.1360	0.3294	2.4500e-003	0.0639	7.8100e-003	0.0717	0.0184	7.4700e-003	0.0259		266.3551	266.3551	0.0243		266.9616
Worker	0.1209	0.0772	0.8587	2.7800e-003	0.2906	1.9400e-003	0.2926	0.0771	1.7900e-003	0.0789		277.1012	277.1012	6.8300e-003		277.2718
Total	**0.1600**	**1.2132**	**1.1881**	**5.2300e-003**	**0.3545**	**9.7500e-003**	**0.3643**	**0.0955**	**9.2600e-003**	**0.1047**		**543.4563**	**543.4563**	**0.0311**		**544.2335**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0604	0.0386	0.4294	1.3900e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		138.5506	138.5506	3.4100e-003		138.6359
Total	**0.0604**	**0.0386**	**0.4294**	**1.3900e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**138.5506**	**138.5506**	**3.4100e-003**		**138.6359**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0604	0.0386	0.4294	1.3900e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		138.5506	138.5506	3.4100e-003		138.6359
Total	**0.0604**	**0.0386**	**0.4294**	**1.3900e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**138.5506**	**138.5506**	**3.4100e-003**		**138.6359**

3.6 Architectural Coating - 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	58.1822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**58.4487**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0233	0.0149	0.1651	5.3000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		53.2887	53.2887	1.3100e-003		53.3215
Total	**0.0233**	**0.0149**	**0.1651**	**5.3000e-004**	**0.0559**	**3.7000e-004**	**0.0563**	**0.0148**	**3.4000e-004**	**0.0152**		**53.2887**	**53.2887**	**1.3100e-003**		**53.3215**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	58.1822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**58.4487**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0233	0.0149	0.1651	5.3000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		53.2887	53.2887	1.3100e-003		53.3215
Total	**0.0233**	**0.0149**	**0.1651**	**5.3000e-004**	**0.0559**	**3.7000e-004**	**0.0563**	**0.0148**	**3.4000e-004**	**0.0152**		**53.2887**	**53.2887**	**1.3100e-003**		**53.3215**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5281	6.0115	17.5175	0.0593	5.2466	0.0618	5.3084	1.4030	0.0579	1.4609		6,014.7367	6,014.7367	0.2739		6,021.5831
Unmitigated	1.5281	6.0115	17.5175	0.0593	5.2466	0.0618	5.3084	1.4030	0.0579	1.4609		6,014.7367	6,014.7367	0.2739		6,021.5831

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,036.64	1,015.56	737.80	2,364,546	2,364,546
Total	1,036.64	1,015.56	737.80	2,364,546	2,364,546

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
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.555968	0.043848	0.210359	0.116378	0.016765	0.005795	0.025008	0.016160	0.001677	0.001586	0.004867	0.000586	0.001002

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
NaturalGas Unmitigated	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996

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					
Hotel	5889.5	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Total		**0.0635**	**0.5774**	**0.4850**	**3.4600e-003**		**0.0439**	**0.0439**		**0.0439**	**0.0439**		**692.8822**	**692.8822**	**0.0133**	**0.0127**	**696.9996**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	5.8895	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Total		**0.0635**	**0.5774**	**0.4850**	**3.4600e-003**		**0.0439**	**0.0439**		**0.0439**	**0.0439**		**692.8822**	**692.8822**	**0.0133**	**0.0127**	**696.9996**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Unmitigated	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1594					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Total	**1.4033**	**1.2000e-004**	**0.0127**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0271**	**0.0271**	**7.0000e-005**		**0.0290**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1594					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Total	**1.4033**	**1.2000e-004**	**0.0127**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0271**	**0.0271**	**7.0000e-005**		**0.0290**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix E
CalEEMod Model Results
Proposed Hotel Project
Summer Emissions

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Harbor Hotel

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	124.00	Room	1.50	62,764.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage and square footage based on Applicant.

Construction Phase -

Vehicle Trips - Value updated to 10th edition.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	180,048.00	62,764.00
tblLandUse	LotAcreage	4.13	1.50
tblVehicleTrips	WD_TR	8.17	8.36

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					
2019	58.4693	19.5037	14.7146	0.0275	5.8890	0.9255	6.7720	2.9774	0.8937	3.7897	0.0000	2,583.7877	2,583.7877	0.5416	0.0000	2,594.2424
Maximum	**58.4693**	**19.5037**	**14.7146**	**0.0275**	**5.8890**	**0.9255**	**6.7720**	**2.9774**	**0.8937**	**3.7897**	**0.0000**	**2,583.7877**	**2,583.7877**	**0.5416**	**0.0000**	**2,594.2424**

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					
2019	58.4693	19.5037	14.7146	0.0275	1.2638	0.9255	2.1468	0.6218	0.8937	1.4342	0.0000	2,583.7877	2,583.7877	0.5416	0.0000	2,594.2424
Maximum	**58.4693**	**19.5037**	**14.7146**	**0.0275**	**1.2638**	**0.9255**	**2.1468**	**0.6218**	**0.8937**	**1.4342**	**0.0000**	**2,583.7877**	**2,583.7877**	**0.5416**	**0.0000**	**2,594.2424**

Harbor Hotel - Orange County, Summer

	ROG	NOx	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**	**78.54**	**0.00**	**68.30**	**79.12**	**0.00**	**62.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Energy	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Mobile	1.5500	5.8598	18.0560	0.0621	5.2466	0.0614	5.3080	1.4030	0.0576	1.4606		6,298.5077	6,298.5077	0.2734		6,305.3422
Total	**3.0168**	**6.4373**	**18.5538**	**0.0656**	**5.2466**	**0.1054**	**5.3520**	**1.4030**	**0.1016**	**1.5045**		**6,991.4171**	**6,991.4171**	**0.2867**	**0.0127**	**7,002.3708**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Energy	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Mobile	1.5500	5.8598	18.0560	0.0621	5.2466	0.0614	5.3080	1.4030	0.0576	1.4606		6,298.5077	6,298.5077	0.2734		6,305.3422
Total	**3.0168**	**6.4373**	**18.5538**	**0.0656**	**5.2466**	**0.1054**	**5.3520**	**1.4030**	**0.1016**	**1.5045**		**6,991.4171**	**6,991.4171**	**0.2867**	**0.0127**	**7,002.3708**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/30/2019	1/31/2019	5	2	
2	Grading	Grading	2/1/2019	2/6/2019	5	4	
3	Building Construction	Building Construction	2/7/2019	11/13/2019	5	200	
4	Paving	Paving	11/14/2019	11/27/2019	5	10	
5	Architectural Coating	Architectural Coating	11/28/2019	12/11/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 94,146; Non-Residential Outdoor: 31,382; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Harbor Hotel - Orange County, Summer

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	26.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

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					1.1744	0.0000	1.1744	0.5981	0.0000	0.5981			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**1.1744**	**0.8824**	**2.0568**	**0.5981**	**0.8118**	**1.4099**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**		**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

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					0.9951	0.0000	0.9951	0.5114	0.0000	0.5114			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**0.9951**	**0.7365**	**1.7316**	**0.5114**	**0.6775**	**1.1890**	**0.0000**	**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0330	0.0216	0.2854	9.0000e-004	0.0894	6.0000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.0912	90.0912	2.2100e-003		90.1466
Total	**0.0330**	**0.0216**	**0.2854**	**9.0000e-004**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.5000e-004**	**0.0243**		**90.0912**	**90.0912**	**2.2100e-003**		**90.1466**

3.4 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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0375	1.1348	0.3000	2.5100e-003	0.0639	7.6700e-003	0.0716	0.0184	7.3300e-003	0.0257		272.9689	272.9689	0.0230		273.5450
Worker	0.1072	0.0703	0.9275	2.9400e-003	0.2906	1.9400e-003	0.2926	0.0771	1.7900e-003	0.0789		292.7965	292.7965	7.2000e-003		292.9764
Total	**0.1447**	**1.2051**	**1.2275**	**5.4500e-003**	**0.3545**	**9.6100e-003**	**0.3641**	**0.0955**	**9.1200e-003**	**0.1046**		**565.7654**	**565.7654**	**0.0302**		**566.5214**

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	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0375	1.1348	0.3000	2.5100e-003	0.0639	7.6700e-003	0.0716	0.0184	7.3300e-003	0.0257		272.9689	272.9689	0.0230		273.5450
Worker	0.1072	0.0703	0.9275	2.9400e-003	0.2906	1.9400e-003	0.2926	0.0771	1.7900e-003	0.0789		292.7965	292.7965	7.2000e-003		292.9764
Total	**0.1447**	**1.2051**	**1.2275**	**5.4500e-003**	**0.3545**	**9.6100e-003**	**0.3641**	**0.0955**	**9.1200e-003**	**0.1046**		**565.7654**	**565.7654**	**0.0302**		**566.5214**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0351	0.4638	1.4700e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		146.3982	146.3982	3.6000e-003		146.4882
Total	**0.0536**	**0.0351**	**0.4638**	**1.4700e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**146.3982**	**146.3982**	**3.6000e-003**		**146.4882**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0351	0.4638	1.4700e-003	0.1453	9.7000e-004	0.1463	0.0385	8.9000e-004	0.0394		146.3982	146.3982	3.6000e-003		146.4882
Total	**0.0536**	**0.0351**	**0.4638**	**1.4700e-003**	**0.1453**	**9.7000e-004**	**0.1463**	**0.0385**	**8.9000e-004**	**0.0394**		**146.3982**	**146.3982**	**3.6000e-003**		**146.4882**

3.6 Architectural Coating - 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	58.1822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**58.4487**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0206	0.0135	0.1784	5.6000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.3070	56.3070	1.3800e-003		56.3416
Total	**0.0206**	**0.0135**	**0.1784**	**5.6000e-004**	**0.0559**	**3.7000e-004**	**0.0563**	**0.0148**	**3.4000e-004**	**0.0152**		**56.3070**	**56.3070**	**1.3800e-003**		**56.3416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	58.1822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**58.4487**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0206	0.0135	0.1784	5.6000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.3070	56.3070	1.3800e-003		56.3416
Total	**0.0206**	**0.0135**	**0.1784**	**5.6000e-004**	**0.0559**	**3.7000e-004**	**0.0563**	**0.0148**	**3.4000e-004**	**0.0152**		**56.3070**	**56.3070**	**1.3800e-003**		**56.3416**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5500	5.8598	18.0560	0.0621	5.2466	0.0614	5.3080	1.4030	0.0576	1.4606		6,298.5077	6,298.5077	0.2734		6,305.3422
Unmitigated	1.5500	5.8598	18.0560	0.0621	5.2466	0.0614	5.3080	1.4030	0.0576	1.4606		6,298.5077	6,298.5077	0.2734		6,305.3422

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,036.64	1,015.56	737.80	2,364,546	2,364,546
Total	1,036.64	1,015.56	737.80	2,364,546	2,364,546

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
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.555968	0.043848	0.210359	0.116378	0.016765	0.005795	0.025008	0.016160	0.001677	0.001586	0.004867	0.000586	0.001002

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
NaturalGas Unmitigated	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996

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					
Hotel	5889.5	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Total		**0.0635**	**0.5774**	**0.4850**	**3.4600e-003**		**0.0439**	**0.0439**		**0.0439**	**0.0439**		**692.8822**	**692.8822**	**0.0133**	**0.0127**	**696.9996**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	5.8895	0.0635	0.5774	0.4850	3.4600e-003		0.0439	0.0439		0.0439	0.0439		692.8822	692.8822	0.0133	0.0127	696.9996
Total		**0.0635**	**0.5774**	**0.4850**	**3.4600e-003**		**0.0439**	**0.0439**		**0.0439**	**0.0439**		**692.8822**	**692.8822**	**0.0133**	**0.0127**	**696.9996**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Unmitigated	1.4033	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1594					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Total	**1.4033**	**1.2000e-004**	**0.0127**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0271**	**0.0271**	**7.0000e-005**		**0.0290**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1594					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2000e-003	1.2000e-004	0.0127	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0271	0.0271	7.0000e-005		0.0290
Total	**1.4033**	**1.2000e-004**	**0.0127**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0271**	**0.0271**	**7.0000e-005**		**0.0290**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix F
CalEEMod Model Results
Proposed Hotel Project
Annual Emissions

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Harbor Hotel

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	124.00	Room	1.50	62,764.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage and square footage based on Applicant.

Construction Phase -

Vehicle Trips - Value updated to 10th edition.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	180,048.00	62,764.00
tblLandUse	LotAcreage	4.13	1.50
tblVehicleTrips	WD_TR	8.17	8.36

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.5437	1.8286	1.5468	2.8800e-003	0.0517	0.0982	0.1499	0.0177	0.0946	0.1123	0.0000	245.5918	245.5918	0.0413	0.0000	246.6231
Maximum	**0.5437**	**1.8286**	**1.5468**	**2.8800e-003**	**0.0517**	**0.0982**	**0.1499**	**0.0177**	**0.0946**	**0.1123**	**0.0000**	**245.5918**	**245.5918**	**0.0413**	**0.0000**	**246.6231**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.5437	1.8286	1.5468	2.8800e-003	0.0393	0.0982	0.1374	0.0114	0.0946	0.1060	0.0000	245.5915	245.5915	0.0413	0.0000	246.6229
Maximum	**0.5437**	**1.8286**	**1.5468**	**2.8800e-003**	**0.0393**	**0.0982**	**0.1374**	**0.0114**	**0.0946**	**0.1060**	**0.0000**	**245.5915**	**245.5915**	**0.0413**	**0.0000**	**246.6229**

	ROG	NOx	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**	**24.11**	**0.00**	**8.31**	**35.98**	**0.00**	**5.68**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2019**	**4-1-2019**	0.4312	0.4312
2	**4-2-2019**	**7-1-2019**	0.6371	0.6371
3	**7-2-2019**	**9-30-2019**	0.6371	0.6371
		Highest	0.6371	0.6371

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2560	1.0000e-005	1.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0800e-003	3.0800e-003	1.0000e-005	0.0000	3.2800e-003
Energy	0.0116	0.1054	0.0885	6.3000e-004		8.0100e-003	8.0100e-003		8.0100e-003	8.0100e-003	0.0000	295.4959	295.4959	9.6600e-003	3.6500e-003	296.8244
Mobile	0.2570	1.0636	3.0781	0.0105	0.8967	0.0107	0.9074	0.2401	0.0100	0.2502	0.0000	961.3505	961.3505	0.0430	0.0000	962.4259
Waste						0.0000	0.0000		0.0000	0.0000	13.7811	0.0000	13.7811	0.8144	0.0000	34.1420
Water						0.0000	0.0000		0.0000	0.0000	0.9979	14.2871	15.2850	0.1031	2.5400e-003	18.6197
Total	**0.5247**	**1.1690**	**3.1682**	**0.0111**	**0.8967**	**0.0187**	**0.9155**	**0.2401**	**0.0181**	**0.2582**	**14.7790**	**1,271.1365**	**1,285.9155**	**0.9702**	**6.1900e-003**	**1,312.0152**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2560	1.0000e-005	1.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0800e-003	3.0800e-003	1.0000e-005	0.0000	3.2800e-003
Energy	0.0116	0.1054	0.0885	6.3000e-004		8.0100e-003	8.0100e-003		8.0100e-003	8.0100e-003	0.0000	295.4959	295.4959	9.6600e-003	3.6500e-003	296.8244
Mobile	0.2570	1.0636	3.0781	0.0105	0.8967	0.0107	0.9074	0.2401	0.0100	0.2502	0.0000	961.3505	961.3505	0.0430	0.0000	962.4259
Waste						0.0000	0.0000		0.0000	0.0000	13.7811	0.0000	13.7811	0.8144	0.0000	34.1420
Water						0.0000	0.0000		0.0000	0.0000	0.9979	14.2871	15.2850	0.1031	2.5400e-003	18.6197
Total	**0.5247**	**1.1690**	**3.1682**	**0.0111**	**0.8967**	**0.0187**	**0.9155**	**0.2401**	**0.0181**	**0.2582**	**14.7790**	**1,271.1365**	**1,285.9155**	**0.9702**	**6.1900e-003**	**1,312.0152**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/30/2019	1/31/2019	5	2	
2	Grading	Grading	2/1/2019	2/6/2019	5	4	
3	Building Construction	Building Construction	2/7/2019	11/13/2019	5	200	
4	Paving	Paving	11/14/2019	11/27/2019	5	10	
5	Architectural Coating	Architectural Coating	11/28/2019	12/11/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 94,146; Non-Residential Outdoor: 31,382; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Harbor Hotel - Orange County, Annual

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	26.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0195	7.8900e-003	2.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	1.5467	1.5467	4.9000e-004	0.0000	1.5589
Total	**1.7100e-003**	**0.0195**	**7.8900e-003**	**2.0000e-005**	**5.8000e-003**	**8.8000e-004**	**6.6800e-003**	**2.9500e-003**	**8.1000e-004**	**3.7600e-003**	**0.0000**	**1.5467**	**1.5467**	**4.9000e-004**	**0.0000**	**1.5589**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0785	0.0785	0.0000	0.0000	0.0786
Total	**3.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0785**	**0.0785**	**0.0000**	**0.0000**	**0.0786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1700e-003	0.0000	1.1700e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0195	7.8900e-003	2.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	1.5467	1.5467	4.9000e-004	0.0000	1.5589
Total	**1.7100e-003**	**0.0195**	**7.8900e-003**	**2.0000e-005**	**1.1700e-003**	**8.8000e-004**	**2.0500e-003**	**6.0000e-004**	**8.1000e-004**	**1.4100e-003**	**0.0000**	**1.5467**	**1.5467**	**4.9000e-004**	**0.0000**	**1.5589**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0785	0.0785	0.0000	0.0000	0.0786
Total	**3.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0785**	**0.0785**	**0.0000**	**0.0000**	**0.0786**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8400e-003	0.0321	0.0132	3.0000e-005		1.4700e-003	1.4700e-003		1.3600e-003	1.3600e-003	0.0000	2.5336	2.5336	8.0000e-004	0.0000	2.5536
Total	**2.8400e-003**	**0.0321**	**0.0132**	**3.0000e-005**	**9.8300e-003**	**1.4700e-003**	**0.0113**	**5.0500e-003**	**1.3600e-003**	**6.4100e-003**	**0.0000**	**2.5336**	**2.5336**	**8.0000e-004**	**0.0000**	**2.5536**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.4000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1571	0.1571	0.0000	0.0000	0.1572
Total	**7.0000e-005**	**5.0000e-005**	**5.4000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1571**	**0.1571**	**0.0000**	**0.0000**	**0.1572**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9900e-003	0.0000	1.9900e-003	1.0200e-003	0.0000	1.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8400e-003	0.0321	0.0132	3.0000e-005		1.4700e-003	1.4700e-003		1.3600e-003	1.3600e-003	0.0000	2.5336	2.5336	8.0000e-004	0.0000	2.5536
Total	**2.8400e-003**	**0.0321**	**0.0132**	**3.0000e-005**	**1.9900e-003**	**1.4700e-003**	**3.4600e-003**	**1.0200e-003**	**1.3600e-003**	**2.3800e-003**	**0.0000**	**2.5336**	**2.5336**	**8.0000e-004**	**0.0000**	**2.5536**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.4000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1571	0.1571	0.0000	0.0000	0.1572
Total	**7.0000e-005**	**5.0000e-005**	**5.4000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1571**	**0.1571**	**0.0000**	**0.0000**	**0.1572**

3.4 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	tons/yr										MT/yr					
Off-Road	0.2272	1.5980	1.3487	2.2000e-003		0.0916	0.0916		0.0885	0.0885	0.0000	183.0719	183.0719	0.0352	0.0000	183.9518
Total	**0.2272**	**1.5980**	**1.3487**	**2.2000e-003**		**0.0916**	**0.0916**		**0.0885**	**0.0885**	**0.0000**	**183.0719**	**183.0719**	**0.0352**	**0.0000**	**183.9518**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8200e-003	0.1157	0.0315	2.5000e-004	6.3000e-003	7.7000e-004	7.0700e-003	1.8200e-003	7.4000e-004	2.5500e-003	0.0000	24.5113	24.5113	2.1400e-003	0.0000	24.5648
Worker	0.0109	7.9200e-003	0.0880	2.8000e-004	0.0285	1.9000e-004	0.0287	7.5800e-003	1.8000e-004	7.7600e-003	0.0000	25.5221	25.5221	6.3000e-004	0.0000	25.5378
Total	**0.0147**	**0.1237**	**0.1194**	**5.3000e-004**	**0.0348**	**9.6000e-004**	**0.0358**	**9.4000e-003**	**9.2000e-004**	**0.0103**	**0.0000**	**50.0334**	**50.0334**	**2.7700e-003**	**0.0000**	**50.1026**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2272	1.5980	1.3487	2.2000e-003		0.0916	0.0916		0.0885	0.0885	0.0000	183.0717	183.0717	0.0352	0.0000	183.9515
Total	**0.2272**	**1.5980**	**1.3487**	**2.2000e-003**		**0.0916**	**0.0916**		**0.0885**	**0.0885**	**0.0000**	**183.0717**	**183.0717**	**0.0352**	**0.0000**	**183.9515**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.8200e-003	0.1157	0.0315	2.5000e-004	6.3000e-003	7.7000e-004	7.0700e-003	1.8200e-003	7.4000e-004	2.5500e-003	0.0000	24.5113	24.5113	2.1400e-003	0.0000	24.5648
Worker	0.0109	7.9200e-003	0.0880	2.8000e-004	0.0285	1.9000e-004	0.0287	7.5800e-003	1.8000e-004	7.7600e-003	0.0000	25.5221	25.5221	6.3000e-004	0.0000	25.5378
Total	**0.0147**	**0.1237**	**0.1194**	**5.3000e-004**	**0.0348**	**9.6000e-004**	**0.0358**	**9.4000e-003**	**9.2000e-004**	**0.0103**	**0.0000**	**50.0334**	**50.0334**	**2.7700e-003**	**0.0000**	**50.1026**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5200e-003	0.0459	0.0445	7.0000e-005		2.6100e-003	2.6100e-003		2.4100e-003	2.4100e-003	0.0000	6.0105	6.0105	1.8700e-003	0.0000	6.0572
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5200e-003**	**0.0459**	**0.0445**	**7.0000e-005**		**2.6100e-003**	**2.6100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**6.0105**	**6.0105**	**1.8700e-003**	**0.0000**	**6.0572**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.2000e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6381	0.6381	2.0000e-005	0.0000	0.6384
Total	**2.7000e-004**	**2.0000e-004**	**2.2000e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6381**	**0.6381**	**2.0000e-005**	**0.0000**	**0.6384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5200e-003	0.0459	0.0445	7.0000e-005		2.6100e-003	2.6100e-003		2.4100e-003	2.4100e-003	0.0000	6.0105	6.0105	1.8700e-003	0.0000	6.0572
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5200e-003**	**0.0459**	**0.0445**	**7.0000e-005**		**2.6100e-003**	**2.6100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**6.0105**	**6.0105**	**1.8700e-003**	**0.0000**	**6.0572**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.2000e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6381	0.6381	2.0000e-005	0.0000	0.6384
Total	**2.7000e-004**	**2.0000e-004**	**2.2000e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6381**	**0.6381**	**2.0000e-005**	**0.0000**	**0.6384**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2909					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.1800e-003	9.2100e-003	1.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.2766	1.2766	1.1000e-004	0.0000	1.2793
Total	**0.2922**	**9.1800e-003**	**9.2100e-003**	**1.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.1000e-004**	**0.0000**	**1.2793**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	8.5000e-004	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2454	0.2454	1.0000e-005	0.0000	0.2456
Total	**1.0000e-004**	**8.0000e-005**	**8.5000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2454**	**0.2454**	**1.0000e-005**	**0.0000**	**0.2456**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2909					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.1800e-003	9.2100e-003	1.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.2766	1.2766	1.1000e-004	0.0000	1.2793
Total	**0.2922**	**9.1800e-003**	**9.2100e-003**	**1.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.1000e-004**	**0.0000**	**1.2793**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	8.5000e-004	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2454	0.2454	1.0000e-005	0.0000	0.2456
Total	**1.0000e-004**	**8.0000e-005**	**8.5000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2454**	**0.2454**	**1.0000e-005**	**0.0000**	**0.2456**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2570	1.0636	3.0781	0.0105	0.8967	0.0107	0.9074	0.2401	0.0100	0.2502	0.0000	961.3505	961.3505	0.0430	0.0000	962.4259
Unmitigated	0.2570	1.0636	3.0781	0.0105	0.8967	0.0107	0.9074	0.2401	0.0100	0.2502	0.0000	961.3505	961.3505	0.0430	0.0000	962.4259

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,036.64	1,015.56	737.80	2,364,546	2,364,546
Total	1,036.64	1,015.56	737.80	2,364,546	2,364,546

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
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.555968	0.043848	0.210359	0.116378	0.016765	0.005795	0.025008	0.016160	0.001677	0.001586	0.004867	0.000586	0.001002

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	180.7815	180.7815	7.4600e-003	1.5400e-003	181.4283
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	180.7815	180.7815	7.4600e-003	1.5400e-003	181.4283
NaturalGas Mitigated	0.0116	0.1054	0.0885	6.3000e-004		8.0100e-003	8.0100e-003		8.0100e-003	8.0100e-003	0.0000	114.7144	114.7144	2.2000e-003	2.1000e-003	115.3961
NaturalGas Unmitigated	0.0116	0.1054	0.0885	6.3000e-004		8.0100e-003	8.0100e-003		8.0100e-003	8.0100e-003	0.0000	114.7144	114.7144	2.2000e-003	2.1000e-003	115.3961

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.14967e+006	0.0116	0.1054	0.0885	6.3000e-004		8.0100e-003	8.0100e-003		8.0100e-003	8.0100e-003	0.0000	114.7144	114.7144	2.2000e-003	2.1000e-003	115.3961
Total		**0.0116**	**0.1054**	**0.0885**	**6.3000e-004**		**8.0100e-003**	**8.0100e-003**		**8.0100e-003**	**8.0100e-003**	**0.0000**	**114.7144**	**114.7144**	**2.2000e-003**	**2.1000e-003**	**115.3961**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.14967e+006	0.0116	0.1054	0.0885	6.3000e-004		8.0100e-003	8.0100e-003		8.0100e-003	8.0100e-003	0.0000	114.7144	114.7144	2.2000e-003	2.1000e-003	115.3961
Total		**0.0116**	**0.1054**	**0.0885**	**6.3000e-004**		**8.0100e-003**	**8.0100e-003**		**8.0100e-003**	**8.0100e-003**	**0.0000**	**114.7144**	**114.7144**	**2.2000e-003**	**2.1000e-003**	**115.3961**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	567387	180.7815	7.4600e-003	1.5400e-003	181.4283
Total		**180.7815**	**7.4600e-003**	**1.5400e-003**	**181.4283**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	567387	180.7815	7.4600e-003	1.5400e-003	181.4283
Total		**180.7815**	**7.4600e-003**	**1.5400e-003**	**181.4283**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2560	1.0000e-005	1.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0800e-003	3.0800e-003	1.0000e-005	0.0000	3.2800e-003
Unmitigated	0.2560	1.0000e-005	1.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0800e-003	3.0800e-003	1.0000e-005	0.0000	3.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0291					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0800e-003	3.0800e-003	1.0000e-005	0.0000	3.2800e-003
Total	**0.2560**	**1.0000e-005**	**1.5900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.0800e-003**	**3.0800e-003**	**1.0000e-005**	**0.0000**	**3.2800e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0291					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2268					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.0800e-003	3.0800e-003	1.0000e-005	0.0000	3.2800e-003
Total	**0.2560**	**1.0000e-005**	**1.5900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.0800e-003**	**3.0800e-003**	**1.0000e-005**	**0.0000**	**3.2800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	15.2850	0.1031	2.5400e-003	18.6197
Unmitigated	15.2850	0.1031	2.5400e-003	18.6197

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.14548 / 0.349498	15.2850	0.1031	2.5400e-003	18.6197
Total		**15.2850**	**0.1031**	**2.5400e-003**	**18.6197**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.14548 / 0.349498	15.2850	0.1031	2.5400e-003	18.6197
Total		**15.2850**	**0.1031**	**2.5400e-003**	**18.6197**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.7811	0.8144	0.0000	34.1420
Unmitigated	13.7811	0.8144	0.0000	34.1420

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	67.89	13.7811	0.8144	0.0000	34.1420
Total		**13.7811**	**0.8144**	**0.0000**	**34.1420**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	67.89	13.7811	0.8144	0.0000	34.1420
Total		**13.7811**	**0.8144**	**0.0000**	**34.1420**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation